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**Measuring Rurality - RIO2008_BASIC:
Methodology and Results**

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Introduction and Background

The Rurality Index for Ontario (RIO) was originally developed in 1999-2000, a full report outlining the methodology and results can be found in Kralj (2000)¹. The RIO measure was a response to the need for a continuous and broader measure of rurality, than was available, for policy development purposes. In particular, policies and incentives aimed at physician recruitment and retention. This original methodology was refreshed using the most recently available data in 2004, resulting in the release of the RIO2004 measure.

Since 2000, the use of RIO has grown and currently a wide variety of MOHLTC and OMA administered programs use it for determining incentive and/or bonus payment levels. Included are the following programs: Rural Medicine Investment Program, Underserved Area Program, Locum Program, CME Program, Rural and Northern Physician Group Agreement (RNPGA), Hospital On-Call Program (HOCC), Primary Care: rurality gradient for FHN and harmonized models and hospital premium for rural FHN and harmonized models.

Finally, it is OMA policy that RIO be employed as a tool for scaling incentive structures.

Given the wide and growing use of RIO and the availability of more recent information (i.e., Census of Canada, municipal amalgamations/boundaries), the OMA Board of Directors recommended a review of RIO in the summer of 2007. The bilateral Physician Human Resources Committee (PHRC) was given this task and proceeded to strike a working group to carry out the task. The RIO Review Working Group met between October 2007 and January 2008 to conduct the review.

The product of the review was the construction of a new measure of rurality, a new rurality index for Ontario (RIO) – RIO2008_BASIC. The use of this new measure has been supported by both the OMA and the MOHLTC.

1 Kralj, Boris (2000). “Measuring ‘rurality’ for purposes of health-care planning: an empirical measure for Ontario”. *Ontario Medical Review*. October 2000.

Components of RIO2008_BASIC

The new RIO, RIO2008_BASIC, consists of three broad components as follows:

$$\text{RIO2008_BASIC} = \text{POP} + \text{TIME}_a + \text{TIME}_b$$

Where,

POP = Measure of community population and population density.

TIME_b = Measure of travel time to nearest basic referral centre.

TIME_a = Measure of travel time to nearest advanced referral centre.

The implicit weights or influence of each component is as follows: POP = 28.6 percent; TIME_b = 47.6 percent; TIME_a = 23.8 percent

This specification represents a measure that is analogous to earlier measures given that it is determined almost solely by geographic factors - distances/travel times. Hence, this measure is expected to remain quite stable or fixed over time.

The exact empirical specification for each of these factors is presented in Appendix 1. We see that, as was the case with the original RIO, most factors are a *relative* measure to the provincial median. A brief overview of each of the components is provided below.

POP

The availability of many health services is positively or directly related to the size of the population. Also, it is a fact that rural areas are less densely populated than urban areas. As a result rural GP's may have to travel longer distances for house calls or may have responsibility for satellite clinics at large distances from their home community. This component of the RIO awards points, in a linear fashion, to communities with a population lower than 45,000 persons.

An additional 5 points can be awarded to communities based on their population density or dispersion relative to the provincial median population density. All population data and population density figures are for 2006 and provided by Statistics Canada.

TIME_a and TIME_b

Distance to referral centres is an important element which impacts scope of medical practice, levels of responsibility and on-call, as well as professional and social isolation of practitioners and their families. Issues of transportation and travel times may have particular importance in rural areas. Typically, rural residents have greater transportation difficulties and often travel longer distances to receive health care. Lack

of adequate public transportation in rural areas also creates a barrier to receiving care. The transportation system available to a community determines its degree of isolation. Rural areas served by high-quality transportation corridors will typically have better access to health services. A well-developed road/highway system creates access for patients to local services and facilitates a referral system that links clinics to hospitals, and small hospitals to larger, tertiary care centres.

Basic referral centre is a minimum of Level 2 referral centre as defined by the Provincial Coordinating Committee on Community and Academic Health Science Centre Relations (PCCCAR) [“An Interim Guide for Physician Resource Planning in Ontario”, October 1996, page 5-6]. That is a centre with a population greater than 10,000 with the following specialty services; GP/FP, Anaesthesia, Diagnostic Radiology, General Internal Medicine, General Surgery, Obs/Gyno, Orthopaedic Surgery, Paediatrics, and Psychiatry.

Advanced referral centre is a minimum of Level 4 referral centre as defined by PCCCAR. Additionally, Winnipeg, Manitoba was included as an advanced referral centre based on input from the OMA Section of Rural Practice. A full listing of basic and advanced referral centres is provided in the table on the following page.

Travel times, measured in minutes, were calculated using RouteView (routing and catchment analysis software), based on the quickest route via roads and highways. Routes originated and terminated at the centroid of the CSD. RouteView accounts for four different classes of road, and hence travel speeds. These are; (i) major road with default speed of 60 km/hr, (ii) regional road with default speed of 75 km/hr, (iii) highway with default speed of 90 km/hr, and (iv) expressway with default speed of 100 km/hr. When one combines these travel speeds with travel distances, the travel time measure is arrived at.

Basic Referral Centre Listing		Advanced Referral Centre Listing	
CSD_number	CSD_name	CSD_number	CSD_name
3501012	Cornwall	3506008	Ottawa
3506008	Ottawa	3510010	Kingston
3507015	Brockville	3520005	Toronto
3510010	Kingston	3521005	Mississauga
3512005	Belleville	3525005	Hamilton
3515014	Peterborough	3537039	Windsor
3518005	Ajax	3539036	London
3518013	Oshawa	3553005	Greater Sudbury / Grand Sudbury
3519036	Markham	3558004	Thunder Bay
3519038	Richmond Hill	n/a	Winnipeg, Manitoba
3519048	Newmarket		
3520005	Toronto		
3521005	Mississauga		
3521010	Brampton		
3523008	Guelph		
3524001	Oakville		
3524002	Burlington		
3525005	Hamilton		
3526032	Welland		
3526043	Niagara Falls		
3526053	St. Catharines		
3529006	Brantford		
3530010	Cambridge		
3530013	Kitchener		
3534021	St. Thomas		
3536020	Chatham-Kent		
3537039	Windsor		
3538030	Sarnia		
3539036	London		
3542059	Owen Sound		
3543042	Barrie		
3548044	North Bay		
	Greater Sudbury / Grand		
3553005	Sudbury		
3557061	Sault Ste. Marie		
3558004	Thunder Bay		
3556027	Timmins		

Exclusions and Final Scoring

Using the 2001 Census definitions there are approximately 580 CSDs in Ontario, for purposes of constructing the RIO2008_BASIC measure of rurality approximately 200 CSDs were excluded from the analysis. Specifically, we excluded unorganized areas, Indian reserves and settlements, and CSD's with a population of less than 500.

Unorganized Areas (UNO) refers to unincorporated areas, these areas have no legal, political or jurisdictional authority. They are simply areas that do not fall into the area of an incorporated town/city/village/etc.. The inclusion of UNO's results in a great deal of data skewing and as such have been removed from analysis. Additionally, Indian settlements and reserves were excluded from the analysis since Federal government funding (not OHIP) covers medical services provided on Indian Reserves. However, provincial (OHIP) funding covers services provided to native Indians when the services are delivered off the Reserves. Finally, to further minimize any data skewing, communities with populations less than 500 persons were removed from the analysis.

Results

The overall raw scores for RIO2008_BASIC were transformed to a 0 to 100 scale. These scores were then rounded to the nearest integer. Please remember that these scores are ordinal measures reflecting a *relative* ranking or rurality, rather than cardinal measures. A higher score reflects a higher degree of rurality.

Descriptive statistics on the distribution of CSD RIO2008_BASIC scores are presented in the table below.

	RIO2008_BASIC
N	379
Mean	45.2
Std. Deviation	24.6
Median	42
25 th Percentile	29
75 th Percentile	61

Appendix 2 provides a listing of final scores for RIO2008_BASIC by CSD.

Appendix 3 provides a map illustrating the distribution of final RIO2008_BASIC scores across the province.

APPENDIX 1

RIO2008 Empirical Specifications

TIME_b = Measure of travel time to nearest basic referral centre

$$TIME_b = [(T_b - T_{bM}) / T_{bM}] \times 10$$

If $TIME_b > 40$ then $TIME_b = 40$.

where,

T_b = Minutes of travel time to nearest *basic* referral centre.

T_{bM} = Median travel time = 49.4 minutes.

Max. possible score = 40; Min. possible score = - 10.

TIME_a = Measure of travel time to nearest advanced referral centre

$$TIME_a = [(T_a - T_{aM}) / T_{aM}] \times 10$$

If $TIME_a > 15$ then $TIME_a = 15$.

where,

T_a = Minutes of travel time to nearest *advanced* referral centre.

T_{aM} = Median travel time = 101.4 minutes.

Max. possible score = 15; Minimum possible score = -10.

POP = Measure of community population

$$POP = [25 - 3.79 (P_{06}/P_M)] + [5 - (P_D/22.6)]$$

If $[25 - 3.79(P_{06}/P_M)] < 0$ then set $[25 - 3.79(P_{06}/P_M)] = 0$.

If $[5 - (P_D/22.6)] < 0$ then set $[5 - (P_D/22.6)] = 0$.

where,

P_{06} = Total population of CSD in 2006.

P_M = Median population of CSDs in 2006 = 6,825 persons.

P_D = Median population density of CSDs = 22.6 persons/sq.km

Max. possible score = 30; Min. possible score = 0.

APPENDIX 2: RIO2008_BASIC listing by CSD

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3511035	Addington Highlands	TP	56
3539047	Adelaide Metcalfe	TP	40
3543003	Adjala-Tosorontio	TP	37
3547043	Admaston/Bromley	TP	52
3518005	Ajax	T	3
3559011	Alberton	TP	100
3502023	Alfred and Plantagenet	TP	44
3546018	Algonquin Highlands	TP	77
3514024	Alnwick/Haldimand	TP	47
3522008	Amaranth	TP	44
3537028	Amherstburg	T	20
3549019	Armour	TP	69
3554036	Armstrong	TP	84
3547002	Arnprior	T	32
3541043	Arran-Elderslie	MU	48
3540063	Ashfield-Colborne-Wawanosh	TP	58
3515003	Asphodel-Norwood	TP	44
3551011	Assiginack	TP	75
3507042	Athens	TP	37
3559001	Atikokan	TP	83
3507006	Augusta	TP	34
3519046	Aurora	T	5
3534011	Aylmer	T	27
3552028	Baldwin	TP	50
3512061	Bancroft	T	62
3543042	Barrie	CY	8
3534005	Bayham	MU	36
3509024	Beckwith	TP	31
3512005	Belleville	CY	6
3551021	Billings	TP	78
3556014	Black River-Matheson	TP	66
3532045	Blandford-Blenheim	TP	36
3557038	Blind River	T	78
3542045	Blue Mountains	T	47
3540010	Bluewater	MU	48
3548027	Bonfield	TP	50
3547035	Bonnechere Valley	TP	59
3544018	Bracebridge	T	57
3543014	Bradford West Gwillimbury	T	20
3521010	Brampton	CY	2
3529005	Brant	CY	16
3529006	Brantford	CY	3
3514004	Brighton	MU	39
3518039	Brock	TP	40
3541032	Brockton	MU	50
3507015	Brockville	CY	20
3538015	Brooke-Alvinston	MU	43

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3557021	Bruce Mines	T	61
3547020	Brudenell, Lyndoch and Raglan	TP	70
3549022	Burk's Falls	VL	63
3524002	Burlington	CY	2
3521024	Caledon	T	8
3549066	Callander	MU	47
3548022	Calvin	TP	56
3530010	Cambridge	CY	4
3509028	Carleton Place	T	24
3549036	Carling	TP	76
3512065	Carlow/Mayo	TP	69
3502044	Casselman	VL	39
3515013	Cavan-Millbrook-North Monaghan	TP	36
3534020	Central Elgin	MU	23
3510035	Central Frontenac	TP	44
3540025	Central Huron	MU	51
3551006	Central Manitoulin	TP	77
3512026	Centre Hastings	MU	39
3523025	Centre Wellington	TP	25
3502010	Champlain	TP	46
3552092	Chapleau	TP	87
3559024	Chapple	TP	100
3554044	Charlton and Dack	MU	83
3536020	Chatham-Kent	MU	11
3542037	Chatsworth	TP	43
3548031	Chisholm	TP	53
3502036	Clarence-Rockland	CY	34
3518017	Clarington	MU	10
3543005	Clearview	TP	37
3554008	Cobalt	T	74
3514021	Cobourg	T	34
3556042	Cochrane	T	69
3543031	Collingwood	T	37
3558019	Conmee	TP	40
3501012	Cornwall	CY	12
3514014	Cramahe	TP	45
3538007	Dawn-Euphemia	TP	45
3559040	Dawson	TP	100
3547096	Deep River	T	70
3512002	Deseronto	T	33
3515023	Douro-Dummer	TP	42
3509010	Drummond/North Elmsley	TP	37
3560027	Dryden	CY	91
3557079	Dubreuilville	TP	100
3534030	Dutton/Dunwich	MU	37
3546024	Dysart and Others	TP	56
3560032	Ear Falls	TP	100

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3548034	East Ferris	TP	45
3522001	East Garafraxa	TP	40
3519054	East Gwillimbury	T	21
3502001	East Hawkesbury	TP	53
3522010	East Luther Grand Valley	TP	45
3532038	East Zorra-Tavistock	TP	37
3507004	Edwardsburgh/Cardinal	TP	38
3507014	Elizabethtown-Kitley	TP	34
3557041	Elliot Lake	CY	71
3559019	Emo	TP	99
3554052	Englehart	T	76
3538016	Enniskillen	TP	40
3523017	Erin	T	31
3552026	Espanola	T	46
3543021	Essa	TP	29
3537016	Essex	T	23
3512058	Faraday	TP	63
3556052	Fauquier-Strickland	TP	86
3526003	Fort Erie	T	21
3559012	Fort Frances	T	91
3552001	French River / Rivière des Français	M	55
3507017	Front of Yonge	TP	36
3510005	Frontenac Islands	TP	33
3515044	Galway-Cavendish and Harvey	TP	50
3507024	Gananoque	T	32
3544065	Georgian Bay	TP	64
3542053	Georgian Bluffs	TP	41
3519070	Georgina	T	14
3558012	Gillies	TP	41
3540028	Goderich	T	52
3551026	Gore Bay	T	78
3544002	Gravenhurst	T	50
3547008	Greater Madawaska	TP	55
3511015	Greater Napanee	T	29
3553005	Greater Sudbury / Grand Sudbury	C	3
3558075	Greenstone	MU	79
3542015	Grey Highlands	MU	45
3526065	Grimsby	T	20
3523008	Guelph	CY	4
3523009	Guelph/Eramosa	TP	28
3528018	Haldimand County	CY	17
3524015	Halton Hills	T	7
3525005	Hamilton	C	0
3514019	Hamilton TP	TP	39
3542029	Hanover	T	45
3554026	Harley	TP	85
3554014	Harris	TP	83

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3512076	Hastings Highlands	MU	69
3515030	Havelock-Belmont-Methuen	TP	52
3502008	Hawkesbury	T	45
3556076	Hearst	T	95
3546005	Highlands East	MU	63
3557096	Hornepayne	TP	100
3547046	Horton	TP	47
3540046	Howick	TP	53
3544042	Huntsville	T	62
3540040	Huron East	MU	47
3557035	Huron Shores	MU	67
3541015	Huron-Kinloss	TP	57
3560001	Ignace	TP	96
3532018	Ingersoll	T	28
3543017	Innisfil	T	17
3556031	Iroquois Falls	T	60
3557016	Johnson	TP	63
3556066	Kapuskasing	T	84
3516010	Kawartha Lakes	CY	28
3549018	Kearney	T	76
3560010	Kenora	CY	80
3547033	Killaloe, Hagarty and Richards	TP	69
3541024	Kincardine	MU	52
3519049	King	TP	24
3510010	Kingston	CY	0
3537013	Kingsville	T	24
3554068	Kirkland Lake	T	70
3530013	Kitchener	CY	5
3559016	La Vallee	TP	100
3557011	Laird	TP	60
3544027	Lake of Bays	TP	76
3537064	Lakeshore	T	18
3538040	Lambton Shores	MU	38
3509039	Lanark Highlands	TP	43
3554062	Larder Lake	TP	83
3537034	LaSalle	T	13
3547090	Laurentian Hills	T	73
3547075	Laurentian Valley	TP	60
3537003	Leamington	MU	24
3507021	Leeds and the Thousand Islands	TP	35
3526057	Lincoln	T	20
3539036	London	CY	0
3511005	Loyalist	TP	24
3539060	Lucan Biddulph	TP	37
3557051	Macdonald, Meredith and Aberdeen A	TP	59
3549054	Machar	TP	60
3560021	Machin	TP	100

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3547030	Madawaska Valley	TP	73
3512036	Madoc	TP	47
3549043	Magnetawan	MU	71
3534010	Malahide	TP	30
3558066	Manitouwadge	TP	99
3523033	Mapleton	TP	39
3558059	Marathon	T	97
3519036	Markham	T	2
3552013	Markstay-Warren	MU	44
3512046	Marmora and Lake	MU	52
3548021	Mattawa	T	55
3556077	Mattice-Val Côté	TP	100
3549031	McDougall	MU	71
3554058	McGarry	TP	84
3549028	McKellar	TP	73
3549012	McMurrich/Monteith	TP	73
3547003	McNab/Braeside	TP	38
3542047	Meaford	MU	40
3522019	Melancthon	TP	47
3507052	Merrickville-Wolford	VL	39
3557076	Michipicoten	TP	93
3539033	Middlesex Centre	TP	28
3543074	Midland	T	38
3524009	Milton	T	7
3546015	Minden Hills	TP	61
3523043	Minto	T	46
3521005	Mississauga	CY	0
3509030	Mississippi Mills	T	32
3522012	Mono	T	38
3509001	Montague	TP	38
3556056	Moonbeam	TP	89
3540050	Morris-Turnberry	MU	54
3522016	Mulmur	TP	44
3544053	Muskoka Lakes	TP	69
3558001	Neebing	MU	40
3543007	New Tecumseth	T	22
3519048	Newmarket	T	4
3526043	Niagara Falls	CY	8
3526047	Niagara-on-the-Lake	T	25
3558044	Nipigon	TP	58
3549071	Nipissing	TP	55
3528052	Norfolk County	CY	20
3547070	North Algona Wilberforce	TP	61
3548044	North Bay	CY	14
3530004	North Dumfries	TP	29
3501030	North Dundas	TP	40
3510045	North Frontenac	TP	56

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3501050	North Glengarry	TP	43
3507065	North Grenville	MU	33
3540055	North Huron	TP	54
3515037	North Kawartha	TP	55
3539041	North Middlesex	MU	40
3531040	North Perth	MU	42
3557040	North Shore	TP	71
3501042	North Stormont	TP	40
3551017	Northeastern Manitoulin and the Islands	T	68
3541069	Northern Bruce Peninsula	MU	64
3532002	Norwich	TP	35
3524001	Oakville	T	2
3558016	O'Connor	TP	39
3538018	Oil Springs	VL	40
3558011	Oliver Paipoonge	MU	31
3522014	Orangeville	T	22
3543052	Orillia	CY	27
3543023	Oro-Medonte	TP	33
3518013	Oshawa	CY	5
3515005	Otonabee-South Monaghan	TP	39
3506008	Ottawa	C	0
3542059	Owen Sound	CY	27
3548013	Papineau-Cameron	TP	68
3549032	Parry Sound	T	65
3526028	Pelham	T	24
3547064	Pembroke	CY	51
3543072	Penetanguishene	T	43
3549014	Perry	TP	70
3509021	Perth	T	36
3531030	Perth East	TP	38
3531013	Perth South	TP	42
3547076	Petawawa	T	57
3515014	Peterborough	CY	11
3538019	Petrolia	T	34
3518001	Pickering	CY	5
3557019	Plummer Additional	TP	64
3538035	Plympton-Wyoming	T	36
3538031	Point Edward	VL	34
3526011	Port Colborne	CY	25
3514020	Port Hope	MU	36
3549060	Powassan	MU	51
3507008	Prescott	T	34
3557066	Prince	TP	54
3513020	Prince Edward	CY	28
3523001	Puslinch	TP	29
3512015	Quinte West	CY	13
3559042	Rainy River	T	95

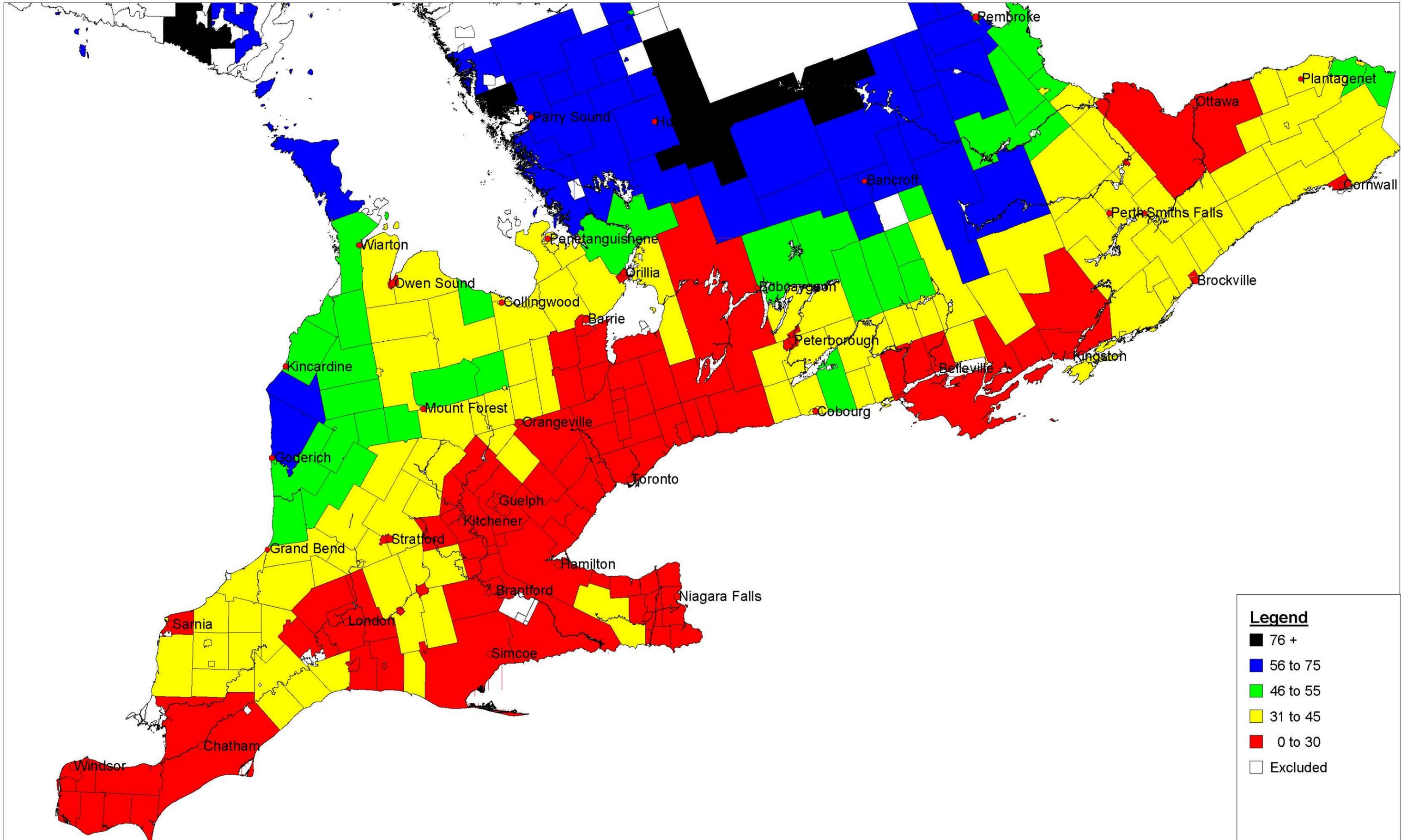
CSD NUM	CSD NAME	Type	RIO2008_BASIC
3543019	Ramara	TP	44
3560042	Red Lake	MU	98
3558041	Red Rock	TP	57
3547048	Renfrew	T	39
3519038	Richmond Hill	T	2
3507040	Rideau Lakes	TP	38
3502048	Russell	TP	37
3549024	Ryerson	TP	71
3552023	Sables-Spanish Rivers	TP	56
3538030	Sarnia	CY	10
3541045	Saugeen Shores	T	46
3557061	Sault Ste. Marie	CY	24
3558051	Schreiber	TP	86
3518020	Scugog	TP	26
3549003	Seguin	TP	70
3543015	Severn	TP	46
3522021	Shelburne	T	40
3558028	Shuniah	TP	42
3560034	Sioux Lookout	MU	97
3560008	Sioux Narrows - Nestor Falls	TP	96
3515015	Smith-Ennismore-Lakefield	TP	32
3509004	Smiths Falls	T	33
3556048	Smooth Rock Falls	T	79
3548001	South Algonquin	TP	78
3541004	South Bruce	MU	55
3541055	South Bruce Peninsula	T	48
3501020	South Dundas	TP	40
3510020	South Frontenac	TP	25
3501005	South Glengarry	TP	40
3540005	South Huron	MU	40
3549056	South River	VL	55
3501011	South Stormont	TP	35
3542005	Southgate	TP	48
3539005	Southwest Middlesex	MU	40
3532012	South-West Oxford	TP	35
3534024	Southwold	TP	32
3557039	Spanish	T	64
3543009	Springwater	TP	32
3526053	St. Catharines	CY	6
3538003	St. Clair	TP	35
3557008	St. Joseph	TP	64
3531016	St. Marys	T	35
3534021	St. Thomas	CY	7
3552004	St.-Charles	MU	50
3512020	Stirling-Rawdon	TP	41
3511030	Stone Mills	TP	37
3531011	Stratford	CY	23

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3539015	Strathroy-Caradoc	TP	24
3549046	Strong	TP	62
3549048	Sundridge	VL	57
3543071	Tay	TP	42
3509015	Tay Valley	TP	44
3537048	Tecumseh	T	14
3548069	Temagami	MU	66
3558054	Terrace Bay	TP	92
3539027	Thames Centre	MU	30
3549005	The Archipelago	TP	74
3502025	The Nation / La Nation	M	40
3557028	Thessalon	T	62
3526037	Thorold	CY	23
3558004	Thunder Bay	CY	0
3532004	Tillsonburg	T	29
3554020	Timiskaming Shores	CY	74
3556027	Timmins	CY	29
3543068	Tiny	TP	43
3520005	Toronto	C	0
3514045	Trent Hills	MU	41
3512048	Tudor and Cashel	TP	54
3512030	Tweed	MU	45
3512001	Tyendinaga	TP	34
3518029	Uxbridge	TP	27
3556070	Val Rita-Harty	TP	95
3519028	Vaughan	CY	6
3526014	Wainfleet	TP	34
3538043	Warwick	TP	40
3543064	Wasaga Beach	T	34
3530016	Waterloo	CY	7
3526032	Welland	CY	7
3530027	Wellesley	TP	35
3523050	Wellington North	TP	42
3534042	West Elgin	MU	40
3542004	West Grey	MU	44
3526021	West Lincoln	TP	31
3548055	West Nipissing / Nipissing Ouest	M	45
3531025	West Perth	MU	43
3507033	Westport	VL	39
3518009	Whitby	T	6
3519044	Whitchurch-Stouffville	T	18
3557091	White River	TP	100
3549039	Whitestone	MU	73
3547056	Whitewater Region	TP	53
3530020	Wilmot	TP	26
3537039	Windsor	CY	0
3512054	Wollaston	TP	60

CSD NUM	CSD NAME	Type	RIO2008_BASIC
3532042	Woodstock	CY	18
3530035	Woolwich	TP	26
3532027	Zorra	TP	36

APPENDIX 3: Maps of RIO2008_BASIC

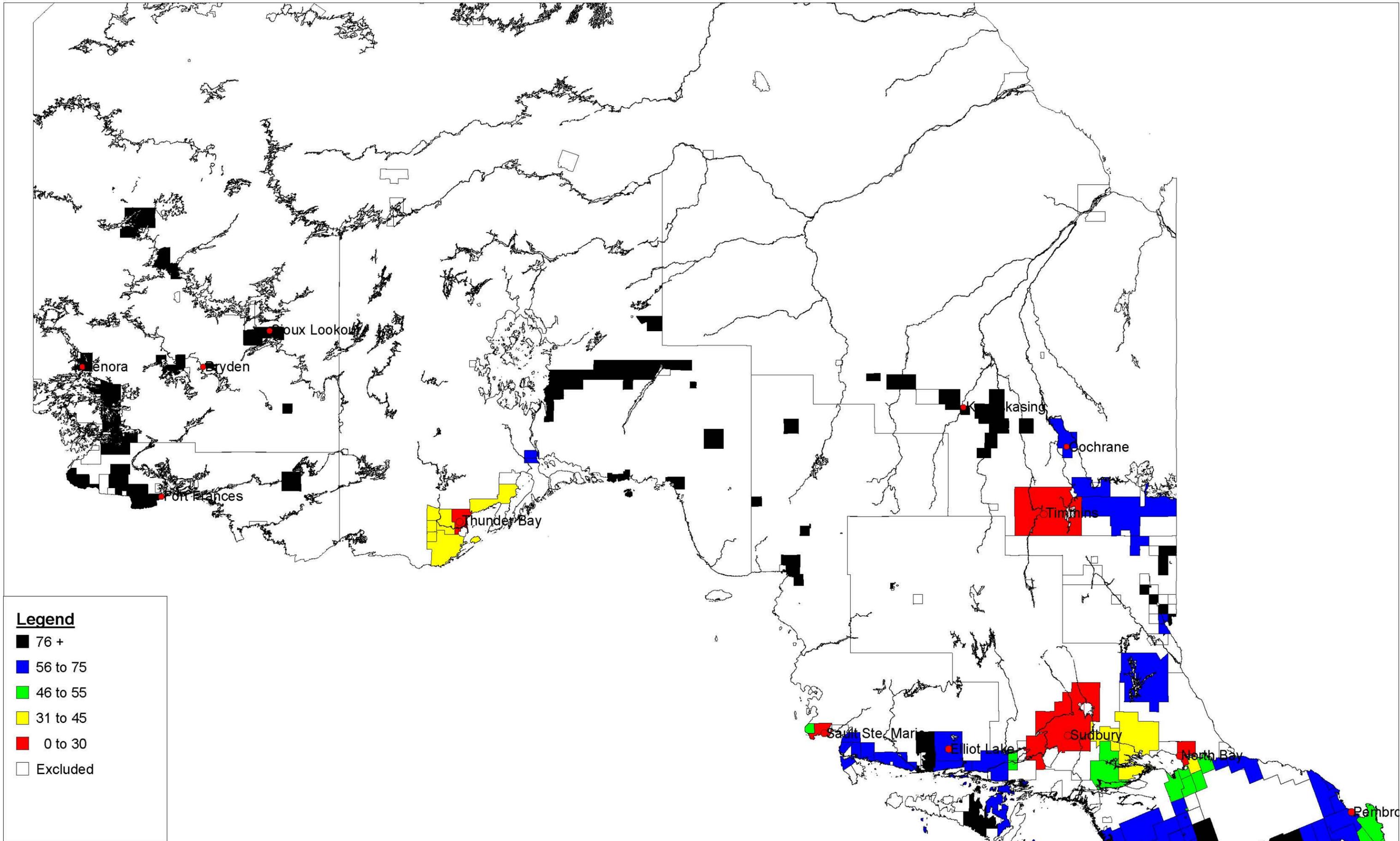
RIO 2008_Basic, Southern Ontario



Legend

- 76 +
- 56 to 75
- 46 to 55
- 31 to 45
- 0 to 30
- Excluded

RIO 2008_Basic, Northern Ontario



Legend

- 76 +
- 56 to 75
- 46 to 55
- 31 to 45
- 0 to 30
- Excluded