

Appendix A: Designated Greenfield Land Supply and Density Analysis

The following tables provide details on the land needs calculation for each Scenario. As mentioned in Section 1.2 of the Alternative Land Need Scenarios Assessment Summary Report, the DGA Community Area land supply and land needs calculations have been revised. The following tables are reflective of these revisions. Since the release of the March 2022 Alternative Land Needs Scenarios Assessment Summary Report, the density of the developed land area has been slightly adjusted. This adjustment has no impact on the land needs by 2051 for each scenario. For additional details regarding the land supply and land needs calculations, please refer to the Community Area Urban Land Needs Technical Report.

Figure A-1: Durham Region, Total Designated Greenfield Area

Area Municipality	Total Gross DGA Land Area, ha	Total Non-Developable Take-outs	DGA Net of Take-Outs, ha	Gross Developable Employment Lands, ha ¹	Gross Developable Community Areas, ha
	A	B	C = A – B	D	E = C – D
Town of Ajax	1,093	277	816	279	537
Township of Brock	468	114	354	146	208
Municipality of Clarington	2,718	968	1,750	413	1,337
City of Oshawa	2,425	679	1,745	236	1,509
City of Pickering ²	3,028	1,726	1,303	359	944
Township of Scugog	422	105	318	171	147
Township of Uxbridge	153	54	99	0	99
Town of Whitby	2,925	992	1,933	573	1,360
Total Region of Durham DGA	13,232	4,914	8,318	2,176	6,142

Source: Watson & Associates Economists Ltd., 2022.

¹ Gross Land Area in accordance with the Growth Plan, 2020 Developable Land Area

² The Pickering DGA is largely represented by the Seaton Community. Approximately five ha of developable land has been identified as part of the Duffin Heights Secondary Plan within the DGA. The Green River DGA Community Area lands are not considered developable and have been removed from the supply.

Figure A-2: Durham Region, DGA Community Area - Developed and Vacant

Area Municipality	Developed Community Area Lands, ha ¹	Vacant Community Area Lands, ha	Total Developable Community Area Lands, ha	% Developed	% Vacant
	A	B	C = A + B	D = A / C	E = B / C
Town of Ajax	385	152	537	72%	28%
Township of Brock	19	189	208	9%	91%
Municipality of Clarington	350	987	1,337	26%	74%
City of Oshawa	453	1,057	1,509	30%	70%
City of Pickering	0	944	944	0%	100%
Township of Scugog	42	105	147	29%	71%
Township of Uxbridge ²	25	74	99	25%	75%
Town of Whitby	222	1,138	1,360	16%	84%
Total Region of Durham DGA	1,496	4,646	6,142	24%	76%

Source: Watson & Associates Economists Ltd., 2022.

¹ A building footprint coverage threshold was used to determine the development status of plans. Plans with a threshold greater than 20% were classified as developed, while plans between 5% and 20% required a desktop review to determine development status. All plans categorized as developed may have the potential for further development where appropriate, which has not been recognized herein.

² Uxbridge lands include Special Study Area 5 and 6

Figure A-3: Durham Region, Vacant DGA Lands by Category, Hectares

Area Municipality	Total Approved, Draft Approved and Under Review (Category 1)	Remaining Vacant (Category 2)	Total Vacant DGA Community Areas	% Vacant Category 1	% Vacant Category 2
	A	B = C - A	C	D = A / C	E = B / C
Town of Ajax	92	61	152	60%	40%
Township of Brock	85	105	189	45%	55%
Municipality of Clarington	416	571	987	42%	58%
City of Oshawa	574	482	1,057	54%	46%
City of Pickering	859	86	944	91%	9%
Township of Scugog	81	23	105	78%	22%
Township of Uxbridge ¹	10	64	74	13%	87%
Town of Whitby	373	765	1,138	33%	67%
Total Region of Durham DGA	2,490	2,157	4,646	54%	46%

Source: Watson & Associates Economists Ltd., 2022.

¹ Uxbridge lands include Special Study Area 5 and 6

Figure A-4: Durham Region, Existing Density People and Jobs on Developed DGA Lands

Area Municipality	DGA Developed Land Area, Gross ha	Existing Population on Developed DGA Lands	Existing Jobs on Developed DGA Lands ¹	Existing Population and Jobs on Developed DGA Lands ¹	Existing People and Jobs Density (gross/ha)
	A	A	A	B	C = B / A
Town of Ajax	385	21,934	2,887	24,821	65
Township of Brock	19	263	247	510	27
Municipality of Clarington	350	13,152	2,694	15,846	45
City of Oshawa	453	15,134	1,205	16,339	36
City of Pickering	0	0	0	0	0
Township of Scugog	42	886	218	1,104	26
Township of Uxbridge	25	516	112	628	25
Town of Whitby	222	10,453	835	11,288	51
Total Region of Durham DGA	1,496	62,338	8,198	70,536	47

Source: Watson & Associates Economists Ltd., 2022.

¹ Jobs Captured are within Community Areas and not Employment Areas.

Figure A-5: Durham Region, Housing Units on Developed DGA Lands

Area Municipality	Singles/Semi-Detached	Townhouses	Apartments	Total
	A	B	C	D = A + B + C
Town of Ajax	4,869	824	8	5,701
Township of Brock	87	0	0	87
Municipality of Clarington	3,299	755	242	4,296
City of Oshawa	3,772	524	224	4,520
City of Pickering	0	0	0	0
Township of Scugog	290	2	0	292
Township of Uxbridge	98	69	0	167
Town of Whitby	2,491	552	1	3,044
Total Region of Durham DGA	14,906	2,726	475	18,107
Regional Unit Mix	82%	15%	3%	100%

Source: Derived from custom geocoded building permits from 2005 to 2018 by Watson & Associates Economists Ltd., 2022.

Figure A-6: Durham Region, Category 1 DGA People and Jobs Density

Area Municipality	Total Approved and Draft Approved (Category 1) Housing Units	Total Approved and Draft Approved (Category 1) Land, ha	Category 1 Population	Category 1 Employment	Category 1 People and Jobs	Category 1 People and Jobs/Gross ha	Category 1 Housing Units Per Gross ha
	A	B	C	D	E = C + D	F = E / A	G = A / B
Town of Ajax	2,030	92	6,150	670	6,820	74	22
Township of Brock	810	85	2,390	490	2,880	34	10
Municipality of Clarington	5,640	416	16,130	1,930	18,060	43	14
City of Oshawa	9,960	574	27,390	6,470	33,860	59	17
City of Pickering ¹	19,190	859	55,320	15,270	70,590	82	22
Township of Scugog	390	81	1,120	120	1,240	15	5
Township of Uxbridge	140	10	380	60	440	46	14
Town of Whitby	6,030	373	18,290	3,450	21,740	58	16
Total Region of Durham DGA	44,190	2,490	127,170	28,460	155,630	63	18
Durham DGA Excluding Pickering¹	25,000	1,631	71,850	13,190	85,040	52	15

Source: Watson & Associates Economists Ltd., 2022.

¹ The Pickering DGA is largely represented by the Seaton Community. Approximately five ha of developable Category 2 land has been identified as part of the Duffin Heights Secondary Plan within the DGA.

Figure A-7: Durham Region, DGA People and Jobs Density (Developed, Approved and Draft Approved – Developed DGA Lands + Category 1 Lands)

Area Municipality	Total Housing Units	Total Land Area, Gross ha	Population	Employment	Population and Employment	Density: People and Jobs/Gross ha	Housing Units Per Gross ha
	A	B	C	C	C	D = C / B	E = A / B
Town of Ajax	7,732	476	28,081	3,555	31,636	66	16
Township of Brock	896	104	2,653	740	3,393	33	9
Municipality of Clarington	9,931	766	29,281	4,629	33,910	44	13
City of Oshawa	14,479	1,027	42,522	7,675	50,197	49	14
City of Pickering	19,190	860	55,320	15,270	70,590	82	22
Township of Scugog	677	124	2,001	338	2,339	19	5
Township of Uxbridge	303	34	897	173	1,070	31	9
Town of Whitby	9,073	596	28,738	4,286	33,024	55	15
Total Region of Durham DGA	62,280	3,990	189,490	36,670	226,160	57	16
Durham DGA Excluding Pickering¹	43,090	3,130	134,170	21,400	155,570	50	14

Source: Watson & Associates Economists Ltd., 2022.

¹ The Pickering DGA is largely represented by the Seaton Community. Approximately five ha of developable Category 2 land has been identified as part of the Duffin Heights Secondary Plan within the DGA

Appendix B: DGA Community Area Land Needs Assessment for Each Growth Scenario

Figure B-1: Durham Region DGA Community Area Developable Land Supply

		Land Area
Total DGA Community Area Supply (Net of Growth Plan Take-Outs) (developable ha)	A	6,142
Total Employment Area Conversions (Net of Growth Plan Take-Outs) (developable ha)	B	308
Total DGA Community Area Supply (Including Employment Area Conversions), developable ha	$C = A + B$	6,450
Vacant Land Contingency (gross ha) (1.5%)¹	$D = C * 1.5\%$	97
Total DGA Community Area Supply (Including Employment Area Conversions and Land Contingency factor), developable ha	$E = C - D$	6,353

Source: Watson & Associates Economists Ltd., 2022.

¹ Land Contingency factor accounts for Employment Area conversions that may not redevelop during the planning horizon, as well as other DGA Community Area which may not develop by 2051.

Scenario 1: Emphasis on Low-Density Housing

Figure B-2: Durham Region, Scenario 1 DGA Community Area Population and Employment Forecast, 2019 to 2051

Location		DGA Community Area Total	Durham Region Total	Community Area Share of Regional Total
Population		470,250	612,500	77%
Employment	Major Office	2,900	28,900	10%
	Employment Lands Employment	0	82,400	0%
	Rural	0	3,000	0%
	Population-Related Employment	39,170	112,200	35%
	Total Employment	42,070	226,500	19%
Total People and Jobs		512,320	839,000	61%

Source: Watson & Associates Economists Ltd., 2022.

Figure B-3: Durham Region, Scenario 1 DGA Community Area Population and Employment Forecast, 2019 to 2051

	Land Area (ha)	People and Jobs	People and Jobs Per Developable ha
Total Existing DGA	6,353		
Developed	1,496	70,540	47
Category 1 ¹	2,490	155,630	63
Category 2 ²	2,367	108,900	46
Forecast, 2019 to 2051	10,244	512,320	
Total DGA at 2051	11,740	582,860	50
Expansion Requirement	5,387	247,790	46

Source: Watson & Associates Economists Ltd., 2022.

¹ Category 1 - Approved (registered but unbuilt or in the process of being built out), Draft Approved and Applications Under Review. The Category 1 density of 63 people and jobs per hectare is upw ardly affected by a density of 83 w ithin the Seaton Community Area.

² Category 2 - Remaining Vacant DGA Lands: includes all lands outside of Category 1 that could become available for Community Area development.

Scenario 2: Primarily Low-Density Housing

Figure B-4: Durham Region, Scenario 2 DGA Community Area Population and Employment Forecast, 2019 to 2051

Location		DGA Community Area Total	Durham Region Total	Community Area Share of Regional Total
Population		389,280	612,500	64%
Employment	Major Office	2,900	28,900	10%
	Employment Lands Employment	0	82,400	0%
	Rural	0	3,000	0%
	Population-Related Employment	32,430	112,200	29%
	Total Employment	35,330	226,500	16%
Total People and Jobs		424,610	839,000	51%

Source: Watson & Associates Economists Ltd., 2022.

Figure B-5: Durham Region, Scenario 2 DGA Community Area Population and Employment Forecast, 2019 to 2051

	Land Area (ha)	People and Jobs	People and Jobs Per Developable ha
Total Existing DGA	6,353		
Developed	1,496	70,540	47
Category 1 ¹	2,490	155,630	63
Category 2 ²	2,367	127,840	54
Forecast, 2019 to 2051	7,471	424,610	
Total DGA at 2051	8,967	495,150	55
Expansion Requirement	2,614	141,140	54

Source: Watson & Associates Economists Ltd., 2022.

¹ Category 1 - Approved (registered but unbuilt or in the process of being built out), Draft Approved and Applications Under Review. The Category 1 density of 63 people and jobs per hectare is upw ardly affected by a density of 83 w ithin the Seaton Community Area.

² Category 2 - Remaining Vacant DGA Lands: includes all lands outside of Category 1 that could become available for Community Area development.

Scenario 3: Shifting the Unit Mix

Figure B-6: Durham Region, Scenario 3 DGA Community Area Population and Employment Forecast, 2019 to 2051

Location		DGA Community Area Total	Durham Region Total	Community Area Share of Regional Total
Population		347,250	612,500	57%
Employment	Major Office	2,900	28,900	10%
	Employment Lands Employment	0	82,400	0%
	Rural	0	3,000	0%
	Population-Related Employment	28,920	112,200	26%
	Total Employment	31,820	226,500	14%
Total People and Jobs		379,070	839,000	45%

Source: Watson & Associates Economists Ltd., 2022.

Figure B-7: Durham Region, Scenario 3 DGA Community Area Population and Employment Forecast, 2019 to 2051

	Land Area (ha)	People and Jobs	People and Jobs Per Developable ha
Total Existing DGA	6,353		
Developed	1,496	70,540	47
Category 1 ¹	2,490	155,630	63
Category 2 ²	2,367	136,600	58
Forecast, 2019 to 2051	6,362	379,070	
Total DGA at 2051	7,858	449,610	57
Expansion Requirement	1,505	86,840	58

Source: Watson & Associates Economists Ltd., 2022.

¹ Category 1 - Approved (registered but unbuilt or in the process of being built out), Draft Approved and Applications Under Review. The Category 1 density of 63 people and jobs per hectare is upw ardly affected by a density of 83 w ithin the Seaton Community Area.

² Category 2 - Remaining Vacant DGA Lands: includes all lands outside of Category 1 that could become available for Community Area development.

Scenario 4: Balancing the Unit Mix

Figure B-8: Durham Region, Scenario 4 DGA Community Area Population and Employment Forecast, 2019 to 2051

Location		DGA Community Area Total	Durham Region Total	Community Area Share of Regional Total
Population		338,960	612,500	55%
Employment	Major Office	2,900	28,900	10%
	Employment Lands Employment	0	82,400	0%
	Rural	0	3,000	0%
	Population-Related Employment	28,240	112,200	25%
	Total Employment	31,140	226,500	14%
Total People and Jobs		370,100	839,000	45%

Source: Watson & Associates Economists Ltd., 2022.

Figure B-9: Durham Region, Scenario 4 DGA Community Area Population and Employment Forecast, 2019 to 2051

	Land Area (ha)	People and Jobs	People and Jobs Per Developable ha
Total Existing DGA	6,353		
Developed	1,496	70,540	47
Category 1 ¹	2,490	155,630	63
Category 2 ²	2,367	152,820	65
Forecast, 2019 to 2051	5,812	370,100	
Total DGA at 2051	7,308	440,640	60
Expansion Requirement	955	61,650	65

Source: Watson & Associates Economists Ltd., 2022.

¹ Category 1 - Approved (registered but unbuilt or in the process of being built out), Draft Approved and Applications Under Review . The Category 1 density of 63 people and jobs per hectare is upw arldy affected by a density of 83 w ithin the Seaton Community Area.

² Category 2 - Remaining Vacant DGA Lands: includes all lands outside of Category 1 that could become available for Community Area development.

Scenario 5: Emphasis on Higher Densities

Figure B-10: Durham Region, Scenario 5 DGA Community Area Population and Employment Forecast, 2019 to 2051

Location		DGA Community Area Total	Durham Region Total	Community Area Share of Regional Total
Population		298,150	612,500	49%
Employment	Major Office	2,900	28,900	10%
	Employment Lands Employment	0	82,400	0%
	Rural	0	3,000	0%
	Population-Related Employment	24,840	112,200	22%
	Total Employment	27,740	226,500	12%
Total People and Jobs		325,890	839,000	39%

Source: Watson & Associates Economists Ltd., 2022.

Figure B-11: Durham Region, Scenario 5 DGA Community Area Population and Employment Forecast, 2019 to 2051

	Land Area (ha)	People and Jobs	People and Jobs Per Developable ha
Total Existing DGA	6,353		
Developed	1,496	70,540	47
Category 1 ¹	2,490	155,630	63
Category 2 ²	2,367	177,560	75
Forecast, 2019 to 2051	4,760	325,890	
Total DGA at 2051	6,256	396,430	63
Expansion Requirement	- 97	- 7,300	75

Source: Watson & Associates Economists Ltd., 2022.

¹ Category 1 - Approved (registered but unbuilt or in the process of being built out), Draft Approved and Applications Under Review. The Category 1 density of 63 people and jobs per hectare is upwardly affected by a density of 83 within the Seaton Community Area.

² Category 2 - Remaining Vacant DGA Lands: includes all lands outside of Category 1 that could become available for Community Area development.