

## The Burgeoning Fringe

## Western Canada's Rural Metro-Adjacent Areas

Jason J. Azmier, Senior Policy Analyst Sarah Dobson, Intern

December 2003





# BUILDING THE NEW WEST

This report is part of the Canada West Foundation's **Building the New West (BNW) Project**, a multi-year research and public consultation initiative focused on the strategic positioning of western Canada within the global economy.

Five key priorities emerged from an extensive research and consultation process and provide a framework for the Building the New West Project:

- the West must create the tools to attract, retain, and build HUMAN CAPITAL;
- the West must continue ECONOMIC DIVERSIFICATION;
- the West must strengthen its TRANSPORTATION INFRASTRUCTURE;
- the West must promote the global competitiveness of its MAJOR CITIES; and
- the West must develop new ways of facilitating REGIONAL COORDINATION.

To learn more about the BNW Project, please visit the Canada West Foundation website (www.cwf.ca).

Canada West Foundation recognizes and thanks the funders of this phase of the Rural West Project: Alberta Real Estate Foundation, Alberta Agriculture, Food and Rural Development, The Kahanoff Foundation, and Western Economic Diversification Canada

Ongoing advice for the Rural West project is provided by an advisory committee consisting of Peter Apedaile (University of Alberta), Ray Bollman (Statistics Canada), Greg Halseth (University of Northern British Columbia), Richard Rounds (Brandon University), Candace Vanin (Agriculture and Agri-Food Canada), and Glen Werner (Alberta Agriculture, Food and Rural Development). The views expressed in this document are not necessarily held in full or in part by advisory committee members or the organizations they represent.

Research funded in part by:



This report was prepared by Canada West Foundation Senior Policy Analyst Jason J. Azmier and Intern Sarah Dobson. The opinions expressed in this document are those of the author and not necessarily those of the Canada West Foundation's donors, subscribers, or Board. Permission is hereby granted by the Canada West Foundation to reproduce this document for non-profit and educational purposes. Copies are available for download from the CWF web site (www.cwf.ca).

### **Executive Summary**

Rural areas in western Canada have undergone a transformation. City residents are moving out into the countryside to experience the natural environment of the West. At the same time, rural residents are moving closer to the cities to be near the economic and lifestyle advantages of the cities without completely abandoning their rural roots. The result has been tremendous population growth and a number of growing pains within the rural-metro adjacent (RMA) regions that surround the western urban cores.

The RMA regions are distinct from the larger rural West. While the rural West as a whole is experiencing economic challenges and little or no population growth, the RMA regions are flourishing. Compared to the rural West as a whole, RMA regions are becoming younger, more family-orientated places, with diverse incomes and high levels of non-farm employment.

As *The Burgeoning Fringe: Western Canada's Rural Metro-Adjacent Areas* explains, this rural transformation has led to a number of policy issues including: the loss of arable farmland; clashes between new and traditional forms of rural life; service delivery challenges; infrastructure financing challenges; environmental degradation; concerns about the availability of water; and the perceived loss of rural political influence.

A key policy challenge facing governments is how to meet the expectations and needs of an expanding population of exurbanites, while also addressing the concerns of long-term RMA residents. New RMA residents have larger, more valuable homes and may have service and infrastructure expectations that require costly long-term projects, while long-time RMA residents may see these projects as unnecessary. Finding the balance between "urban" and "rural" lifestyles will continue to be a point of tension in RMA areas.

Urban outgrowth into the RMA areas has brought new development, wealth, commercial activity, and upgraded infrastructure to these rural regions, but for some it has come at the expense of the traditional rural lifestyle. Subdivisions have replaced farms, rolling foothills are dotted with acreages, cars and bright lights have replaced quiet roads, farmers' markets have been transformed into strip malls. Rising land values have resulted in the conversion of farm and ranch property into residential developments, commercial services and acreages.

The Burgeoning Fringe also presents empirical evidence (based on Alberta land value data) that the proximity to the urban core appears to be a lesser factor in determining land values. Rather, population growth, the supply of available land, and the exodus of wealthy urbanites into the acreage areas (particularly around Calgary) appear to have more influence on land values. Property farther from the city centre is not, on average, of lower value in the West.

Finally, RMA areas, although captured in most definitions of "rural," comprise a distinct and relatively prosperous area when compared to the outer "rural heartland." This represents a substantial barrier to rural policy development: the lack of an ability to separate the prosperity of the RMA zones from the less prosperous rural heartland in data analyses. The inclusion of RMA demographic data in overall rural data coverage obscures the reality of the non-RMA rural heartland in the West—an area most would see to be the "real" rural West. This analysis highlights the need to study the unique demographic and social picture within the rural heartland away from these RMA edges.

Overall, if the rural West is strong at the edges of cities it is much weaker in the rural heartland and rural remote areas. Population growth has caused an economic development boom for the RMA areas, but that boom may very well be furthering the depopulation of the rural heartland. The RMA zones are becoming economically, demographically, and politically more closely associated with the urban cores than with the rural heartland regions.

### 1.0 Introduction

The areas of fastest population growth in western Canada are at the fringes of the West's major cities. Many city residents are moving out of the cities and into the surrounding countryside to experience more of the natural environment of the West. At the same time, rural residents are moving closer to the cities to be near the economic and lifestyle advantages of the cities, without completely abandoning their rural roots. Rural metro-adjacent (RMA) zones across the West are home to those looking to combine the quality of life advantages of a rural lifestyle and the financial advantages of urban employment.

The populations of RMA regions represent people with a mix of backgrounds and experiences, thereby presenting a challenge in serving the needs of the both the incoming and existing populations. These regions are becoming younger, more family-orientated places, with diverse incomes and high levels of non-farm employment activity. Rising land values have resulted in the conversion of farm and ranch property into residential developments, commercial services and acreages—dramatically changing the nature of these rural areas.

Although the transformation has been occurring for a few decades (Bryant 1982), the accelerated pace of RMA growth over the last ten years across the West has introduced a number of challenges for governments in managing and planning for growth, delivering and financing public services, and mitigating environmental and agricultural impacts.

The Burgeoning Fringe examines the public policy and planning issues of RMA growth in western Canada. Specifically, the report addresses three research questions:

- How do the demographic profiles of RMA areas differ from the urban cores?
- How have land values changed in RMA areas, as compared with growth in the urban cities?
- What are some of the public policy issues that warrant consideration as RMA regions expand?

### 2.0 Definitions and Methodology

There are many terms (metro-adjacent, satellite, suburbs, rural fringe, urban fringe, rural adjacent, rurban) that relate to land that circles around cities. Each term has a unique definition; for clarity, the term Rural Metro-Adjacent (RMA) is used in this report. RMA is defined as those regions not classified as part of the urban core (therefore outside the core city part of a census metropolitan agglomeration (CMA)), but that are directly adjacent to those urban cores and/or within a reasonably short commuting distance. Using the eight western urban core cities (Winnipeg, Regina, Saskatoon, Calgary, Edmonton, Abbotsford, Vancouver and Victoria), there are an associated 172 RMA areas in the surrounding lands.

These RMA regions extend beyond the expanded suburbs of city regions. RMAs contain some suburban-type community developments and smaller urban centres, but also are comprised of vast amounts of rural land. RMAs have dramatically lower population density (14 persons per square kilometre) when compared to the urban cores cities (826 persons per square kilometre), with the average RMA census sub-division (CSD) containing just 3,704 persons in 262.8 square kilometers. The complete list of communities and sizes are printed in Appendix 1.

The definition of RMA used in this report is unique and is not be directly comparable to other metro-adjacent definitions. It involved manually designating census subdivisions as rural metro-adjacent by using a combination of municipal boundary maps and Statistics Canada's Metropolitan Influenced Zone (MIZ) classifications (which are based on commuting patterns of residents).

For the prairie provinces, all municipal districts and rural municipalities that are adjacent to the urban core of a CMA, along with all cities, towns, villages, resort villages and summer villages within these rural municipalities or rural districts were classified as RMA. Further to this, any municipal districts, rural municipalities, towns, villages, resort villages, summer villages, or reserves that fell

outside the boundaries of the directly adjacent municipal districts or rural municipalities but were either part of the urban cities' normal (non-core) CMA population, had a strong MIZ classification or appeared to be within reasonable commuting distance (by our estimates) of an urban core were designated as RMA. As an example, the application of this definition to Winnipeq is provided in Appendix 2.

In British Columbia, a modified methodology was needed because of the overlap of numerous CMA/CA regions. urban cores for the Vancouver and Victoria CMAs were determined using the members of the Greater Vancouver Regional District in Vancouver and the Capital Regional District in Victoria. Further overlaps of CMA/CA regions were found between the CMA of Abbotsford and the CA of Chilliwack, and the CMA of Victoria and the CA of Duncan. In both these cases it was found that while residents from some surrounding CSDs were commuting into the smaller CA urban core, they were still within reasonable commuting distance of the larger CMA urban core. CSDs are municipalities or areas deemed to be equivalent to a municipality for statistical reporting purposes (e.g., an Indian reserve or an unorganized territory). As a result, the urban cores of Chilliwack and Duncan were classified as part of the urban cores of Abbotsford and Victoria respectively. Once the urban cores had been defined, all other regional district electoral areas, district municipalities or reserves that were either part of the urban core's CMA/CA or had a strong MIZ classification and appeared to be within reasonable commuting distance of an urban core were designated as RMA.

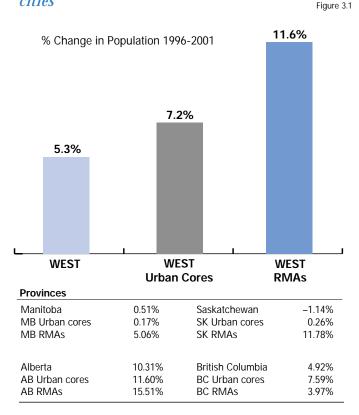
Outside commuting distance of the urban core of these eight CMAs and the surrounding RMAs are the non-RMA areas and the smaller census agglomerates (CAs) that make up the rest of the West's lands. These smaller cities, towns and rural regions in the provinces are not a primary focus of this paper.

### 3.0 Measuring Rural Metro-Adjacent Areas

#### 3.1 Population

Western RMA communities experienced the strongest population growth between 1996 and 2001. Growth of 11.6% in RMA communities was stronger than that of urban cores (7.2%), and both were well above the provincial average of

### RMA areas populations are growing faster than cities



5.3%. RMA communities increased their share of the provincial population from 6.7% to 7.1%. Because of the growth of the urban cores and the RMAs, small non-RMA cities and rural heartland regions decreased in proportionate size from 38.5% to 37.2% of the total provincial populations.

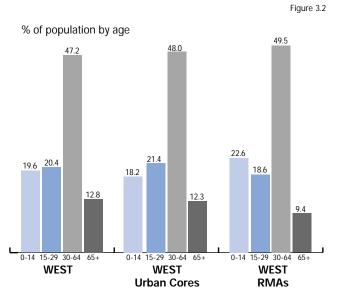
Due to migration activity out of the cities into the adjacent areas, some of the growth of the RMA areas has come through a reduction or slowing of the growth of urban cores. In Saskatchewan and Manitoba, for example, urban core growth was nearly non-existent, while the metro-adjacent communities grew 11.8% and 5.1% respectively. Alberta, on the other hand, is unique for both the amount of growth in the RMA areas (15.5%) in just five years and the fact that this growth has occurred in concert with growth in the core cities of 11.6%. British Columbia, albeit to a lesser extent, has also seen growth in both the urban cores (7.6%) and the RMAs (4.0%); however, the RMA areas in BC did not keep pace with growth in adjacent urban areas. Proportionately, the RMA communities in BC also grew less rapidly than in the other provinces.

It is worth noting that mobility within the region is not all towards the cities and RMA areas. In BC and Alberta in particular, other areas of the province (smaller cities and rural heartland regions) have also experienced populations gains, although less robust than in the urban cores and RMAs. The growth of the RMA regions has also resulted from individuals moving into the RMAs from outside the West as a whole (Azmier and Stone 2003).

#### 3.2 Population Age Structure

RMA communities have the largest proportion of children under 14 years of age (22.6%) and adults between 30 and 64 years of age (49.5%) in their population—they are primarily family-dominated areas. Metro-adjacent communities may be popular for families as they are close enough to urban cores so that parents can commute to work, but far enough out so that children can be raised in a "rural" setting. For families, a home in a RMA community may provide access to the amenities of an urban core with an opportunity to own affordable land (Gillham 2002). RMA characteristics appeal to families by

# There are proportionately more young children and proportionately less young adults in the RMA centres



Provinces	0-14	15-29	30-64	65+		0-14	15-29	30-64	65+
Manitoba	20.9	20.0	45.2	14.0	Saskatchewan	21.2	20.6	43.2	15.1
MB Urban Core	18.8	20.7	46.4	14.1	SK Urban Cores	19.8	23.4	44.1	12.6
MB RMAs	22.2	17.7	49.6	10.6	SK RMAs	23.9	19.0	48.0	8.9
Alberta	20.8	21.8	47.0	10.4	British Columbia	18.1	19.4	48.9	13.6
AB Urban Cores	318.9	23.0	47.8	10.3	BC Urban Cores	17.4	20.3	49.2	13.1
AB RMAs	23.2	19.1	49.9	7.9	BC RMAs	20.1	17.4	48.3	14.2

providing cleaner and more natural environments, and smaller communities.

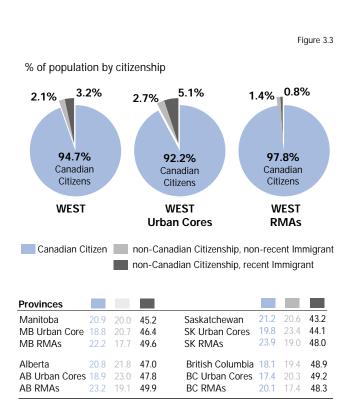
The lowest proportion of young adults 15 to 29 years of age (18.6%) is found in RMA communities, while the highest proportion is found in urban cores (21.4%). As has been found in the rural heartland, youth in RMA communities may see urban cores as places for employment, post-secondary education, and lifestyle opportunities (R.A. Malatest 2002).

These trends hold true across the provinces. In each, there are proportionately more young children (0-14) and proportionately less youth (15-29) in the RMA centres than in the urban cores.

British Columbia RMAs are unique in their appeal to senioraged populations. BC RMA regions have the lowest proportion of those aged 15-64 and the highest proportion of those aged 65 and over when compared with their urban cores.

#### 3.3 Citizenship and Immigration

Rural metro-adjacent areas do not attract proportionately as many immigrants as urban cores—only 0.8% of the total rural



## RMA communities have a very low proportion of recent immigrants

population are recent immigrants. Urban cores, on the other hand, have more than six times as many recent immigrants (5.1%).

These data suggest that RMA communities, like other rural areas, may offer fewer multicultural supports than those found in the urban cores. They lack the social networks, cultural groups, and religious institutions that immigrants are able to find in most cities. These are the primary cultural moorings that appeal to immigrants (Norton 2001). Urban cores also represent a greater draw for immigrants because of the availability of employment and education opportunities.

Of note, however, is that proportionately immigrant populations in the RMA areas are growing. Between 1996 and 2001, the proportion of immigrants within RMA communities increased by 0.1%, while the proportion in urban cores decreased by 1.0%. While these numbers are small, they suggest that the multiculturalism within RMA communities may be slowly increasing—recent immigrants are choosing to settle in RMA areas in modestly higher numbers.

In each of the western provinces, the RMAs have proportionately fewer non-Canadians. Of all the provinces' RMA areas, BC's and Alberta's are the most diverse with 4.1% and 2.2% of the RMA populations respectively having citizenship other than Canadian.

#### 3.4 Aboriginal Population

A number of First Nations reserves, particularly in British Columbia, are considered RMA areas because of their proximity to an urban core. As a result, RMA communities have a larger percentage of Aboriginal persons (5.4%) than do urban cores (3.7%). While the proportion of Aboriginal persons in RMA communities is higher than those in urban cores, it is still lower than the provincial average (6.8%). Aboriginal

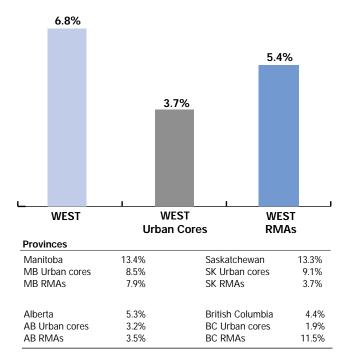
Aboriginal people constitute higher proportions of the population in RMAs areas than in the urban cores

peoples constitute higher proportions of the population in non-RMA rural areas than in the RMA areas.

As shown in Figure 3.4, there are vast provincial differences across the West, in part because of adjacent locations of reserves in BC and Alberta.

Figure 3.4





#### 3.5 Population Migration

RMA communities are growing due to a large influx of residents from non-RMA areas. The metro-adjacent regions in the West have both a relatively immobile population, with 57.5% of residents who have not moved within the last five years, and also the highest percent of migrants (25.8%). This apparent paradox can be explained by the fact that the RMA communities have a greater percentage of residents moving in, while the population that is already there is not moving out.

Of the migrants moving into RMA communities, most (71.8%) are from within the province—either rural residents moving closer to an urban core, or urban residents moving out from an urban core. Few international migrants settle in the metro-adjacent areas: only 4.5% of all migrants (or 1.2% of the total population) in RMA communities came from outside of Canada within the past five years. In sharp contrast, residents from

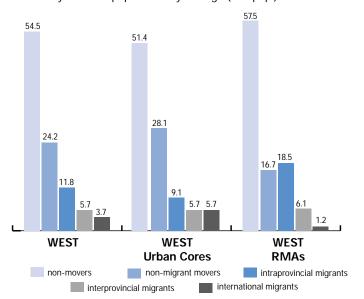
outside of Canada account for 27.7% of total urban migrants and 5.7% of the total urban population.

Interprovincial migrants across the West are less likely to settle in the metro-adjacent areas than in the urban cores regardless of province.

## Residents in RMA areas move less often and have lower rates of international migration

mobility status of population 5 years ago (% if pop.)





<b>Provinces</b>											
Manitoba		24.7	8.0	4.1	2.0	SK	61.6	21.1	11.5	4.7	1.0
MB UC	68.9	31.3	4.1	4.4	2.5	SK UC		30.4	9.0	5.2	1.9
MB RMAs	61.6	12.5	15.2	2.9	0.5	SK RMAs	62.0	12.2	21.1	4.1	0.6
Alberta		26.4	11.1	8.8	2.9	ВС		23.3	13.5	4.1	5.4
AB UC	47.2	33.1	6.1	9.3	4.4	BC UC	52.2	23.8	12.3	3.9	7.8
AB RMAs	53.9	17.3	19.5	7.9	1.3	BC RMAs	57.4	21.1	16.7	3.1	1.7

**Note:** Non-migrant movers are those that move within the same province and areas (e.g., urban to urban relocation in same city).

#### 3.6 Educational Attainment

Proportionately more RMA adult residents are without a high school diploma (26.1%) than are adults in urban centres (22.9%) and a lower proportion of RMA adult residents are university graduates (13.6% in RMA versus 21.0% in urban cores). Conversely, RMA zones have larger proportions of the population with non-university post-secondary training and persons who completed their education with a high school diploma.

As the majority of western Canada's universities are located in the urban cores, it is not unreasonable to expect higher proportions of

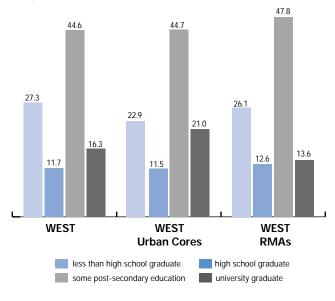
university graduates to reside in urban cores. Further, the gentrification of inner urban cores has seen an increase of higher-income professionals within the cities, particularly those in the service and information industries (Gillham 2002).

Provincially, Alberta's RMA areas are more educated than the other provinces with 14.9% of RMA residents possessing a university degree and 22.3% having less than a high school diploma. Manitoba has the greatest portion of adult residents with less than a high school education (32.4%) followed by Saskatchewan (30.9%) and BC (29.3%). Proportionately, BC RMA residents have the fewest degrees at 10.9%—partially reflective of the high number of Aboriginal persons and retirees in the BC RMA population. Persons over the age of 65 and Aboriginal persons are each less likely to have achieved higher education levels than young and non-Aboriginal populations (Statistics Canada 2001; Brunnen 2003).

### Residents of RMA communities have lower educational attainments than those in urban cores

Figure 3.6

highest level of education completed (% of pop.)



Provinces									
Manitoba	34.4	11.4	39.9	14.3	Saskatchewan	35.2	10.8	41.7	12.3
MB Urban Core	28.1	11.7	41.9	18.3	SK Urban Cores	25.0	11.1	44.9	19.0
MB RMAs	32.4	12.4	43.2	11.8	SK RMAs	30.9	12.1	44.6	12.2
Alberta	26.3	11.4	45.7	16.7	British Columbia	24.3	12.3	45.8	17.6
AB Urban Cores	22.3	10.7	45.4	21.6	BC Urban Cores	21.6	12.0	44.8	21.6
AB RMAs	22.3	12.6	49.5	14.9	BC RMAs	29.3	13.0	47.0	10.9

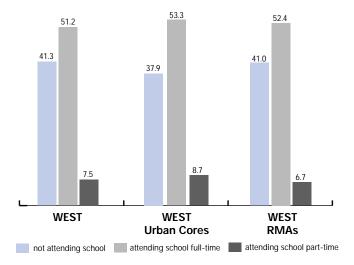
#### 3.7 School Attendance

Alberta and Saskatchewan RMAs have a higher percentage of their population aged 15-24 attending school, and a lower percentage not attending school than in urban cores. In BC and Manitoba this trend is reversed; therefore, on the basis of the strength of the BC data, the western region has proportionately less individuals attending school in the RMA regions than in the urban cores.

### Nearly as many RMA youth attend school fulltime as those in urban cores

These data highlight an important trend: it is not evident from these data alone that young individuals leave the RMA areas to attend school as is the case with more distant rural areas. Of the youth who do not leave the RMA areas, rates of school attendance (52.4%) are only slightly less than for youth in the urban core (53.3%). This is a somewhat surprising conclusion given that most post-secondary education is located in the urban cores. Based on these findings, young adults appear to follow the commuting patterns of their parents and travel into the RMA urban cores for education, rather than temporarily moving into the cores.

 $$\operatorname{\textsc{Figure}}$3.7$$  % of population age 15-24 attending school



Provinces							
	44.8	1017	6.5	Saskatchewan		52.3	4.8
MB Urban Core	41.4	50.9	7.7	SK Urban Cores	40.0	53.8	6.2
MB RMAs	44.0	50.4	6.0	SK RMAs	37.8	57.9	3.7
Alberta	44.6	48.6	6.8	British Columbia	36.9	53.8	9.2
AB Urban Cores	41.4	50.5	8.2	BC Urban Cores	34.3	55.8	9.9
AB RMAs	40.8	53.0	6.4	BC RMAs	40.4	49.1	11.1

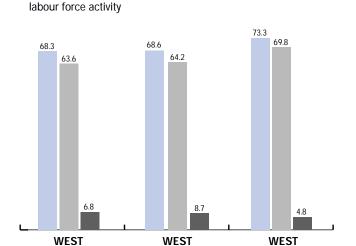
#### 3.8 Labour Force Participation

RMA communities have both the highest workforce participation rate (73.3%) and employment rate (69.8%), and the lowest unemployment rate (4.8%), when compared with urban cores and non-RMA areas of the provinces. On the whole, residents of RMA communities have more favourable employment situations than their counterparts elsewhere in the region. RMA residents have access to job markets that include both the RMA development boom and jobs in the nearby growing urban cores.

Figure 3.8

**RMAs** 

unemployment rate



Provinces							
Manitoba MB Urban Core	67.3 68.1	00.0	6.1 5.7	Saskatchewan SK Urban Cores		63.5 64.9	6.3 6.7
	73.3		4.5	SK RMAs	74.5	0 117	3.8
Alberta	73.1	69.3	5.2	British Columbia	65.2	59.6	8.5
AB Urban Cores	72.9	69.0	5.4	BC Urban Cores	65.9	61.2	7.2
AB RMAs	75.9	72.8	4.1	BC RMAs	62.4	56.4	9.6

**Urban Cores** 

employment rate

participation rate

## Residents of RMA communities have a more favourable employment situation

Another explanation for these data is that RMAs have few provisions for those that are unemployed. RMAs offer neither the community supports and low cost advantages of rural living nor the access to unemployment services. While residents may move out to RMA communities after securing employment in urban cores, those who are unemployed may move into the urban cores. This trend is particularly prevalent in the youth population who may move from rural areas into urban cores when first looking for work (R.A. Malatest & Associates Ltd.

2002). However, youth may resettle in RMA communities once they have established secure employment (Azmier and Stone 2003).

Overall, the poorest labour market conditions and fewest employment opportunities exist in the smaller communities and the rural heartland areas of the provinces.

Contrasting the provinces, it is evident that RMA communities in BC have the poorest labour market conditions with the lowest participation and employment rates and the highest unemployment rates. Unlike the other provinces, these labour conditions are also less robust than the BC urban cores—reflective of an older population found in the BC RMA areas. The RMA communities in Alberta, Saskatchewan and Manitoba have employment and workforce participation rates that are all higher than in the urban cores.

#### 3.9 Employment by Industry

Due to commuting activity, the employment data are not true reflections of the location of jobs by industry, but rather point to the location of residences for those individuals involved in the various industries (e.g., individuals living in the RMA but working in the city appear as RMA jobs).

Residents living in RMA communities are much more likely to be employed in the goods producing sector (27.5%) than are residents in urban cores (18.0%). This is

Figure 3.9

Employment by Industry						
	WE	ST	WEST Urba	n Cores	WEST	RMA
Total Employment	4,854,365		2,766,740		356,810	
		%		%		%
Total Goods-producing Sector	1,160,495	23.9%	496,655	18.0%	98,280	27.5%
Agriculture, Forestry, Fishing & Hunting	273,355	5.6	31,090	1.1	21,015	5.9
Mining and Oil & Gas Extraction	118,685	2.4	37,700	1.4	9,445	2.6
Utilities	37,180	8.0	20,120	0.7	3,805	1.1
Construction	304,620	6.3	155,770	5.6	29,930	8.4
Manufacturing	426,655	8.8	251,975	9.1	34,085	9.6
Total Services Sector	3,617,405	74.5%	2,225,835	80.4%	255,320	71.6%
Trade	731,770	15.1	437,990	15.8	52,950	14.8
Transportation and Warehousing	264,670	5.5	157,445	5.7	22,165	6.2
Finance, Insurance, Real Estate & Leasing	260,560	5.4	179,930	6.5	17,740	5.0
Professional, Scientific and Technical Serv.	294,250	6.1	218,960	7.9	20,015	5.6
Mgmt. of Companies and Admin. Services	181,350	3.7	119,295	4.3	11,840	3.3
Educational Services	327,885	6.8	190,870	6.9	23,135	6.5
Health Care and Social Service	477,350	9.8	275,455	10.0	32,890	9.2
Information, Culture and Recreation	222,415	4.6	152,685	5.5	14,440	4.0
Accommodation and Food Service	363,325	7.5	209,105	7.6	19,870	5.6
Other Services	232,090	4.8	134,115	4.8	17,860	5.0
Public Administration	261,740	5.4	149,985	5.4	22,415	6.3
Unclassified Industry	76,430	1.6%	44,370	1.6%	3,100	0.9%

**Note:** Employment data reflects residence of job-holders and not location of jobs; therefore the reader is cautioned in drawing conclusions of the relative economic activity with the RMA zones. Provincial breakdowns of employment activity by province are available in Azmier and Stone 2003.

### Residents in RMA communities have higher percentages of the population employed in the goods-producing sector

particularly apparent in the Agriculture, Forestry, Fishing and Hunting industries, which employ 5.9% of the population in RMA communities, compared with only 1.1% of the population in urban cores. This is not surprising given that a large portion of the land used in these industries, particularly for agriculture, is located in metro-adjacent rural areas. While many residents of RMA communities may commute into urban cores for work, it is less likely that residents of urban cores will commute out to RMA communities. As a result, a larger proportion of employees of the Agriculture, Forestry, Fishing and Hunting industry reside in RMA communities.

Another difference between employment in RMA communities and urban cores is found in the construction industry, which employs 8.4% of the population in RMA communities and 5.6% of the population in urban cores. Locally-based construction activity in the growing RMA zones is likely contributing to these data.

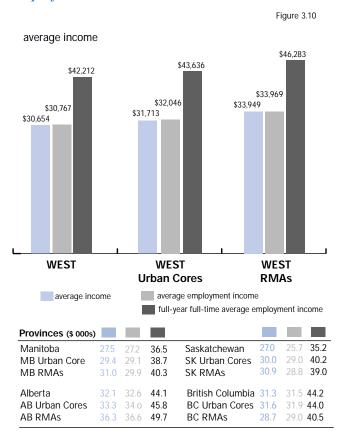
Fewer persons living in the RMA communities work in the services sector (71.6%) compared to those living in urban cores (80.4%); however, no one industry appears to be the root cause. The largest single difference (2.0%) is found in the accommodation and food service industry, which employs 5.6% of the population in RMA communities and 7.6% in urban cores. Indeed, there are also a number of industries within the services sector where RMA communities have slightly higher employment rates than urban cores. These include the transportation and warehousing sector, other services, and public administration.

#### 3.10 Average Income

Consistent with higher rates of full-time employment, residents of RMA communities have a higher average income (\$33,949) and average employment income (\$33,969) than do residents of urban cores. In terms of income generation, residents of RMA communities are better off than those elsewhere in the region.

The widening income gap that has occurred between 1996 and 2001 is of note. In 1996, there was only a \$17 difference in full-time full-year incomes in favour of RMA communities over urban cores. By 2001, that gap had expanded to \$2,647. Over the five year period, the increases in average income measurements ranged from 20.0% to 26.8% in RMA communities, compared with increases of only 13.0% to 19.5% in urban cores. This corresponds with the increases found in average housing values, and reaffirms that the overall wealth and well-being of residents of RMA communities is increasing at a faster rate than for the residents of urban cores.

## Residents of metro-adjacent areas earn more employment income



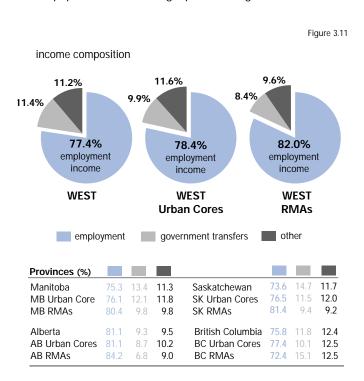
Looking at the provinces, several differences are of note. Average income measurements in BC's RMA communities are all lower than those found in urban cores. Similarly, Saskatchewan full time employment income was lower in the RMA areas, but overall income was not—this is likely reflective of higher farm-based self-employment incomes available in the RMA areas surrounding Saskatchewan's urban areas.

#### 3.11 Composition of Income

## RMA residents are less reliant on government transfer payments

Residents in RMA communities receive a higher portion (82.0%) of their income from employment income and a smaller proportion from transfers than do residents in other parts of the West. Such a finding is consistent with the previously-reported highest average incomes, and the highest percentage of residents who work full-year full-time, also found in the RMA regions.

RMA communities may be less reliant on government transfer payments for two reasons. First, there are fewer seniors in the RMA population and a large portion of government transfer



payments are paid through Old Age Security, the Guaranteed Income Supplement, and the Canada Pension Plan. Second, less unemployment in metro-adjacent communities reduces employment insurance income transfers. Partially offsetting these data may be additional Child Tax Benefit transfers stemming from the relatively large number of children.

Provincially, residents of BC RMAs rely more on government transfer payments and other sources of income, and less on employment income than do residents of the BC urban core. This is consistent with the data reported earlier on the age of the population in the BC RMA area and the relatively weaker employment picture in the region.

#### 3.12 Housing-Period of Construction

Housing statistics on the period of home construction indicate a large growth in the number of homes in RMA communities that began in the 1970s and has persisted through to 2001. Further, nearly half (45.9%) of all homes in the metro-adjacent areas have been built since 1981. While urban core housing activity has also grown since the 1970s, it has not kept pace with the RMA areas—only 36.3% of houses have been built since 1981. Housing growth has corresponded with the population growth within the region, with a large number of homes having been built in the last few years.

## Nearly half of all homes in the RMA areas have been built in last 20 years

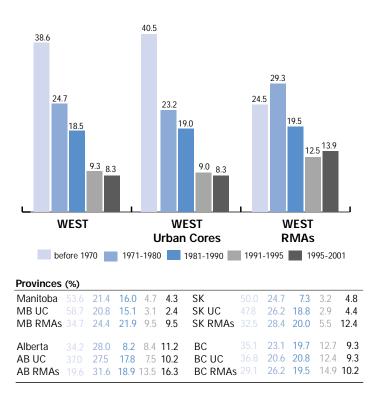
Overall, while the absolute number of homes built in urban cores has always been greater than those built in RMA communities, RMA communities have had a higher percentage of homes built in every period between 1971 and 2001. RMA housing growth activity has been outpacing urban housing growth for nearly three decades.

Alberta's RMAs have clearly led the other provinces in proportional growth over the last 30 years. In Alberta, 80% of metro adjacent houses have been built since 1971 compared with 65.2% in Manitoba, 66.3% in Saskatchewan, and 70.8% in BC. Since 1971, the only period that Alberta did not lead was 1981-1990, where Manitoba had the proportionately largest housing growth.

Overall, the housing stock of RMA communities is significantly younger than in the urban cores which, as will be discussed later, is also a determinant of housing value in the region.

Figure 3.12

period of housing construction (% of total houses)



#### 3.13 Home Ownership

## More home ownership, more rooms in every home in RMA areas

Dwellings in RMA communities have more rooms than those found in urban cores, and a significantly higher percentage of RMA homes are owned by residents as opposed to rented. Across the West, 84.9% of homes in RMA communities are owned by residents, and the average house has 7.2 rooms. This compares with urban cores where only 63.2% of homes are owned, and the average house has only 6.1 rooms. Families in RMA areas, having more children, generally require more space and are therefore more likely to reside in multiple-roomed homes. As more homes are newer within the RMA, it is also

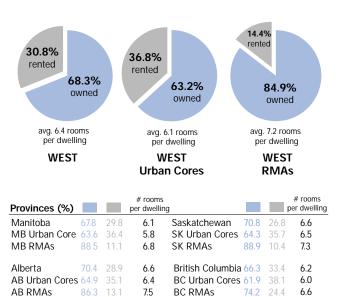
reasonable that homes would have more rooms per dwelling.

As well, and as indicated earlier, RMA families are less likely to move after moving into the RMA region and have higher employment levels; therefore it is consistent that they would be more likely to own a home as opposed to renting. Some land in the RMA, being either larger or more affordable than in the urban cores, appeals to a number of families looking for their first purchase (Gillham 2002).

The lowest rates of home ownership are found in the BC RMAs (74.2%), trailing well behind Alberta (86.3%), Manitoba (88.5%), and Saskatchewan (88.9%). Homes in BC also have fewer rooms per dwelling than the other western provinces, but still have more rooms per dwelling than in the BC urban

Figure 3.13

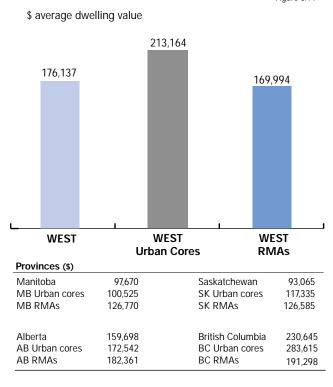
home ownership and number of rooms



#### 3.14 Housing-Average Value

RMA communities in Alberta, Saskatchewan, and Manitoba have higher average home values than do their respective urban cores. Manitoba's average RMA dwellings are over \$25,000 more costly than Winnipeg's core dwelling values. In contrast, Saskatchewan and Alberta RMA dwellings are only \$9,250 and \$9,819 more valuable. As described earlier, RMA houses have more rooms per dwelling and have more residents per dwelling. These data are consistent with the finding of higher home values in the region. Higher income levels in the RMA would also suggest higher than average dwelling values.

Figure 3.14



## Prairie provinces' metro-adjacent dwellings are of higher average value

Heavily influencing the data for the West as a whole is a starkly contrasting situation in BC. RMA dwellings in BC are over \$90,000 less expensive than are dwellings in the BC urban cores. These data skew the overall picture in the West.

British Columbia RMA dwellings are the most costly at \$191,298 on average, followed by Alberta at \$182,361. Saskatchewan and Manitoba RMA dwellings' average values are nearly identical at \$126,585 and \$126,770 respectively.

Of note is the change in average property values that has occurred between 1996 and 2001. The average value of homes increased by only 1.0% in urban cores compared with a 15.7% increase in RMA communities. The growth in populations in the RMA areas appears to have pushed both demand for houses and prices upwards, and has lead to the development of new, larger homes in the RMA communities. This finding provides further evidence of the relative prosperity of RMA communities.

#### 3.15 Summary

Residents of metro-adjacent areas hold a number of distinguishing characteristics that are generally consistent across those individuals seeking the rural commuting lifestyle. Families are larger, move less often, have higher incomes, live in more expensive homes, and are less likely to be immigrants. Metro adjacent residents are also less likely to possess university educations and are more likely to work in goods-producing sectors of the economy. RMA populations are distinct from their adjacent urban cores.

BC RMA communities offer a clearly unique set of characteristics. BC RMA communities tend to be growing less rapidly than other areas, and have a much more diverse population and less robust employment conditions. This presents a very different picture from the RMA activity in the other western provinces. There may be many explanations for these data discrepancies that suggest a need for further analysis. One instructive indicator is that the BC RMA regions appear to be less dense (9.8 persons/sq. km) than the prairie provinces (15.2 persons/sq. km). These data suggest that the methods employed in the study have isolated a more "rural" (less dense) RMA area in BC when compared with the prairie provinces.

It is very apparent through this analysis that all RMA areas, although captured in most definitions of "rural," comprise a distinct and relatively prosperous area when compared to the rural heartland. This leads in turn to a substantial barrier to rural policy development, that being the lack of ability to quantify the various degrees of rurality. Through this analysis we have learned about the prosperity of the rural RMA zones, but can only infer that the rural heartland must be substantially less well off based on these positive data points along the edge of what is defined as rural. Thus the inclusion of RMA demographic data in overall rural data coverage may obscure the darker reality of the non-RMA rural heartland in the West. What is needed is a similar study to consider the unique demographic and social picture within the rural heartland away from these RMA edges.

### 4.0 Rural Metro-Adjacent Land Values

Land values in metro-adjacent communities across the West are influenced by a host of factors. Influences that alter the supply or demand of land include municipal controlled aspects such as tax or zoning policy; environmental factors such as climate change and access to water; and changes in commodity pricing and regional prosperity. Each of these influences act in concert to alter the prevailing land value for commercial, residential, recreational and agricultural purposes.

Using Alberta as a case study, this next section of the study details the impact of these various forces on land values over the five-year period, 1997-2001. Equalized municipal tax accounts for Calgary, Edmonton and their respective RMA communities (as determined by the same methodology used in the previous section) provide the basis for this analysis.

The purpose is to test several assumptions related to land value activity and to draw inferences as to the possible root causes of these changes. Specifically, the methods employed are designed to determine:

- if land values in RMA areas are higher or lower than urban cores;
- if land values in RMA regions are increasing at a faster or slower rate than in the urban cores;
- how changes in land values in RMA areas are affecting farmland property values; and
- the relationship between RMA average personal income levels and property values.

This section will include land values based on both residential and commercial properties, and regulated properties such as farm land, machinery, linear property and railways (see next page for definitions). Land values for these properties are dependent upon the market conditions and usage patterns in the area. While regulated properties do not tend to vary dramatically from year to year, residential and

#### PROPERTY TYPE DEFINITIONS

#### Improved Residential

Residential property with some sort of structure on the land. This would include properties with houses, cottages and garages.

#### Vacant Residential

Residential property without any sort of structure on the land. This would include unoccupied acreages and yardsites.

#### Improved Non-Residential

Industrial and commercial property with some sort of structure on the land.

#### Vacant Non-Residential

Industrial and commercial property without any sort of structure on the land.

#### Farmland

Land used for producing crops, fish, livestock, poultry, fur production, beekeeping or other agricultural products. Farmland is assessed on the basis of its productive value, i.e. the ability of the land to produce income from the growing of crops and/or the raising of livestock.

#### Machinery & Equipment

Equipment used for processing and manufacturing such as underground tanks, separators, fuel gas scrubbers, compressors, chemical injectors and metering & analysis equipment. These items would be found in refineries, chemical plants, pulp & paper plants, and oil sands plants.

#### Railway

Rail lines in a municipality. Assessment is based on a fixed dollar amount per kilometre of railway, which is based on the annual tonnage transported on the railway right-of-way.

#### Exempt

Properties where the value of the land is assessable but not taxable. This includes farm residences and improvements (in whole or in part); environmental, municipal, and school reserves; government properties such as hospitals, libraries and schools; colleges and universities; privately operated schools; churches, cemeteries, and seniors' residences; property owned by some non-profit organization such as benevolent societies or boys' and girls' clubs; and hostels.

#### Sources

Alberta Municipal Affairs. 2002. Guide to Property Assessment Taxation in Alberta. On-line. http://www3.gov.ab.ca/ma/as/pdf/02PropAssmtGuide.pdf Accessed June 2003. Leduc County. 2003. 2003 Information Regarding Assessment. On-line. http://www.leduc-county.com/dept/assess/asse1.html Accessed May 2003.

commercial activity can see a number of subdivisions or consolidations of property parcel counts. For example, a single parcel of land might be divided into a number of parcels in order to allow for a residential subdivision to be created, or a group of land parcels may be amalgamated into a single recreational development. Parcel count changes, and changes in the value of each individual property, combine to create an overall change in land value in the metro-adjacent regions.

The analysis starts with an examination of RMA areas in the province of Alberta as a whole and then moves on to look at each city's RMAs individually. The analysis will consider both average land values (to control for the changes in parcel counts) and total land values.

#### 4.1 Alberta's RMA regions

(Communities adjacent to Calgary and Edmonton)

Average land values can be used to measure the change in land values (in dollars) per parcel of land in the area (controlling for differing parcel counts year to year). Over the period 1997-2001, average land values for all property in Alberta's RMA communities increased by 31.0%. Leading the growth in average land values were increases in vacant residential land (+57.2%) vacant non-residential land (+49.4%). Farmland average value was essentially unchanged (-0.5%) and negative average value growth occurred in railway (-5.2%), and machinery and equipment property (-12.8%) (Figure 4.1).

A second measure is total land value for the area. Total land value in a region considers changes in both average land value and the number of parcels in a region due to subdivisions and consolidations. The growth of RMA total value using this measure is more robust at 45.8%. These data reflect an increase (+11.8%) in the number of RMA parcels of land. Total RMA land value growth exceeds 50% in numerous categories including improved residential land (+52.4%), vacant residential land (+64.4%), improved non-residential land (+53.9%) and vacant non-residential land (+67.1%). Apart from a slight decrease in farmland total values, all RMA property categories experienced an increase in total value over the last five years.

Figure 4.1

% Change in AVERAGE Land Values, Alberta Centres 1997-2001

	AB RMAs	Calgary Core	Calgary RMA	<b>Edmonton Core</b>	Edmonton RMA
Improved Residential	31.1	30.2	37.1	33.4	25.4
Vacant Residential	57.2	30.7	41.6	174.2	52.3
Improved Non-Residential	32.6	34.4	89.7	261.8	17.4
Vacant Non-Residential	49.4	54.5	34.6	320.0	56.8
Farmland	-0.5	-74.3	-1.0	95.3	-0.1
Machinery & Equipment	-12.8	0.1	18.3	222.8	-28.4
Railway	-5.2	46.8	-4.1	-73.3	-5.9
Exempt	16.1	56.1	77.4	48.2	-6.8
Total Property	31.0	32.4	49.0	40.7	23.0

% Change in TOTAL Land Values, Alberta Centres 1997-2001

	AB RMAs	Calgary Core	Calgary RMA	<b>Edmonton Core</b>	Edmonton RMA
Improved Residential	52.4	49.7	75.5	32.7	40.5
Vacant Residential	64.4	92.3	85.3	127.8	45.3
Improved Non-Residential	53.9	52.7	125.6	49.8	34.3
Vacant Non-Residential	67.1	65.0	84.1	149.4	58.2
Farmland	-0.3	-93.2	0.1	-7.0	-0.8
Machinery & Equipment	27.4	0.1	27.6	35.9	27.3
Railway	6.1	34.7	4.9	-62.9	6.8
Exempt	23.1	70.9	28.9	-13.4	20.7
Total Property	45.8	52.3	70.3	27.6	35.3

It is important to recognize these data relate to parcel counts only and not parcel size. Indeed, a single small property in the urban core may have more land value than a much larger land parcel in the RMA fringe. In the case of subdivision activity, a single large parcel of land may be broken into hundreds of small improved residential properties that far exceed the total value of the original consolidated property. Parcel size is an important part of the equation yet because it is not recorded in a systematic way this analysis cannot consider changes in parcel size as related to value.

Parcel count figures do provide an important indication of the farmland use patterns in the RMA areas. In the RMA communities, parcel counts and farmland values (average and total) have been nearly constant over the last five years. These data imply that the growth in parcel counts for residential and non-residential lands has not come at the expense of lost farmland in the RMA

Change in PARCEL COUNTS, Alberta Centres 1997-2001

		AB RMA	s	C	algary Co	ore	Ca	Igary RN	ЛΑ	Edm	onton Co	ore	Edm	onton R	MA
	1997	2001	%	1997	2001	%	1997	2001	%	1997	2001	%	1997	2001	%
Improved Residential	115,088	133,809	16.3%	260,472	299,436	15.0%	30,539	39,100	28.0%	211,141	210,028	-0.5%	84,549	94,709	12.0%
Vacant Residential	11,130	11,636	4.5%	5,680	8,356	47.1%	2,866	3,750	30.8%	8,279	6,878	-16.9%	8,264	7,886	-4.6%
Improved Non-Residential	7,138	8,282	16.0%	7,525	8,552	13.6%	2,552	3,036	19.0%	19,646	8,133	-58.6%	4,586	5,246	14.4%
Vacant Non-Residential	1,722	1,926	11.8%	2,059	2,198	6.8%	524	717	36.8%	5,778	3,431	-40.6%	1,198	1,209	0.9%
Farmland	36,289	36,351	0.2%	1,274	339	-73.4%	17,225	17,421	1.1%	2,170	1,033	-52.4%	19,064	18,930	-0.7%
Machinery & Equipment	1,276	1,864	46.1%	29	29	0.0%	578	623	7.8%	582	245	-57.9%	698	1,241	77.8%
Railway	84	94	11.9%	170	156	-8.2%	32	35	9.4%	101	140	38.6%	52	59	13.5%
Exempt	14,460	15,322	6.0%	6,918	7,575	9.5%	5,975	4,342	-27.3%	16,463	9,620	-41.6%	8,485	10,980	29.4%
Total Property	187,187	209,284	11.8%	284,127	326,641	15.0%	60,291	69,024	14.5%	264,160	239,508	-9.3%	126,896	140,260	10.5%

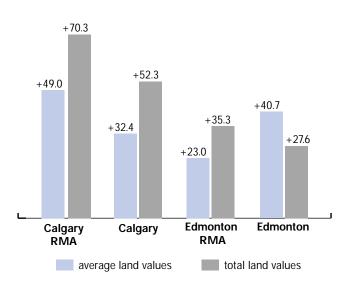
communities. Farmland value, based on the output potential of the lands, has also not decreased in the RMAs. Farm size and farm outputs have changed by less than 0.5% in the last five years.

However, the same cannot be said for the farmland within the urban cores themselves. Parcel counts in Calgary and Edmonton combined are down substantially (-60.2%) and so are total farmland values (-67.1%). These totals are down dramatically in only 5 years, a signal of the large amounts of residential and commercial growth within the city boundaries in the Alberta urban cores—growth that has not occurred in the RMA farmland.

Railway property also presents an interesting picture. Railway total land value decreased by 42.7% in the combined Calgary and Edmonton urban cores yet increased by 6.1% in RMA communities. Because of the way railway values are calculated, this primarily reflects an overall increase in the annual tonnage transported on the railways in metro-adjacent areas and a decrease of rail tonnage within the cities. This discrepancy relates primarily to a dramatic reduction in average (-73.3%) and total (-63.3%) railway value in Edmonton.

% change in land values, Alberta centres 1997-2001 (all property combined)

Figure 4.2



Significant differences in the relationship between average and total property values arise when the urban cores of Calgary and Edmonton, and their surrounding RMAs, are looked at separately.

#### 4.2 Calgary Urban Core vs. Calgary RMA Areas

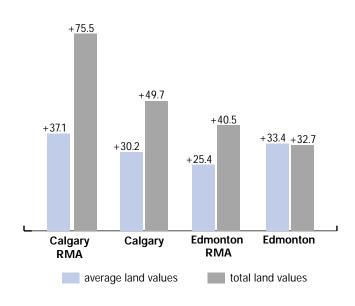
In Calgary, both the average and total land value of all property are increasing at a faster rate in RMA communities (49.0% average value; 70.3% total value) than in Calgary (32.4% average value; 52.3% total value). Across the board, most sub-categories of average land values have increased at a faster rate in Calgary's RMA communities than in Calgary itself (except vacant non-residential lands, railways, and exempt property).

Similarly, total land values are increasing at a faster rate in Calgary's RMA than in the city itself (except vacant residential, railway and exempt property). Overall, Calgary's RMA areas are enjoying substantial growth, out-pacing the urban cores of Calgary and Edmonton, and Edmonton's RMA areas.

Strong population growth in recent years is directly fuelling this expansion in both Calgary's urban core and its surrounding areas. Between the 1996 and 2001 Censuses, the population of

Figure 4.3

% change in **improved residential** land values, Alberta centres 1997-2001



Calgary increased by 14.4%, while the population in its RMA communities increased by 30.5%. These data are mirrored closely by increases in residential parcel counts of 15.6% in Calgary and 28.3% in the RMA communities.

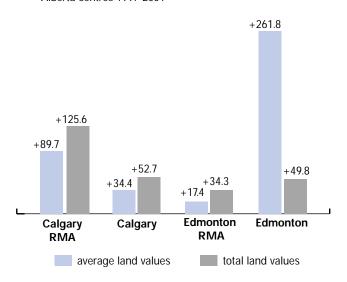
Residential property demand in the RMA appears to be outpacing supply as average land values in the region have increased rapidly in the last five years. Improved and vacant residential property average values increased by 37.1% and 41.6% respectively between 1997 and 2001 in the Calgary RMA.

Also factoring into this increase in average property values is an increase in the overall wealth of residents of Calgary's RMA communities. This is especially evident in the municipal district (M.D.) of Foothills where there has been a growth in large acreage homes. The average value of improved residential properties in Foothills increased by 48.2% from 1997-2001, while the average value of vacant residential properties increased by 62.7%.

Residential property value changes in the M.D. of Rockyview are also of note. With communities such as Springbank and Bearspaw, the M.D. of Rockyview has already established itself as a wealthy acreage community, and appears to be a destination of choice for many urban workers choosing to reside outside Calgary. While the percent changes in residential property values from 1997-2001 were fairly close to the average for all of Calgary's RMA communities, the actual value of land is much higher. The average improved residential property in the M.D. of Rockyview was assessed at \$333,553 in 2001, and vacant residential property was assessed at \$150,862. These values are higher than any other RMA community or urban core in the province. As the M.D. of Rockyview experience suggests, an increasing number of wealthy urban dwellers may be moving out to RMA communities.

Increasing demand for residential housing and the increasing wealth of residents are also contributing to an increase in average property values in the city of Calgary, although to a much lesser extent. Between 1997 and 2001, Calgary experienced a 30.2% increase in the average value of improved residential property, and a 30.7% increase in the average value of vacant residential property—respectively 6.9% and 10.9% less than the changes observed in RMA communities. These smaller

% change in **improved non-residential** land values, Alberta centres 1997-2001



changes may be due in part to the fact that the increase in total residential parcel counts in Calgary exceeded the population growth (or supply increased more than demand).

#### 4.3 Edmonton Urban Core vs. Edmonton RMA Areas

The relationship between land values in urban cores and RMA communities in the Calgary region is very different from that in Edmonton. For average property values, Edmonton is growing at a faster rate than its RMA communities. The average value of all property increased by 40.7% in the city, while the increase in average value in the RMA communities was only 23.0%. In addition, all sub-categories of average land values (except for railway property) increased at a faster rate in Edmonton than in its surrounding RMAs.

For total property values, however, the relationship between growth in Edmonton and its RMA communities is less consistent. While the total value of all property increased at a faster rate in the RMA communities (35.3% as opposed to 27.6% in Edmonton), changes in parcel counts have caused a split among the sub-categories. The total value of improved residential, farmland, railway and exempt property increased at a faster rate in the Edmonton RMA communities, while total value of vacant residential, improved and vacant non-residential, and machinery and equipment property increased at a faster rate in Edmonton.

Like Calgary, strong population growth in recent years is contributing to growth in both average and total property values in Edmonton and its surrounding RMA communities. However, the effect in Edmonton is different. The total number of available residential properties in Edmonton is not keeping pace with population growth (or demand is outpacing supply). While the population of Edmonton increased by 8.0% between 1996 and 2001, the total number of residential parcel counts between 1997 and 2001 decreased by 1.1%. This created an increase in housing demand in Edmonton during this period that lead to increases in the average land value of improved (+33.4%) and vacant residential property (+174.2%).

In Edmonton's RMA communities, there was a 10.3% increase in population and a accompanying 10.5% increase in residential parcel counts. The increase in population would most likely have resulted in an increased demand for housing; however, since a sufficient supply of new residential properties was being made available, average property values were not driven up at the same rate as those within Edmonton.

While the wealthy are moving out of Calgary's urban core to the RMA communities, this is not happening to the same degree in Edmonton. Improved residential property in Calgary's RMAs costs \$36,153 more than in the city, but in Edmonton the average assessed value of an improved residential property is \$963 more in the Edmonton RMA. The same gap exists in vacant residential land where in Calgary's RMAs are \$1,636 more than the city, while in Edmonton's RMAs the average value of a vacant residential property is \$35,367 less than in the city.

While parts of Calgary's RMA communities are becoming expensive destinations for those who can afford the high price of the metro-adjacent rural lifestyle, Edmonton's RMA communities appear to remain an affordable and accessible alternative to property within the city.

#### Improvements on Land Value Research

The impact of urbanization on rural land values has become an area of increasing research interest in recent years. However, while the interest is visible and a fair amount of work has already been completed, there is significant difficulty in locating and accessing statistically-based research and raw data.

In Alberta, three potential sources for raw data on land values were identified: property assessments completed by the municipal governments, real estate sales data maintained by the real estate boards, and housing census data collected by Statistics Canada. As both the real estate sales data and housing census data provide values for residential property only, property assessment data were used in this report. Property assessment data themselves were very limited but nonetheless provided the best available source of comparable data on land values. One notable limitation of these data is the absence of relative parcel size data in the municipal system. As a consequence, it is not possible to draw from these data the relationships between parcel counts and parcel sizes.

Databases of the property assessments completed by all the municipal governments in the province are maintained by Alberta Municipal Affairs. Equalized assessment values for residential, non-residential, machinery & equipment, and linear properties are available online through the Municipal Fiscal Information Statistics Database. Live assessment values for improved and vacant residential, improved and vacant non-residential, farmland, machinery & equipment, railway and exempt properties are available from the Assessment Audit Unit of the Assessment Services Branch. Mill rates and parcel counts are also provided for these properties, which allows for calculation of total equalized assessment values, as well as the average live and equalized assessment values. While both databases provide detailed assessment information according to the types of property, the information is only available over a five to six year time frame, and cannot be used for long-term trend analysis. In addition, the equalized assessment totals are not always consistent between the two databases.

The current difficulties associated with property assessment data are largely a function of the fact that Alberta Municipal Affairs is reliant on the individual municipalities for their information. If a municipality fails to report or reports incorrectly, these errors will show up in the AMA databases, and cannot be corrected without directly contacting the municipalities. In addition to this, the two different databases maintained by Alberta Municipal Affairs rely on data reported from different sources. This often results in a few, but sometimes large, differences between values for the same categories of property.

Alberta Municipal Affairs will be moving to a new system in late 2003 in which all assessment information will be directly reported to them. This will likely improve the quality and accuracy of future assessment values research.

#### 4.4 Land Values Summary

It is important to state that this analysis was limited in geographic scope and time period by data availability and comparability concerns. It further ignores the impact of all other economic factors on land values (such as oil and gas prices) and therefore should be treated as exploratory only. Nonetheless, and keeping in mind these limitations, the study of Alberta land values has provided an important first opportunity to measure and assess a number of land value assumptions.

Proximity to the urban core appears not to be the main determining factor of price in the Alberta land value model. Rather, population growth, land availability, and the exodus of wealth urbanites into the acreage areas surrounding Alberta's urban cores—particularly Calgary—appear to have substantial influence on land values. Property farther from the city centre is not, on average, of lower value and, because of parcel counts changes, is actually outpacing urban growth on a total value basis. Overall in Alberta, there is only a modest land value discount associated with living in the RMA areas.

Finally, it should be noted that this analysis does not measure differences in the quality of housing, cost of living, utility rates, taxation, infrastructure, the cost of commuting or service availability. These issues can and do affect land values, and will be considered in more detail in the next section.

### 5.0 Political Climate and Public Policy Issues

The interaction between cities and their surrounding environments has been increasing in intensity over the last decade. Building out of these relationships are a number of issues and concerns that have taken on greater importance as urban expansion into the countryside has increased in pace. These include loss of arable farmland, clashes between new and traditional forms of rural life, the provision of efficient service delivery to larger ex-urbanite populations, financing RMA infrastructure, environment degradation, availability of water, and the perceived loss of rural political influence.

The strength of these issues in the RMA areas across the West represents an important public policy challenge in the rural portfolio. This final section of the report outlines and analyzes the nature of these concerns.

#### 5.1 Loss of Agricultural Farmland

Within the RMA there are a number of forces driving the conversion of farmland to other purposes. These include: commercial, residential or recreational land development opportunities; forces that "push" farmers off the land such as changes in RMA regulations regarding noise or waste; forces that "pull" farmers to other non-farm economic opportunities; and the lure of natural resources in the area (water, sand, gravel) for urban interests (Furuseth and Pierce 1982). The weight of these interests puts considerable pressure on the lands in the RMA zones.

Is this a bad thing? There are widely divergent opinions on this issue ranging from the "every acre counts" conservationist to those with faith in a market system that takes care of everything with greatest efficiency. As Bryant and Johnston describe it, both these views are naïve, for the issue of land conversion involves a number of complexities and competing interests (Bryant and Johnston 1992).

Current land conversion is a slow, creeping process. As shown in the previous section, the encroachment of cities on metro-adjacent farmland has not, to this point, resulted in changes in farm output production or a loss of significant RMA landscape in Alberta. In spite of rapid population growth, the net loss of farmland in Alberta between 1976 and 1995 was only 0.5% of the total provincial agricultural land mass (Bazian et al. 1998).

It is worth reflecting that concern over lost farmland is not at all a new phenomenon nor unique to western Canada—it is a global trend, dating back more than a century, and primarily related to labour force changes in the agriculture sector (Bryant et al. 1982). Indeed, all urban expansion in Canada can be said to have come at the expense of the surrounding farmland. The policy questions are first, at what point, if any, does this expansion become problematic for the West generally or more specifically for our ability to feed populations efficiently, and, second, what is the aesthetic importance of these lands to our regional quality of life?

Arable farmland is a finite resource with no excess capacity (Furuseth and Pierce 1982). RMA growth, therefore, warrants careful consideration as these high quality soils cannot be replaced. It is not possible to recreate in some other location the climate advantages that have produced these high quality soils. And, although only 0.5% of farmland was lost in Alberta over 20 years (1976-1995), it still amounts to the equivalent of 253,000 acres of lost farmland, or over 12,500 acres each year (Bazian et al. 1998). There are also a number of areas across the West, such as the Okanagan valley, where only a small band of land exists that can produce tender fruits, making the loss of any fertile lands a substantial public concern (Bryant and Johnston 1992). Similar concerns have been expressed recently about the Calgary-Edmonton corridor (Worbets and Berdahl 2003).

As farmland conversions take place, the traditional farm resources and agricultural support services (rail lines, grain elevators, farm implement suppliers) can become less readily available or can be redirected to non-farm purposes in the metro-adjacent areas (AAMDC 1999a). This can only further encourage those farm operators remaining in an area to consider alternative non-farm options as it becomes more costly to maintain their farming activity (AAMDC 1999a).

Most cities are built near significant water sources, and as a result the majority of the land that directly surrounds cities is of the highest fertile agricultural grade available in the province (Bryant and Johnston 1992). The land around cities in the West for the most part is of higher than average agricultural value (Figure 5.1) .

Figure 5.1
Agricultural Land Adjacent to Urban Cores

Land by agricultural capability class within 80km radius of CMA

	Class 1-3	4-6	7
Calgary	49.6%	36.8%	11.9%
Edmonton	64.8	28.8	0.4
Regina	71.4	27.8	0.2
Vancouver	5.2	12.7	22.0
Victoria	9.5	18.3	10.0
Winnipeg	62.4	27.6	1.3
CANADA	42.5	23.9	25.9

(by Canada Land Inventory Class (CLI))

Source: Bryant and Johnston 1992

Note: CLI inventory is a comprehensive land inventory covering 2.5 million square kilometres of land and water. The CLI measures land suitability for agriculture using a seven class system. Class 1 lands have the highest capability (no significant limitations in use for crops) and Class 7 lands the lowest capability (no capability for arable culture or permanent pasture to support agricultural land use activities). Although based on older information, the land class interpretations are still considered largely valid (Agriculture and Agri-Food Canada 2003abc).

Land conversion activity has also been described as a threat to the natural beauty and quality of life in the region as a whole (Worbets and Berdahl 2003). As picturesque rural landscapes are converted to recreational, residential and commercial purposes, the overall enjoyment or quality of life of those living or visiting the area may be diminished. Land conversion activities mean gravel trucks, damage to farmers' property by non-farmers, and high levels of sound and light pollution (Bryant et al. 1982). On the other hand, farmland conversions may reduce the noise and odours of some types of agricultural production (AAMDC 1999a). This can be perceived as a quality of life enhancement for some within the RMA.

Figure 5.2 % that agree that efforts should be made to reduce urban sprawl

	CMA	non-CMA
British Columbia	69.4%	67.7%
Alberta	68.3	69.7
Saskatchewan	54.1	59.7
Manitoba	64.4	62.9

Source: Berdahl 2003

Ultimately, the broader public policy focus may hinge on issues of aesthetic beauty and environmental impact, as these affect the largest number of individuals within the region. A Canada West

2003 survey of western Canadians found that more than twothirds felt that efforts should be made to reduce levels of urban sprawl. Respondents in Alberta and BC, areas with the highest rates of population growth, were the most concerned about the expansion of urban areas. Interestingly, there were few differences between CMA and non-CMA respondents in the survey (Berdahl 2003).

With the few exceptions noted earlier, it appears that discontent with land conversion activity is most strongly related to quality of life concerns, with sustainability of farmland a secondary concern. RMA and urban residents in western Canada value the undeveloped nature of the nearby natural landscapes that surround cities.

This discussion is not meant to diminish the importance of the concerns related to the conversion of farmland. The harm related to sprawling development is either an immediate or eventual threat across the region as a whole. In the circumstances of most rapid development (e.g., the Calgary-Edmonton corridor) or the most endangered soils (e.g., BC's wine region or the Okanagan valley) this debate takes on a more urgent policy focus.

It's important to also recognize that farmland conversion trends are not occurring solely as a result of city expansion (Bryant and Johnston 1992). There are a number of profitable opportunities available that encourage the trend towards the abandonment of farming. First and perhaps foremost are the additional development options facing farmland owners at the edges of the city (Bryant and Johnston 1992). As noted in the previous section, changes in land value and overall development activity in the RMAs has increased land values in the area. Farmland owners have numerous options to convert their lands for recreational uses, residential developments or commercial activity. On the whole, farming can be a less profitable activity than these redevelopment opportunities (Bryant and Johnston 1992). The RMA demographic changes described earlier suggest that pressures to provide schools, family-orientated recreation and convenience shopping will dominate land conversion activity in the RMAs.

The resultant land use debates call for locally-based growth planning and management models. These entities usually

provide structured opportunities for discussion of the competing land interests among stakeholder groups and, in some cases, have the policy and regulatory tools to influence the development of lands. Land planning and management strategies can even allow for the control of expansion and the designation of mutually agreed upon agricultural zones.

However, land planning and management should not be interpreted as a solution to the RMA problems described above. The nature of these RMA conflicts are deeply rooted and involve individual livelihoods, finite natural resources, and quality of life for the region—large scale problems not easily dealt with by any regulatory or management strategy. Rather, planning structures can allow for some successes to be achieved through dialogue between individual land owners and public representatives on a case by case basis (Bryant et al. 1982).

#### 5.2 Mix of Rural and Ex-urban Populations

Following the recent population growth in the metro adjacent areas, RMA residents now represent a mix of long-time rural residents and new ex-urban dwellers—each with unique backgrounds and expectations. The typical RMA community of even a dozen years ago has been transformed, and transformation has brought with it many changes in attitudes and approachs to life. As described earlier, 42.5% of RMA residents over the age of five have moved in the last five years (12.5% in the last 12 months), the majority of whom are coming into the region from elsewhere. This inward mobility negatively affects the ratio of old RMA residents to new. Further, the changing demographics (young, wealthy families) have brought new issues, priorities, and problems to these RMA areas. The older sense of rural community has given way to a new RMA community.

The conflict of expectations and desires for the region is not unique to metro-adjacent communities; urban or rural communities can be and are in conflict on a regular basis over infrastructure, land use, recreation and a host of other issues (Bryant and Johnston 1992). What makes the RMA zone conflicts unique is the rapid ascension of these issues in the public consciousness due to significant growth and changing demographics. Conflicts involve the demand for and type of services needed in the area, the financing of services, the

potential loss of rural political influence, and the threat to the traditional rural lifestyle.

#### Delivering Services to Diverse Populations

The root of the conflict over service delivery in metro-adjacent zones involves servicing the needs of a rural population with metro-influenced expectations of what services to expect. Water quality, access roads, hospital services, schools, convenience shopping, and recreational opportunities are just some of the demand stresses that RMA municipalities face as a result of ex-urban dwellers.

The public holds expectations that rural and urban dwellers should have similar levels of government services. Canada West's 2003 survey found that two thirds of western Canadians believe that "governments should ensure that rural communities and urban communities have the same level of government services, even if it costs more to provide equal services in the rural communities" (Berdahl 2003). In each province, the non-CMA based residents were more likely to agree with this statement; agreement was particularly strong in Saskatchewan and Manitoba.

Figure 5.3

% who agree governments should ensure that rural communities and urban communities have the same level of government services, even if it costs more to provide equal services in the rural communities

	CMA	non-CMA
British Columbia	69.4%	67.7%
Alberta	68.3	69.7
Saskatchewan	54.1	59.7
Manitoba	64.4	62.9

Source: Berdahl 2003

These expectations can be very difficult for provincial and municipal governments to meet because of prohibitive cost factors. Delivering services in metro-adjacent areas means dealing with swelling population with uniquely diverse new and old rural backgrounds, and with large geographical space disadvantages that can not be reasonably overcome in some situations.

Successful investment in RMA infrastructure requires a matched set of circumstances. First, growth needs to be both

sustainable and consistent over the long term in order for governments to justify the increase in capital investment. Until growth becomes somewhat more predictable, it may not be prudent to consider large investments of capital on an arena that may prove to be too small or on a road that holds too few cars.

Second, there needs to be agreement on the type of services needed. This is also a troubling point within the RMA zones with mixed backgrounds. Ex-urbanites may have sought out the cultural advantages of the RMA zones, such as being closer to nature or as a place to keep horses or dogs, but many are unaware of the changes that rural lifestyles require (Bryant et al. 1982). Ex-urbanites may bring with them latent memories of garbage collection and grocery store shopping that influence local municipal decision-making. As ex-urbanites begin to outnumber older rural residents, they also get elected to councils and join boards (Bryant et al. 1982), thereby affecting municipal spending priorities.

A policy challenge facing the provincial and municipal leadership is how to meet the expectations and needs of an expanding population of ex-urbanites, while also addressing the concerns of long term RMA residents. RMA populations are unique in that they have wealth, high employment rates, younger families, large property investments and tend not to move once they move in to the RMA. Larger, costly, long-term projects (such as sewer service or recreation centres) may appeal to this new population in the region but might be seen as unnecessary for some long-time residents who have lived in the region for many years without the need or perhaps desire to pay for these services.

Those places experiencing large influxes of wealthy residents, such as Alberta's M.D. of Rockyview, may have the advantage of a rapidly increasing tax base to pay for services, but this revenue comes with new expectations about the services that will be delivered in the region. New planning demands now involve a level of investment beyond the planning and experience typically available to RMAs (Canton 2003). Undoubtedly, this has created a skill gap in M.D.s' infrastructure planning capacity as they attempt to catch up with the rapid growth.

#### Financing Service Delivery

With low population densities and large geographic spaces, the cost of delivering urban-quality services in RMA zones can be expensive or even prohibitive. This is particularly true in the areas outside the smaller satellite communities that form part of the RMA. In these zones, the provision of services can be costly with sewer waste, water, and electricity each having to be carried over longer distances (AAMDC 1999a).

RMA population growth can further exacerbate the problem, as studies suggest that economies of scale are exhausted as communities grow. The addition of tax revenue through population growth may not lead to economic efficiencies as existing infrastructure may need to be replaced or upgraded and new infrastructure created (AAMDC 1999a). This can create a cascade of new expenditures as wider roads can lead to the need to widen existing on-ramps, upgrade traffic signals, and spend more on road cleaning and maintenance costs—all due to increased capacity.

Urban areas are able to more readily fund services because of a broad business base from which to draw property tax revenues. Business activity in the RMA zones is not as strong as in the cities. As a business incentive, some RMA municipalities have already offered discounted tax rates or have eliminated business taxes payable to the municipality (Bryant et al. 1982). Comparatively, urban core cities charge a higher business property tax in order to keep residential tax rates lower—an advantage that not available to the RMA zones. Part of the appeal to municipal councils in converting farmland into commercial development is undoubtedly rooted in the need to attract business and tax revenue to the region to help pay for capital expenditures (Alberta Agriculture, Food and Rural Development 2002).

Capital construction is a financial challenge for low-density metro-adjacent zones as construction costs are fixed regardless of how many use a facility. Areas with lower population densities have more difficulty justifying expenditures based on usage forecasts. As a result, urban areas can build better swimming pools and arenas because they can collect more user fees from a larger population. Fixed costs, like the cost to pave a road, are relatively the same whether 50 or 5,000 cars use it each day.

Based on rapid growth and changing demands of the population, it is likely that RMA municipalities are facing capital and construction outlays that parallel those encountered by the West's major urban centres in the 1960s and 70s. The build-up of police, fire, health, social service, recreational, educational, transportation and utility needs in the RMA zones requires a substantial investment of resources. Yet, the financing options are finite—limited primarily to property taxes and user fees, both areas in which lower population density is a disadvantage. The challenge facing municipalities and the provinces is to prioritize and fund these needs.

A related complaint made towards the RMA populations is the "free-riding" on services provided by the urban core. RMA commuters use urban sewer systems, drink urban water, drive on urban roads, and are protected by urban police forces. The free-riders in the RMA area are using the city services paid for by the taxes of the urbanites. As a result, urban core services such as roads and water treatment plants may need upgrading to meet daytime work populations in the city that are significantly larger than the city's taxpayer base.

This tension in delivering services to "part-time" populations also results in unused service capacity. In the daytime, many residents in the metro-adjacent zones commute to the urban cores, and at night time many residents head to the RMAs. Yet the infrastructure is static; it is impossible to move a hospital every 12 hours but there is a need to have appropriate health facilities available for both populations. Further complicating this example are the specific health demands on RMA versus urban core facilities (e.g., the health needs of a younger family-orientated population in the RMA).

Overall, the combination of geographic disadvantage, a weak business tax base, small levels of existing capital infrastructure, and strong competition with cities for resources present large barriers to the delivery of services in the RMA areas.

#### Rural political influence

Urban cores have gained a degree of political momentum in recent years. Urban issues have dominated public and

political discussions—perhaps to the detriment of RMA spending priorities. Infrastructure funding is limited and finite, and the RMA areas lack the political momentum and influence of the cities. For the most part, research momentum is also lined up behind addressing the needs of cities. For rural regions, any erosion of political influence is worrisome when combined with the increasing gains in political power from the urban cores and the concerns of rural economic decline.

Urban sprawl is said to dilute the strength of this traditional rural voice when ex-urbanite residents bring their backgrounds, opinions and wealth to the councils, boards, and community organizations where they are seen as "stacking" the local decision making bodies (Bryant et al. 1982). Within metro-adjacent regions, the fear is that this will manifest itself in a change in political support away from parties or candidates with a focus on rural issues to ones with a more favourable outlook towards urban issues. Essentially the argument is that as the region becomes more urban in population and lifestyle, so too will it become more urban in political voice. Yet, in practice, this is a very difficult argument to make as it lacks empirical support.

Nonetheless, the fear of any imminent loss of influence has consequences for policy development. The data presented in the first section of this paper clearly suggest that demographic transformations have an impact on the politics of the region. Rural concerns are fuelled by a general sense of abandonment by both the provincial and federal governments of rural issues and by government inactions on rural concerns (Epp 2001). The large numbers of rural public administration cuts have intensified beliefs that rural issues are declining in importance (Azmier and Stone 2003). The current redrawing of national electoral boundaries to reflect the 2001 Census is also seen as a blow to rural political influence (Sun Times 2002). The combination of these factors is seen to have reduced the rural voice in national and provincial politics—even if these actions are done to better reflect the realities of urbanization trends.

#### Rural quality of life

Urban growth has brought new development, wealth, commercial activity, and upgraded infrastructure to the rural regions, but for some it has come at the expense of the

traditional rural lifestyle. Subdivisions have replaced farms, rolling foothills are dotted with acreages, cars and bright lights have replaced quiet roads, farmers' markets have been transformed into strip malls. While it is beyond the scope of this study to objectively evaluate the impact of that change, for some it is seen as a loss in the quality of life for rural residents (Worbets and Berdahl 2003).

The aesthetic importance of the environment to the quality of life also merits substantial consideration. The urban transformation of the countryside surrounding cities has led to a decline in the natural environmental beauty of the West. Land beauty is a quality of life issue for many people in the region. RMA areas across the West consist of sprawling ranch lands with mountain views, golden wheat and canola fields, riverfronts, parklands, orchards and vineyards. These attributes add value to the residents of the West and are part of the public's concern over the expansion of the RMA regions.

#### 5.3 Environmental Concerns

When we think of the environmental issues facing the rural West, we tend to focus on efforts to protect renewable natural resources. However, the growth of the RMA areas has introduced an additional set of environmental concerns related to increases in commercial and residential activity.

Development activities increase the resource inputs (gravel and construction material, farmland, water) and the waste and noise outputs (sewage, refuse, light and sound pollution). Increased commuter-based traffic also contributes to pollution concerns, both directly (through more emissions) and indirectly (through increased vehicle production needed for the commuting traffic) (Gillham 2002).

A critical concern discussed by environmental agencies relates to the impact that development has upon regional water supplies. The hard surfaces associated with urban sprawl (e.g., asphalt and pavement) reduce the amount of water returned to the ground. Parking lots and roads cause precipitation to enter storm sewers as run-off rather than filtering back to the underground reserves to recharge water

supplies. Water run-off activity then mixes the polluted surface water found in lakes and streams thereby reducing the overall availability of consumable water (Otto et al. 2002).

Drilling a large number of wells in the RMA to provide for expansion has potential problems related to the sustainability of underground water reserves in areas that may have limited natural water reserves. Too many wells in these areas can lower the local water tables and threaten both the underground aquifers and the related streams and lakes (Furuseth and Pierce 1982).

Contributing to this problem are the city-bred water use habits of some of the ex-urban residents (McFarlane and Nilsen 2003). Younger, larger families with larger homes can drain the existing supplies. RMA areas with depleted reservoirs may have to resort to costly alternatives such as transporting water over pipelines.

#### 5.4 Addressing RMA Policy Issues

To conclude this section, there are a number of ways to address and hopefully reduce conflict within the RMA regions.

Regional management and governance.

Regional management activity is in many ways a catch-all solution to minimize the impact of sprawl developments. However, management structures offer little in the way of guaranteed successes—they are a primarily a body to discuss conflicts. It is often up to the competing interests themselves to find the middle ground. The issues at play include: where should the new subdivisions or new RMAs be located? What recreational, sand, water and gravel lands should be preserved for the future? How much agriculture land needs to be preserved to protect food stocks? Should environmentally sensitive lands be protected from other land uses? The complexity of issues point to the need for a coordinated regional approach.

Development of a regional consciousness of RMA land and water issues.

Environmental and resource concerns, the natural beauty of the RMA region, and water conservation and preservation are all issues that impact discussions of regional growth. Raising these concerns to a higher level of public awareness involves researching and communicating the impacts of current and future development on the sustainability of these resources. Regional environmental consciousness can better inform sustainable development activity, provide clarity to the purpose and intent of planning structures, and reduce the depth of the problem by altering regional water and land overconsumption. Enhanced regional consciousness is a guiding principle underlying the recommendations of the recently released Regional Planning Advisory Committee's final report for Manitoba's Capital Region (Manitoba Government 2003).

#### Creating an inventory of RMA infrastructure deficits.

The first steps in infrastructure management involve creating inventories of assets, assigning replacement values, and determining the age and lifecycle of the assets (Vander Ploeg 2003). Quantifying these values provides the opportunity to assess the means of replacement and pursue the funding mechanisms. Awareness of the size and scope of the infrastructure deficit in the RMAs not only facilitates better asset management, it also provides a political counterbalance in the competition with cities for limited funding resources.

#### Enhancing RMA political profile.

While overall rural political influence has arguably been diluted as a result of RMA population changes, there is now an opportunity for emerging attention to be brought to RMA-specific concerns. Increased wealth, new larger populations, and fresh ideas are advantages within the RMA zone that can be used to bring profile to the RMA concerns outlined within this report. Educating ex-urban residents on concerns of the rural region can return political influence if these residents become political champions for rural causes.

#### 6.0 Conclusion

The intent of this review is to enhance our understanding of the "degrees of rurality" that exist within the region. Our analysis suggests that the rural metro-adjacent areas are uniquely prosperous. Rural metro-adjacent families are larger, have higher incomes and live in more expensive homes with more rooms. They are more likely to be employed and are more likely to work in goods-producing sectors of the economy. The preceding analysis also demonstrated that population growth, land availability, and the exodus of wealthy urbanites into the acreage areas surrounding some urban cores are substantially increasing land values in the area.

The addition of these data to the rural data profiles created in The Rural West: Diversity and Dilemma (Azmier and Stone 2003) and elsewhere infers that a markedly less rosy picture exists for the rural West beyond the RMAs. As these data suggest, if the rural West is strong at the edges of cities it is much weaker in the rural heartland and rural remote areas. Population growth has caused an economic development boom for the RMA region, but that boom may very well be furthering the depopulation of the rural heartland.

Growth and demographic change have also created a number of policy concerns in the RMA region including the loss of the most fertile agricultural land, environmental degradation, water supply, changing demands on the province and municipalities to address and finance the needs of new populations, and the potential loss of rural political influence. These issues are not easily addressed; at best, strategies tend to focus on their management rather than resolution.

Finally, it is increasing clear from this analysis that the RMA zones are becoming economically, demographically, and politically more closely associated with the urban cores than with the rural heartland regions.

#### **Works Cited**

Alberta Agriculture, Food and Rural Development. 2002. Resource Planning Group. Loss and Fragmentation of Farmland. Edmonton: Alberta Agriculture, Food and Rural Development.

Alberta Association of Municipal Districts and Counties. 1999a. The Costs and Implications of Urban Growth. (http://www.aamdc.com/Policy/Publications/Member%20Position%20Papers/info\_costs\_implications\_99.htm). Accessed on May 28, 2003.

Alberta Association of Municipal Districts and Counties. 1999b. Loss And Fragmentation of Agricultural Land in Alberta. (http://www.aamdc.com/Policy/default.htm). Accessed November 5, 2003.

Agriculture and Agri-Food Canada. 2003a. Canada Land Inventory Overview. (http://sis.agr.gc.ca/cansis/nsdb/cli/intro.html). Accessed October 24, 2003.

Agriculture and Agri-Food Canada. 2003b. CLI Classes—Definitions. (http://sis.agr.gc.cansis/nsdb/lpdb/cliclass.html). Accessed October 24, 2003.

Agriculture and Agri-Food Canada. 2003c. CLI Soil Capability Modifiers—Definitions. (http://sis.agr.gc.ca/cansis/nsdb/lpdb/cliagmod.html). Accessed October 24, 2003.

Azmier, Jason, and Liam Stone. 2003. The Rural West: Diversity and Dilemma. Calgary: Canada West Foundation.

Bazian, Tammy, Marcia Breitkreuz and Mike Pearson. 1998. Agricultural Land Base Monitoring Report 1991-1995. Edmonton: Alberta Agriculture, Food and Rural Development Policy Secretariat.

Berdahl, Loleen. 2003. Looking West: A Survey of Western Canadians. Calgary: Canada West Foundation.

Bryant , C.R., and Thomas R. Johnston. 1992. Agriculture in the City's Countryside. Toronto: University of Toronto Press.

Bryant, C.R., L.H. Russwurm, and A.G. McLellan. 1982. The City's Countryside: Land and its Management in the Rural-Urban Fringe. New York: Longman Inc.

Brunnen, Ben. 2003. Achieving Potential: Towards Improved Labour Market Outcomes for Aboriginal People. Calgary: Canada West Foundation.

Canton, Maria. 2003. Rocky View's Prime Real Estate being Plotted on 'Vision Map'. Calgary Herald, 10 November, 2003.

Sun Times. 2002. Changes Threaten Rural Representation. Sun Times. August 24, 2002. Owen Sound, ON.

Darin-Drabkin, Haim. 1977. Land Policy and Urban Growth. New York: Pergamon Press.

Epp, Roger 2001. The Political De-skilling of Rural Communities. In Writing Off the Rural West: Globalization, Governments and the Transformation of Rural Communities, edited by Roger Epp and Dave Whitson. Edmonton: Parkland Institute.

Furuseth, Owen J., and John T. Pierce. 1982. Agricultural Land in an Urban Society. Washington D.C.: Association of American Geographers.

Gayler, Hugh, ed. 1994. Niagara's Changing Landscapes. Ottawa: Carleton University Press.

Gillham, Oliver. 2002. The Limitless City: A Primer on the Urban Sprawl Debate. Washington: Island Press.

Action for Agriculture. 2002. How Sprawl Aggravates Drought. Action For Agriculture. Vol 11, No. 1. Cochrane, AB. (http://action-foragriculture.8m.com/page5.html). Accessed on November 5, 2003.

Jackson, Kenneth T. 1985. Crabgrass Frontier: The Suburbanization of the United States. New York: Oxford University Press.

McFarlane, Susan, and Eric Nilsen. 2003. On Tap: Urban Water Issues in Canada Discussion Paper. Calgary: Canada West Foundation.

Manitoba government. 2003. Regional Planning Advisory Committee. A Partnership for the Future: Putting the Pieces Together in the Manitoba Capital Region. Winnipeg.

Norton, William. 2001. Human Geography. Canada: Oxford University Press Canada.

Otto, Betty, Katherine Ransel, Jason Todd, Deron Lovaas, Hannah Stutzman and John Bailey. 2002. Paving Our Way to Water Shortages: How Sprawl Aggravates the Effects of Drought. American Rivers, The Natural Resources Defense Council and Smart Growth America.

R.A. Malatest & Associates Ltd. 2002. Rural Youth Migration: Exploring the Reality Behind the Myths, A Rural Youth Discussion Paper. R.A. Malatest & Associates Ltd.

Rubenstein, James M. 1999. An Introduction to Human Geography, Sixth Edition. New Jersey: Prentice Hall Inc.

Statistics Canada. 2001. Education in Canada, 2000. Catalogue No. 81-229-XPB. May 2001.

Tindal, C. Richard, and Susan Nobes Tindal. 2000. Local Government in Canada, Fifth Edition. Scarborough: Nelson Thomson Learning.

Vander Ploeg, Casey. 2003. A Capital Question: Infrastructure in Western Canada's Big Six. Calgary: Canada West Foundation.

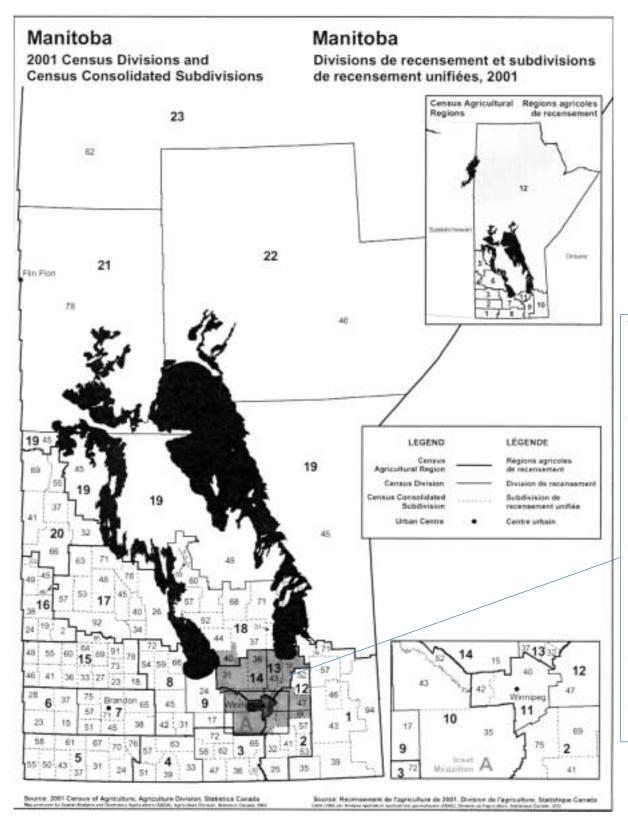
Worbets, Barry, and Loleen Berdahl. 2003. Western Canada's Natural Capital: Toward a New Public Policy Framework. Calgary: Canada West Foundation

#### **APPENDIX 1**

Place	Class	Pop., 2001 L	and area (sq. km) 2001	Place	Class	Pop., 2001 L	and area (sq. km) 2001
Alberta (48) 20000	Alberta	2974807	639987.12	Morinville (4811068) T	AB RMA	6540	11.34
Foothills No. 31 (4806001) MD	AB RMA	16764	3668.3	Legal (4811069) T	AB RMA	1058	2.55
High River (4806006) T	AB RMA	9345	11.43	Stony Plain 135 (4811804) R	AB RMA	1100	51.61
Longview (4806008) VL	AB RMA	300	1.09	Alexander 134 (4811805) R	AB RMA	839	68.71
Turner Valley (4806009) T	AB RMA	1608	5.45	Wabamun 133A (4811806) R	AB RMA	998	64.45
Black Diamond (4806011) T	AB RMA	1866	3.21	Yellowstone (4813007) SV	AB RMA	98	0.28
Okotoks (4806012) T	AB RMA	11664	17.91	Alberta Beach (4813012) VL	AB RMA	762	1.98
Rocky View No. 44 (4806014) MD	AB RMA	30688	4048.49	Sandy Beach (4813016) SV	AB RMA	201	2.43
Chestermere (4806017) T	AB RMA	3414	3.09	Ghost Lake (4815027) SV	AB RMA	69	0.63
Cochrane (4806019) T	AB RMA	11798	16.51	Calgary (4806016) C	Alberta Urban	878866	701.79
Airdrie (4806021) C	AB RMA	20382	21.48	Edmonton (4811061) C	Alberta Urban	666104	683.88
Irricana (4806022) VL	AB RMA	1038	1.83				
Beiseker (4806024) VL	AB RMA	838	2.83	British Columbia (59) 20000	British Columbia	3907738	926492.48
Crossfield (4806026) T	AB RMA	2389	3.84	Fraser Valley D (5909034) RDA	BC RMA	1032	221.58
Tsuu T'ina Nation 145 (4806804)	AB RMA	1982	283.14	Fraser Valley E (5909036) RDA	BC RMA	3400	752.62
Hay Lakes (4810014) VL	AB RMA	346	0.58	Fraser Valley C (5909048) RDA	BC RMA	716	3655.55
Chipman (4810062) VL	AB RMA	247	0.62	Mission (5909056) DM	BC RMA	31272	225.78
Lamont (4810064) T	AB RMA	1692	3.98	Fraser Valley F (5909060) RDA	BC RMA	1237	2029.7
Bruderheim (4810066) T	AB RMA	1202	4.23	Fraser Valley G (5909062) RDA	BC RMA	1827	74.8
Millet (4811011) T	AB RMA	2037	3.74	Fraser Valley H (5909064) RDA	BC RMA	387	37.04
Leduc County (4811012) CM	AB RMA	12528	2613.84	Kwawkwawapilt 6 (5909821) R	BC RMA	360	0.98
Beaumont (4811013) T	AB RMA	7006	10.5	Skowkale 10 (5909822) R	BC RMA	267	0.59
New Sarepta (4811014) VL	AB RMA	382	2.28	Skowkale 11 (5909823) R	BC RMA	186	0.11
Leduc (4811016) C	AB RMA	15032	36.97	Skwah 4 (5909824) R	BC RMA	205	1.19
Devon (4811018) T	AB RMA	4969	8.69	Skway 5 (5909826) R	BC RMA	84	2.36
Calmar (4811019) T	AB RMA	1902	3.73	Soowahlie 14 (5909827) R	BC RMA	234	3.84
Thorsby (4811021) VL	AB RMA	799	2.21	Squiaala 7 (5909828) R	BC RMA	111	0.86
Golden Days (4811023) SV	AB RMA	125	2.27	Tzeachten 13 (5909830) R	BC RMA	683	2.13
Warburg (4811024) VL	AB RMA	560	2.08	Yakweakwioose 12 (5909831) R	BC RMA	42	0.22
Parkland County (4811034) CM	AB RMA	27252	2400.5	Cheam 1 (5909837) R	BC RMA	212	3.64
Seba Beach (4811038) SV	AB RMA	109	0.66	Upper Sumas 6 (5909877) R 0	BC RMA	175	2.53
Wabamun (4811045) VL	AB RMA	601	3.24	Matsqui Main 2 (5909878) R	BC RMA	73	1.4
Spring Lake (4811046) VL	AB RMA	457	2.12	Semiahmoo (5915801) R	BC RMA	131	1.28
Stony Plain (4811048) T	AB RMA	9589	27.07	Tsawwassen (5915802) R	BC RMA	474	1.95
Spruce Grove (4811049) C	AB RMA	15983	26.4	Musqueam 2 (5915803) R	BC RMA	1305	1.91
Strathcona County (4811052) SM	AB RMA	71986	1182.11	Burrard Inlet 3 (5915806) R	BC RMA	1203	1.09
Fort Saskatchewan (4811056) C	AB RMA	13121	45.3	Mission 1 (5915807) R	BC RMA	339	0.16
Sturgeon County (4811059) MD	AB RMA	18067	2109.41	Capilano 5 (5915808) R	BC RMA	2230	1.39
St. Albert (4811062) C	AB RMA	53081	34.61	Barnston Island 3 (5915809) R 0	BC RMA	46	0.43
Gibbons (4811064) T	AB RMA	2654	6.46	Seymour Creek 2 (5915811) R	BC RMA	54	0.67
Redwater (4811065) T	AB RMA	2172	7.6	McMillan Island 6 (5915816) R	BC RMA	59	1.84
Bon Accord (4811066) T	AB RMA	1532	2.11	Matsqui 4 (5915825) R	BC RMA	417	0.29

Place	Class	Pop., 2001 La	and area (sq. km) 2001	Place	Class	Pop., 2001 L	and area (sq. km) 2
Katzie 1 (5915830) R	BC RMA	224	0.52	West St. Paul (4613037) RM	MB RMA	4085	87.66
Capital H (Part 1) (5917054) RDA	BC RMA	3801	229.53	St. Andrews (4613043) RM	MB RMA	10695	752.7
Cole Bay 3 (5917801) R	BC RMA	257	2.82	Selkirk (4613047) C	MB RMA	9752	24.87
Union Bay 4 (5917802) R	BC RMA	100	0.3	Dunnottar (4613049) VL	MB RMA	487	2.79
East Saanich 2 (5917803) R	BC RMA	1429	2.61	St. Clements (4613056) RM	MB RMA	9115	730.04
South Saanich 1 (5917804) R	BC RMA	586	2.03	Brokenhead 4 (4613062) R	MB RMA	372	55.14
Becher Bay 1 (5917809) R	BC RMA	159	2.67	Rosser (4614015) RM	MB RMA	1412	441.43
New Songhees 1A (5917812) R	BC RMA	1874	0.7	Woodlands (4614031) RM	MB RMA	3453	1160.63
T'Sou-ke 1 (Sooke 1) (5917817) R	BC RMA	81	0.27	Rockwood (4614036) RM	MB RMA	7654	1199.76
T'Sou-ke 2 (Sooke 2) (5917818) R	BC RMA	76	0.52	Stonewall (4614039) T	MB RMA MB RMA	4012	6.02
North Cowichan (5919008) DM	BC RMA	26148	193.98	Teulon (4614042) T		1058	3.2 462.51
Cowichan Valley D (5919013) RDA	BC RMA	2689	15.48	St. Laurent (4618040) RM	MB RMA	1172	
Cowichan Valley F (5919033) RDA	BC RMA	1763	1792.9	Winnipeg (4611040) C	MB Urban	619544	465.16
Cowichan Valley E (5919051) RDA	BC RMA	3805	134.95 1.18	Sackatahawan (47)	Saskatchewan	978933	586561.35
Halalt 2 (5919801) R	BC RMA BC RMA	115 45	0.35	Saskatchewan (47) Vibank (4706007) VL	SK RMA	381	0.73
Squaw-hay-one 11 (5919802) R	BC RMA	45 67	0.35	Sedley (4706007) VL	SK RMA	322	1.31
Tsussie 6 (5919803) R Cowichan 1 (5919807) R	BC RMA	1191	22.81	Francis (4706009) T	SK RMA	172	0.59
Chilliwack (5909020) C	BC Urban	62927	257.96	Wilcox (4706014) VL	SK RMA	322	1.48
, ,	BC Urban	115463	359.18	Rouleau (4706017) T	SK RMA	434	1.65
Abbotsford (5909052) C .angley (5915001) DM	BC Urban	86896	306.81	Pense No. 160 (4706021) RM	SK RMA	494	841.48
_angley (5915001) DM _angley (5915002) C	BC Urban BC Urban	23643	10.22	Belle Plaine (4706022) VL	SK RMA	70	1.34
Earrey (5915004) C	BC Urban	23043 347825	317.4	Pense (4706023) VL	SK RMA	533	1.34
White Rock (5915007) C 0	BC Urban	18250	5.28	Sherwood No. 159 (4706026) RM	SK RMA	1054	719.46
Delta (5915011) DM	BC Urban	96950	183.78	Grand Coulee (4706028) VL	SK RMA	366	0.24
Richmond (5915015) C	BC Urban	164345	128.69	Edenwold No. 158 (4706029) RM	SK RMA	3005	884.82
Greater Vancouver A (5915020) RDA	BC Urban	8034	818.84	White City (4706030) T	SK RMA	1013	2.06
/ancouver (5915022) C	BC Urban	545671	114.67	Pilot Butte (4706031) T	SK RMA	1850	4.69
Burnaby (5915025) C	BC Urban	193954	90.09	Balgonie (4706032) T	SK RMA	1239	3.15
New Westminster (5915029) C	BC Urban	54656	15.4	Edenwold (4706033) VL	SK RMA	226	0.68
Coquitlam (5915034) C	BC Urban	112890	121.68	South Qu'Appelle No. 157 (4706034)	SK RMA	1098	889.66
Belcarra (5915036) VL	BC Urban	682	5.46	Qu'Appelle (4706036) T	SK RMA	648	4.22
Anmore (5915038) VL	BC Urban	1344	27.42	McLean (4706037) VL	SK RMA	271	1.33
Port Coquitlam (5915039) C	BC Urban	51257	28.79	Katepwa Beach (4706043) RV	SK RMA	189	2.89
Port Moody (5915043) C	BC Urban	23816	25.62	Lumsden No. 189 (4706053) RM	SK RMA	1646	819.24
North Vancouver (5915046) DM	BC Urban	82310	160.47	Disley (4706054) VL	SK RMA	62	0.65
North Vancouver (5915051) C	BC Urban	44303	11.95	Buena Vista (4706055) VL	SK RMA	397	3.61
Vest Vancouver (5915055) DM	BC Urban	41421	87.43	Lumsden (4706056) T	SK RMA	1581	3.37
Bowen Island (5915062) IM	BC Urban	2957	49.94	Regina Beach (4706058) T	SK RMA	1039	2.58
ions Bay (5915065) VL	BC Urban	1379	2.55	Bethune (4706061) VL	SK RMA	380	0.99
Pitt Meadows (5915070) DM	BC Urban	14670	85.38	Craven (4706078) VL	SK RMA	264	1.16
Maple Ridge (5915075) DM	BC Urban	63169	265.69	Thode (4711060) RV	SK RMA	133	0.78
North Saanich (5917005) DM	BC Urban	10436	37.14	Dundurn No. 314 (4711061) RM	SK RMA	562	800.91
Sidney (5917010) T	BC Urban	10929	5.04	Dundurn (4711063) T	SK RMA	596	0.88
Central Saanich (5917015) DM	BC Urban	15348	41.39	Shields (4711064) RV	SK RMA	142	0.43
Saanich (5917021) DM	BC Urban	103654	103.43	Corman Park No. 344 (4711065) RM	SK RMA	8093	1990.49
Oak Bay (5917030) DM	BC Urban	17798	10.38	Langham (4711067) T	SK RMA	1145	3.92
/ictoria (5917034) C	BC Urban	74125	19.68	Warman (4711068) T	SK RMA	3481	5.01
Esquimalt (5917040) DM	BC Urban	16127	7.04	Blucher No. 343 (4711069) RM	SK RMA	1476	789.28
Colwood (5917041) C	BC Urban	13745	17.76	Martensville (4711070) T	SK RMA	4365	3.54
Metchosin (5917042) DM	BC Urban	4857	71.32	Bradwell (4711071) VL	SK RMA	156	0.42
angford (5917044) DM	BC Urban	18840	39.36	Allan (4711072) T	SK RMA	679	1.78
/iew Royal (5917047) T	BC Urban	7271	14.48	Dalmeny (4711073) T	SK RMA	1610	2.27
Highlands (5917049) DM	BC Urban	1674	37.87	Elstow (4711074) VL	SK RMA	97	0.58
Sooke (5917052) DM	BC Urban	8735	48.76	Osler (4711075) T	SK RMA	823	0.98
Ouncan (5919012) C	BC Urban	4699	2.05	Colonsay No. 342 (4711076) RM	SK RMA	310	549.31
				Clavet (4711077) VL	SK RMA	357	0.61
Manitoba (46) 20000	Manitoba	1119583	551937.87	Meacham (4711078) VL	SK RMA	90	1.26
t-Pierre-Jolys (4602037) VL	MB RMA	893	2.6	Colonsay (4711079) T 00000	SK RMA	426	2.45
liverville (4602046) T	MB RMA	1921	8.23	White Cap 94 (4711828) R 00000	SK RMA	155	19.29
Ste. Anne (4602061) T	MB RMA	1513	4.19	Vanscoy No. 345 (4712054) RM 00000	SK RMA	2617	865.21
aché (4602069) RM	MB RMA	8578	581.51	Delisle (4712056) T 00000	SK RMA	884	2.35
Ritchot (4602075) RM	MB RMA	4958	333.24	Vanscoy (4712058) VL 00010	SK RMA	345	0.92
Macdonald (4610035) RM	MB RMA	5320	1156.62	Asquith (4712059) T 00000	SK RMA	574	1.2
Cartier (4610043) RM	MB RMA	3120	553.43	Aberdeen No. 373 (4715018) RM 0000	0SK RMA	816	671.37
t. François Xavier (4610052) RM	MB RMA	1024	204.55	Aberdeen (4715019) T 00000	SK RMA	534	1.95
leadingley (4611042) RM	MB RMA	1907	106.96	Hepburn (4715027) VL 00000	SK RMA	475	1.02
		40000	1103.34	Regina (4706027) C 00001	SK Urban	178225	118.66
Springfield (4612047) RM	MB RMA	12602	1105.54	11egina (+100021) 0 00001	Ort Orban	170220	110.00

#### **RMA Designation around Winnipeg**



Winnipeg RMA (gray section) includes: St-Pierre-Jolys Niverville Ste. Anne Taché Ritchot Macdonald Cartier St. François Xavier Headingley Springfield East St. Paul West St. Paul St. Andrews Selkirk Dunnottar St. Clements Brokenhead Rosser Woodlands Rockwood Stonewall Teulon St. Laurent

# Linking Policy to People

Since 1971, Canada West Foundation has provided citizens and policy makers with non-partisan, non-ideological research on a wide range of issues of critical importance to western Canadians. The continuation of our programs depends upon the support of individuals, corporations, and granting foundations. We encourage all who believe in our mission to become Friends of Canada West and thereby ensure that our initiatives continue to have maximum impact.

For more information or to become a Friend, please contact the Canada West Foundation by phone (403-264-9535) or e-mail (cwf@cwf.ca).

Canada West Foundation is a Registered Canadian Charitable Organization (#11882 8698 RR 0001).

### The Benefits of Friendship...

#### **Supporters**

(Friends that contribute between \$50 and \$199) receive: a one year subscription to our newsletter and executive summaries of CWF reports.

#### **Contributors**

(Friends that contribute between \$200 and \$499) receive: a one year subscription to our newsletter and all regular CWF publications except special reports.

#### **Associates**

(Friends that contribute between \$500 and \$999) receive: a one year subscription to our newsletter and all regular CWF publications including special reports, plus an inviatation of special annual CWF Friends meeting.

Signature:

#### **Patrons**

(Friends that contribute between \$1,000 and \$3,499) receive: all benefits of the Associate level plus special briefing sessions with CWF Senior Fellows.

#### **Benefactors**

(Friends that contribute \$3,500 or more) receive: all benefits of the Patron level plus invitations to exclusive Benefactor events.

#### Friends Also Receive:

- 10% discount on CWF events
- 30% discount on CWF special reports
- CWF Annual Report
- Official tax deductible receipt

#### **Subscriptions**

Expiry Date: \_

Canada West Foundation is pleased to offer annual subscriptions for \$200. Students can subscribe for a reduced rate of \$35 (student identification is required). Seniors (65+) can subscribe for a reduced rate of \$50. Subscribers receive the CWF newsletter, all regular CWF publications, executive summaries of all special reports, and a 30% discount on special reports.

sign me up!	
I would like to become a Friend.	Name:
The amount of my contribution is:	Organization:
■ I would like to Subscribe □ regular \$200 □ student \$35 □ senior \$50	Address:
My cheque (payable to Canada West Foundation) is enclosed.	
Please charge my VISA. Account #:	Ph: Fax: