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Long-term population density change in Toronto and Vancouver, 1971 to 2016

by Jennie Wang and Hugo Larocque

This new analysis provides comparable time series data for the census metropolitan areas (CMAs) and census subdivisions (CSDs) of Vancouver and Toronto for 1971 and 2016, providing a uniquely long-term view of urbanization in these areas. Urbanization patterns, including densification within existing urban areas and urban expansion on the periphery, influence the supply and value of ecosystem services.

Together, the CMAs of Toronto and Vancouver accounted for 24% of Canada's population in 2016. The population of these large metropolitan areas has grown significantly over time, affecting the extent and density of residential areas in these cities as they have developed (Map 1 and Map 2).

The overall population of Toronto CMA increased 120% from 2.7 million in 1971 to 5.9 million in 2016, with the largest increases in population seen in the largest cities, including Toronto, Mississauga and Brampton (Table 1). The fastest growth occurred in Vaughan and Markham to the north of Toronto.

The overall population of Vancouver CMA increased 128% from 1.1 million in 1971 to 2.5 million in 2016, with the largest increases in population occurring in the cities of Surrey, Vancouver and Richmond (Table 2). Surrey, Langley and Pitt Meadows, located in the south-east and east of the metropolitan area, were among the fastest growing census subdivisions.

While overall population and population density increased in almost all census subdivisions, this growth was often concentrated in certain areas. For example, in Toronto significant increases in density occurred in the Waterfront Communities and Niagara neighbourhoods, as well as in the Bay Street Corridor and along rapid transit lines towards North York. Similarly, increased density in Vancouver was concentrated in downtown Vancouver and south of False Creek, and also occurred in parts of East Vancouver, Burnaby and New Westminster along rapid transit lines.

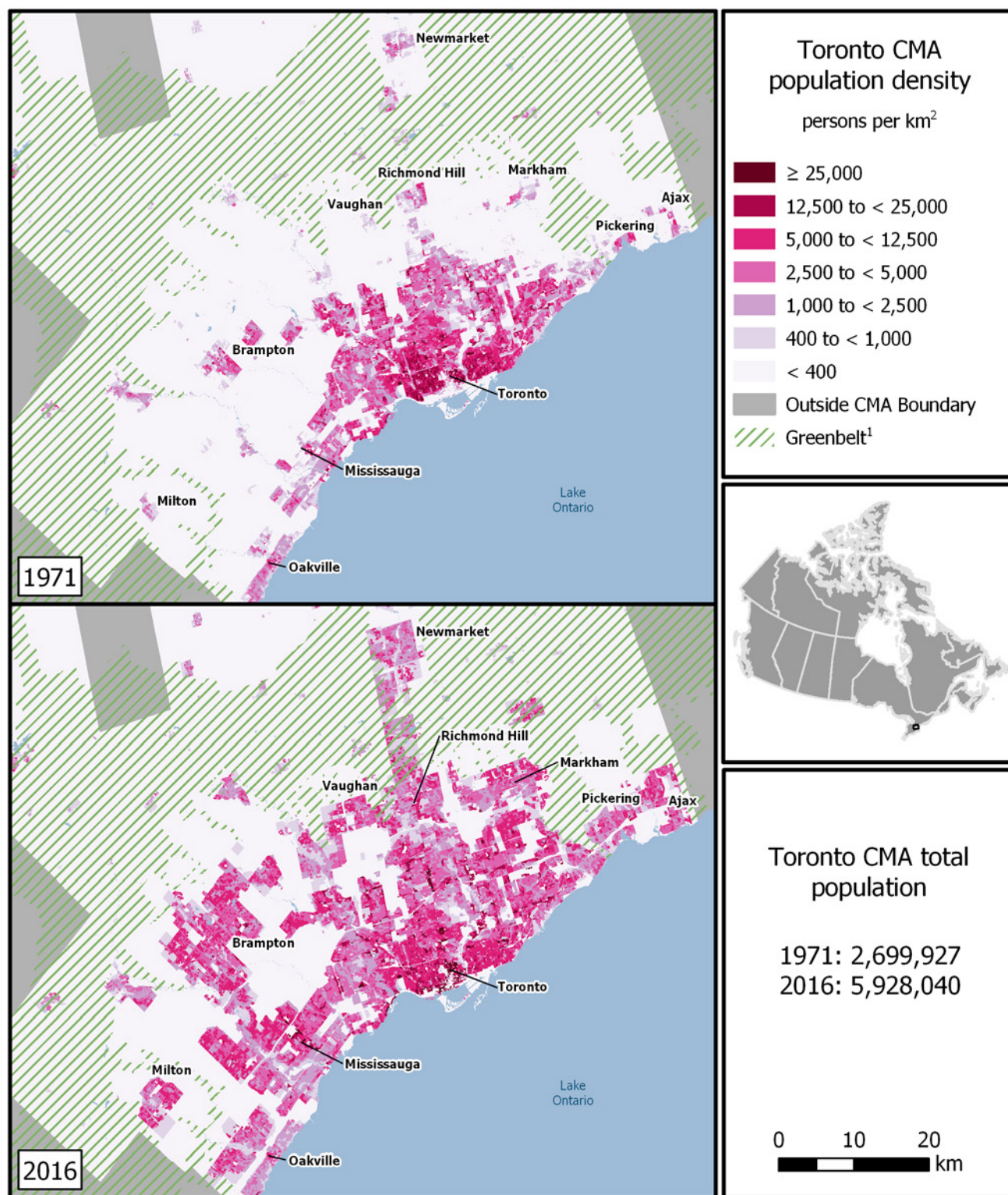
At the same time, some established residential neighbourhoods saw little or no change in population density or may have experienced decreases in population. These patterns may reflect the widespread trend of decreasing household size coupled with retention of older single-detached, semi-detached and duplex housing stock in some areas and the construction of higher density multi-dwelling types in others.

Population growth can have different effects on urban form and can lead to redevelopment, infill development and/or the expansion of artificial surfaces and built-up areas on the periphery of cities. For example, a comparison of the population growth areas to previously published maps of built-up area change in Toronto (Map 3.29) and Vancouver (Map 3.31) shows the significant overlap between changes in population density and urban expansion (Statistics Canada, 2016).¹

In addition to city zoning bylaws, which regulate the type of development that occurs in cities, legislation exists in both areas to protect land from development. Ontario's Greenbelt was established in 2005 to protect greenspace, farmland, wetlands and watersheds in the Golden Horseshoe area, which includes Toronto (Ontario Ministry of Municipal Affairs and Housing [MAH], 2018). The Agricultural Land Reserve was established in British Columbia in 1970s to protect high quality farmland from development (Agricultural Land Commission of British Columbia [ALC], 2014). The Greenbelt and Agricultural Land Reserve areas are included on the maps (MAH, 2017; ALC, 2018).

1. Additional maps of CMA built-up area change, as well as spatial data files, can be accessed from Statistics Canada, 2016, "[The changing landscape of census metropolitan areas](https://www150.statcan.gc.ca/n1/pub/16-201-x/2016000/list_m-c-eng.htm)," *Human Activity and the Environment*, Catalogue no. 16-201-X, https://www150.statcan.gc.ca/n1/pub/16-201-x/2016000/list_m-c-eng.htm (accessed July 16, 2018).

Map 1
Toronto census metropolitan area population density, 1971 and 2016

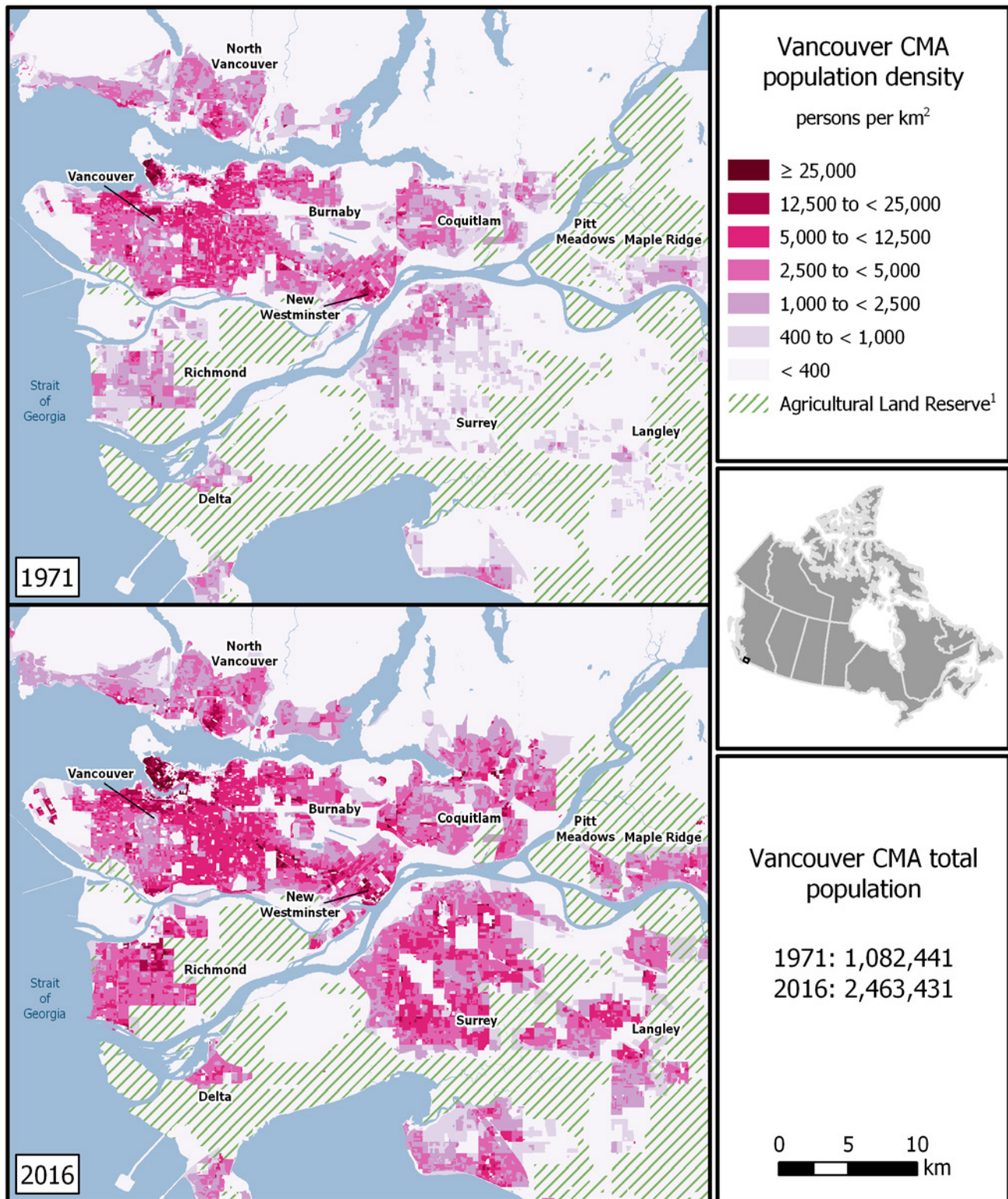


1. The Greenbelt area is included on the 1971 map for references purposes only.

Note: These maps show dissemination block (DB) population density in 1971 and 2016. The 1971 DB populations were adjusted by proportionately allocating 1971 enumeration area (EA) populations to the 2016 DB geography, based on the 2001 DB to 1971 EA population ratios. While some misallocation of 1971 EA populations to DBs that were non-residential in 1971 likely occurs, the overall impact on the 1971 population density map is expected to be small.

Map 2

Vancouver census metropolitan area population density, 1971 and 2016



1. The Agricultural Land Reserve area is included on the 1971 map for references purposes only.

Note: These maps show dissemination block (DB) population density in 1971 and 2016. The 1971 DB populations were adjusted by proportionately allocating 1971 enumeration area (EA) populations to the 2016 DB geography, based on the 2001 DB to 1971 EA population ratios. While some misallocation of 1971 EA populations to DBs that were non-residential in 1971 likely occurs, the overall impact on the 1971 population density map is expected to be small.

Table 1
Population and dwelling counts, 1971 and 2016, Toronto census metropolitan area and census subdivisions

Geographic name	Type	2016	1971		2016	
		Land area	Population	Private dwelling	Population	Private dwelling
		km ²	number			
Toronto	CMA	5,905.8	2,699,927	794,253	5,928,040	2,235,145
Toronto	C	630.2	2,089,729	630,164	2,731,571	1,179,057
Mississauga	CY	292.4	172,510	46,973	721,599	248,469
Brampton	CY	266.4	69,943	18,252	593,638	173,428
Markham	CY	212.3	36,684	9,557	328,966	106,131
Vaughan	CY	273.6	15,873	4,270	306,233	96,657
Richmond Hill	T	101.1	32,384	8,680	195,022	66,465
Oakville	T	138.9	59,043	16,091	193,832	68,617
Ajax	T	67.0	17,878	4,639	119,677	38,105
Milton	T	363.2	13,583	3,638	110,128	35,537
Pickering	CY	231.5	25,196	6,239	91,771	31,630
Newmarket	T	38.5	18,941	5,059	84,224	29,315
Caledon	T	688.2	17,422	4,689	66,502	22,021
Halton Hills	T	276.3	31,136	8,324	61,161	21,475
Aurora	T	49.8	13,614	3,611	55,445	19,381
Whitchurch-Stouffville	T	206.2	11,262	3,113	45,837	15,712
Georgina	T	287.8	14,959	4,570	45,418	18,687
Bradford West Gwillimbury	T	201.0	6,673	1,803	35,325	11,918
New Tecumseth	T	274.2	10,438	2,944	34,242	13,191
Orangeville	T	15.6	8,074	2,400	28,900	10,696
King	TP	333.3	12,864	3,400	24,512	8,736
East Gwillimbury	T	245.0	9,359	2,427	23,991	8,279
Uxbridge	TP	420.9	9,507	2,619	21,176	7,946
Mono	T	277.8	2,735	757	8,609	3,127
Chippewas of Georgina Island First Nation	IRI	14.5	120	34	261	565

Note: The 1971 population and dwelling data have been aggregated to the 2016 Census boundaries based on the location of the EA polygons and their representative points. For this reason, some 1971 population and dwelling totals do not match previously released tabulations.

Table 2
Population and dwelling counts, 1971 and 2016, Vancouver census metropolitan area and census subdivisions

Geographic name	Type	2016	1971		2016	
		Land area	Population	Private dwelling	Population	Private dwelling
		km ²	number			
Vancouver	CMA	2,882.7	1,082,441	345,897	2,463,431	1,027,613
Vancouver	CY	115.0	426,055	153,193	631,486	309,418
Surrey	CY	316.4	98,601	26,954	517,887	181,159
Burnaby	CY	90.6	125,660	38,657	232,755	98,030
Richmond	CY	129.3	62,121	16,945	198,309	77,478
Coquitlam	CY	122.3	53,230	13,332	139,284	54,393
Langley	DM	308.0	21,936	6,360	117,285	43,720
Delta	DM	180.2	45,860	12,062	102,238	37,590
North Vancouver	DM	160.8	57,861	15,603	85,935	32,624
Maple Ridge	CY	266.8	24,476	7,423	82,256	31,400
New Westminster	CY	15.6	42,835	15,448	70,996	34,235
Port Coquitlam	CY	29.2	19,560	5,221	58,612	22,586
North Vancouver	CY	11.8	31,847	11,519	52,898	26,426
West Vancouver	DM	87.3	35,452	11,246	42,473	18,649
Port Moody	CY	25.9	10,778	2,938	33,551	13,318
Langley	CY	10.2	4,684	1,508	25,888	12,264
White Rock	CY	5.1	10,349	4,127	19,952	10,856
Pitt Meadows	CY	86.5	2,837	773	18,573	7,356
Greater Vancouver A	RDA	816.3	3,643	1,088	16,133	8,542
Bowen Island	IM	50.1	350	167	3,680	1,915
Capilano 5	IRI	1.7	1,332	578	2,931	1,433
Anmore ¹	VL	27.5	906	272	2,210	723
Burrard Inlet 3	IRI	1.1	152	27	1,855	932
Musqueam 2	IRI	1.8	650	129	1,652	615
Lions Bay	VL	2.5	396	121	1,334	547
Tsawwassen	IRI	6.6	81	22	816	368
Belcarra ¹	VL	5.5	0	0	643	292

Table 2
Population and dwelling counts, 1971 and 2016, Vancouver census metropolitan area and census subdivisions

Geographic name	Type	2016	1971		2016	
		Land area	Population	Private dwelling	Population	Private dwelling
		km ²	number			
Mission 1	IRI	0.3	471	103	576	178
Matsqui 4 ²	IRI	0.3	0	0	471	286
Katzie 1	IRI	0.4	91	18	262	83
Seymour Creek 2 ²	IRI	0.5	0	0	123	40
Semiahmoo	IRI	1.3	119	41	120	64
McMillan Island 6	IRI	1.8	83	17	94	32
Coquitlam 1 ³	IRI	0.0	6	2	54	25
Barnston Island 3	IRI	0.6	0	0	49	16
Katzie 2	IRI	0.3	0	0	40	15
Musqueam 4	IRI	0.5	0	0	10	4
Coquitlam 2	IRI	0.8	19	3	0	0
Langley 5	IRI	1.3	0	0	0	0
Whonnock 1	IRI	0.4	0	0	0	1

1. The 1971 enumeration area (EA) point representing populations in Anmore and Belcarra is located within the current boundaries of Anmore.

2. Matsqui 4 and Seymour Creek 2 Indian reserves were not delineated in the 1971 census.

3. Population associated with the EA point for Coquitlam 1 was retained in this CSD despite a shift in boundary area over time.

Note: The 1971 population and dwelling data have been aggregated to the 2016 Census boundaries based on the location of the EA polygons and their representative points. For this reason, some 1971 population and dwelling totals do not match previously released tabulations.

Note to readers

These new thematic maps show population density at the dissemination block level within the CMAs of Toronto and Vancouver for 1971 and 2016 (Statistics Canada, 2017a,b,c). The 1971 maps were made possible following the [restoration and digitization of collapsed 1971 Census of Population enumeration area polygons for CMAs](#), using original paper or microform census maps.

An enumeration area (EA) refers to the spatial unit canvassed by one Census Representative and could include up to 300 households, depending on its location. Population and dwelling data are linked to a representative EA point. The point's location generally indicates the population centre of the respective enumeration area (Statistics Canada, 1972).

In Maps 1 and 2, the 1971 EA point population data was downscaled to the finer scale dissemination block (DB) geography that was introduced in 2001. The 1971 EA population data were allocated proportionately to DBs based on the 2001 DB to 1971 EA population ratios (Statistics Canada, 2002a,b). Population density is calculated as the DB population divided by the land area. While some misallocation of 1971 EA populations to DBs likely occurs (e.g., DB that that were non-residential in 1971 but that were subsequently developed for residential area), the overall impact on the 1971 population density maps is expected to be small.

In Tables 1 and 2, the 1971 population and dwelling data associated with EAs is aggregated according to the 2016 Census of Population census subdivision (CSD) and CMA boundaries. For this reason, some 1971 totals do not match previously released tabulations. In the CMA of Toronto, these differences relate to changing CSD boundaries including in Brampton, Mississauga, Caledon, Oakville, Milton and Halton Hills to the west of the region, as well as in Toronto, Ajax and Pickering to the east and in New Tecumseth to the north. In Vancouver CMA, these differences relate to changing boundaries of Pitt Meadows, Capilano 5, Musqueam 2, Greater Vancouver A, Anmore and Belcarra.

References

- Agricultural Land Commission of British Columbia [ALC], 2018, [ALR Zones shapefile](https://www.alc.gov.bc.ca/alc/content/alr-maps/maps-and-gis), dated July 31, 2018, <https://www.alc.gov.bc.ca/alc/content/alr-maps/maps-and-gis> (accessed September 17, 2018).
- Agricultural Land Commission of British Columbia [ALC], 2014, [ALR History](https://www.alc.gov.bc.ca/alc/content/alr-maps/alr-history), <https://www.alc.gov.bc.ca/alc/content/alr-maps/alr-history> (accessed July 16, 2018).
- Ontario Ministry of Municipal Affairs and Housing [MAH], 2018, [Greenbelt Protection](http://www.mah.gov.on.ca/Page187.aspx), www.mah.gov.on.ca/Page187.aspx (accessed July 16, 2018).
- Ontario Ministry of Municipal Affairs and Housing [MAH], 2017, [Greenbelt outer boundary](https://www.ontario.ca/data/greenbelt-outer-boundary), dated July 1, 2017, <https://www.ontario.ca/data/greenbelt-outer-boundary> (accessed September 17, 2018).
- Statistics Canada, 2017a, [“Restoration of the 1971 enumeration area polygons for Canada’s largest cities.”](https://www150.statcan.gc.ca/n1/pub/16-510-x/16-510-x2017001-eng.htm) *Environmental Statistics: Boundary Files*, Catalogue no. 16-510-X, <https://www150.statcan.gc.ca/n1/pub/16-510-x/16-510-x2017001-eng.htm> (accessed July 16, 2018).
- Statistics Canada, 2017b, [Geosuite 2016](https://geosuite.statcan.gc.ca/geosuite/en/index), Catalogue no. 92-150-X, <https://geosuite.statcan.gc.ca/geosuite/en/index> (accessed September 17, 2018).
- Statistics Canada, 2017c, [2016 Census - Boundary Files](https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2016-eng.cfm), Catalogue no. 92-160-X, <https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2016-eng.cfm> (accessed September 17, 2018).
- Statistics Canada, 2016, [“The changing landscape of census metropolitan areas.”](https://www150.statcan.gc.ca/n1/pub/16-201-x/2016000/section_1-eng.htm) *Human Activity and the Environment*, Catalogue no. 16-201-X, https://www150.statcan.gc.ca/n1/pub/16-201-x/2016000/section_1-eng.htm (accessed July 16, 2018).
- Statistics Canada, 2002a, [Geosuite 2001](https://www12.statcan.gc.ca/census-recensement/2011/geo/ref/geosuite-eng.cfm), Catalogue no. 92F0150GIE, <https://www12.statcan.gc.ca/census-recensement/2011/geo/ref/geosuite-eng.cfm> (accessed September 17, 2018).
- Statistics Canada, 2002b, [2001 Census – Boundary files](https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2001-eng.cfm), Catalogue no. 92F0171GIE, <https://www12.statcan.gc.ca/census-recensement/2011/geo/bound-limit/bound-limit-2001-eng.cfm> (accessed September 17, 2018).
- Statistics Canada, 1972, *Dictionary of the 1971 Census Terms*, Catalogue no. 12-540.