

FINAL GROWTH STUDY REPORT

TOWNSHIP OF WHITEWATER REGION







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DECEMBER 2020

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1 Study Purpose and Scope

WSP Canada Group Limited ("WSP"), in association with metroeconomics, was retained by the Township of Whitewater Region to undertake a Growth Study for the Villages of Cobden and Beachburg, and the Hamlets of Westmeath, LaPasse, Foresters Falls, and Haley Station ("settlement areas"), as illustrated in **Figure 1-1**. The purpose of this Growth Study is to assess the existing vacant land supply within the Villages and Hamlets, and the ability to accommodate projected future residential and employment growth and development over the next 20 years. This Growth Study fulfills in part the requirements of a Comprehensive Review under the 2020 Provincial Policy Statement.

Davidson

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Fort-Coulonge

Westmeath

Lower Allumette
Labo

Westmeath

Whitewater Region

North Allopes

Wilbert Se

Figure 1-1: Township of Whitewater Region, Settlement Areas Key Map (Source: County of Renfrew Geocortex, February 2020)

This document includes the results of a growth management analysis, consisting of two (2) phases:

- Phase 1: Projections and Land Needs Analysis, including:
 - Population, dwelling, and employment projections prepared by metroeconomics and documented in the report entitled "Whitewater Region Township Growth Prospects to 2041" (January 2020) (see **Appendix A**);
 - o A vacant land supply analysis prepared by WSP; and

- Identification of criteria against which Candidate Areas for settlement area boundary expansions / adjustments will be evaluated.
- Phase 2: Recommendations for Settlement Area Boundary Expansions / Adjustments, including identification and evaluation of Candidate Areas.

A Growth Study: Preliminary Findings Report (May 2020) was prepared to document the results of Phase 1. This Growth Study Report ("the Report") has been updated with the results of Phase 2.

The results of Phase 1 have been used to determine whether there is an adequate supply of vacant lands within the current boundaries of the Township's Villages and Hamlets, to meet the forecasted residential and employment demand. The analysis is based on available vacant land, as determined through a review of Municipal Property Assessment Corporation (MPAC) data (Dated July 13, 2019, Received from the Township October 18, 2019). If the vacant land supply is insufficient to accommodate the demand, then an expansion of one or more of the Township's settlement area boundaries may be required.

In Phase 2, Candidate Areas for expansion and/or adjustment were identified and evaluated using established criteria. Specifically, the results of Phase 2 have been used to confirm the need and appropriateness for the expansion of the Village of Cobden to the southeast, which forms part of Official Plan Amendment (OPA) 11 to the County of Renfrew Official Plan ("County OP")¹. OPA 11 was adopted by the County of Renfrew on August 27, 2014 and partially approved by the Ministry of Municipal Affairs and Housing (MMAH) on July 10, 2019. A decision on the proposed settlement area boundary expansion was deferred until such time that a Comprehensive Review is completed and the revised Provincial Policy Statement is in effect. A new Provincial Policy Statement (PPS), 2020 is now in effect as of May 1, 2020. This Report fulfills the Comprehensive Review requirement under the PPS.

In keeping with the 2020 PPS, the term "settlement area" will be used throughout this Report, rather than "village" and "hamlet". The PPS defines "settlement areas" as: "urban areas and rural settlement areas within municipalities (such as cities, town, villages and hamlets) that are:

a) built up areas where development is concentrated and which have a mix of land uses; and

¹ County of Renfrew Official Plan (Adopted by County Council: March 27, 2002; Approved by the Ministry of Municipal Affairs and Housing: June 16, 2003; Updated with: Official Plan Amendment No. 25 (5-Year Review) partially approved by the Ministry of Municipal Affairs and Housing on March 22, 2019, now in effect; Updated with: Official Plan Amendment No. 11 (Township of Whitewater Region policies) partially approved by the Ministry of Municipal Affairs and Housing on July 10, 2019, now in effect; Updated with: Official Plan Amendment No. 25 (5-Year Review) final approved by the Ministry of Municipal Affairs and Housing on March 26, 2020, now in effect

b) lands which have been designated in an official plan for development over the longterm planning horizon provided for in policy 1.1.2. In cases where land in designated growth areas is not available, the settlement area may be no larger than the area where development is concentrated."

It is assumed that the Villages and Hamlets in the Township are considered "rural settlement areas" and not "urban settlement areas", as they are not designated an "Urban Community" in the County OP.

2 Provincial Policy Context

The Provincial Policy Statement, 2020 (PPS) is in effect as of May 1, 2020, and replaces the former Provincial Policy Statement, 2014. The PPS provides a framework for undertaking a comprehensive review in determining whether or not there is a need to expand a settlement area. In the case of the Township of Whitewater Region, this comprehensive review will address land needs, and identify whether any of the settlement area boundaries require an expansion in order to accommodate the projected population and employment growth for a 20-year planning horizon, to the year 2039.

Policy 1.1.3.8 of the PPS states that:

"A planning authority may identify a settlement area or allow the expansion of a settlement area boundary only at the time of a comprehensive review and only where it has been demonstrated that:

- a) sufficient opportunities to accommodate growth and to satisfy market demand are not available through intensification, redevelopment and designated growth areas to accommodate the projected needs over the identified planning horizon;
- b) the infrastructure and public service facilities which are planned or available are suitable for the development over the long term, are financially viable over their life cycle, and protect public health and safety and the natural environment;
- c) in prime agricultural areas:
 - 1. the lands do not comprise specialty crop areas;
 - 2. alternative locations have been evaluated, and
 - there are no reasonable alternatives which avoid prime agricultural areas;
 and
 - ii. there are no reasonable alternatives on lower priority agricultural lands in prime agricultural areas;

- d) the new or expanding settlement area is in compliance with the minimum distance separation formulae; and
- e) impacts from new or expanding settlement areas on agricultural operations which are adjacent or close to the settlement area are mitigated to the extent feasible.

In undertaking a comprehensive review, the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary expansion or development proposal."

Further, Policy 1.1.3.9 provides that:

"Notwithstanding policy 1.1.3.8, municipalities may permit adjustments of settlement area boundaries outside a comprehensive review provided:

- a) there would be not net increase in land within the settlement areas;
- b) the adjustment would support the municipality's ability to meet intensification and redevelopment targets established by the municipality;
- c) prime agricultural areas are addressed in accordance with 1.1.3.8 (c), (d) and (e); and
- d) the settlement area to which lands would be added is appropriately serviced and there is sufficient reserve infrastructure capacity to service the lands."

The term "comprehensive review" is defined in the PPS as follows:

- "a) for the purposes of policies 1.1.3.8, 1.1.3.9 and 1.3.2.4, an official plan review which is initiated by a planning authority, or an official plan amendment which is initiated or adopted by a planning authority, which:
 - is based on a review of population and employment projections and which reflect projections and allocations by upper-tier municipalities and provincial plans, where applicable; considers alternative directions for growth or development; and determines how best to accommodate the development while protecting provincial interests;
 - 2. utilizes opportunities to accommodate projected growth or development through intensification and redevelopment; and considers physical constraints to

accommodating the proposed development within existing settlement area boundaries;

- 3. is integrated with planning for infrastructure and public service facilities, and considers financial viability over the life cycle of these assets, which may be demonstrated through asset management planning;
- 4. confirms sufficient water quality, quantity and assimilative capacity of receiving water are available to accommodate the proposed development;
- 5. confirms that sewage and water services can be provided in accordance with policy 1.6.6; and
- 6. considers cross-jurisdictional issues.
- b) For the purposes of policy 1.1.6, means a review undertaken by a planning authority or comparable body which:
 - 1. Addresses long-term population projections, infrastructure requirements and related matters:
 - 2. Confirms that the lands to be developed do not comprise specialty crop areas in accordance with policy 2.3.2; and
 - 3. Considers cross-jurisdictional issues.

In undertaking a comprehensive review the level of detail of the assessment should correspond with the complexity and scale of the settlement boundary or development proposal."

The Growth Study will fulfill the PPS requirement for a comprehensive review.

3 Phase 1: Methodology and Results

The following section explains the methodology and results of Phase 1 of the Growth Study, including:

- Part A: Population, Dwelling, and Employment Projections Establishing the Demand for Residential and Employment Land; and
- Part B: Vacant Land Supply Analysis Establishing the Land Supply Available to Accommodate the Residential and Employment Demand.

3.1 Part A: Population, Dwelling, and Employment Projections – Establishing the Demand for Residential and Employment Land

As part of the Growth Study, metroeconomics prepared population, dwelling, and employment projections for the Township of Whitewater Region to the year 2041, as documented in the report entitled "Growth Prospects to 2041" (January 2020), included in **Appendix A**. The metroeconomics report contains three alternative projection scenarios (Low Case, Base Case, and High Case), and provides a detailed overview of assumptions used in undertaking the projections.

The metroeconomics report also compares the projections to the results of separate projections prepared by Watson and Associates Economists Ltd. ("Watson") in October 2019 for the Township, as part of an ongoing Development Charges By-law Review which is examining opportunities to finance future growth-related capital projects. Due to differences in the projection methodologies used by metroeconomics and Watson, there are some differences in the projection results between the two studies. The findings of both studies were presented to Township Council by Township staff on February 5, 2020. Subsequent to this Council meeting, Township staff confirmed the direction that the Growth Study should proceed using the High Case population and employment projections prepared by metroeconomics, which mostly closely aligns with the population and employment projections prepared by Watson. It was also confirmed that the Growth Study should proceed using the dwelling projections prepared by Watson, as Watson considered historic building permit data over the last 10 years in preparing the dwelling projections. Lastly, Township staff confirmed that the Growth Study should proceed with the respective population, dwelling, and employment projections to the year 2039, and not to 2041, to be consistent across both studies.

3.1.1 Population Forecast

Based on the metroeconomics report, the projected population growth for the Township to the year 2039 is summarized in **Table 3-1**.

Table 3-1: Historical and Forecast Total Population to 2039, High Case (metroeconomics, January 2020)

	Total Popula	2016-	-2039	
Scenario	2016	2039	Net	Growth
	2010	2039	Change	Rate
High Case	7,000	8,333	1,333	19%

Source: Exhibit 8, Growth Prospects to 2041 (metroeconomics, January 2020). Figures are rounded.

A population of 8,333 is forecasted to the year 2039, representing an increase of 1,333 persons or 19% in the High Case scenario.

3.1.2 Dwelling Forecast

Based on the Watson projections prepared for the Development Charges By-law Review to the year 2039, a demand of 722 additional residential dwelling units is forecasted to the year 2039. The projected demand for residential dwelling units is summarized in Table 3-2.

Table 3-2: Forecast Residential Dwelling Units to 2039 (Watson & Associates Economists Ltd., October 2019)

Schedule 2 Township of Whitewater Region Estimate of the Anticipated Amount, Type and Location of Residential Development for Which Development Charges Can Be Imposed

Development Location	Timing	Single & Semi- Detached	Multiples ¹	Apartments ²	Total Residential Units	Gross Population In New Units	Existing Unit Population Change	Net Population Increase, Excluding Institutional	Institutional Population	Net Population Including Institutional
Urban	2019 - 2029	112	32	0	144	377	(68)	309	19	328
Orban	2019 - 2039	235	75	12	322	824	(122)	702	39	741
Full Services ³	2019 - 2029	57	19	0	76	197	(32)	165	10	175
Full Services	2019 - 2039	120	45	12	177	442	(57)	385	21	406
Partial Services	2019 - 2029	55	13	0	68	180	(36)	144	9	153
(Water)⁴	2019 - 2039	115	30	0	145	382	(64)	317	18	335
Rural	2019 - 2029	218	0	0	219	609	(181)	429	0	429
Kurai	2019 - 2039	400	0	0	400	1,116	(320)	796	0	796
Township of	2019 - 2029	330	32	0	363	987	(249)	738	19	757
Whitewater Region	2019 - 2039	635	75	12	722	1,940	(442)	1,498	39	1,537

Source: Watson & Associates Economists Ltd., 2019.

¹ Includes townhouses and apartments in duplexes.

 $^{^{2}}$ Includes accessory apartments, bachelor, 1-bedroom and 2-bedroom+ apartments.

³ Includes the Village of Cobden.

⁴ Includes the Village of Beachburg and Haley Townsite.

3.1.3 Employment Forecast

Based on the metroeconomics report, the projected employment growth for the Township to the year 2039 is summarized in **Table 3-3**.

Table 3-3: Historical and Forecast Total Place of Work Employment to 2039, High Case (metroeconomics, January 2020)

	Total Place of Work	2016-	-2039	
Scenario	2016 2039		Net	Growth
	2010	2039	Change	Rate
High Case	2,120	2,544	424	20%

The number of jobs in the Township is projected to be 2,544 in the year 2039, representing an increase of 424 jobs of 20% in the High Case scenario. Therefore, an employment demand of 424 jobs is forecasted to the year 2039.

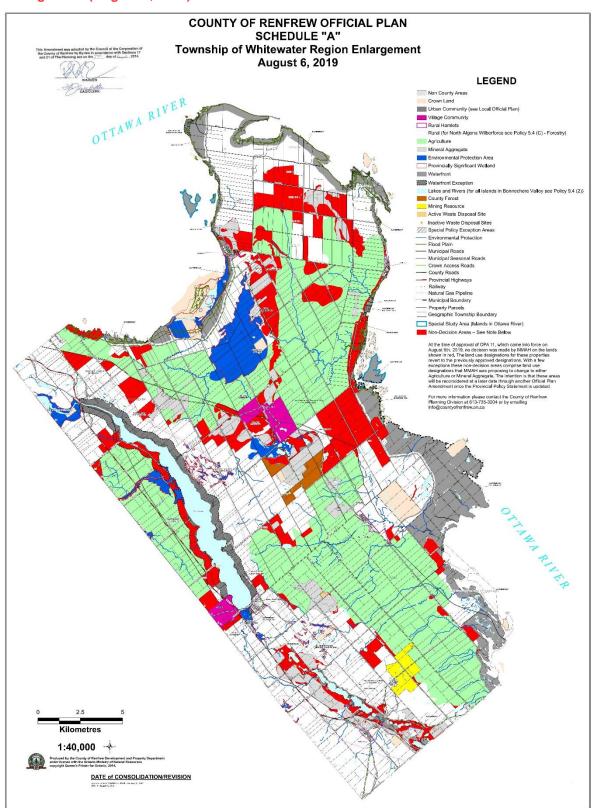
3.2 Part B: Vacant Land Supply Analysis - Establishing the Land Supply Available to Accommodate the Residential and Employment Demand

The following section outlines the methodology used to undertake the vacant land supply analysis and determine the ability of the existing available vacant lands to accommodate future residential and employment growth potential within the Township's six settlement areas of the Villages of Cobden and Beachburg, and the Hamlets of Westmeath, LaPasse, Foresters Falls, and Haley Station.

3.2.1 Confirm Settlement Area Boundaries

The County OP designates the "Village Community" and "Rural Hamlets" settlement area boundaries for the Township on Schedule "A" Township of Whitewater Region Enlargement, dated August 6, 2019 (see **Figure 3-1**). Mapping for the settlement area boundaries and property parcels was received as GIS shapefiles from the County of Renfrew GIS department. As the County confirmed by email on October 22, 2019, the property parcel data is a newer data set than the GIS data from the OP Schedules, including settlement area boundaries. As such, there are some minor discrepancies between the property parcels and the settlement area boundaries. **For the purposes of the Growth Study only, the settlement area boundaries require minor corrections to better align with parcel boundaries, the centreline of roadways, and shorelines.**

Figure 3-1: County of Renfrew Official Plan Schedule "A" Township of Whitewater Region Enlargement (August 6, 2019)



WSP prepared minor boundary corrections of the settlement area boundaries which were illustrated on a series of maps, and confirmed with Township staff on November 25, 2019. **Table 3-4** provides a summary of the amount of land added and/or removed in each settlement area, as a result of the boundary corrections. The settlement area boundary corrections are illustrated on the maps in **Appendix B**.

Table 3-4: Settlement Area Boundary Corrections

Settlement	Total Land -	Total Land –	Total Difference (ha)
Area	County OP (ha)	Boundary Correction (ha)	(+/-)
Beachburg	425.80	431.24	+5.44
Cobden	188.50	187.33	-1.17
Foresters Fall	73.72	59.53	-14.19
Haley Station	29.69	22.44	-7.25
LaPasse	34.03	25.37	-8.66
Westmeath	61.92	58.88	-3.04
TOTAL	813.66	784.79	-28.87

For clarity, the minor settlement area boundary corrections identified in Table 3-4 and Appendix B are intended to provide for greater accuracy of land area measurements in the recommendations of this Growth Study only. The settlement area boundary corrections should not be interpreted as modifying the settlement area (i.e. village / hamlet) boundaries designated in the County OP for any purpose other than for this Report.

3.2.2 Identify Vacant Land Using MPAC Data

Lands within the settlement areas capable of accommodating future growth were identified through an analysis of recent Municipal Property Assessment Corporation (MPAC) data (dated July 13, 2019, Received October 18, 2019) and GIS mapping, aerial photography, and a review of applicable policies and regulations. The MPAC data was provided by the County.

Properties with the following MPAC property codes were assumed to be vacant:

- 100 Series Vacant Land:
 - 100 Vacant residential land not on water
 - 101 Second tier vacant lot refers to location not being directly on the water but one row back from the water
 - 105 Vacant commercial land
 - 106 Vacant industrial lands
 - 110 Vacant residential/recreational land on water
 - 111 Island under single ownership

Within the six (6) settlement areas, the following MPAC vacant property codes are found: 100; 105; 106; and 110.

Properties within the settlement area boundaries that are vacant in their entirety were identified for inclusion in the vacant land supply analysis. A series of maps illustrating the vacant lands identified using MPAC property codes were prepared and reviewed by Township staff to identify any inaccuracies. Township staff identified several properties to be removed from consideration, due to the properties having existing development (i.e. not vacant), being land-locked parcels, or being portions of road rights-of-way. The resulting vacant land supply is illustrated on the maps found in **Appendix C**.

3.2.3 Identify Vacant Lands Zoned to Permit Development

After the vacant properties to be included in the vacant land supply analysis were confirmed based on the MPAC data and the Township's review, the Zoning By-laws which apply to the six settlement areas were used to identify the vacant properties that are zoned to allow for the future development of residential or employment uses. Properties within the applicable Zones were then compared to the respective minimum lot area requirements. The applicable Zoning By-laws, Zones, and corresponding minimum lot area requirements are shown in **Table 3-5**.

There were five (5) properties in Cobden that were identified as vacant residential by MPAC; however, all or a portion of these properties are zoned Parks and Open Space. These properties or portions of these properties which are not zoned to permit residential development were removed from the vacant land supply.

Vacant properties that do not meet the minimum lot area requirements of the applicable Zones were excluded from the vacant land supply analysis. In the case of Zones with more than one minimum lot area requirement (e.g. Zones with varying requirements depending on the permitted use; or Zones that include the permitted uses and requirements from another Zone [e.g. R2 Zone which also permits all uses in the R1 Zone]), vacant properties that meet the smallest minimum lot area requirement under that Zone were included in the vacant land supply analysis.

Only the Village of Beachburg has applicable zoning within the colour-coded areas on the key map included in **Figure 3-2**. For vacant properties within Beachburg which do not have applicable zoning, the land use information included for those properties in the County MPAC data was used to determine whether the vacant properties are residential or commercial / industrial (i.e. employment) uses. Township staff confirmed that some properties in Beachburg have no zoning; therefore those properties with a minimum lot area of 4,000 m² (approx. 1 acre) should be included as part of the vacant land supply analysis. This minimum lot area represents a typical minimum lot area for residential lots which are required to accommodate private services (i.e. well and septic); however, it is noted that properties in Beachburg do have

municipal water services. It is important to note that, for future subdivisions in Beachburg, the minimum lot areas will ultimately be determined based on a hydrogeological assessment, including a nitrate impact study, which would result in recommendations for appropriate lot sizes on a case-by-case basis.



Figure 3-2: Beachburg Zoning By-laws Key Map

Table 3-5: Residential and Employment Zones and Applicable Minimum Lot Area Requirements

Zoning By-law	Zone	Minimum Lot Area Requirement
	RESIDENTIAL ZON	
Village of Cobden Zoning By-law No. 1989-14 (July 1999; Consolidated August 12, 2015)	Residential One (R1)	 On well and septic systems: 2,025 m² On municipal water and septic system: 1,400 m² On well and municipal sewer: 1,400 m² On municipal water and municipal sewer: 550 m²
	Residential Two (R2)	Two family dwelling on municipal water and sewer: 650 m ² Note: This Zone also includes permitted uses in the R1 Zone. The R1 Zone provisions apply to those uses permitted in the R1 Zone
	Residential Three (R3)	 Rowhouse dwelling (on water and sewer): 240 m² NOTE: Will not be used as the smallest minimum lot area in this Zone for the purposes of including/excluding vacant lands from the supply analysis, as a single rowhouse (i.e. one rowhouse dwelling on a single lot) would not be developed. Triplex dwelling (on water and sewer): 720 m² Apartment Dwellings, Senior Citizens and Nursing Homes: 2,000 m² Note: This Zone also includes permitted uses in the R1 and R2 Zones. The R1 and R2 Zone provisions apply to those uses
	Community Facility (CF) Note: Includes senior citizen's home	Nil
	Mixed Use Commercial (MC)	• Nil
Village of Beachburg Zoning By-laws (Nos. 412, 413, 461, 635, 679, 680, 716, & 02-11-86)	By-law No. 412: Vereyken Sub-Division Residential Development, Sub- Division Zoning By-law	• N/A
NOTE 1: See Beachburg Site- Specific Zoning By-	By-law No. 413: A By-law to Designate an Area for Residential Sub-division and Development (Harris Crescent)	• N/A

Zoning By-law	Zone	Minimum Lot Area Requirement
laws Key Map in	By-law No. 461 / By-law No. 14-	
Figure 3-2.	05-706 (amending By-law):	• N/A
	Vereyken Sub-Division	
NOTE 2: For those	Residential Development,	
lands within the	Subdivision Zoning By-law	
Village of Beachburg	By-law No. 635:	4.000 3
which do not have a	Residential One (R1)	• 4,000 m ²
site-specific Zoning	By-law No. 635:	
By-law, there is no	Residential One – Exception	• 3,500 m ²
applicable zoning	One (R1-E1)	
currently in effect.	By-law No. 635:	2 2 2 2
	Residential One – Exception	• 6,000 m ²
	Two (R1-E2)	
	By-law No. 679 / By-law No. 15-	0.401(4.0000)
	05-708 (amending By-law):	• 0.13 ha (1,300 m ²)
	Residential Type 1 (R1)	
	By-law No. 680 / By-law No. 14-	11/4
	05-709 (amending By-law):	• N/A
	Vereyken Sub-Division	
	Residential Development, Sub-	
	Division Zoning By-law Phase 2	
	By-law No. 02-11-86:	• 1,200 m ²
	Residential One (R1)	• 1,200 m-
	By-law No. 02-11-86:	4.0 ha (40.000 m²)
	Residential One-Exception One	• 4.8 ha (48,000 m²)
	(R1-E1)	
	By-law No. 02-11-86:	• 2,000 m ²
	Residential One-Exception Two	2,000 111-
	(R1-E2)	
	By-law No. 02-11-86:	• 1,800 m ²
	Residential One-Exception	1,000 111
	Three (R1-E3)	
	By-law No. 02-11-86:	• 2.4 ha (24,000 m ²)
	Residential One-Exception Four	2.4 na (24,000 m)
	(R1-E4)	
Township of		Single detached dwelling / group
Westmeath Zoning By-		home: 2,025 m ²
law No. 98-13 (June 17, 1998; Consolidated		Duplex dwelling: 3,065 m ²
May 26, 2017)	Residential One (R1)	Semi-detached dwelling: 3,065 m²
		Comi-detached dwelling. 5,005 m
		Semi-detached dwelling (each unit on a separate lot): 1,532 m²
	Residential One – Exception One (R1-E1)	• 1,275 m ²
	Residential Two – Exception Two (R1-E2)	• 1,600 m ²
	Residential Five – Exception Five (R1-E5)	• 1,800 m ²

Zoning By-law	Zone	Minimum Lot Area Requirement
	Mobile Home Park (MHP)	 Mobile Homes on one communal service: 1,400 m² Mobile Homes on two communal services: 600 m² Mobile Home on private wells and private sewage disposal: 2,025 m²
	Rural (RU)	 Single detached, semi-detached, home industry or duplex dwelling: 4,047 m² Semi-detached dwelling (each unit on a separate lot): 2,024 m²
	Community Facility Zone (CF) Note: Includes senior citizens home, nursing home, home for the aged	• 2,025 m ²
	Waterfront Vicinity (WV)	 Limited service dwelling, limited service seasonal dwelling, single detached dwelling, semi-detached or duplex dwelling: 4,047 m² Semi-detached dwelling (each unit on
Township of Ross	Residential One (R1)	a separate lot): 2,024 m ² • 4,000 m ²
Zoning By-law No. 23- 92 (April 1996;	, ,	
Consolidated May 25, 2017)	Residential Two (R2)	• 2,025 m ²
	Residential Three (R3)	 Single detached dwelling: 2,025 m² Semi-detached dwelling: 3,100 m² Duplex dwelling: 3,100 m²
	Mobile Home Park (MHP)	 Mobile Homes on communal water system and private sewage disposal: 1,400 m² Mobile Home on private wells and
	Rural (RU)	 private sewage disposal: 2,025 m² 2,025 m²

Zoning By-law	Zone	Minimum Lot Area Requirement
	EMPLOYMENT ZON	
Village of Cobden Zoning By-law No. 1989-14 (July 1999; Consolidated August 12, 2015)	Highway-Tourist Commercial (HTC)	 On well and septic tanks: 2,025 m² On municipal water and septic system: 1,400 m² On well and municipal sewer: 1,400 m² On municipal water and municipal sewer: 900 m²
	Mixed Use Commercial (MC)	• Nil
	General Industrial (GM)	• 2,000 m ²
Village of Beachburg Zoning By-laws (Nos. 412, 461, 635, 679, 680, 716, & 02-11-86)	By-law No. 716 / By-law No. 14- 05-710 (amending By-law): Village Commercial (VC)	• Retail store: 0.57 ha (5,700 m²)
Township of Westmeath Zoning By- law No. 98-13 (June 17, 1998; Consolidated May 26, 2017)	Hamlet Commercial (HAC)	 Hotel, Motel, or Motor Hotel: 2,750 m² plus an additional 185 m² for each guest room in excess of four guest rooms Other uses: 2,025 m²
	Highway Commercial (HC)	• 4,047 m ²
	Tourism Commercial (TC)	• 1.5 ha (15,000 m²)
	Extractive Industrial (EM)	• N/A
	General Industrial (GM)	• 4,000 m ²
	Rural (RU)	Other permitted uses: 2 ha (20,000 m²)
Township of Ross Zoning By-law No. 23- 92 (April 1996; Consolidated May 25, 2017)	General Commercial (GC)	 Motel or Hotel: 2,750 m² plus an additional 185 m² for each guest room in excess of 4 rooms All other permitted uses: 2,025 m²
	Campground Commercial (CC)	• 1.5 ha (15,000 m ²)
	Tourism Commercial (TC)	• 1.5 ha (15,000 m²)
	General Industrial (GM)	• 4,000 m ²
	Mining Industrial (MM)	• 2.0 ha (20,000 m²)
	Extractive Industrial (EM)	• N/A

It is recognized that there may be vacant existing lots of record with lot areas that are less than the minimum lot area requirements of the applicable Zones. While these lots have development rights as existing lots of record, they would be considered potential infill lots, and are not included in the vacant land supply analysis.

The vacant properties that meet the minimum lot area requirements of their respective Zones, form the basis of available residential and employment vacant land supply in the Township for the planning horizon period to the year 2039. These are illustrated on the maps found in **Appendix D**.

3.2.4 Identify Future Use of Lands

Based on their current zoning under the Township's Zoning By-laws, the vacant lands were categorized as either 'Residential' (residential zoning) or 'Employment' (commercial or industrial zoning) lands. For the purposes of the analysis, the vacant lands fall into the 'Residential' or 'Employment' categories based on the existing corresponding zones in each settlement area; in the case of properties in Beachburg which do not have zoning, land use information in the MPAC data was used to categorize the properties as 'Residential' or 'Employment'.

3.2.5 Address Constraints

The properties included in the vacant land supply analysis were then examined to exclude lands where known natural areas, features, and facilities represent constraints to development that may limit the potential of those lands to accommodate future growth.

GIS data for the constraints analysis was obtained through Land Information Ontario (LIO), supplied in GIS format by the County directly to WSP in October / November 2019, and obtained from the County's Public Data Layers website.

Buffers were applied to the known constraints, which correspond to required setbacks provided by provincial policies and guidelines and/or County Official Plan policies and zoning, as applicable. The constraints and associated buffers are identified in **Table 3-6**.

Table 3-6: Identified Constraints and Associated Buffers

Constraint	GIS Data Source	Required Buffer	Buffer Source
Lakes and Rivers /	OP Schedule A	30 m	OP Section 16.5(1)
Permanent Stream /	(August 9, 2019)		
River (Watercourses			
and waterbodies)			
At Capacity Lake	OP Schedule B Map	30 m	OP Section 9.3(2)
(Muskrat Lake)	4 (March 22, 2019)		
Waterfront	OP Schedule A	30 m	OP Section 16.5(1)
	(August 9, 2019)		

Constraint	GIS Data Source	Required Buffer	Buffer Source
Waterfront Exception Two (Muskrat Lake)	OP Schedule A (August 9, 2019)	30 m – for all new development and redevelopment which is not connected to municipal water and sanitary sewer services	OP Section 16.2.11(3)(f)
Area of Natural and Scientific Interest, Life Science	Schedule B Map 4 (March 22, 2019)	N/A – None in Whitewater Re	egion
Area of Natural and Scientific Interest, Earth Science (Paquette Rapids ANSI & Lapasse	OP Schedule B Map 4 (March 22, 2019)	30 m from shoreline of Ottawa River; 50 m for ANSI	OP Section 16.2.11(5) Waterfront Exception Four (Lapasse Pipehole ANSI)
Pipehole ANSI)		50 m	OP Section 16.2.11(4) Waterfront Exception Three (Paquette Rapids ANSI)
		50 m	OP Section 8.3(6) & Natural Heritage Reference Manual (MNRF, 2010)
Provincially Significant Wetlands (PSW)	OP Schedule A (August 9, 2019) & Schedule B Map 4 (March 22, 2019)	120 m (Notice: Include Little Lakes PSW [based on LIO data], as confirmed by Township staff on Dec. 20, 2019)	OP Section 8.3(5)(b)
Significant Woodlands / County Forest	OP Schedule A (August 9, 2019) & Schedule B Map 4 (March 22, 2019)	120 m	Natural Heritage Reference Manual (MNRF, 2010)
Environmental Protection / Environmental Protection Area	OP Schedule A (August 9, 2019) & Schedule B Map 4 (March 22, 2019)	Local wetlands: N/A	OP Section 8.3(5)(a)
Flood Plain (Floodway Boundary)	OP Schedule A (August 9, 2019)	0 m (no new development within the flood plain)	OP Section 2.2(9)
Active / Inactive Waste Disposal Sites	OP Schedule A (August 9, 2019); Schedule B Map 1 and Map 2 (March 22, 2019)	30 m or as provided in the Certificate of Approval for the landfill Ross ZBL: 200 m for isolated dwellings; 750 m for Residential zoned lands	D-4 Land Use On or Near Landfills and Dumps (April 1994); Ross ZBL

Constraint	GIS Data Source	Required Buffer	Buffer Source
Licensed Septage Hauler Area	Schedule B Map 1 (March 22, 2019)	450 m (from edge of spreading site)	Hauled Sewage Disposal Site Environmental Compliance Approval 18-OTT-21408 (July 23, 2018)
Propane Facility	Schedule B Map 1 (March 22, 2019)	N/A - None in Whitewater Re	gion
Unstable Slope	Schedule B Map 1 (March 22, 2019)	N/A - None in Whitewater Re	gion
Provincial Highway	OP Schedule A (August 9, 2019)	14 m per MTO Policy; 18 m per Cobden & Ross ZBLs	MTO Building and Land Use Policy (June 2, 2009); Cobden ZBL Section 4.20(b); Ross ZBL Section 3.25(a)
Proposed Highway 17 Expansion	Schedule B Map 2 (March 22, 2019)	14 m per MTO Policy; 18 m per Cobden & Ross ZBLs	MTO Building and Land Use Policy (June 2, 2009); Cobden ZBL Section 4.20(b); Ross ZBL Section 3.25(a)
County Road	OP Schedule A (August 9, 2019)	13 m	Cobden ZBL Section 4.20(b); Ross ZBL Section 3.25(b)
Railway / Abandoned Railway	OP Schedule A (August 9, 2019) & Schedule B Map 2 (March 22, 2019)	Main line: 30 m Branch line: 15 m Spur line: 5 m Abandoned Railway: N/A	Federation of Canadian Municipalities and the Railway Association of Canada Guidelines for New Development in Proximity to Railway Operations (May 2013)
County Trail	OP Schedule B Map 2 (March 22, 2019)	7.5 m from the property line	OP Section 13.3(13)
Natural Gas Pipeline	OP Schedule A (August 9, 2019)	7 m	OP Section 2.2(22)
Aggregate Site Authorized - Active	OP Schedule B Map 3 (March 22, 2019)	Westmeath ZBL: Pit - 150 m; Quarry – 300 m	Westmeath ZBL Section 3.24(a)(iv) & (b)(iv-v)
Aggregate Site Authorized - Inactive	OP Schedule B Map 3 (March 22, 2019)	Westmeath ZBL: Pit - 150 m; Quarry – 300 m	Westmeath ZBL Section 3.24(a)(iv) & (b)(iv-v)

Constraint	GIS Data Source	Required Buffer	Buffer Source	
Slip Clay Sites	Schedule B Map 1 (March 22, 2019)	N/A - Policies for marine clays do not state specific buffers, but require geotechnical studies for proposed development	OP Section 2.2(9)	
Abandoned Mine Sites	Schedule B Map 1 (March 22, 2019)	N/A – For development within 1000 m, the Mine Rehabilitation Section of the Ministry of Northern Development and Mines must be contacted to determine the scope and terms of reference of any technical studies	OP Section 11.3(7)	
Karst	Schedule B Map 1 (March 22, 2019)	N/A – lands may be developed, subject to assessments and/or implementation measures, as confirmed by Township staff on Dec. 20, 2019		
Wellhead Protection Area (Beachburg)	Schedule B Map 1 (March 22, 2019)	Beachburg – Sensitivity 1 WHPA (50 day capture zone) – only existing uses permitted; parcels within draft approved subdivision (By-law No. 679) are to be included, but exclude any other parcels (Confirmed by Township staff, Dec. 20, 2019)	Wellhead Protection Area Studies, Village of Beachburg and Haley Townsite, Ontario (Jan. 31, 2003)	

It should be noted that not all of the constraints listed in **Table 3-6** are located within the settlement areas. However, when the applicable buffers are applied to constraints located within the vicinity of the settlement areas, some encroach onto settlement area properties which form part of the vacant land supply.

After applying constraints to the individual vacant properties, the properties were reviewed to ensure that they could accommodate an area for development, and that the property can be considered as contributing to the vacant land supply. The remaining "unconstrained" vacant properties comprise the Residential and Employment vacant land supply within the Township's settlement areas, as illustrated in **Appendix E**.

3.2.6 Apply Gross-Down Factor

A "gross-down" factor is applied to go from gross hectares to net hectares, and involves excluding a percentage of land which will accommodate infrastructure and other considerations.

A 21% "gross-down" factor will be applied to the unconstrained Residential vacant land supply to account for required infrastructure (transportation, servicing, parks and other community facilities), based on the factor used to determine unit potential in villages in the City of Ottawa Rural Residential Land Survey 2017-18 Update (June 2019).

A 25% "gross-down" factor will be applied to unconstrained Employment vacant land supply to account for associated infrastructure and required buffering, based on best practices.

3.2.7 Summary of Vacant Land Supply

Table 3-7 and **Table 3-8** provide a summary of the net hectares of vacant Residential and Employment lands available within each of the six settlement areas in the Township of Whitewater Region, after considering parcels that meet the respective zoning requirements for minimum lot area, determining constraints and excluding constrained lands, and applying a gross-down factor.

The analysis shows that within the six settlement areas, there are **79.22 net hectares of vacant land (103 parcels)** available for Residential uses, and **0.77 net hectares of vacant land (5 parcels)** available for Employment uses.

Table 3-7: Summary of Vacant Residential Land Supply

	RESIDENTIAL VACANT LAND SUPPLY							
Settlement Area	Total Vacant Area (MPAC – July 2019)	Total # of Vacant Parcels (MPAC – July 2019)	Total Vacant Area (parcels that meet min. lot area per zoning)	Total # of Vacant Parcels (parcels that meet min. lot area per zoning)	Total Gross Vacant Area (after Constraints)	Total # of Vacant Parcels (after Constraints)	Gross-Down Factor (21%)	TOTAL NET VACANT LAND SUPPLY (after Constraints & Gross-Down Factor)
Beachburg	79.74 ha	95	68.44 ha	56	51.99 ha	55	10.92 ha	41.08 ha
Cobden	40.46 ha	35	40.06 ha	27	36.42 ha	22	7.65 ha	28.77 ha
Foresters Falls	5.09 ha	12	4.41 ha	6	3.28 ha	5	0.69 ha	2.59 ha
Haley Station	1.77 ha	9	1.20 ha	3	0.96 ha	3	0.20 ha	0.76 ha
LaPasse	2.37 ha	9	1.97 ha	5	1.27 ha	4	0.27 ha	1.00 ha
Westmeath	10.21 ha	35	7.63 ha	15	6.35 ha	14	1.33 ha	5.02 ha
TOTAL	139.65 ha	195	123.71 ha	112	100.28 ha	103	21.06 ha	79.22 ha

Table 3-8: Summary of Vacant Employment Land Supply

EMPLOYMENT VACANT LAND SUPPLY								
Settlement Area	Total Vacant Area (MPAC – July 2019)	Total # of Vacant Parcels (MPAC – July 2019)	Total Vacant Area (parcels that meet min. lot area per zoning)	Total # of Vacant Parcels (parcels that meet min. lot area per zoning)	Total Gross Vacant Area (after Constraints)	Total # of Vacant Parcels (after Constraints)	Gross-Down Factor (25%)	TOTAL NET VACANT LAND SUPPLY (after Constraints & Gross-Down Factor)
Beachburg	0.09 ha	1	0.00 ha	0	0.00 ha	0	0.00 ha	0.00 ha
Cobden	0.76 ha	6	0.75 ha	5	0.47 ha	3	0.12 ha	0.35 ha
Foresters Falls	0.00 ha	0	0.00 ha	0	0.00 ha	0	0.00 ha	0.00 ha
Haley Station	0.66 ha	2	0.66 ha	2	0.55 ha	2	0.14 ha	0.41 ha
LaPasse	0.00 ha	0	0.00 ha	0	0.00 ha	0	0.00 ha	0.00 ha
Westmeath	0.00 ha	0	0.00 ha	0	0.00 ha	0	0.00 ha	0.00 ha
TOTAL	1.51 ha	9	1.41 ha	7	1.02 ha	5	0.26 ha	0.77 ha

3.2.8 Residential Growth Analysis

This section provides an analysis of Residential vacant land supply to determine whether the Township has existing, designated, and available land to accommodate the additional dwelling unit demand within the existing settlement areas. It is assumed that all residential growth to the year 2039 will be directed to the settlement areas. In reality, it is likely that a portion of residential growth will continue to be accommodated within the rural area.

The vacant residential lands were separated into two (2) categories:

- Planned Parcels are properties identified as vacant but that have draft, draft approved, or registered plans of subdivision. The existing plans were used to estimate the potential future residential development on these vacant parcels; and
- Unplanned Parcels are properties identified as vacant that are not subject to draft, draft
 approved, or registered plans of subdivision. The potential future residential
 development on these vacant parcels was estimated by applying density assumptions,
 provided as dwelling units per net hectare.

Planned Parcels

There is one (1) draft approved Plan of Subdivision in Cobden, which includes a total of 73 lots intended for single-detached dwellings, on a parcel with a total gross area of 13.04 ha and a total net area of 8.83 ha (less constraints and a 21% gross-down factor). The planned parcel has the potential to accommodate 73 future dwelling units, which corresponds to a net density of 8.27 units / net ha.

Unplanned Parcels - Residential Density Assumptions

A residential density ratio and assumptions will be used to determine the future residential growth potential on the unplanned vacant parcels within each of the six settlement areas.

The County OP does not contain any residential density targets for either the Village Communities or the Rural Hamlets (i.e. the settlement areas) designated on Schedule "A" Township of Whitewater Region Enlargement. However, Section 4.3(1) of the OP states that the Village Community designation shall mean that the predominant use of land shall be for a full range of residential purposes and housing types. Section 4.3(3) states that generally, new residential development shall occur in the form of single-detached lots.

The County OP does not include policies that specifically reference the Rural Hamlet designation shown on Schedule "A" Township of Whitewater Region Enlargement, but does include reference to small communities consisting of single-detached residences and small-scale commercial and institutional uses under Section 5.0 Rural. On Schedule "A", the Rural Hamlets appear to have the underlying designation of Rural. As such, it is assumed that the

policies of Section 5.0 Rural, and specifically Section 5.3(9) apply to the Rural Hamlets. Section 5.3(9) states that these small communities will provide for limited low density residential; subsection (a) states that new residential development shall occur in the form of single-detached lots.

Based on the above policy direction, it is assumed that future residential development within the Township's Village Communities (i.e. Beachburg and Cobden) and Rural Hamlets (i.e. Foresters Falls, Haley Station, LaPasse, and Westmeath) will generally be low density, with greater opportunity for more compact built form and higher density housing types within the Village Communities.

The Draft Development Charges Study data prepared for the Township by Watson & Associates Economists Ltd. in October 2019 provides historical residential building permit data from 2009-2018 in Schedule 6, upon which a residential density ratio and assumptions (i.e. percentage of low density and dwelling units per hectare, and percentage of medium to high density and dwelling units per hectare) can be based. The Draft Development Charges Study data provides the following residential density ratios, based on historic building permit data in the Township from 2009 to 2018:

- 92.6% low density (single detached and semi-detached);
- 7.4% medium density (multiples defined as duplexes and townhouses); and
- 0% high density (apartments).

Assumptions regarding the number of dwelling units per gross hectare are derived from the applicable residential zoning provisions in the Township:

- Low density between 2.22 (Beachburg 4,500 m² [approx. average minimum lot area in Beachburg zones]) and 18.18 (Cobden 550 m² [R3 Zone]) dwelling units per gross hectare, resulting in an average density of 10.2 dwelling units per gross hectare;
- Medium density between 5.0 (Westmeath duplex containing 2 units 4,047 m² [RU & WV Zones]) and 41.6 (Cobden rowhouse 240 m² [R3 Zone]) dwelling units per gross hectare, resulting in an average density of 23.3 dwelling units per gross hectare; and
- High density N/A.

The residential density ratio and assumptions were confirmed with Township staff prior to applying them to the vacant land supply analysis.

Residential Land Demand and Analysis of Vacant Land Supply

Given that 73 future dwelling units could be accommodated in the planned parcel in Cobden, these dwelling units are subtracted from the forecasted demand of 722 dwelling units to the year

2039, resulting in a remaining dwelling unit demand of 649 (i.e. 722 projected dwelling units – 73 planned dwelling units).

Based on the remaining dwelling unit demand of 649, and the residential density ratio and assumptions for unplanned parcels, the results of the residential land demand analysis are summarized in **Table 3-9**.

Table 3-9: Residential Land Demand Analysis - Unplanned Parcels

		Residential Land Demand				
Dwelling Types	Dwelling Type		Max. Gross	Land		
	Proportion	Units (of 649)	Density	Requirement		
			(units/ha)	(ha)		
Low Density	92.6%	601	10.2	58.92		
Medium	7.4%	48	23.3	2.06		
Density	7.4/0	40	20.0	2.00		
High Density	0%	N/A	N/A	N/A		
Gross Residential Land Demand			60.98 ha			
*Net Residential Land Demand (less 21%)			48.17 net ha			

^{*}The net area applies to a gross-down factor of 21% for infrastructure, parks, etc. Figures are rounded.

It is anticipated that there will be a need for 48.17 net hectares of land (60.98 gross hectares) comprised of unplanned parcels, to accommodate new residential development.

Based on the results in **Table 3-7**, there is 79.22 net ha of vacant land supply for residential uses. When the planned parcel (8.83 net ha) in Cobden is removed from this vacant land supply, **70.39** net ha of vacant land comprised of unplanned parcels remains to accommodate new residential development and the residential land demand of 48.17 net ha. Therefore, there is sufficient vacant land supply to accommodate the projected dwelling unit demand to 2039, and there is no need for settlement area boundary expansions to accommodate projected residential demand.

3.2.9 Employment Growth Analysis

This section provides an analysis of Employment vacant land supply to determine whether the Township has existing, designated, and available land to accommodate the additional employment demand within the existing settlement areas.

Employment Density Assumptions

The Draft Development Charges By-law Review data prepared for the Township by Watson & Associates Economists Ltd. in October 2019 provides assumptions for employment gross floor

area (ft²) per employee in Schedules 9b and 9c. For industrial and commercial employment types, the Study data assumes the following employment densities:

- Industrial: 1,500 ft² (0.0139 ha) per employee; and
- Commercial: 700 ft² (0.0065 ha) per employee.

This translates to the following employment densities in terms of number of jobs per net hectare:

- Industrial: 71.9 jobs per net ha; and
- Commercial: 153 jobs per net ha.

In WSP's opinion, these are high densities given the rural context of the Township's settlement areas and the types of employment uses which are likely to locate within the Township. In WSP's experience, the density assumption typically used for employment uses in municipalities with a similar geographic and economic context to the Township of Whitewater Region is **between 15 and 25 jobs per net hectare**.

Employment Land Demand and Analysis of Vacant Land Supply

A total of 0.77 net hectares of employment land area (less constraints and a 25% gross-down factor) was identified as vacant.

By applying the maximum employment density of 25 jobs per net hectare, the projected number of employees that could be accommodated on the available vacant employment lands would be 19.25 jobs (i.e. 0.77 net hectares multiplied by 25 jobs per net hectare). Given the employment demand of 424 jobs forecasted to the year 2039, there is insufficient vacant land supply to accommodate the projected employment demand to 2039. Therefore, there is a need for settlement area boundary expansions and/or adjustments of employment lands to accommodate the forecasted employment demand.

A total of 16.96 net ha, or 21.2 gross ha, of employment lands is required to accommodate the 424 forecasted jobs (i.e. 424 jobs / 25 jobs per net hectare). After subtracting the existing vacant employment land supply of 0.77 net ha or 1.02 gross ha, the total additional employment land supply needed to accommodate the forecasted employment demand of 424 jobs is 16.19 net hectares (i.e. 16.96 net ha – 0.77 net ha), or 20.18 gross hectares (i.e. 21.2 gross ha – 1.02 gross ha).

4 Summary of Vacant Land Supply in the Settlement Areas

In summary, the results of the residential vacant land supply analysis indicate that there is sufficient vacant land within the existing settlement areas that is zoned for residential

development (i.e. 79.22 net hectares) to accommodate the projected dwelling unit demand of 722 dwelling units to the year 2039, with 31.05 net hectares of additional supply available if demand increases due to new economic drivers (i.e. 79.22 net ha available existing residential vacant land supply – 48.17 net ha required to meet forecasted residential demand).

The results of the employment vacant land supply analysis indicate that there is insufficient amount of vacant lands zoned for employment uses to accommodate the projected employment demand, which is expected to increase by 424 jobs to the year 2039. A vacant land supply of 0.77 net hectares is available if new businesses are established in the settlement areas, and could only accommodate 19.25 jobs. An additional employment land supply of 16.19 net hectares is required to accommodate the forecasted 424 jobs. It is recognized that given the nature of employment uses in the Township, consisting mainly of agriculture and manufacturing, some of the projected employment growth may be accommodated in the rural areas of the Township, beyond the settlement areas.

5 Phase 2: Recommendations for Settlement Area Boundary Expansions / Adjustments

5.1 Candidate Area Evaluation

Based on the results of the vacant land supply analysis documented in **Section 3** and **Section 4**, a boundary expansion and/or adjustment is required to one or more of the six settlement areas in the Township to meet the forecasted employment demand. The Township also determined the need to consider settlement area boundary adjustments which examine the suitability of some existing residential lands which are currently included within the settlement area boundaries vs. potential lands located outside the existing settlement areas for future residential development. As part of this process, three (3) options were considered by Township Council:

- Option 1: Expansion of one or more settlement area boundaries to add additional employment lands;
- **Option 2:** Adjustment of one or more settlement area boundaries to reallocate some existing residential lands to employment lands; or
- Option 3: Expansion of one or more settlement area boundaries to add additional employment lands, and relocate and redesignate residential lands to other suitable locations.

At a meeting on June 17, 2020, Township Council carried a Resolution that directed the Growth Study to proceed with Option 3.

The current County OP provides policy direction on where development for residential and employment land should occur. Generally, Village Communities (i.e. Cobden and Beachburg) shall be a focus of growth throughout the County (Section 4.1). The Township's vision for growth will be achieved, in part, by promoting residential, commercial and light industrial uses within the Village Communities, and permitting limited residential development, recreational, tourism and other economic opportunities within the rural areas of the Municipality (Section 16.1.1). Under Section 16.0 Township of Whitewater Region Policies, Section 16.1.3 sets out several policy objectives, including: (4) Growth and Settlement: To encourage and maintain the village communities of Cobden and Beachburg as a focus of commercial, institutional, light industrial and residential development.

A set of evaluation criteria was prepared to guide a detailed site analysis of Candidate Areas for consideration as part of settlement area boundary expansions and/or adjustments, as shown in **Table 5-1**. With consideration for the above-noted OP policies, Township staff identified a series of 'Employment' and 'Residential' Candidate Areas for evaluation, as illustrated in **Appendix F.** The Candidate Areas identified represent a logical and contiguous extension of the existing settlement areas, and their selection was not influenced by ownership or by submission of planning applications.

Each Candidate Area was evaluated against the proposed evaluation criteria, with input from Township staff. This evaluation is intended to be high-level in scale, with the objective of providing an overview of where future residential and employment growth could occur within the Township of Whitewater Region. Further detailed analysis may be required to confirm infrastructure capacity, where full or partial municipal services exist (i.e. Cobden and Beachburg), and environmental studies to determine whether any natural heritage areas and features exist (e.g. Species at Risk). This detailed analysis does not form part of this Growth Study.

Table 5-1: Proposed Candidate Area Evaluation Criteria

Criteria	Description	Scoring	Maximum Score
1. Physical Constraints	Scores range from 0 to 4, depending on the presence of physical constraints, including: topography; flooding hazards, unstable slopes; mine hazards; At Capacity lakes, etc.	O – significant physical constraints, would likely preclude development 2 – some physical constraints, would not preclude development 4 – no significant physical constraints	4
2a. Transportation (Employment Lands)	Scores range from 0 to 4, depending on access to existing transportation infrastructure (e.g. highways, roads).	 0 – access is limited to a municipal road, or no existing access from road. 2 – access to existing road network, including access to a County road 4 – good access to existing road network, including access to Highway 17 (or proposed Highway 17 expansion) 	4
2b. Transportation (Residential Lands)	Scores range from 0 to 4, depending on access to existing transportation infrastructure (e.g. highways, roads).	0 – access is from Highway 17, or no existing access from road. 2 – access is from a County road 4 – access from a municipal road	
3. Serviceability	Scores range from 0 to 4 depending on the serviceability from a water and wastewater perspective	 0 – significant servicing constraints (i.e. no municipal services available) 2 – one municipal service readily available (i.e. water or sewer) 4 – both municipal services readily available (i.e. water and sewer) 	4
4. Compatibility	Scores range from 0 to 4, depending on compatibility with existing uses in proximity	 0 – significant conflict with existing uses 2 – some conflict with existing uses 4 – no significant conflict with existing uses 	4
5. Natural Heritage Features or Areas	Scores range from 0 to 4, depending on presence of significant natural heritage features or area (as defined in the PPS)	 0 – several significant natural heritage features or areas 2 – some significant natural heritage features or areas 4 – no significant natural heritage features or areas 	4

Criteria	Description	Scoring	Maximum Score
6. Agriculture	Scores range from 0 to 4, depending on presence of prime agricultural areas or lands being actively farmed; soil types (based on AgMaps data).	O – presence of prime agricultural areas 2 – no presence of prime agricultural areas, but a portion of the lands are being actively farmed 4 – no presence of prime agricultural areas and lands are not being actively farmed	4
7. Mineral Aggregate / Mineral Resources	Scores range from 0 to 4 depending on proximity to mineral aggregate sites / mining resources	0 – presence of mineral aggregate sites and/or mining resources 2 – close proximity to mineral aggregate sites and/or mining resources (i.e. does not meet required setbacks for development) 4 – no presence or proximity to mineral aggregate sites and/or mining resources (i.e. meets required setbacks for development)	4
8. Proximity to Waste Disposal Site / Septage Haulage Area	Scores range from 0 to 4 depending on proximity to active/inactive waste disposal sites and licensed septage haulage area	0 – immediately adjacent to waste disposal site / septage haulage area 2 – close proximity to waste disposal site / septage haulage area (i.e. does not meet required setbacks for development) 4 – no proximity to waste disposal site / septage haulage area (i.e. meets required setbacks for development)	4
9. Wellhead Protection	Scores range from 0 to 4 depending on proximity to Wellhead Protection Areas	0 – located within Sensitivity 1 Wellhead Protection Area, where only existing uses are permitted 2 – located within Sensitivity 2, 3, 4 Wellhead Protection Areas, where future development is subject to studies 4 – not located within a Wellhead Protection Area	4
		Total Maximum Score	36

5.2 Candidate Employment Areas Evaluation - Settlement Area Expansion

The detailed results of the Candidate Employment Areas evaluation for potential settlement area expansion are presented in **Appendix G**, and summarized in **Table 5-2**.

Table 5-2: Summary of Candidate Employment Areas Evaluation

ID	Settlement Area	Location	Area (gross ha)	Total Score	Rank (highest rank best for expansion)
E1	Cobden (outside boundary)	Astrolabe Road / Highway 17	10.91	28	4
E2	Cobden (inside boundary)	Snake River Line / Main Street	11.28	32	1
E3	Cobden (inside boundary)	Behm Line / Main Street	4.22	32	1
E4	Cobden (outside boundary)	Pembroke Street / Highway 17	24.87	24	7
E5	Cobden (outside boundary)	Pembroke Street / Highway 17	11.21	24	7
E6	Beachburg (inside boundary)	Beachburg Road	1.91	26	5
E7	Beachburg (inside boundary)	Beachburg Road	1.27	26	5
E8	Beachburg (inside boundary)	Anderson Drive	1.28	30	3

The top Candidate Areas for future employment lands include E2 and E3 (Cobden), and E8 (Beachburg). However, as these three areas, as well as E6 and E7, are already located within the existing settlement area boundaries of Cobden and Beachburg (see key maps in **Appendix F**), these Candidate Areas cannot be considered to meet the required additional employment land supply of 20.18 gross ha through settlement area expansion.

The Candidate Areas recommended for future employment lands through expansion of the Cobden settlement area boundary include:

- E1 Astrolabe Road / Highway (10.91 gross ha);
- E4 Pembroke Street / Highway 17 (24.87 gross ha); and
- E5 Pembroke Street / Highway 17 (11.21 gross ha).

It is recommended that the entirety of Candidate Area E1 (10.91 gross ha) and only a portion of Candidate Areas E4 (4.63 gross ha) and E5 (4.64 gross ha) fronting on

Pembroke Street / Highway 17 be considered for additional employment lands and a settlement area expansion in Cobden, to fulfill the need for 20.18 gross hectares of additional employment land supply. The recommendations are presented in Table 5-3.

Table 5-3: Summary of Recommendations for Settlement Area Expansion - Employment Lands

ID	Settlement Area Expansion	Location	Area to be Added (gross ha)		
E1	Cobden	Astrolabe Road / Highway 17	10.91		
E4 (Partial)	Cobden	Pembroke Street / Highway 17	4.63		
E5 (Partial)	Cobden	Pembroke Street / Highway 17	4.64		
		Total area to be added	20.18		
	Total area needed for additional employment land supply				

Candidate Areas E1, E4, and E5 all abut Highway 17, with excellent visibility and the potential for direct access from the highway right-of-way, subject to approval by the Ministry of Transportation (MTO), which would be beneficial for future employment uses. While Candidate Areas E4 and E5 do not currently have direct access to municipal services, Candidate Area E1 has direct access to municipal water and wastewater services at the front property line along Astrolabe Road.

5.3 Candidate Residential Areas Evaluation - Settlement Area Adjustments

Through settlement area adjustments, there is potential to remove lands which are currently within the existing settlement area boundaries. As required by Policy 1.1.3.9 in the 2020 Provincial Policy Statement, these lands could be replaced at a 1:1 ratio (i.e. no net increase in lands within the settlement areas) with lands which are currently outside the existing settlement area boundaries, but which could be added to accommodate future residential uses in more suitable locations. The detailed results of the Candidate Residential Areas evaluation for potential settlement area adjustments are presented in **Appendix G**, and summarized in **Table 5-4** and **Table 5-5**.

Table 5-4: Summary of Candidate Residential Areas Evaluation – Potential Lands to be Added

ID	Settlement Area	Location	Area (gross ha)	Total Score	Rank (highest rank best for addition)
R1	Cobden (outside boundary)	Astrolabe Road	39.57	30	1
R2	Cobden (outside boundary)	Highway 17	12.78	22	5
R3	Cobden (inside boundary)	Astrolabe Road	7.18	28	2

ID	Settlement Area	Location	Area (gross ha)	Total Score	Rank (highest rank best for addition)
R4	Cobden (outside boundary)	East of Pembroke Street / Highway 17	21.40	22	5
R5	Westmeath (outside boundary)	Gore Line / Phoebe Street	4.14	24	4
R6	Westmeath (majority outside boundary; very eastern portion adjacent to cul-de-sac is inside)	Westmeath Road / Phoebe Street	7.66 (7.16 outside boundary)	26	3

Table 5-5: Summary of Candidate Residential Areas Evaluation – Potential Lands to be Removed

ID	Settlement Area	Location	Area (gross ha)	Total Score	Rank (lowest rank best for removal)
R7	Cobden (inside boundary)	Astrolabe Road	30.56	22	3
R8	Haley Station (majority outside the settlement area boundary)	Haley Road	10.72	28	1
R9	Beachburg (inside boundary)	Beachburg Road	32.21	24	2
R10	Westmeath (inside boundary)	Synton Street	5.29	20	4

As presented in **Table 5-4**, the top Candidate Areas for addition to the existing settlement areas as future residential lands include R1 and R3 (Cobden), and R6 (Westmeath). However, as R3 is already located within the existing settlement area boundary of Cobden (see key map in **Appendix F**), this Candidate Area cannot be considered for addition to the Cobden settlement area boundary for future residential uses. Further, the most eastern portion of R6 is already located within the existing Westmeath settlement area boundary, so only the portion which is outside the existing boundary (7.16 ha) could be added.

The Candidate Areas recommended for addition as future residential lands through settlement area boundary adjustments include:

- Adjustment to the Cobden settlement area: R1 Astrolabe Road (39.57 ha); and
- Adjustment to the Westmeath settlement Area: R6 Westmeath Road / Phoebe Street (only the portion outside the existing settlement area boundary - 7.16 ha).

The total land recommended to be added to the settlement area boundaries of Cobden and Westmeath for future residential uses is 46.73 gross hectares, as presented in Table 5-6.

In keeping with the results in **Table 5-5** and confirmed with Township staff, **the following lands** are recommended to be removed from the existing settlement area boundaries, as they are not suitable and/or desirable for future residential uses:

- Adjustment to the Cobden settlement area: R7 Astrolabe Road (30.56 gross ha);
- Adjustment to the Beachburg settlement area: a portion of R9 Beachburg Road (12.32 gross ha) which includes an irregular triangular parcel bounded on one side by a portion of the abandoned CN Railway, and several watercourses traversing the properties; and
- Adjustment to the Westmeath settlement area: a portion of R10 Synton Street (3.65 gross ha) which only includes the portion of the property encumbered by floodplain associated with Lower Allumette Lake.

The total land recommended to be removed from the settlement area boundaries of Cobden, Beachburg, and Westmeath is 46.53 gross hectares, as presented in Table 5-6.

Table 5-6: Summary of Recommendations for Settlement Area Adjustments - Residential Lands

ID	Settlement Area Adjustment	Location	Area to be Removed (gross ha)	Area to be Added (gross ha)	Difference (Added- Removed) (gross ha)
R1	Cobden	Astrolabe Road	-	39.57	+39.57
R6	Westmeath	Westmeath Road / Phoebe Street	-	7.16	+7.16
R7	Cobden	Astrolabe Road	30.56	-	-30.56
R9 (Partial)	Beachburg	Beachburg Road	12.32	-	-12.32
R10 (Partial)	Westmeath	Synton Street	3.65	-	-3.65
		Total area	46.53	46.73	+0.2

It is recognized that there is a 0.2 ha difference between the lands to be added (46.73 gross ha) and the lands to be removed (46.53 gross ha), which is considered negligible for the purposes of maintaining no net increase in lands within the settlement areas through the adjustment process.

5.3.1 Results of Property Owner Consultations

In November and December 2020, Township staff undertook consultations with the property owners affected by the Growth Study recommendations, to inform them and seek their input on the proposed changes. The following summarizes the outcomes of the consultations at the time of this Report:

1) Employment Areas – Recommended Cobden Settlement Area Boundary Expansion:

- E1 Property owner confirmed they have no objections with property being added to Cobden settlement area; and
- E4 and E5 Property owners could not be reached and were sent letters informing them of the Growth Study and potential impacts on their respective properties.

2) Residential Areas – Recommended Settlement Area Boundary Adjustments:

- R1 (Cobden) Property owner confirmed they have no objections with property being added to Cobden settlement area;
- R7 (Cobden) Property owner confirmed they have no objections with property being removed from the Cobden settlement area, and expressed that additional lands should be added to the area being removed;
- R9 (Beachburg) The property owner of the triangular property north of Beachburg Rd. could not be reached, and was sent a letter informing them of the Growth Study and potential impacts on their property. The property owners of the properties south of Beachburg Rd. on either side of the watercourse confirmed they have no objections with the properties being removed from the Beachburg settlement area; and
- R10 (Westmeath) The property owner objects to the removal of their property from the Westmeath settlement area.

As a result of the property owner consultations, the recommendations for the settlement area boundary adjustments for residential lands are revised as follows, as presented in **Table 5-7**:

- R7 (Cobden) Lands to be removed from the settlement area are increased;
- R9 (Beachburg) As a result of the additional lands to be removed from the Cobden settlement area as part of R7, no lands are recommended to be removed from the Beachburg settlement area, as this would result in a net decrease in lands within the settlement areas (i.e. more lands being removed than being added to the settlement area boundaries). This is undesirable from a long-range planning perspective, as the 2020 PPS directs that settlement areas shall be the focus of growth and development.

As such, a net decrease in lands within the settlement areas would result in less land within the settlement areas to accommodate potential future growth and development, including for example, future development requiring municipal services or development which represents intensification;

- R10 (Westmeath) No lands are recommended to be removed from the settlement area; and
- R6 (Westmeath) As a result of the additional lands to be removed from the Cobden settlement area as part of R7, the amount of land to be added to the Westmeath settlement area as part of R6 is decreased.

Table 5-7: Revised Recommendations for Settlement Area Adjustments - Residential Lands Following Property Owner Consultations

ID	Settlement Area Adjustment	Location	Area to be Removed (gross ha)	Area to be Added (gross ha)	Difference (Added- Removed) (gross ha)
R1	Cobden	Astrolabe Road	-	39.57	+39.57
R6	Westmeath	Westmeath Road / Phoebe Street		4.58	+4.58
R7	Cobden	Astrolabe Road	44.15	-	-44.15
R9 (Partial)	Beachburg	Beachburg Road	-	-	-
R10 (Partial)	Westmeath	Synton Street	-	-	-
		Total area	44.15	44.15	0

5.4 Summary of Settlement Area Boundary Expansion and Adjustment Recommendations

Table 5-8 presents a summary of the recommendations for expansion of the Cobden settlement area boundary with 20.18 gross hectares for additional employment land supply. **Table 5-9** presents a summary of the recommendations for settlement area boundary adjustments to remove lands which are less suitable and/or desirable for future residential uses, and replace them with lands which are better suited to accommodate residential development. The lands recommended for settlement area boundary expansion and adjustments are illustrated in **Appendix H**.

Table 5-8: Summary of Recommendations for Settlement Area Expansion - Employment Lands

ID	Settlement Area Expansion	Location	Area to be Added (gross ha)		
E1	Cobden	Astrolabe Road / Highway 17	10.91		
E4 (Partial)	Cobden	n Pembroke Street / Highway 17			
E5 (Partial)	Cobden	Pembroke Street / Highway 17	4.64		
		Total area to be added	20.18		
	Total area needed for additional employment land supply				

Table 5-9: Summary of Recommendations for Settlement Area Adjustments - Residential Lands

ID	Settlement Area Adjustment	Location	Area to be Removed (gross ha)	Area to be Added (gross ha)	Difference (Added- Removed) (gross ha)
R1	Cobden	Astrolabe Road	-	39.57	+39.57
R6	Westmeath	Westmeath Road /		4.58	+4.58
No	Westineati	Phoebe Street	-	4.56	+4 .56
R7	Cobden	Astrolabe Road	44.15	-	-44.15
R9 (Partial)	Beachburg	Beachburg Road	-	-	-
R10 (Partial)	Westmeath	Synton Street	-	-	-
		Total area	44.15	44.15	0

6 Conclusion

In summary, this Growth Study has resulted in the following recommendations, illustrated in **Appendix H**:

- Employment Lands Expand the Cobden settlement area by 20.18 gross hectares to the north along Pembroke Street / Highway 17, and to the southeast along Astrolabe Road / Highway 17, for future employment uses;
- Residential Lands Adjust the settlement area boundaries by removing 44.15 gross hectares from Cobden and Westmeath, and by adding 44.15 gross hectares to Cobden and Westmeath; and
- No changes to the settlement area boundaries are proposed in Beachburg, Foresters Falls, Haley Station, or LaPasse.

The areas subject to these recommendations may require, or be the subject of, further studies (e.g. servicing studies to confirm the feasibility of servicing extensions and associated costs), prior to any settlement area expansions and/or adjustments, and any development.

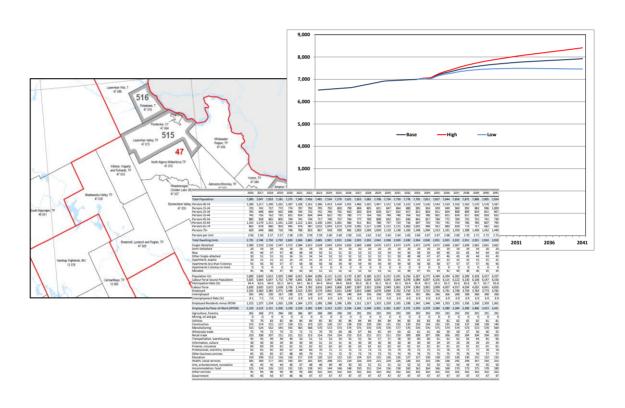
In conclusion, it is recommended that the recommendations of this Report be considered and approved by the Township of Whitewater Region, the County of Renfrew, and the Ministry of Municipal Affairs and Housing, and that the settlement area boundaries designated in the County of Renfrew Official Plan be amended accordingly through an Official Plan Amendment, which will include a Statutory Public Meeting.

APPENDIX



GROWTH PROSPECTS TO 2041 (METROECONOMICS, JANUARY 2020)

Whitewater Region Township Growth Prospects to 2041



prepared for



prepared by



January 2020

Whitewater Region Township Growth Prospects to 2041

This report assesses Whitewater Region Township's prospects for population, dwelling and employment growth to 2041 considering national, provincial and regional trends and the Township's unique geographic location in eastern Ontario.

The Geographic Context of Whitewater Region Township

Whitewater Region Township is one of 19 municipalities (Census Sub-Divisions, or CSDs using Census terminology) that collectively define Renfrew County (Census Division 3547, or CD). Politically Renfrew County includes only 17 of the 19 municipalities; the City of Pembroke, the county seat of Renfrew, is a separated municipality; and Pikwakanagan (Golden Lake 39) is a First Nations Reserve. For the purposes of this report, however, Renfrew County will refer to CD 3547 including Pembroke and Pikwakanagan.

The population of Renfrew County grew by 1.1 percent or by 1,068 people between 2011 and 2016, from 101,326 to 102,394, and it grew by 7.6 percent or 7,256 people between 2001 and 2016. The County includes three Census Agglomerations (CAs). A CA is a municipality or a group of contiguous municipalities with a population of 10,000 or more identified by Statistics Canada as being economically and socially integrated and interdependent (based primarily on commuter patterns). The three CAs are:

- Pembroke CA (population of 23,269) including Pembroke (13,882) and Laurentian Valley (9,387);
- Petawawa CA (population of 17,187) including Petawawa only; and
- Arnprior CA (population of 15,973) including Arnprior (8,795) and McNab/Braeside (7,178).

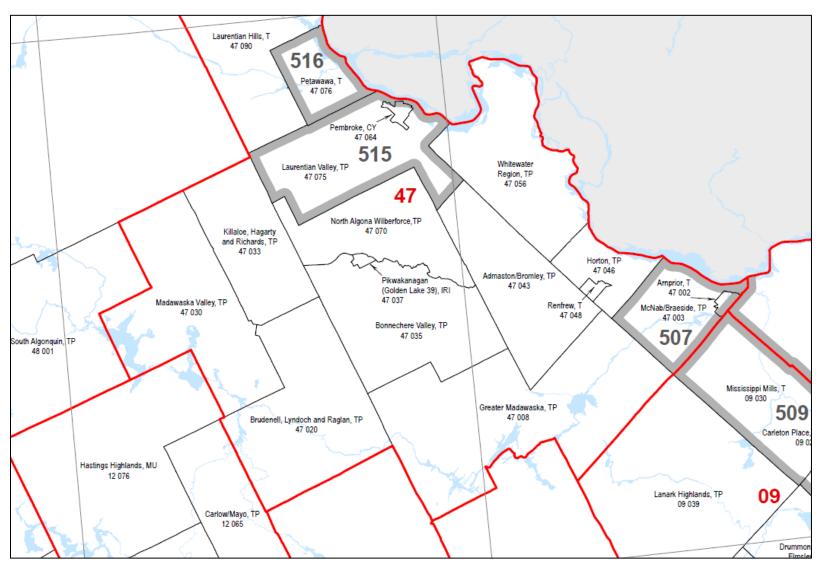
Exhibit 1 on the following page shows the location of the 19 municipalities within the County and identifies those that define the three CAs.

Exhibit 2 on the subsequent page tabulates the population of the CD by constituent CA and municipality for every fifth year from 2001 to 2016 and provides the absolute and percent changes in population for each from 2001 to 2016 and from 2011 to 2016.

The three CAs collectively account for 56,429 people or for 55 percent of the total population of the County. The population of the Petawawa CA (see Exhibit 2) grew by 7.5 percent between 2011 and 2016 and by 19.4 percent between 2001 and 2016; the population of the Arnprior CA grew by 3.2 percent and 13.8 percent over those two periods; in contrast, the population of the Pembroke CA fell by 3.1 percent over the last five years but was nevertheless higher in 2016 than it had been in 2001 by 4.7 percent. Excluding the three CAs the population of the County grew by 0.3 percent between 2011 and 2016 and by 3.3 percent between 2001 and 2016.

Though Whitewater Region is contiguous to the Pembroke CA it is not considered by StatCan to be a constituent municipality of that CA. Whitewater Region's population grew by 1.3 percent between 2011 and 2016, from 6,921 to 7,009, or by 88 people, and it grew by 7.5 percent or 489 between 2001 and 2016 (Exhibit 2). Whitewater Region is the most populated municipality within Renfrew County among the municipalities that are not part of a CA.

Exhibit 1
Map of Renfrew Census Division 3547 Constituent Municipalities



Source: Statistics Canada

Exhibit 2

Total Population of Renfrew Census Division 3547 by Constituent Municipality

					Popula	tion		Change	01-16	Change	11-16
CD-CSD#	Name	Туре	CMA	2001	2006	2011	2016	Absolute	Percent	Absolute	Percent
3547	Renfrew County Census Division	CD		95,138	97,545	101,326	102,394	7,256	7.6	1,068	1.1
	Pembroke CA	CA	515	22,223	23,195	24,017	23,269	1,046	4.7	-748	-3.1
	Arnprior CA	CA	507	14,035	14,380	15,485	15,973	1,938	13.8	488	3.2
	Petawawa CA	CA	516	14,398	14,651	15,988	17,187	2,789	19.4	1,199	7.5
	Rest of the CD			44,482	45,319	45,836	45,965	1,483	3.3	129	0.3
3547002	Arnprior	Town	507	7,192	7,158	8,114	8,795	1,603	22.3	681	8.4
3547003	McNab/Braeside	Township	507	6,843	7,222	7,371	7,178	335	4.9	-193	-2.6
3547008	Greater Madawaska	Township		2,290	2,751	2,485	2,518	228	10.0	33	1.3
3547020	Brudenell, Lyndoch and Raglan	Township		1,565	1,497	1,658	1,503	-62	-4.0	-155	-9.3
3547030	Madawaska Valley	Township		4,406	4,381	4,282	4,123	-283	-6.4	-159	-3.7
3547033	Killaloe, Hagarty and Richards	Township		2,492	2,550	2,402	2,420	-72	-2.9	18	0.7
3547035	Bonnechere Valley	Township		3,591	3,665	3,763	3,674	83	2.3	-89	-2.4
3547037	Pikwakanagan (Golden Lake 39)	Indian reserve		443	406	432	440	-3	-0.7	8	1.9
3547043	Admaston/Bromley	Township		2,824	2,716	2,844	2,935	111	3.9	91	3.2
3547046	Horton	Township		2,567	2,803	2,719	2,887	320	12.5	168	6.2
3547048	Renfrew	Town		7,942	7,846	8,218	8,223	281	3.5	5	0.1
3547056	Whitewater Region	Township		6,520	6,631	6,921	7,009	489	7.5	88	1.3
3547064	Pembroke	City	515	13,490	13,930	14,360	13,882	392	2.9	-478	-3.3
3547070	North Algona Wilberforce	Township		2,729	2,840	2,873	2,915	186	6.8	42	1.5
3547075	Laurentian Valley	Township	515	8,733	9,265	9,657	9,387	654	7.5	-270	-2.8
3547076	Petawawa	Town	516	14,398	14,651	15,988	17,187	2,789	19.4	1,199	7.5
3547090	Laurentian Hills	Town		2,750	2,789	2,811	2,961	211	7.7	150	5.3
3547096	Deep River	Town		4,135	4,216	4,193	4,109	-26	-0.6	-84	-2.0
3547098	Head, Clara and Maria	Township		228	228	235	248	20	8.8	13	5.5

Source: Statistics Canada

The Economy of Whitewater Region Township

metroeconomics' standard approach to assessing the economic potential of an area is to carry out a Location Quotient (LQ) assessment of the jobs provided locally by industry to separate the jobs into those that are export based and those that are community based. This process begins with a comparison of the ratio of jobs by place-of-work by industry per 1,000 residents (the Location Quotient or LQ) of the subject community to the province-wide ratios for each industry (see Exhibit 3 below). All jobs in agriculture and forestry, in mining and quarrying, and in manufacturing are assumed to be export based jobs (since the goods they produce are primarily shipped to consumers and businesses outside of the local area). Across all the service industries it is assumed that, where the LQ in an industry locally exceeds the provincial LQ, the implied "excess" jobs must be beyond local needs; thus they must be providing services to non-residents of, or visitors to, the community. As such these service jobs are considered to be export based.

Exhibit 3
Whitewater Region Township Location Quotient Assessment
Employment by Place-of-Work (EPOW) in 2016
Economic Base and Community Base Components

	Whitewa	ter Region	Onta	ario	Economic	Community
	EPOW	per 1,000	EPOW	per 1,000	Base	Base
Total population	7,009		13,448,494			
Total employment by place-of-work	2,120	302	5,867,270	436	831	1,289
Agriculture, other primary	265	38	88,450	7	265	0
Mining, oil and gas	0	0	24,705	2	0	0
Utilities	70	10	43,785	3	47	23
Construction	115	16	213,400	16	4	111
Manufacturing	515	73	624,260	46	515	0
Wholesale trade	75	11	238,335	18	0	75
Retail trade	210	30	707,530	53	0	210
Transportation, warehousing	45	6	232,090	17	0	45
Information, culture	30	4	153,455	11	0	30
Finance, insurance	60	9	483,235	36	0	60
Professional, scientific, technical services	65	9	497,790	37	0	65
Other business services	65	9	234,280	17	0	65
Education	110	16	460,690	34	0	110
Health, social services	185	26	680,110	51	0	185
Arts, entertainment, recreation	45	6	119,330	9	0	45
Accommodation, food	125	18	420,400	31	0	125
Other services	95	14	257,000	19	0	95
Government	45	6	388,425	29	0	45

Source: Statistics Canada and metroeconomics

The sum of the export based goods jobs and the export based services jobs define the total export base of the local community. Export based jobs are those that "underpin" the local economy. The existence and growth potential of export based jobs drives the growth potential of the area overall.

Most service industries jobs provide services to the community's residents; therefore they are not export based services. These population serving jobs grow only if the population grows, and the population grows – in most cases – only if the economic base jobs grow. Hence the overall growth potential of an area, in most cases, is linked to the potential for growth in its economic base jobs.

In 2016 employers provided a total of 2,120 jobs (both economic base and community base) within Whitewater Region on a place-of-work basis. The decomposition of these jobs in Exhibit 3 reveals that – outside of its jobs in agriculture and manufacturing – the area provides only a few non-traditional export based jobs (47 in utilities and 4 in construction). This approach reveals that 831 out of the 2,120 jobs provided in Whitewater Region in 2016 can be considered economic base jobs (or 39 percent of the total). Economic base jobs typically account for between 20 and 25 percent of the total number of jobs in communities. So Whitewater Region is relatively well endowed in the economic base job department.

However, the Township's 831 economic base jobs are primarily accounted for by 515 jobs in manufacturing and 265 in agriculture (plus the 47 in utilities and 4 in construction). Manufacturing jobs in the Township fell from 735 in 2001 to 515 today, or by 30 percent, while agriculture jobs fell from 425 in 2001 to 265 today, or by 38 percent. Jobs declined in these two industries just about everywhere in Canada over that span, including throughout the rest of Renfrew County. *metroeconomics* projects that communities throughout Canada, at best, will barely sustain the number of jobs they have today in both of these industries. More likely their number will decline further. In other words the Township's economic base is on a precarious footing.

The Township's overall activity rate of 302 jobs per 1,000 residents (2,120 jobs divided by 7,009 residents times 1,000, not shown in Exhibit 3) is well below the provincial average of 436. The Township's low activity rate is not due to a below average number of economic base jobs per capita in the Township (as noted above). Rather it is due to a below average number of community base (population serving) jobs per capita.

The greatest population serving deficiencies in the Township are in professional services (28 fewer per 1,000 residents), finance and insurance (27 fewer), health and social services (24 fewer), retail trade (23 fewer) and government services (22 fewer). These lower than average ratios mean Whitewater Region residents must travel to Pembroke or other nearby centres to obtain these services.

On balance the 2016 Census data indicate that the economy of the Township is heavily endowed with economic base jobs – mainly in agriculture and manufacturing – but that it is underrepresented in community base jobs.

As already noted, generally speaking agriculture and manufacturing are not expected to generate many jobs anywhere in Canada or Ontario in the future. However, the GlassHouse Botanics Inc. cannabis development currently underway in Whitewater Region is expected to provide 75 jobs at full build-out of which 30 will be seasonal. To account for the impacts of this new facility on the future population of, and number of jobs in, the Township, *metroeconomics* has assumed the facility will ultimately employ the equivalent of 60 full-time full-year workers, that 15 will be employed in agriculture and 45 in manufacturing, and that the jobs are being introduced gradually over the five year span from 2016 to 2021.

The Working Population of Whitewater Region

Census data reveal that 3,335 of the Township's total of 7,009 residents held jobs in 2016. Thus the number of job-holding residents of the Township exceeded the 2,120 jobs provided by employers in the Township by 1,115. Of the 3,335 working residents of the Township, 425 had no fixed workplace address (sales, repair and construction workers mostly account for this group) while 620 worked in Whitewater Region.

Census data reveal that 1,700 of the remaining 2,290 working residents of Whitewater Region commuted to nearby centres each day as follows:

- 620 work in the City of Pembroke
- 340 work in the Town of Renfrew
- 255 work in the Township of Laurentian Valley
- 150 work in the Township of Petawawa
- 100 work in the Town of Laurentian Valley
- 85 work in the City of Ottawa
- 65 work in the Town of Arnprior
- 45 work in the Township of Bonnechere Valley
- 40 work in the Township of Adamston/Bromley

The data above suggest that working residents of the Township fill only a small share of the 2,120 jobs provided by employers in Whitewater Region (620 Township residents work in the Township) and that the economic wellbeing of the employed residents of Whitewater Region is provided mostly by employers outside of the Township.

Given that the Township's economic base industries are not growing (with the exception of the cannabis facility), the prospects for population growth in the Township mostly depend on the job creation prospects of communities within commuting distance of Whitewater Region.

Population, Dwelling and Employment by Place-of-Work Prospects for Whitewater Region

Our sub-provincial projection system works as follows:

- Growth in the number of employed residents drives population growth.
- Each new employed resident typically arrives with 1 or more dependents.
- Growth in the number of employed residents is driven by an expansion of jobs in the local economy and/or an expansion in the number of commuter job opportunities.
- The Baby Boom retirement phenomenon affecting every community throughout Canada between 2011 and 2031 means the Boomers must be replaced by in-migrants as they retire; this is so because the Boomers did not replace themselves; the total fertility rate has been well below the required natural replacement rate since the mid-1960s.
- Migrants are mostly between the ages of 18 and 39.
- National rates of net international migration have already been increased and will be increased further from now through to the mid-2030s to meet this need.
- Our projection system links the economic need for workers locally to the supply of working aged people locally to determine whether in-migration or out-migration will occur.

To develop projections of the population and dwellings in Whitewater Region – which depend on expectations regarding the number of employed residents in the Township – we drew on our national and provincial base case employment by place-of-work projections for those municipalities employing the largest numbers of Whitewater Region commuters.

Our projections indicate that jobs in Ottawa, Petawawa and Arnprior will grow most quickly in the area in the future; but these three job centres collectively account for only 300 of the Township's commuters. Our projections indicate that jobs in Pembroke, Renfrew and Laurentian Valley will grow only modestly in the future; but these three job centres account for more than 1,200 of the Township's daily commuters.

This system has been used to develop three projection alternatives for Whitewater Region; all three include the impacts of the new cannabis facility:

- The Base Case is based on the assumption that economic base jobs in Whitewater Region will
 grow in the future at the rates projected by metroeconomics for such jobs province-wide, and
 that the number of residents commuting to jobs nearby will grow at the rates we project for job
 growth in those nearby communities in our Base Case projections.
- The High Case is based on the assumption that economic base jobs in Whitewater Region will grow 0.25 percentage points faster each year than we project province-wide and that commuters will grow 0.25 percentage points faster each year than the rates we project for job growth in those nearby communities in our Base Case projections.
- The Low Case is based on the assumption the future growth rates of growth will be lower than those we assumed for the Base Case by 0.25 percentage points each year.

Exhibits 4, 5 and 6 illustrate the historical path (2001 to 2016) and the three projected paths (2017 to 2041) for the total population, the total number of jobs on a place-of-work basis and the total number of dwellings in Whitewater Region.

Exhibits 7, 8 and 9 provide detailed projections for the population by major age group, dwellings by structural type and employment by place-of-work by industry for each projection alternative for each year from 2016 to 2041.

Conclusion

It is our understanding that the previous projections prepared for Whitewater Region called for the Township's total population to increase from 6,921 in 2011 to 8,447 in 2036 in the Low Case and to 8,876 in 2036 in the High Case. *metroeconomics'* projections here foresee the Township's total population in 2036 reaching 7,480 in the Low Case and 8,224 in the High Case. *metroeconomics* High Case projection for 2036 is lower than the earlier Low Case projection for 2036 by 223.

The population projections for Whitewater Region underpinning the recent development charges study call for its population to reach 8,960 in 2039. *metroeconomics'* projections foresee the Township's total population in 2039 reaching 7,888 in the Base Case, 8,333 in the High Case and 7,466 in the Low Case. All three *metroeconomics* projections suggest less potential population for the Township in 2039 than the projection underpinning the recent development charge report.

To reach either the population totals projected earlier, or the total projected by the recent development charges report, Whitewater Region Township will need to attract more employers or more commuters to the Township in the future than *metroeconomics* considers likely in the decades ahead.

The DC report's projection for the Township's total population in 2039 of 8,960 is 7.5 percent higher than the population we project for that year in our High Case alternative.

Exhibit 4
Whitewater Region Township Total Population
Base, High and Low Projections Comparison
Actual 2001 to 2016, Estimated and Projected 2017 to 2041

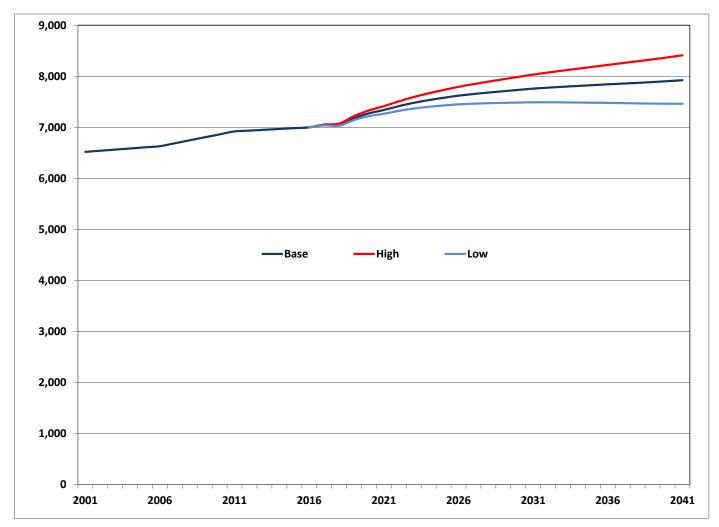


Exhibit 5
Whitewater Region Township Total Employed by Place-of-Work
Base, High and Low Projections Comparison
Actual 2001 to 2016, Estimated and Projected 2017 to 2041

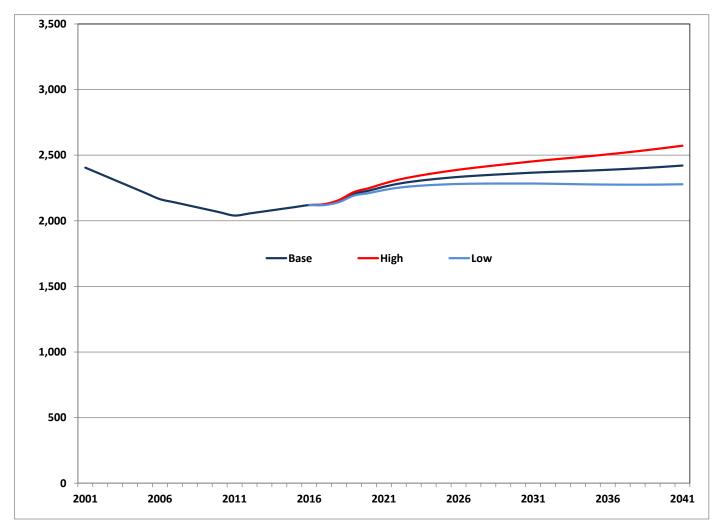


Exhibit 6
Whitewater Region Township Total Dwellings
Base, High and Low Projections Comparison
Actual 2001 to 2016, Estimated and Projected 2017 to 2041

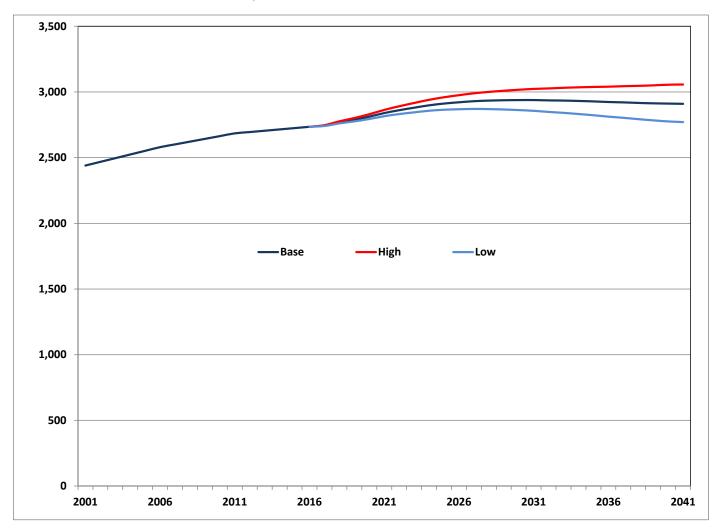


Exhibit 7
Whitewater Region Township Base Case Projection Details

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Total Population	7,000	7,047	7,053	7,181	7,275	7,340	7,416	7,481	7,534	7,579	7,621	7,653	7,682	7,708	7,734	7,759	7,778	7,795	7,811	7,827	7,844	7,858	7,872	7,888	7,905	7,924
Persons 00-14	1,200	1,217	1,240	1,261	1,307	1,328	1,352	1,386	1,413	1,424	1,451	1,466	1,501	1,497	1,512	1,518	1,523	1,529	1,536	1,543	1,550	1,556	1,563	1,570	1,578	1,587
Persons 15-24	725	741	737	772	774	797	792	795	792	803	799	804	805	821	847	864	880	905	924	929	949	960	991	983	996	1,000
Persons 25-34	705	698	669	692	698	704	732	742	766	792	810	820	814	828	817	832	817	812	803	811	804	808	809	824	851	867
Persons 35-44	745	756	762	791	821	814	834	844	822	791	780	777	764	760	749	748	764	763	780	801	815	824	817	830	818	832
Persons 45-54	985	928	865	805	764	741	734	717	740	757	764	777	790	808	832	821	836	841	817	784	772	769	755	752	741	739
Persons 55-64	1,155	1,179	1,211	1,241	1,220	1,212	1,161	1,100	1,041	1,001	966	911	851	788	747	724	716	697	719	735	741	754	766	784	807	795
Persons 65-74	865	878	880	903	945	976	987	1,031	1,043	1,073	1,070	1,095	1,127	1,148	1,121	1,115	1,060	1,001	948	912	880	828	773	717	682	663
Persons 75+	620	649	688	716	746	768	823	867	918	939	981	1,003	1,030	1,059	1,110	1,138	1,183	1,248	1,284	1,313	1,331	1,359	1,398	1,428	1,432	1,440
Persons per Unit	2.56	2.56	2.57	2.57	2.58	2.59	2.59	2.59	2.60	2.60	2.60	2.61	2.62	2.62	2.63	2.64	2.65	2.66	2.67	2.67	2.68	2.69	2.70	2.71	2.72	2.72
Total Dwelling Units	2,735	2,748	2,750	2,792	2,820	2,836	2,865	2,885	2,901	2,915	2,926	2,933	2,933	2,943	2,938	2,939	2,939	2,934	2,930	2,931	2,925	2,922	2,911	2,915	2,910	2,910
Single-Detached	2,500	2,510	2,510	2,547	2,572	2,584	2,612	2,628	2,643	2,654	2,663	2,669	2,668	2,676	2,672	2,673	2,675	2,672	2,670	2,672	2,668	2,667	2,658	2,665	2,661	2,662
Semi-Detached	20	19	18	18	18	18	18	18	18	19	19	20	20	20	20	20	20	20	20	19	19	19	19	19	20	20
Row	45	46	47	47	48	48	49	50	51	51	52	52	52	53	54	54	56	58	59	60	60	61	63	64	64	64
Other Single-attached	50	51	51	53	54	55	54	54	53	53	52	52	52	52	51	50	49	48	47	47	46	45	45	44	43	43
Apartment, duplex	20	21	21	22	23	24	25	26	27	28	28	29	30	30	31	31	31	32	32	32	32	31	31	31	31	31
Apartments less than 5 storeys	55	56	56	57	57	58	58	58	58	59	59	59	59	59	59	59	58	58	58	58	57	57	57	57	56	56
Apartments 5 storeys or more	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Movable	45	46	46	47	49	50	50	51	51	52	52	52	53	53	52	51	49	47	45	43	42	40	38	36	35	34
Population 15+	5,800	5,830	5,812	5,920	5,969	6,012	6,064	6,096	6,121	6,155	6,170	6,187	6,180	6,212	6,222	6,241	6,256	6,267	6,275	6,284	6,294	6,302	6,309	6,318	6,327	6,337
Labour Force Source Population	5,635	5,664	5,647	5,752	5,799	5,841	5,891	5,922	5,947	5,980	5,995	6,011	6,004	6,035	6,045	6,064	6,078	6,089	6,097	6,105	6,115	6,122	6,130	6,138	6,147	6,156
Participation Rate (%)	64.4	63.6	64.0	63.2	64.3	64.1	64.2	64.4	64.6	64.6	64.8	65.0	65.3	65.2	65.3	65.3	65.4	65.4	65.5	65.5	65.5	65.6	65.6	65.7	65.7	65.8
Labour Force	3,630	3,605	3,615	3,638	3,726	3,744	3,782	3,816	3,843	3,866	3,887	3,907	3,922	3,936	3,949	3,961	3,974	3,983	3,991	3,999	4,007	4,017	4,024	4,032	4,041	4,050
Employed	3,335	3,360	3,385	3,471	3,488	3,523	3,555	3,579	3,601	3,621	3,640	3,653	3,666	3,678	3,690	3,702	3,710	3,717	3,725	3,733	3,741	3,748	3,756	3,764	3,773	3,782
Unemployed	295	245	230	167	238	221	228	237	242	245	248	254	256	258	259	260	264	265	266	266	266	268	268	268	268	268
Unemployment Rate (%)	8.1	7.5	7.0	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Employed Residents minus EPOW	1,215	1,237	1,234	1,265	1,258	1,264	1,272	1,280	1,288	1,296	1,305	1,311	1,317	1,323	1,329	1,335	1,338	1,342	1,346	1,349	1,353	1,355	1,356	1,358	1,359	1,361
Employed by Place-of-Work (EPOW)	2,120	2,123	2,151	2,206	2,230	2,259	2,283	2,300	2,313	2,325	2,334	2,342	2,349	2,355	2,361	2,367	2,372	2,376	2,379	2,384	2,389	2,394	2,399	2,406	2,413	2,421
Agriculture, forestry	265	268	273	284	282	286	287	288	289	290	291	291	292	292	293	293	293	293	293	293	292	292	292	291	291	291
Mining, oil and gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	70	70	83	82	84	84	84	85	85	85	84	84	84	84	84	84	83	83	83	83	82	82	82	82	81	81
Construction	115	114	115	117	120	121	123	125	126	127	128	129	130	130	131	132	133	133	134	135	135	136	137	138	139	140
Manufacturing	515	524	532	545	555	565	568	570	572	573	574	575	576	576	576	577	576	576	576	575	574	574	573	572	570	569
Wholesale trade	75	74	72	73	72	71	71	70	70	69	68	67	66	65	64	63	62	61	61	60	59	58	57	56	56	55
Retail trade	210	208	207	211	211	212	213	214	214	214	213	213	212	211	211	210	209	208	207	206	206	205	204	204	204	203
Transportation, warehousing	45	45	49	49	49	50	51	52	53	54	55	55	56	57	57	58	59	60	60	61	62	62	63	64	65	66
Information, culture	30	30	30	29	30	30	30	31	31	31	31	30	30	30	30	30	30	30	30	29	29	29	29	29	29	
Finance, insurance	60	60	59	61	61	61	62	62	62	62	62	62	62	62	62	62	61	61	61	61	61	61	61	61	61	61
Professional, scientific, technical	65	65	65	69	67	68	69	70	71	71	72	72	73	73	74	74	74	75	75	75	76	76	77	77	78	
Other business services	65	65	65	67	68	69	70	71	71	72	72	73	73	73	73	74	74	74	75	75	75	75	76	76	77	77
Education	110	109	113	116	116	117	119	120	122	122	123	124	125	125	126	126	127	127	128	128	129	130	130	131	132	133
Health, social services	185	184	177	191	193	197	201	205	208	211	214	216	219	221	224	226	228	231	233	236	238	241	244	247	250	253
Arts, entertainment, recreation	45	45	45	44	46	47	48	48	49	49	50	50	51	51	51	52	52	52	53	53	53	54	54	55	55	56
Accommodation, food	125	124	126	123	132	135	138	141	144	146	148	150	152	154	156	158	160	162	164	166	168	170	173	175	178	180
Other services	95	94	98	99	99	99	100	101	102	102	102	102	102	102	102	102	102	102	102	101	101	101	101	102	102	102
Government	45	45	43	47	46	46	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47	47

Exhibit 8
Whitewater Region Township High Case Projection Details

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Total Population	7,000	7,054	7,074	7,220	7,332	7,415	7,510	7,595	7,667	7,732	7,794	7,847	7,896	7,943	7,989	8,034	8,075	8,113	8,150	8,186	8,224	8,260	8,296	8,333	8,372	8,412
Persons 00-14	1,200	1,218	1,245	1,269	1,319	1,345	1,374	1,413	1,445	1,463	1,496	1,518	1,559	1,561	1,583	1,596	1,607	1,620	1,634	1,646	1,659	1,670	1,682	1,693	1,706	1,719
Persons 15-24	725	743	740	777	781	806	802	807	805	818	816	823	825	843	871	890	908	935	957	964	989	1,003	1,038	1,035	1,053	1,061
Persons 25-34	705	701	676	704	715	726	759	773	801	830	851	864	859	875	865	882	867	864	856	865	860	866	867	885	913	932
Persons 35-44	745	757	765	797	831	827	851	864	848	821	815	817	809	810	804	807	827	830	851	874	891	902	896	911	900	916
Persons 45-54	985	929	866	808	768	746	741	726	750	769	778	793	808	829	856	848	867	876	856	828	821	823	814	815	809	812
Persons 55-64	1,155	1,180	1,213	1,244	1,223	1,217	1,166	1,107	1,048	1,009	975	921	863	801	760	739	732	715	738	756	764	778	793	813	839	831
Persons 65-74	865	878	881	905	948	979	991	1,036	1,049	1,080	1,078	1,104	1,137	1,159	1,132	1,127	1,073	1,015	963	928	897	845	792	736	702	685
Persons 75+	620	649	689	717	747	770	825	869	921	942	986	1,008	1,035	1,065	1,117	1,146	1,192	1,258	1,295	1,325	1,344	1,373	1,413	1,444	1,449	1,458
Persons per Unit	2.56	2.56	2.57	2.57	2.58	2.59	2.59	2.60	2.61	2.61	2.62	2.62	2.63	2.63	2.65	2.66	2.66	2.68	2.69	2.69	2.70	2.71	2.73	2.73	2.74	2.75
Total Dwelling Units	2,735	2,751	2,756	2,804	2,838	2,860	2,895	2,920	2,943	2,963	2,980	2,993	2,999	3,015	3,016	3,024	3,030	3,031	3,033	3,041	3,042	3,045	3,041	3,052	3,054	3,060
Single-Detached	2,500	2,513	2,516	2,559	2,589	2,607	2,640	2,662	2,682	2,699	2,714	2,726	2,731	2,745	2,746	2,754	2,762	2,764	2,768	2,776	2,778	2,783	2,780	2,793	2,796	,
Semi-Detached	20	19	18	18	18	18	18	18	19	20	20	20	20	21	21	21	21	21	21	21	21	21	21	21	21	21
Row	45	46	47	47	48	48	49	50	51	51	52	53	53	53	55	55	57	59	60	61	62	63	64	65	66	66
Other Single-attached	50	51	52	53	54	55	54	54	54	54	53	53	53	52	51	51	50	49	48	48	48	47	46	45	45	
Apartment, duplex	20	21	21	22	23	24	25	26	27	28	28	29	30	31	31	32	32	32	32	32	32	32	32	32	31	
Apartments less than 5 storeys	55	56	56	57	57	58	58	59	59	59	59	59	60	60	59	59	59	59	59	59	59	59	59	58	58	58
Apartments 5 storeys or more	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Movable	45	46	46	47	49	50	50	52	52	52	52	53	53	54	52	52	50	47	45	44	43	41	39	37	36	35
Population 15+	5,800	5,836	5,830	5,951	6,013	6,071	6,136	6,182	6,221	6,269	6,298	6,329	6,336	6,381	6,405	6,439	6,467	6,493	6,516	6,540	6,566	6,589	6,614	6,640	6,666	6,694
Labour Force Source Population	5.635	5.670	5.664	5.782	5.842	5.898	5.961	6.006	6.044	6.091	6.119	6.149	6.156	6.200	6.223	6.256	6.283	6.308	6.331	6.354	6.379	6.402	6.426	6.451	6.477	6.503
Participation Rate (%)	64.4	63.6	63.9	63.2	64.2	64.1	64.2	64.4	64.6	64.7	64.9	65.1	65.4	65.3	65.5	65.5	65.6	65.6	65.7	65.8	65.8	65.9	65.9	66.0	66.0	66.0
Labour Force	3.630	3.605	3.622	3.654	3.751	3.778	3.826	3.870	3.906	3.940	3.972	4.002	4.027	4.051	4.074	4.098	4.121	4.140	4.159	4.178	4.197	4.217	4.236	4.255	4.275	4,295
Employed	3.335	3.367	3.399	3,494	3.519	3.564	3.605	3.639	3.670	3.699	3.728	3,751	3.773	3,795	3.817	3.839	3,857	3.874	3.892	3.910	3.928	3.946	3,963	3.982	4.001	4.021
Unemployed	295	238	223	160	231	214	222	231	236	241	244	251	254	256	257	259	264	266	267	268	269	272	272	273	274	274
Unemployment Rate (%)	8.1	7.5	7.0	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Employed Residents minus EPOW	1,215	1,240	1,241	1,275	1,271	1,280	1,291	1,302	1,314	1,326	1,338	1,348	1,357	1,367	1,376	1,386	1,393	1,400	1,408	1,415	1,422	1,428	1,433	1,438	1,443	1,449
Employed by Place-of-Work (EPOW)	2,120	2,126	2,159	2,219	2,249	2,284	2,314	2,337	2,356	2,373	2,389	2,403	2,416	2,429	2,441	2,453	2,464	2,474	2,484	2,495	2,506	2,518	2,530	2,544	2,558	2,572
Agriculture, forestry	265	269	274	286	284	289	291	293	295	297	298	299	301	302	303	304	305	305	306	307	307	308	308	309	309	309
Mining, oil and gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	70	70	83	83	85	85	86	86	86	86	86	87	87	87	87	87	87	87	87	86	86	86	86	86	86	
Construction	115	114	115	118	121	122	125	127	128	130	131	132	133	134	135	137	138	139	140	141	142	143	144	146	147	149
Manufacturing	515	525	534	549	560	572	577	580	583	586	588	591	593	595	596	598	600	601	602	603	603	604	605	605	605	
Wholesale trade	75	74	73	74	72	72	72	71	71	70	70	69	68	67	66	66	65	64	63	62	62	61	60	60	59	
Retail trade	210	209	208	212	212	214	216	217	218	218	218	218	218	218	218	217	217	217	216	216	216	216	215	216	216	
Transportation, warehousing	45	45	49	50	50	51	52	53	54	55	56	57	58	59	59	60	61	62	63	64	65	66	67	68	69	
Information, culture	30	30	30	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	
Finance, insurance	60	60	59	61	61	62	62	63	63	63	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
Professional, scientific, technical	65	65	65	69	68	69	70	71	72	73	74	74	75	75	76	77	77	78	78	79	79	80	81	82	82	
Other business services	65	65	65	68	69	70	71	72	72	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	81	82
Education	110	109	113	116	117	118	121	122	124	125	126	127	128	129	130	131	132	133	133	134	135	136	137	139	140	
Health, social services	185	184	178	192	195	199	204	208	212	215	218	222	225	228	231	234	237	240	243	246	250	253	257	261	265	
Arts, entertainment, recreation	45	45	45	44	46	47	48	49	50	50	51	51	52	52	53	54	54	54	55	55	56	57	57	58	58	59
Accommodation, food	125	124	126	124	133	137	140	143	146	149	152	154	157	159	161	164	166	169	171	174	176	179	182	185	188	191
Other services	95	94	98	99	100	100	102	103	103	104	104	105	105	105	105	106	106	106	106	106	106	107	107	107	108	
Government	45	45	43	47	46	47	47	48	48	48	48	48	49	49	49	49	49	49	49	49	49	49	49	49	49	50

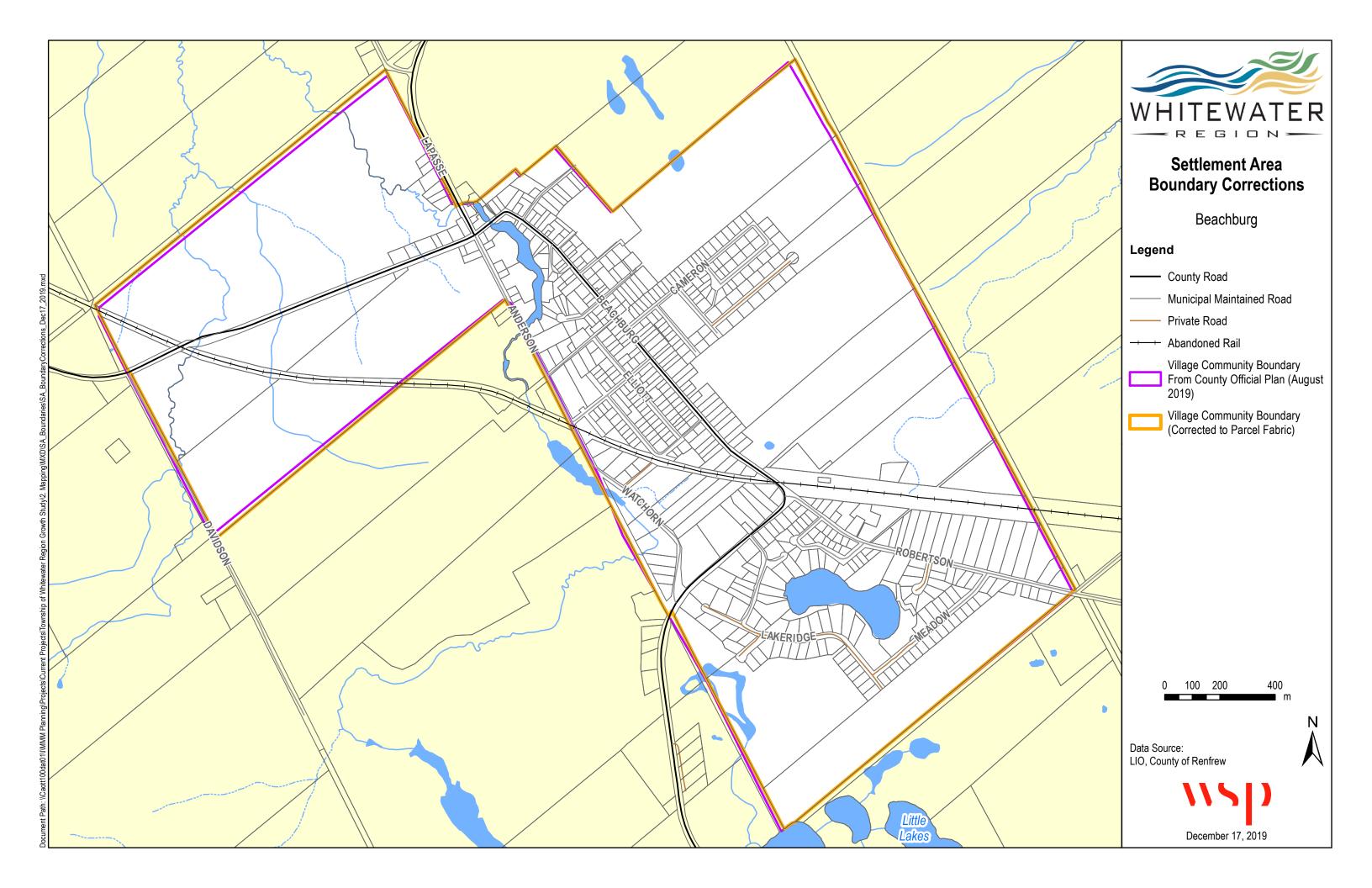
Exhibit 9 Whitewater Region Township Low Case Projection Details

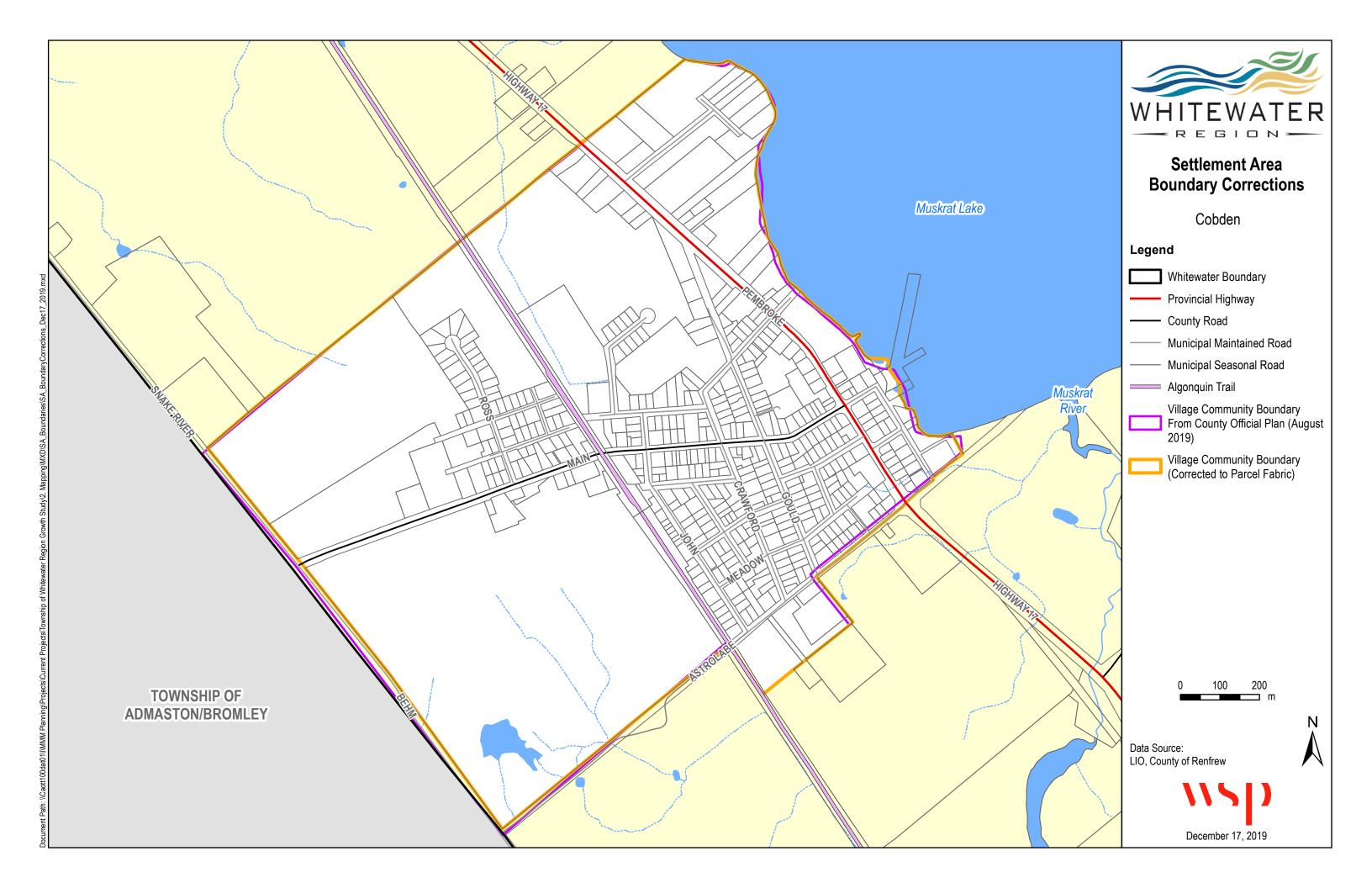
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041
Total Population	7,000	7,039	7,031	7,143	7,219	7,266	7,323	7,369	7,403	7,429	7,451	7,464	7,473	7,480	7,486	7,492	7,492	7,490	7,486	7,483	7,480	7,475	7,470	7,466	7,464	7,462
Persons 00-14	1,200	1,215	1,236	1,253	1,295	1,312	1,331	1,359	1,380	1,386	1,407	1,416	1,445	1,434	1,443	1,442	1,441	1,440	1,442	1,443	1,445	1,447	1,450	1,453	1,458	1,463
Persons 15-24	725	740	734	767	768	789	782	783	778	788	782	786	785	799	824	839	853	876	892	894	912	919	946	934	943	941
Persons 25-34	705	696	662	680	680	682	706	711	731	754	770	778	770	783	770	785	768	763	753	759	752	755	754	768	793	808
Persons 35-44	745	755	758	785	812	801	818	823	797	761	745	738	720	711	696	690	702	698	712	730	743	750	741	753	741	754
Persons 45-54	985	928	863	802	760	736	728	709	730	745	751	761	771	787	808	794	806	807	779	742	725	717	699	691	676	670
Persons 55-64	1,155	1,179	1,210	1,239	1,216	1,208	1,155	1,094	1,033	993	957	900	840	776	733	709	700	680	701	715	720	730	740	755	775	761
Persons 65-74	865	878	879	901	943	972	983	1,026	1,037	1,067	1,062	1,087	1,118	1,138	1,110	1,103	1,048	988	934	897	865	812	756	699	663	643
Persons 75+	620	649	688	716	745	766	821	864	915	935	977	998	1,024	1,052	1,103	1,130	1,174	1,238	1,274	1,302	1,319	1,346	1,384	1,413	1,416	1,422
Persons per Unit	2.56	2.56	2.56	2.57	2.58	2.58	2.58	2.59	2.59	2.59	2.59	2.60	2.61	2.60	2.62	2.62	2.63	2.64	2.65	2.65	2.66	2.67	2.68	2.68	2.69	2.70
Total Dwelling Units	2,735	2,746	2,743	2,780	2,802	2,812	2,836	2,849	2,860	2,868	2,873	2,874	2,868	2,872	2,861	2,857	2,852	2,840	2,830	2,825	2,814	2,805	2,788	2,786	2,774	2,767
Single-Detached	2,500	2,508	2,503	2,536	2,555	2,562	2,584	2,595	2,603	2,609	2,613	2,613	2,606	2,609	2,599	2,596	2,592	2,583	2,575	2,572	2,563	2,556	2,542	2,543	2,533	2,529
Semi-Detached	20	19	18	18	17	17	17	17	18	18	19	19	19	19	19	19	19	19	19	18	18	18	18	18	18	18
Row	45	46	47	47	48	48	49	49	50	51	52	52	52	52	53	54	55	57	58	59	59	60	61	62	63	63
Other Single-attached	50	51	51	53	53	54	54	53	53	53	52	52	51	51	50	49	48	47	46	45	45	44	43	42	42	41
Apartment, duplex	20	21	21	22	23	24	25	26	27	27	28	29	29	30	31	31	31	31	31	31	31	31	31	31	30	30
Apartments less than 5 storeys	55	56	56	57	57	58	58	58	58	58	58	58	58	58	58	58	57	57	57	56	56	56	55	55	55	54
Apartments 5 storeys or more	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Movable	45	46	46	47	49	50	50	51	51	52	51	52	53	53	51	51	48	46	44	42	41	39	37	35	34	33
Population 15+	5.800	5.824	5.795	5.890	5.924	5.954	5.992	6.011	6.022	6.043	6.045	6.048	6.028	6.047	6.044	6.050	6.051	6.049	6.044	6.039	6.035	6.027	6.020	6.013	6.006	5.999
Labour Force Source Population	5.635	5.658	5.630	5.722	5.756	5.785	5.822	5.840	5.851	5.871	5.873	5.876	5.857	5.875	5.872	5.878	5.879	5.877	5.872	5.867	5.863	5.856	5.849	5.842	-,	-,
Participation Rate (%)	64.4	63.7	64.1	63.3	64.3	64.1	64.2	64.4	64.6	64.6	64.8	64.9	65.2	65.1	65.2	65.1	65.2	65.2	65.2	65.2	65.3	65.3	65.4	65.4	65.5	-,
Labour Force	3.630	3.605	3.608	3.622	3.701	3.710	3.739	3.763	3.780	3,793	3.805	3.815	3.820	3.823	3.826	3.829	3.832	3.831	3.829	3.827	3.826	3.825	3.822	3.820		
Employed	3.335	3,353	3,370	3,448	3,456	3,483	3,505	3,521	3,534	3.544	3,554	3,558	3,561	3,564	3,567	3,569	3,568	3,567	3,565	3,564	3,563	3,560	3,559	3,557	3,557	3,557
Unemployed	295	252	237	175	245	227	234	242	246	249	251	257	258	259	260	260	264	264	264	264	263	264	264	263	262	262
Unemployment Rate (%)	8.1	7.5	7.0	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	
Employed Residents minus EPOW	1,215	1,234	1,228	1,255	1,245	1,248	1,252	1,257	1,262	1,267	1,273	1,275	1,278	1,280	1,283	1,285	1,286	1,286	1,286	1,287	1,287	1,285	1,284	1,282	1,280	1,278
Employed by Place-of-Work (EPOW)	2,120	2,120	2,142	2,192	2,211	2,235	2,253	2,264	2,271	2,277	2,281	2,283	2,284	2,284	2,284	2,284	2,283	2,281	2,279	2,277	2,276	2,275	2,275	2,276	2,277	2,278
Agriculture, forestry	265	267	271	282	279	282	283	283	284	284	284	284	283	283	283	282	282	281	280	279	278	277	276	275	274	273
Mining, oil and gas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Utilities	70	70	83	82	83	83	83	83	83	83	82	82	82	81	81	81	80	80	79	79	78	78	77	77	77	76
Construction	115	114	115	117	119	120	122	123	124	125	125	126	126	127	127	127	128	128	128	129	129	129	130	130	131	132
Manufacturing	515	523	529	541	549	559	560	561	561	561	560	560	559	558	557	556	554	553	551	549	547	545	542	540	537	535
Wholesale trade	75	74	72	73	71	70	70	69	68	68	67	65	64	63	62	61	60	59	58	57	56	55	54	53	53	52
Retail trade	210	208	206	209	209	209	210	211	210	209	209	208	206	205	204	203	201	200	199	197	196	195	194	193	192	192
Transportation, warehousing	45	45	49	49	49	50	51	51	52	53	53	54	55	55	56	56	57	57	58	58	59	59	60	61	61	62
Information, culture	30	30	30	29	30	30	30	30	30	30	30	30	30	29	29	29	29	29	28	28	28	28	28	28	27	27
Finance, insurance	60	60	59	60	60	60	61	61	61	61	61	61	60	60	60	59	59	59	59	58	58	58	58	57	57	57
Professional, scientific, technical	65	65	64	68	67	67	68	69	70	70	70	71	71	71	71	71	72	72	72	72	72	72	73	73	73	74
Other business services	65	65	64	67	68	68	69	70	70	70	71	71	71	71	71	71	71	71	71	72	72	72	72	72	72	73
Education	110	109	112	115	115	116	118	119	119	120	121	121	121	122	122	122	122	122	123	123	123	123	124	124	125	125
Health, social services	185	184	176	189	192	195	199	202	204	207	209	211	213	215	216	218	220	222	223	225	227	229	231	234	236	
Arts, entertainment, recreation	45	45	45	43	46	46	47	48	48	48	49	49	49	49	50	50	50	50	50	51	51	51	51	52	52	52
Accommodation, food	125	124	125	122	131	134	137	139	141	143	145	147	148	150	151	153	154	156	157	159	160	162	164	166	168	
Other services	95	94	97	98	98	98	99	100	100	100	100	100	99	99	99	98	98	98	97	97	97	96	96	96	96	
		45	43	47	46	46	46	46	0			0	46				-0	-0	45	45	45	44		44	44	

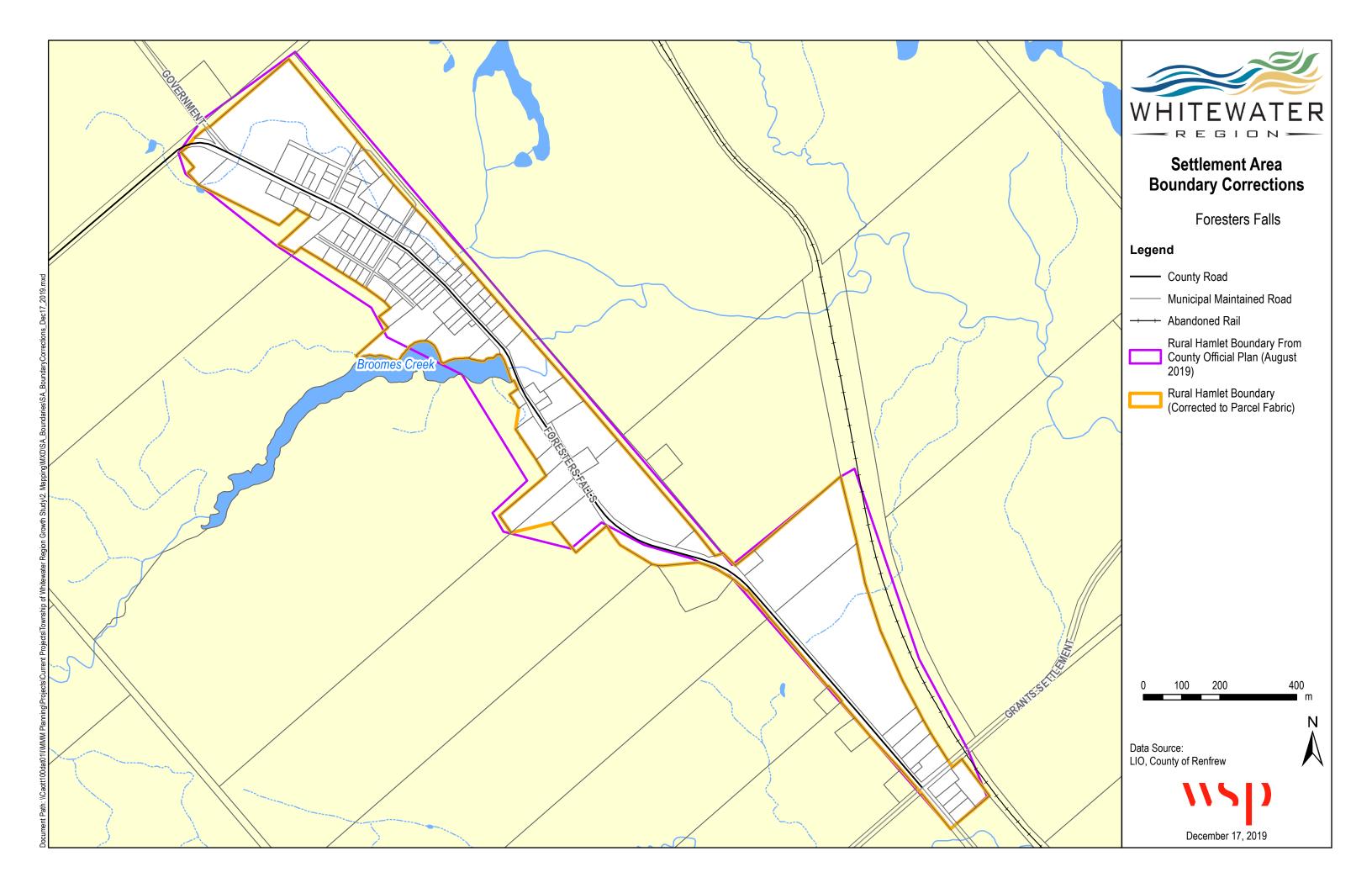
APPENDIX

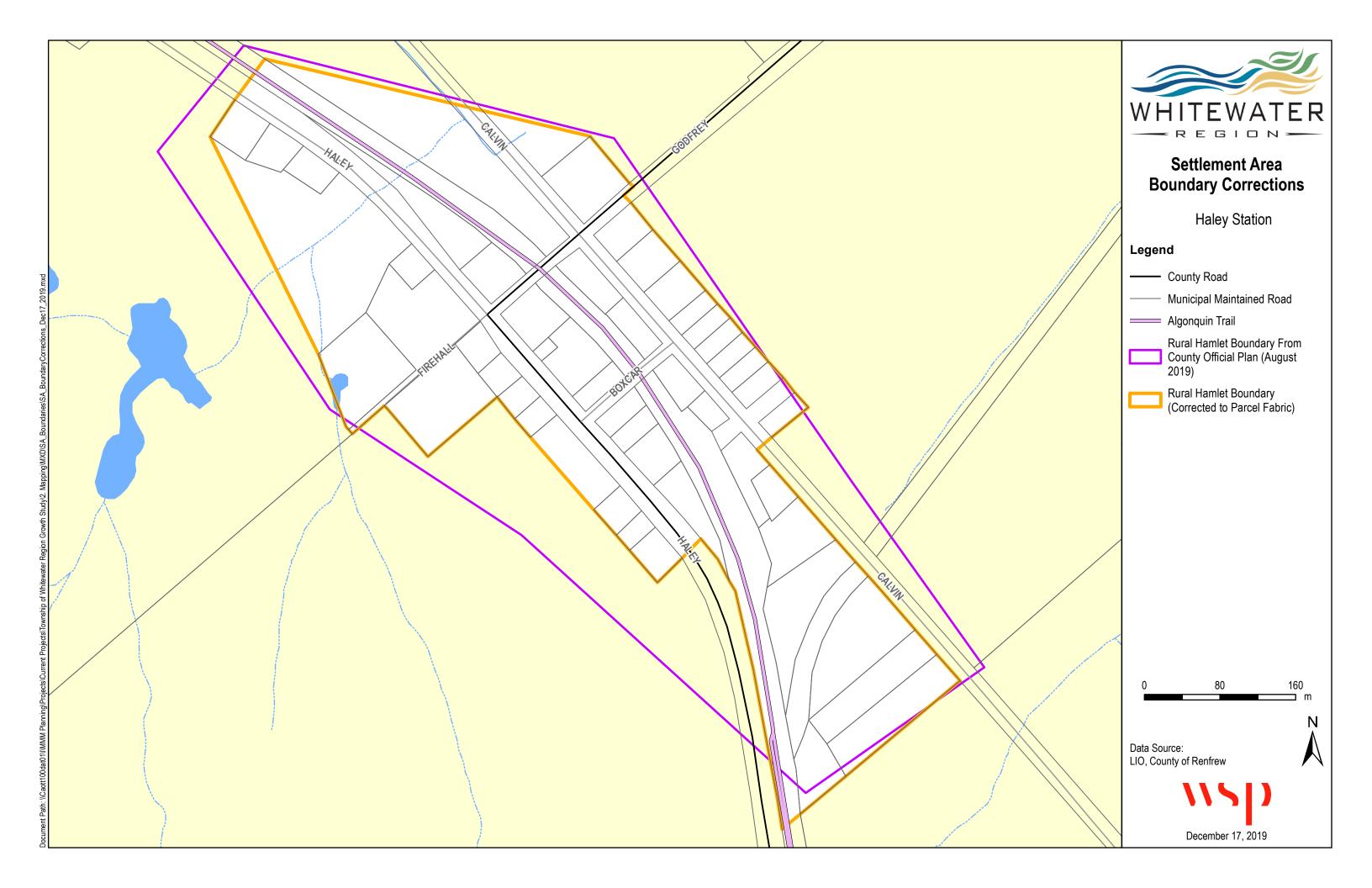


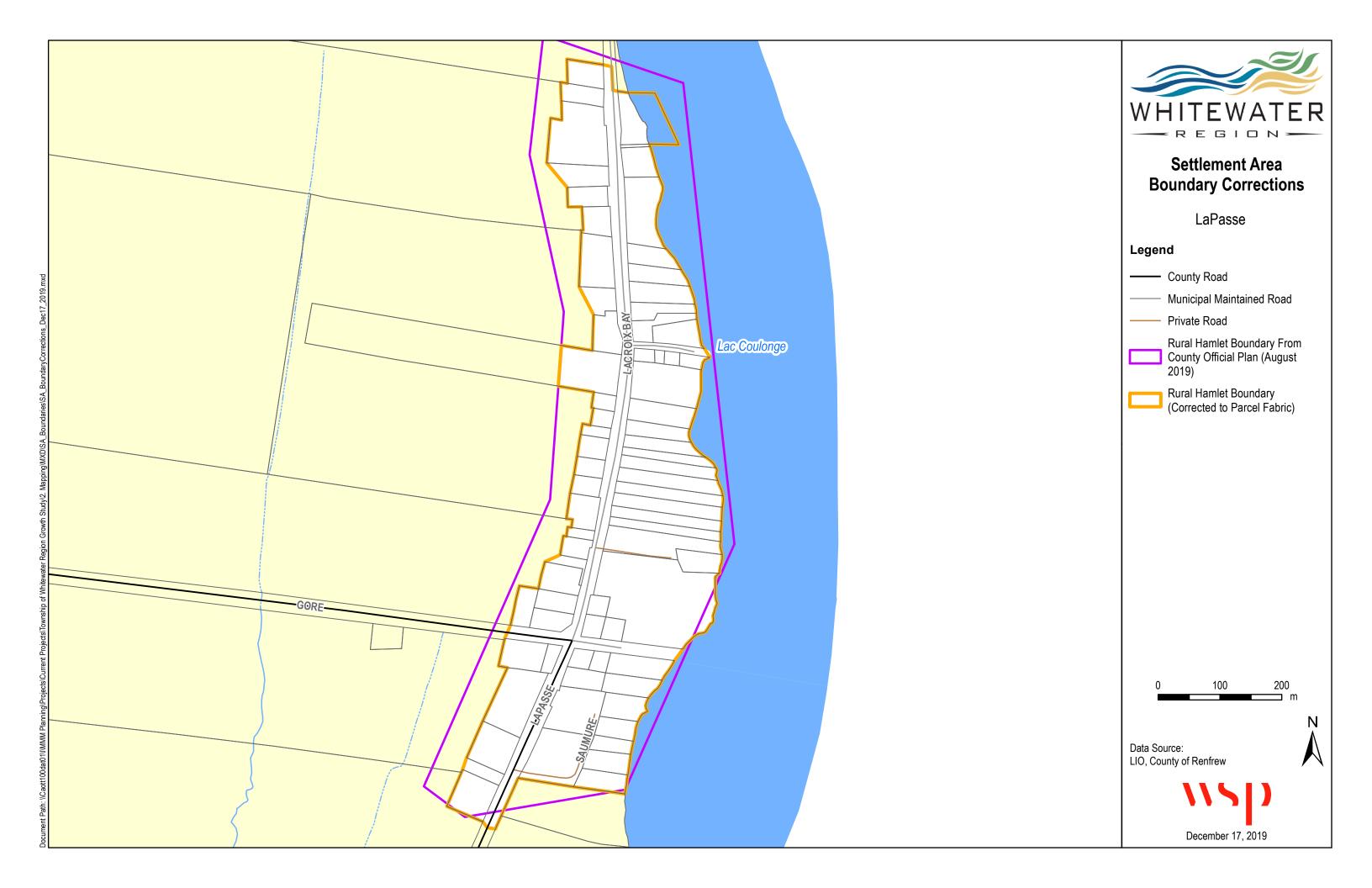
SETTLEMENT AREA BOUNDARY CORRECTIONS

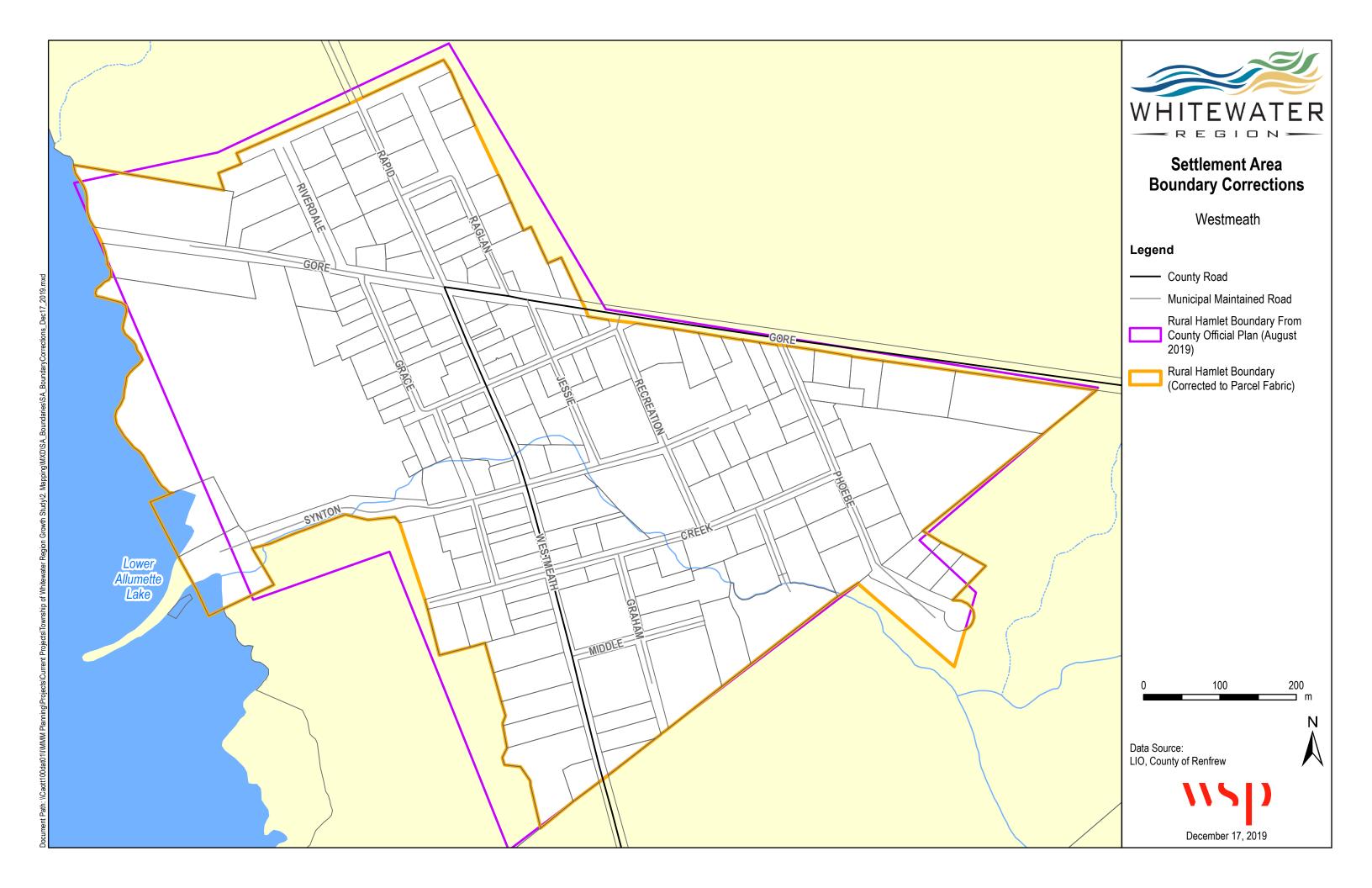








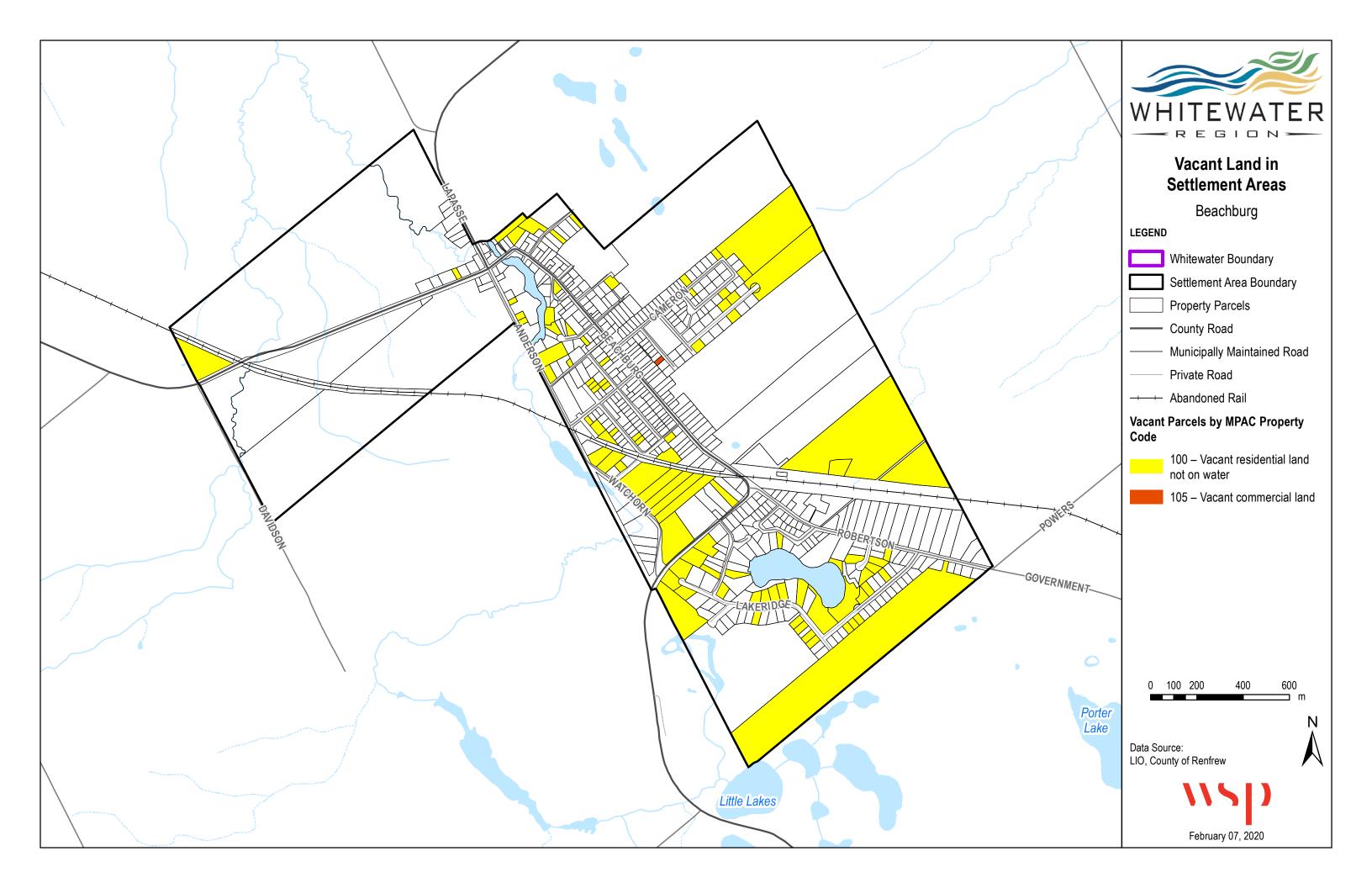


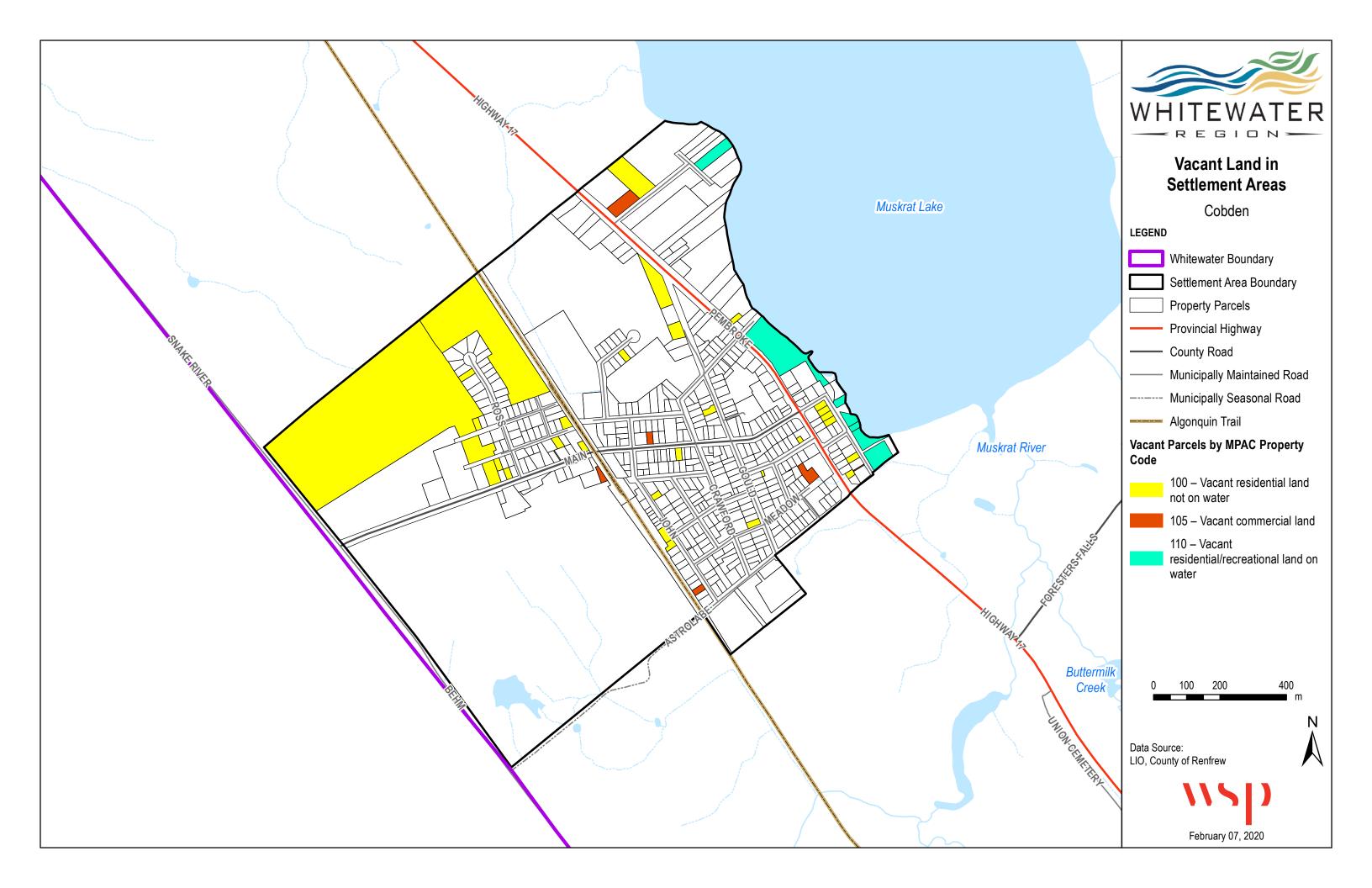


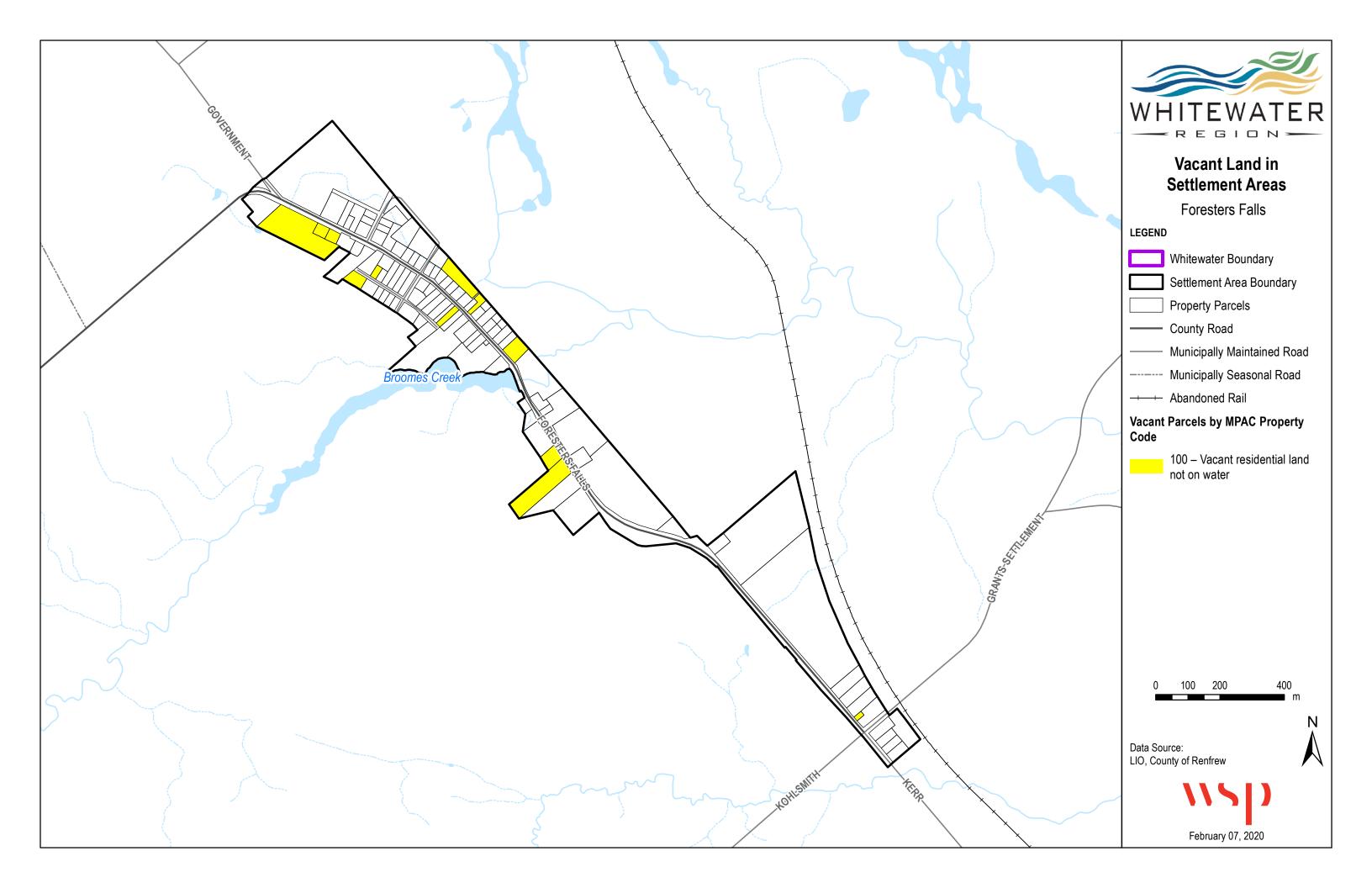
APPENDIX

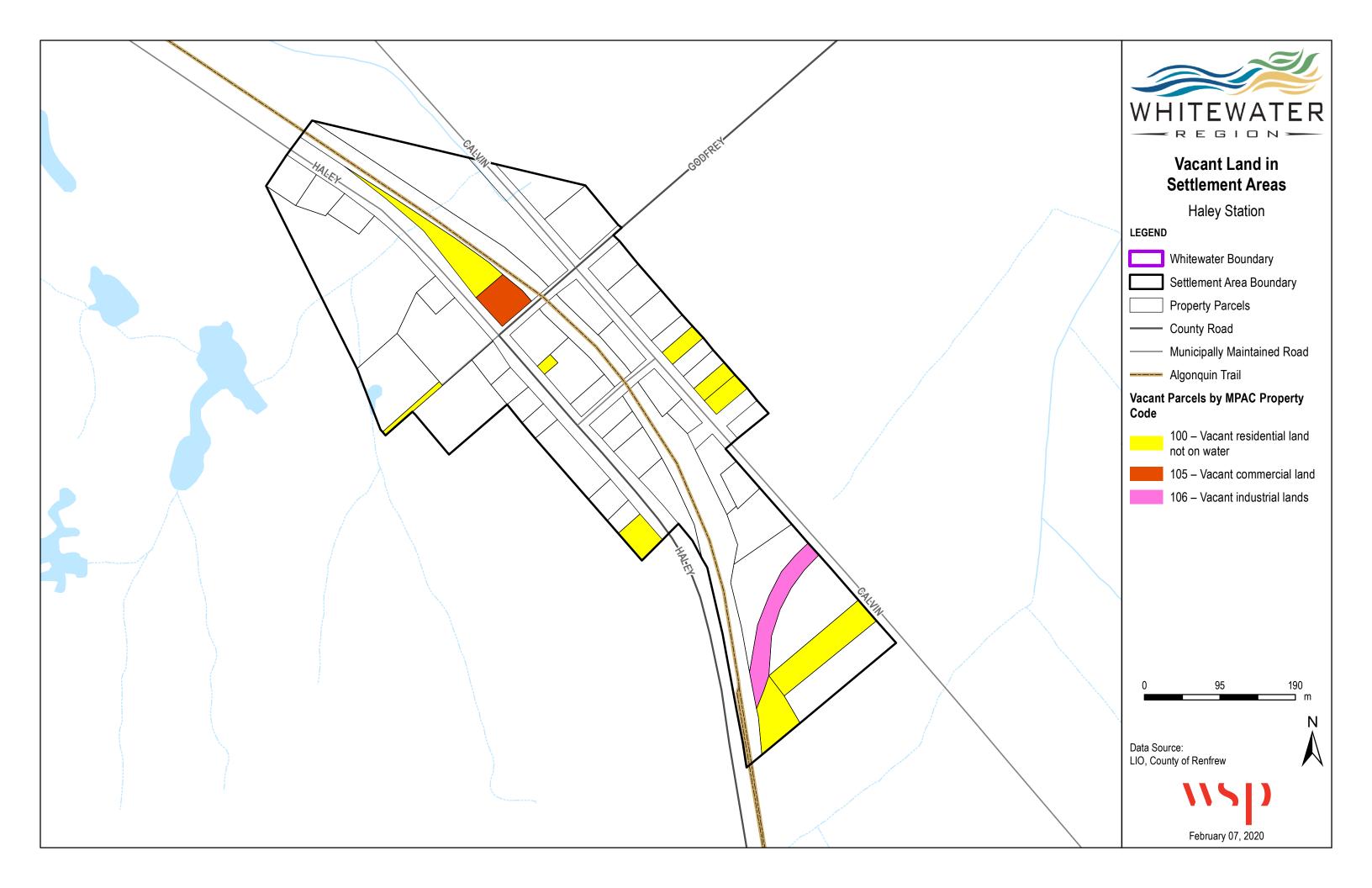


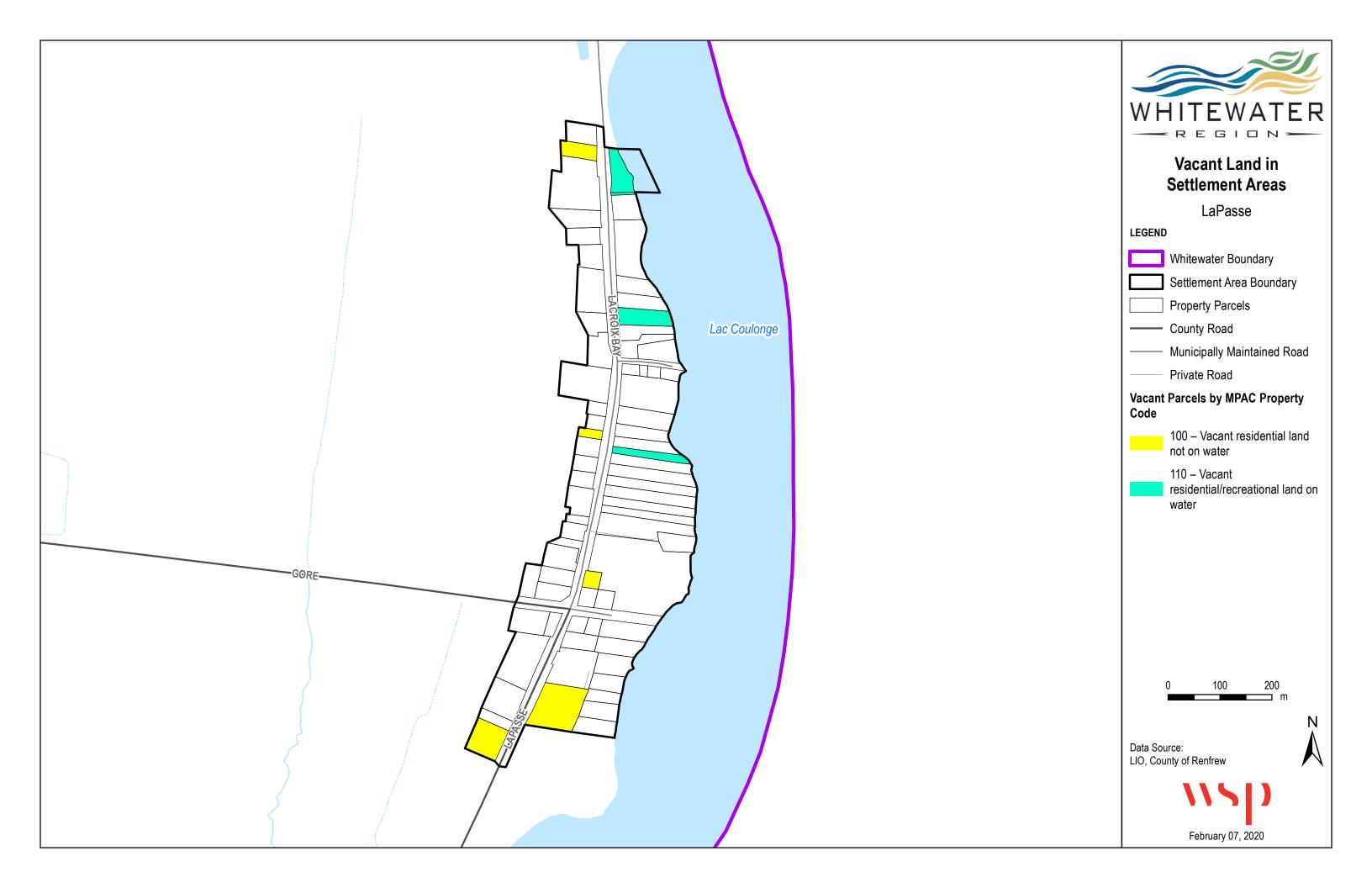
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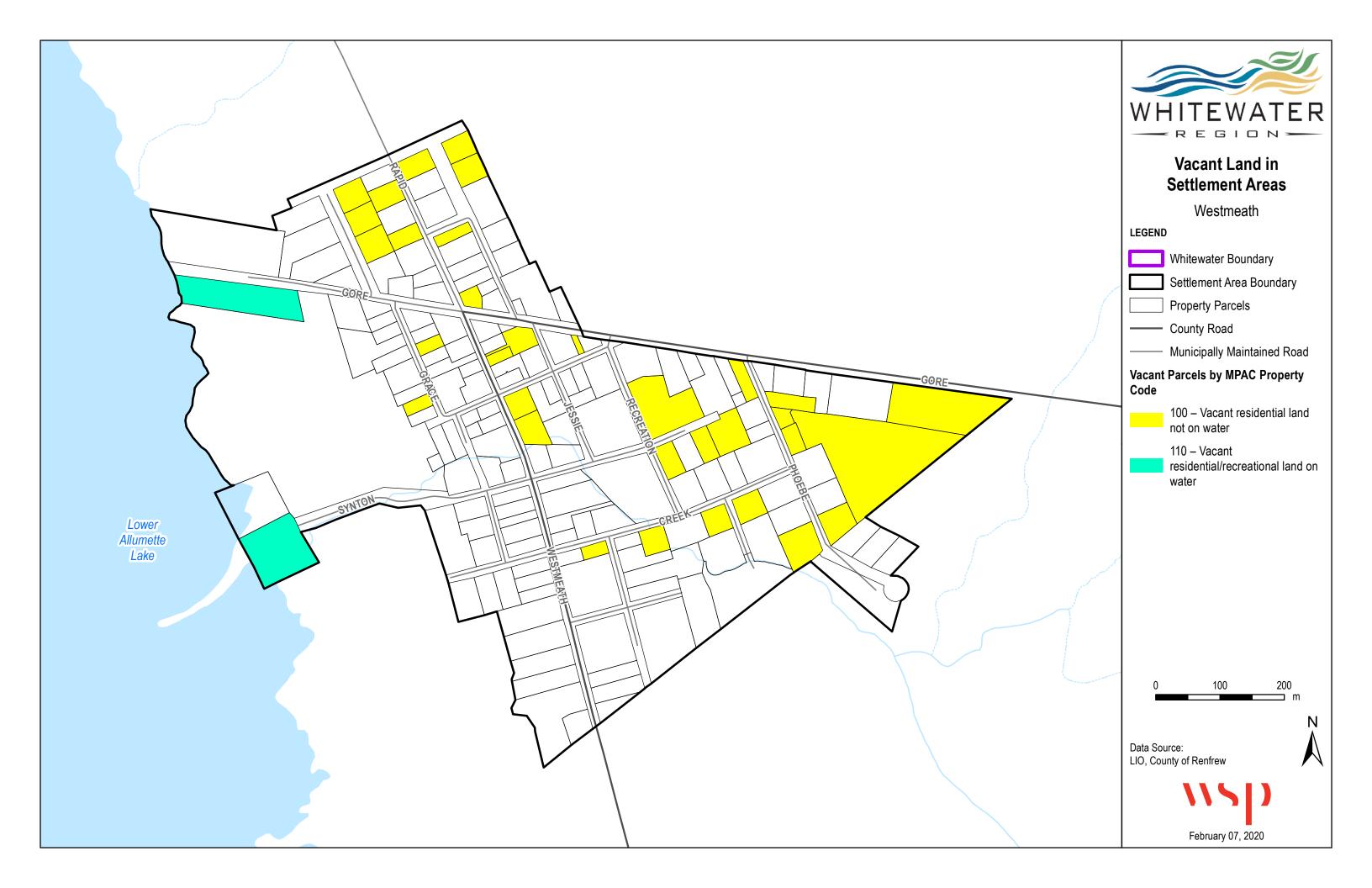




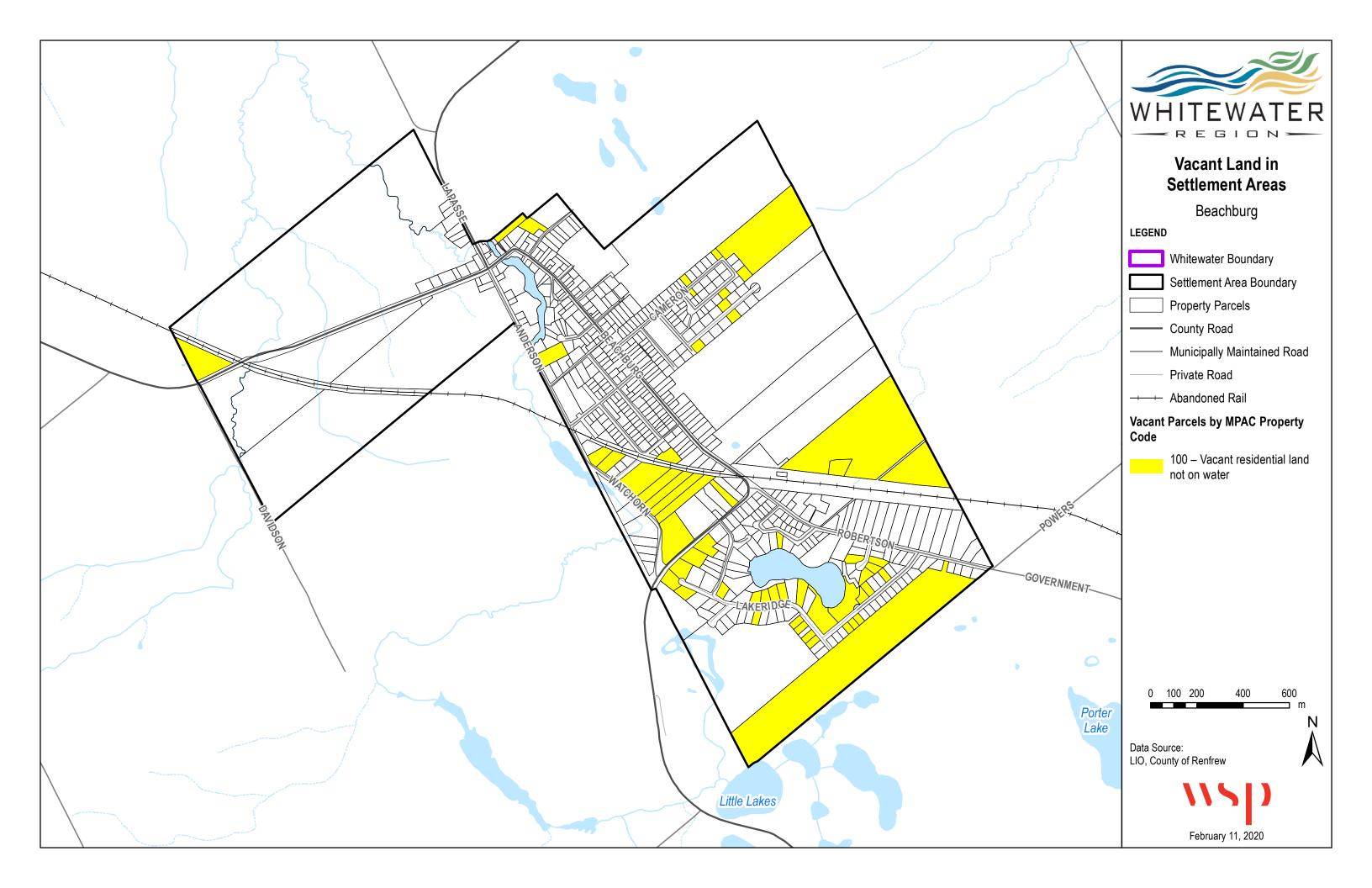


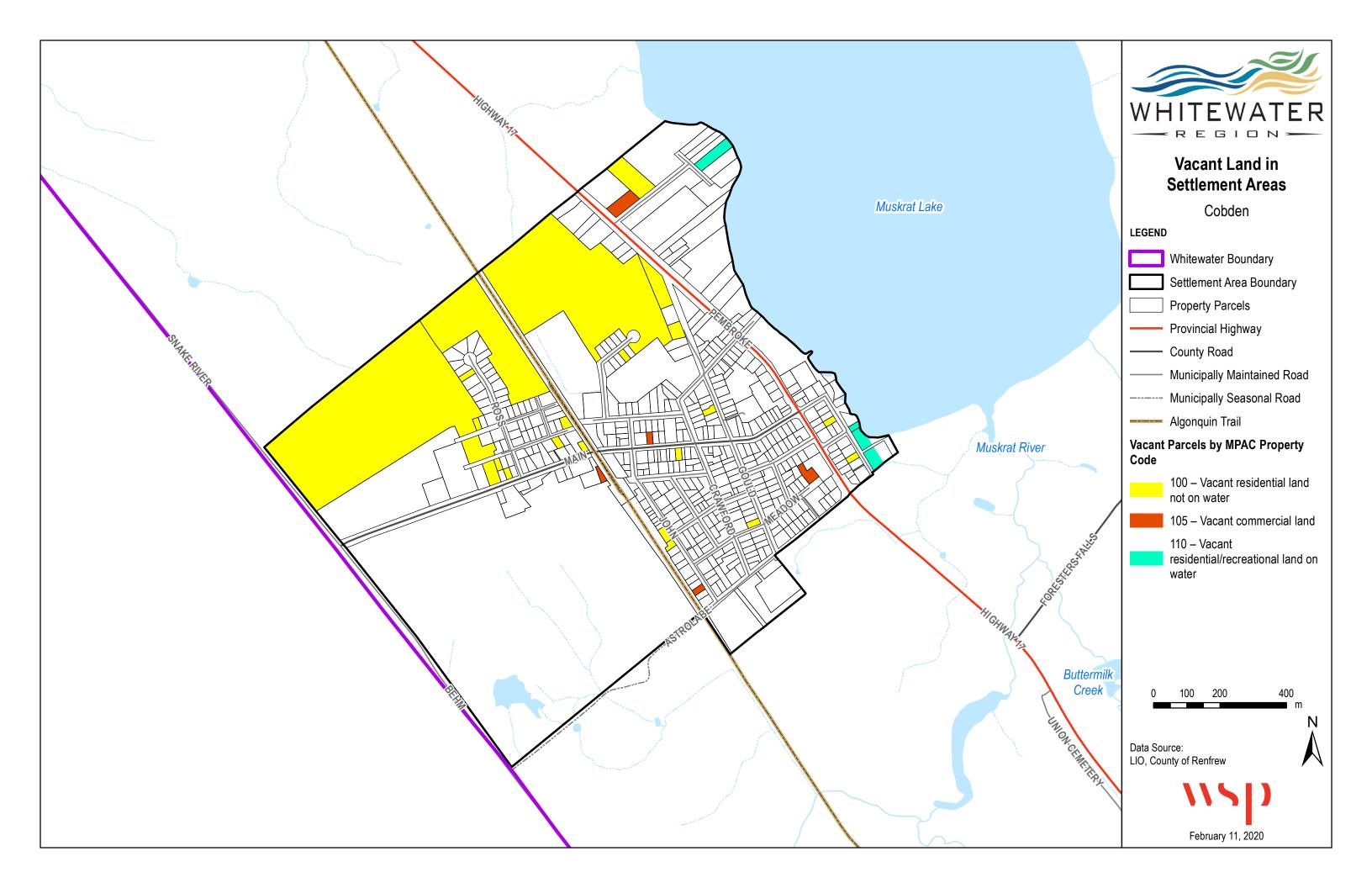


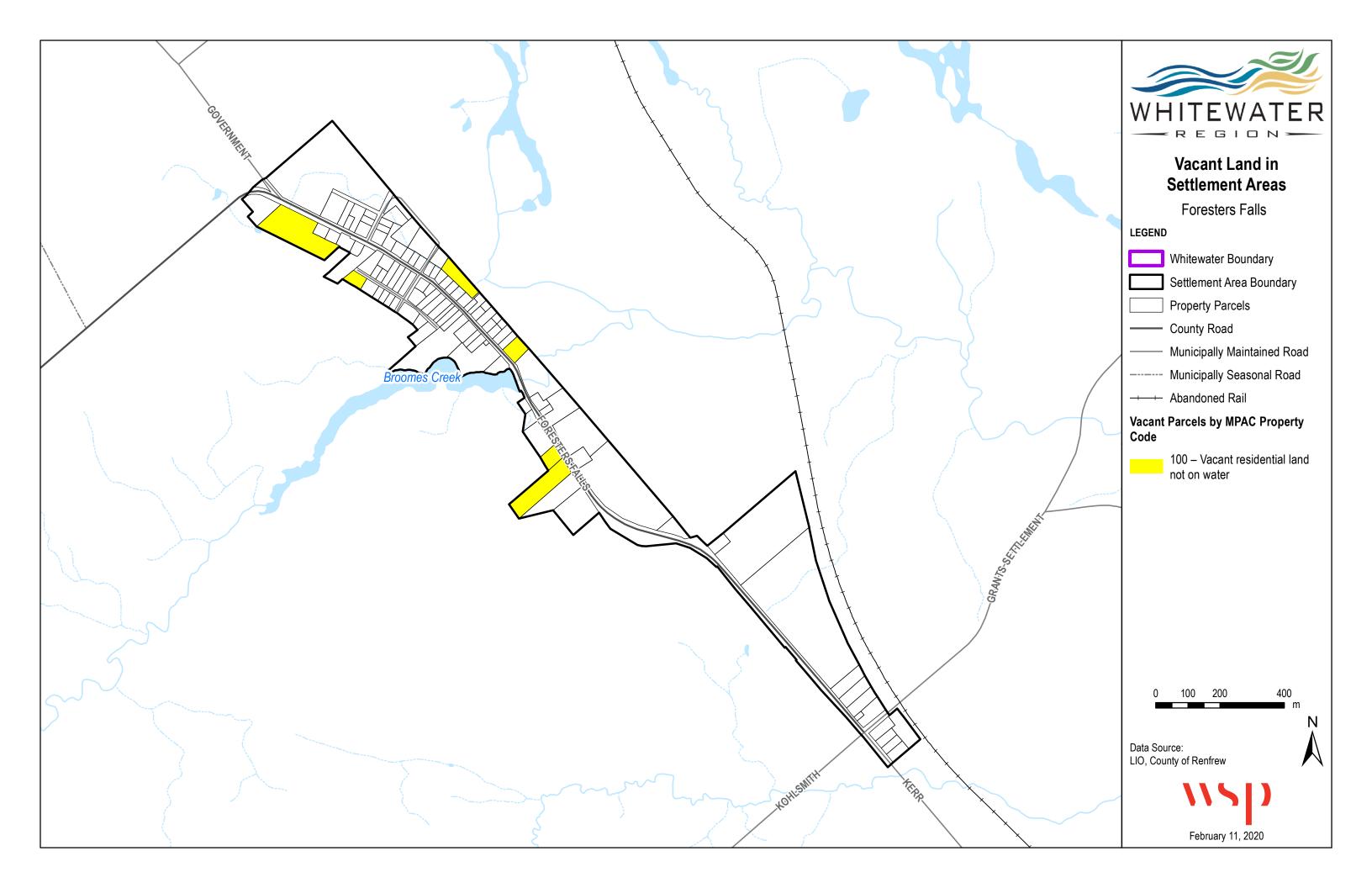


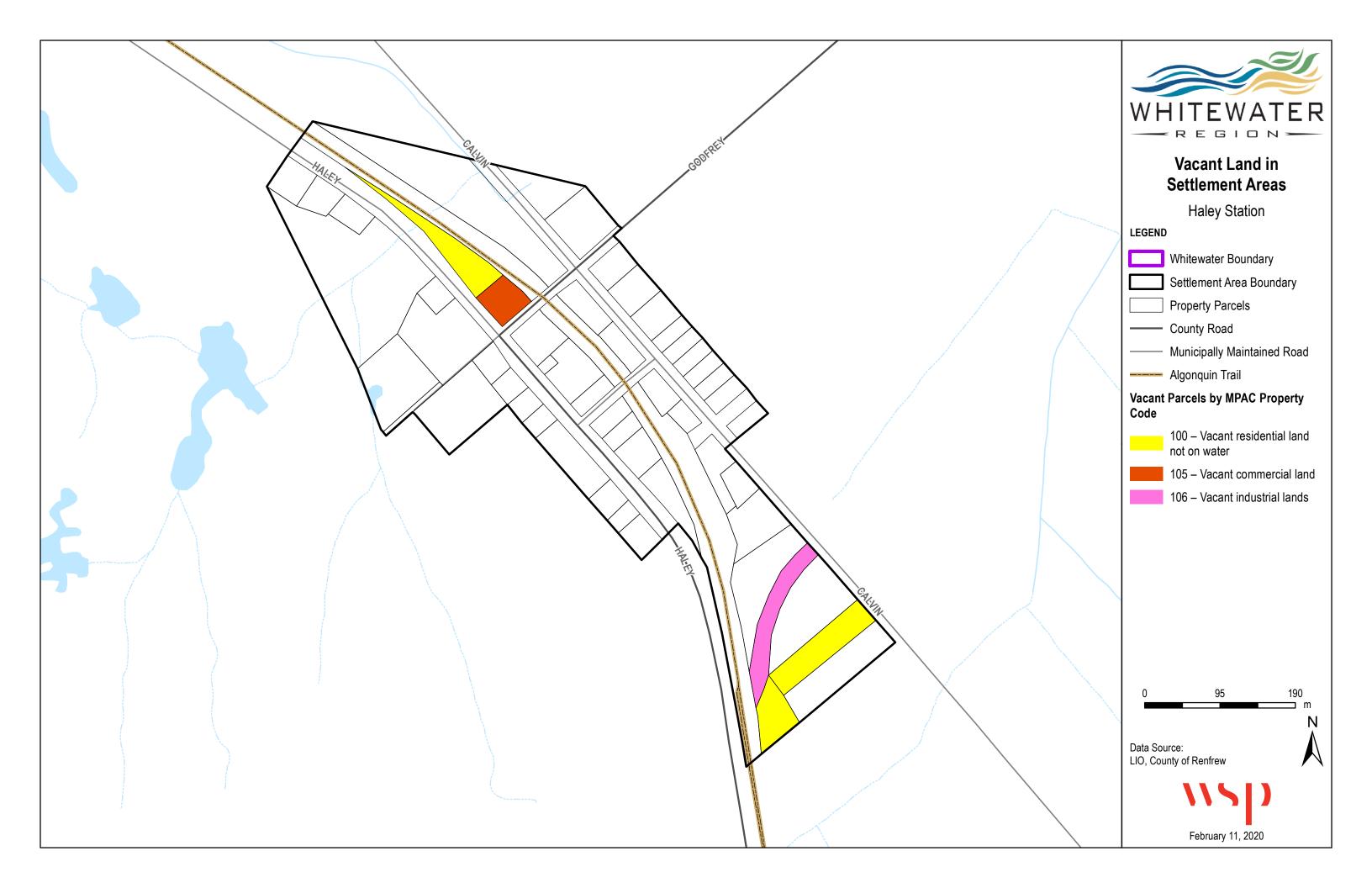


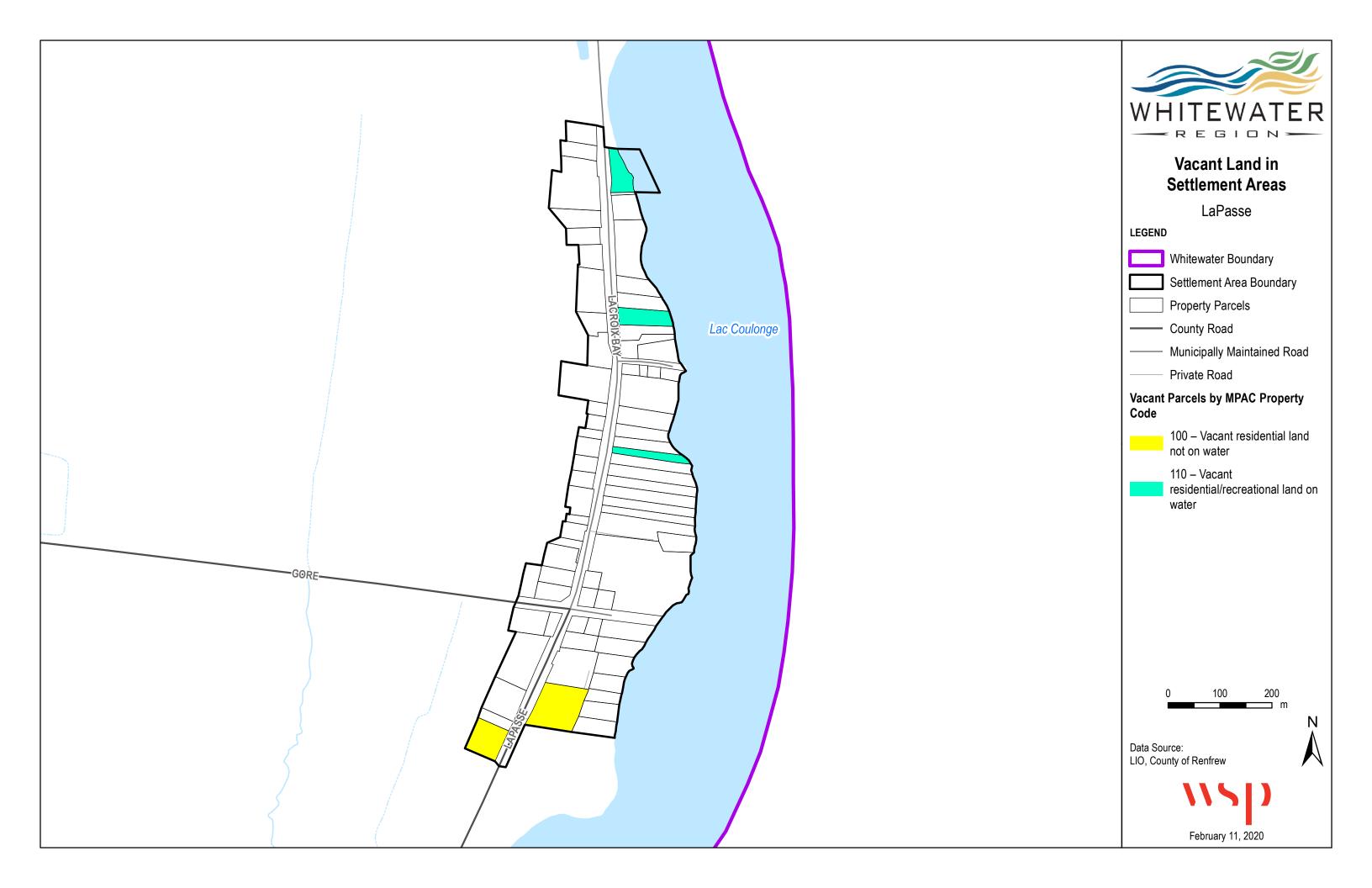
VACANT LAND SUPPLY –
PROPERTIES THAT MEET ZONING
REQUIREMENTS FOR MINIMUM LOT
AREA

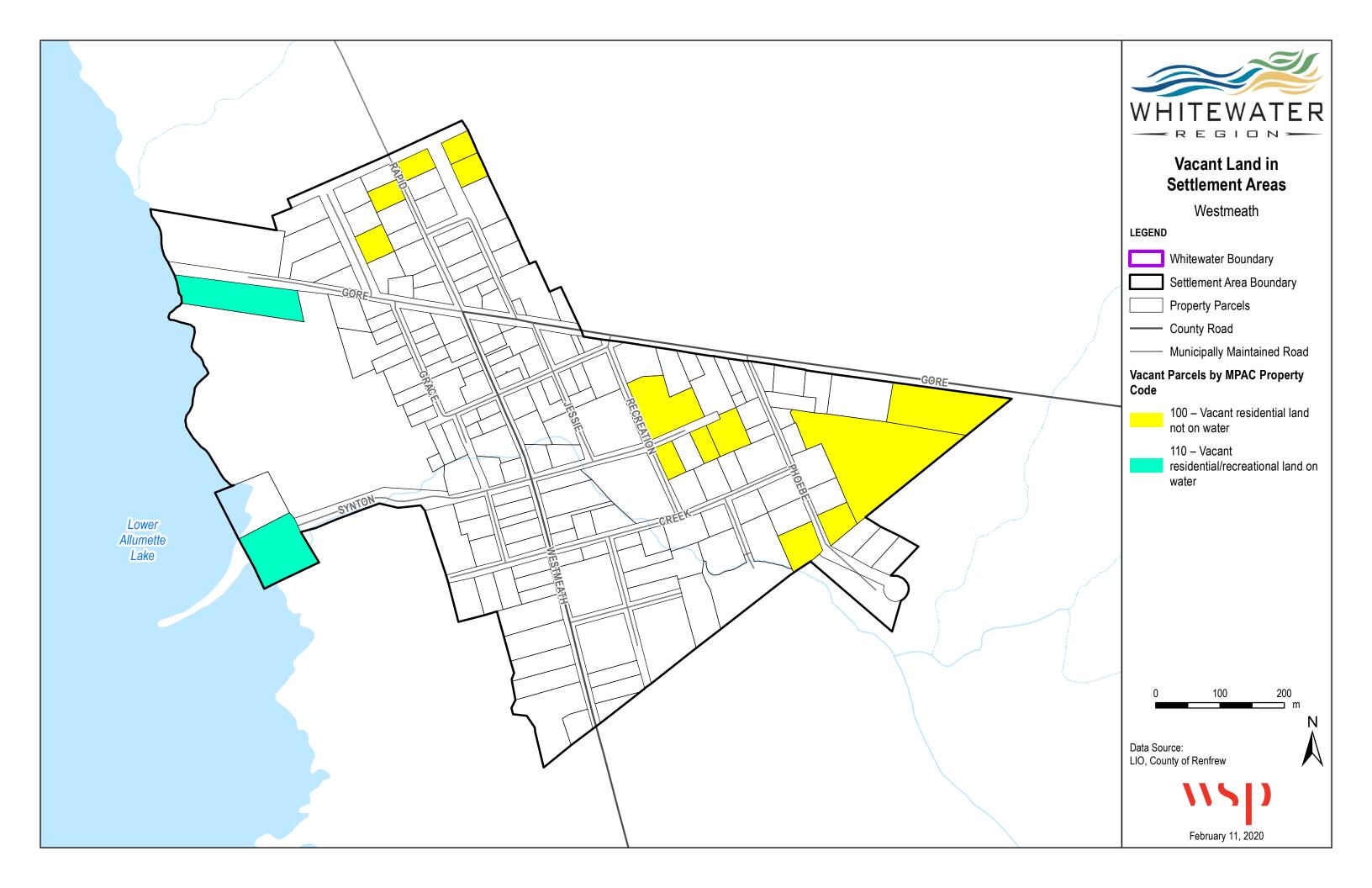






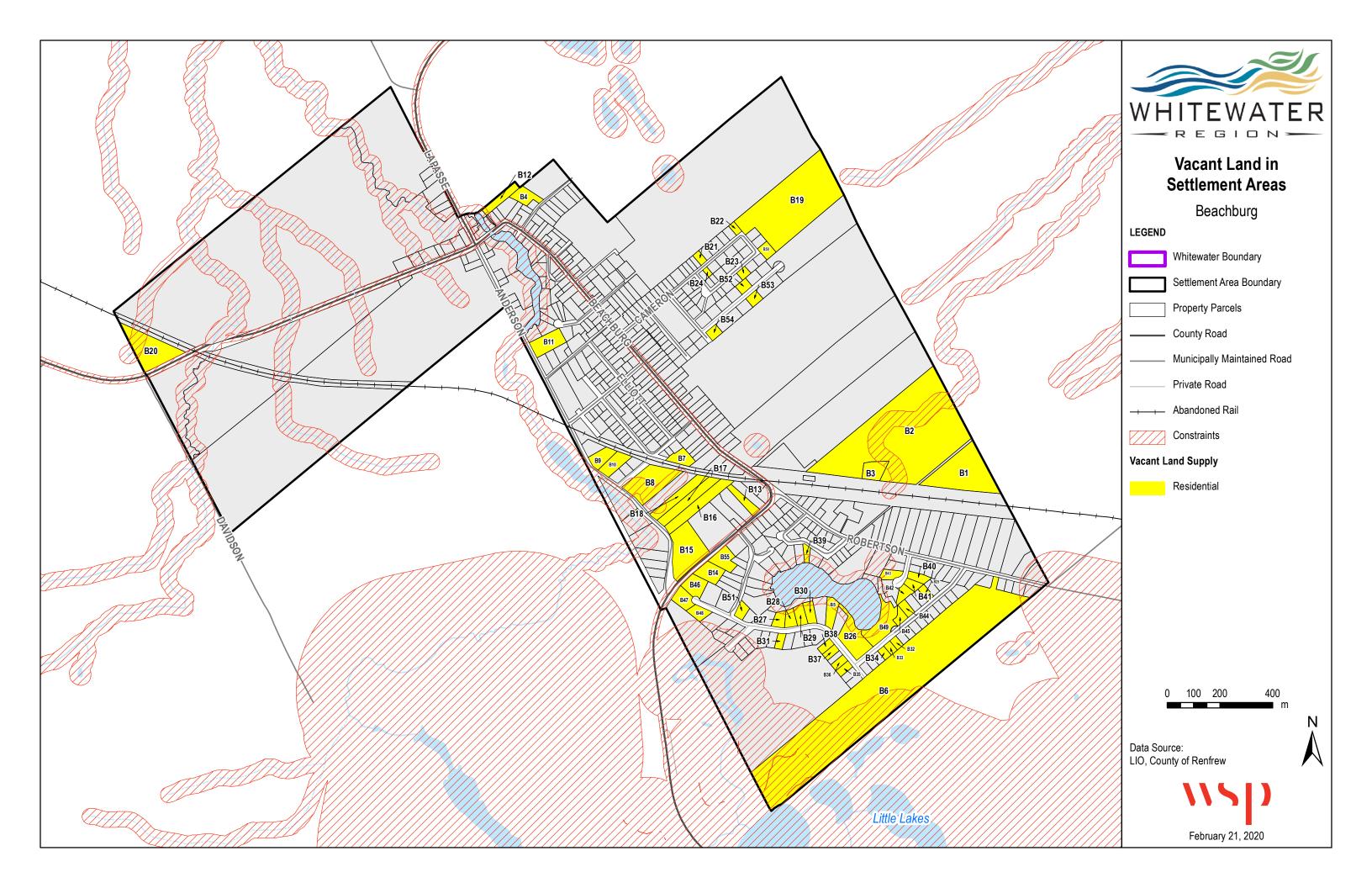


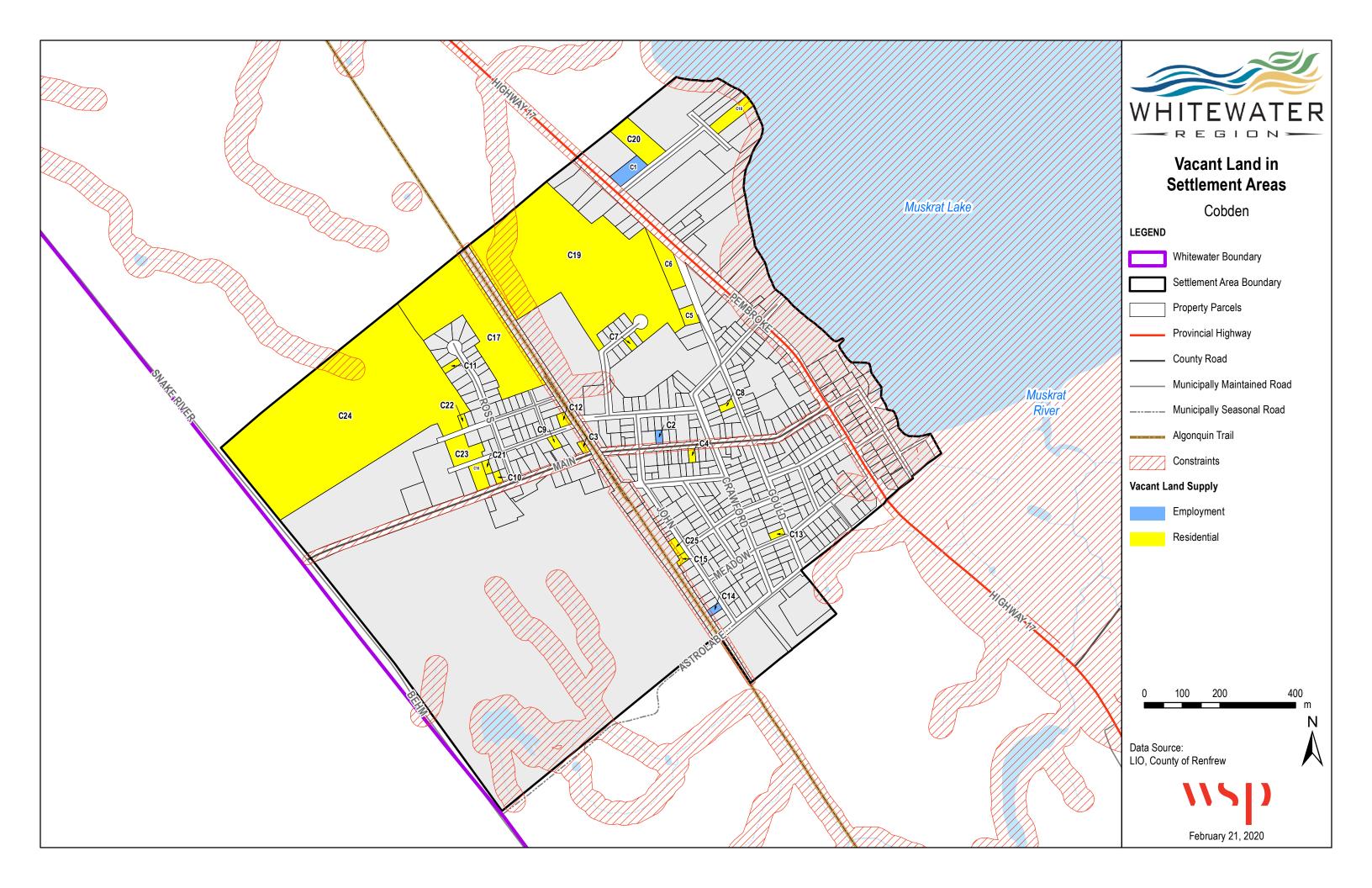


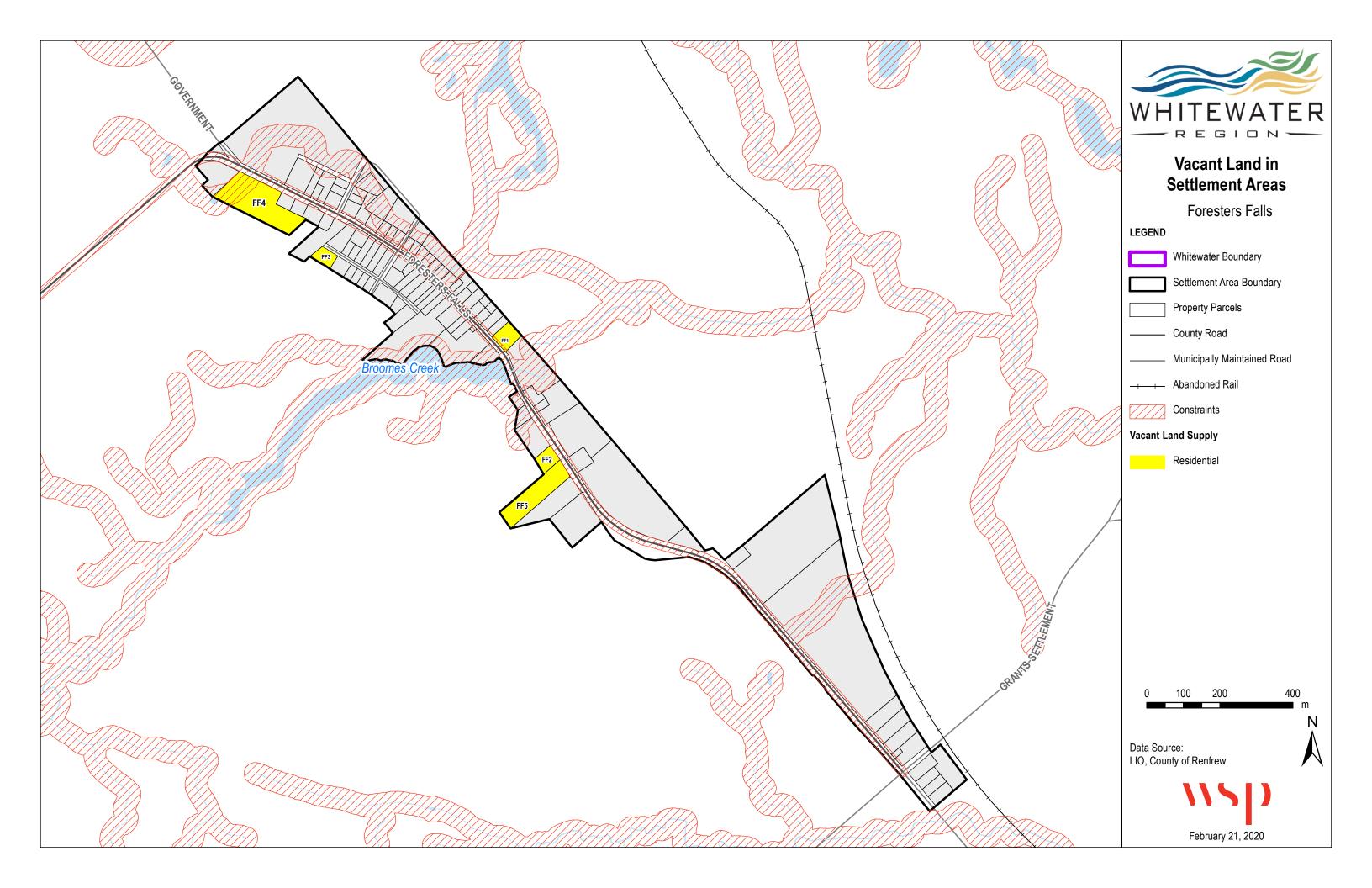




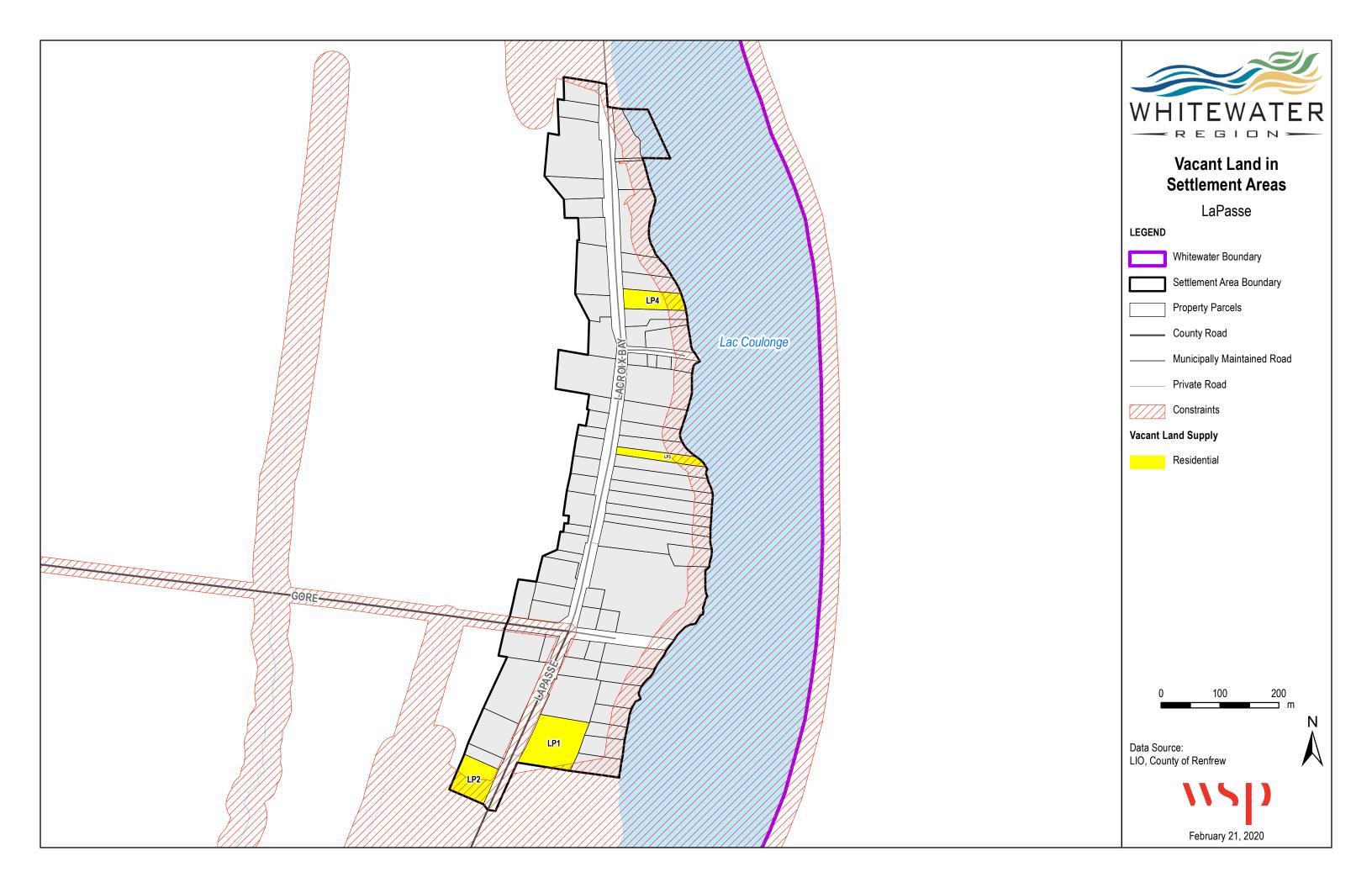
UNCONSTRAINED VACANT LAND SUPPLY

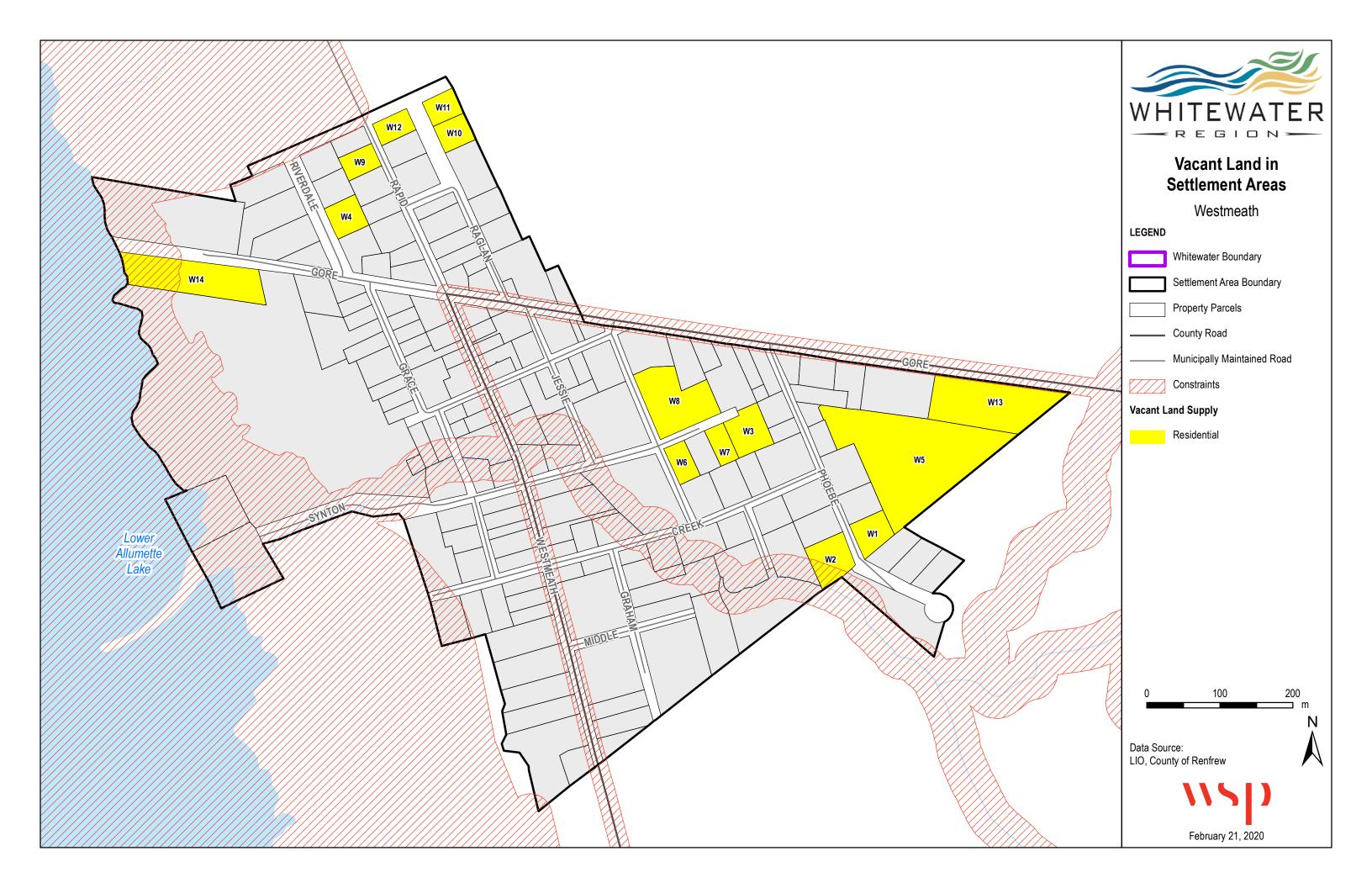






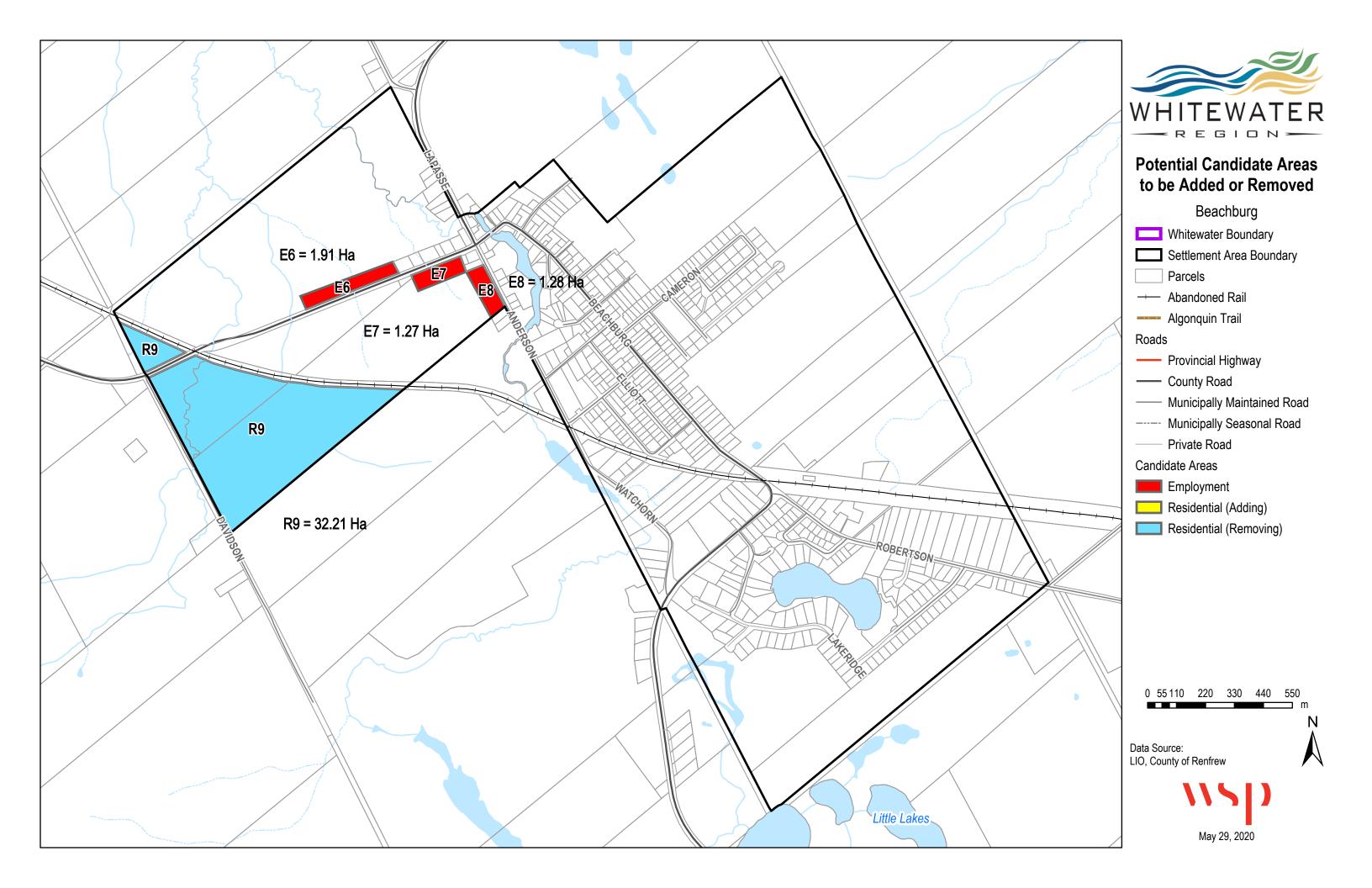


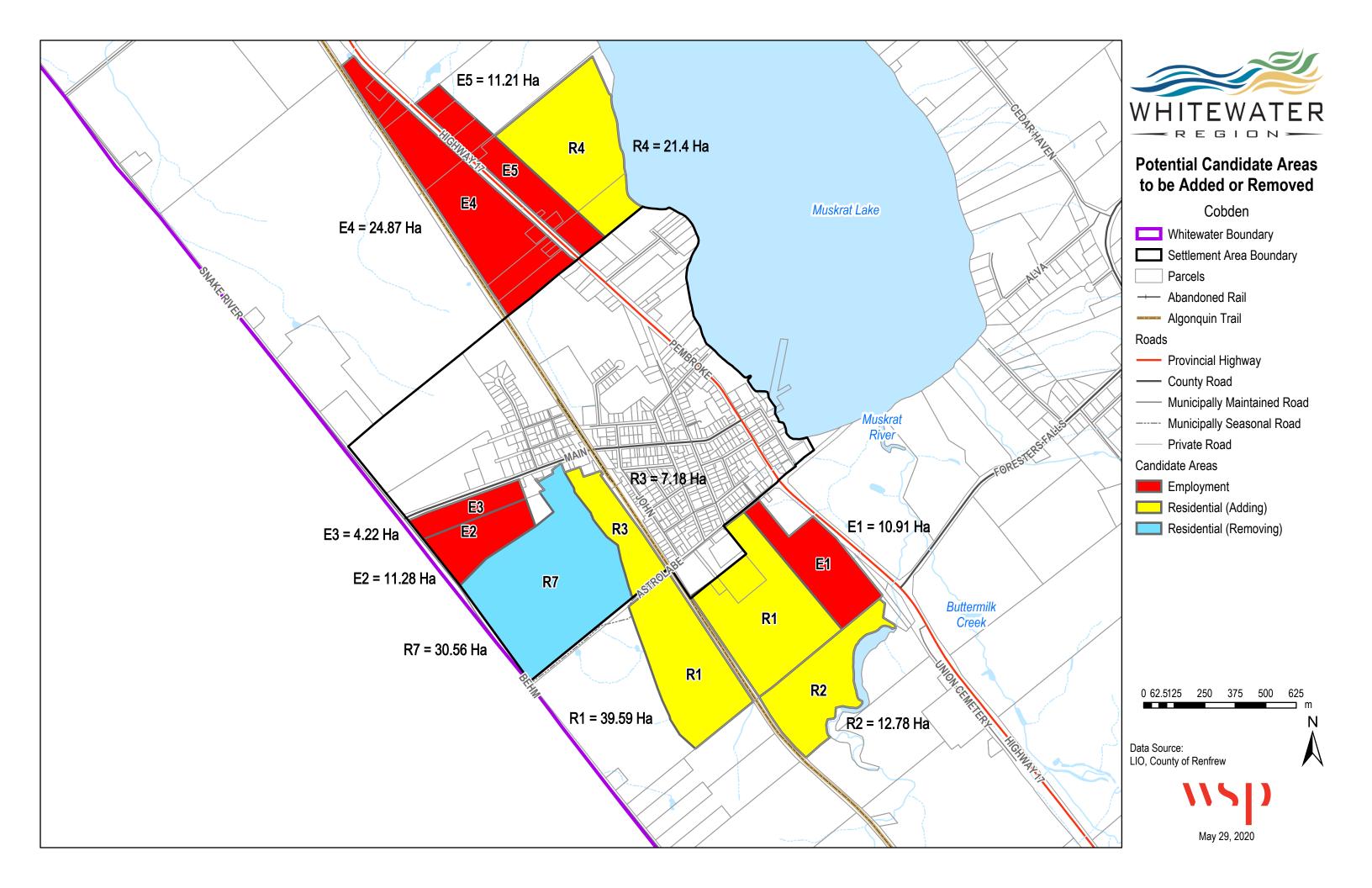




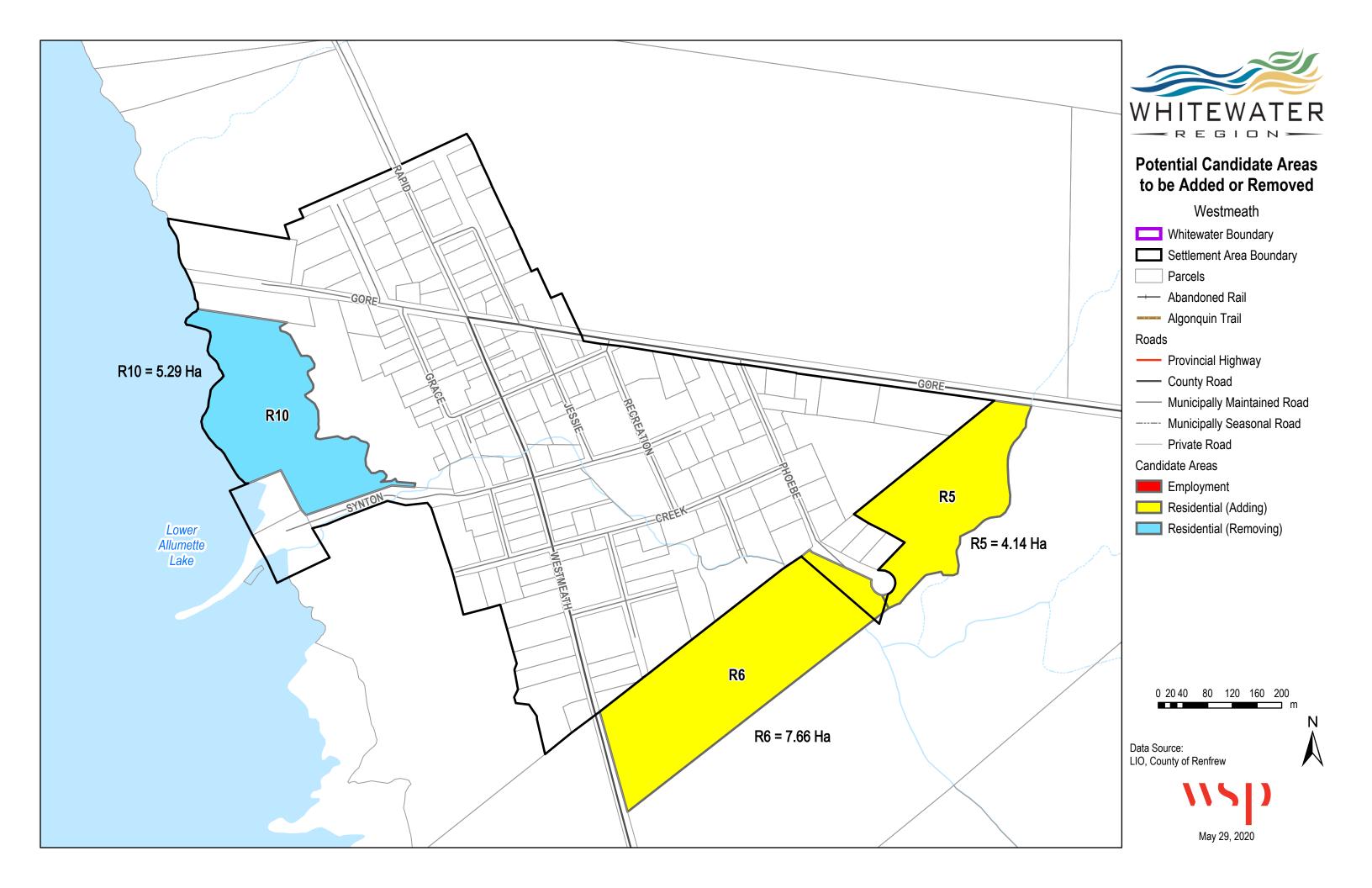


CANDIDATE AREAS KEY MAP









CANDIDATE AREAS EVALUATION

Candidate Employment Areas (Expansion)

ID	Settlement Area	Location	Parcel Information Inside / Outside Existing Settlement Area Boundary	Owner	Area (gross ha)	Physical Constraints	Transportation	Serviceability	Compatibility	Evaluation Criteria Natural Heritage Features of Areas	Agriculture	Mineral Aggregate / Mineral Resources	Proximity to Waste Disposal Site / Septage Haulage Site	Wellhead Protection	Total Score	Rank
E1	Cobden	Astrolabe Road / Highway 17	Outside	Privately Held	1	Generally flat/rolling topography, sloping to the east. Watercourse runs through northern and southern portion of property, and connects to Cobden Marsh PSW. No flood plain. No abandoned mine sites.		Direct access to municipal water and wastewater services at front property line.	North: residential uses. East: institutional uses (Masonic Lodge, Cobden Pentecostal Church). West: farm property, Cobden Arena. South: generally vacant land and 1 residential use.	Eastern portion of property is located within 120 m buffer of the Cobden Marsh PSW (but separated from PSW by Highway 17). Not within ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Presence of valleylands associated with watercourse ir northern and southern prortior of property; would need EIS to confirm significance.	agricultural areas within or in close proximity to property. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.		28	1 to 8
E2	Cobden	Snake River Line / Main Street	Inside (E2 area also includes E3)	Privately Held		4 Generally flat terrain. No flood plain. No abandoned mine sites.	Access is available from Main Street (County road). Property is approx. 950 m west of Highway 17.		North: Commercial uses (hardware store and auto supply). East: Cobden patrol yard. West / south: Generally vacant land.	A Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Very minor presence of valleylands in southeastern portion of property; may require EIS to confirm significance.	Mix of Class 3 and 7 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	development setback from a mineral aggregate pit or	No proximity to waste disposal site or licensed septage hauler area.		32	1
E3	Cobden	Behm Line / Main Street	Inside (portion of larger E2 area)	Privately Held		4 Generally flat terrain. No flood plain. No abandoned mine sites.	Access is available from Main Street (County road). Property is approx. 950 m west of Highway 17.	Direct access to municipal water and wastewater services at front property line.	North: Commercial uses (hardware store and auto supply), East: Cobden patrol yard. West / south: Generally vacant land.	A Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. No valleylands.	Mix of Class 3 and 7 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.		32	1
E4	Cobden	Pembroke Street	Outside	Privately Held	1	Generally flat terrain. Intermittent watercourse may run through northern and southern portion of property. No flood plain. No abandoned mine sites.	Access is available from Highway 17 right-of-way. County Trail is located along the western property boundary.	No direct access to municipal water and wastewater services. Services end at village boundary.	Along Highway 17. Candidate Area contains 5 existing residential uses, a Hydro One office/yard, and vacant land. North / west: vacant land. East: livestock farm, Bona Vista campground, and other residential uses along Highway 17. South: residentia uses along Highway 17.	PSW / ANSI. Not within	Mix of Class 3, 6, and 7 soils. No presence of prime agricultural areas on property, prime agricultural area is abutting the property to the northwest. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.		24	7
E5	Cobden	Pembroke Street	Outside	Privately Held		2 Generally flat terrain. Intermittent watercourse may run through central part of property. No flood plain. No abandoned mine sites.	Access is available from Highway 17.	No direct access to municipal water and wastewater services. Services end at village boundary.	Candidate Area contains livestock farm, the entrance to Bona Vista campground, and residential uses. North: vacant land. East: Bona Vista campground and vacant land. South: Whitewater Brewing Company, West: residential uses. Hydro One officelyard, and vacant land along Highway 17 (as described in E4 above).	Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to		Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	4 No proximity to waste disposal site or licensed septage hauler area.		24	7
E6	Beachburg	Beachburg Road	Inside	Privately Held	1	Generally flat terrain. Intermittent watercourse may run north-south through centre of property. No flood plain. No abandoned mine sites.		Direct access to municipal water and wastewater services at east property line.	North: Floral Design Studio, farm. East: Residential uses. South: Farm. West: vacant land.	Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Presence of valleylands associated with intermittent watercourse; would require EIS to confirm significance.	Class 3 soils. No presence of prime agricultural areas on property; nearest prime agricultural area is within approx. 325 m to the northeast. Actively Farmed.	development setback from a	No proximity to waste disposal site or licensed septage hauler area.		26	5
E7	Beachburg	Beachburg Road	Inside	Privately Held	1	Generally flat terrain. Intermittent watercourse may run north-south through centre of property. No flood plain. No abandoned mine sites.	road). Not located within	2 Direct access to municipal water and wastewater services at front property line.	East: residential uses,	2 . Not within a PSW / ANSI. Not within Significant Wildlife. Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Presence of valleylands associated with intermittent watercourse; would require EIS to confirm significance.	prime agricultural areas on		No proximity to waste disposal site or licensed septage hauler area.		26	5
E8	Beachburg	Anderson Drive	Inside	Privately Held		4 Generally flat terrain. No flood plain. No abandoned mine sites.	Access is available from Anderson Road (municipal road). Not located within proximity of Highway 17.	Direct access to municipal water and wastewater services at front property line.	North: Beachburg Family Restaurant, residential use, LCBO. East: MacGregor Concrete Products. South: Farm, vacant land. West: Farm.	4 Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. No valleylands.	Class 3 soils. No presence of prime agricultural areas on property; nearest prime agricultural area is within approx. 200 m to the northeast. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.	4 Not within a Wellhead Protection Area.	30	3
				Total Area (gross ha	a) 66.95											

Candidate Residential Areas (Adjustments) - Potential Areas to be Added

		Parcel Information Evaluation Criteria														
ID	Settlement Area	Location	Inside / Outside Existing Settlement Area Boundary	Owner	Area (gross ha)	Physical Constraints	Transportation	Serviceability	Compatibility	Natural Heritage Features or Areas	Agriculture	Mineral Aggregate / Mineral Resources	Proximity to Waste Disposal Site / Septage Haulage Site	Wellhead Protection	Total Score	Rank
R1	Cobden	Astrolabe Road	Outside	Privately Held	Max Score	Generally flat terrain. Intermittent watercourse appears to run east-west across property in two locations (on the part of R1 west of the County Trail, No flood plain. No abandoned mine sites.	Access is available from Astrolabe Road (municipal road). The property is bisected by the County Trail.	Direct access to municipal water and wastewater at property line.	Northeast portion of Candidate Area contains farm. North: residential uses, Cobden Arena and Curling Club. East: vacant land, institutional uses (Masonic Lodge, Cobden Pentecostal Church). South: vacant land. West: vacant land.	Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Western portion of property (west of County Trail) has minor presence of Significant Woodlands, and is within 120 m buffer of Significant Woodlands, Presence of valleylands in portion of property west of and along County Trail, associated with intermittent watercourse, and some valleylands adjacent to parcel E1 associated with intermittent watercourse; EIS would be required to determine significance.	Mix of Class 0, 3, 6, and 7 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposisite or licensed septage hauler area.	4 4 A Not within a Wellhead Protection Area.	36	1 to 6
R2	Cobden	Highway 17	Outside	Privately Held	12.78	Rolling topography, sloping southeast to Muskrat River. Watercourse runs along southern boundary and through western portion of property. No flood plain. No abandoned mine sites.	No existing road access to property.	No direct access to municipa water and wastewater.	North: Vacant land, Cobden Arena and Curling Club. East Residential use. South: Vacant land, watercourse. West: Vacant land.	Minor northeastern portion of property within 120 m buffer of Cobden Marsh PSW. Watercourse and adjacent land is designated as Environmental Protection Area (wetland). Not within ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Southern portion of property is within 120 m buffer of Significant Woodlands. Presence of valleylands associated with watercourse along southern boundary and through western portion of property; EIS would be required to determine significance.	Mix of Class 3 and 4 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	development setback from a mineral aggregate pit or	No proximity to waste dispos- site or licensed septage hauler area.	4 An Not within a Wellhead Protection Area.	22	E
R3	Cobden	Astrolabe Road	Inside	Privately Held	7.18	Generally flat terrain. No flood plain. No abandoned mine sites.	Access is available from Astrolabe Road (municipal road - seasonally maintained, but unpaved). County Trail is located along eastern property boundary.	Water service at John Street Astrolabe Road intersection.	North: Gibson's Garage, residential uses. East: County Trail, residential uses. South: vacant land. West: Cobden Patrol Yard.	Not within or adjacent to a / PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. No valleylands.	Mix of Class 0, 3, and 7 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste dispossible or licensed septage hauler area.	4 a Not within a Wellhead Protection Area.	28	2
R4	Cobden	East of Pembrok Street (Highway		Privately Held	21.4	Generally flat/rolling topography, sloping east towards Muskrat Lake. Property abuts Muskrat Lake (At Capacity), with a portion of the property located within 30 m buffer. Watercourse runs east-west through centre of property from Muskrat Lake. No flood plain. No abandoned mine sites.	No existing road access to property.	No direct access to municipa water and wastewater. May requrie a pump station based on topography.	campground. East: Muskrat	Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Presence of valleylands associated with watercourse running east-west through centre of property, as well as along Muskrat Lake; ElS would be required to determine significance.	Mix of Class 3, 6, and 7 soils. No presence of prime agricultural areas within property. Nearest prime agricultural area is approx. 490 m to the northwest. Actively Farmed.	Anot within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste dispossible or licensed septage hauler area.	4 a Not within a Wellhead Protection Area.	22	Ę
R5	Westmeath	Gore Line / Phoe Street	^{be} Outside	Privately Held	4.14	Generally flat terrain. Watercourse runs along southern property boundary. No flood plain. No abandoned mine sites.	Line (County road) and Phoebe Street (municipal	No direct access to municipa water and wastewater.	0 Annowal Indian (North: Vacant land, residential uses. East: farm. South: vacant land. West: Residential uses.	Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Presence of valleylands associated with watercourse running along southern property boundary; EIS would be required to determine significance.	Mix of Class 3 and 4 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	development setback from a mineral aggregate pit or	No proximity to waste disposisite or licensed septage hauler area.	4 4 a Not within a Wellhead Protection Area.	24	4
R6	Westmeath	Westmeath Road Phoebe Street	portion near cul-de-sac is inside)	Privately Held tal Area (gross ha)	7.66	abandoned mine sites.	Access is available from Westmeath Road (County road) and Phoebe/Graham Street (municipal road).	No direct access to municipa water and wastewater.	North: Westmeath Public School, Canada Post. East: residential uses. South; vacant land. West: St. Andrew's Unit Church, vacant land.	Not within or adjacent to a PSW / ANSI. Not within Significant Wildlife Habitat (Deer Wintering Area). Western edge of property is within the 120 m buffer of Significant Woodlands, but separated by Westmeath Road. Presence of valleylands associated with watercourse running north-south through eastern portion of property; EIS would be required to determine significance.	Class 4 soils. No presence of prime agricultural areas withir or in close proximity to property. Actively Farmed.		No proximity to waste dispos- site or licensed septage hauler area.	4 4 Not within a Wellhead Protection Area.	26	3

Candidate Residential Areas (Adjustments) - Potential Areas to be Removed

		Par	rcel Information			Evaluation Criteria										
ID	Settlement Area	Location	Inside / Outside Existing Settlement Area Boundary	a Owner	Area (gross ha)	Physical Constraints	Transportation	Serviceability	Compatibility	Natural Heritage Features or Areas	Agriculture	Mineral Aggregate / Mineral Resources	Proximity to Waste Disposal Site / Septage Haulage Site	Wellhead Protection	Total Score	Rank (lowest score best for removal)
		1			Max Score	9 4	4	4	4	4	4	4		4	4 36	1 to 4
R7	Cobden	Astrolabe Road	Inside	Privately Held	30.56	southwest through property. No flood plain. No abandoned mine sites.	Access is available to a portion of the property from Main Street, to the larger portion of the property from Astrolabe Road and Behm Line (municipal roads - seasonally maintained, but unpaved).	No direct access to municipal water and wastewater.	North: Residential uses, gas bar. East: Residential uses & Gibson's Garage along Main Street / Vacant land. South: Vacant forested land. West: Vacant / agricultural land.	ANSI or PSW. Not within	Mix of Class 0, 3, 6 and 7 soils. No presence of prime agricultural areas within property. Nearest prime agricultural area is approx. 1.5 km to the northwest. Actively Farmed + Livestock.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.	Not within a Wellhead Protection Area.	222	3
R8	Haley Station	Haley Road	Majority of property is outside the adjusted settlement area boundary for the Growth Study	Privately Held	10.72	eastwards. No watercourses or waterbodies. No flood plain. May be located within 1 km of an abandoned mine site.	Access is available from Haley Road (County road).	No direct access to municipa water and wastewater.	North: Residential uses. East: Residential uses. South: Residential uses. West: Vacant, forested/vegetated land.	Not within or adjacent to ANSI or PSW. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. No valleylands.	Mix of Class 3, 6 and 7 soils. No presence of prime agricultural areas within or in close proximity to property. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.	Not within a Wellhead Protection Area.	28	1
R9	Beachburg	Beachburg Road	Inside	Privately Held	32.21	north-south through property. No flood plain. No abandoned mine sites.	Beachburg Road (County	No direct access to municipa water and wastewater.	North: Vacant, forested / agricultural land. East: Railway, vacant / agricultural land. South: Vacant / agricultural land. West: Residential use, vacant / agricultural land.	Not within or adjacent to ANSI or PSW. Not within Significant Wildlife Habitat (Deer Wintering Area). Not within or adjacent to Significant Woodlands. Presence of valleylands associated with watercourse in three sections of the property; EIS would be required to determine significance.	Mix of Class 3 and 4 soils. No presence of prime agricultural areas within property, but prime agricultural areas are located directly to the north. Actively Farmed (50-60%)	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource. Nearest 150 m buffer area for pit is approx. 740 m to the northwest.	septage hauler area.	Not within a Wellhead Protection Area.	24	2
R10	Westmeath	Synton Street	Inside	Privately Held		Generally flat terrain. Western property limit along shoreline of Lower Alummette Lake. Watercourses runs east-west south of the property along Synton Street. Majority of the property is located within the flood plain for Lower Allumette Lake. No abandoned mine sites.		·	North: Vacant, forested land residential uses. East: Residential uses, Our Lady of Grace Catholic School. South: Vacant, forested / agricultural land. West: Lower Allumette Lake.	Not within or adjacent to ANSI. Southern portion of	prime agricultural areas within or in close proximity to property. Actively Farmed.	Not within required development setback from a mineral aggregate pit or quarry, or a mining resource.	No proximity to waste disposal site or licensed septage hauler area.	Not within a Wellhead Protection Area.	20	4
			<u> </u>	1.14 /	5.29											
			Tot	tal Area (gross ha)	78.78	<u>5</u>										



SETTLEMENT AREA BOUNDARY EXPANSION AND ADJUSTMENTS RECOMMENDATION MAPS

