Attention: MOE Re: Comments re Halton Region Offical Amendment 49 (ROPA 49)
Fram Frank Varga, Sept 28 2022 via email.

Attention: Halton Region Council & Curt Benson Original F eb 9 2022, Updated Sept 28/22
Re: Integrated Growth Management Stratedgy (IGMS) – Preferred Growth Concept Regional Council Workshop
Presented by : Frank Varga, Farmer Halton Region

Peggy Brekveld, President of OFA stated that between 1996 and 2016 Ontario lost 1.5 million acres of farmland to development at a daily rate of 175 acres per day, a number picked up and echoed by every news media and politician. Did anybody question or examine the details or even challenge that declaration? Here is a more detailed analysis of the data and more fullsome analysis.

Ms Brekveld omitted to disclose the statistic that Crop land acres increased by 3261,591 ac or 3%
Also not disclosed were the dramatic crop planted acres gains and the dramatic crop production increase.

Crop gains shown Red Appendix A Page 2 of 5	and bushel production shown Black Appendix B)
Winter wheat acres up by 360,,880 Ac or 50.2%	and production increased by 203.4% B Page 1 of 3
Soybeans acres up by 865,388 acres or 45.1%	and production increased 77.1% B Page 2 of 3
Grain Corn acres up by 266,364 or 14.1% .	and production increased by 42.7% B Page 3 of 3

Note: If Ontario Crops are subsidised as in US (eg 25%0 , then Ontario crop gains would be more dramatic.

A question to ponder: If productivity is doubled (due to seed genetics, GPS enable farm machinery, herbicides, fertilizers, farm practices, better crop prices etc) then isn't only half the land required to produce the same crop? Are we in a land surplus era rather than land shortage due to hi productivity?

Brekfeld's failed to mention that the main loss of famland was 1,531,102 Ac of Pasture, specifically
Pasture acres decreased 1,204,744 acres or 48.1% See Schedule A Page 2 of 5,Reference #3
Assuming pasture lands are the least desirable, least productive lands i.e. NOT prime agriculture then their "loss" has minimal effect on grain production is concerned. Pasture is located far from Urban Areas.

Note Dairy cows decreased from 404,797 to 311,960 & Beef decreased from 441,211 to 236,253
Has pasture land been abandoned by dairy and beef farmers to cause that 1,204,744 acre decline? Can some of these lands by put back into production if beef & dairy come back into fashion? Is this land now surplus, being marginal in nature and not profitable to own or rent and therefore disposed. Perhaps "land lost to development & paved over" is not really lost, just sitting idle & census unreported farmland.

The OFA claim of prime farmland lost at 175 Ac /day to development, puts the onus on OFA to prove it. The same Ontario Farm Data tables clearly states pasture is being lost while crop land is increasing. OFA's data interpretatuion is too simplistic in that any land not reported is automatically "paved over" . OFA should provide some hard statistical evidence of actual development land uptake, i.e. the demand. Perhaps OFA should study and get guidance from the attached report "The Three Demand Methods."

The development industry has been studied statistically by many organizations. Attached Method 1,2,3 are the estimates acres/day from the statistics provided by Neptis, CMHC, and Statistics Canada of the farm Ac/day converted to development in Ontario. Summarized the Three Demand Methods conclude:

1. Neptis foundation estimates between **16.1 and 16.8 ac / day** for Ontario Loss of Farmland
2. Canadaian Mortgage and Housing Corporation estimates **18.9 ac / day**
3. Statistics Canada estimates **35 ac / day**

Please refer to Attached "Demand Method 1, Method 2 Method 3." The average is 23 Ac /day

The Neptis, CMHC, & Stats Can numbers (Three Methods) builds 23 Units/ac & consumes 20 ac/day.
The OFA number of 175 ac/day comsumed translates into a density of 2 built units/ac oss.
Drive around Milton Phase 3 (Boyne Survey) or Oakville north of Dundas St and you will see densities exceeding 20 Units/acre. The OFA NUMBERS ARE SIMPLY WRONG.

These densities are not sprawl. Sprawl in Halton is long gone. Compact form is here to stay.
High land prices, material costs and development charges dictate efficiency and intensification.
Planning documents already demand compact intensification.
Farmers throughout the province have managed to increase crops dramitacally in the last 25 years all the while co-existing with the development indistry building compact communities. Everbody has done more with less and will have to continue to do so.

I endorse the growth plan presented by Curt Benson at the Feb 9th 2021 Integrated Growth Management Stratedgy (IGMS) – Preferred Growth Concept Regional Council Workshop (Attachment C page 5 of 5) as a good compromise for agriculture and development industries and the needs of a growing population.

Submitted by: Frank Varga
Halton Nine Grain Farm Ltd.
Trafalgar Ten Grain Farm Ltd.
Varga Famil Farm Partnership

Interpretation and Analysis of http://www.omafra.gov.on.ca/english/stats/census/summary.htm

Ontario Farm Data, Census of Agriculture, 1996, 2001, 2006, 2011 and 2016

Summary of 3 attached sheets by Reference Item Number # (**Ref #**)

FarmFactSheet 1 April 23 2021

Ref #

#1 From 1996 to 2016 Total area of farms decreased by **1,531,102 Acres** or -11% (see bottom of page) . See Item Reference # 1 in Chart below
Note this is the number used by **Peggy Brekveld,** President, Ontario Federation of Agriculture in her public announcments.

#2 Cropland Acres increased by 261,591 Acres of +3%

#3 Pasture Acres decreased by 1,204,744 Acres or -48.1%

#4 Winter Wheat acres increased by 360,880 acres or 50.2%

#5 Soybeans Acres increased by 865,388 Acres or + 45.1%

#6 Grain Corn Acres increased by 266,354 Acres or +14.1%

#7 Hay & Foder --Counted separately as item #9

#8 Fruit Vegatable Potatoes decreased by 47,743 or -17.7% (deatield on 3rd spreadsheet)

#9 **TOTAL OF ALL CROPS (Excluding Hay & Foder) increased 1,062,061 or +17.1%**
Acres

#10 Hay and Fodder decreased by 794, 632 Ac or 31.6%

#11 **TOTAL OF ALL CROPS (Including Hay & Foder) increased 267,429 or 3.1%**
Note this matches Number 2 above

#12 Total Number of Cattle and Calves decreased by 662,286 or 20.0%

#13 Total number of Pigs increased by 703,022 or 124.8%

#14 Total number of Sheep and Lamb increased by 90,408 or 139.1%

#15 Hen and Chickens increased by 15,163,048 or 142.6%

#16 Turkeys increased by 324,887 or 109.4%

#17 Market Value of Land & Buildings increased by $85 Billion or 256.7%

#18 Value of Machinery Equipment, Livestock, & Poultry increased by $91 Billion 0r 222.5%

SUMMARY Grains (Cash Crop), Poultry, and Pork Lamb holding well.

Concern Areas - Decrease Fruit and Vegetables (NAFTA, Cheap imports (US Subsidized farmers) flood Onmtario market. Fruit is labour intensive, labour shortgage Wineries prosper. Cattle and Calves serious decline - Consumer off red meat, some immigrants will not eat beef (religious), Chinese not take to dairy, soy oat milk substitute, Vegetarian meats.

OFA Peggy Brekfeld quoted from this spreadsheet "from 1996-2016, Ontario lost 1.5 million acres of farmland"

Taken from the same sheet see comments above in Yellow. Goes against "Lost Farmland" actually it was lost "Pasture land Comment 3) Maybe with fewer cows need less Pasture maybe less pasture because cattle are now fed more garin?

Ontario Farm Data, Census of Agriculture, 1996, 2001, 2006, 2011 and 2016

Ref #	Item	1996	2001	2006	2011	2016	Acres +/-	# Poultry # Animals	% + / -
	Number of census farms	67,520	59,728	57,211	51,950	49,600			
#1	Total area of farms (acres)	13,879,565	13,507,357	13,310,216	12,668,236	12,348,463	-1,531,102		-11.0%
	Total area owned (acres)	9,764,607	9,373,178	8,889,694	8,952,054	8,746,547			
	Total area rented (acres)	4,114,958	4,134,179	4,420,522	3,755,724	3,552,153			
	Average farm size (acres)	206	226	233	244	249			
	Number of Farm Operators	96,940	85,015	82,410	74,840	70,470			
#2	Cropland (acres)	8,759,707	9,035,915	9,046,383	8,929,948	9,021,298	261,591		3.0%
#3	Pasture (acres)	2,502,478	2,087,985	1,862,387	1,633,566	1,297,734	-1,204,744		-48.1%
	Summerfallow (acres)	48,492	35,175	29,394	23,450	15,885			
#3B	All other land (acres)	2,568,888	2,348,282	2,372,052	2,081,272	2,013,546	-555,342		-21.6%
#4	Winter wheat (acres)	719,498	545,380	1,028,476	1,100,003	1,080,378	360,880		50.2%
	Spring wheat (acres)	59,149	125,477	202,902	114,643	120,482	61,333		
	Oats (acres)	98,357	101,670	131,952	71,040	82,206	-16,151		
	Barley (acres)	332,821	308,728	221,029	126,881	103,717	-229,104		
	Mixed grain (acres)	279,762	218,265	173,454	106,162	92,837	-186,925		
	All rye (acres)	65,483	68,332	65,356	34,868	57,899	-7,584		
	Buckwheat (acres)	6,808	5,941	6,133	6,306	10,622	3,814		
#5	Soybeans (acres)	1,918,055	2,248,466	2,155,884	2,464,870	2,783,443	865,388		45.1%
	Canola (acres)	53,304	36,439	18,575	88,279	39,543	-13,761		
#6	Grain corn (acres)	1,895,650	2,003,025	1,577,862	2,032,356	2,162,004	266,354		14.1%
	Silage corn (acres)	296,029	319,364	320,759	271,701	295,660	-369		
	Flaxseed (acres)	1,582	1,983	4,257	2,973	2,636	1,054		
	Dry field beans (acres)	108,545	121,821	163,901	92,608	130,649	22,104		
	Dry field peas (acres)	955	3,127	4,376	4,803	8,351	7,396		
	Sunflowers (acres)	1,069	1,109	2,501	1,336	2,267	1,198		
#7	Hay and fodder crops (acres): Note moved to 8	0	0	0	-	0	0	0	
	Tobacco (acres)	68,194	58,333	31,669	-	-	-36,525		
	Ginseng (acres)	..	4,480	7,156	7,232	9,822	5,342		
	Sugar beets (acres)	210	6,006	9,353	10,816	x	10,606		

#8	Fruit (acres)	70,664	65,076	63,704	52,740	51,192	-19,472		-27.6%
#8	Vegetables (acres)	158,471	170,147	155,594	129,595	135,420	-23,051		-14.5%
#8	Potatoes (acres)	39,905	43,396	38,155	37,384	34,685	-5,220		-13.1%
	Nursery products (acres)	26,217	25,488	27,079	25,270	21,676	-4,541		
	Sod (acres)	23,538	28,674	32,196	28,414	22,833	-705		
#9	Total of crops Ac (Exclude 6 Hay)	6,224,266	6,510,727	6,442,323	6,810,280	7,248,322	1,062,061		17.1%
	Total of above crops (acres)	6,224,266	6,510,727	6,442,323	6,810,280	7,248,322	1,062,061		17.1%
#10	Adding in 6 Hay & Foder Crops	2,515,846	2,504,026	2,562,637	2,077,911	1,721,214	-794,632		-31.6%
#11	'Total of above crops (acres) including Hay & Fod	8,740,112	9,014,753	9,004,960	8,888,191	8,969,536	267,429		3.1%
	Greenhouse area (thousand square feet)	63,303	98,374	126,590	135,076	159,815		excluded	
	Green house, converted to acres (X1000)	1,453	2,258	2,906	3,101	3,669	2,216	excluded	
	Number of bulls	32,677	24,435	22,536	20,297	18,031			
	Number of dairy cows	404,797	363,544	329,737	318,158	311,960			
	Number of beef cows	441,211	376,020	377,354	282,062	236,253			
	Number of heifers	450,777	449,326	414,483	372,934	327,745			
	Number of steers	348,663	332,215	311,989	291,263	305,514			
	Number of calves	607,871	595,191	526,552	456,667	424,207			
#12	Total number of cattle and calves	2,285,996	2,140,731	1,982,651	1,741,381	1,623,710		-662,286	-29.0%
	Number of sows and boars	312,083	369,360	427,234	285,801	318,810			
	Number of all other pigs	2,518,999	3,087,986	3,523,358	2,802,845	3,215,294			
#13	Total number of pigs	2,831,082	3,457,346	3,950,592	3,088,646	3,534,104		703,022	124.8%
#14	Number of sheep and lambs	231,087	337,625	311,162	352,807	321,495		90,408	139.1%
	Number of horses (on census farms only)	76,553	83,337	97,285	86,642	64,536			
#15	Number of hens and chickens	35,596,946	43,624,696	44,101,552	46,902,316	50,759,994		15,163,048	142.6%
#16	Number of turkeys	3,447,259	3,402,697	3,556,250	3,483,828	3,772,146		324,887	109.4%
	Number of tractors	180,213	183,704	185,576	171,406	165,042			
	Number of combines	19,855	17,677	15,982	14,282	-			
	Number of balers	38,329	35,385	33,052	28,916	-			
	Number of farms reporting computers for farm manag	14,131	23,552	26,260	30,381	27,904			
	Percentage of of farms with computers for farm mana	21	39	46	58	56			
#17	Market value of land and buildings (dollars'000)	33,167,842	40,898,278	55,912,249	75,817,764	118,298,182		85,130,340	256.7%

	Value of machinery and equipment (dollars' 000)	5,410,519	6,564,008	7,075,892	7,616,206	9,531,912		
	Value of livestock and poultry (dollars' 000)	2,282,575	3,067,498	2,348,655	2,269,368	3,955,261		
#18	**Total capital value (dollars' 000)**	**40,860,936**	**50,529,784**	**65,336,796**	**85,703,337**	**131,785,355**	**90,924,419**	**222.5%**
	Number of farms reporting paid agricultural labour	27,946	24,013	20,837	16,118	-		
	Weeks of year-round paid labour	1,147,368	1,376,166	1,392,257	1,405,252	-		
	Weeks of seasonal paid labour	780,765	911,030	878,920	812,057	-		
	Total weeks of paid labour	1,928,133	2,287,196	2,271,177	2,217,309	-		

Source: Statistics Canada, Census of Agriculture.

Two Areas of Concern, need to answer

8	**Fruit (acres)**	**70,664**	**65,076**	**63,704**	**52,740**	**51,192**	-19,472	**-27.6%**
8	**Vegetables (acres)**	**158,471**	**170,147**	**155,594**	**129,595**	**135,420**	-23,051	**-14.5%**
8	**Potatoes (acres)**	**39,905**	**43,396**	**38,155**	**37,384**	**34,685**	-5,220	**-13.1%**
	Total of 3 items	**269,040**	**278,619**	**257,453**	**219,719**	**221,297**	**-47,743**	**-17.7%**

NAFTA? Cheap Year round imports? No local farm labour? Changing demographics? Change in ethnic driven demand? Demand for exotic fruits?
How to recover market share ?

	Number of bulls	**32,677**	**24,435**	**22,536**	**20,297**	**18,031**		
	Number of dairy cows	**404,797**	**363,544**	**329,737**	**318,158**	**311,960**		
	Number of beef cows	**441,211**	**376,020**	**377,354**	**282,062**	**236,253**		
	Number of heifers	**450,777**	**449,326**	**414,483**	**372,934**	**327,745**		
	Number of steers	**348,663**	**332,215**	**311,989**	**291,263**	**305,514**		
	Number of calves	**607,871**	**595,191**	**526,552**	**456,667**	**424,207**		
12	**Total number of cattle and calves**	**2,285,996**	**2,140,731**	**1,982,651**	**1,741,381**	**1,623,710**	**-662,286**	**-29.0%**

Comsumer shift to non-animal protein? Shift away from dairy / lack of demand? Ethnic shift in demand? Cheap imports under NAFTA?
How to recover market share?

Source: CANSIM tables 004-0200.

Note word "Stewardship". This could mean that as crop land yields per acre increase and grazing pasture is no longer required, farmers may no longer rent unproductive marginal land hence acres "over which farmers have stewardship" will decline but not the acre count under active farm crop cultivation

Table 1
Largest three field crops, Ontario, 2011 and 2016

Field crop	Acreage	
	2011	2016
Soybeans	2,464,870	2,783,443
Corn for grain	2,032,356	2,162,004
Winter wheat	1,100,003	1,080,378

Source: CANSIM table 004-0213.

What does "Stewardship" actually mean? Needs full definition and ac breakdown.

Does loss of Stewardship automatically translate into "land lost to developers?

Cropland grows as farmers focused on production

The total farm area over which farmers had stewardship in Ontario decreased 2.5% from 2011 to 2016 to 12.3 million acres, while cropland increased 1.0% to 9.0 million acres. Although cropland grew, woodlands and wetlands, and pasture decreased.

Although the total farm area fell, the average farm size grew from 244 acres to 249 acres over the period. The five-years between 2011 and 2016 saw shifts of area away from hay and certain horticultural production (sod and nursery), in favour of the production of field crops and vegetables.

Total farm area, which is land owned or operated by an agricultural operation, includes:

- cropland; land Important for crop production increased by 17 % per Item # 9
- summerfallow; this item is statistically insignificant and therefor is omitted for simplicity
- improved and unimproved pasture; Land not important for crop production, decreased by 48% Item #3
- woodlands and wetlands; Land not so important for crop production, decreased by 21.6% Item #3B
- all other land (including idle land, and land on which farm buildings are located).

Historical Provincial Estimates by Crop , 1996-2016 (Imperial Units) 20 Year Change

ONTARIO WINTER WHEAT CROP REPORT

Yield - Bushels per acre -increase per acre over 20 years **124.1%**

Production increase in Bushels **203.4%**

Planted Ac up by **35.4%**

	Winter Wheat Harvested Area (acres)	1996-2016	Winter Wheat Production ('000 bu)	1996-2016	Winter Wheat Yield (bu/acre)	1996-2016	Winter Wheat Price per unit ($/bu)	Winter Wheat Total Value ($'000)	1996-2016
2016	**975,000**	**35.4%**	**88,600**	**203.4%**	**90.9**	**124.1%**	4.86	**430,596**	**199.0%**
2015	625,000		49,000		78.4		7.93	388,570	
2014	775,000		59,800		77.2		6.37	380,926	
2013	1,045,000		83,700		80.1		6.43	538,191	
2012	820,000		64,300		78.4		7.44	478,392	
2011	1,100,000		82,500		75.0		6.29	518,925	
2010	855,000		68,000		79.5		5.25	340,400	
2009	970,000		71,000		73.2		4.31	293,400	
2008	1,225,000		98,300		80.2		4.69	460,600	
2007	595,000		43,800		73.6		5.63	246,600	
2006	1,025,000		86,000		83.9		3.27	281,300	
2005	830,000		58,100		70.0		3.41	198,400	
2004	760,000		55,000		72.4		3.54	195,000	
2003	990,000		75,500		76.3		4.04	305,000	
2002	580,000		41,800		72.1		4.19	175,100	
2001	540,000		38,800		71.9		3.76	145,900	
2000	680,000		50,500		74.3		2.70	136,400	
1999	710,000		52,000		73.2		3.36	174,700	
1998	710,000		44,500		62.7		3.24	144,200	
1997	450,000		27,500		61.1		3.85	105,900	
1996	**720,000**		**29,200**		**40.6**		4.93	**144,000**	

09-Apr-19

Historical Provincial Estimates by Crop , 1996-2016 (Imperial Units) 20 Year Change

ONTARIO GRAIN CORN CROP REPORT

Yield - Bushels per acre -increase per acre over 20 years **42.7%**

Production increase in Bushels **58.5%**

Planted Ac up by **11.1%**

	Grain Corn Harvested Area (acres)	1996-2016	Grain Corn Production ('000 bu)	1996-2016	Grain Corn Yield (bu/acre)	1996-2016	Grain Corn Price per unit ($/bu)	Grain Corn Total Value ($'000)	1996-2016
2016	**2,000,000**	**11.1%**	**317,000**	**58.5%**	**158.5**	**42.7%**	**4.83**	**1,531,110**	**97.3%**
2015	2,040,000		348,000		170.6		4.55	1,583,400	
2014	1,860,000		299,200		160.9		4.67	1,397,264	
2013	2,210,000		354,600		160.5		5.90	2,092,140	
2012	2,210,000		338,500		153.2		6.61	2,237,722	
2011	2,000,000		304,000		152.0		6.16	1,872,640	
2010	1,940,000		318,000		164.9		5.25	1,602,200	
2009	1,820,000		260,000		142.9		4.14	1,037,900	
2008	1,730,000		270,000		156.1		4.71	1,272,200	
2007	2,055,000		275,000		133.8		4.58	1,259,500	
2006	1,535,000		231,000		150.5		3.78	873,200	
2005	1,565,000		227,000		145.0		2.71	616,100	
2004	1,600,000		210,000		131.3		2.94	618,300	
2003	1,725,000		219,000		127.0		3.62	793,700	
2002	1,910,000		216,000		113.1		3.96	855,400	
2001	1,960,000		202,000		103.1		3.44	694,900	
2000	1,725,000		181,500		105.2		3.22	584,400	
1999	1,800,000		231,000		128.3		2.84	656,000	
1998	1,840,000		237,000		128.8		2.99	708,600	
1997	1,690,000		190,000		112.4		3.66	695,400	
1996	**1,800,000**		**200,000**		**111.1**		**3.88**	**776,000**	

Historical Provincial Estimates by Crop , 1996-2016 (Imperial Units) 20 Year Change

ONTARIO SOYBEAN CROP REPORT

Yield - Bushels per acre -increase per acre over 20 years **23.9%**

Production increase in Bushels **77.1%**

Planted Ac up by **42.9%**

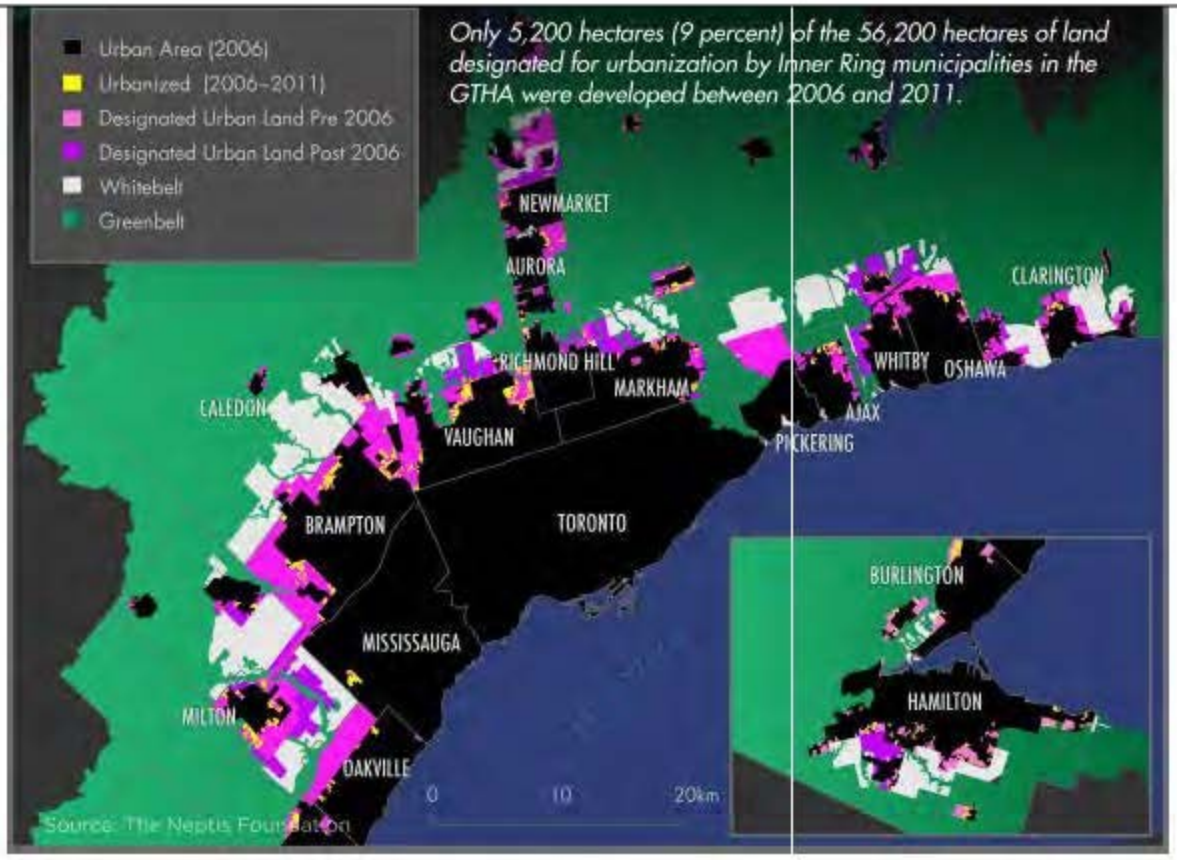
	Soybeans Harvested Area (acres)		Soybeans Production ('000 bu)		Soybeans Yield (bu/acre)		Soybeans Price per unit ($/bu)	Soybeans Total Value ($'000)	1996-2016
2016	**2,700,000**	**42.9%**	**124,000**	**77.1%**	**45.9**	**23.9%**	**12.47**	**1,546,280**	**119.4%**
2015	2,900,000		132,000		45.50		11.91	1,572,120	
2014	3,060,000		139,300		45.50		13.92	1,939,056	
2013	2,595,000		119,000		45.90		13.71	1,631,490	
2012	2,587,000		125,000		48.30		14.07	1,758,791	
2011	2,463,000		117,200		47.6		12.21	1,355,310	
2010	2,495,000		115,000		46.1		11.10	1,243,200	
2009	2,465,000		99,000		40.2		10.59	1,019,300	
2008	2,095,000		91,000		43.4		11.30	1,028,300	
2007	2,225,000		73,500		33.0		10.12	743,800	
2006	2,130,000		98,000		46.0		7.23	708,100	
2005	2,315,000		95,000		41.0		6.78	643,800	
2004	2,300,000		91,000		39.6		7.69	700,200	
2003	1,990,000		63,500		31.9		9.87	627,000	
2002	2,065,000		70,000		33.9		8.50	595,000	
2001	2,225,000		47,000		21.1		7.31	343,500	
2000	2,235,000		85,000		38.0		7.07	601,100	
1999	2,125,000		86,000		40.5		7.17	616,600	
1998	2,100,000		86,000		41.0		7.58	651,900	
1997	2,315,000		88,000		38.0		9.16	806,100	
1996	**1,890,000**		**70,000**		**37.0**		**10.07**	**704,900**	

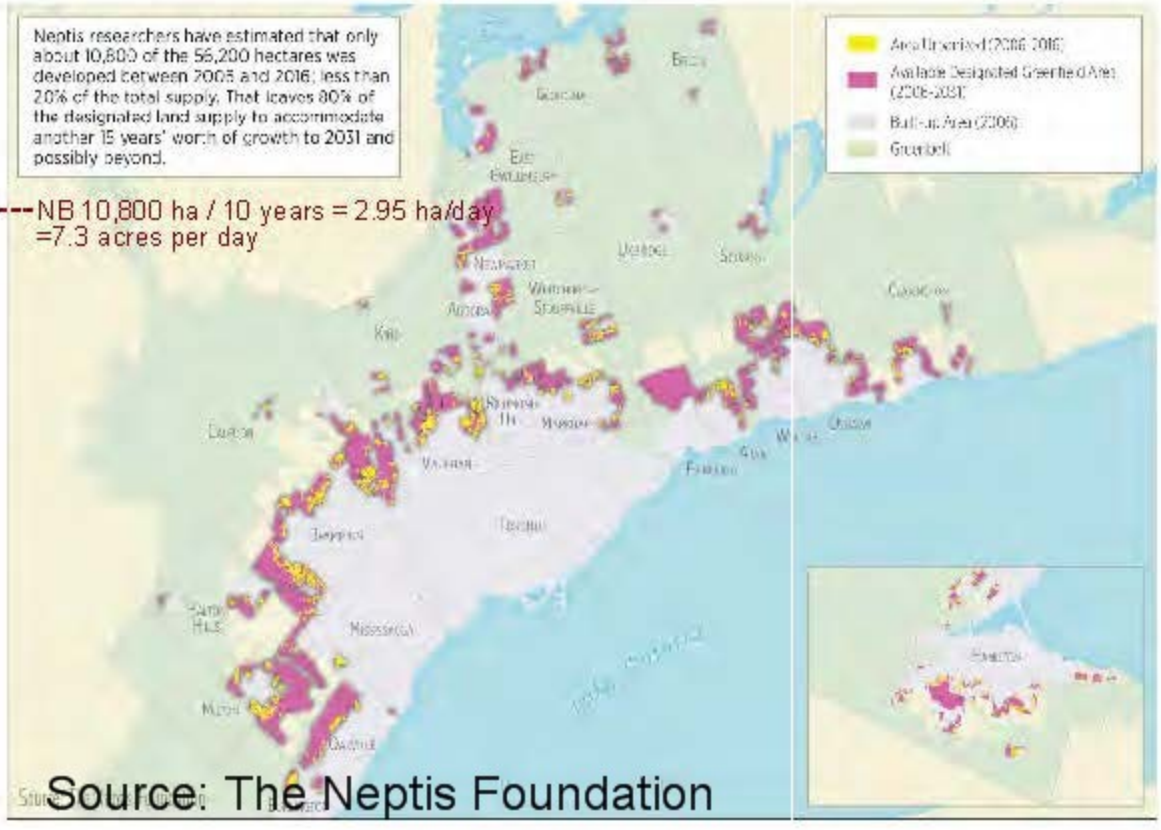
METHOD 1 indicates 16.1 to 16.8 Ac /day Developed Ontario Wide Sch C 1/5

Calcualtion of Ontario Arable Land Converted to Developemnt from Neptis Foundation Stats

In 5 years (1,825 days) 5,200 ha of land was developed = 2.85 ha/day = 7 Ac/day GTHA

Adjustng for Ontario / Toronto Population Ratio of 2.3 converts to Ontario loss of 16.1 Ac /day





Note ---------- NB 10,800 ha / 10 years = 2.95 ha/day =7.3 acres per day

Similarily but on a 10 year basis 10,800 ha = 2.95 ha per day =7.3 ac /day FOR GTHA

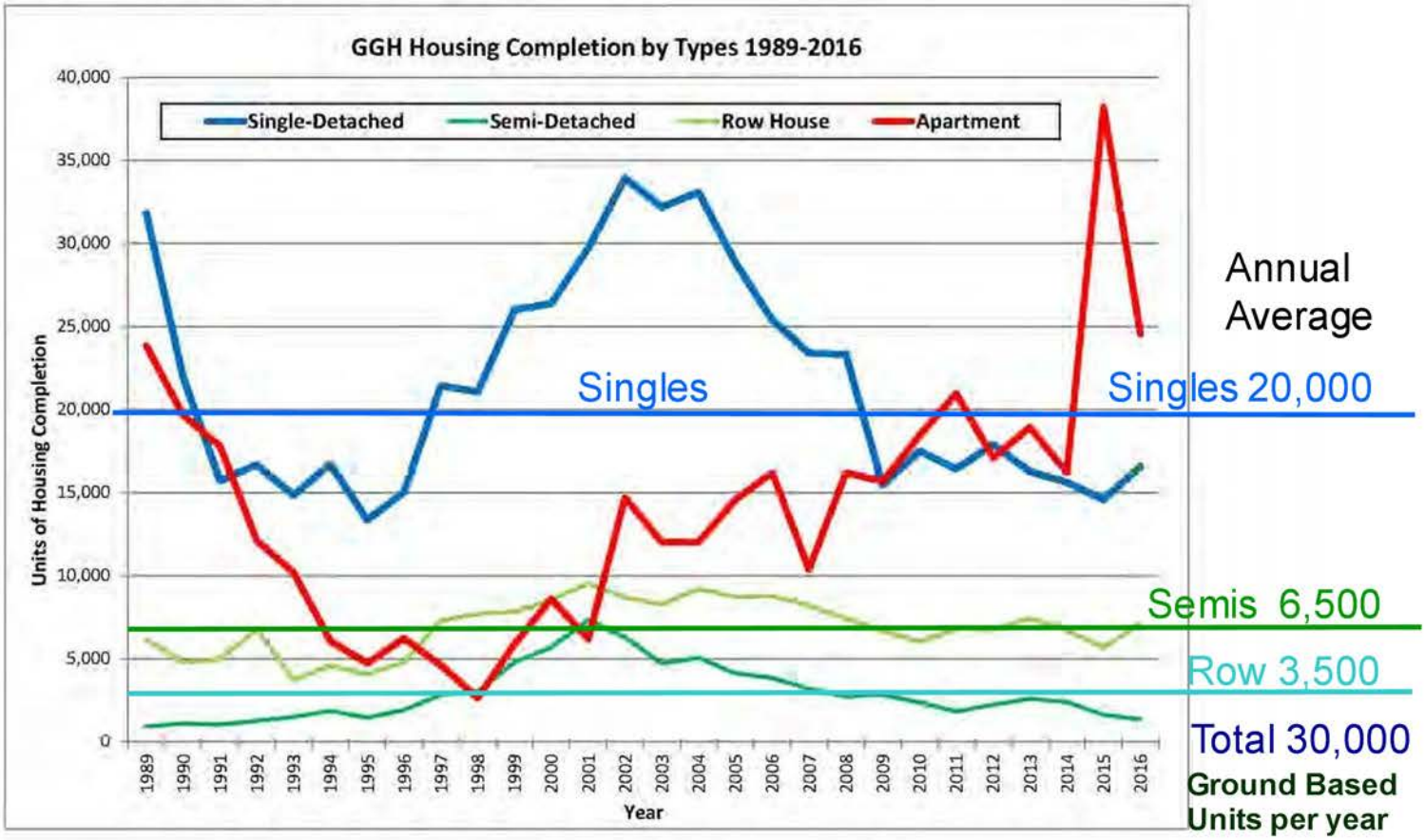
Converting this to Ontario by conversion factor of 2.3 = 16.8 Ac per day lost Ontario wide.

MEethod 2 Ontario
18.9 Ac Lost per Day

2.2 Shifting Housing Completions

In relation to residential uses, the reduced land consumption is driven by increased density of ground related housing on the greenfields as well as a shift from greenfield development to intensification (ie. redevelopment of existing built-up areas). In its 2015 Performance Indicators report for the Growth Plan the **Ontario Growth Secretariat** shows that, from 2007-2010, almost 60% of all new residential growth was through intensification. Even excluding Toronto, where 100% of growth is via intensification, the overall intensification rate is still 44% - revealing the significance of this dramatic shift and trend.

This shift is revealed in housing completion data from **Canada Mortgage and Housing Corporation** which shows that single detached completions in the GGH have dropped by 50% from about 35,000/yr (2002) to about 17,000/yr (2013) while apartments have grown by almost 200% from about 6,000/yr (2001) to about 18,000 year (2013) – with much higher completions of 35,000 units in 2015 and 25,000 units in 2016.



Assuming denisty of 50 Units pr Ha or 20 units per acre (as in Boyne Survey Milton)
The 30,000 units would require 1,500 acres per year or 4.1 AC per day for GGH

(Assumption 1) Double that for employment and highways yileds **8.2 ac per day. for GGH**

(Assumption 2) Increase by population factor of Ontarion to Toronto of 2.3 yileds
18.9 ac of arable land converted to development or Ontario

Method 3 Ontario Lost 35 Acres per day to Development

CONCLUSION

	Toronto CMA/day Ac.	**15**
2011	Assume Toronto CMA Pop	5,583,064
2011	Ontario Population	12,850,000
	Ontario/Toronto CAM is approx	2.30
Adjust	**Ontario CMA /Day Ac. Estimate**	**35**

2001 TO 2011

SOURCE Statistics Canada Table 2.2 -attached

Table 3.86 analysis

	CMA 1 Square km.	CMA 2 CMA 3 ecosystem Square Km				
Total Built Up..4	2,082	2,933				
Setteld	1,566	2,139				2,139
Roads	516	794			794	
Arable..3		4,085	4,085			
Natural & Semi-natural 6		5,795		5,795		
2011		12,813				
Total Built Up..4	2,184	3,080				
Setteld	1,648	2,260				2,260
Roads	536	821			821	
Arable..3		3,867	3,867			
Natural & Semi-natural 6		5,865		5,865		
Arable Land - Decrease			218			
Settled Increase						121
Roads Increase					27	
Natural & Semi-natural Increase				70		
				70	27	121
Sums Attributed to "development"		Square KM			218	
Arable Land -Decrease		Square Km	218			
Conversion to acres	Arable Land decrease 10 yr		53,887	Acres 2001 - 2011 or 10 years		
	Arable Land decrease 1 yr.		5,389	Acres per year		
	Arable land decrease per day		**15**	**Acres per day.**		

CONCLUSION In the Toronto Census Meptopolitian Area (CMA)		
Of the 15 acres of arable land lost per day approximately		
10 acres went to Settled and Roads while		
5 acres went to Natural & Semi-natural Increase.		

OFA Claims	Acres Lost /day		
1996 to 2016	175		1,500,000
2016 to 2021	319		582,392
OFA 1996 -2021	Total Farm acres Lost		**2,082,392**

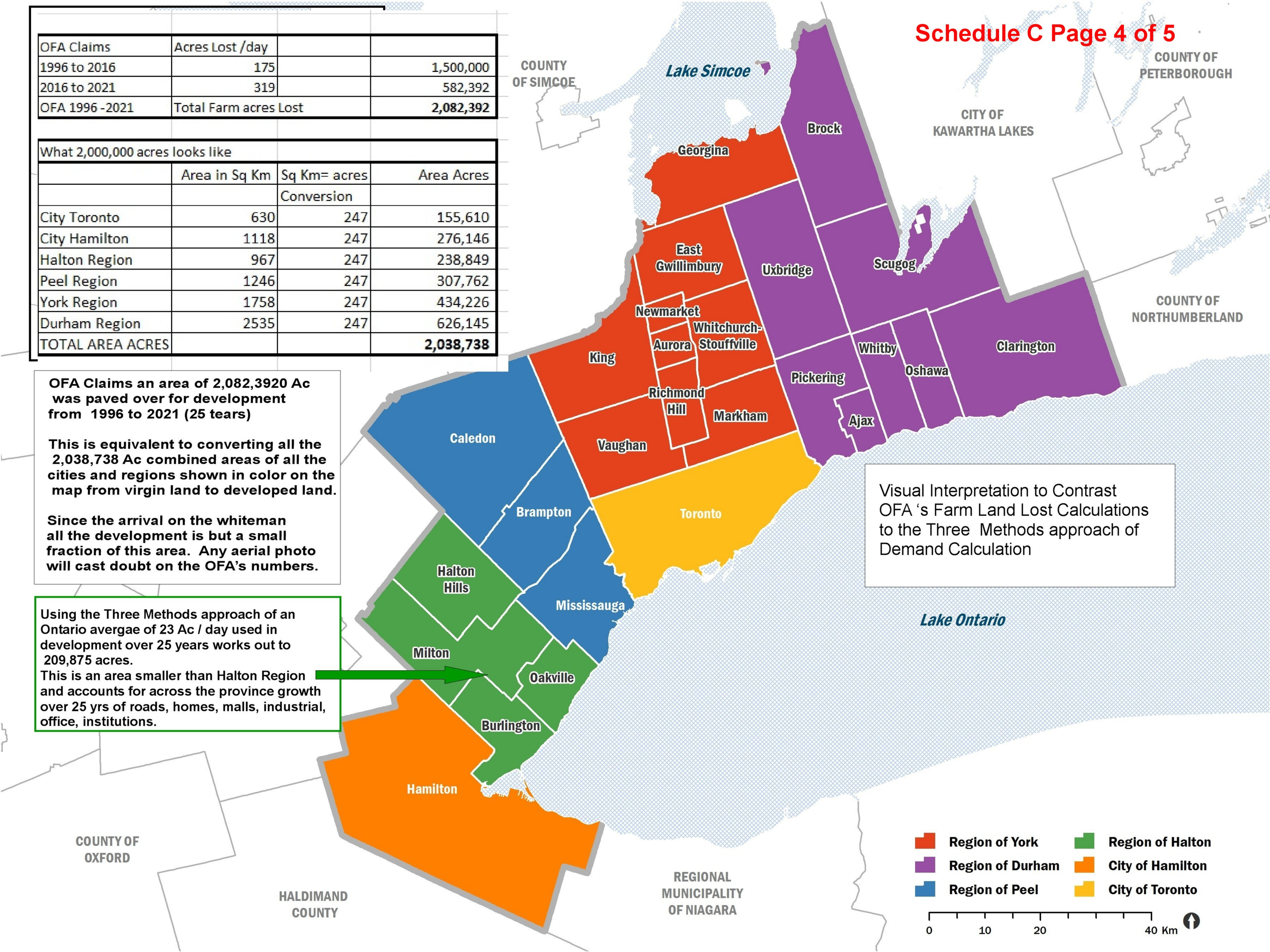
What 2,000,000 acres looks like			
	Area in Sq Km	Sq Km= acres	Area Acres
		Conversion	
City Toronto	630	247	155,610
City Hamilton	1118	247	276,146
Halton Region	967	247	238,849
Peel Region	1246	247	307,762
York Region	1758	247	434,226
Durham Region	2535	247	626,145
TOTAL AREA ACRES			**2,038,738**

OFA Claims an area of 2,082,3920 Ac was paved over for development from 1996 to 2021 (25 tears)

This is equivalent to converting all the 2,038,738 Ac combined areas of all the cities and regions shown in color on the map from virgin land to developed land.

Since the arrival on the whiteman all the development is but a small fraction of this area. Any aerial photo will cast doubt on the OFA's numbers.

Using the Three Methods approach of an Ontario avergae of 23 Ac / day used in development over 25 years works out to 209,875 acres.
This is an area smaller than Halton Region and accounts for across the province growth over 25 yrs of roads, homes, malls, industrial, office, institutions.



Visual Interpretation to Contrast OFA 's Farm Land Lost Calculations to the Three Methods approach of Demand Calculation

Preferred Growth Concept

Regional Urban Structure