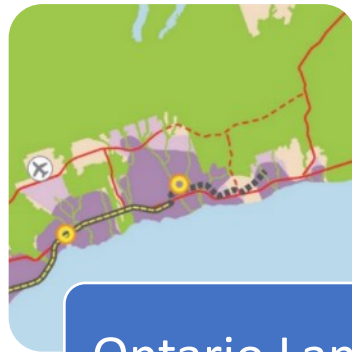




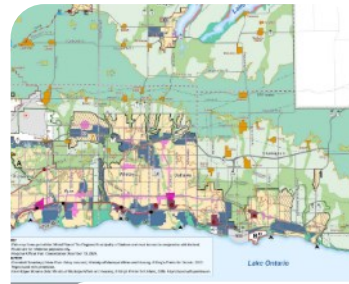
Municipal Official Plan Policy Areas

Mapping Growth and Planning for Development

Planned Growth vs. Actual Growth



Ontario Land
Use Policy*



Official Plan
Policies*



Figure 2 – Population, employment and household allocations table:

Municipality	2021	2026	2031	2036	2041	2046	2051
Ajax							
Urban:	133,510	140,000	150,570	161,840	173,370	185,090	198,100
Rural:	960	960	960	960	960	960	960
Total Population:	131,470	140,960	151,530	162,800	174,330	186,050	199,100
Households:	33,490	40,800	49,070	56,430	62,910	69,740	77,040
Employment:	37,040	43,240	48,140	52,480	56,480	60,070	63,910
Bay							
Urban:	8,100	8,850	9,700	10,630	11,770	13,130	14,620
Rural:	6,040	6,210	6,480	6,710	6,990	7,280	7,570
Total Population:	14,040	15,060	16,180	17,340	18,760	20,410	22,190
Households:	4,790	5,170	5,550	5,910	6,270	6,630	6,990
Employment:	3,710	4,000	4,290	4,580	4,870	5,160	5,450
Cheltenham							
Urban:	89,060	100,200	110,460	120,840	131,340	141,960	152,700
Rural:	15,310	15,400	15,510	15,620	15,730	15,840	15,950
Total Population:	104,370	115,600	125,970	136,460	147,070	157,800	168,650
Households:	25,970	30,640	35,310	39,980	44,650	49,320	53,990
Employment:	29,920	35,640	40,310	45,040	49,770	54,500	59,230
Clontarf							
Urban:	189,980	199,230	208,480	217,730	226,980	236,230	245,480
Rural:	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Total Population:	191,020	200,270	209,520	218,770	228,020	237,270	246,520
Households:	49,410	58,660	67,910	77,160	86,410	95,660	104,910
Employment:	53,240	62,490	71,740	80,990	90,240	99,490	108,740
Flint Hill							
Urban:	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Rural:	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Total Population:	2,080	2,080	2,080	2,080	2,080	2,080	2,080
Households:	510	510	510	510	510	510	510
Employment:	510	510	510	510	510	510	510

Planned
Growth

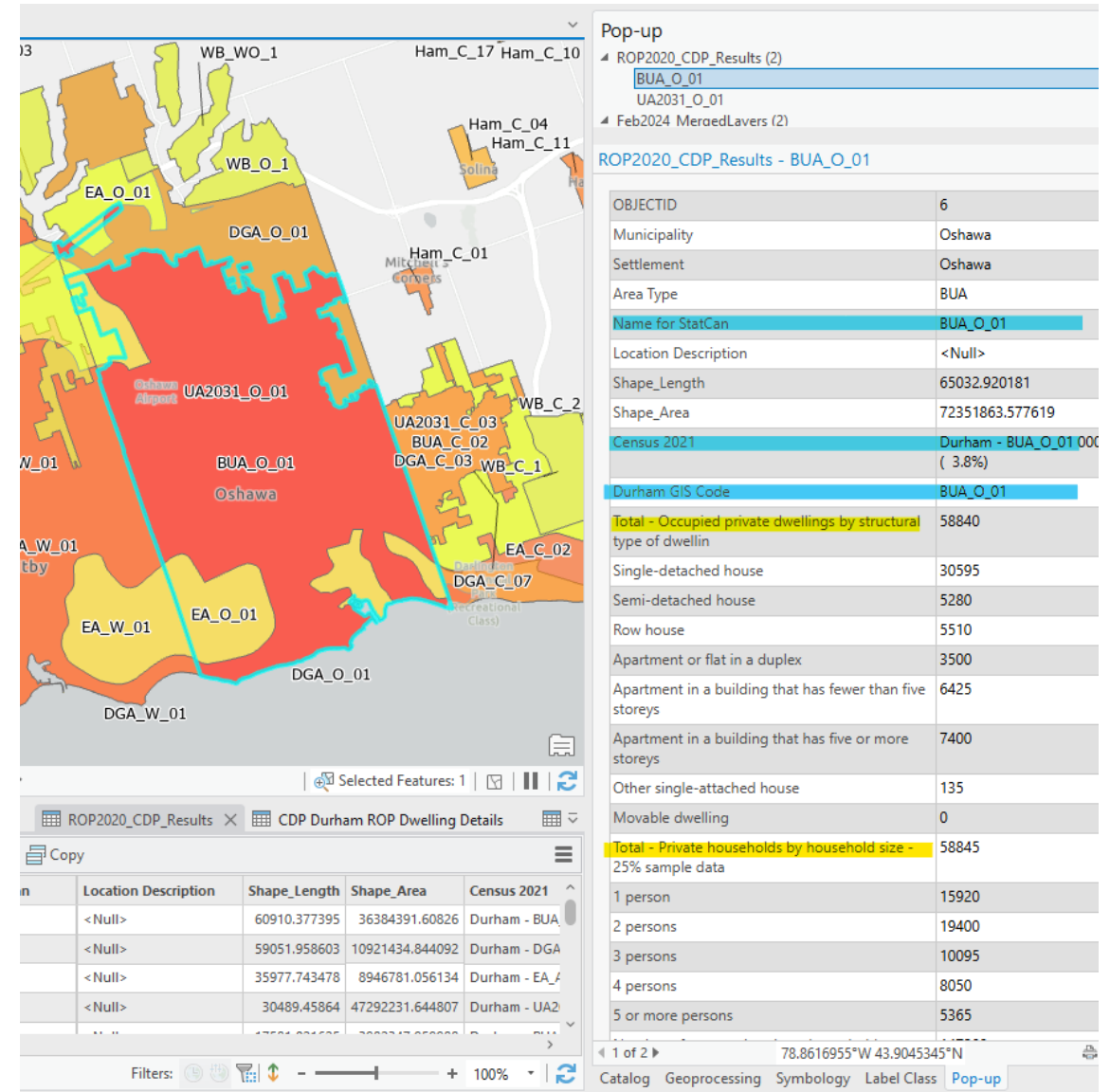


Tracking
Growth

We want:

An accurate benchmark of population and dwelling information, which:

- Can be shown in ArcGIS
- Aligns with OP policy areas
- Can show density
- Is useful for other projects
- Has legible names



Why did we choose CDP?

Ability to request custom geographies

Past successes

Ability to drill into results

Digital-to-digital workflow



Workflow

The Plan

Review

- What we have
- What we need



Explore

- Discuss Options
- Find Geographies



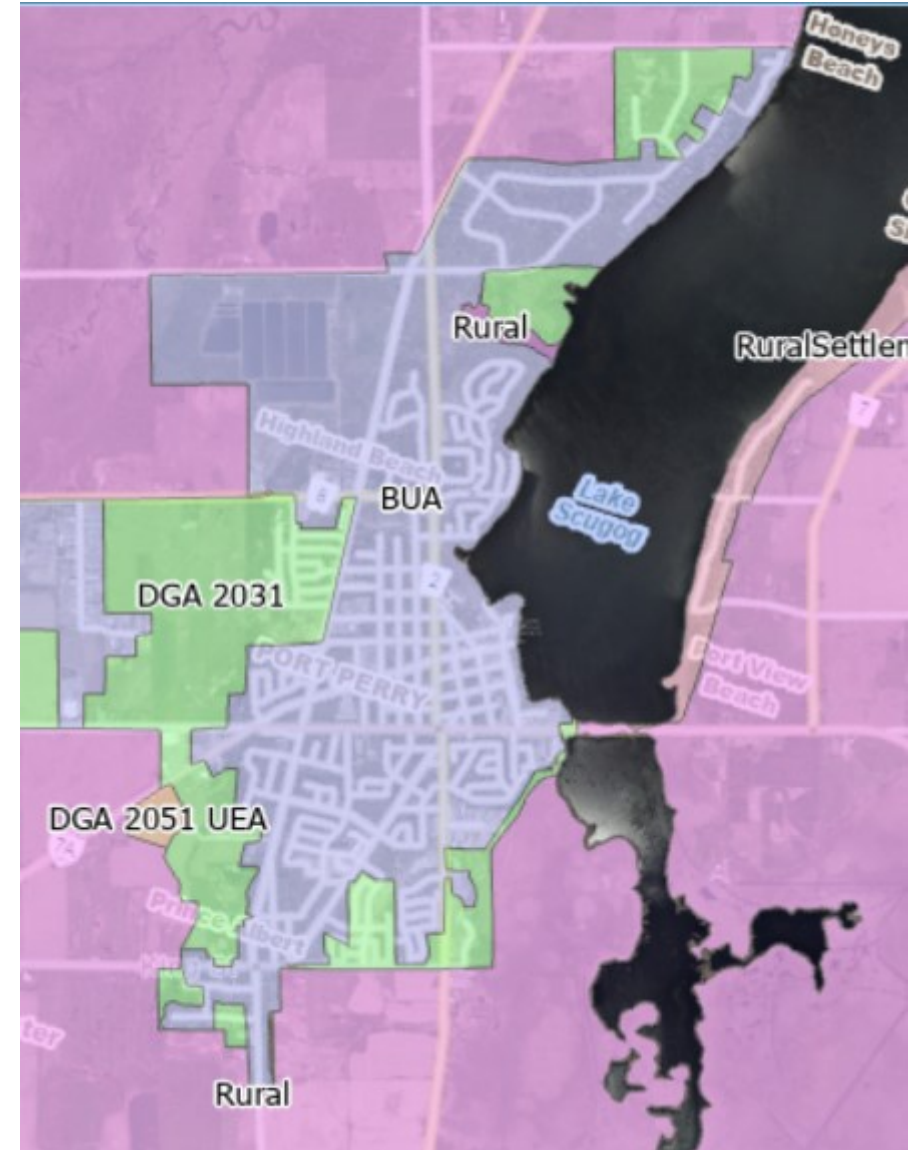
Assemble

- Build Models
- Confirm Outputs



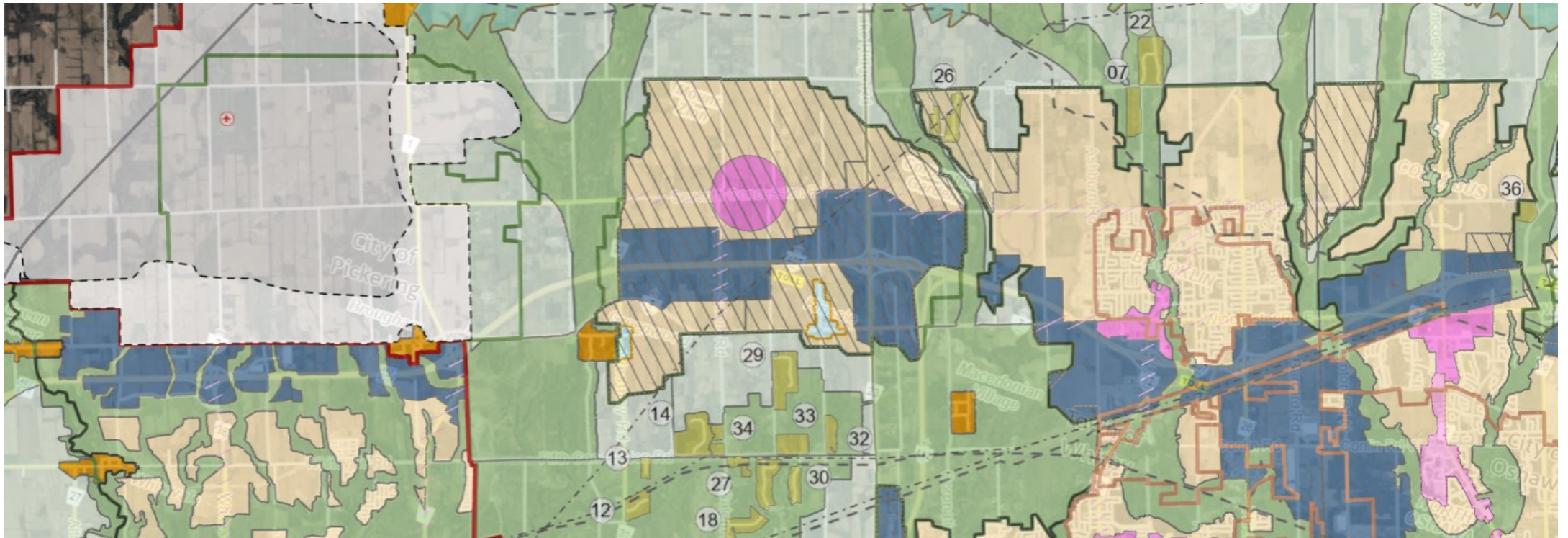
Submit

- Submit to CDP
- Map Results



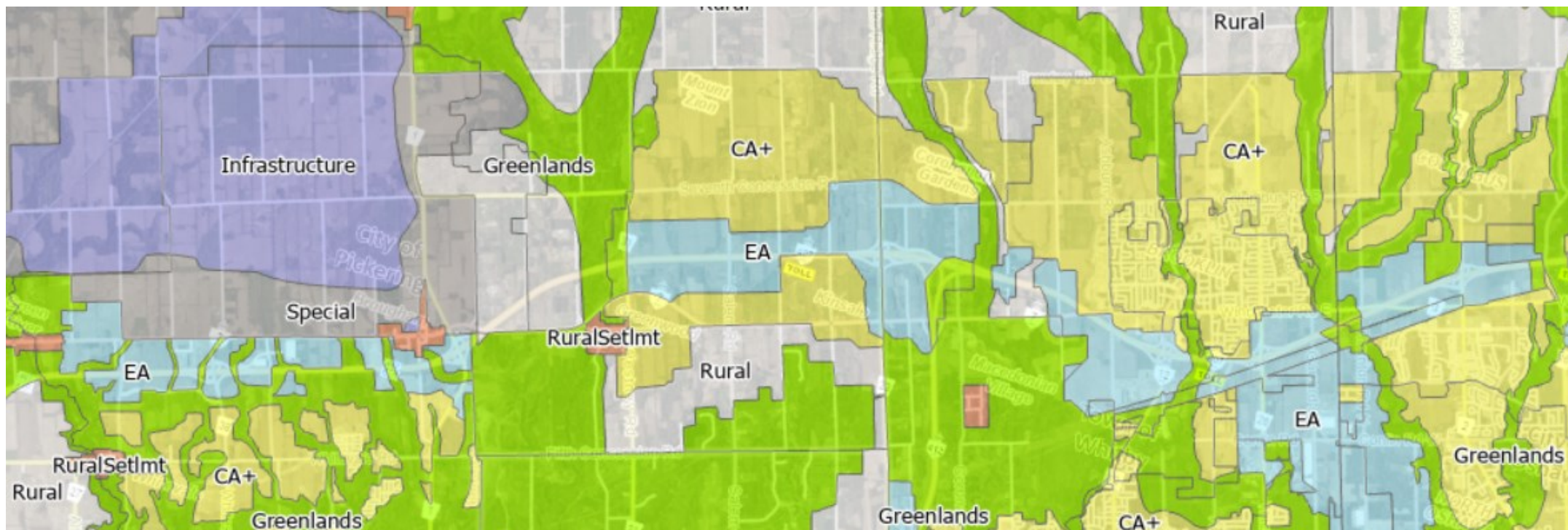
Starting Point: Official Plan Policy Areas

- Dissolving OP Designations by common residential permissions to reflect “Designated Greenfield Area” definitions



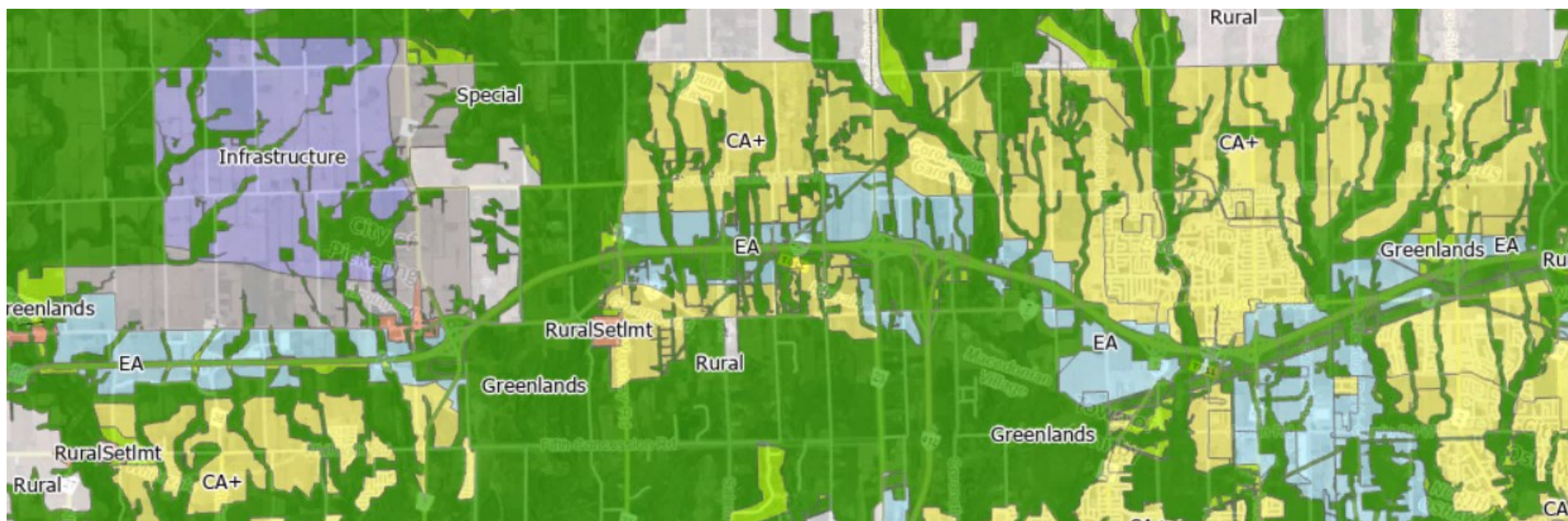
Simplify: Joining and Splitting

- Decide which dimensions to use
- Simplify designations into groups based on needs



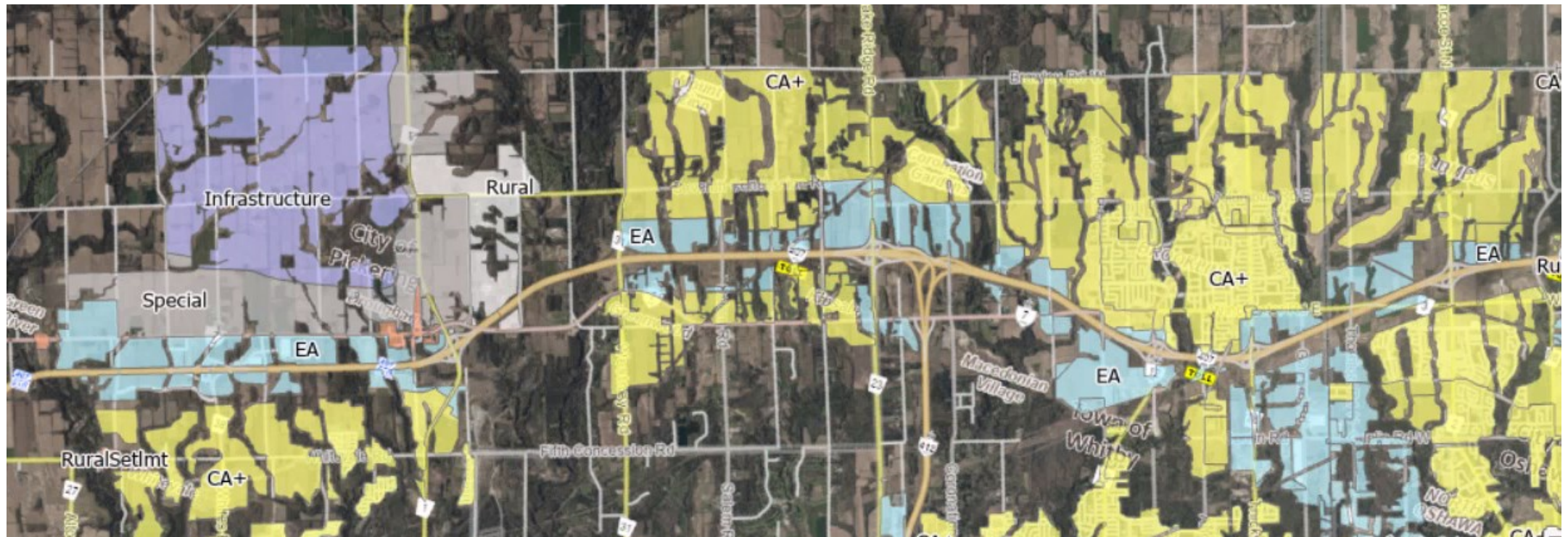
Exclusions from other Sources

- Identifying Environmental and Utility areas takeouts



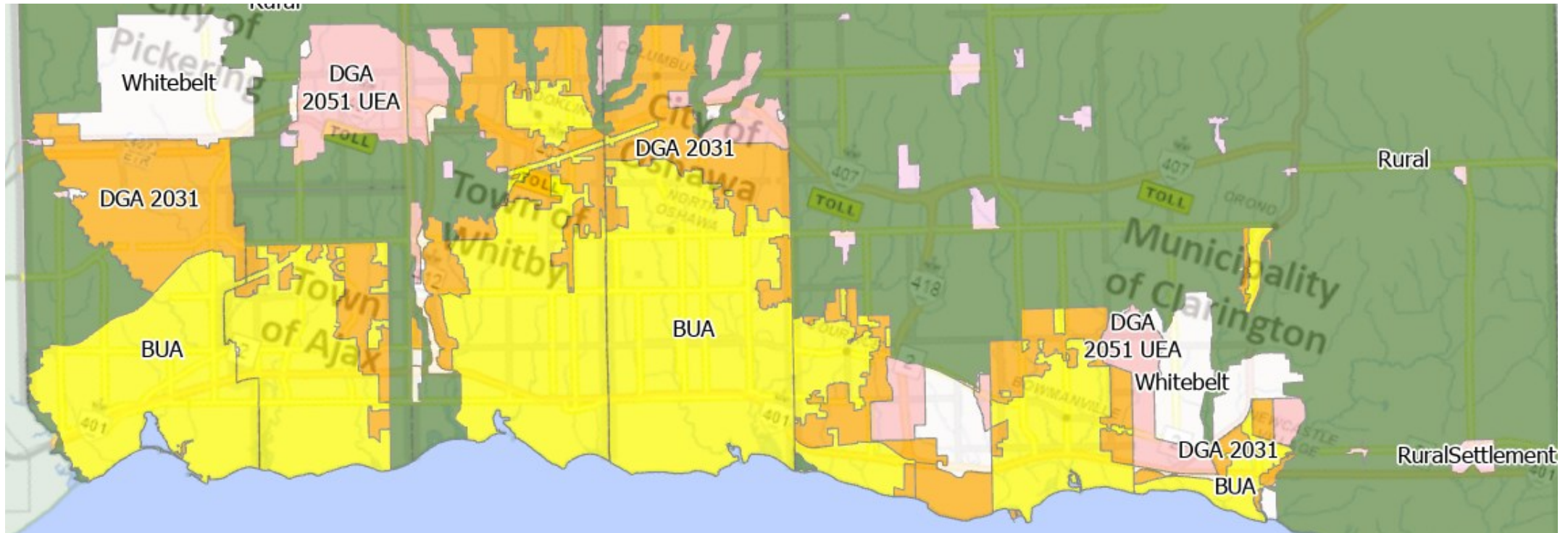
Final Policy Areas

- We can submit an earlier step to CDP if needed



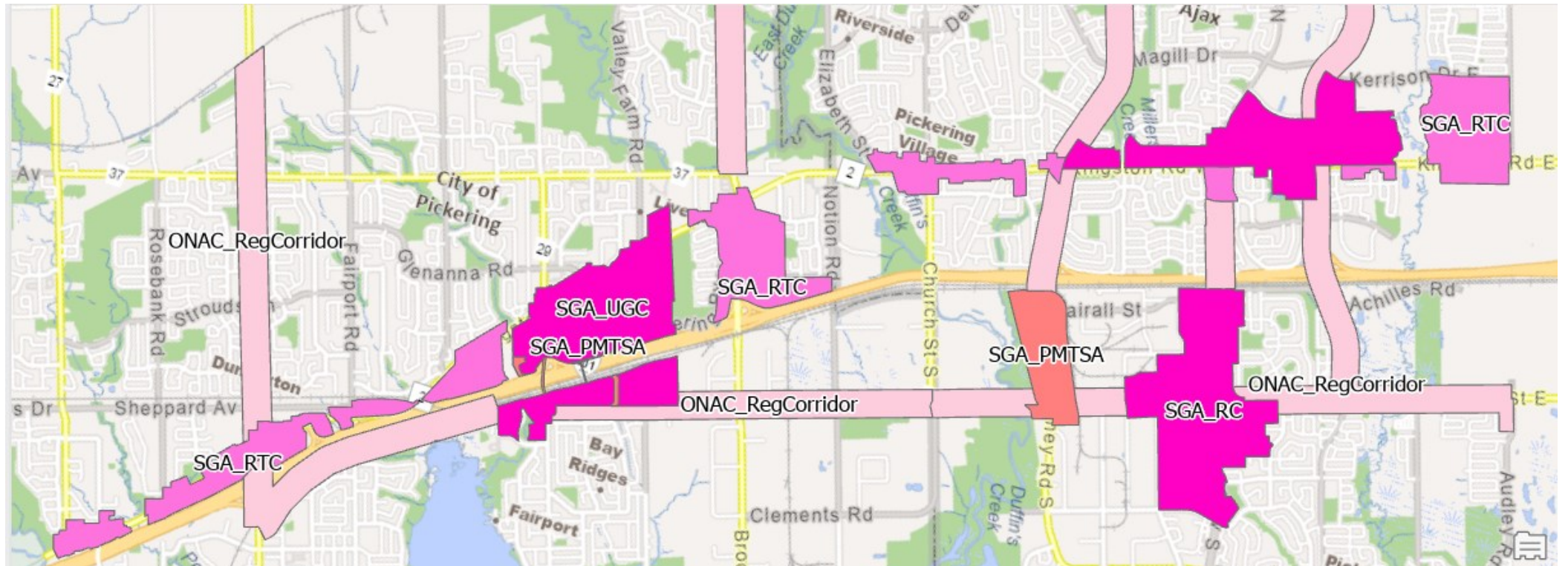
Example: Simple High-Level Dissolve

- Sequential, Orderly, and Phased Development



Example – Merging Layers

“Strategic Growth Areas” from several different layers



Reviewing Data Tables

- Looking for suppression issues and accuracy errors

	Poly ID	Nom	Review Notes	Suppression	Pop 2A Tot	QC_POP_PRIV	QC_Ménages
110	000105	Hamlets - Wilfrid and Port Boister (Township of Brock)		FALSE	290	290	115
111	000106	Urban Area - Whitby (Town of Whitby)	2nd entry - 2nd polygon at Hwy2/Lakeridge	FALSE	260	260	90
112	000107	Urban Area - Bowmanville (Municipality of Clarington)		FALSE	12625	12625	3950
113	000108	Urban Area - Orono (Municipality of Clarington)		TRUE	40	40	15
114	000109	Urban Area - Courtice (Municipality of Clarington)		FALSE	4515	4515	1385
115	000110	Urban Area - Oshawa (City of Oshawa)	error	FALSE	25925	25920	7445
116	000111	Urban Area - Cannington (Township of Brock)	error - BUA 1945 + DGA 60	TRUE	75	75	25
117	000112	Urban Area - Sunderland (Township of Brock)	error - BUA 955 + DGA 530	FALSE	535	535	170
118	000113	Urban Area - Beaverton (Township of Brock)		FALSE	640	640	190
119	000114	Urban Area - Ajax (Town of Ajax)		FALSE	24025	24025	6355
120	000115	Urban Area - Whitby (Town of Whitby)		FALSE	14575	14570	4255
121	000116	Urban Area - Newcastle (Municipality of Clarington)		FALSE	1680	1680	500
122	000117	Urban Area - Port Perry (Township of Scugog)	error	FALSE	875	875	290
123	000118	Urban Area - Darlington Nuclear Station (Municipality of Clarington)		TRUE	5	5	5
124	000119	Urban Area - Pickering (City of Pickering)	error	FALSE	3380	3380	1050
125	000120	Urban Area - Uxbridge (Township of Uxbridge)	Error - 10k+	FALSE	800	745	280
126	000121	Urban Area - Orono and Newcastle (Municipality of Clarington)		FALSE	1710	1710	505
127	000122	Urban Area - Cannington and Sunderland (Township of Brierror - see Cannington,		FALSE	605	605	190
128	000123	Urban Area - Darlington Nuclear and Courtice (Municipality of Clarington)		FALSE	4515	4515	1385
129	000124	WB_C_4 (Bowmanville-Newcastle Urban Separator North)		FALSE	140	140	50
130	000125	WB_C_5 (Bowmanville-Newcastle Urban Separator South)		FALSE	105	105	35
131	000126	WB C 3 (Bowmanville E and Newcastle SABE)		FALSE	250	250	100

Receiving Census 2021 Data

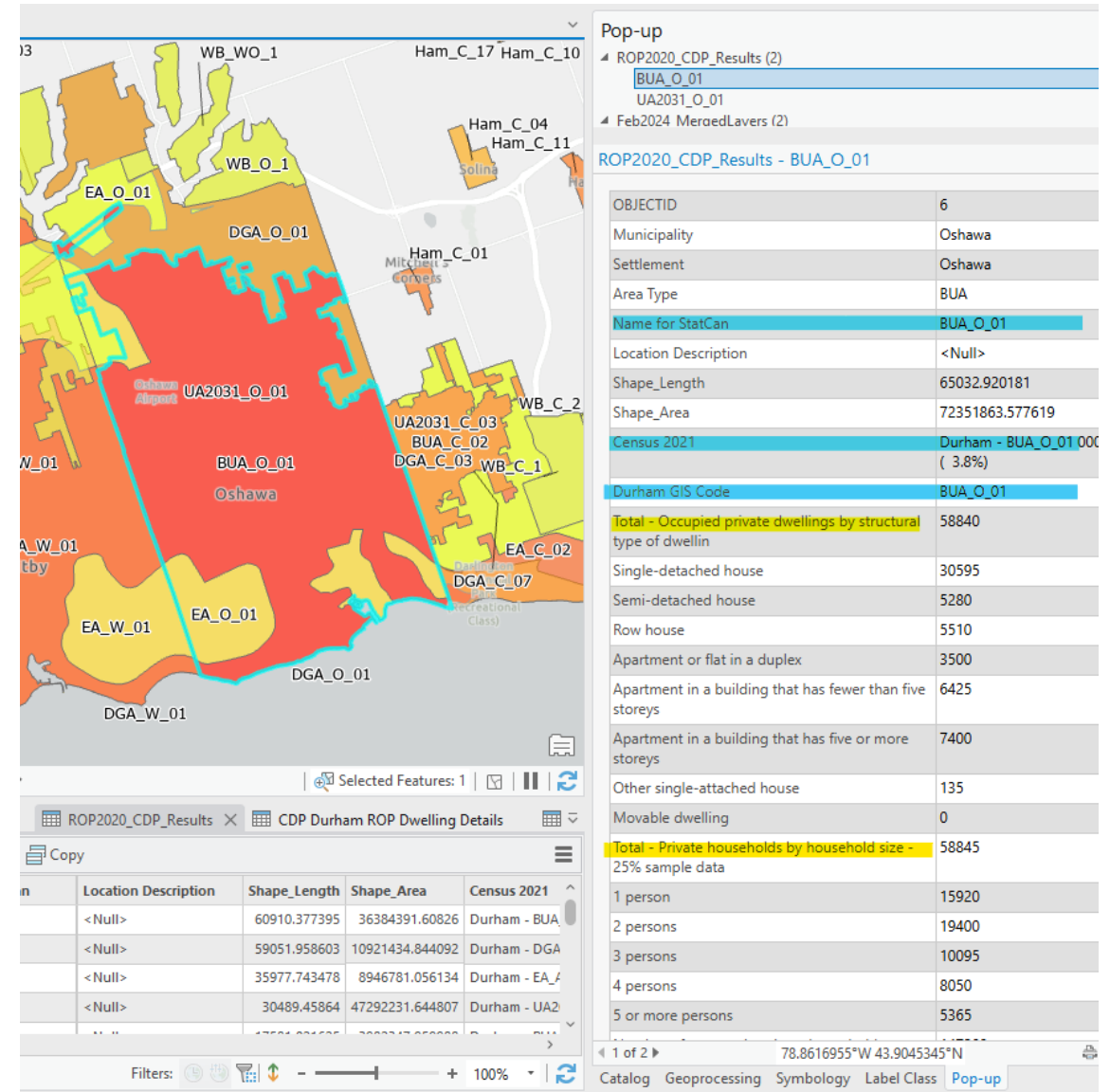
- Confirm and join back to GIS layers

	A	B	C	D	E	F	G	H
1	OBJECTID	Municipality	Settlement	Type	Name	Location	Shape_Length	Shape_Area
2	1	Scugog	Port Perry	BUA	BUA_S_01		38975.15311	10035195.07
3	2	Uxbridge	Uxbridge	BUA	BUA_U_01		16673.43347	6271442.181
4	3	Ajax	Ajax	BUA	BUA_A_01		60910.37739	36384391.61
5	4	Pickering	Pickering	BUA	BUA_P_01		51602.05336	47924504.78
6	5	Whitby	Whitby	BUA	BUA_W_01		93026.0983	56312107.64
7	6	Oshawa	Oshawa	BUA	BUA_O_01		65032.92018	72351863.58
8	7	Clarington	Orono	BUA	BUA_C_01		9918.202517	1579376.973
9	8	Clarington	Courtice	BUA	BUA_C_02		48697.16736	15312501.67

		Total - Occupied private dwellings by structural type of dwelling - 25% sample data	Single-detached house	Semi-detached house	Row house	Apartment or flat in a duplex	Apartment or flat in a duplex
Census 2021	Durham GIS Code						
Ontario - Total 00000 (3.8%)	Ontario (All)	5491205	2942745	306805	507445	176175	
Durham (Census Division) 00000 (2.9%)	Durham (All)	243050	160765	13145	27300	8810	
Durham - BUA_S_01 00000 (1.0%)	BUA_S_01	3450	2715	140	80	55	
Durham - BUA_U_01 00000 (3.8%)	BUA_U_01	4240	2915	75	325	145	
Durham - BUA_A_01 00000 (1.6%)	BUA_A_01	32880	20735	1860	4740	1315	
Durham - BUA_P_01 00000 (2.1%)	BUA_P_01	31045	17905	2450	4805	1750	

Mapping Results

Census statistics in ArcGIS features!



Challenges

How I Learned to Stop AdHoc-ing and Love ModelBuilder



Overlapping Policy

This area is:

- Protected Major Transit Station Area
- Within the Community Area
- Split by the Built Boundary
- Within the 2031 Urban Area
- Within the 2051 Urban Area
- In 1 of 4 Urban Settlements in the same Municipality
- Inside the total non-Greenbelt Area

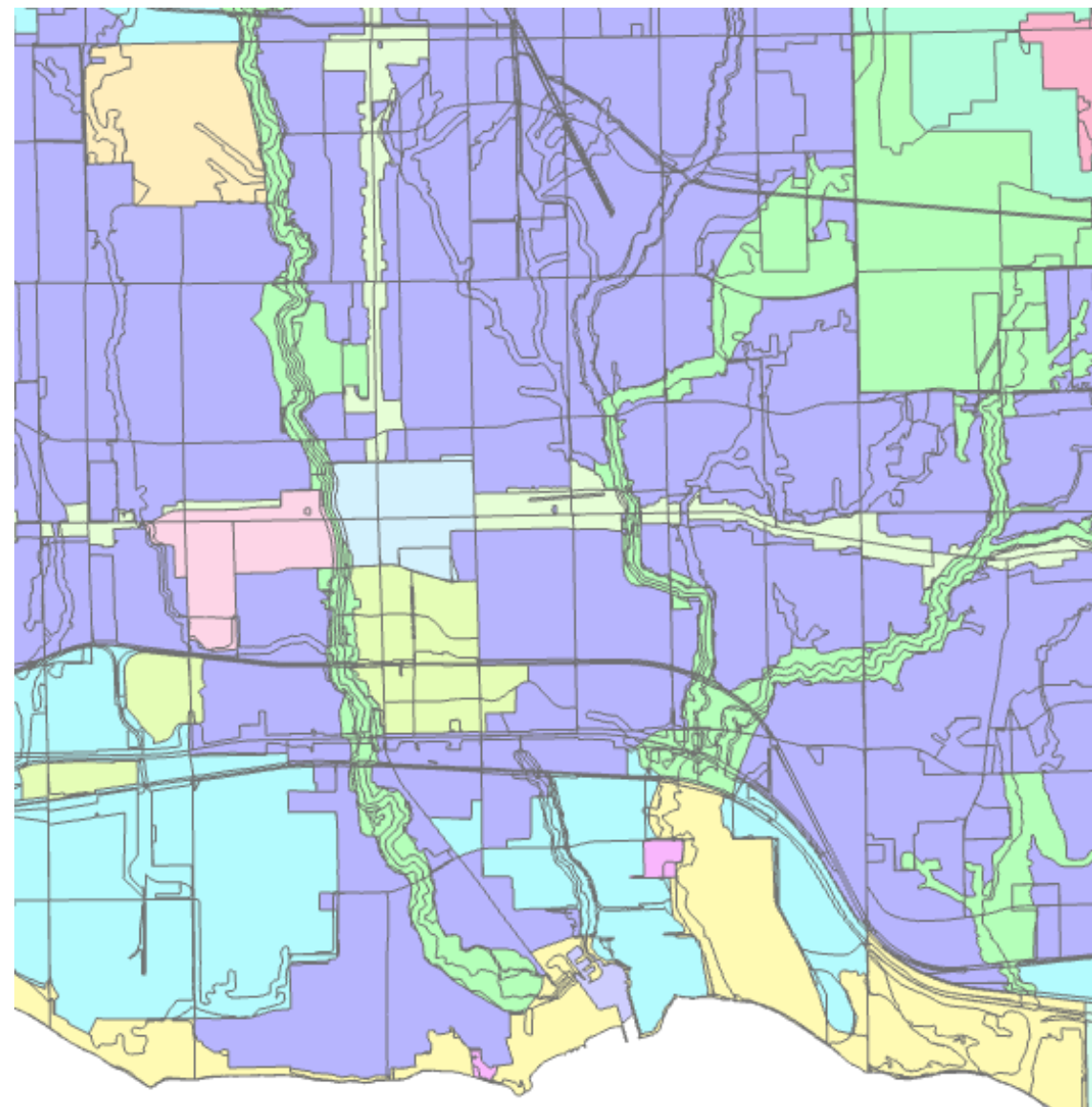
Lesson Learned: Also submit aggregated / dissolved layers



Precision and Suppression

- OP maps vs. “block-face”
- Hamlets and other small geographies
- Vanishing Returns on fine-grain analysis

Lesson Learned: More layers, fewer polygons

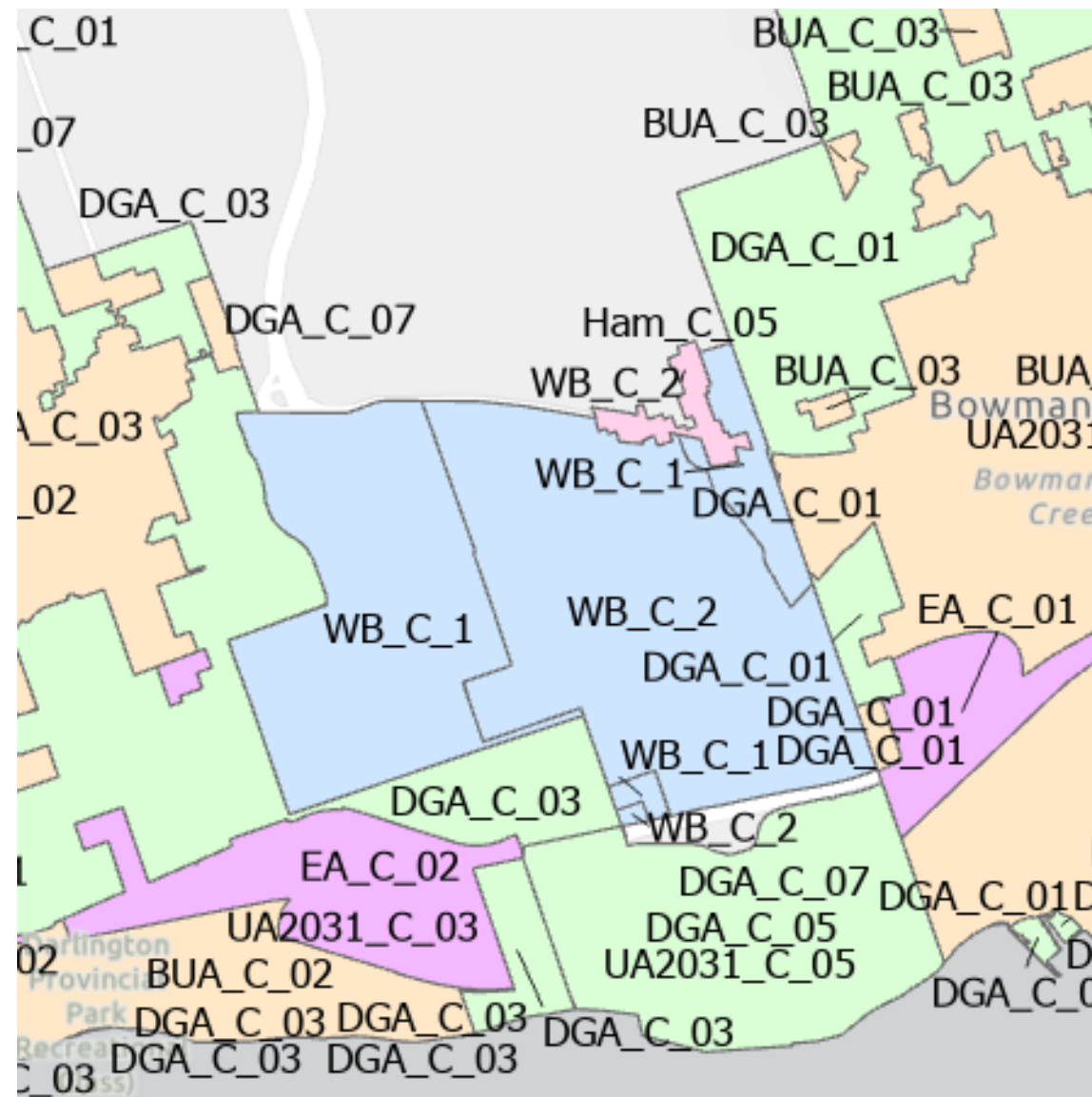


Challenges: Data Overload

- Overlapping Polygons
- Too many polygons
- Confusing names

Lessons Learned:

- Use descriptive label names, establish conventions
- Limit request to what you need, not what you want



Challenges: Scope Creep

Wouldn't it be nice if we could add ALL the things?

- Takes more Time
- Costs more Money
- Increases Complexity

Lesson Learned: request what you need and have now; save the rest for later.



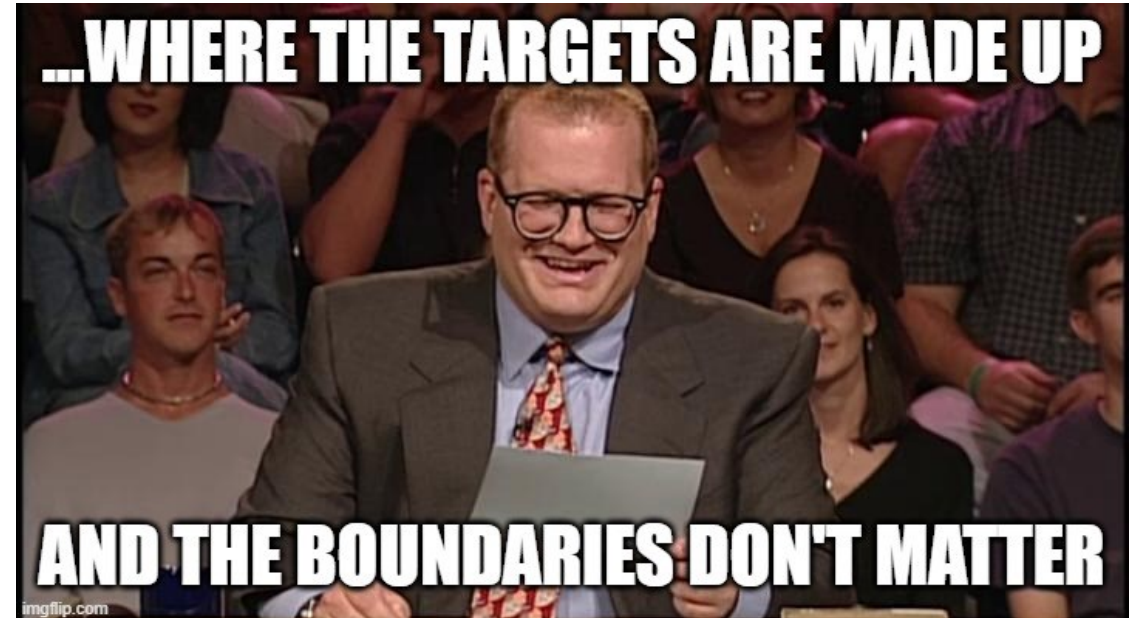
Shifting Policy and Legislation

- Anticipating OP Reviews
- Waiting on Amendments

Lesson Learned: Focus on what's currently important.

- What policies are in effect now?
- What questions do you need to answer now?

Bill 23: Whose OP is it anyway?





Next Steps



Thank You!

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Community Growth and Economic Development

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