



Study of Urban Development in Rural Areas

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Introduction

This presentation for the Web outlines the results of a study aimed at locating areas of recent, concentrated, unserviced development in Nova Scotia.

The information used to narrow down areas for a closer look was the Canada Census dwelling counts for 1991 and 1996.

The property parcel database, including both mapping and property attribute information, was used to take that closer look.

The result is a detailed picture of lot creation over the years in a number of areas in the province.

Why We Did the Study

Urban Development in Rural Areas (UDIRA) - Town vs. Country

In a Nutshell

- PERIPHERAL RESIDENTIAL:
 - high cost of serviced lots
 - PLUS
 - high urban tax rates
 - EQUALS
 - residential development in unserviced areas

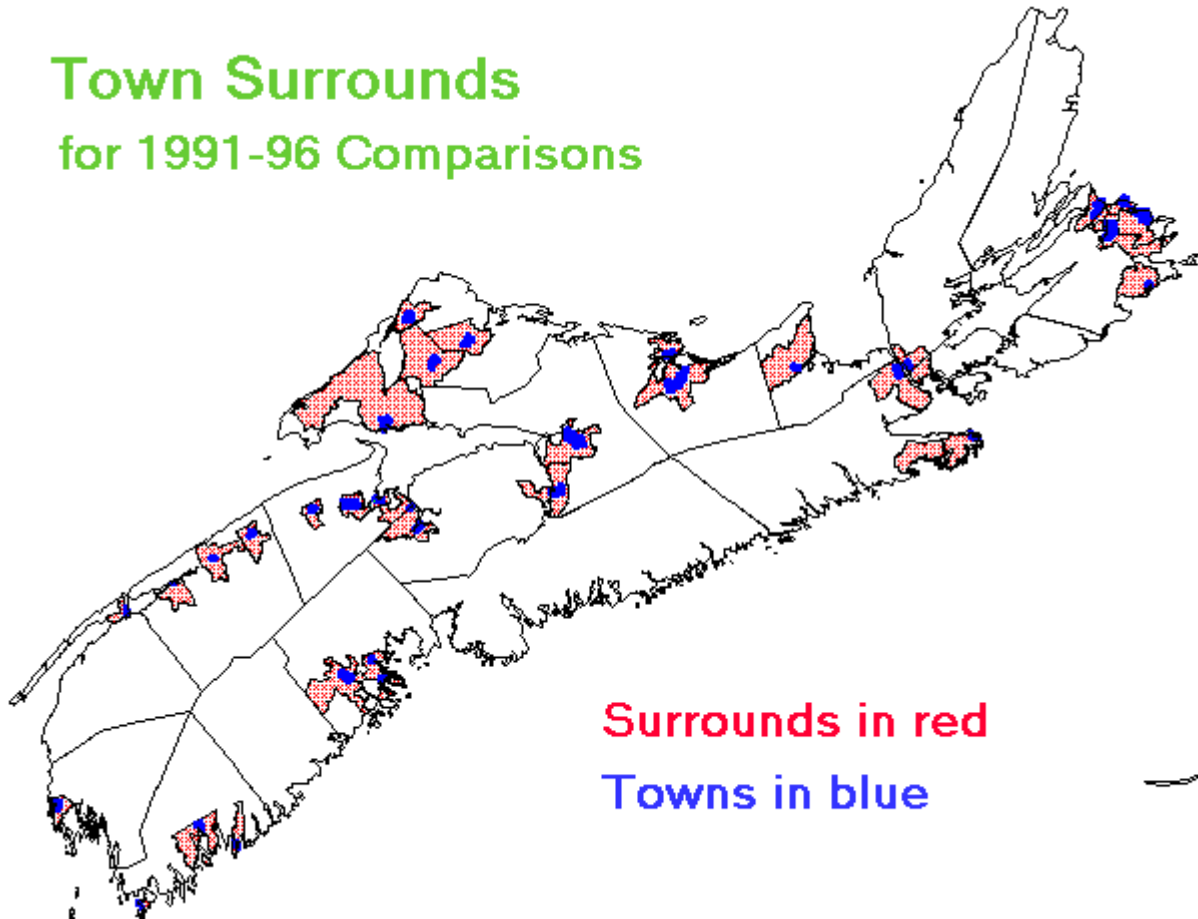
Some Statistics

- TOWNS DECLINE:
 - towns and city outside Halifax County
 - 1961 - 204 thousand
 - 1991 - 168 thousand
 - 18 percent decline
- RURALS INCREASE:
 - rural municipalities outside Halifax County
 - 1961 - 304 thousand
 - 1991 - 376 thousand
 - 24 percent increase

UDIRA Provincial Overview - Towns Surrounds

- 1991-96 Population and dwelling count percent changes were calculated for:
 - present and (in Cape Breton) former incorporated towns and former City of Sydney
 - groupings of enumeration areas surrounding them

Town Surrounds for 1991-96 Comparisons



- There were 30 areas.
- 5 were groupings:
 - Hantsport-Windsor
 - Westville to Trenton
 - Mahone Bay-Lunenburg
 - Sydney Mines (part) to Sydney
 - Glace Bay (part)-Dominion
- Part of Amherst is also included in the surround.
- Berwick's "surround" includes the town.
- Former New Waterford is missing a small piece.
- Former City of Sydney includes Membertou Reserve.

Towns Surrounds - Population Change

- 1991-96 percent changes in population in following table:
 - for TOWNS
 - were subtracted from those
 - for SURROUNDS
- A positive difference means the rural periphery grew at a faster rate than the

urban centre.

1991-96 Population Percent Change			
District	Town(s)	Surrounding Area	Surrounding - Town
Lockeport Area	-13.28	0.14	13.42
Louisbourg Area	-8.64	4.12	12.76
Middleton Area	-1.04	11.59	12.63
Kentville Area	0.82	10.67	9.85
Lunenburg/Mahone Bay	-6.73	1.93	8.66
Antigonish Area	-1.30	6.30	7.60
Clarks Harbour Area	-8.92	-1.62	7.30
Sydney Area	-3.43	2.77	6.20
Springhill Area	-4.12	0.99	5.11
New Waterford Area	-4.34	0.73	5.07
Digby Area	-4.85	-0.41	4.44
Stewiacke Area	7.58	11.83	4.25
New Glasgow Area	-2.77	1.38	4.15
Port Hawkesbury Area	-4.56	-0.59	3.97
Annapolis Royal Area	-7.90	-4.64	3.26
Truro Area	2.18	5.34	3.16
Yarmouth Area	-2.74	0.32	3.06
Hantsport/Windsor	1.61	4.18	2.57
Shelburne Area	-5.03	-2.71	2.32
Amherst Area	-0.75	1.33	2.08
Bridgetown Area	-2.64	-0.62	2.02
Glace Bay Area	-4.13	-2.33	1.80
Berwick Area	1.71	2.46	0.75
Oxford Area	-2.31	-1.82	0.49
Bridgewater Area	1.42	1.55	0.13
Pictou Area	0.00	-0.60	-0.60
Canso Area	-8.22	-11.49	-3.27
Parrsboro Area	-1.04	-6.15	-5.11
Wolfville Area	10.30	-3.34	-13.64
Mulgrave Area	0.00	-14.67	-14.67

- 25 of 30 areas (83 percent) grew faster in the periphery

Towns Surrounds - Dwellings Change

- 1991-96 percent changes in dwellings in following table:
 - for TOWNS
 - were subtracted from those
 - for SURROUNDS

- A positive difference means the rural periphery grew at a faster rate than the urban centre.

1991-96 Dwellings Percent Change			
District	Town(s)	Surrounding Area	Surrounding - Town
Louisbourg Area	-2.43	10.00	12.43
Antigonish Area	4.51	14.37	9.86
Kentville Area	3.96	13.41	9.45
Clarks Harbour Area	-2.27	5.81	8.08
Middleton Area	5.68	13.70	8.02
Sydney Area	2.04	9.57	7.53
Stewiacke Area	6.54	13.70	7.16
Annapolis Royal Area	-2.60	3.33	5.93
Springhill Area	0.37	6.13	5.76
Digby Area	-3.17	2.19	5.36
Yarmouth Area	1.03	6.34	5.31
New Waterford Area	2.18	7.31	5.13
Lunenburg/Mahone Bay	-0.77	4.10	4.87
New Glasgow Area	2.37	6.87	4.50
Pictou Area	2.17	6.66	4.49
Truro Area	5.52	9.54	4.02
Lockeport Area	-2.34	0.75	3.09
Hantsport/Windsor	6.20	9.25	3.05
Bridgewater Area	4.66	7.17	2.51
Oxford Area	0.19	2.49	2.30
Amherst Area	4.25	6.38	2.13
Shelburne Area	0.57	1.85	1.28
Berwick Area	5.07	6.12	1.05
Glace Bay Area	1.89	2.04	0.15
Canso Area	-2.15	-2.36	-0.21
Bridgetown Area	1.83	1.57	-0.26

Port Hawkesbury Area	5.72	3.19	-2.53
Parrsboro Area	0.58	-3.75	-4.33
Mulgrave Area	3.11	-10.91	-14.02
Wolfville Area	14.66	-3.09	-17.75

- 24 of 30 areas (80 percent) grew faster in the periphery

Urban Development in Rural Areas (UDIRA) as a Provincial Issue

Some Problems for Government

- SERVICE INEFFICIENCIES & INCREASED COSTS
 - school bussing
 - solid waste collection
 - emergency services
- SCHOOLROOM SHORTAGES
- TRAFFIC SLOWING
 - frequent driveway accesses
 - school bus stops
 - mail delivery stops
 - often on through highways
- HIGH FUTURE SERVICING COSTS
- TOWNS LOSE TAXES
 - rural municipality collects tax revenues
 - town still provides services and employment



- LAND USE CONFLICTS
 - agriculture
 - sawmills
 - mining and aggregate extraction
 - aquaculture

UDIRA - Some Government Solutions

- 1970's:
 - Halifax-Dartmouth Regional Development Plan

- environmental review of large subdivisions
- PROBLEM - sewer/water grants promoted spread of development
- PROBLEM - no expansions of town boundaries
- 1980's:
 - grants to rural municipalities promoting higher density areas (Class 4 Areas)
 - measures to promote downtowns as heart of traditional communities:
 - Mainstreet Programme
 - Business Improvement District Commissions
 - Shopping Centres Development Act
- 1990's:
 - services exchange:
 - rural municipalities took over local roads and policing
 - reduced differentials in rural and urban tax burdens
 - municipal amalgamation:
 - brought single local government to two metropolitan areas (Halifax, Cape Breton)
 - broad-scale settlement planning now possible
 - no competition among municipalities for commercial development
 - property tax rates set by single authority
- 2000's:
 - sustainable development
 - provincial interest statements
 - lot levies

Urban Development in Rural Areas - Draft Provincial Interest Statement on Infrastructure

- Municipal planning documents must contain policies on municipal infrastructure that:
 - PROMOTE EFFICIENT USE OF EXISTING
 - REDUCE NEED FOR NEW
- Development to be considered:
 - INFILL
 - HIGHER DENSITY
 - MINIMAL COSTS SERVICE EXTENSION
 - NO LEAPFROGGING

UDIRA Questions We Want to Answer

- LOCATION - of concentrations of:
 - leapfrog development
 - strip or ribbon development
 - scattered development

- PATTERN
 - along existing highways ?
 - on new side roads ?
- INTER-RELATIONSHIP - are concentrations:
 - close together ?
 - far apart ?
- AGRICULTURE - is development:
 - immediately adjacent ?
 - some distance away ?
- COSTS of this development pattern for:
 - municipalities ?
 - Province ?

UDIRA Costs - Sewer and Water

- CANADA-NOVA SCOTIA INFRASTRUCTURE WORKS PROGRAM
- SEWER/WATER COMMITMENTS (1994-95 to 1998-99)
- TOTAL - \$168.4 million
- AMOUNT FROM PROVINCE - \$47 million
- TOTAL FOR RURAL MUNICIPALITIES - \$104.4 million (62 percent)
- (Includes former Halifax, Cape Breton, Queens Counties)
- "RURAL" SEWER/WATER CONSTRUCTION - \$20.9 million/yr.

UDIRA Costs - Roads

- SUBURBAN AND SEMI-URBAN SUBDIVISION ROADS:
 - 1600 km. across province
 - formerly owned and maintained by Province
 - transferred to municipalities (fall 1994)
 - Municipal Reform Act
- ALTERNATIVE TO TRANSFER TO MUNICIPALITIES - municipalities pay \$3500/km. annual maintenance fee (adjusted annually)
- ALL EXCEPT HALIFAX REGIONAL MUNICIPALITY ARE PAYING FEE
- ALL NEW ROADS ARE MUNICIPAL RESPONSIBILITY
- TOTAL ANNUAL MAINTENANCE FEE - \$5.6 million

Local Roads for Service		
Municipality	Length	Percent
	Local	of Total
	(km.)	
Halifax	640.63	39.6%
Kings	135.15	8.3%
Colchester	106.24	6.6%
Lunenburg	78.8	4.9%

Lunenburg	78.8	4.9%
Hants East	56.29	3.5%
Chester	35.47	2.2%
Hants West	33.73	2.1%
Central Counties	1086.31	67.1%
Cape Breton	209.74	13.0%
Pictou	30.32	1.9%
Antigonish	14.96	0.9%
Eastern Growth Counties	255.02	15.8%
Queens	53	3.3%
Shelburne	6.2	0.4%
Yarmouth	14.68	0.9%
Argyle	8.81	0.5%
Barrington	11.09	0.7%
Clare	0	0.0%
Digby	10.35	0.6%
Annapolis	28.39	1.8%
Cumberland	41.48	2.6%
Guysborough	15.11	0.9%
St. Mary's	4.94	0.3%
Richmond	29.88	1.8%
Victoria	24.6	1.5%
Inverness	28.88	1.8%
Others	277.41	17.1%
Total	1618.74	100.0%

- See Provincial Overview - Enumeration Areas page for comment on table.
- RURAL SEWER/WATER/ROAD COSTS - \$26.5 million/yr.

How We Did the Study

Local Monitoring Methodology - Assumptions and Definitions

Assumptions

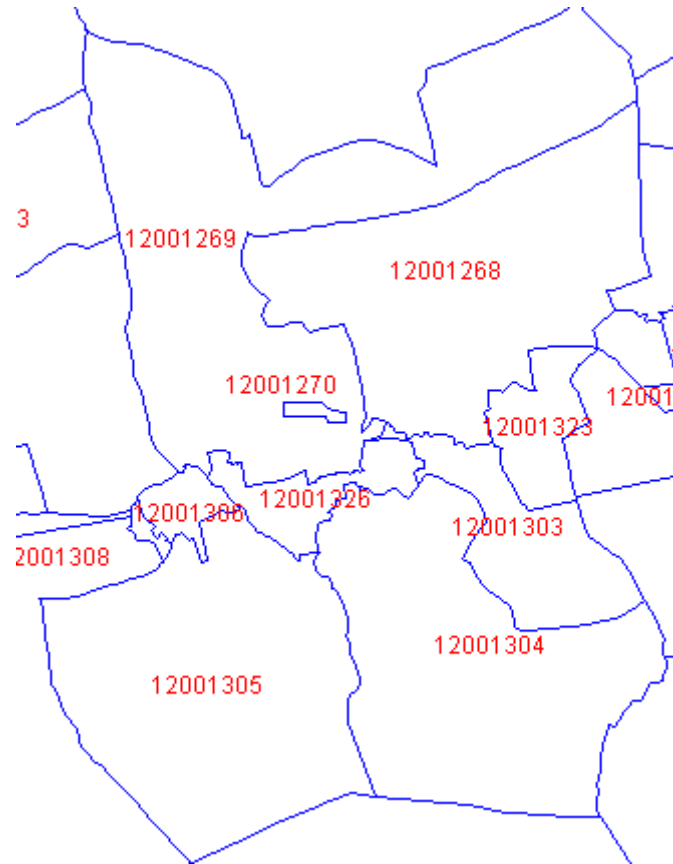
- 2 hectare (approx. 5 acre) lots are the largest that will be developed for rural residential or hobby farm use.
- Such lots in accessible locations will eventually be developed in such uses.
- Such lots in relatively isolated locations will eventually be developed for cottage, second or summer home, or retirement home use.
- The boundaries of the former Class 4 areas are a good indicator of urban density, and are likely to indicate servicing.
- Lots with no date of creation are likely to be somewhat older than lots with dates.

Definitions

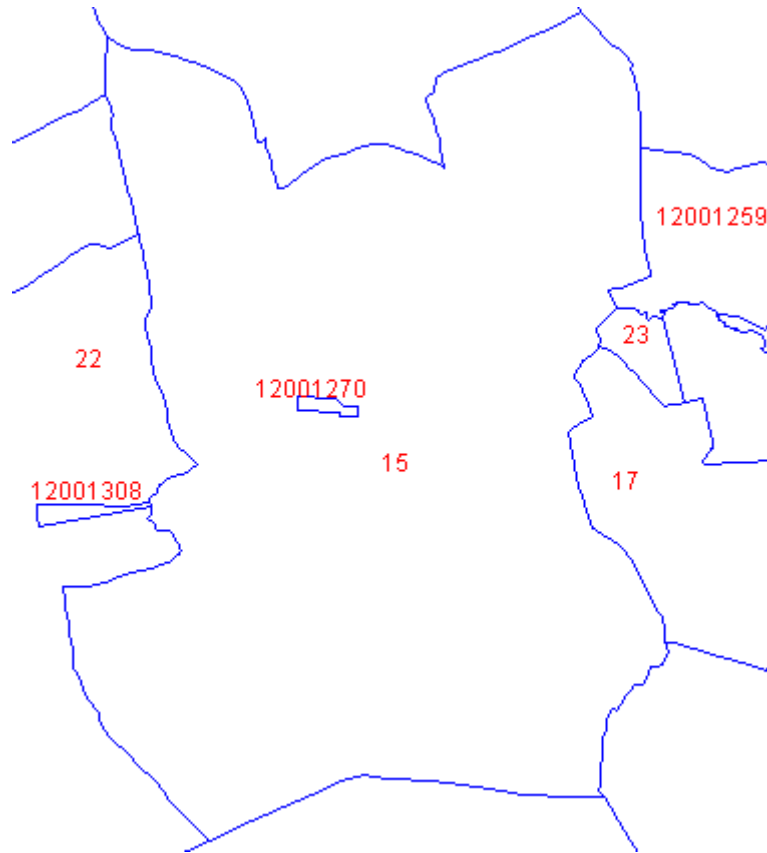
- UDIRA is:
 - residential
 - concentrated
 - unserviced
 - outside towns and Class 4 areas
- "Hotspot" is:
 - UDIRA
 - has 50 or more new occupied dwellings 1991-1996

Local Monitoring Methodology - Census Analysis

- The digital map of the 1996 Census Enumeration areas was a base.



- To compare data from the 1991 and 1996 Censuses, many E.A.'s had to be grouped together.

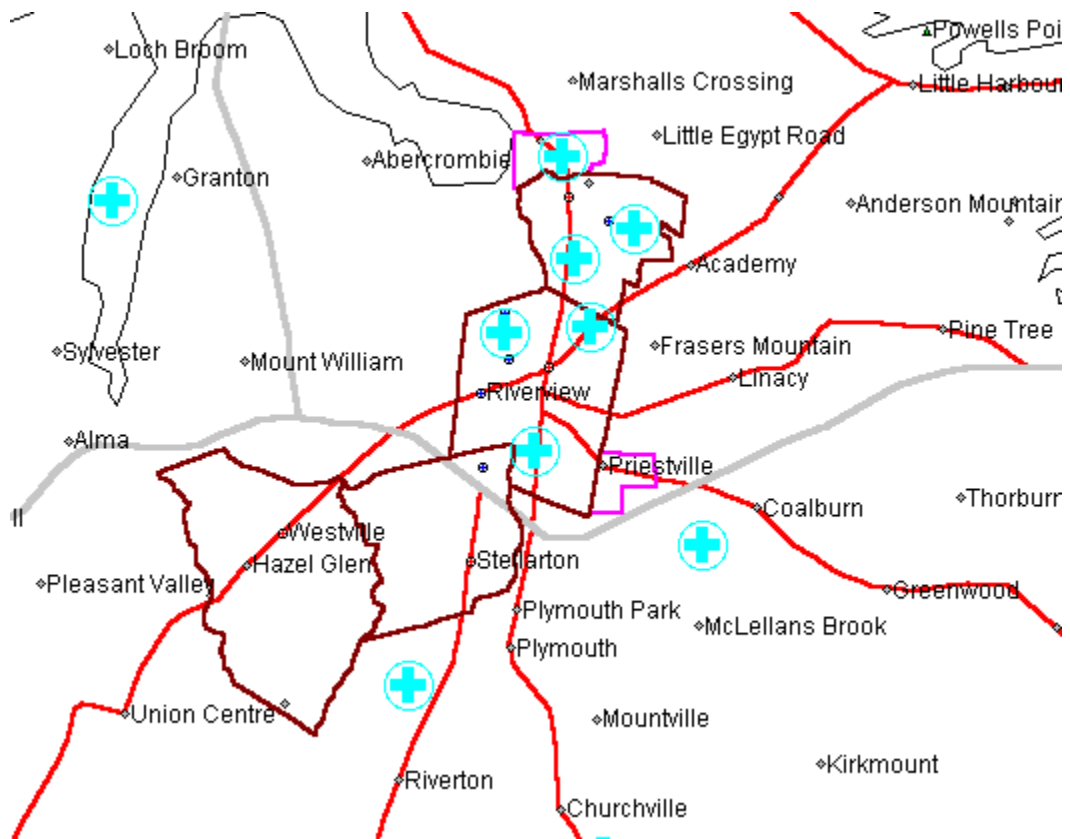


- Data licensing agreement with Statistics Canada prohibits any data publishing below the municipal level.
- Dwelling increase data is thus masked by:
 - hiding E.A. grouping boundaries
 - grouping numerical data into 3 broad ranges
 - symbolizing data range at E.A. grouping polygon centroid:

red - 100+ dwellings increase

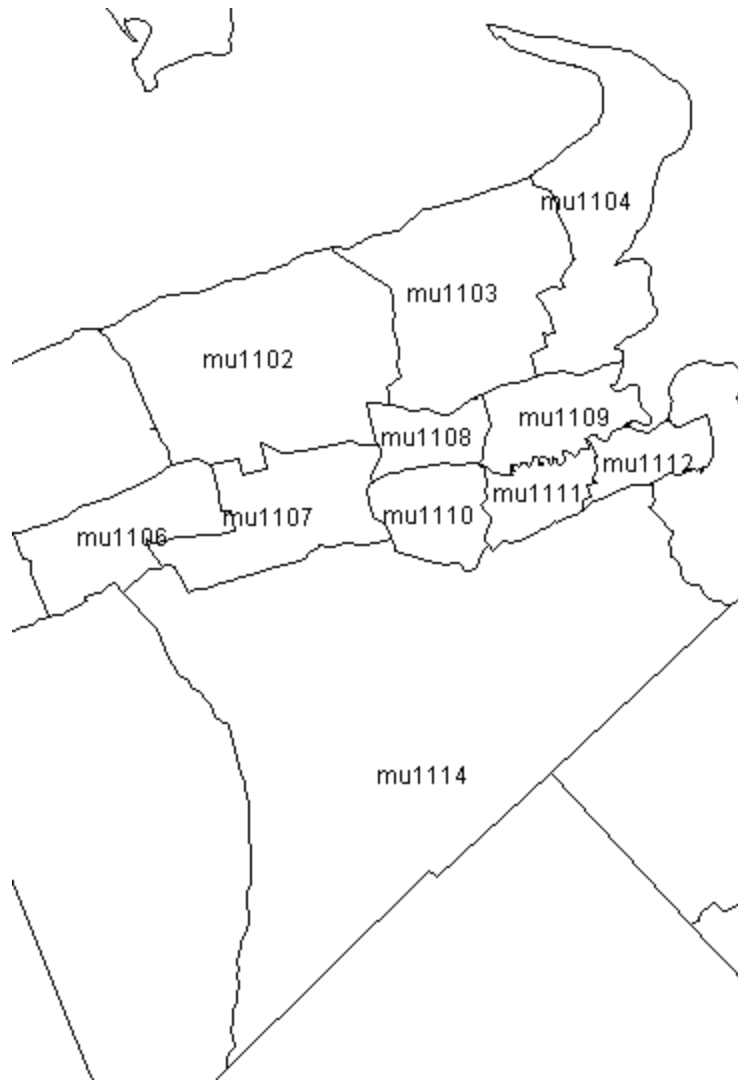
green - 50-99 dwellings increase

blue - 20-49 dwellings increase



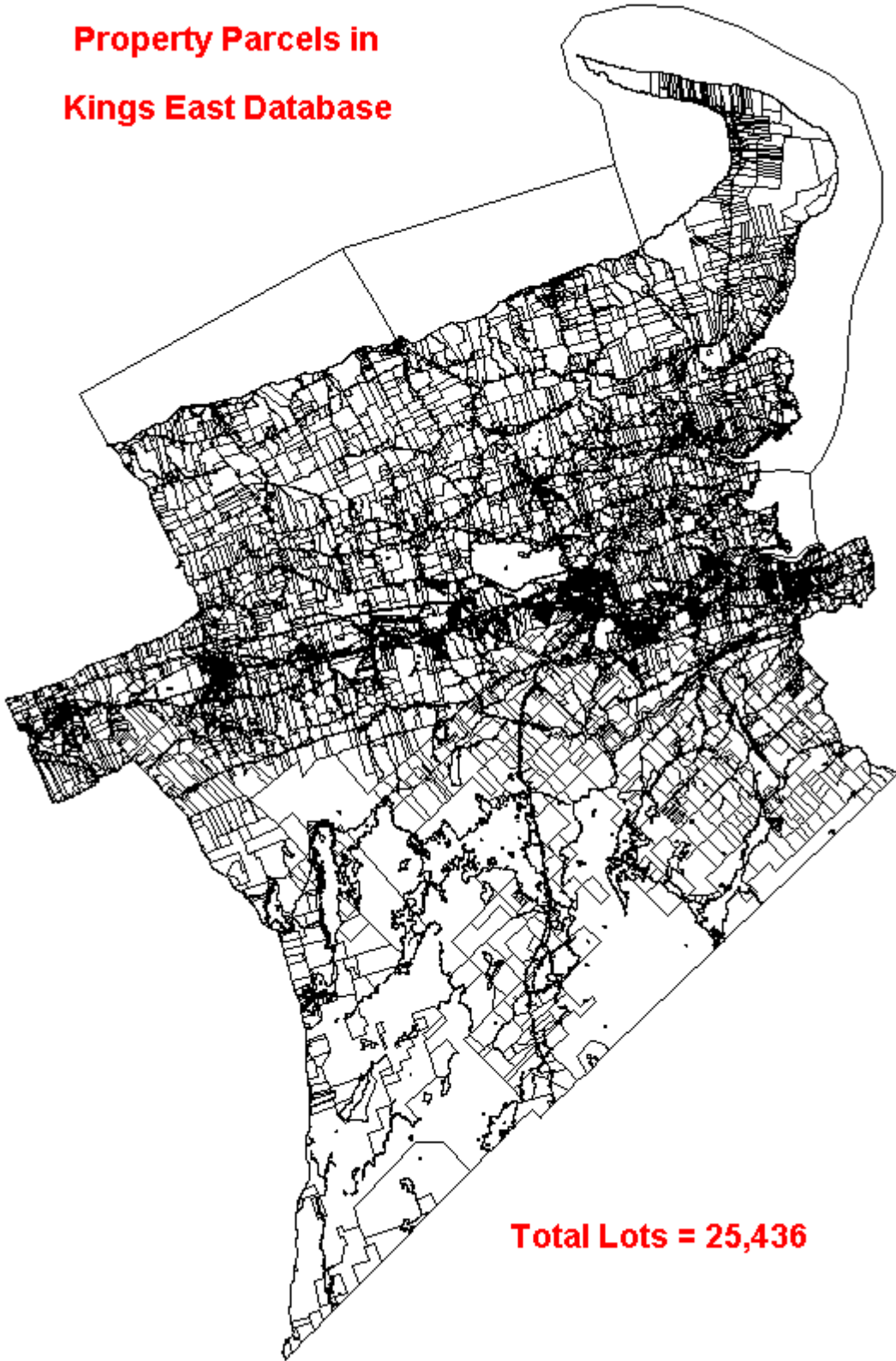
Local Monitoring Methodology - Parcel Map Preparation

- The province-wide parcel mapping is divided into management units.



- Individual management units for a study area are merged into a single map and database.

**Property Parcels in
Kings East Database**



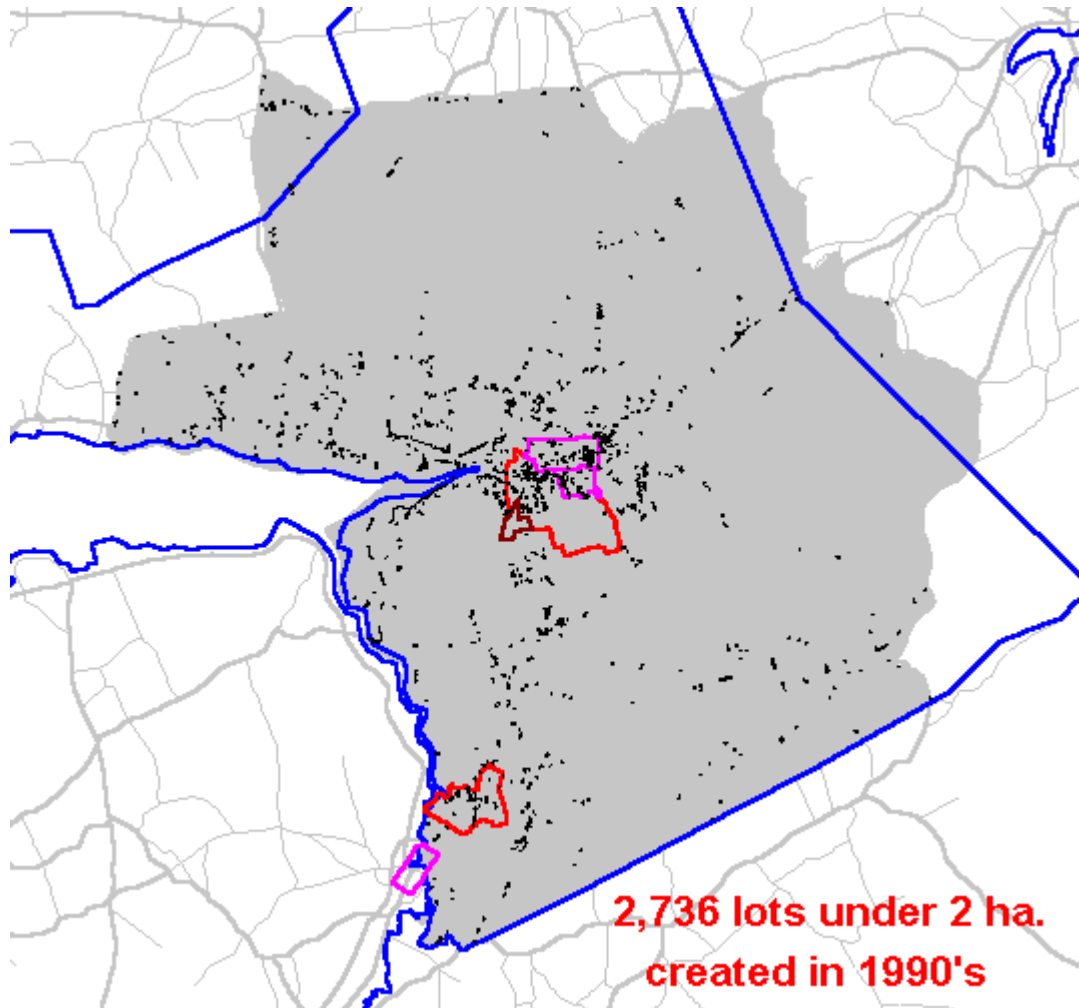
Total Lots = 25,436

- Parcel polygons with an area of 2 hectares or less are extracted and saved as a separate database.



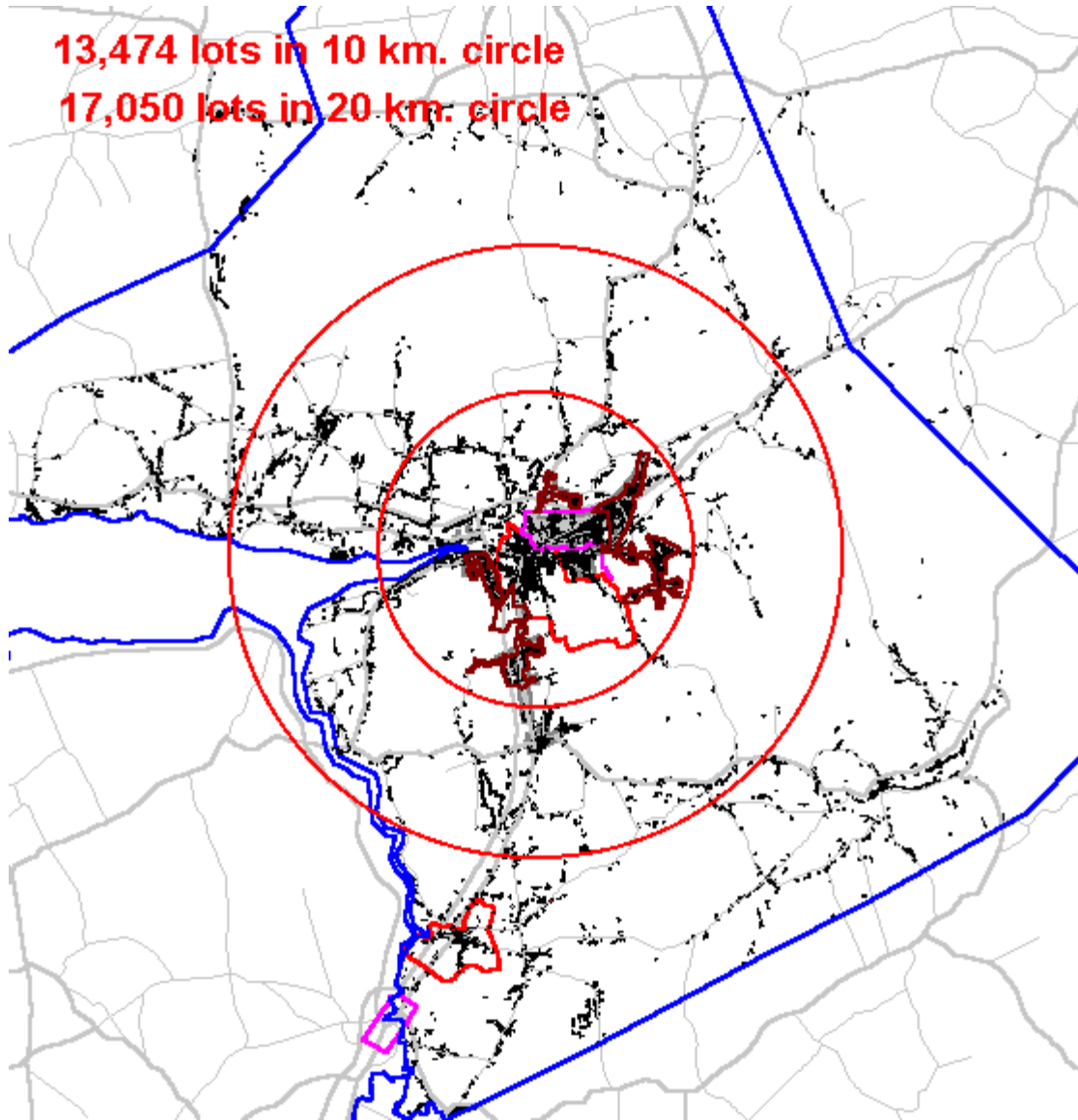
- Parcel polygons have attribute data for year of creation.

- Data sets of parcels created in each decade are extracted separately.

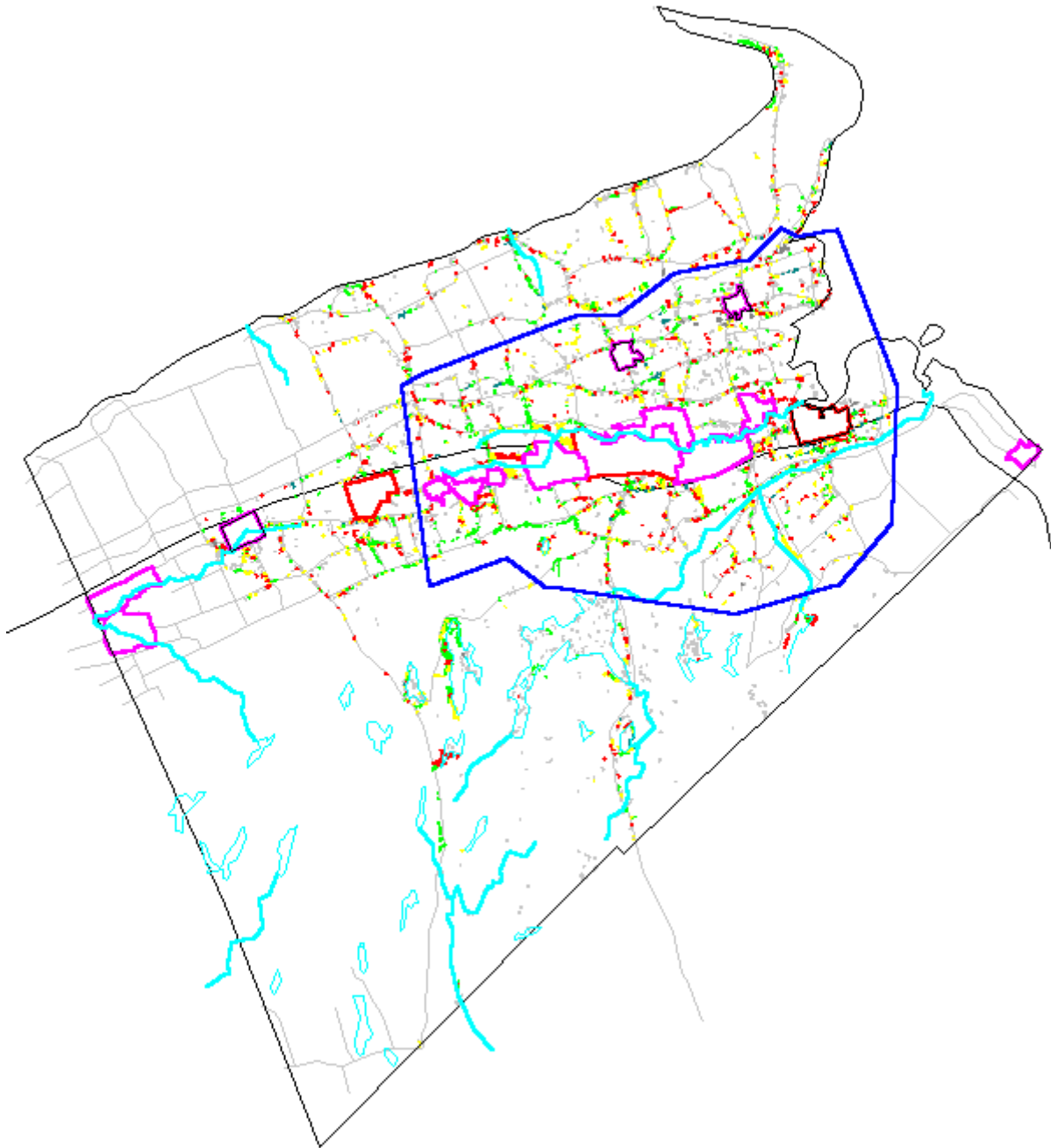


Local Monitoring Methodology - Selecting Study Area

- SINGLE URBAN CENTRE - study area defined by two concentric circles including urban development.



- MULTIPLE URBAN CENTRES - study area defined as corridor (Kings-Annapolis) or arc (Cape Breton ?) bounded by natural barriers.

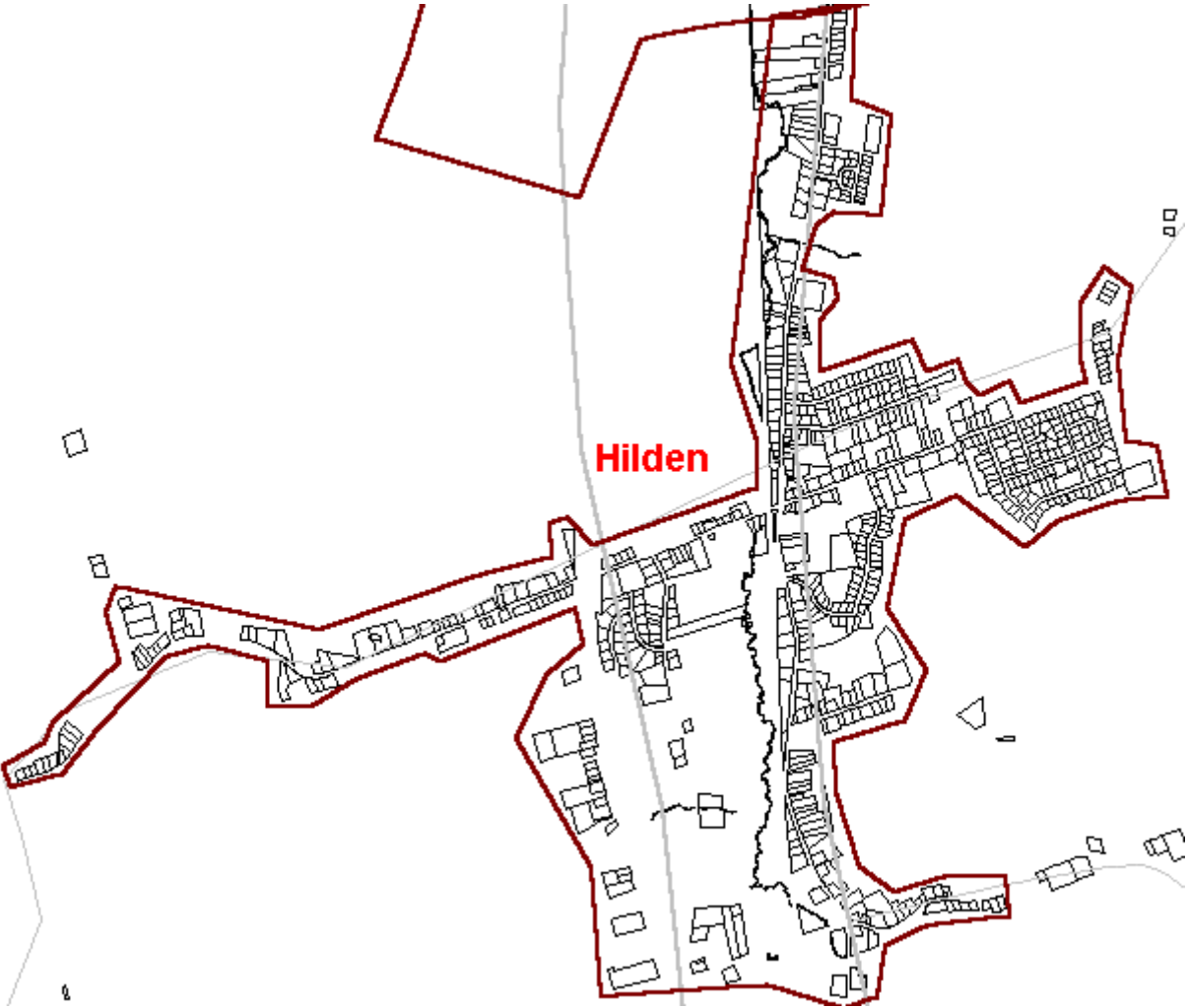


- Delineate outer boundaries of extensions of urban development.
- Delineate concentrations of strip development.
- Mark location of side-road subdivisions outside urban areas.
- Display decade of lot creation.

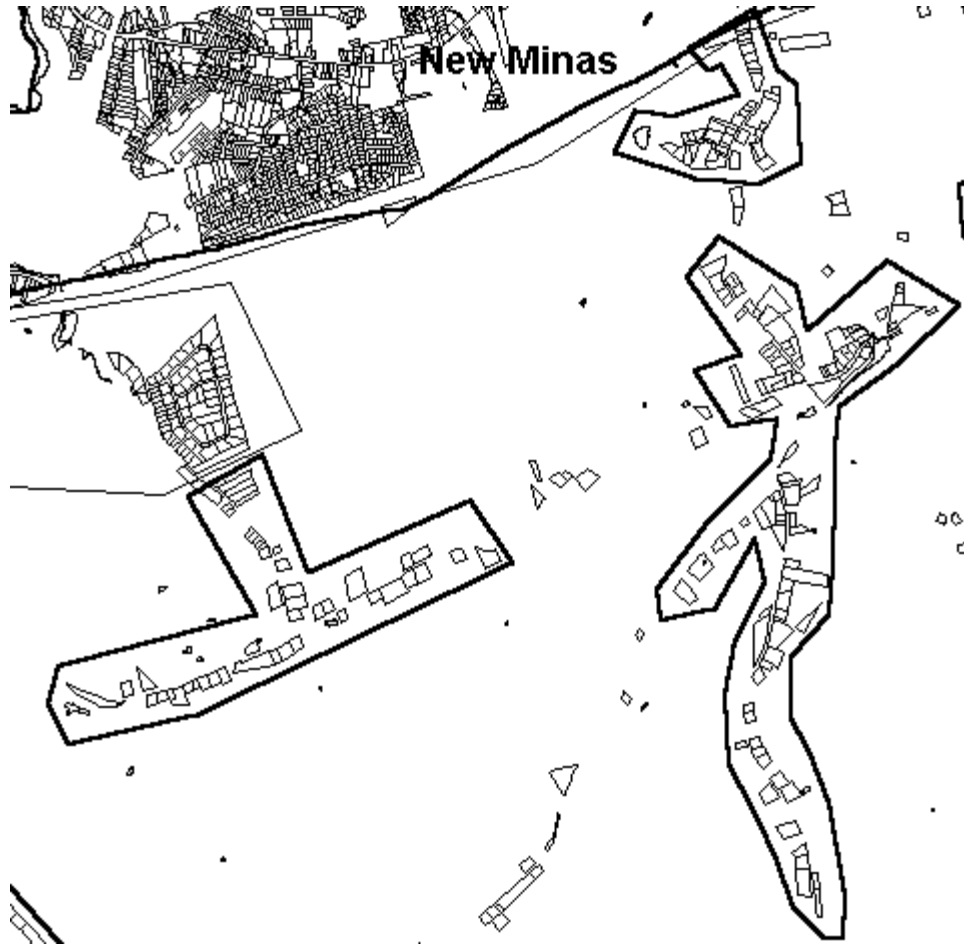
Local Monitoring Methodology - Isolating Development Concentrations

Isolating Development Concentrations

- Delineate outer boundaries of extensions of urban development.



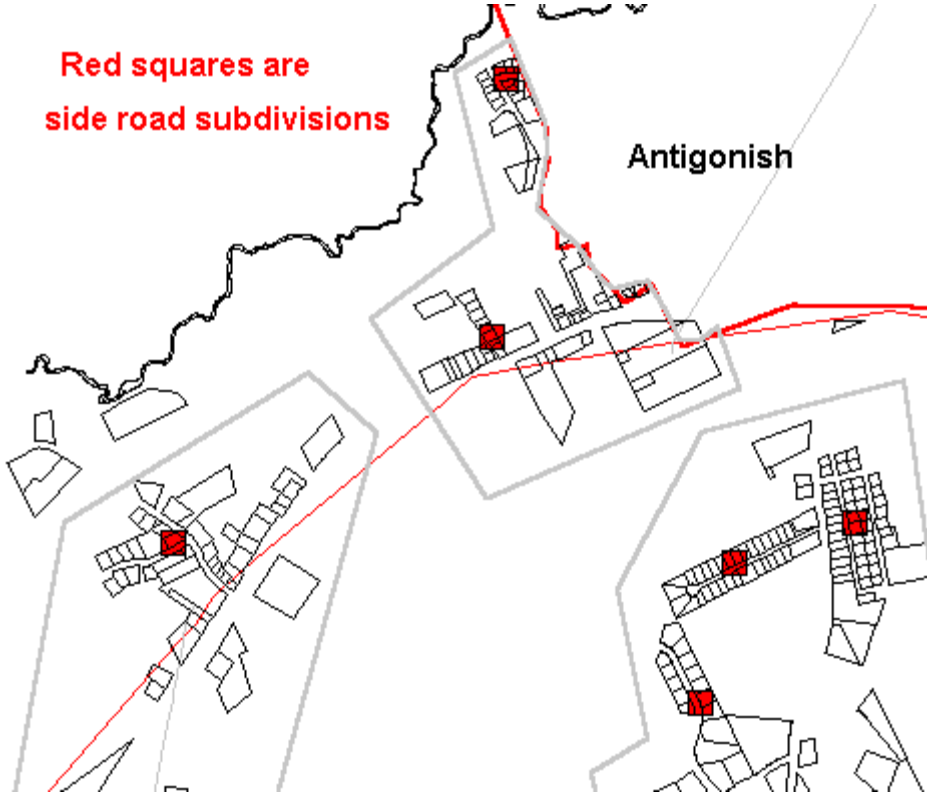
- Delineate concentrations of strip development.



- Mark location of side-road subdivisions outside urban areas.

**Red squares are
side road subdivisions**

Antigonish



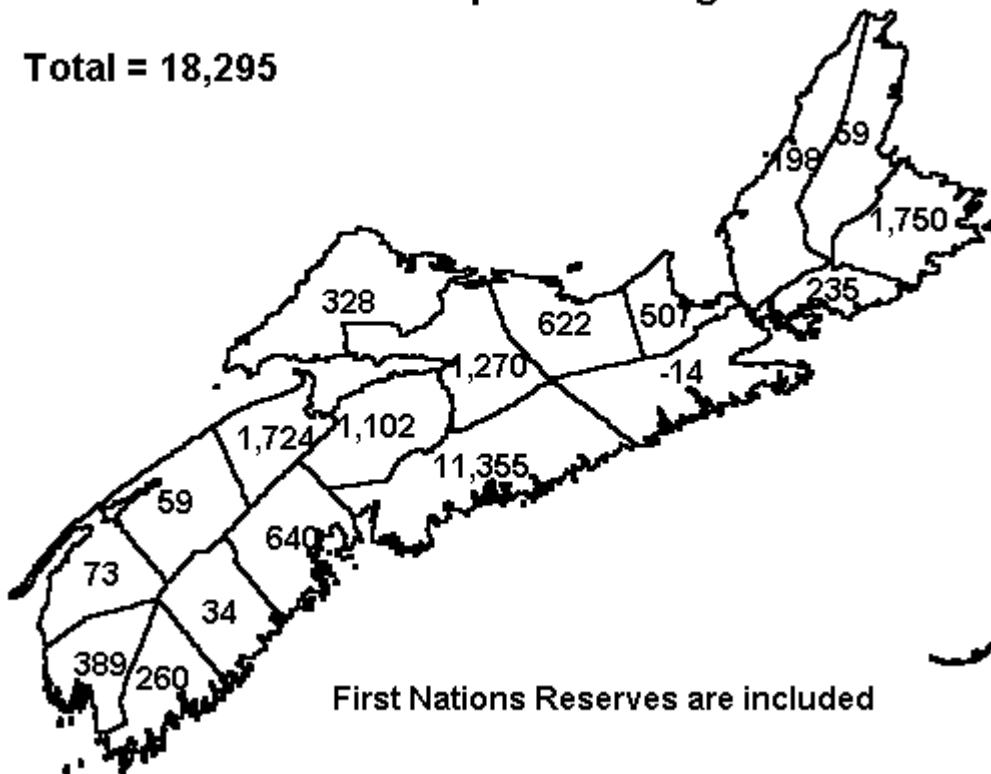
What We Found – Provincial Overview

UDIRA Provincial Overview - Counties

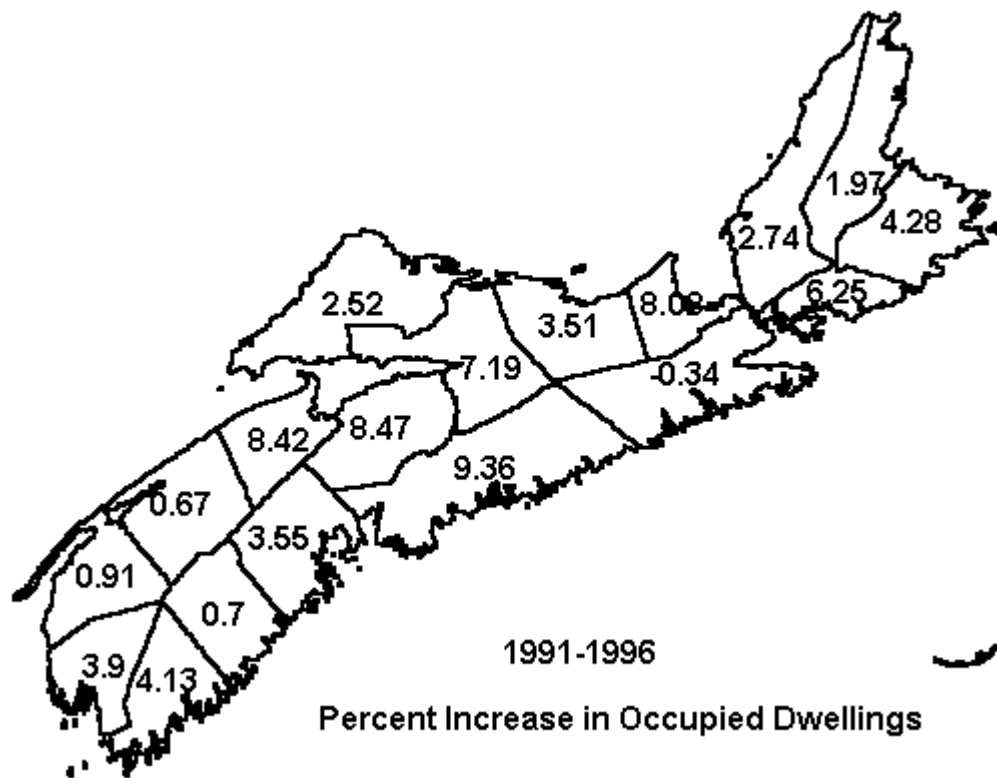
- UDIRA is:
 - residential
 - concentrated
 - unserved
 - outside towns and Class 4 areas
- 1991-96 dwellings change ranges from 11 thousand increase for Halifax to a decrease in Guysborough.

Absolute Increase in Occupied Dwellings 1991-96

Total = 18,295



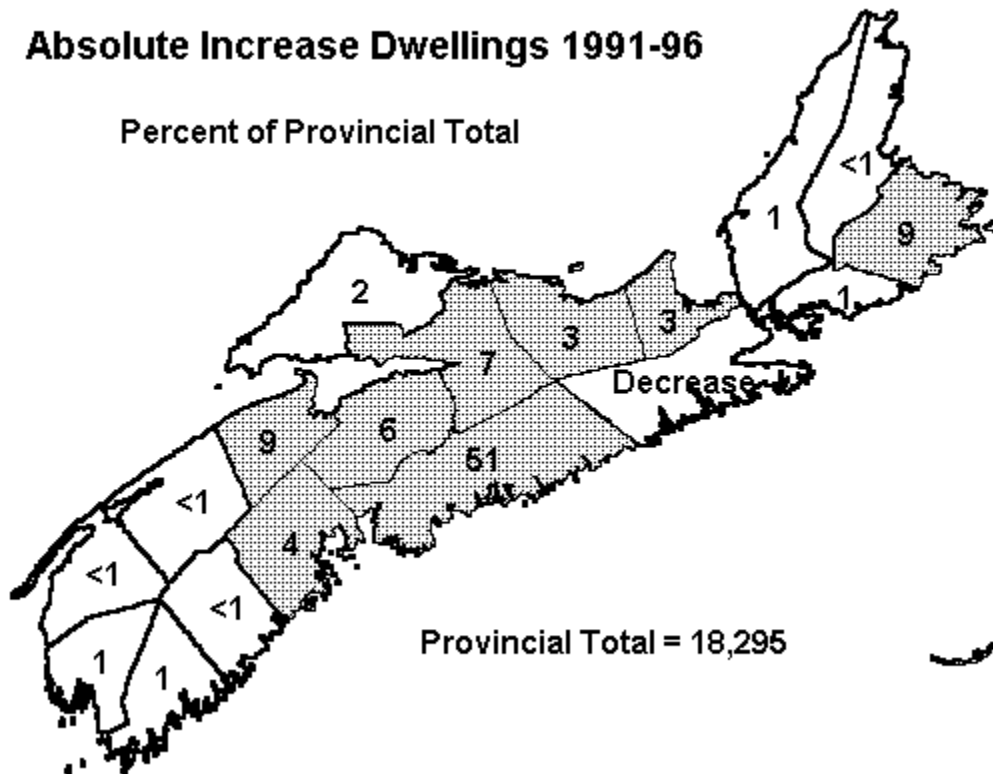
- 11 counties have 3 percent or more increase



- 10 counties each have 2 percent or less of the provincial total of 18 thousand.

Absolute Increase Dwellings 1991-96

Percent of Provincial Total

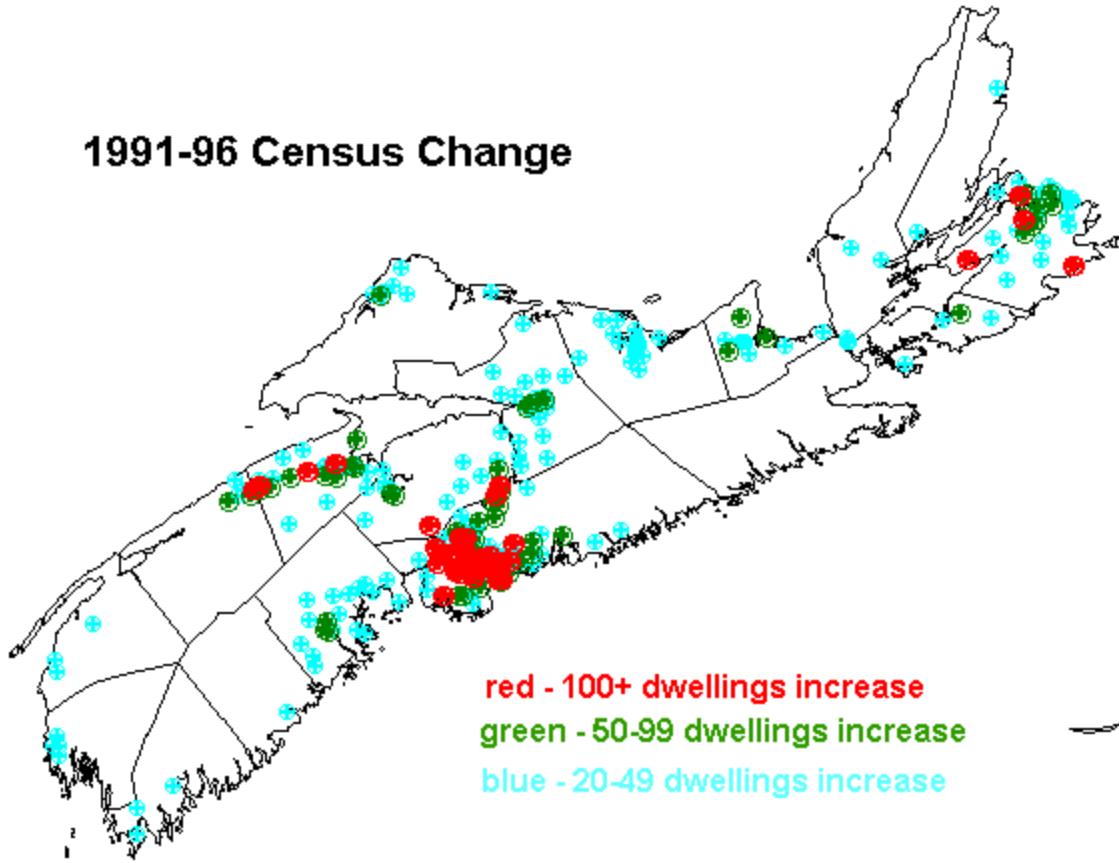


- 92 PERCENT OF PROVINCIAL INCREASE:
 - Halifax
 - Cape Breton
 - Kings
 - Colchester
 - Hants
 - Lunenburg
 - Pictou
 - Antigonish
- 83 PERCENT OF LOCAL ROADS - same 8 counties

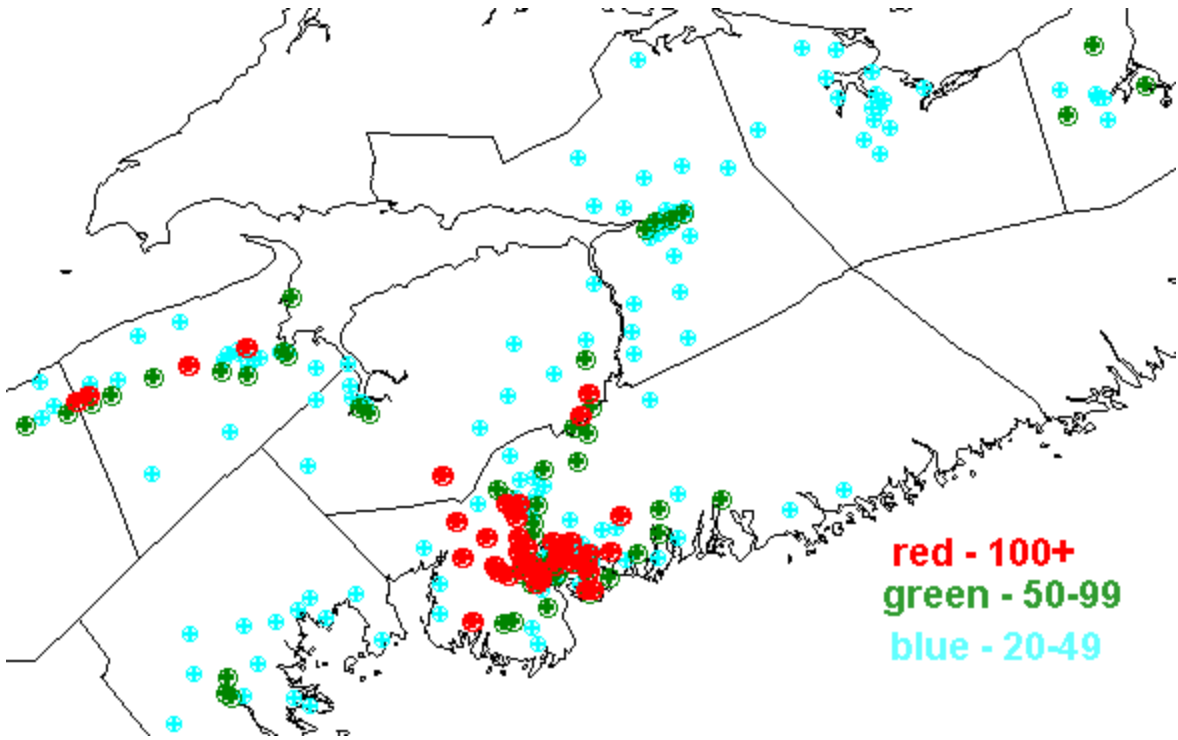
UDIRA Provincial Overview - Enumeration Areas

- Growth areas are in red.
- Southern Cape Breton Island has a concentration.

1991-96 Census Change



- Others are in:
 - Kings
 - Lunenburg
 - Halifax to Antigonish corridor



What We Found – County Studies

Regional Municipalities Hotspots

Halifax Hotspots

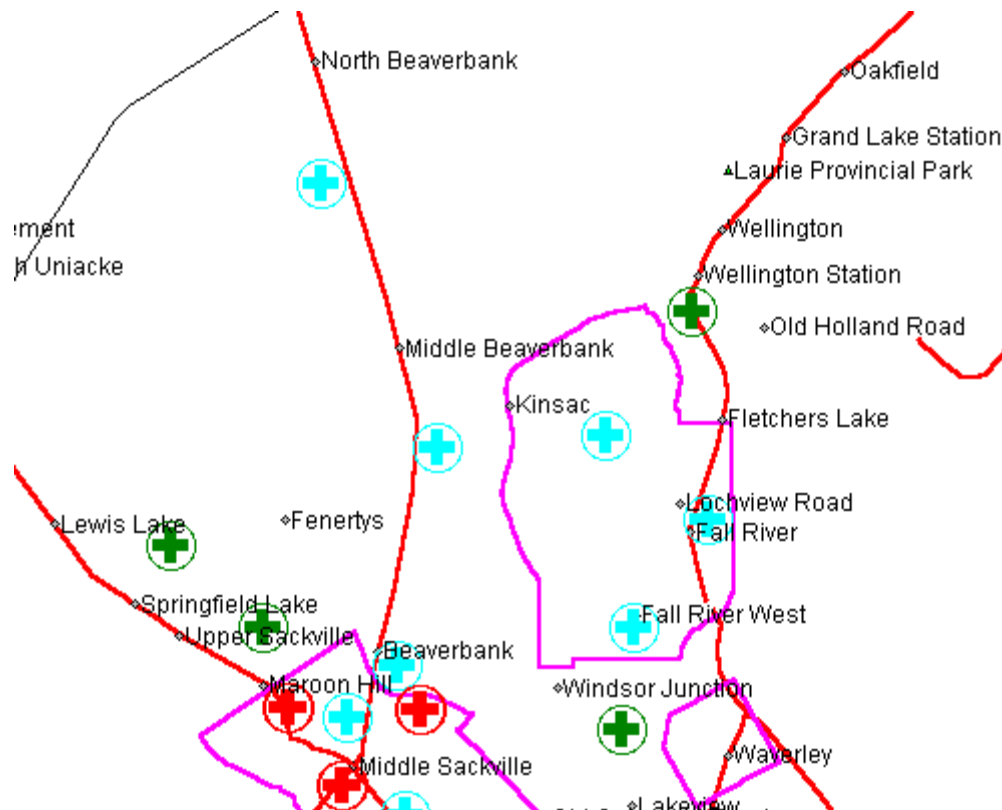
- RING - Areas with hotspots ring the urban core.
 - Each area has 300-1,000 new dwellings.

red - 100+ dwellings increase

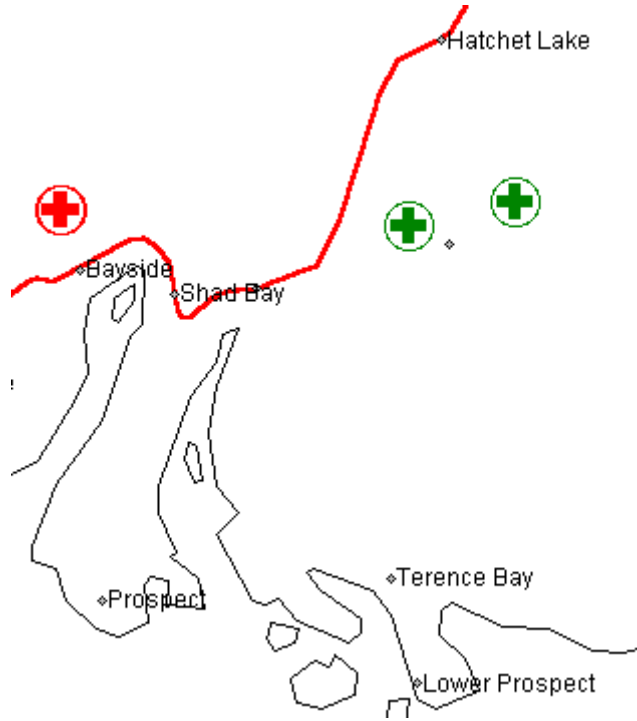
green - 50-99 dwellings increase

blue - 20-49 dwellings increase

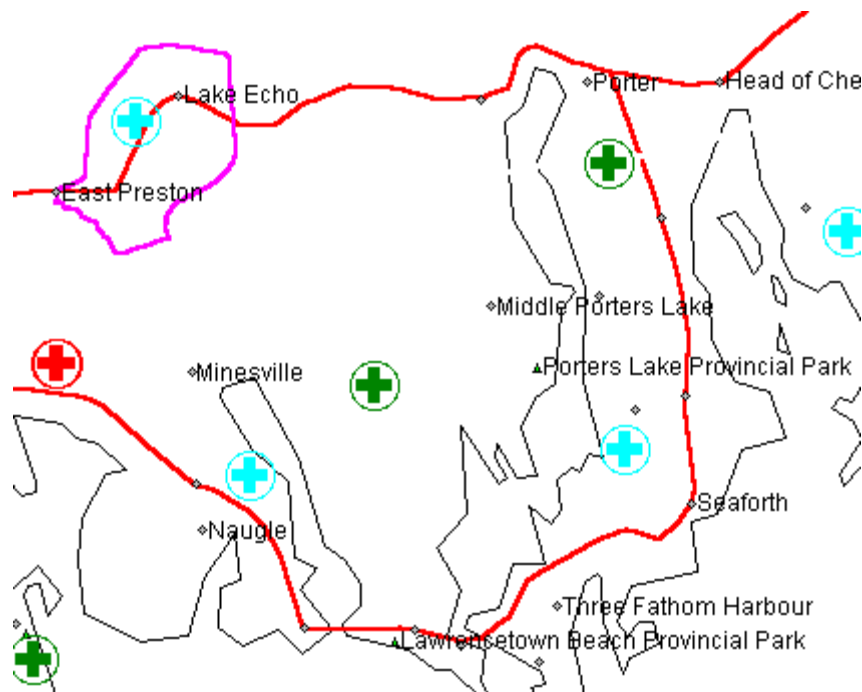
- NORTH - Beaverbank adjoins Sackville and Fall River Class 4 areas



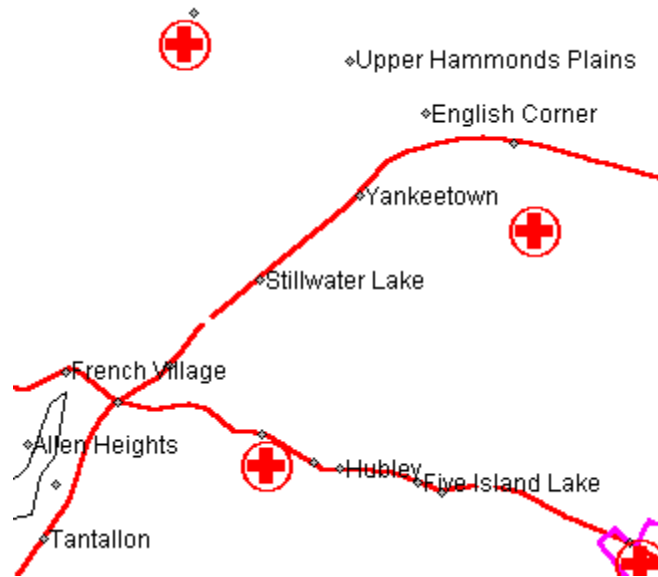
- SOUTH-WEST - Prospect does not adjoin an urban area.



- SOUTH-EAST - Chezzetcook adjoins only the Lake Echo Class 4 area.

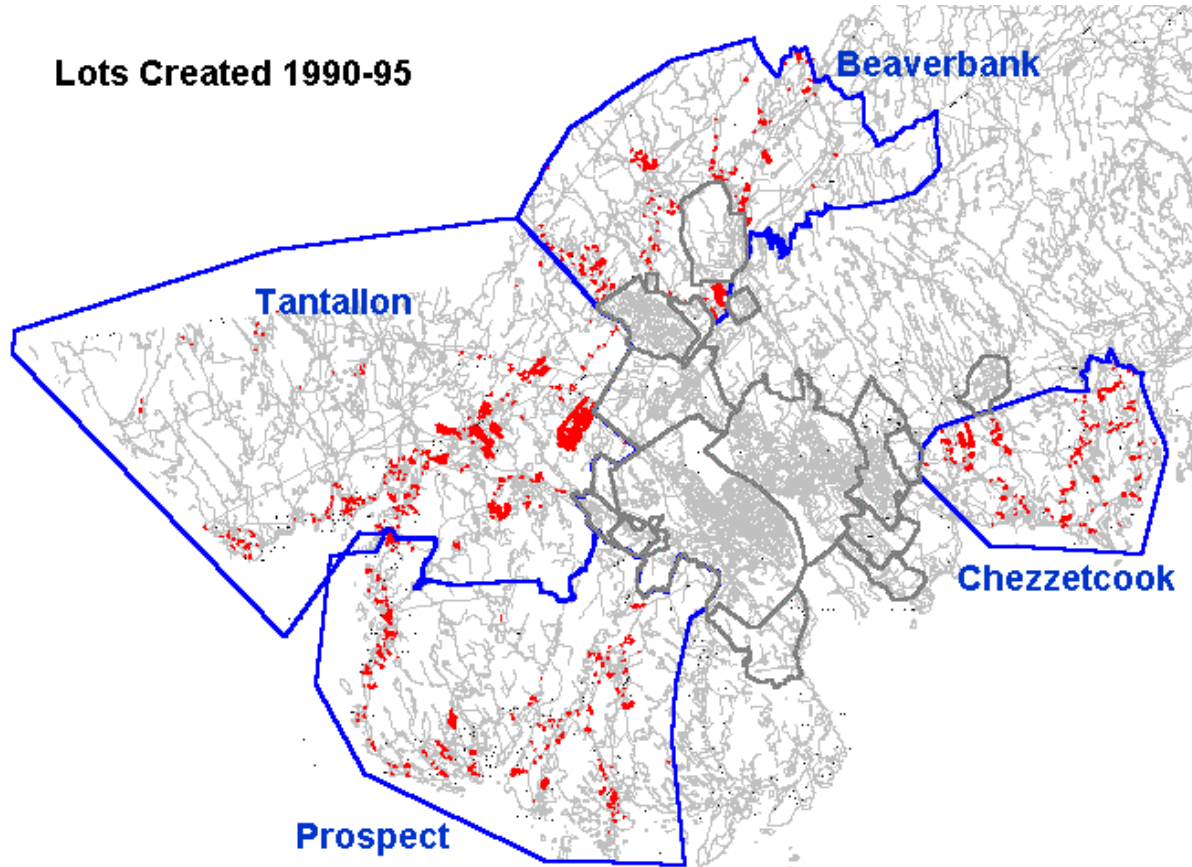


- NORTH-WEST - Tantallon:
 - not adjacent to an urban area
 - has largest concentration of UDIRA in province



Halifax 1990-95 Lot Creation

- RING - Areas with hotspots ring the urban core:
 - Tantallon
 - Beaverbank
 - Prospect
 - Chezzetcook
- TANTALLON has the largest concentration of UDIRA in the province.

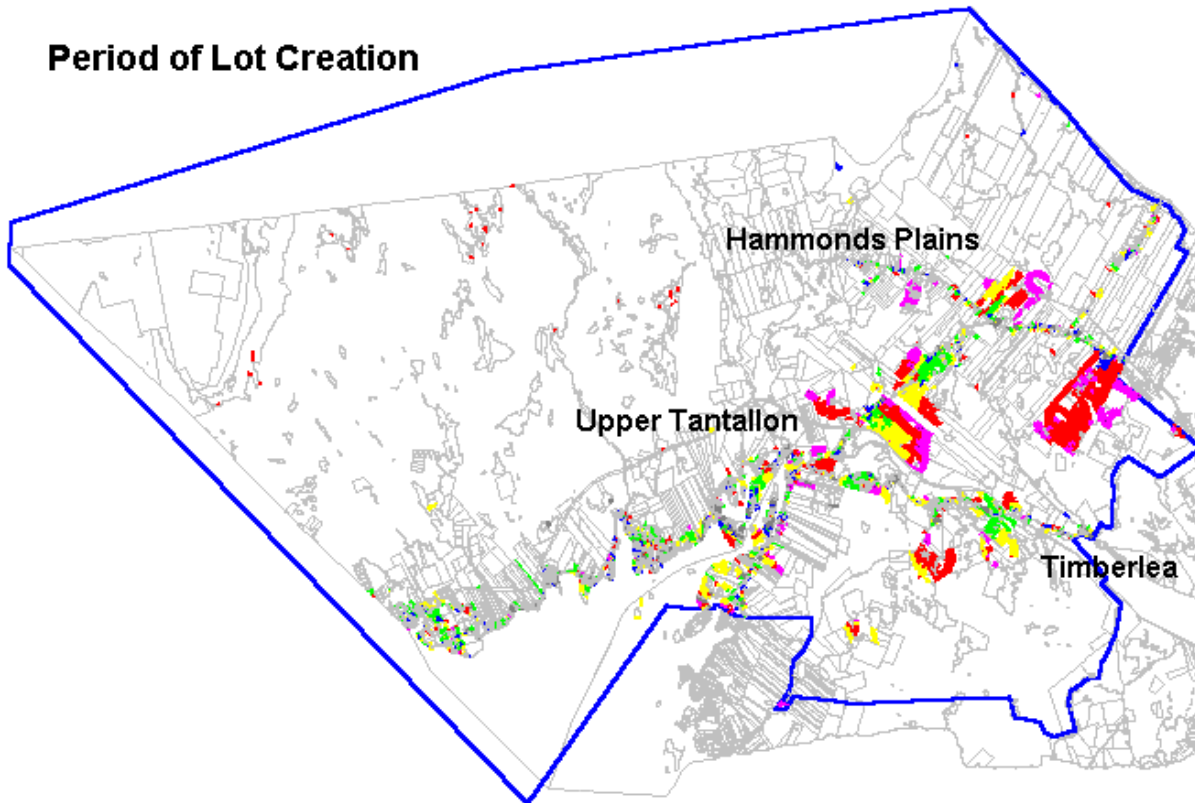


- The two areas to the west of the core have a faster rate of subdivision relative to dwelling construction.
- Ratio of lots created 1990-95 to dwellings increase 1991-96:
 - Tantallon - about 2.0
 - Prospect - about 2.0
 - Beaverbank - about 1.5
 - Chezzetcook - about 1.5

Tantallon Area Development

- The Tantallon area extends:
 - from Bedford along Highway 213 to Upper Tantallon
 - from Lakeside along Highway 3 to Hubbards
 - south along Highway 333 from Upper Tantallon to Glen Haven

Period of Lot Creation

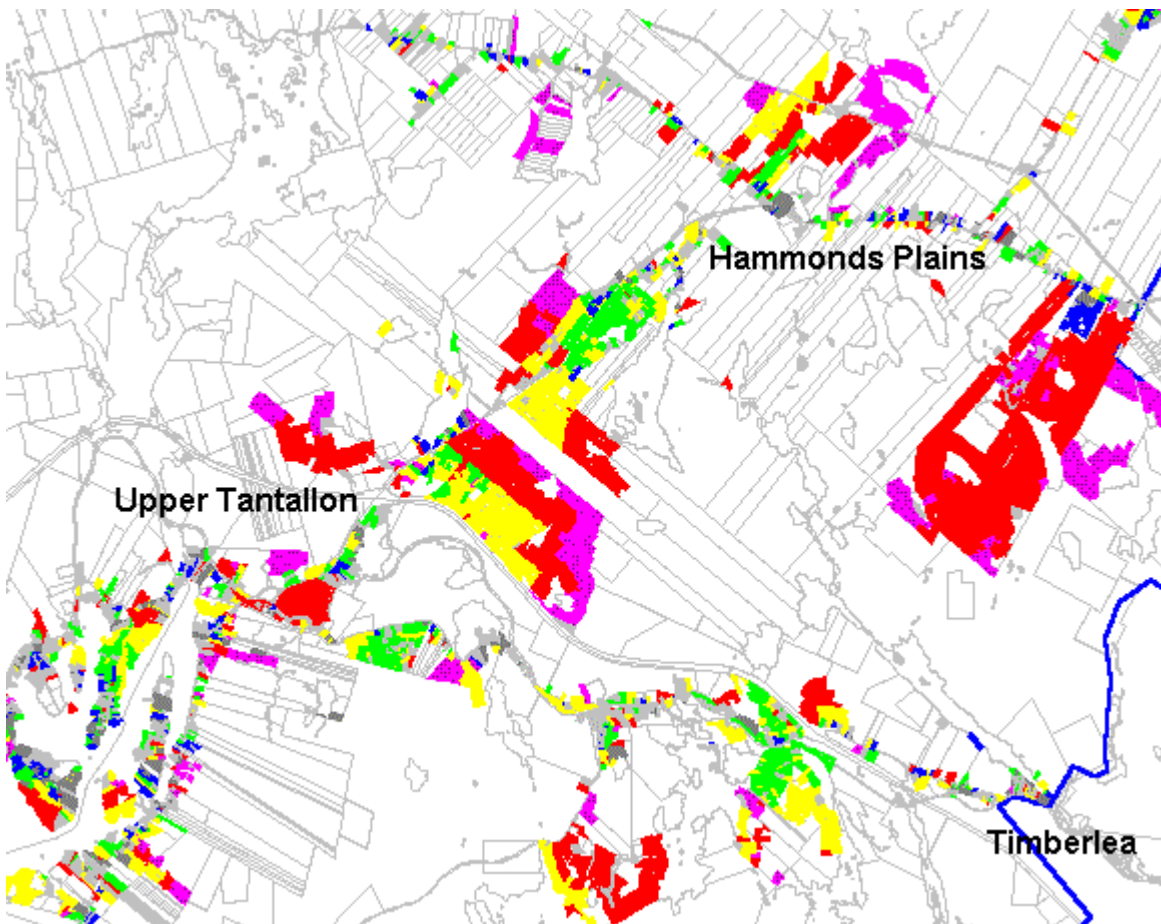


- Decade of lot creation is indicated by colour:
 - light grey - no creation date
 - dark grey - before 1960
 - blue - 1960-69
 - green - 1970-79
 - yellow - 1980-89
 - red - 1990-95
 - pink - 1996-98
- The area had:
 - over one thousand dwellings increase 1991-96
 - this was the largest UDIRA concentration in the province
- 2,010 lots under 2 hectares created 1990-95
- Largest concentrations of 1990-95 lots are along Highway 213:
 - adjacent to Bedford
 - Upper Tantalion
- There are 8,633 lots under 2 ha.:
 - 32 percent are from the 1990's
 - 17 percent are from the 1980's
 - 24 percent have no date

Lots Under 2 ha. in Tantalion Area		
Period	Number	Percent

98	97	1.12%
96-97	631	7.31%
90-95	2010	23.28%
80-89	1467	16.99%
70-79	1187	13.75%
60-69	575	6.66%
pre60	579	6.71%
no date	2087	24.17%
Total	8633	100.00%

- There are 3 large concentrations along Highway 213:
 - south of highway, just west of Bedford
 - north of highway, in Hammonds Plains area
 - both north and south of highway, just north of intersection with Highway 103

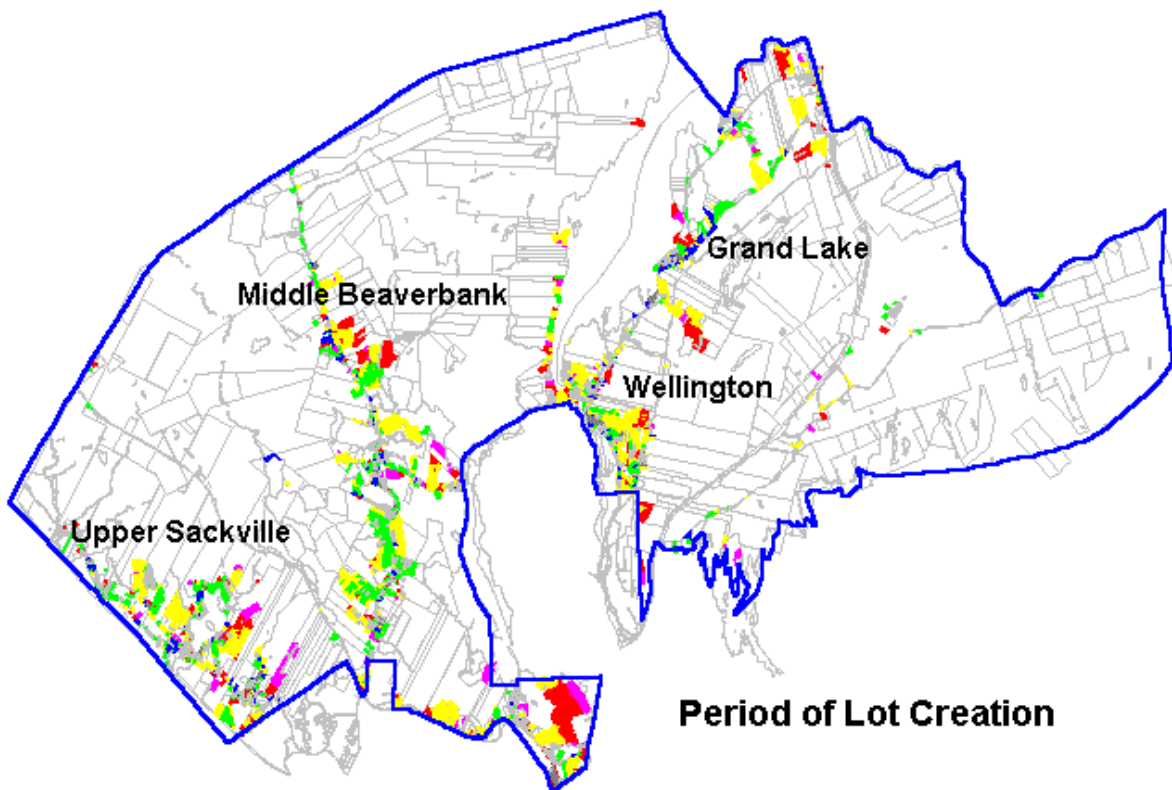


- 1990's lots are predominant within the first two of these

- 1980's and 1990's are equally predominant in the third
- There is a fourth concentration of 70's, 80's and 90's lots adjacent to the lakes south of Highway 3.

Beaverbank Area Development

- The Beaverbank and Grand River area is north of Sackville and Fall River and had:
 - almost 500 dwellings increase 1991-96
 - largest concentrations just north and south of Fall River

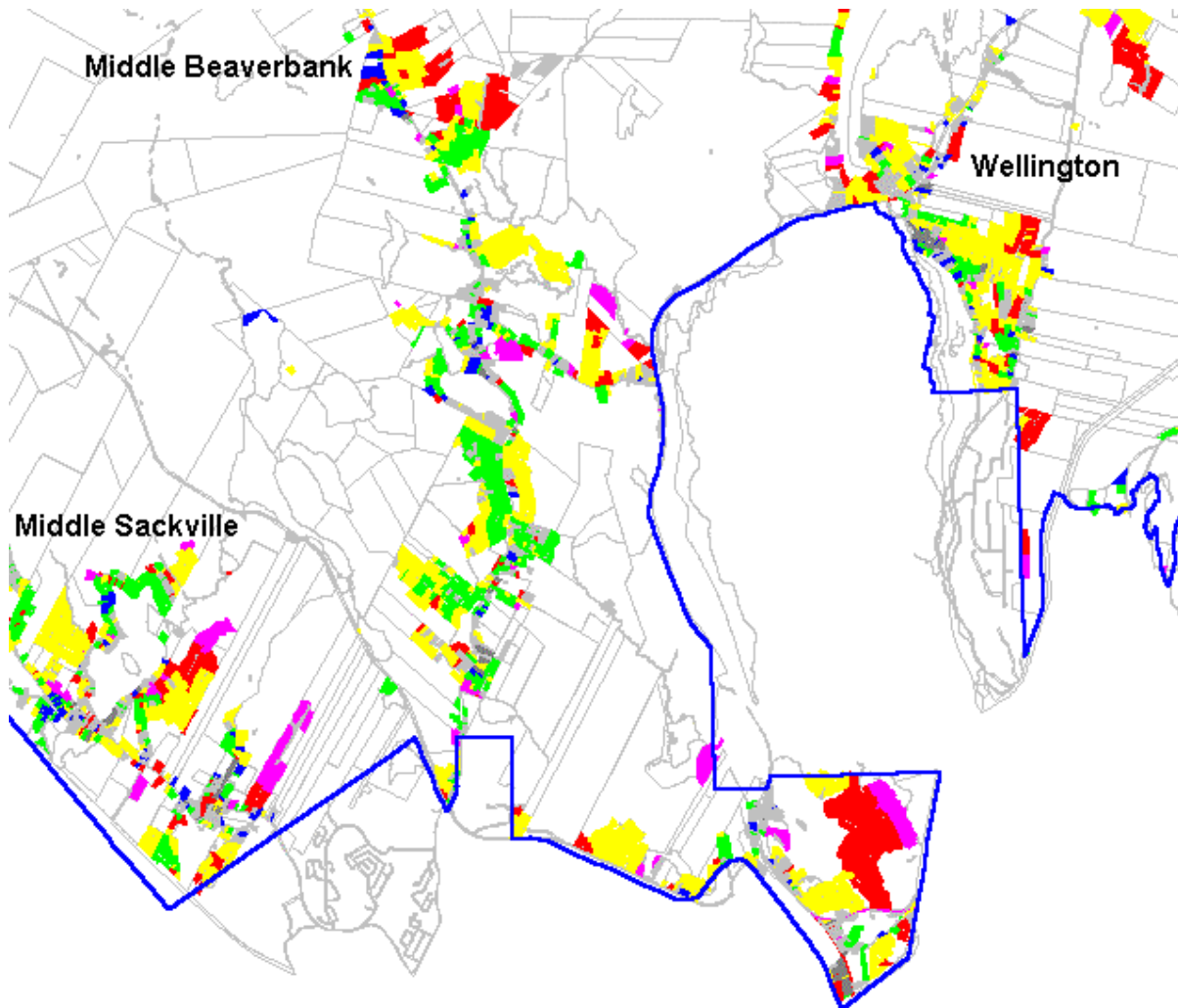


- Decade of lot creation is indicated by colour:
 - light grey - no creation date
 - dark grey - before 1960
 - blue - 1960-69
 - green - 1970-79
 - yellow - 1980-89
 - red - 1990-95
 - pink - 1996-98
- 657 lots under 2 hectares created 1990-95
- Largest concentrations of 1990-95 lots in:
 - Middle Beaverbank

- just south of Fall River
- There are 5,121 lots under 2 ha.:
 - one-quarter are from the 1970's
 - one-quarter from the 1980's
 - one-quarter have no date

Lots under 2 ha. in Beaverbank Area		
Period	Number	Percent
98	6	0.12%
96-97	238	4.65%
90-95	657	12.83%
80-89	1325	25.87%
70-79	1256	24.53%
60-69	238	4.65%
pre60	157	3.07%
no date	1244	24.29%
Total	5121	100.00%

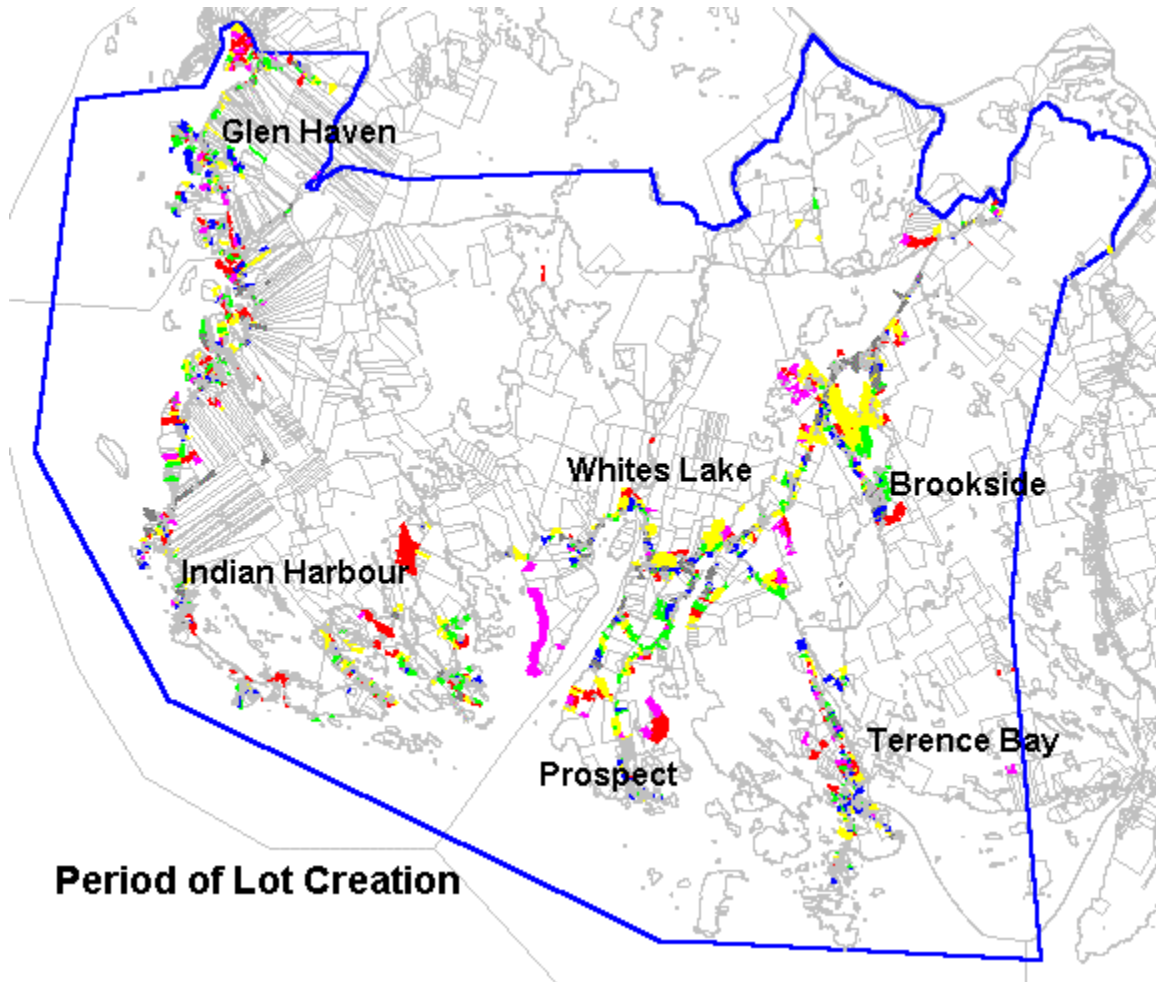
- The pattern of small lot subdivisions follows Highways 1, 2, and 354.



- 1970's lots predominate along the Beaverbank Road.
- 1980's and 1990's lots are more predominant just north and south of the Fall River Class 4 area.

Prospect Area Development

- The Prospect area extends along Highway 333 from Halifax through Peggy's Cove to French Village and had:
 - over 300 dwellings increase 1991-96
 - largest concentrations in the Brookside and Prospect areas

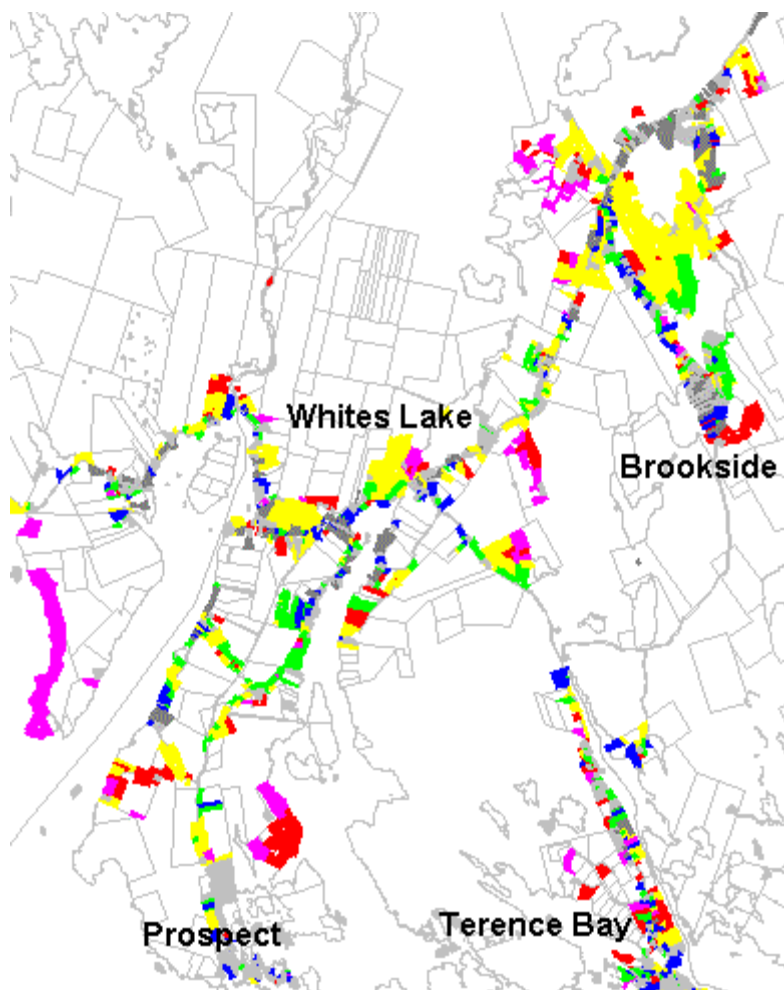


- Decade of lot creation is indicated by colour:
 - light grey - no creation date
 - dark grey - before 1960
 - blue - 1960-69
 - green - 1970-79
 - yellow - 1980-89
 - red - 1990-95
 - pink - 1996-98
- 669 lots under 2 hectares created 1990-95
- Largest concentrations of 1990-95 lots in:
 - Prospect peninsula
 - Bayside-East Dover area
- There are 6,134 lots under 2 ha.:
 - 19 percent are from the 1980's
 - 16 percent are from the 1990's
 - 34 percent have no date

Lots under 2 ha. in Prospect Area		
Period	Number	Percent

98	31	0.51%
96-97	229	3.73%
90-95	669	10.91%
80-89	1168	19.04%
70-79	826	13.47%
60-69	564	9.19%
pre60	538	8.77%
no date	2109	34.38%
Total	6134	100.00%

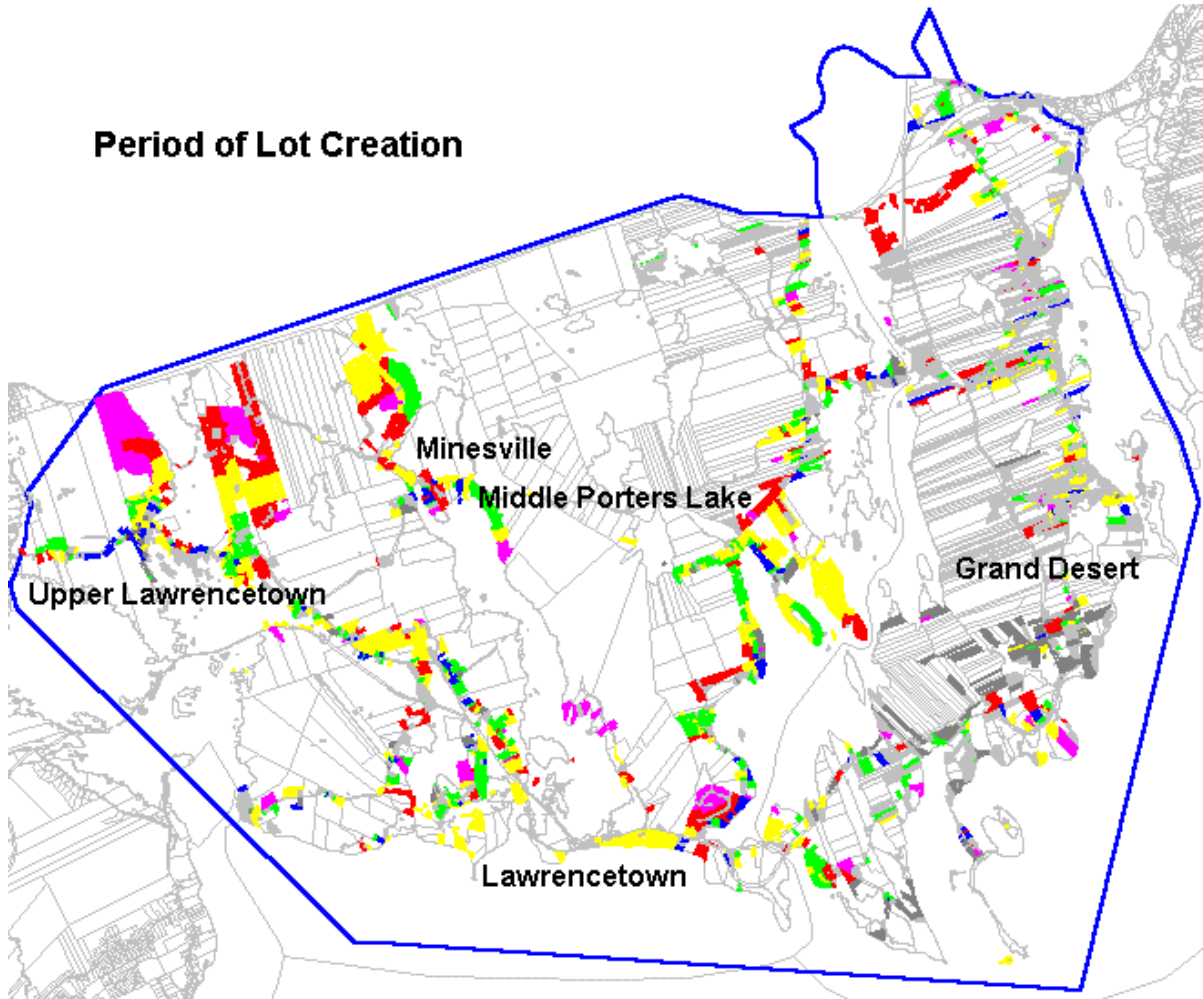
- The largest concentration of lots along Highway 333 is between Brookside and Bayside, and along the side roads to Prospect and Terence Bay.



- 1980's lots are predominant within this concentration

Chezzetcook Area Development

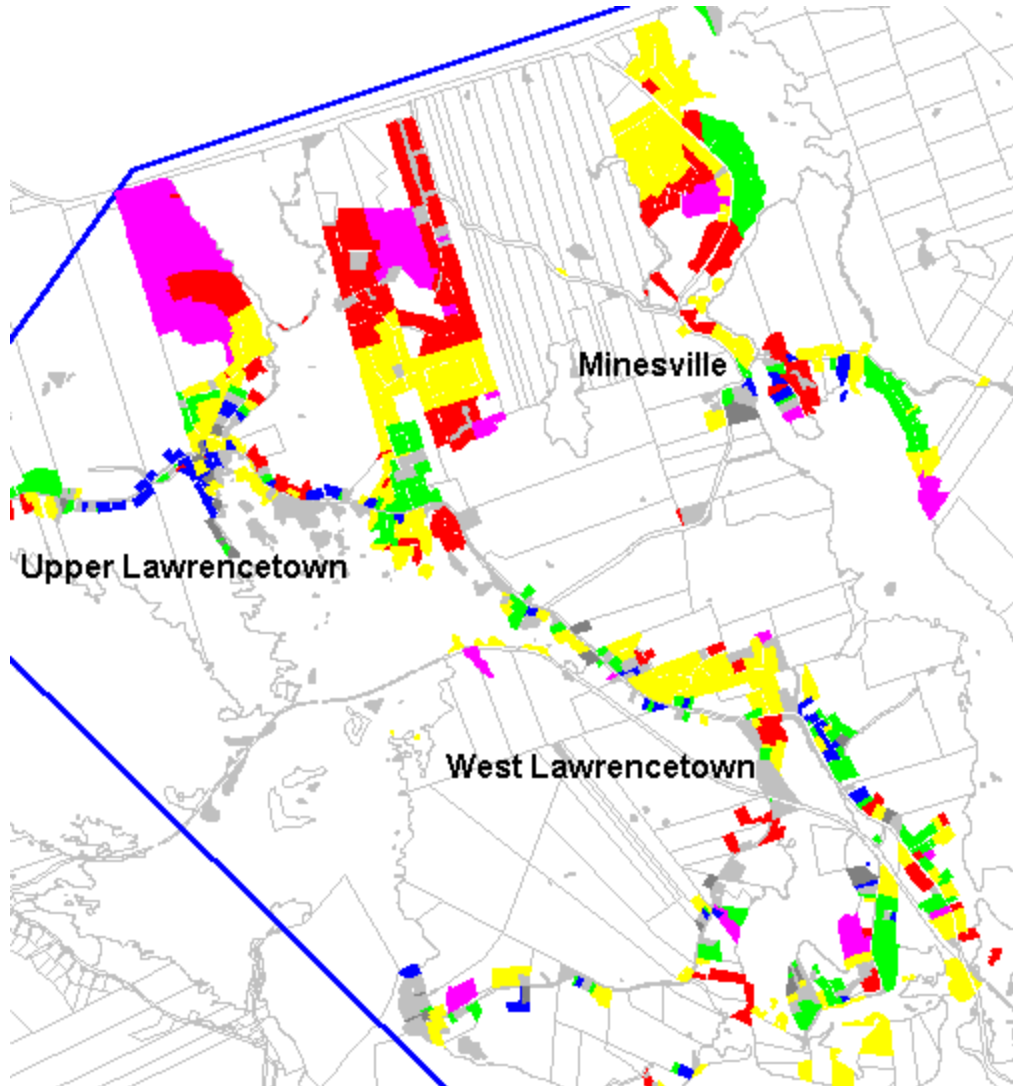
- The Chezzetcook area extends along the Eastern Shore from Cole Harbour to Head of Chezzetcook and had:
 - about 400 dwellings increase 1991-96
 - largest concentration just east of Cole Harbour



- 584 lots under 2 hectares created 1990-95
- Largest concentrations of 1990-95 lots in:
 - Upper Lawrencetown area
 - Lawrencetown area
- There are 4,200 lots under 2 ha.:
 - 22 percent are from the 1980's
 - 21 percent are from the 1990's
 - 29 percent have no date

Lots under 2 ha. in Chezzetcook Area		
Period	Number	Percent
98	16	0.38%
96-97	268	6.38%
90-95	584	13.90%
80-89	940	22.38%
70-79	697	16.60%
60-69	209	4.98%
pre60	253	6.02%
no date	1233	29.36%
Total	4200	100.00%

- Single lot or small subdivisions follow the entire length of Highway 207 and the West Porter's Lake Road to Porter's Lake.

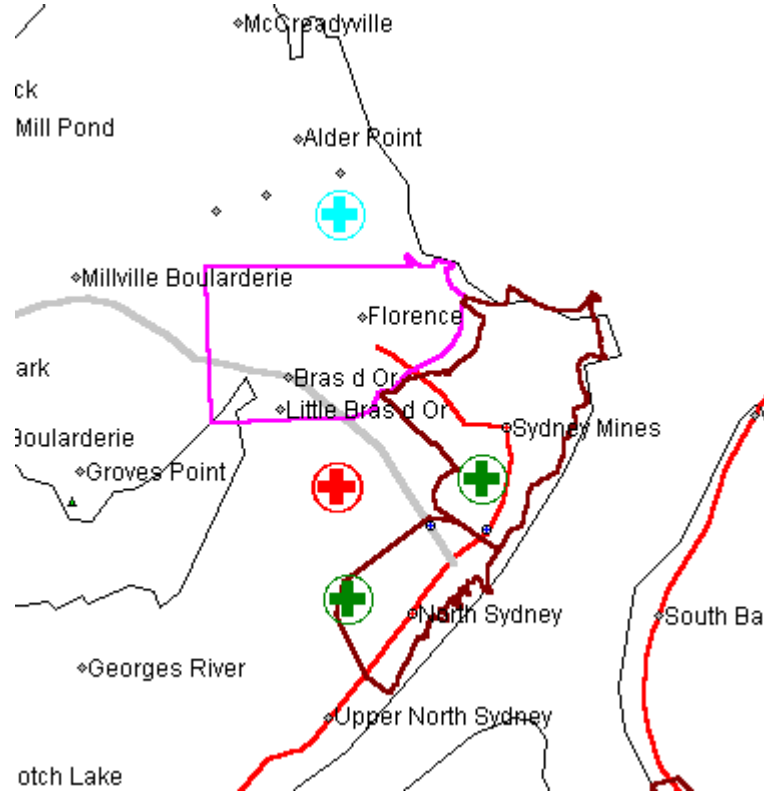


- 1980's lots are predominant in this strip development
- the 1990's lots are concentrated in the north-east corner of the area

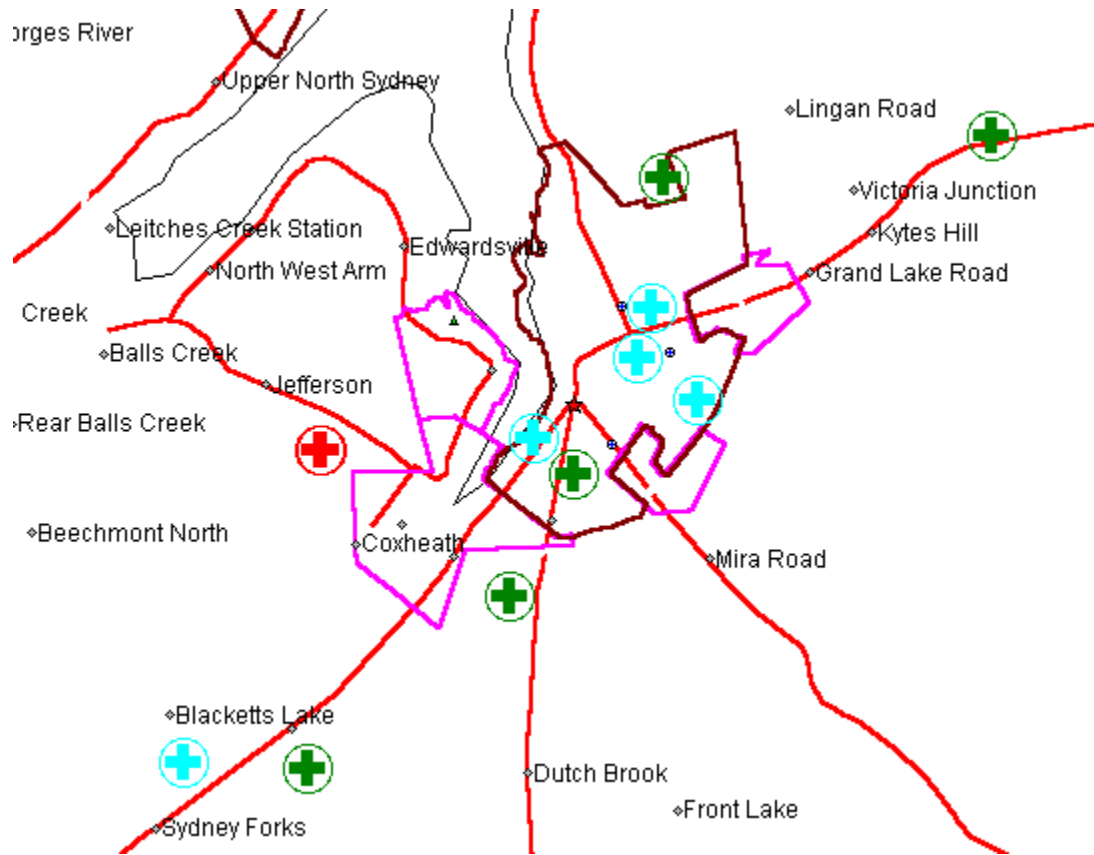
Cape Breton Hotspots

- There was a significant hotspot (over 100 increase) in the area of Florence and Sydney Mines.

red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase

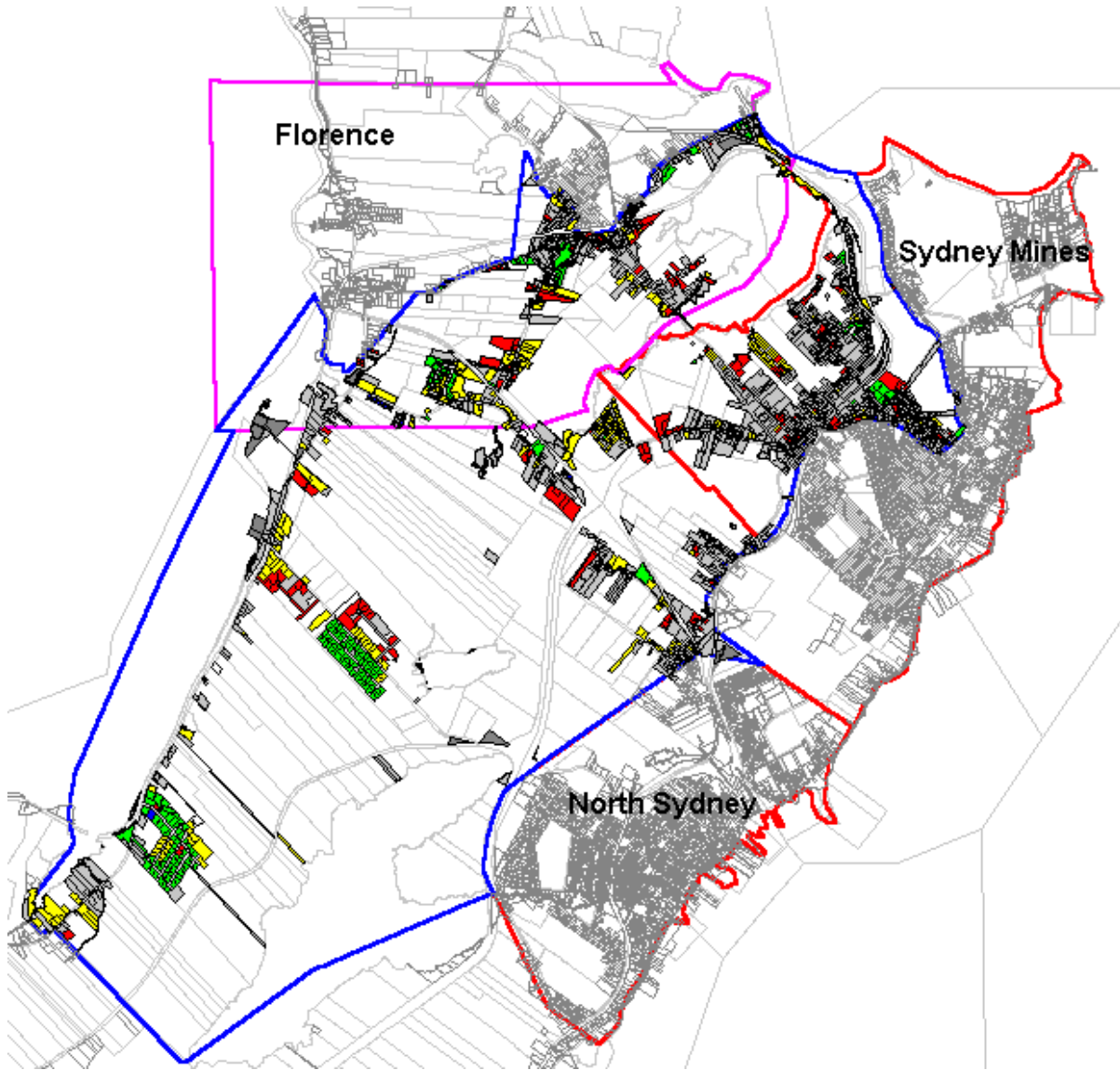


- There was another significant hotspot to the west of the Westmount and Sydney River Class 4's.



Florence-Sydney Mines Hotspot

- There were over 300 new dwellings 1991-96 in the area of Florence and Sydney Mines.
- There are two areas of predominantly 1970's subdivision in the east of this area

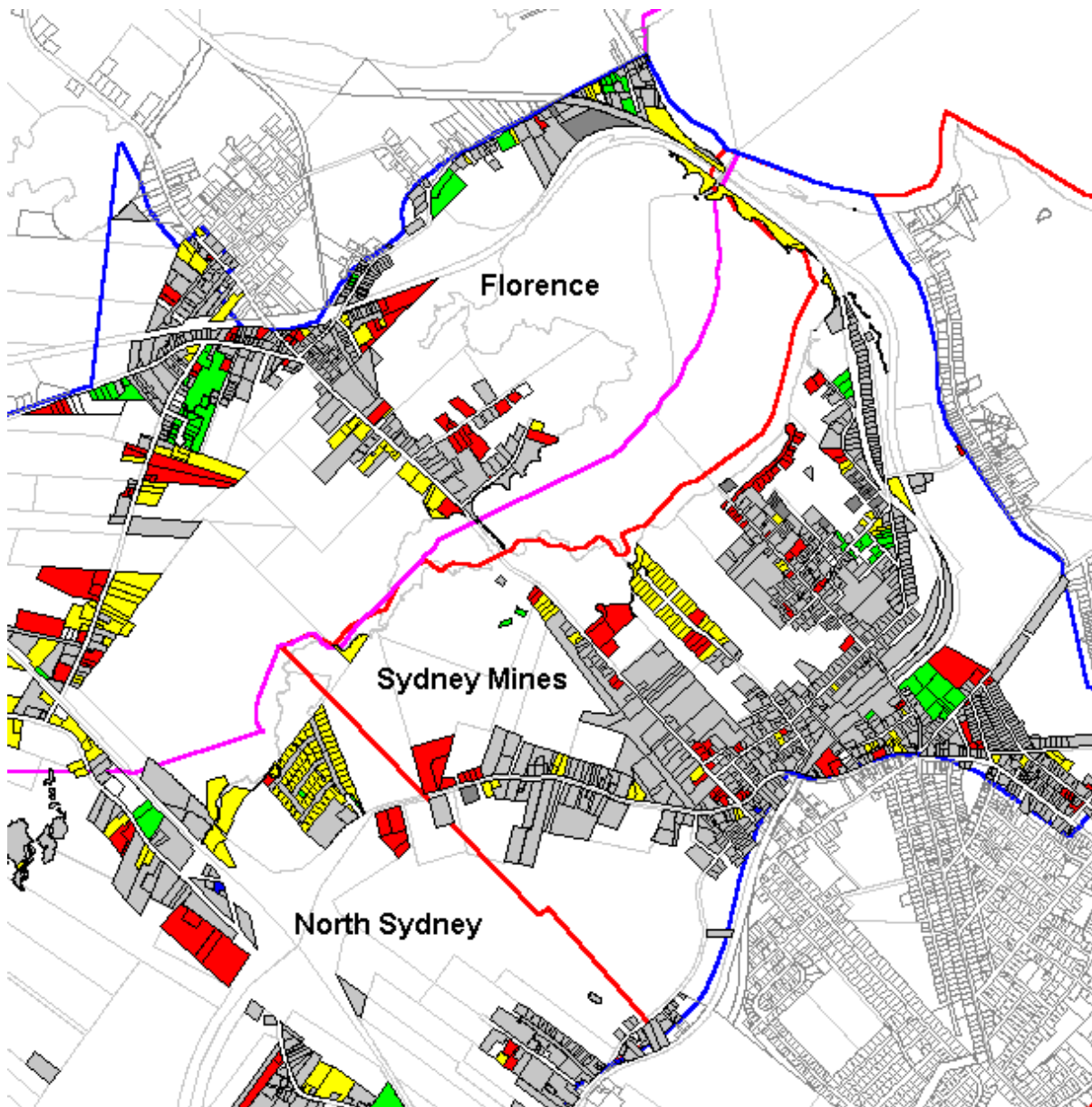


- Decade of lot creation is indicated by colour:
 - light grey - no creation date
 - dark grey - before 1960
 - blue - 1960-69
 - green - 1970-79
 - yellow - 1980-89
 - red - 1990-95

Sydney Mines-Florence Lots Under 2 ha.		
Period	Number	Percent
1990-95	218	8.96%
1980-89	380	15.62%
1970-79	238	9.78%

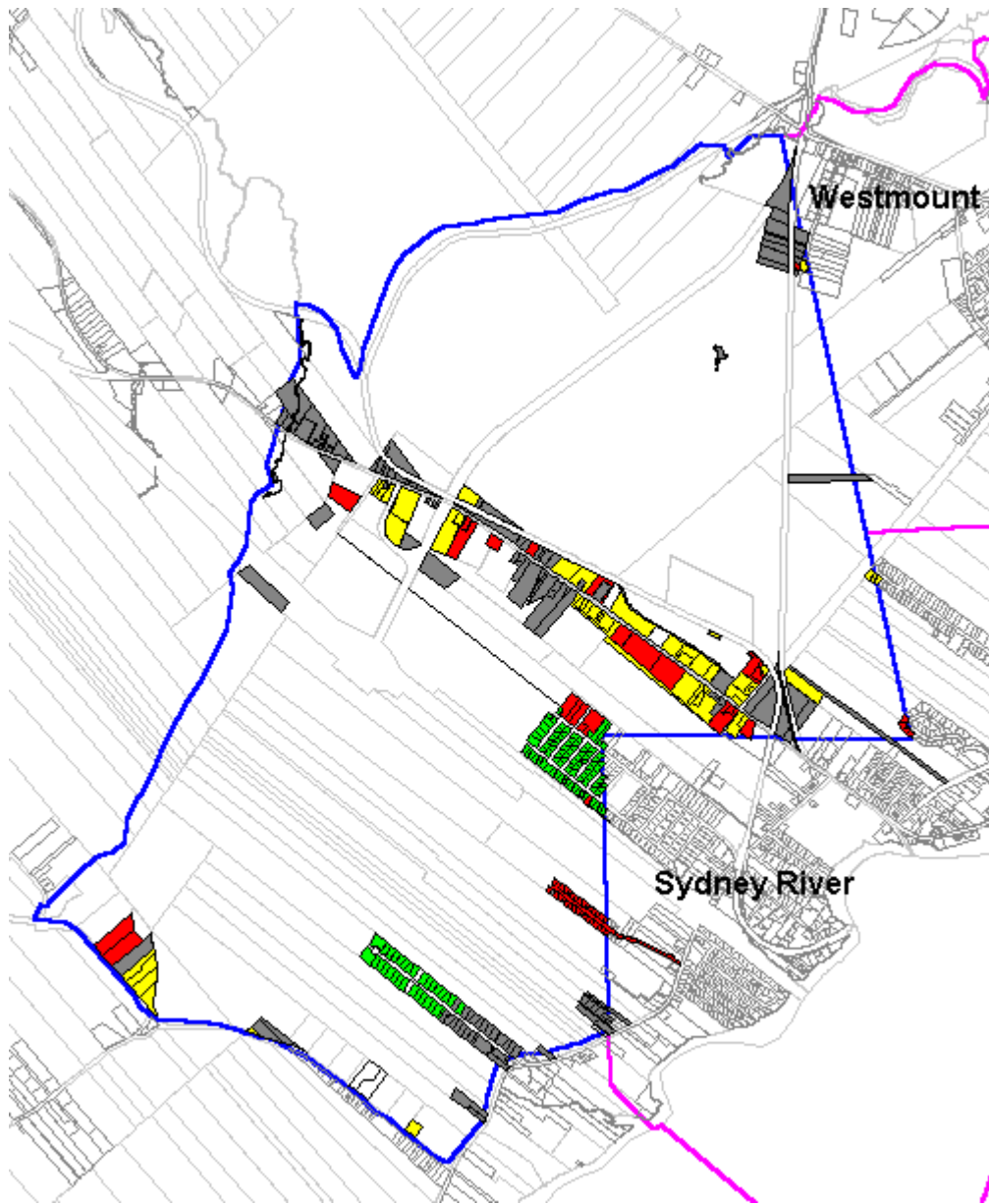
1970-79	238	9.78%
1960-69	20	0.82%
pre60	36	1.48%
no date	1541	63.34%
Total	2433	100.00%

- 1990's lots are evenly spread throughout Sydney Mines, Florence and the adjoining area.



West of Westmount-Sydney River Hotspot

- There were over 100 new dwellings 1991-96 in the area west of Westmount-Sydney River.

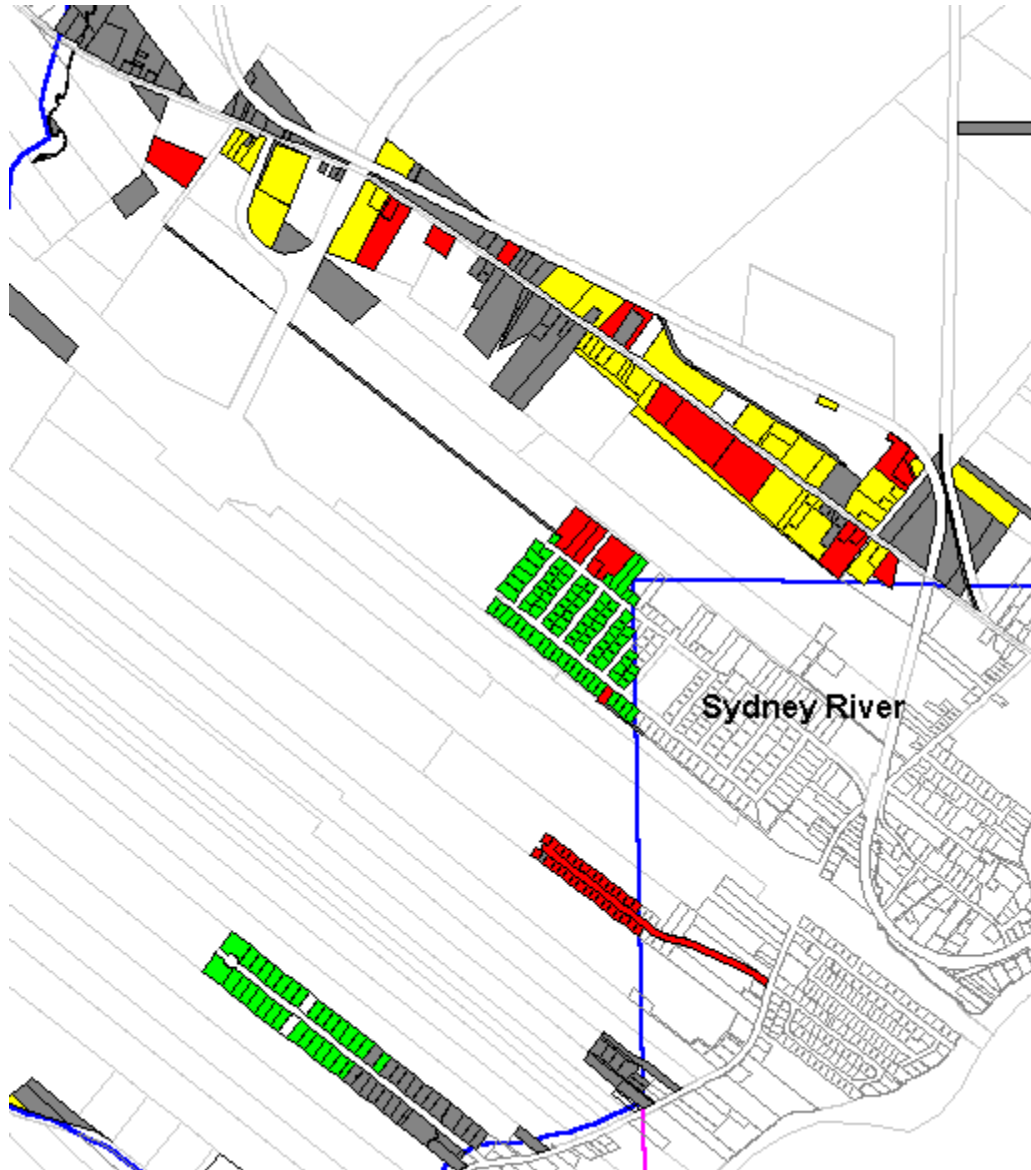


- Decade of lot creation is indicated by colour:
 - light grey - no creation date
 - dark grey - before 1960
 - blue - 1960-69
 - green - 1970-79
 - yellow - 1980-89

- red - 1990-95

West of Westmount Lots Under 2 ha.		
Period	Number	Percent
1990-95	61	11.98%
1980-89	54	10.61%
1970-79	126	24.75%
1960-69	0	0.00%
pre60	145	28.49%
no date	123	24.17%
Total	509	100.00%

- Several sizable subdivisions extend out from the Sydney River Class 4 Area.



Individual Hotspots

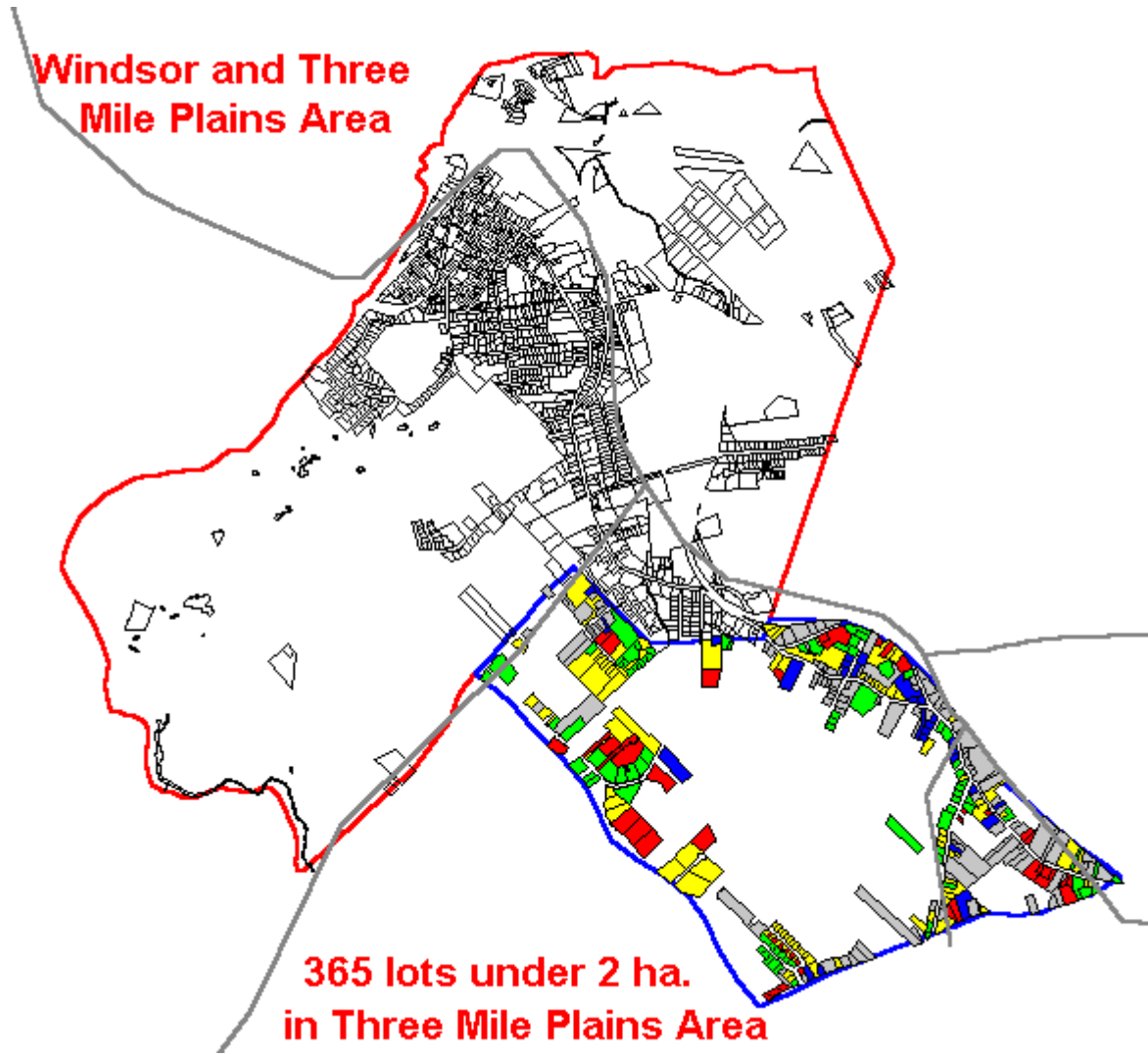
Hants Hotspots - Windsor

- CENSUS - There was significant growth to the southeast of Windsor.

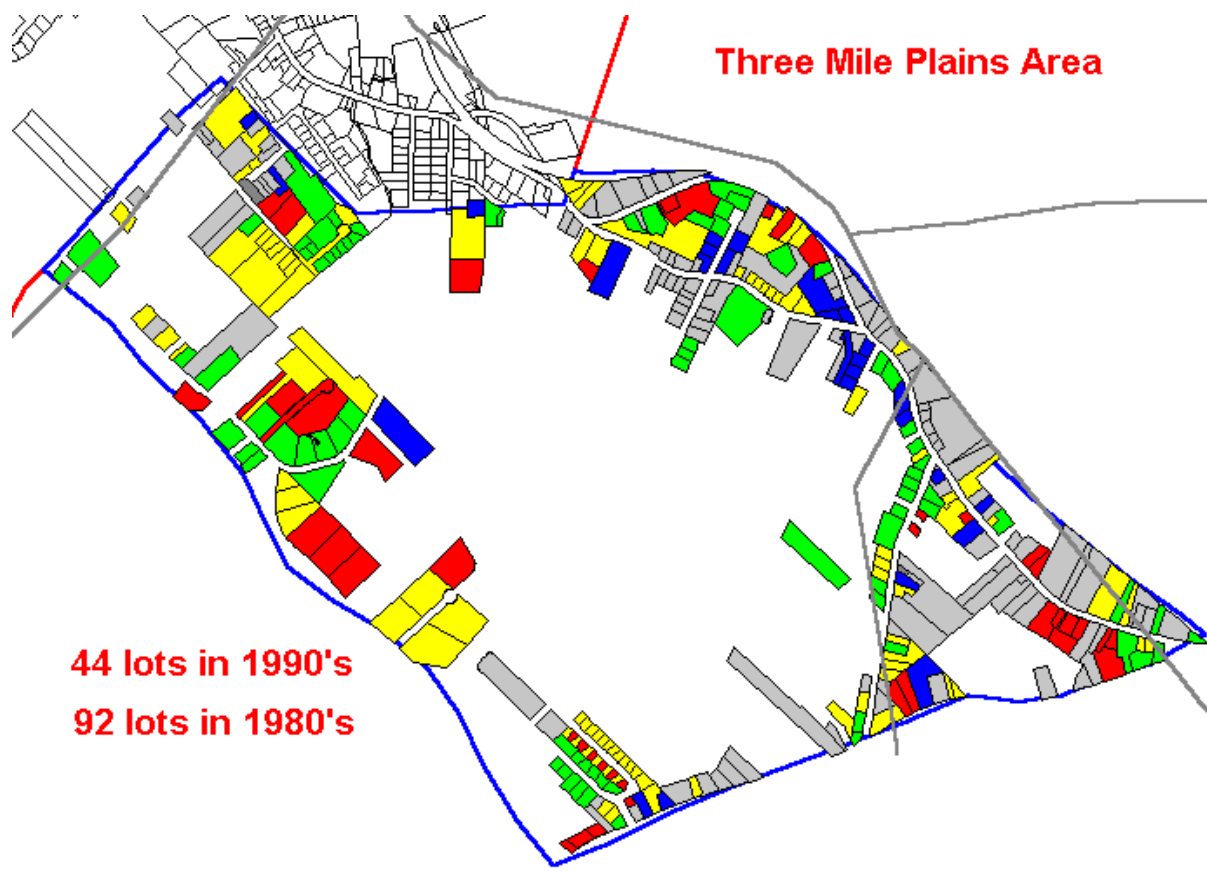
red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase



- PARCEL MAP - The Three Mile Plains area south of Windsor has two corridors of development leading out from the Town.



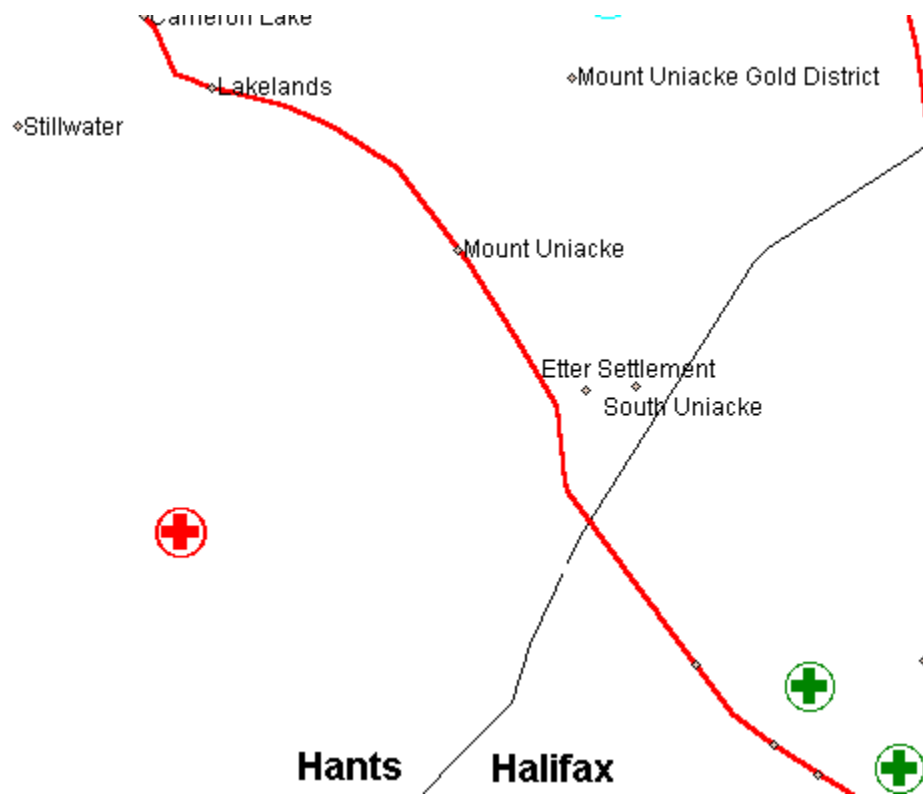
- The Three Mile Plains area had 136 lots created in the 1980's and 1990's.



Hants Hotspots – Mount Uniacke

- The Mount Uniacke area of East Hants had significant growth.

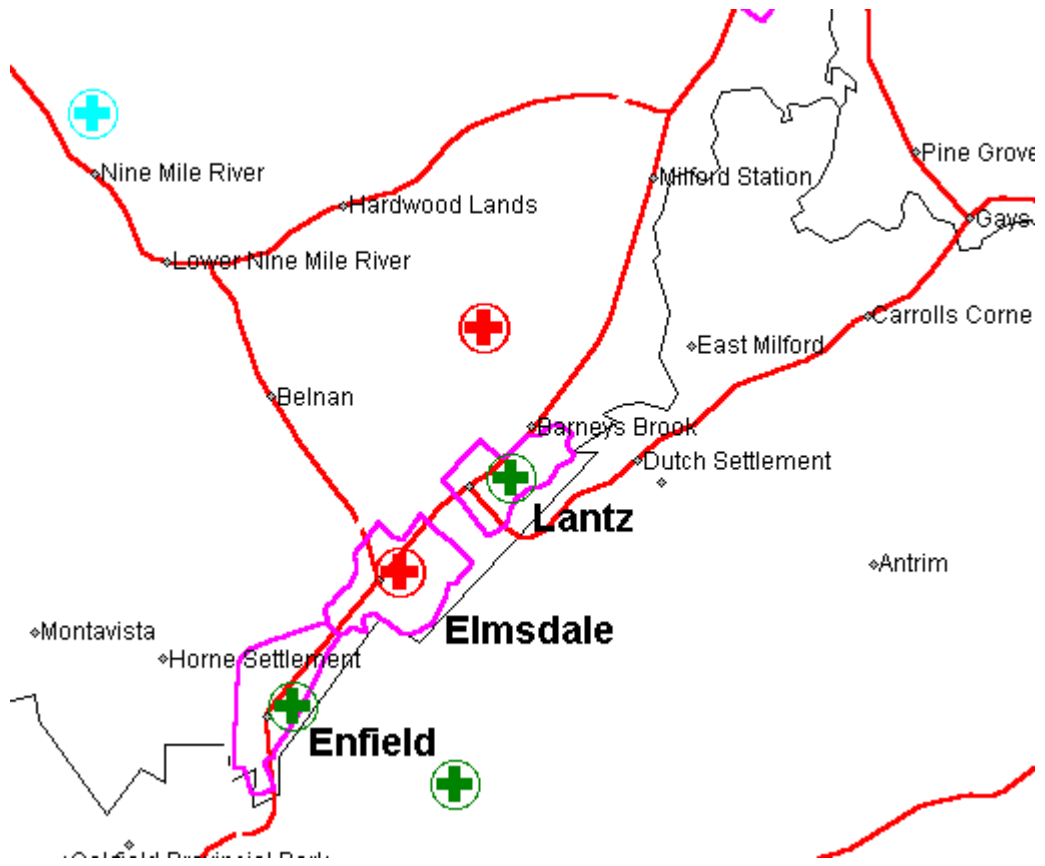
red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase



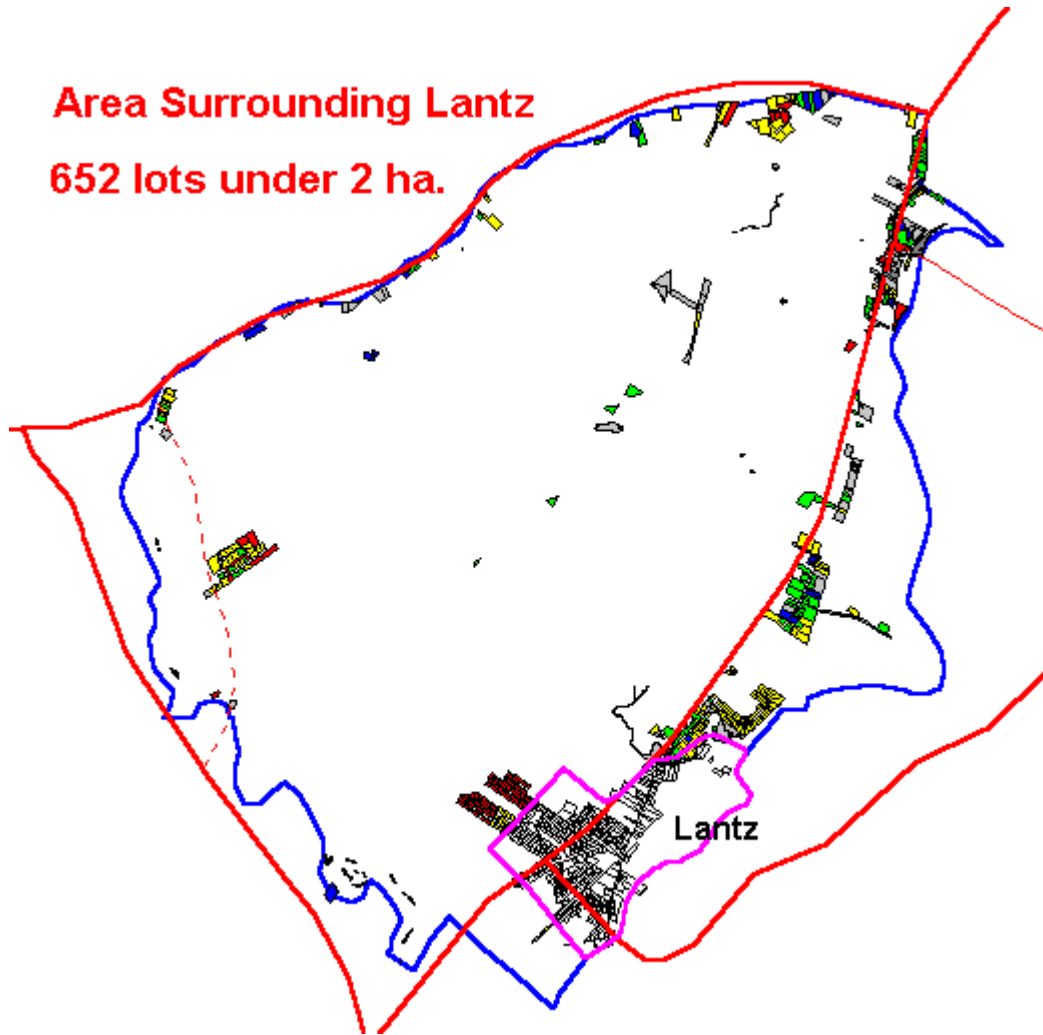
Hants Hotspots - Lantz

- CENSUS - The area surrounding Lantz Class 4 had a sizeable increase in dwellings.

red - 100+ dwellings increase
 green - 50-99 dwellings increase
 blue - 20-49 dwellings increase



- PARCEL MAP - The area surrounding Lantz had 332 lots created in the 1980's and 1990's

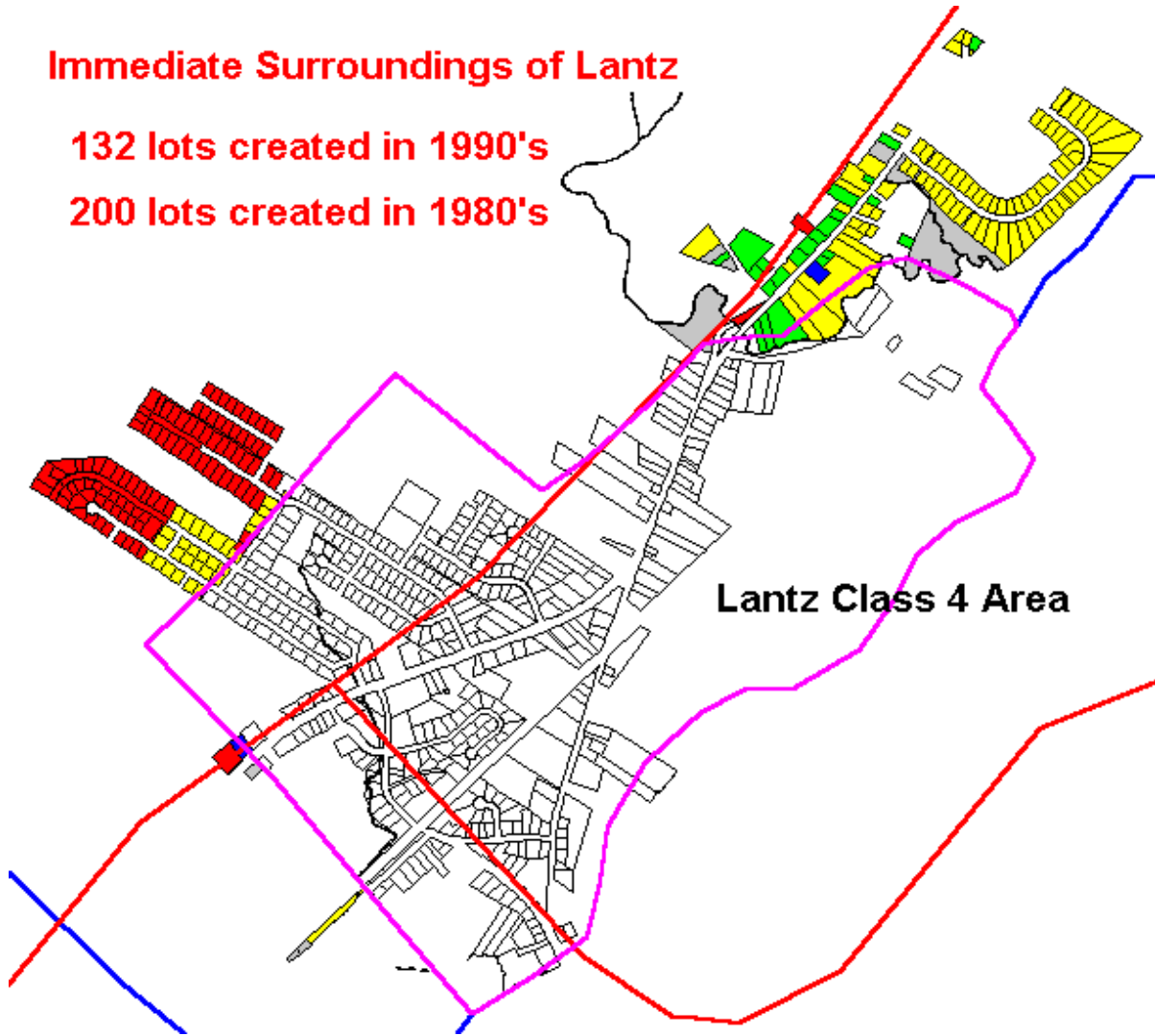


- The majority of these were immediately adjacent to the Lantz Class 4 area.

Immediate Surroundings of Lantz

132 lots created in 1990's

200 lots created in 1980's

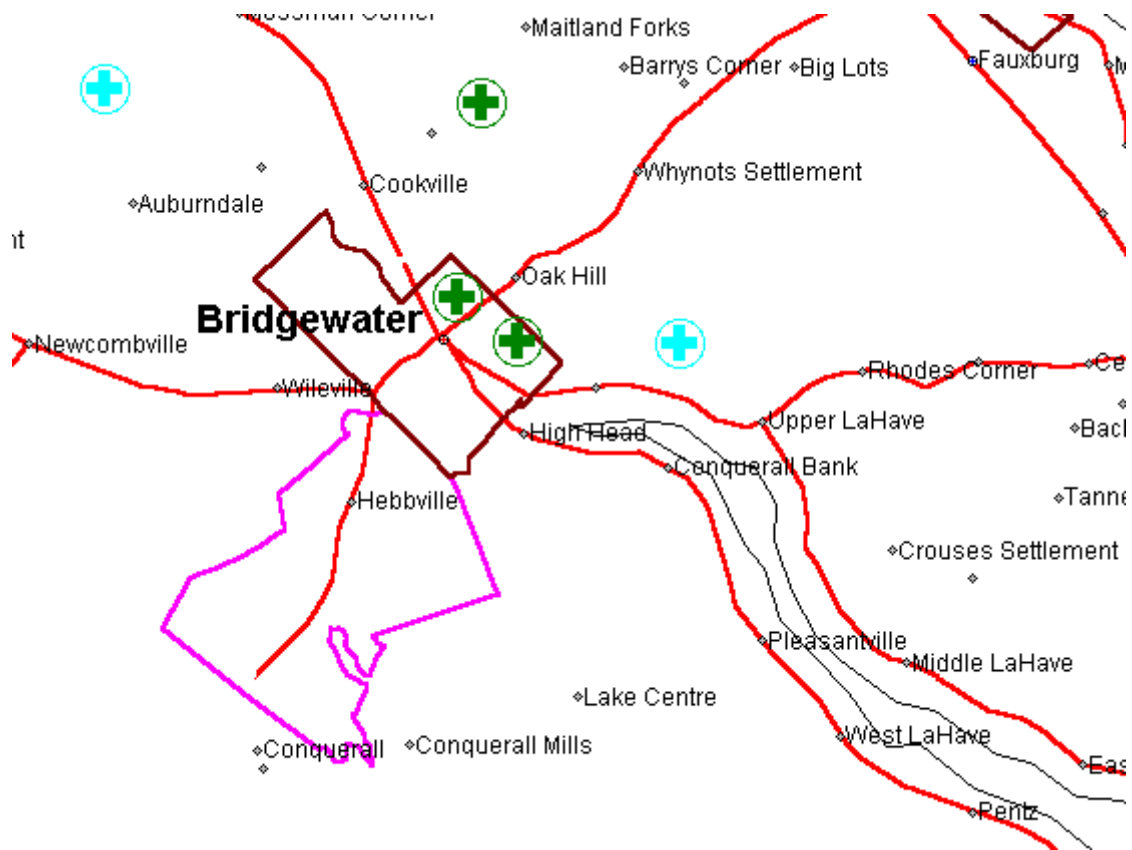


Lantz Class 4 Area

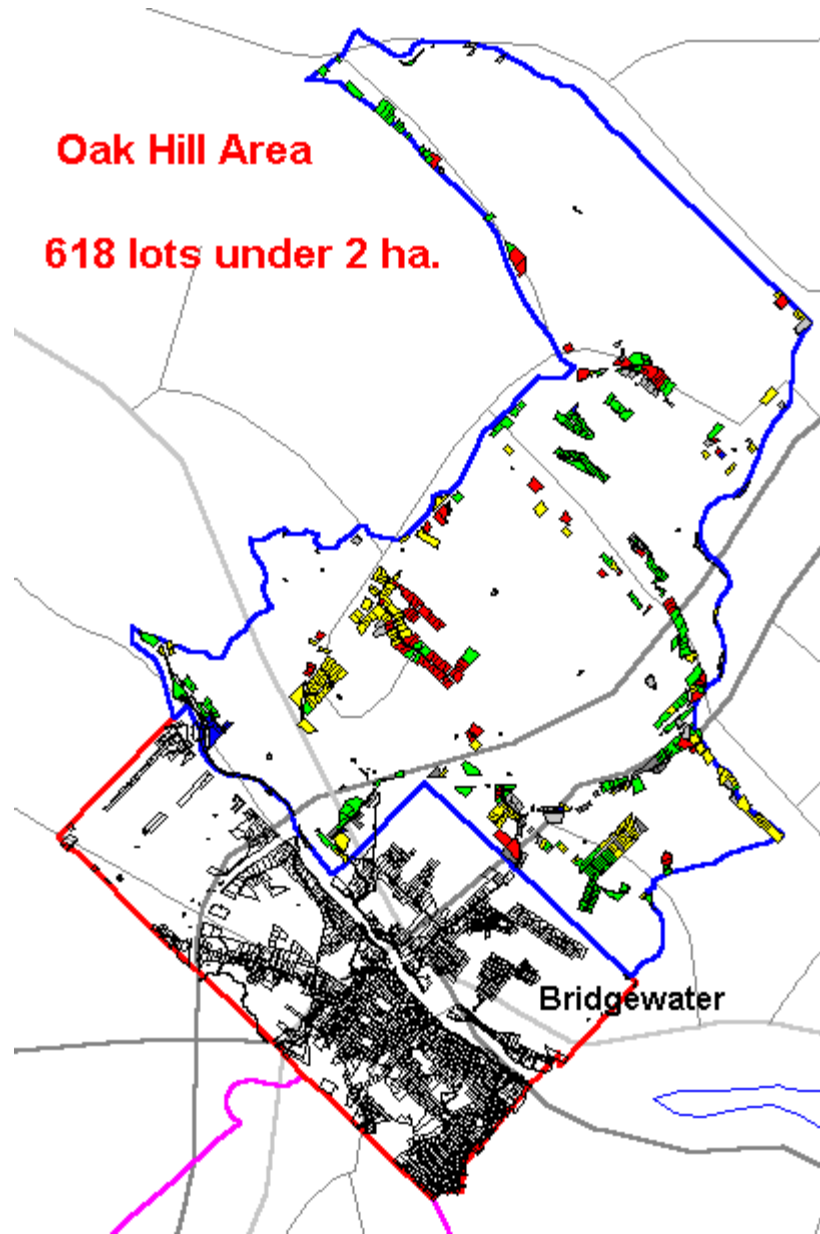
Hants Hotspots - Lunenburg

- CENSUS - There was significant growth to the east of Bridgewater.

red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase



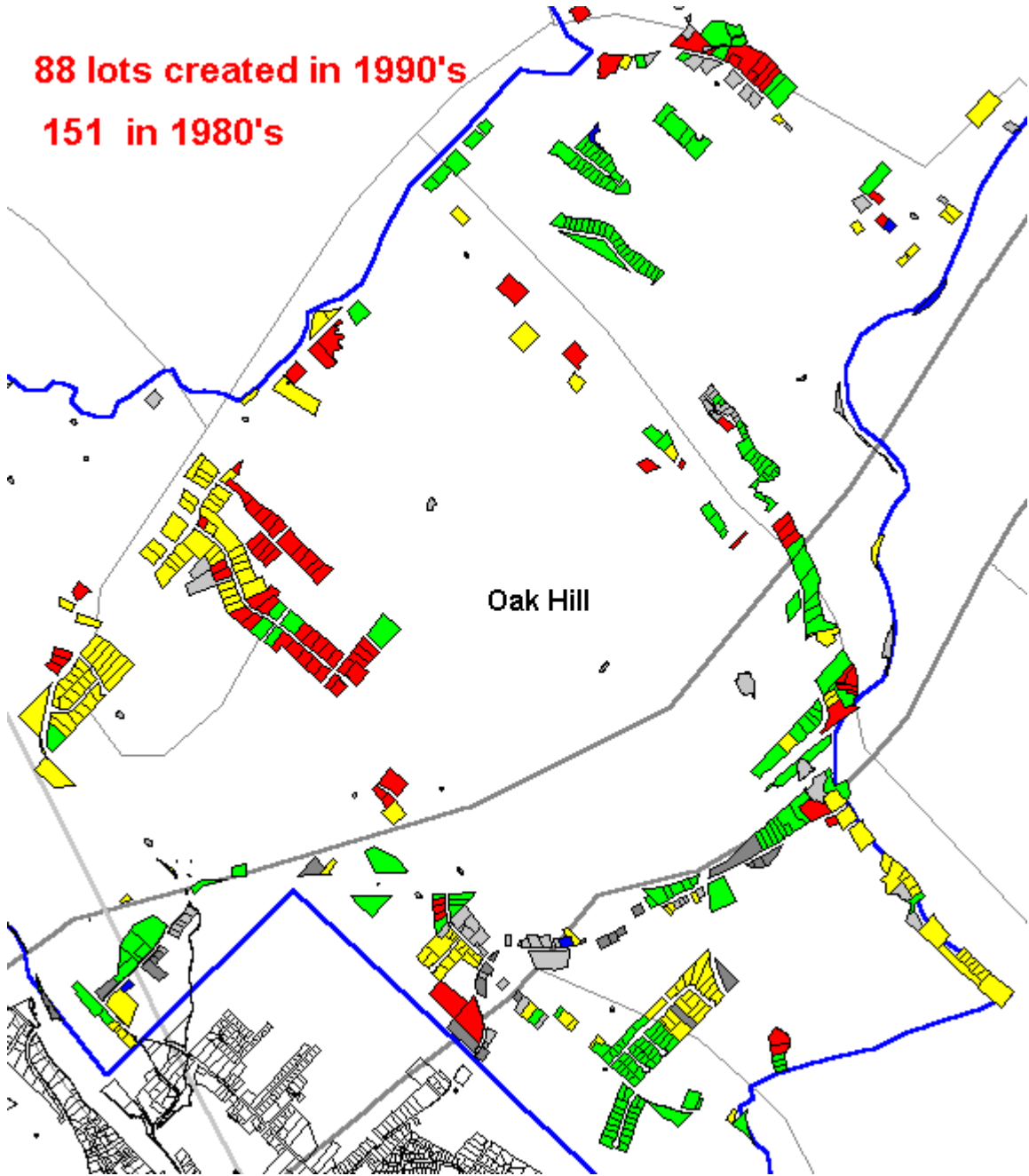
- PARCEL MAP - The Oak Hill area to the east of Bridgewater contains a sizable number of lots.



- The Oak Hill area had 239 lots created in the 1980's and 1990's.

88 lots created in 1990's

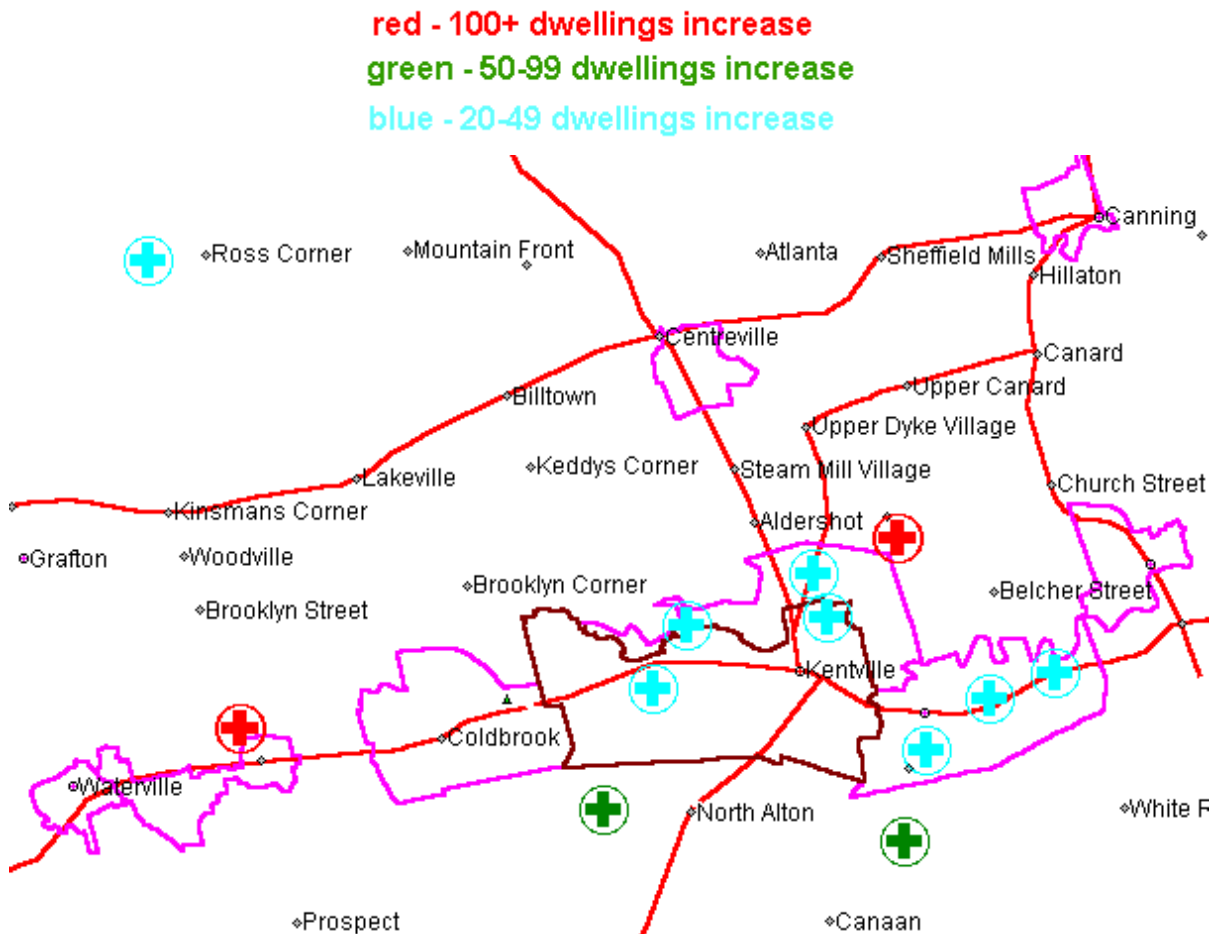
151 in 1980's



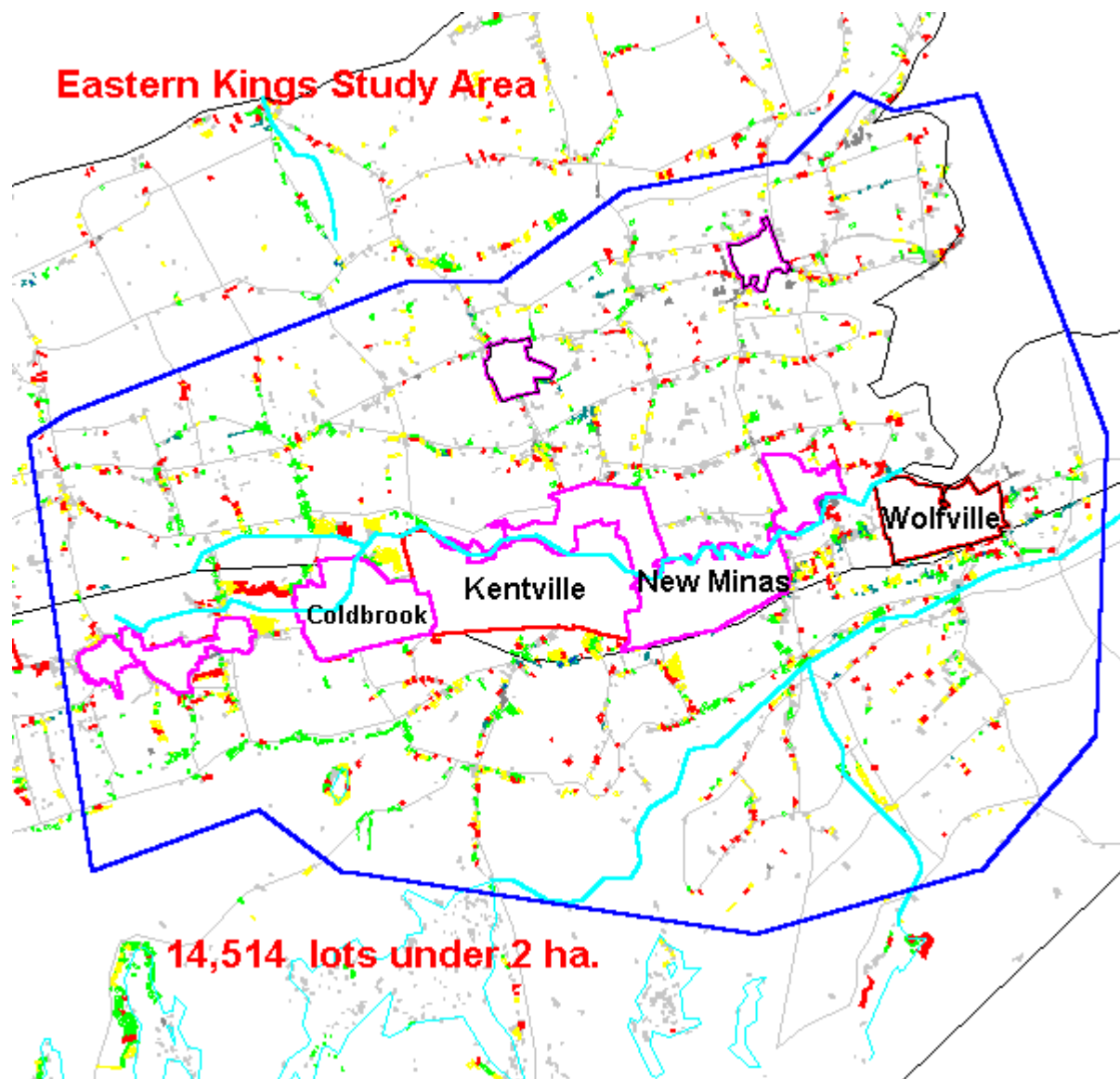
Urban-Centered Regions

Kings East Hotspots

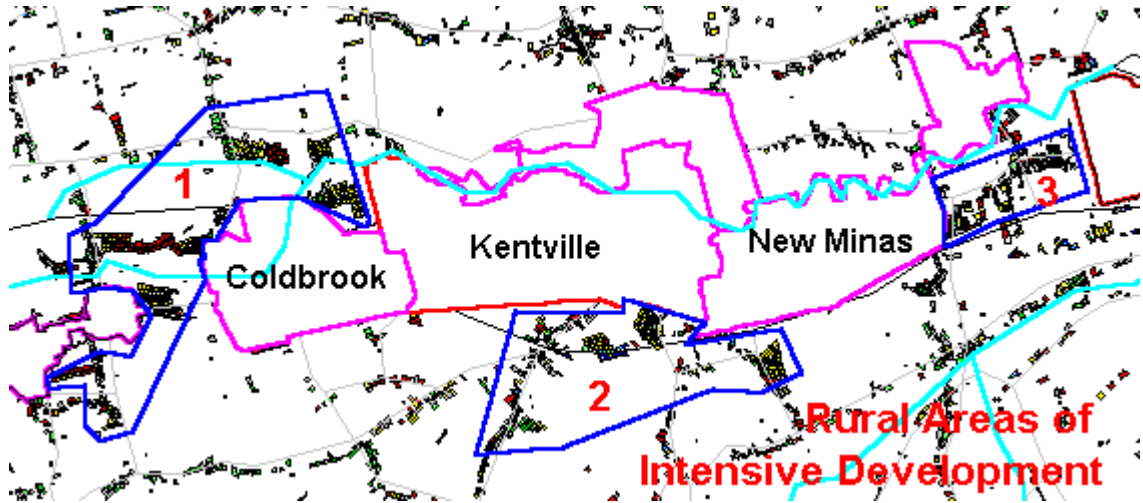
- CORRIDOR EAST - Areas of major growth in Eastern Kings follow the Highway 1 - Valley floor corridor.
- The Waterville to Wolfville corridor contains:
 - 6 Class 4 Areas
 - 2 towns
 - 4 areas with hotspots
- CENSUS - hotspot areas are:
 - north-east of Kentville
 - south of Kentville
 - south of New Minas
 - in Coldbrook-Cambridge-Waterville area



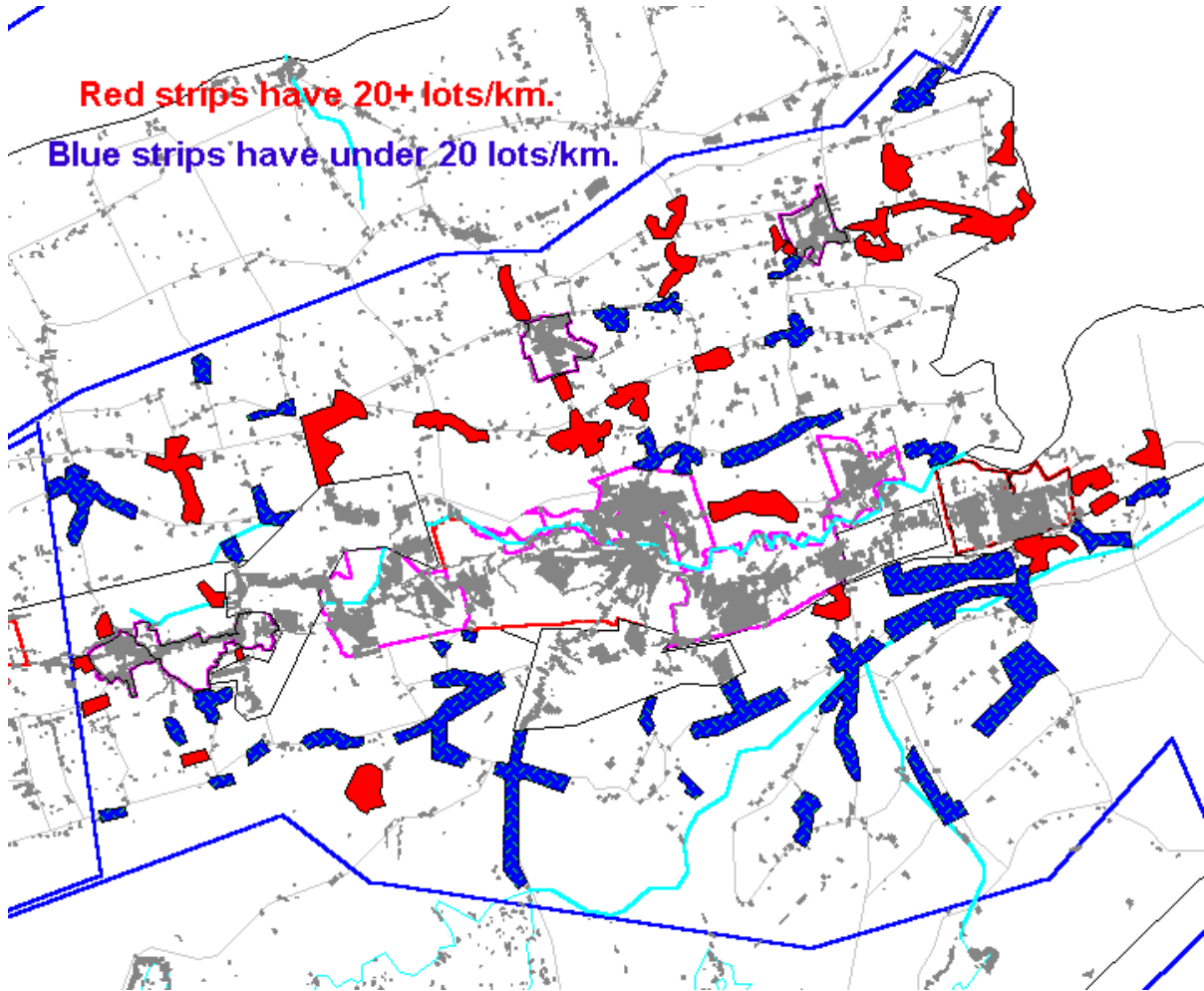
- PARCEL MAP - The study area has 14,514 lots under 2 hectares.
- URBAN LOTS - 62 percent of these are in towns and Class 4 areas.



- RURAL LOTS - evenly divided among:
 - intensive development
 - higher density strip
 - medium density strip
 - scattered
- INTENSIVE DEVELOPMENT - in 3 areas outside towns and Class 4 areas
- 1300 lots

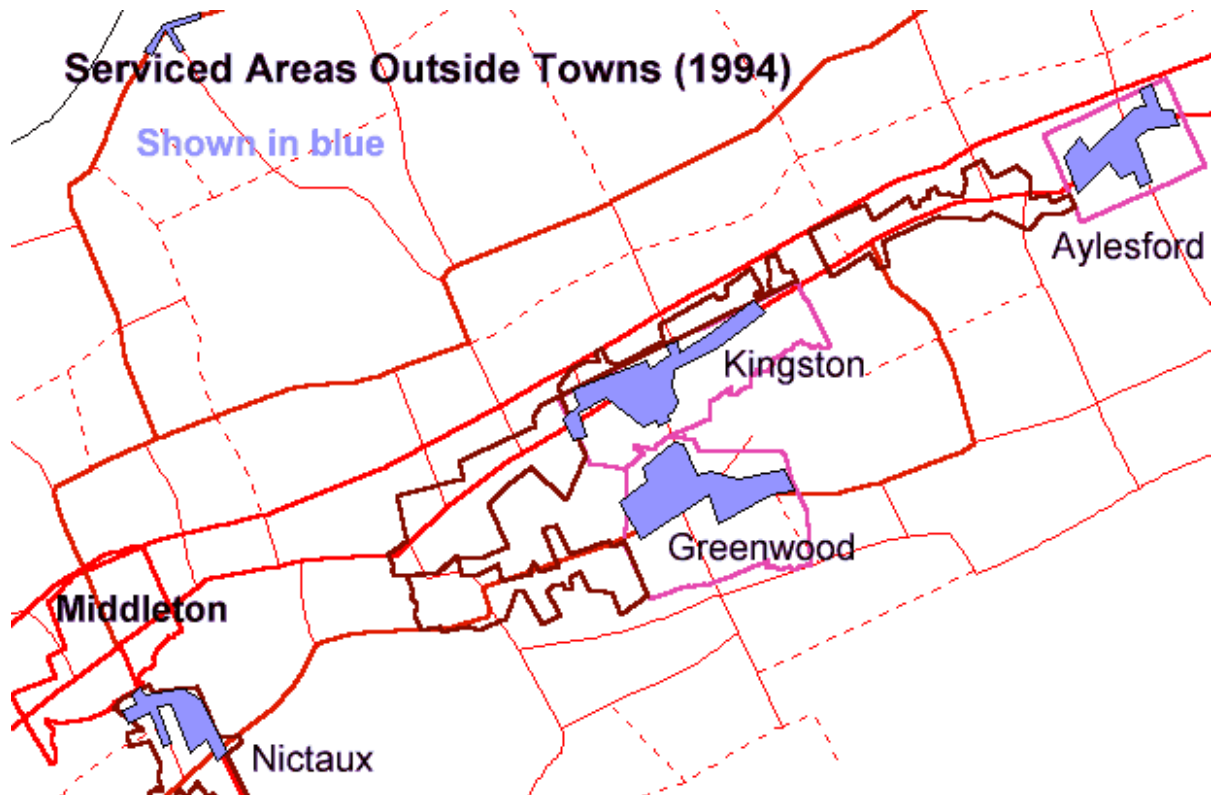


- STRIP DEVELOPMENT - 63 concentrations
- denser strips tend to be north of the central corridor



Kings West-Annapolis East Hotspots

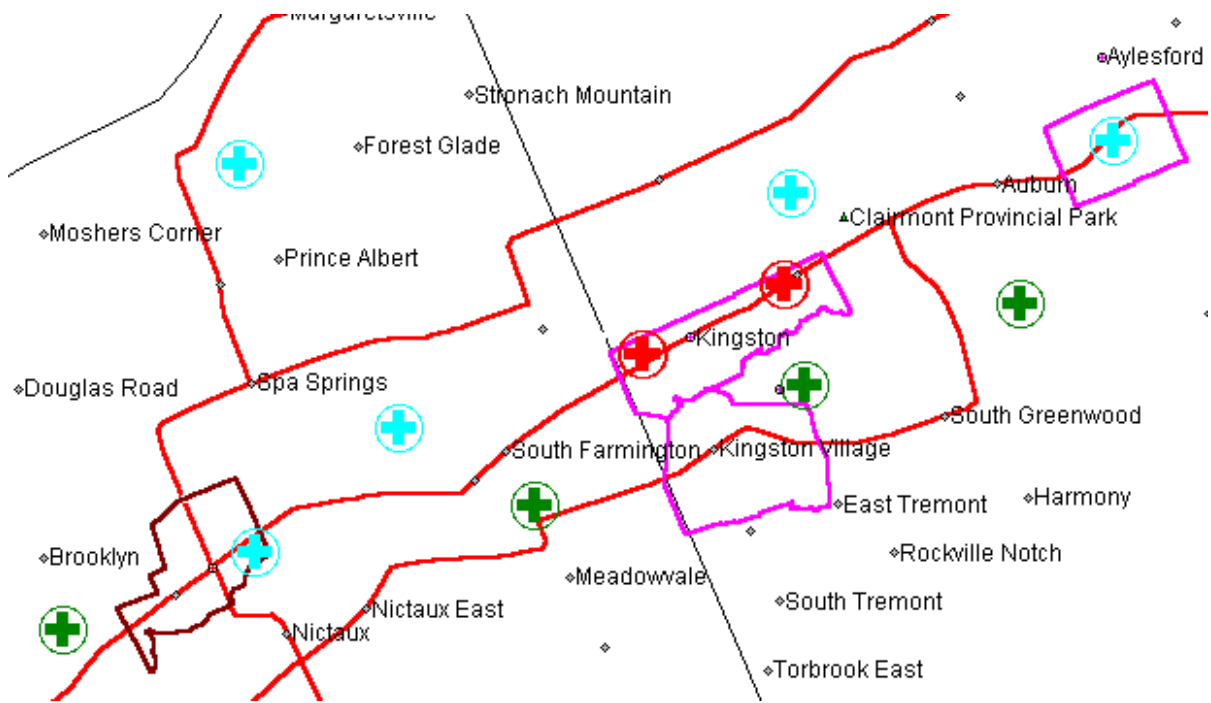
- CORRIDOR WEST - extends from Kings into Annapolis County to the west of Middleton, with:
 - 2 towns
 - 3 Class 4 areas
 - 5 areas of hotspots, most overlapping towns and Class 4's
 - 3 serviced Class 4's and 1 serviced non-Class 4



CENSUS - areas of hotspots:

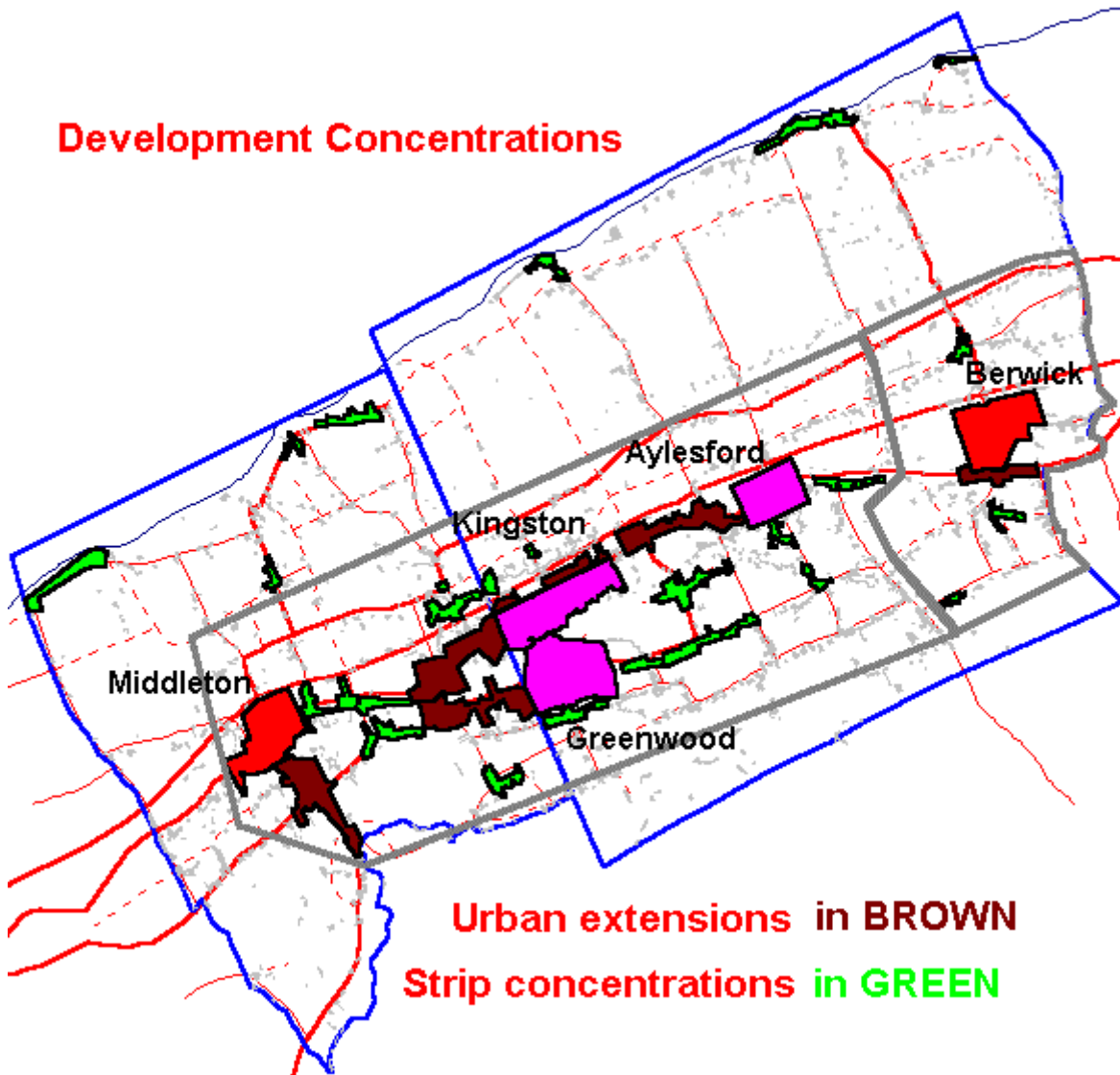
- around Berwick
- southwest of Aylesford
- around Greenwood and Kingston
- west of Greenwood, in Annapolis
- just west of Middleton

red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase

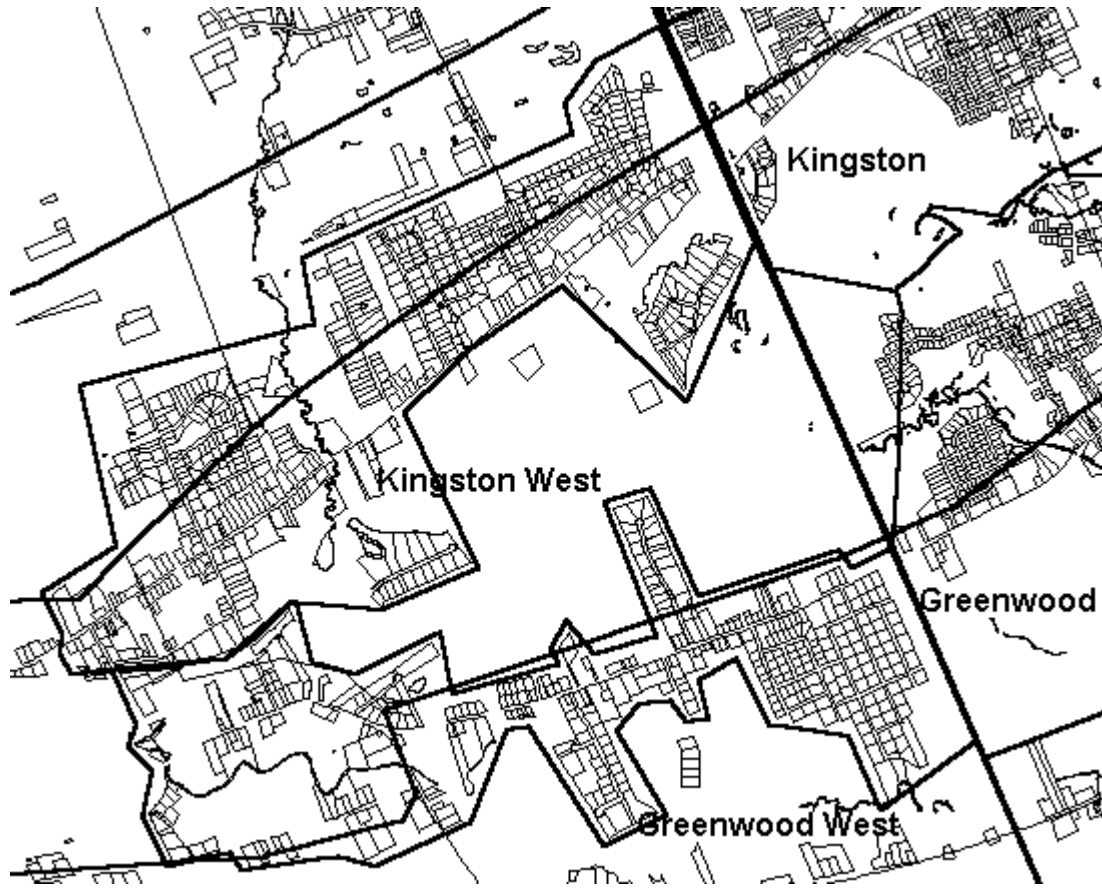


- PARCEL LAYER - From Aylesford to Middleton, there are 2 parallel corridors.

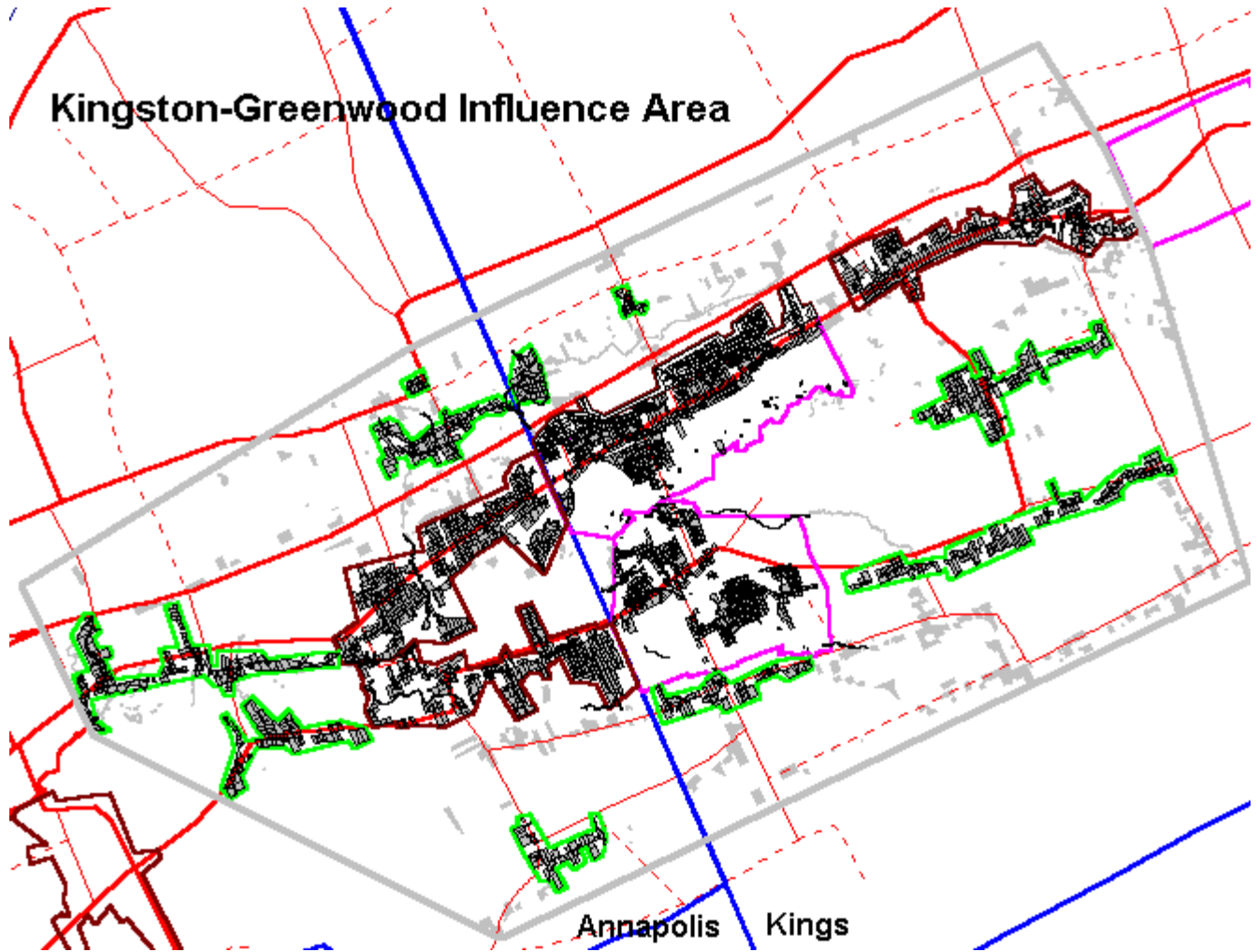
Development Concentrations



- There are 11,795 lots.
- "URBAN EXTENSIONS" - 22 percent of lots
- CLASS 4'S - 20 percent of lots
- "Urban extensions" cross into Annapolis County from the serviced Class 4 areas.
- KINGSTON WEST AND GREENWOOD WEST - 1,048 lots



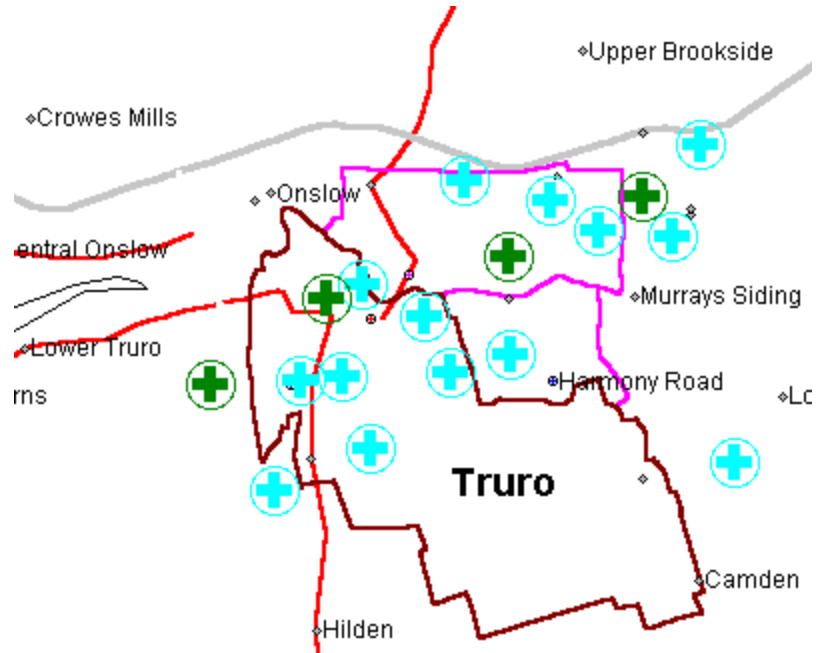
- AYLESFORD TO MIDDLETON - can be considered as a "Kingston-Greenwood Influence Area"
- This area has 5,276 lots.
- Two-thirds of these are in Kings:



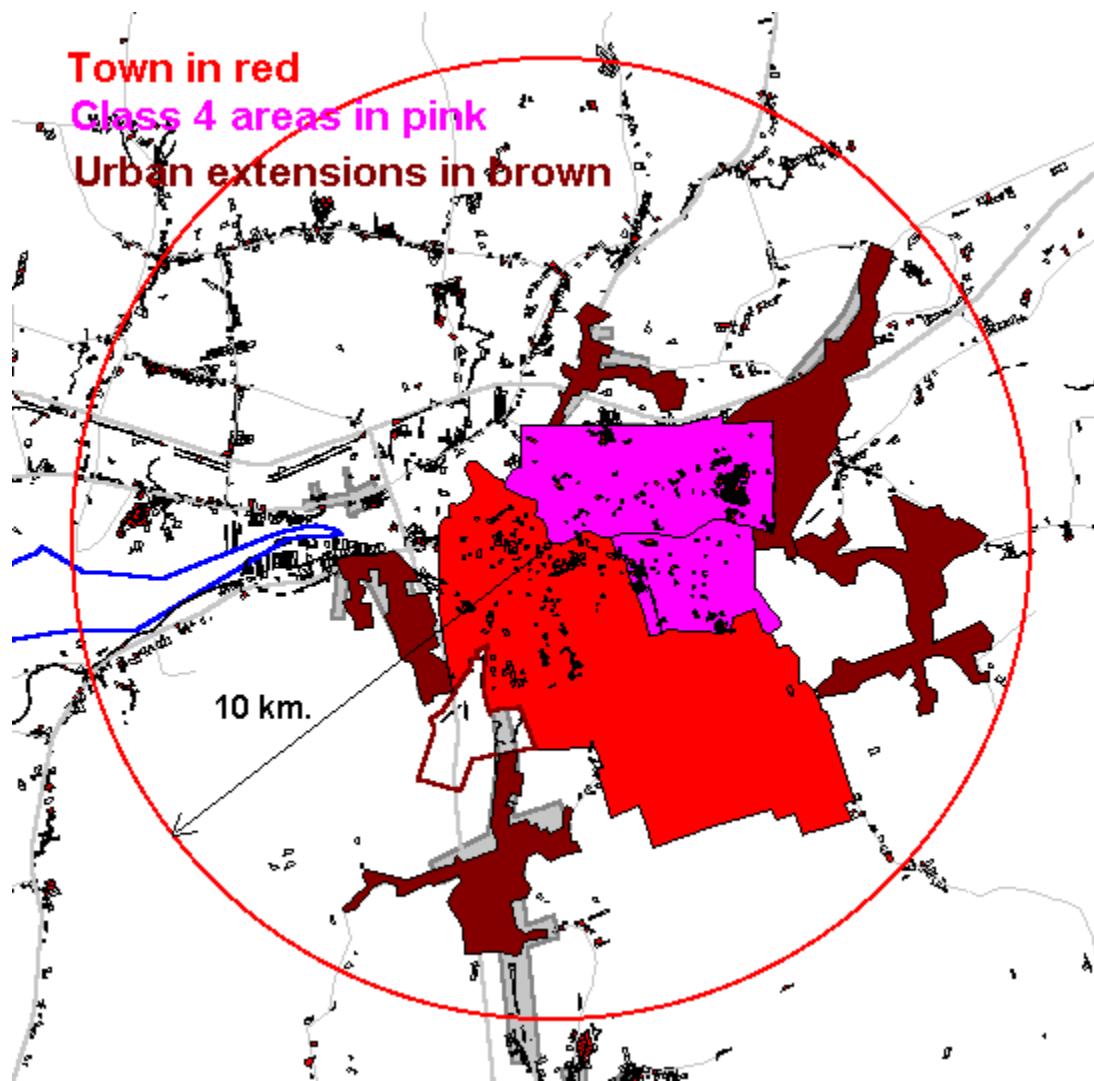
Colchester Hotspots

- CENSUS - There was significant growth in the areas to the east of Bible Hill and to the west of Truro.

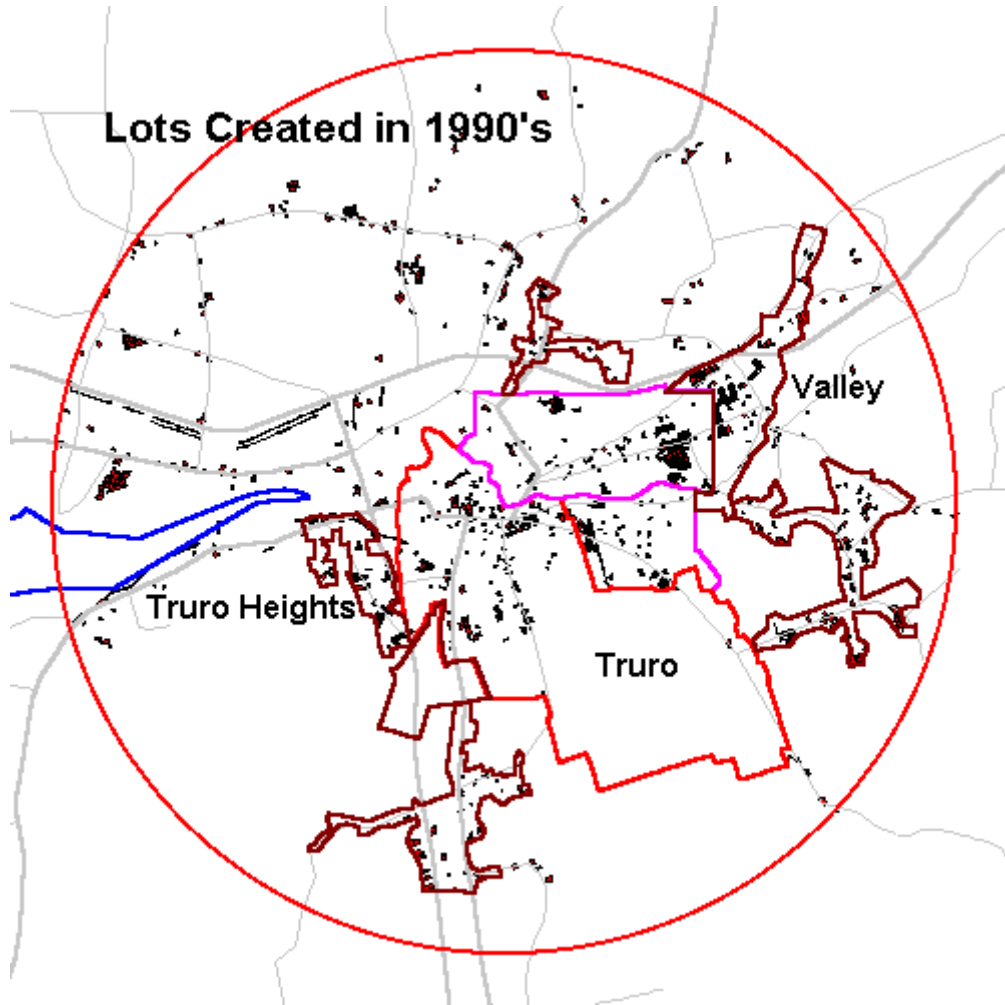
red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase



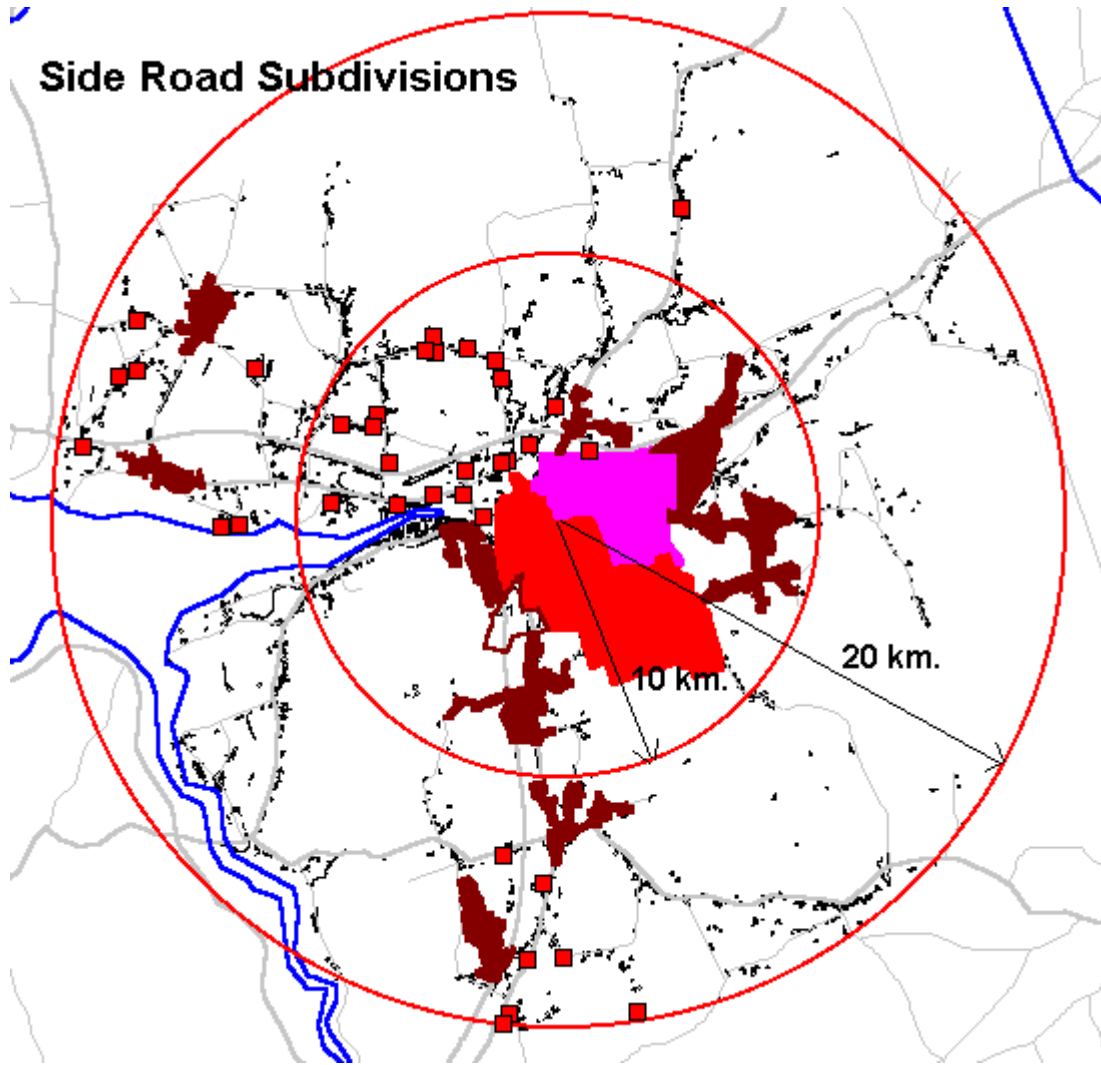
- PARCEL MAP - 10 KM. FROM DOWNTOWN TRURO:
 - 13,474 lots under 2 ha.
 - 58 percent in town and Class 4's
 - 21 percent in serviced urban extensions
 - 4 percent in unserviced urban extension
 - 83 percent urban



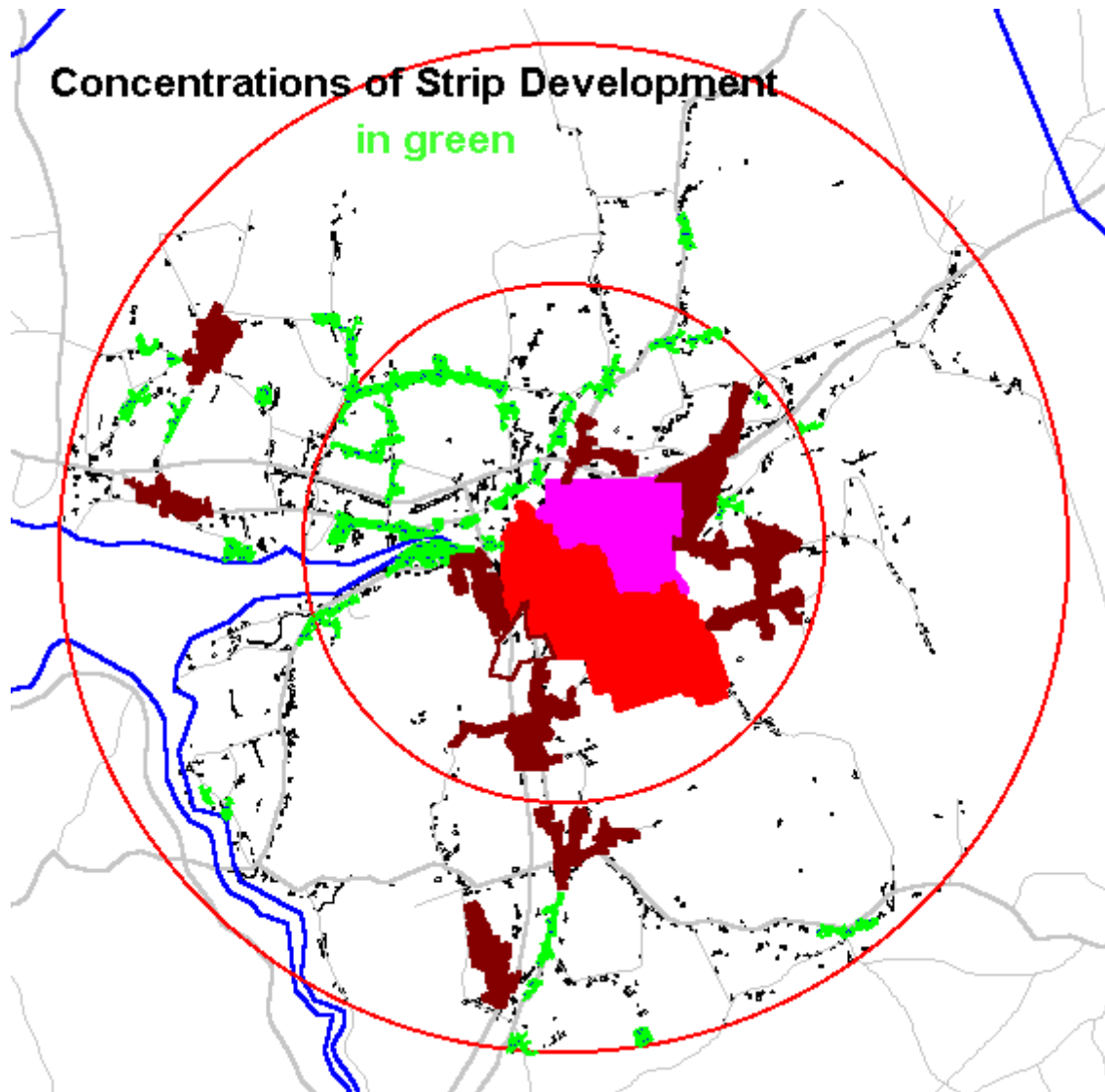
- 1990'S LOTS WITHIN 10 KM.:
 - 1,758 total
 - 78 percent urban
 - largest concentrations outside Town, Class 4's:
 - Valley - 201
 - Truro Heights - 141
 - match Census hotspots.



- WITHIN 20 KM. CIRCLE:
 - 36 non-urban side road subdivisions
 - 29 of these in north-east



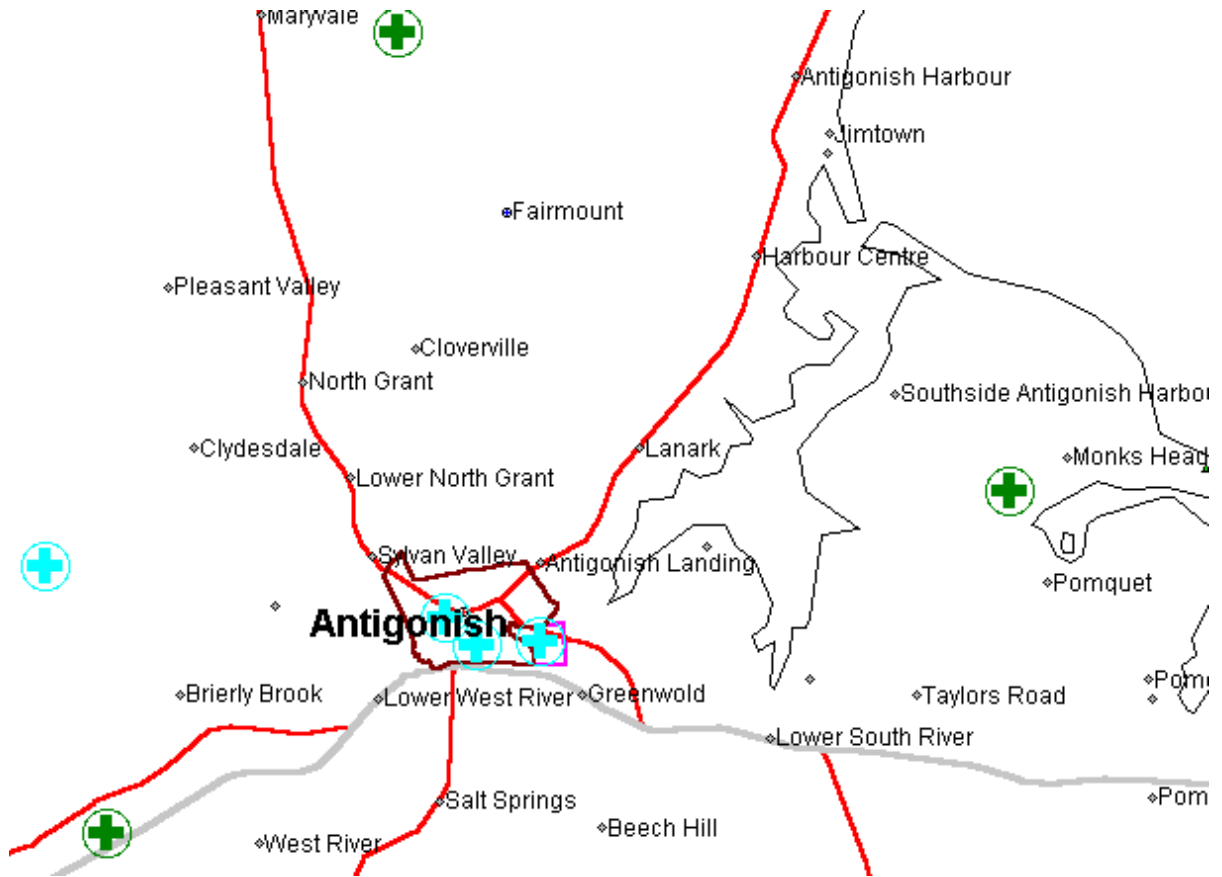
- WITHIN 20 KM. CIRCLE:
 - 17,050 lots
 - 74 percent in urban areas or clusters
 - 14 percent in strip concentrations (2,429)
 - 12 percent scattered
- Most strip concentrations are in the north-east.



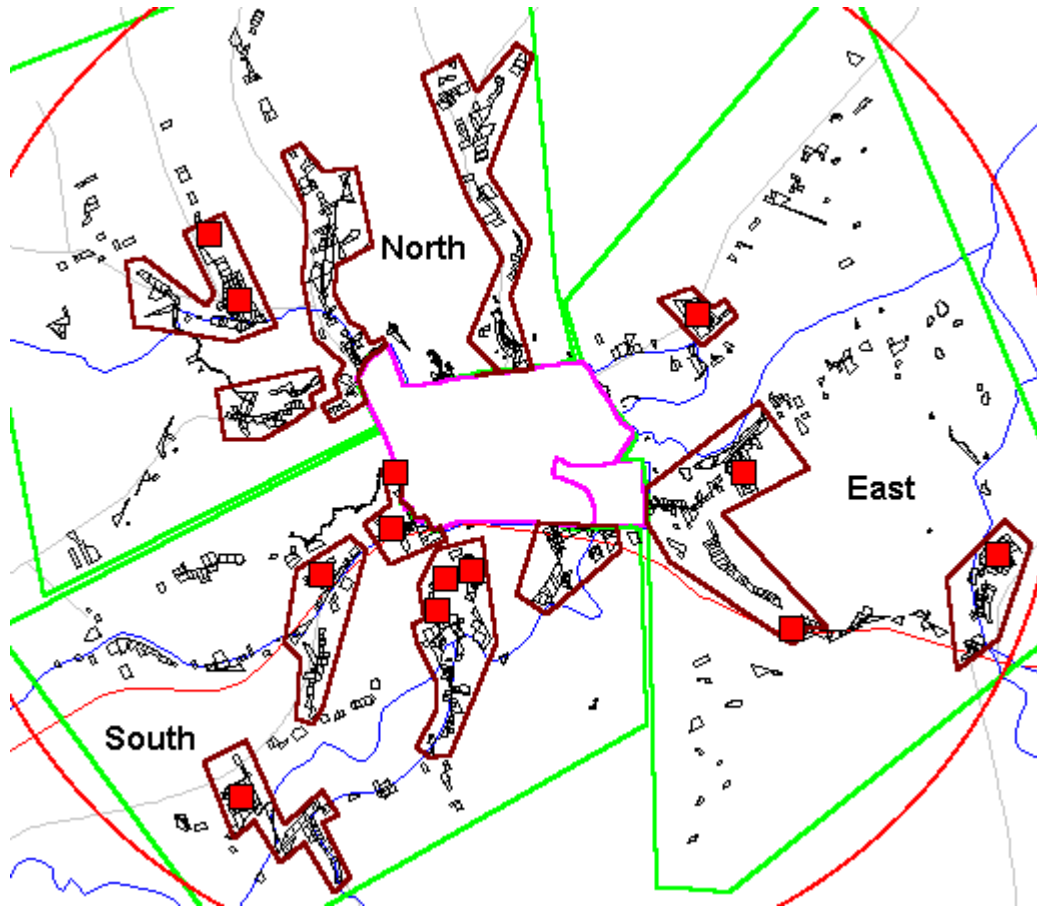
Antigonish Hotspots

- CENSUS - There were areas of significant increase in dwellings to the north, east and west of Antigonish.

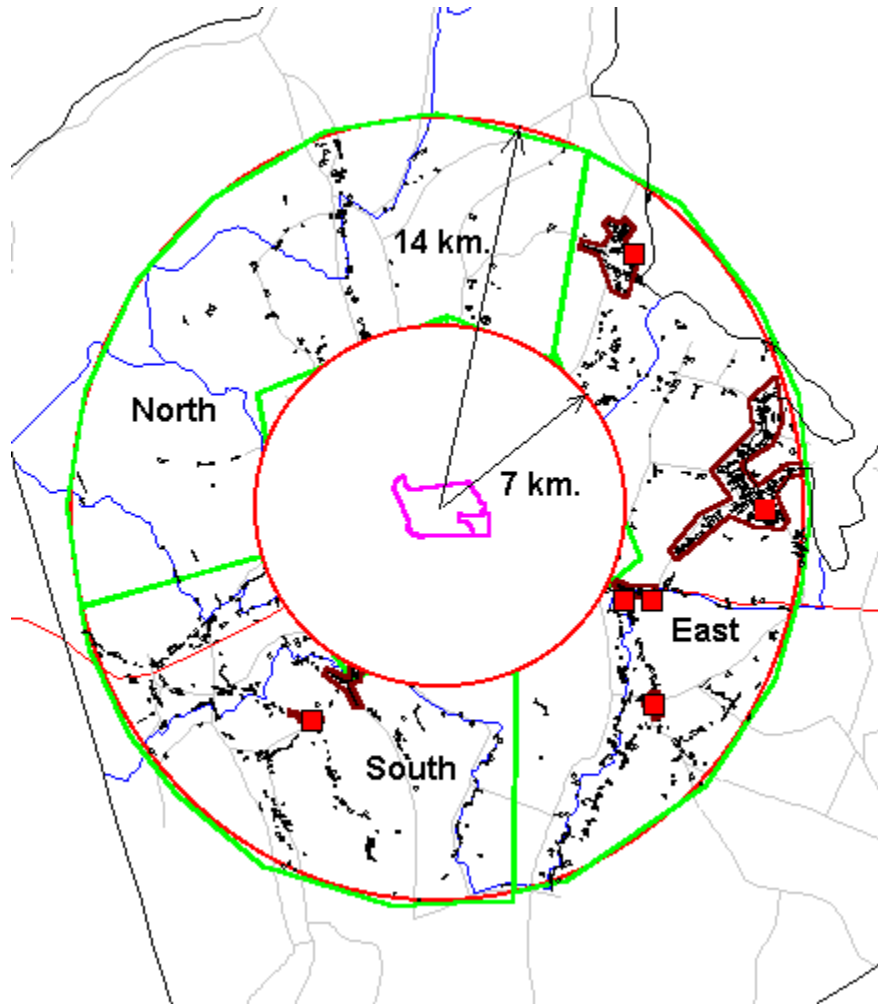
red - 100+ dwellings increase
green - 50-99 dwellings increase
blue - 20-49 dwellings increase



- PARCEL MAP - A ring and sector analysis was carried out.
- 7 KM. CIRCLE:
 - 1,254 lots outside Town and Class 4 area
 - 73 percent in concentrated strip development
 - 13 side road subdivisions (red squares)
 - development is sparser to the east



- RING FROM 7 TO 14 KM.:
 - 1,557 lots
 - 59 percent east
 - 31 percent south
 - 10 percent north



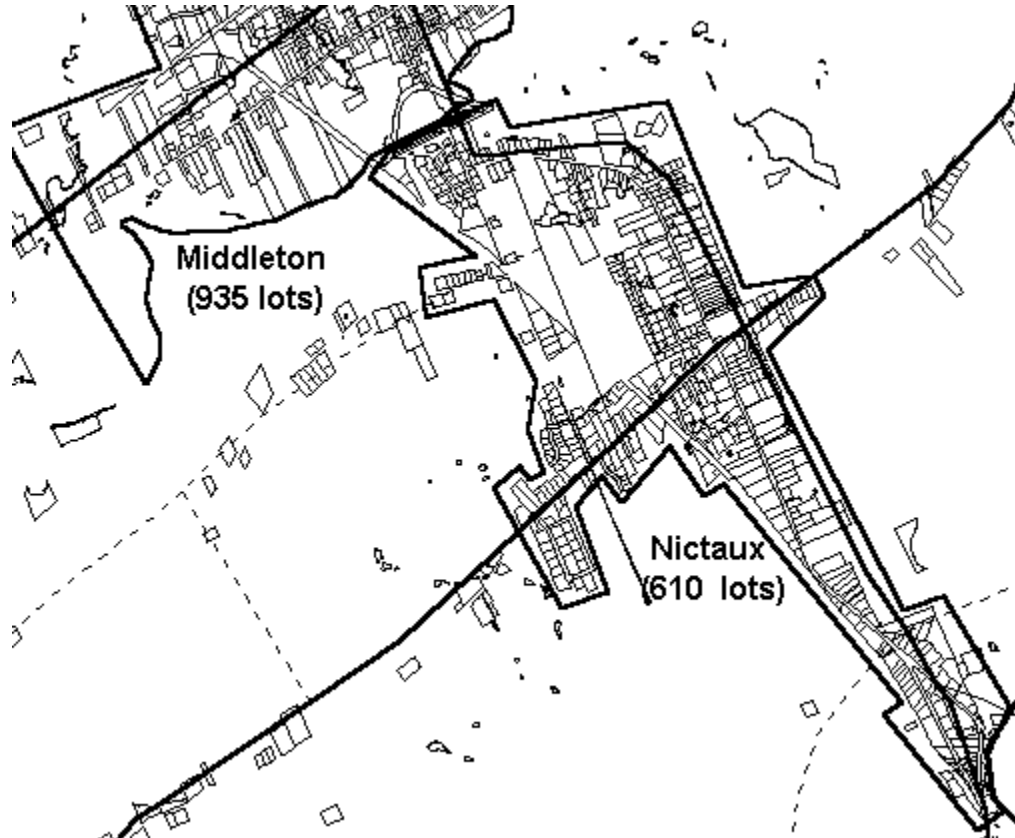
- EAST SECTOR has:
 - 4 of the 6 concentrated strips
 - 5 of the 6 side-road subdivisions
- Coastline appears to be a counter-attraction to Town for settlement.

Where We Go Next

Questions Arising from Local Monitoring

Urban Extensions

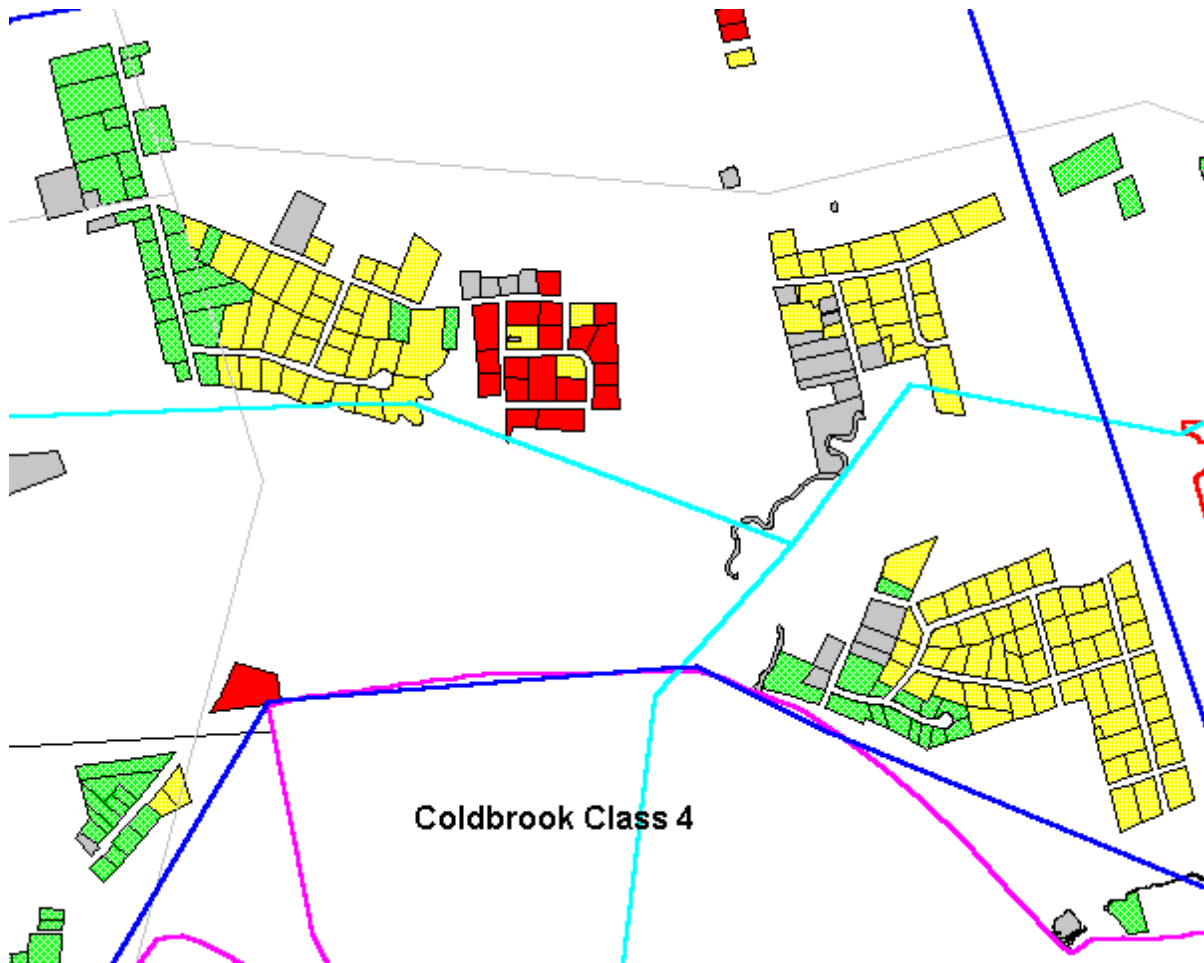
- Are urban extensions a result of inadequate capacity within adjacent Town or Class 4 area boundaries?



- Should they be encouraged to grow in emulation of a traditional town?
- How to deal with a "trans-municipal" urban area such as Kingston-Greenwood?

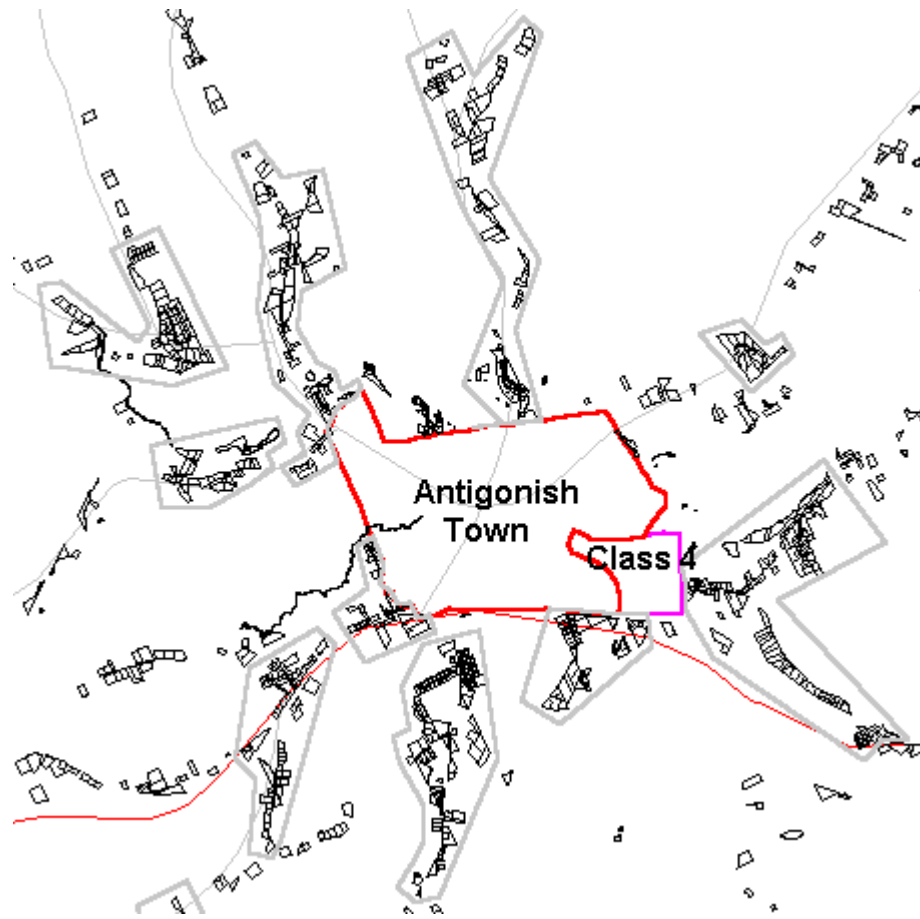
In-Depth Development

- How dense can in-depth development become before it requires central services?
- What is balance between concentrating development and requiring services?

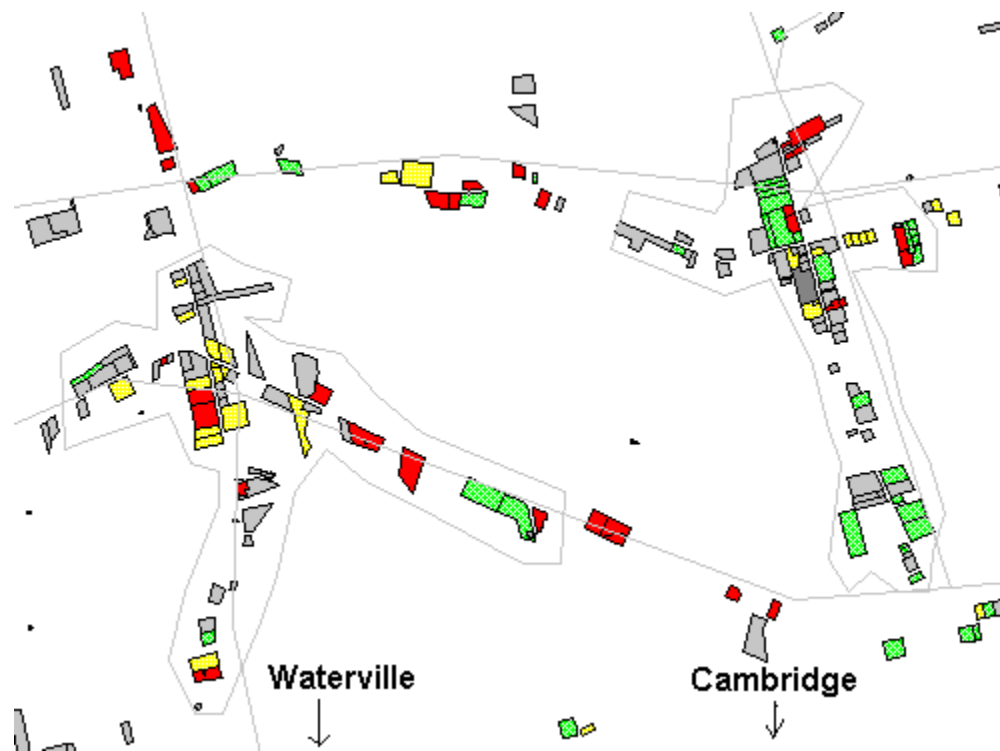


- Should spaces between in-depth developments be developed in turn?
- What is the impact of in-depth development on adjacent agricultural land?
- Which in-depth development is serviced?
- Which is on municipal roads?

Concentrated Strip Development

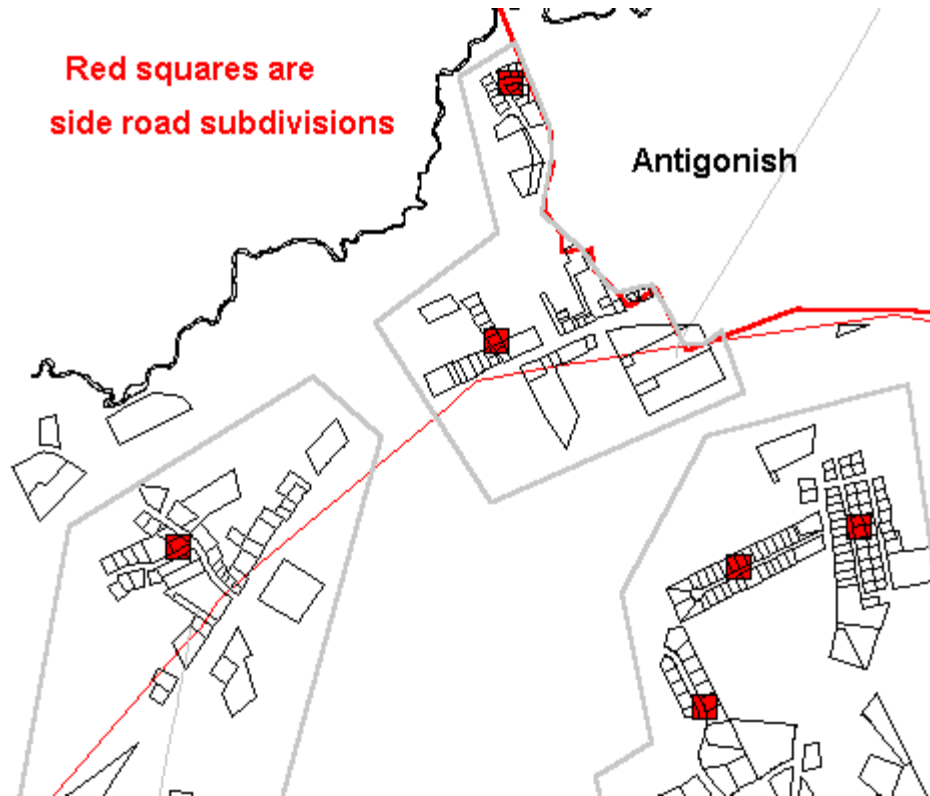


- What are the different consequences of concentrated strips:
 - on the edge of established urban areas
 - isolated in rural areas



Side Road Subdivisions

- What is the impact upon settlement pattern of the transfer of subdivision side roads to the municipalities?



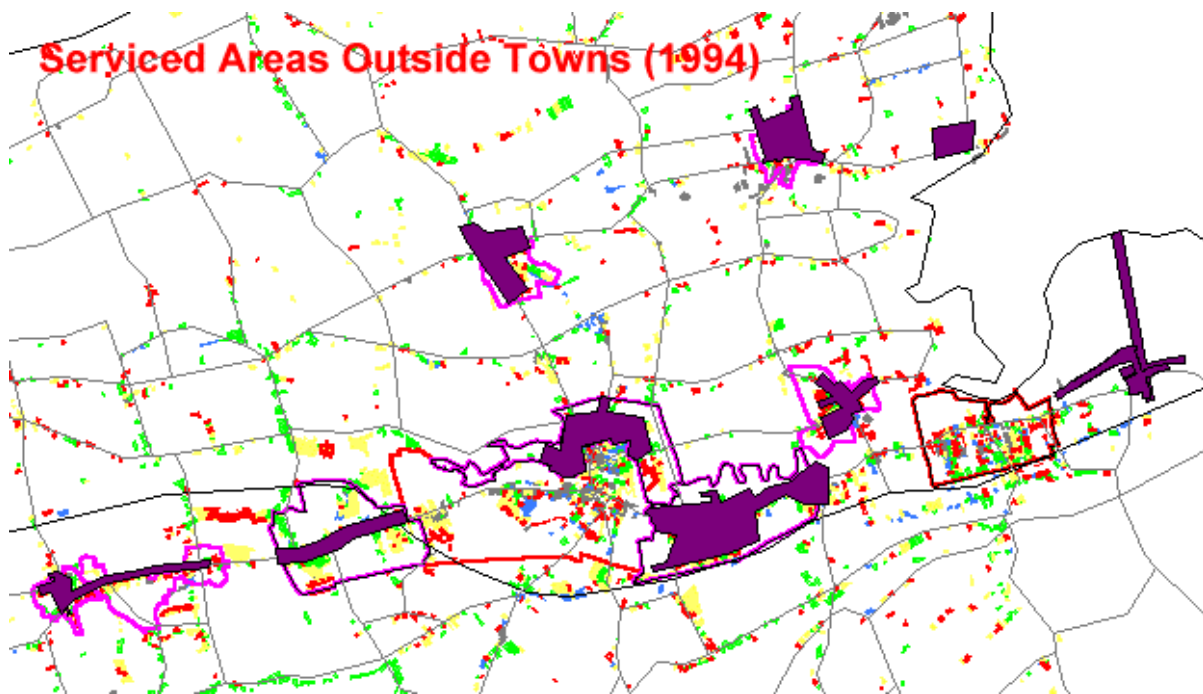
Further Work

Financial Impact Analysis

- Chart town-rural property tax differential.
- Compare maintenance costs of rural and urban subdivision roads.
- Obtain historical per dwelling costs for schools, police, fire, recreation.

Municipal Servicing

- Map location of Provincial Capital Assistance Program projects to assist municipal sewer and water services provision.
- Map serviced areas.



Municipal Planning

- Make link to planning documents and planned areas.
- Find good and bad examples of classes of development mentioned in provincial interest statement.
- Compare Census dwellings with population trends.

Land Use and Development

- Match lots created with dwellings constructed, to give idea of excess lots/speculative development.
- Determine impact of retiree and cottage development.
- Compare lot sizes in urban areas to rural strips.
- Relate to active agricultural land.

