Chapter Twelve

Patterns of development: Where we live and work

The Capital Region is where the majority of Manitobans live and work. However, most residents probably do not see themselves as being part of a distinctive region. This lack of regional consciousness reflects, in part, the Region's geographic extent and diversity. The Region is comprised of a central city, suburbs, built-up rural centres, agricultural communities, and areas that are in transition from rural to more urban identities. There are still readily identifiable urban and rural, residential, and industrial/commercial zones, but these traditional planning labels do not fit the dynamic and mixed nature of developments as neatly as they did in the past. Complex interrelationships exist among the physical, economic, environmental, and social features of the Capital Region. Changes to housing, commercial, industrial, transportation, environmental, and other activities often reverberate from one location to other parts of the Region in unplanned and unpredictable ways. The weak regional awareness among citizens also reflects the fact that the Region arises from informal, non-statutory, political and administrative processes and does not have a visible institutional forum for the expression of regional concerns.

The Manitoba Capital Region's diversity poses serious challenges for planning and growth management. The location of people, housing, industry, commercial, and retail activity reflect historical, often uncoordinated decisions made by housing developers, shopping mall owners, company executives, governments at all three levels, and by thousands of Manitobans who make choices regularly about where they want to live and work.

The freedom to locate houses and companies where people choose is clearly a highly prized value that governments are rightly reluctant to restrict without good reasons. However, there are also potential problems and costs attached to low-density and non-contiguous development. Environmental damage, loss of agricultural land and green spaces, higher infrastructure costs, traffic congestion, and wider social divisions are among the potential problems of sprawl. These issues were prominent in both the RPAC's public hearings and private meetings. Governments have a responsibility to work together to promote opportunities, to preserve the quality of life, to deal with the impacts of sprawl, and to use scarce tax dollars efficiently and effectively.

In this chapter, the RPAC sets forth its interpretation of the sprawl issue within the Capital Region. It examines approaches used to deal with sprawl elsewhere and concludes that given the nature and extent of the sprawl phenomenon within the Manitoba Capital Region, the issues can be effectively addressed mainly through a more diligent and consistent application of an improved set of Provincial Land Use Policies (PLUPs). In reaching this conclusion, the chapter covers the following topics:

- The concept of sprawl
- Sprawl and growth in the Capital Region
- Patterns of commercial and industrial development
- Patterns of development and infrastructure costs
- Sprawl and inner city problems
- Summarizing the sprawl debate
- Provincial policy options

Based on the evidence presented at public hearings and further research and analysis, the RPAC has concluded that urban sprawl in the Manitoba Capital Region is different in nature and not as severe as that found in those rapid growth regions across North America. However, all governments in the Capital Region must continue to monitor and to deal with issues arising from non-contiguous development through the use of existing and new policy and regulatory tools.

Understanding the Concept of Urban Sprawl

"Urban sprawl" is the vague, controversial, and common phrase used to describe the dispersed patterns of development that have occurred within cities and spread into the surrounding countryside. For many commentators the term connotes badly managed urban and ex-urban growth. For others, sprawl is viewed as development: a natural and inevitable process reflecting the impact of economic, technological, and social changes, as well as the choices made by people living within a market-based society. In short, while there are factual, technical, and analytical components to debates over sprawl, the controversies also involve philosophical, cultural, and lifestyle differences.

In the course of its public meetings the RPAC heard many strong, conflicting opinions on the nature, extent, and seriousness of the sprawl problem within Manitoba's Capital Region. Given the emotion involved with the sprawl debate, it is often difficult to separate fact from fiction. In the interest of clarifying the issues surrounding sprawl and hopefully contributing to public understanding, this chapter presents the RPAC's interpretation of the general debate and its relevance to Manitoba's Capital Region.

Put simply, sprawl refers to a pattern of land use in and around an urban area that involves low levels of all or some combination of the following: density, continuity, compactness, or proximity. Each of these dimensions is definable and measurable to some degree. In combination, they capture a situation in which there is dispersed residential, commercial, and industrial development. This is the factual component of the sprawl debate. The disagreements arise over the causes, consequences, and appropriate policy responses to these conditions.

The three types of sprawl

To clarify the issue, it is helpful to start by identifying the three different types of urban sprawl.

1) Sprawl can take the form of outward expansion within a city; for example, the rapid expansion of housing and retail outlets in suburbs that may have impacts on the central city but does not necessarily have spillover effects on neighboring municipalities.

2) Sprawl can arise from land-use developments, often in central cities but also in surrounding municipalities, that have impacts beyond the boundaries of the municipality where the developments take place. The location of a large retail mall or a heavy industry just outside the boundaries of a central city within an urban region would be an example of this second type of sprawl.

3) Land-use developments or decisions in a particular jurisdiction that create impacts in adjacent jurisdictions constitute another form of sprawl. These impacts, in turn, have consequences throughout the urban region. For example, a city might encourage suburban growth, increasing its infrastructure costs, raising taxes, causing some people to relocate to neighboring municipalities, and putting pressures on local and provincial governments to invest more in infrastructure and services.

Causes and effects

Because it is not a straightforward task to identify where sprawl originates and where its ultimate impacts occur, governments within an urban region often end up pointing the finger of blame at one another. The loose way that the concept of sprawl is used means that causes and effects are often confused. In broad terms both “push” and “pull” factors can encourage expansion towards the outer edges of the city and beyond. Pull factors would be positive features of suburban and rural areas such as larger lots, safe streets and rural lifestyles. Push factors that could drive people and businesses away from the central city and into the surrounding areas could be high taxes, congestion and crime.

In each urban region the causes of sprawl can be somewhat different and within a particular region the relative importance of these factors can vary over time. The literature on sprawl identifies a number of conditions that may give rise to the phenomenon:

- technological change leading to increased mobility (automobiles and telecommunications)
- population growth
- increased affluence
- changing public tastes (a desire for rural lifestyle)
- competition among local governments for residential and commercial development
- pressures from developers and others
- land-use regulations and taxation policies that promote or allow certain types of development
- fragmented jurisdiction over planning and the presumed short-term parochial outlook of politicians

This list is not in order of importance or meant to be exhaustive of the potential underlying causes. The key point is that sprawl is a multi-dimensional phenomenon with many different causes and therefore there is no single policy response to these various types of sprawl.

Benefits and costs

In formulating an appropriate policy response to sprawl, it is necessary to distinguish what is "good" and "bad" about sprawl, recognizing that people disagree hotly over what are objectionable versus desirable outcomes. Presumably anti-sprawl policies would be intended to curb "excessive" extension of residential, commercial, and industrial activities to the peripheries of the city and beyond. The key word is "excessive." Although cities and regions must grow spatially to accommodate expanding populations and new business activities, decisions on where growth takes place, its timing, whether such growth is appropriate, and which level of government should have the final say on particular developments, are all potentially controversial matters.

In the worst case scenario, sprawl is said by critics to have a number of deleterious impacts:

- low density development, "leapfrog" development, land speculation
- the loss of agricultural land, open spaces and recreational opportunities
- environmental degradation (poor air quality, depleted water supply and quality, loss of natural habitat for wildlife, etc.)
- increased infrastructure costs
- the decline of the commercial centre and inner city neighborhoods
- political infighting among governments that prevents collaborative approaches to regional planning and harms the region in the competition for investment, jobs, and talented people

If all of these indictments of sprawl were true in all locations and under all circumstances, the case for the adoption of strong anti-sprawl policies would be unassailable.

However, like most complicated social and political issues, there is another side to the sprawl debate. Major cities throughout the industrial world have seen the movement of business and people to the suburbs and beyond. As Europe entered the Industrial Age and factories located in cities, residences were established outside the reach of their smokestacks. In the post-Industrial Age, this trend has become particularly pronounced in North America. In the era of the streetcar, upper and middle-income families began to opt for suburban living, as residences were accessible within walking distance of streetcar lines. Postwar affluence made houses and automobiles more affordable for more families, and the trend of suburbanization continued. More people wanted to live in bigger houses on larger lots in cleaner, less congested surroundings. They wanted employment and shopping opportunities close to their homes. Businesses and governments both reflected and promoted these trends by providing housing, shopping malls, industrial parks, schools, highways, and municipal services on an ever-widening basis around central cities. Where critics saw only negative consequences, proponents of growth (homebuilders, developers, chambers of commerce, land speculators, and others) saw business opportunities and choices for families. They also argued that many of the costs of sprawl were problems that would correct themselves over time through the normal market process. For example, residential, commercial, and industrial activity would eventually fill in the vacant spaces created by "leapfrog" development.

The RPAC's view is that economic growth is a necessary and good thing—provided that it is well-managed and sustainable. As suggested above, whether certain types of development represent sound economic growth or deleterious sprawl is partly in the eye of the beholder. Certainly, it is possible to identify examples in the Capital Region of all three types of sprawl. Whether sprawl is confined to the City of Winnipeg or extends to the surrounding municipalities extra costs of various kinds are involved. Therefore, the RPAC recognizes that all sixteen Capital Region municipal governments and the Government of Manitoba must be anticipatory, careful, and balanced in their planning and approval decisions to promote a long-term, cost-effective, and sustainable approach to development.

Sprawl and Growth in the Manitoba Capital Region

There are critics who argue that growth within Manitoba's Capital Region has been completely unplanned, haphazard, and too costly, particularly in terms of infrastructure investments. However, since 1981 development planning at the local level has taken place within the parameters of the Provincial Land Use Policies (PLUPs). As described in the previous chapter, plans are debated in public meetings at the municipal level before they are finalized. Both the original development plans prepared by the member municipalities and their five-year updates are subject to review and approval by the Government of Manitoba, which has the option of referring its concerns to the Municipal Board. In short, the image sometimes presented in the media of a totally uncontrolled sprawl process does not fit with the realities of the planning process within Manitoba's Capital Region.

The existence of a planning process does not in itself guarantee that the longer term economic, social, and environmental consequences of current decisions, and the cumulative impact of decisions made in different locations, will be fully understood and considered. The RPAC recognizes the difficulty of making such comprehensive informed future-oriented decisions. It is not the Committee's job to second-guess the past decisions of duly elected governments. However, through its public meetings and private hearings, serious questions were raised about the cost-effectiveness of particular decisions made at both the municipal and provincial levels. Actions in one municipality often have consequences in neighbouring municipalities and the calculation of the cumulative impacts of such decisions is always difficult. There are many reasons, therefore, why a more thorough and region-wide analysis and planning process would be valuable in terms of using scarce tax dollars more efficiently and protecting against unwanted consequences of development.

Ex-urban sprawl in the Capital Region

Sprawl is usually associated with regions experiencing fast growth. Growth within Manitoba's Capital Region has been slow relative to what has been taking place in most other city regions in Canada. Over the most recent five-year census period (1996-2002) the Capital Region population grew by 0.8 per cent (5,450 people) with 80 per cent of this population growth outside of Winnipeg. The rate of population growth in Capital Region municipalities had declined over the preceding census periods from 10.4 per cent in 1991 to 7.6 per cent in 1996 and to 5 per cent in

2001. Moreover, population trends within the surrounding municipalities varied significantly during the 1996-2001 census period: Headingley grew by 20 per cent, East St. Paul by 19 per cent, and West St. Paul by 10 per cent, compared with population declines in Ritchot (-7.6 per cent) and the City of Selkirk (-1.3 per cent). Winnipeg grew by only 0.2 per cent and its share of the total Capital Region population now stands at 87.1 per cent compared with 87.6 per cent in 1996, 88.3 per cent in 1991 and 89.2 per cent in 1986.

These numbers help to put the sprawl debate in context. The movement of people to the surrounding municipalities has been gradual over two decades and has slowed recently. Percentage increases and decreases for the surrounding municipalities appear high because of the relatively small population bases of those communities. During the last census period the net gain of population in the outside communities was 4,384 people compared with 1,067 in Winnipeg. These relatively small numbers reflect the slow growth of the Manitoba Capital Region. Leaders in government and the private sector recognize the need to attract more people to the province, to the Capital Region, and to Winnipeg.

Not surprisingly, small and gradual population shifts to the outside municipalities have been accompanied by the need for increased accommodation for families in those locations. In terms of new housing starts, Winnipeg's share accounted for approximately 66 per cent of the regional total during the ten-year period 1991-2001. (For details see Appendix Six). In other words, the fifteen Capital Region municipalities outside Winnipeg have been the location for approximately 34 per cent of the new housing starts during that ten-year period. In actual numbers an average of 484 houses were built annually in the outside municipalities compared with an annual average of 953 built within Winnipeg.

City of Winnipeg officials have expressed concern about the implications that this shift of population and housing activity will have on the City's residential property tax base. Since higher priced houses generate greater property tax revenues per residence than moderate or lower-priced houses, and the costs of providing municipal hard services are relatively fixed, a comparison of the number of new houses by assessed value may be useful.

Comparisons of housing values are complicated by the fact that assessments of properties in the City of Winnipeg are undertaken by the City of Winnipeg, while the Government of Manitoba assesses properties in the other Capital Region municipalities. The two assessment branches employ somewhat different assessment methodologies. When one compares the data provided by the assessors, it is apparent that new home construction in the City of Winnipeg is not proportionate to its share of the regional population. This tendency is more pronounced in the category of the most expensive houses, that is, the ones that would generate the greatest tax revenue proportionate to the cost of providing hard municipal services to the building site. Furthermore, the City of Winnipeg maintains that if both the City and the Province used the same assessment method the results would show an increase in the size of the gap between the City's population and its share of high-end housing. The RPAC is of the opinion that the differences are not so great to be of any significance to the policy recommendations that result from the numbers generated.

The RPAC notes that the assessment figures do indicate that Winnipeg's share of high-end housing development is less than its share of the Capital Region population.

Relying upon the assessment data provided, the RPAC found that from 1991-2001 new home construction in Winnipeg fluctuated from 47 per cent to 71 per cent, depending on the value of the homes. Comparing the fifteen other municipalities within the Capital Region to Winnipeg, the data shows that a number of communities have a higher percentage of housing starts relative to their population, and a couple have attracted very expensive homes.

As an illustrative example of the patterns, in the decade 1991-2001, 71 per cent of the new houses assessed at less than $100,000 were constructed within Winnipeg, which has 87 per cent of the regional population. The RM of Taché (with 1.2 per cent of the Region's population) had 10 per cent of the construction of new houses in that assessment range. Sixty-seven per cent of the new houses in the $150,000-$200,000 range were in Winnipeg. This is compared to the 5 per cent each of the new starts in that range that took place in Macdonald (0.7 per cent of the regional population) and St. Andrews (1.5 per cent of the regional population).

Looking at homes worth $200,000 and above, there appears to be some basis for the City's concern over its comparatively low share of high-end housing is has implications for the City's financial position., Winnipeg had 47 per cent compared of new houses assessed at between $200,000 and $249,000, while East St. Paul had 19 per cent, St. Andrews had 7 per cent, and St. Clements had 6 per cent (with each of these RMs have approximately 1 per cent of the regional population). Winnipeg had 52 per cent of the new houses in $250,000-$299,000 assessment range, compared to 26 per cent in East St. Paul and 5 per cent in Headingley. Finally, 57 per cent of new homes assessed at over $300,000 were constructed in Winnipeg, 32 per cent in East St. Paul, and 4 per cent in Headingley.

In summary, over the last ten years Winnipeg's share of housing starts in the Capital Region has declined and this trend has been more pronounced for high-end homes. Among the fifteen other Capital Region municipalities, the RMs of East St. Paul and Headingley have done particularly well in attracting more expensive homes.

For some commentators these gradual, but significant shifts in population and housing activity are evidence of wasteful sprawl. The problem is said to be even worse than in regions experiencing faster growth because in those situations rapid development will ensure the more immediate use of the expensive infrastructure. In contrast, when a region is experiencing slow growth, the population is simply spreading out and adding to the infrastructure and service costs. In such regions sprawl can also mean that agricultural land and open spaces are prematurely diverted to other uses. These risks are present in the Manitoba Capital Region. On the matter of density, the mean population density for the urbanized portion of Winnipeg declined from 1971-1996 by 16 per cent, the second highest decline among nine large Canadian cities. Only two cities showed increased densities during this period (Lennon and Leo).

There is a debate among specialists in the field over how density ought to be measured and analyzed, particularly in terms of how it changes, and over the policy significance of data on density. For such a debate to take place on an informed basis requires valid, reliable, and consistent data that is gathered on a continuing basis. This is one dimension of regional life that should be tracked in the Geographic Information System discussed later in this chapter.

Most of the development outside of Winnipeg has occurred in concentrated pockets. As noted earlier, several areas within the Capital Region have experienced a decrease in population growth, such as the Rural Municipality of Ritchot and the City of Selkirk. The areas that have experienced growth, have primarily experienced urban residential development in existing urban centres such as Lorette, Stonewall, Birds Hill, and Oakbank. Within the fifteen surrounding municipalities, approximately 40 per cent of the population resides in the City of Selkirk, towns such as Stonewall, and other built-up centres. In other words, even outside of Winnipeg, population is concentrated to a significant degree and development is relatively compact.

The reasons for ex-urban sprawl

There is no single explanation for the now decades long trend of movement of people and residential development to the communities adjacent to Winnipeg. Both "push" and "pull" factors are involved. The opinion survey conducted for the RPAC (and summarized in Chapter Three) showed that concerns about perceived high levels of property taxes, crime and safety, the desire to own larger homes on larger lots, rural lifestyles, and the relative ease of access to employment, shopping, health care, and other amenities in the City of Winnipeg are some of the main reasons why people chose to live in the surrounding municipalities.

It must also be noted that there are potential drawbacks to living outside of the Region's major centre. There are the both the financial costs and the time and difficulties involved with commuting, especially during the winter months. Both the number and the quality of services available from all levels of government are lower or not as readily available. There are often extra fees involved with accessing city services such as libraries and swimming pools. Sewer and water may have to be provided privately and there have been septic field failures and boil water orders. Living in an area undergoing transition from a rural, agricultural character to a more urban-like character may involve living with dust, odors, flooding, and other disruptions. Living in the country also means less immediate access to shopping and entertainment centres. In summary, the argument that people migrate to the adjacent municipalities to escape high city taxes, congestion, crime, and other social problems is too simple.

In summary, when fast growth is involved the costs of sprawl are usually more immediate and visible. In the case of both urban and ex-urban sprawl within the Manitoba Capital Region, the impacts may be less obvious. The relatively slow pace of change here should enable better planning and growth management. A province and a region that is less economically dynamic and financially strong than other parts of the country must be smarter in its planning and regulatory activities to maximize its opportunities and to minimize its risks.

Patterns of Commercial/Industrial Development

Most of the debate over ex-urban sprawl and the problems within Winnipeg has focused on population and housing shifts. There has been less concern with the changing patterns of commercial and industrial development within the Region. In part this is due to the relative lack of data on movements in business locations compared with population movements. Data from the *Financial Post 500 Companies* annual survey reveals that nationally suburbs have been posting faster growth of head offices than central business districts over the past decade. The availability of cheap land and less restrictive zoning requirements encourage this trend. But the explanation is not purely economic. Businesses and individuals have been seeking a higher quality of life by distancing themselves from the problems that are perceived to beset the downtown core. With a critical mass of people moving to the suburbs, it is natural that many retailers—especially the big box stores—should follow.

The vast majority of commercial and industrial activity within the Capital Region still takes place in Winnipeg. There have, however, been recent high profile cases of businesses locating or relocating just outside the city limits: Kleysen Transport moved to the Rural Municipality of Macdonald, the Husky Energy Emulsion plant went into the Rural Municipality of Springfield, and a large agri-business set up operations in Oakbluff. Low property and business taxes, the availability of large tracts of inexpensive land, the presence in some cases of rail service, and more accommodating development rules are among the factors contributing to such decisions. The economic connections between Winnipeg and the surrounding municipalities also flow in the opposite direction. Development of shopping malls on the City's outskirts draws retail business away from local communities. For example, the Town of Stonewall is said to have lost ten stores over the past two years because local residents had switched to shopping in Winnipeg (Redekop, 2002).

The above discussion illustrates the point made more fully in Chapter Seven, namely that Winnipeg and the surrounding municipalities operate as an interdependent economic market. Even though the evidence is mainly anecdotal, it is clear that the various communities that comprise the Capital Region compete to some extent for investment, jobs, people, and tax revenues. It is difficult to determine the nature, frequency, and intensity of such competition. However, it is probably safe to assume that there is less intermunicipal competition within the Manitoba Capital Region than in faster growth regions in Canada and in the United States.

Patterns of Development and Infrastructure Costs

A worrisome aspect of the existing patterns of residential and commercial industrial development is the potential infrastructure and service costs for economically disadvantaged areas of the Region. Several times during the RPAC's hearings, presenters challenged the Committee to produce an objective and comprehensive analysis of who pays and who benefits from government and other expenditures on infrastructure features (such as roads, bridges, water and sewage systems) and community institutions (such as parks, river facilities, museums, art galleries and entertainment complexes). The RPAC recognizes that such a study might promote greater transparency and accountability in spending. It could help to counter perennial complaints that the City of Winnipeg is always favored by the senior levels of government or that the outside municipalities are "free riders" with access to city facilities without having to pay for them. Such complaints reflect a lack of understanding that both the costs and benefits of infrastructure and community assets are widely shared, both within the Region and beyond.

However, as Chapter Nine demonstrates there are numerous complicated financial transfers from the Government of Manitoba to the sixteen Capital Region municipalities. Clarifying who "pays" and who "benefits" might be possible up to a point, but there will always be limits to any analysis of regional public finances. Therefore, there will always be room for controversy. In the RPAC's opinion governments and citizens need to drop the balance-sheet approach of seeking to identify winners and losers and adopt a broader, longer term approach toward improving the overall economic, social, and environmental well-being of the Region.

Several Canadian and American studies have found that residential development, particularly in low-density areas, usually does not pay enough in property taxes to cover the costs of services required over the life-cycle of the infrastructure. In Manitoba, developers are usually responsible for the costs of initially installing "hard" services, such as water, sewer and storm sewer lines, streets, sidewalks, trees, and lights for new developments. For example, in recent housing developments in East St. Paul the developers have all installed separate sewage treatment plants with the cost being passed on to the homeowner. However, soon after the hard services have been installed, municipalities inherit the maintenance of the infrastructure for the remainder of its lifecycle, and are responsible for its replacement. Often, ever-increasing maintenance and replacement costs are not factored into the costs borne by the developers. Rather, the costs are borne by the municipality, which also has to cover the costs of the maintenance and replacement of existing infrastructure in other parts of the municipality. Because developers pass their long-term costs along to their customers, buyers into a new community essentially pay the costs of the new infrastructure. Costs borne by the municipality are borne by their "customers," namely the property-tax payers.

Hard services are not the only costs of a community. "Soft services," such as street sweeping, sidewalk and street snow clearing, garbage collection, fire protection, police service, ambulance service, public transit, and boulevard and park maintenance, are usually paid for by the municipality rather than the developer. Incremental expansion of communities may also necessitate the extension of transit services, construction of a new fire hall, new water or waste treatment plants, or pumping stations, all at costs of millions of dollars. Of course residents of new developments expect to pay for those neighbourhood services in their municipal taxes. However, it is important to bear in mind, that like the hard services, soft services must also be paid for in existing neighbourhoods. Since the municipality bears all of the costs for both new and existing neighbourhoods, these costs are eventually passed along to the municipality's principal revenue source, the property tax payer.

For these reasons, it is encouraging that Plan Winnipeg and other Capital Region development plans are committed to in-fill development and maximizing the use of *existing* infrastructure before new services are installed. Although the short-term balance sheet may show a zero-sum for the development of a new community because the streets and sidewalks are paid for by the developer, over the lifecycle of hard and soft services, in a municipality that relies on property taxes as its main source of income, the development of rural or greenfield areas will mean higher taxes for property owners. Further study of these points, illustrated by examples from the Capital Region, would be of benefit to many of its residents and to those councillors who must make decisions based upon the best knowledge available.

Sprawl and Inner City Problems

It is frequently asserted that sprawl and inner-city decline are mutually reinforcing. In simplified terms, the argument is that suburban expansion and the growth of the surrounding communities have encouraged people and businesses to move to those locations, thereby weakening both the social life of the inner-city neighborhoods and the economic strength of downtown Winnipeg. Increased costs of infrastructure and service provision to a slow-growing, more dispersed population is said to cause property and business taxes to rise, making Winnipeg less competitive with other urban centres. Low-income households and disadvantaged minority groups end up being disproportionately concentrated in the inner city and the incidence of social problems—such as poverty, poor housing and crime—is higher in those parts of the city.

Proving the validity of these charges is difficult. If there is a cause-effect relationship, the causal connections between sprawl and decline are less straightforward, direct or immediate than is usually suggested in public debates. The fact that both sprawl and inner-city decline are complex, multi-dimensional processes makes measurement, analysis, and attribution difficult. In the interest of greater public understanding, it is useful to identify some of the complications involved regarding the relationship between sprawl and inner-city decline.

The consequences of sprawl within the City of Winnipeg can be different in their nature, extent, location, and timing from sprawl taking place outside of its boundaries. Therefore, to draw a valid connection between problems in downtown Winnipeg and sprawl requires the specification of what constitutes sprawl coupled with a careful analysis of its impacts and where those impacts occur. When approached in this more systematic manner, proving the links between sprawl and inner city decline has proven to be difficult.

Professor Anthony Downs, a Nobel Prize winning economist and the leading U.S. expert on urban sprawl undertook just such an analytical effort. Downs identified four measures of sprawl and used city population change from 1980-1990 to measure decline (Downs, 2000). After testing over 200 independent variables, Downs found that it was difficult to offer statistical proof of the direct relationship between sprawl and inner-city decline. Based on further analysis, however, he concluded that "Smart Growth" strategies that directly address the concentration of poor, minority-group households in the core areas of cities are required to ameliorate the urgent issues of inner city decline. Among these strategies Downs suggests:

a) the redevelopment of inner city core areas to improve the quality of life for the people who live there and to attract middle and upper income households

b) the opening up of existing suburban communities to include lower-cost housing

Caution must be exercised in generalizing from Down's findings, which pertain to cities in the U.S. where the economic and social circumstances are quite different from the Winnipeg region. The RPAC is not in a position to state unequivocally that development taking place in the Capital Region outside of Winnipeg has had no connection to the problems facing the downtown and inner-city neighbourhoods of Winnipeg. However, the number of and importance of the government and private-sector development and location decisions made within the City of Winnipeg greatly exceed similar decisions involving the surrounding communities. In other words, over the past several decades, the thousands of decisions made by Winnipeg City Council, private investors, and citizens acting as residents, employees, and consumers have done more to shape the patterns of residential and commercial development in Winnipeg than the average 484 homes built annually in the outside communities or the seemingly small number of businesses choosing to set up operations just outside of Winnipeg.

Even if one cannot fully explain the recent development patterns it is time to move beyond the "city-versus-country" debate, which often becomes polarized into negative stereotypes and misunderstandings. Not everyone living in the adjacent municipalities has fled Winnipeg to escape taxes, crime, and congestion; many have returned to their home communities after a time away or have opted for a more rural lifestyle. The City of Winnipeg is no longer the "high cost/high tax" jurisdiction it once was. It has lowered its property taxes and become one of the most efficient cities in the country in terms of the per capita cost of provision of services. The City of Winnipeg is also addressing issues of downtown decline and inner-city crime, and seems to be poised on the brink of a significant improvement in the economic and social health of its downtown. In the past, City Council has been criticized for favouring suburban residential expansion and large shopping mall complexes over downtown revitalization. Its official planning document, *Plan Winnipeg 2020 Vision*, strongly endorses a compact urban form as the best way to use scarce capital dollars and to control ongoing service costs.

The RPAC acknowledges the progress that is being made on downtown renewal in Winnipeg. It has become a recognized leader among Canadian cities in the development and implementation of successful tripartite agreements involving significant federal, provincial, and municipal investment in urban revitalization. Two tripartite agreements have focused specifically on core area renewal. The first Core Area Initiative (CAI) was in place from 1981-1986 and was then renewed for an additional six years to 1992. The Winnipeg Development Agreement followed in 1995, expiring in 2001. These initiatives provided a much-needed source of revenue and administrative co-ordination that maintained and strengthened human and material resources in Winnipeg's core area. On January 26, 2003, the Governments of Canada, Manitoba, and Winnipeg signed a Memorandum of Understanding to negotiate a renewed Urban Development Agreement for the City of Winnipeg. The Core Area Initiative agreements and other initiatives have not solved all the problems of the inner city, but it is difficult to imagine what conditions would be like if such investments had not been made.

In 2000, the Governments of Canada, Manitoba, and the City of Winnipeg established the Winnipeg Housing and Homelessness Initiative (WHHI), a tripartite agreement to address declining housing stock, homelessness, and the revitalization of Winnipeg's older neighbourhoods.

The Government of Manitoba's Neighbourhoods Alive! Initiative was launched in 2000 to encourage community-driven revitalization in designated older urban neighbourhoods in Winnipeg, Brandon, and Thompson. In Winnipeg, five high-needs Major Improvement Areas have been targeted: Lord Selkirk, Point Douglas, Spence, West Broadway, and William Whyte. Local Neighbourhood Renewal Corporations have been established in the North End, West Broadway and Spence neighbourhoods to initiate community development strategies that involve the leadership of local residents. These Neighbourhood Renewal Corporations are coordinating community efforts in the areas of housing and physical improvement, employment and training, education and recreation, safety, and crime prevention.

Complementing this program is a $14-million agreement funded equally between the Province and the City of Winnipeg over five years and administered by the City of Winnipeg entitled *Building Communities*. Six areas of the City that border on the high-needs neighbourhoods have been targeted including Luxton/Seven Oaks/ St. John's Park, Burrows Central, North and Central St. Boniface including Tissot and Dufresne, Sargent Park/Minto, Wolseley, and St. George/Worthington. Capital funds are available to assist these communities to address their physical improvement needs. Improvements can include the renovation and/or expansion of public community facilities; construction, replacement, renovation and/or removal of the municipal infrastructure; land acquisition for housing, community facilities and urban safety initiatives.

The City of Winnipeg has also created CentreVenture, a quasi-municipal body with a mandate to attract business and housing to downtown Winnipeg through the administration of Heritage and Downtown Tax Credit Programs, establishment of an Urban Bank, and a downtown Residential Demonstration Project. The Province and the City of Winnipeg are working together to restore Winnipeg's downtown as a centre for commercial, retail, entertainment, and residential activity. Projects include the downtown Red River College expansion, the Provencher Bridge and Pedestrian Bridge projects, Waterfront Drive, the Arts Consortium mixed-use development in the Exchange District, the True North Entertainment Centre, and initiatives at The Forks. As part of downtown revitalization, the public sector has relocated offices and services to the downtown, such as the provincial Department of Health, Employment and Income Assistance of the Family Services Department, and planned Manitoba Hydro office relocation.

In order to address decline in inner-city neighbourhoods, the RPAC supports, as a general approach the following actions:

1. the redevelopment of inner core neighbourhoods to improve the quality of life and housing for low-income families
2. incentives for the development of sustainable housing in downtown neighbourhoods to attract middle and upper income households
3. in-fill housing in existing suburban neighbourhoods after careful assessment of available open space requirements is made
4. a mix of sustainable housing development in suburban areas contiguous to existing

neighbourhoods within the City of Winnipeg affordable to both low and middle income households

Summarizing the sprawl debate

As the foregoing discussion of patterns of development makes clear, the issue of sprawl is complicated and controversial. To briefly summarize the RPAC's major findings on the issue:

- The Manitoba Capital Region resembles other city regions in its dispersed population patterns.
- With 64 per cent of the provincial GDP produced in Winnipeg, Manitoba has the highest concentration of economic activity in one city of any province.
- The Manitoba Capital Region has been a slow growth region for several decades, but there has still been lively debate over sprawl and its consequences. The sprawl debate involves philosophical disagreements over freedom of choice and reliance upon markets versus the need to manage development and to protect the public interest.
- To this point most of the debate over sprawl within Manitoba's Capital Region has focused on shifts in population and housing rather than the movement of commercial and industrial activity.
- The causal links between different types of sprawl and their impacts are difficult to demonstrate conclusively.
- Private and government decisions in favour of suburban expansion within the City of Winnipeg probably contributed more to the challenges facing downtown Winnipeg than developments taking place in the surrounding communities.
- The challenges facing downtown Winnipeg are multi-dimensional and accordingly require more than one policy responses (such as curbing sprawl). All three governments have recognized this with a range of policy initiatives.
- There is a clear need for better indicators of regional growth dynamics and better analysis of how different parts of the Region relate to one another in social, economic and environmental terms.

In conclusion, the consequences of sprawl, especially in the medium to long-range future are sufficiently serious that the Government of Manitoba should play an active, clear, consistent and committed role in addressing the issues involved.

Provincial Policy Leadership on Sprawl Related Issues: The Options

Ideally, the provincial role will be based upon collaboration with municipal governments, but ultimately the Government of Manitoba is the only institution that has a legal and political mandate to address regional problems. Respect for local democracy and the jurisdiction of the municipalities, or the fear of resistance and a backlash to alleged provincial intrusions, should not be excuses for inaction when issues with regional implications cannot be resolved by individual municipalities or groups of municipalities acting cooperatively. The broad issue of sprawl is an example of where policy leadership, support to municipalities and direct action by the provincial government are required.

The previous chapter reviewed the current planning process and the policies by which the process is guided. Chapter Fourteen outlines the RPAC's recommendations for improvements to the process and the PLUPs. The rest of this chapter is devoted to a consideration of other policy measures that might be used in addition to the current policy tools. These include:

- Smart Growth
- Urban Growth Boundaries
- Financial mechanisms
- Cost of Community Services Studies
- Geographic Information Systems

The Smart Growth Option

Smart Growth (SG) has become very fashionable recently and in the process has lost much of whatever precision of meaning it once had. The positive and ambiguous nature of the term means that groups with divergent perspectives on growth management can all endorse the concept while simultaneously disagreeing over what it means in practice.

Fundamentally, the Smart Growth concept is not all that new. Reflecting many of the traditional principles of sound planning, it emphasizes inter-jurisdictional cooperation and coordination. It captures the rising concern about the environmental sustainability of growth and development. It recognizes the problems of financial sustainability caused by continuous outward expansion of cities. Finally, it entails a strong emphasis on enhancing the quality of life of communities.

There is no universally accepted definition of Smart Growth. It has been defined simply as "a better way to grow." The Ontario Professional Planners Institute in a recent position paper argued that Smart Growth principles are based "on good planning—the orderly development of socially economically and environmentally sustainable communities and the efficient and effective use of public investments." (Ontario Professional Planners Institute) Another, frequently quoted definition comes from the Urban Land Institute in the United States: "Smart Growth is growth that is economically sound, environmentally friendly and supportive of community livability—growth than enhances our quality of life." Given all these positive qualities it is not surprising that Smart Growth has become the fastest selling elixir for all that ails urban regions.

The Smart Growth movement began its life in the United States during the mid-1990s, when, as American cities continued to sprawl, the negative consequences became more obvious. Business people, commuters, and local governments now joined environmentalists, who had long deplored this trend, in demanding a new approach to growth management. State officials, searching for a way that would allow for necessary growth in ways that were less wasteful of resources and less likely to cause political conflict, came up with the concept of Smart Growth. The concept took off, with most major cities, states, and even the federal government jumping on the Smart Growth bandwagon. Perhaps this is not surprising because the United States has the most spatially dispersed urban regions in the world and the economic and social consequences of sprawl are more visible and serious there than in Canada.

In Canada, the Ontario Government embarked in the spring of 2002 on the development of a Smart Growth vision and action plan. As Canada's most urbanized province and with the problems facing the Greater Toronto Area, it is not surprising that Ontario leads the Smart Growth parade in Canada. The Government of Ontario proposed establishing Smart Growth Management Councils (SGMCs) to develop integrated Smart Growth Management Plans for five areas across the province. SGMCs would consist of 15-30 representatives from the province, municipalities, private sector and NGOs. Among the functions assigned to SGMCs would be:

- to advise the province and municipalities on SG issues
- to develop integrated SG Management Plans for the five zones
- to identify improvements to the planning, delivery and integration of zone-wide services
- to provide a forum to coordinate municipal official plans and infrastructure plans

Smart Growth management plans to be developed by the councils were to include a long-term vision for economic growth, strategies to improve quality of life by integrating services, area-wide integrated transportation services, and strategies to increase housing choices.

Reactions to Ontario's Smart Growth proposals were mixed. Smart Growth principles were usually endorsed (who could be against such a noble concept), but the practical features of the Ontario plan were rejected. Municipalities, fearing the loss of jurisdiction to another tier of government, were critical of the fact that members of the SGMCs would be appointed by the provincial government rather than elected and called for appointments from their members. The Ontario Professional Planners Institute endorsed an integrated approach to managing growth, but worried that the proposed councils would represent another level of planning which lacked authority, would be time consuming, and would not encourage public consultation and accountability. Despite these and other objections the first of five SGMCs (for the Niagara Region) was announced by the Ontario Government in February 2002.

Unfortunately, applying the positive but vague ideas that comprise Smart Growth is not much different or any easier than past attempts at comprehensive growth management. The RPAC recommends that the provincial government continue to monitor the development of Smart Growth initiatives elsewhere. The true test of such initiatives will be the willingness of governments and communities to forge a real consensus on specific objectives, to develop practical steps towards success, and to develop meaningful indicators to measure progress. If attaching the label "Smart Growth" to such activities helps to widen the coalition of groups in support of the broad approach then let us do so. However, one should not mistake the slogan and the marketing surrounding Smart Growth as a substitute for the hard work of integrating local planning with regional concerns, coordinating programs among and within governments, ensuring that wise investments in infrastructure are made, and considering fully the long-term environmental and social impacts of today's decisions.

The Concept of an Urban Growth Boundary

One of the most popular tools of the Smart Growth and comprehensive land-use planning movement is the concept of an urban growth boundary (UGB). UGBs are drawn for specific urban areas and are meant to accommodate projected growth for a given period of time, frequently for 20 years. There are three elements of this approach. The first is a clear designation of residential, commercial, and industrial land for development within the UGBs. Outside of the UGBs, land is primarily reserved for agriculture, recreation, and special areas with no zoning permitted for urban development. Second, within the UGB there are specific plans for water, sewer, roads, and other essential facilities. Third, there is a fast-track approval process for development proposals. The adoption of a UGB for a particular metropolitan area can be a voluntary decision by local governments (e.g., in Lancaster County, Pennsylvania, 22 townships adopted UGBs) or it can be mandated by state law (the most prominent example is the 1973 state law in Oregon which required each locality to adopt a UGB).

According to David Rusk, a leading writer on urban policy and a former mayor of Albuquerque, there are eight reasons why UGBs became popular:

1. pro-farming: outside of the UGB farmers can buy land at agricultural prices, not potential subdivision prices
2. pro-industry: within the UGBs there is a relatively controversy-free, fast-track processing of development proposals
3. pro-redevelopment: by containing growth there is an incentive for in-fill housing and for downtown development
4. pro-taxpayer: high density saves taxpayer dollars on infrastructure;
5. pro-environment: protection for farmland and natural areas
6. pro-energy: reduces automobile dependence and fuel consumption
7. pro-property rights: limits land speculation and overbuilding thus protecting existing residential and commercial property values
8. pro-homeowner: smaller lot sizes reduces housing prices through lower land costs and development fees

While these are the presumed advantages of UGBs, there is controversy over whether existing schemes achieve them and whether other, negative impacts occur.

The controversy is highlighted by the case of Portland, Oregon, the location which Smart Growth reformers most often cite as illustrating the advantages of UGBs. Facing fast growth pressures during the 1960s and 1970s, the Oregon State legislature passed *The Oregon Land Use Act*, which has led to the development of a statewide land-use planning program. When examining the role of the UGBs that surround Oregon's 240 cities and 36 counties, it is important to recognize the contribution of the other elements of the state's land-use planning process. Therefore, before examining the experience with the UGB in Portland, it is necessary to discuss briefly the institutional context within which that development tool has been used.

Oregon does not have a state land-use plan per se. The state requires cities and counties to adopt comprehensive plans and land-use regulations (including zoning). Standards and requirements for local planning are set through statutes, statewide planning goals, and administrative rules. The state government periodically reviews local comprehensive plans and amendments to those plans. Reviews are conducted by a Land Conservation and Development Commission (LCDC), which consists of seven citizen members appointed by the Governor and confirmed by the Senate (the upper house of the Oregon legislature). Advice and administrative support to the LCDC is provided by a relatively small (64 staff and a budget of $64 million in 1999-2000) state agency called the Department of Land Conservation and Development (DLCD). These features of the Oregon model are very similar to the Manitoba approach. Here provincial statutes provide the legal framework for local planning activities and the Provincial Land Use Policies provide guidelines and/or criteria against which development plan by-laws are reviewed and approved by the Province. The difference in the Manitoba model is that elected politicians rather than appointed members of a commission make the final decisions on development plan by-laws. The Manitoba approach is consistent with our system of cabinet-parliamentary government in which responsible ministers ultimately answer to voters for the actions and inactions of governments.

The Oregon system also includes the Land Use Board of Appeals (LUBA), an independent special "court" to rule on matters involving land use and planning. LUBA consists of three members appointed by the Governor and confirmed by the Senate. LUBA rules on appeals of land-use decisions made by local governments and state agencies. Its decisions can, in turn, be appealed to the state courts. In Manitoba, the provincially appointed Municipal Board plays a comparable role, hearing appeals on assessment issues (more than 90 per cent of its caseload) and on planning issues. On development plan by-laws, the Board makes recommendations to the minister, rather than issuing binding legal orders. On zoning by-laws and subdivision appeals, the Board's decision is final. Again, the key difference from the Oregon model is that the elected minister has the final say on development plan by-laws.

A third feature of the Oregon model is the set of nineteen statewide planning goals adopted by the LCDC in the mid-1970s. The planning goals provide the framework for a statewide program of land-use planning. There are state policies on urban and rural land uses, urban growth, resource management, economic development, coastal protection, natural hazards, and citizen involvement. Land-use plans must be consistent with these goals as determined by the LCDC. Again, the equivalent features of the Manitoba model are the Provincial Land Use Policies (PLUPs). These policies are a regulation and are therefore legally binding. While somewhat different in content, the Manitoba and Oregon rules are similar in the multiple, vague goals that they declare, with the Oregon rules being somewhat more specific and mandatory in character. More significant has been the fact that, when compared with Manitoba, the Oregon government has shown a greater commitment to interpreting and applying the rules in a consistent fashion.

The fourth and most famous feature of Oregon's land-use planning program has been the requirement that each of its 240 cities adopt a UGB. Significantly, state funds were made available for land acquisition and region-shaping infrastructure and operating funds were provided to local governments to improve their planning capabilities. Similarly, the Government of Manitoba provides funds and planning services to municipalities and planning districts.

Because it has attracted so much attention, Portland's experience with a UGB will be discussed here. Portland adopted its UGB in 1979. It was intended to accommodate 20 years of anticipated growth. The boundary was revised for another 20 years in 1999. Again, certain distinctive features of the Portland situation have to be recognized in any assessment of the success of its efforts at growth management. The governance structure for metropolitan Portland area includes a directly elected regional council and executive to handle a moderate range of regional responsibilities. First created in 1979, the regional council of seven members serves 24 cities and three counties in the Portland region. In 1992 it was granted a home-rule charter by the state. The primary function of the council has become long-range land-use and transportation planning. A state law gives the Metro Council authority to compel the region's cities and counties to change their plans if they conflict with issues of "regional significance." For example, Metro dropped plans for a suburban beltway because it would promote sprawl and it was responsible for selecting the site for the region's $65-million convention centre. However, Metro is not all powerful. It does not provide water, sewer, police, airport, parks, or many other services for the region.

In December 1995, Metro adopted a regional land-use policy document called the *Region 2040 Growth Concept*. It was intended to:

- encourage compact development near transit
- preserve existing neighborhoods
- identify rural reserves that would not be added to the UGB
- set goals for permanent open space within the UGB
- recognize the need for cooperation among local governments

The UGB separates urban from rural lands and establishes urban reserves outside of the UGB designated for future urbanization as the need arises. Rural reserves are a combination of public and private lands designated never to be urbanized. In summary, there are a number of features in the Portland model which go beyond simply drawing a boundary line around urban growth.

Widely heralded as a model for urban growth management, the Portland experiment has still been controversial. The UGB has increased density within the Portland area. Prior to the imposition of the UGB in 1979, new population was added at the density of 2,448 per square mile. In the decade after the imposition of the boundary, population was added at the density of 3,744 per square mile, a 53 per cent increase. But under tremendous pressures of population growth, the urbanized area of Portland still extended across an additional 39 square miles. An on-line article at the Sprawl City site in 2000 noted that breaks through the sprawl barrier were becoming more common and resistance to higher densities and in-fill development was increasing (Sprawl City web site). More Portland residents were complaining about the rising traffic congestion and surging housing prices that were the result of trying to contain sprawl while experiencing rapid population growth. Some writers, such as David Rusk, credit the UGB with revitalizing downtown Portland. The share of regional employment in the central city area has held steady and there are four major department stores downtown. With the region's emphasis on compact development and alternatives to the automobile, over 40 per cent of the people enter the downtown by light rail, bus, bicycle, or on foot. (David Rusk's extensive writings on city planning can be viewed at his web site.)

What is the relevance of the Portland experience to the Manitoba Capital Region? Unlike Portland, there is no rapid growth in and around Winnipeg. And unlike Oregon, there are no fragile coastal areas involved, so there is less public and political concern to protect the environment. The greater acceptability of regional planning in Oregon led to the creation of a metropolitan council, something that Manitoba discarded in 1972 when the thirteen Greater Winnipeg municipalities were amalgamated into Unicity. The current Government of Manitoba has rejected another tier of government for the Capital Region and no one who spoke to the RPAC favoured the idea. Like other cities in Oregon, Portland was bound by state statutes and strong state oversight bodies responsible for enforcing tough state planning standards. In addition to sanctions, the state also used incentives such as money for land acquisition for appropriate infrastructure projects and to assist local governments to develop their planning capabilities. State leadership was an important requirement for planning success in Oregon. There has not been the same clarity, consistency, and commitment to regional planning in Manitoba.

There have been positive results from UGBs in Oregon, including for the Portland region, but this success is due in part to the presence of other features of the statewide planning system. Drawing UGBs around Winnipeg and other urban centres in the Manitoba Capital Region would be difficult and controversial because there is not the same set of problems faced by governments within the Portland region.

Financial Mechanisms to Curb Sprawl

An alternative to drawing a line to contain sprawl would be to discourage it by changes to the way that government services are financed. Many people would have fewer concerns about land developments of various kinds if revenues from new development fully covered the costs of providing services, particularly roads, water services, sewers, solid waste disposals, and schools in perpetuity. Currently, this is rarely the case.

The recognition of the fact that different land uses have different financial impacts should stimulate study on the costs of various kinds of development. Such information would promote better-informed and longer-term local decision-making. What proportion of municipal revenues are attributable to major categories of land use: residential, commercial, industrial, and farm/open land? What is the net fiscal contribution—i.e. the revenues compared to the expenditures—of different land uses to local budgets? If a particular development proceeds, will taxes have to be raised? If the costs exceed the revenues, how should the "deficit" be made up? These are the types of questions that studies would be intended to answer.

In the United States, Cost of Community Services Studies (COCS) have become increasingly popular in the more agricultural states. The American Farmland Trust promotes COCS studies as "an inexpensive, easy-to-understand way to determine the net fiscal contribution of different land uses to local budgets." This is done by first determining how much land is devoted to a particular use (residential, commercial or agriculture). Secondly, the costs of providing public services are determined and allocated to each of these particular land uses based on their prevalence in the community. The third step is to compare the costs of services with the revenues generated that are a *direct* result of land development. For example, property taxes are a direct result, but a provincial grant for highway improvements or "user fees" intended to have users "pay their way" are not considered revenues from development.

In 1998 the American Farmland Trust (AFT) reviewed the results of 40 COCS studies in eleven states. Twelve of these studies (30 per cent) were performed by the AFT and eleven (27.5 per cent) were conducted by the forest industry, which makes the findings suspect in the eyes of critics who see COCS studies as an unreliable basis for evaluating the cost effectiveness of different types of land development. Nevertheless, according to these studies, for every federal dollar raised in revenue, farmland requires government expenditures of just 31 cents. Commercial and industrial property is even more cost-effective: 29 cents was spent on public services. In comparison, low and middle-income housing is a losing proposition for local governments in the sense that they derive less revenue from property taxes and service fees than it costs them to provide services. This "deficit" is often covered by capital grants for infrastructure projects provided by the provincial government and sometimes by the federal government.

The further argument is that markets for land and various kinds of development do not operate in a neutral, unbiased way because of the hidden subsidies in the form of public expenditures on roads, water, utilities, and tax breaks of various kinds. It is also argued that many public services are priced at their average costs, not the actual cost of providing services to a particular site or development. For example, a local government might determine that the initial capital cost of providing sewer services is $4,000 per unit, regardless of the type of building. In some cases, the actual costs of a connection will exceed this cost, but the developer will not be charged actual cost. Instead, general revenues from the local government or provincial subsidies will make up the difference. In other cases, the first developer will pay the full costs through development fees and later arrivals to a location will pay the average costs, even if the marginal costs are low. The overall impact of such pricing decisions is that areas of high population density (where service costs are lower) end up subsidizing every dollar raised in revenues. Residential property was a net drain on local governments, costing a $1.11 for every dollar in revenues raised.

As already suggested COCS studies are controversial. A number of problems or limits of such studies have been identified. First, such studies present a relatively simple calculation of the flow of funds to and from specific land uses and ignore the potential wider impacts on the local community. For example, residential development may not initially pay for itself, but it may attract businesses to the community and thereby increase future revenues. New residents spend money locally causing an economic multiplier effect within the community. Secondly, COCS studies ignore non-land revenue sources such as grants from other levels of government, user fees, or private sources. Thirdly, COCS studies treat land uses as separate and ignore the interactions among various uses. Consideration of such interdependencies is necessary to make informed choices on economic growth and sustainable development. COCS studies presume that the current range and delivery method for services will continue into the future. Contracting out or user fees might bring costs closer in line with revenues. Finally, it is noted that COCS studies do not include the non-economic costs of some types of developments, such as the loss of scenic landscapes, increased traffic congestion and other factors associated with quality of life.

Whatever their limits, COCS studies have provided farmland preservation groups and Smart Growth advocates with powerful arguments. More importantly, they highlight the fact that efforts to promote growth can have substantial impacts on revenues and expenditures of local governments. When considering growth, communities and leaders should attempt to estimate those impacts.

A planning tool that is closely related to COCS studies is a fiscal impact analysis (FIA). FIAs differ from COCS studies in trying to capture in advance the multiplier effects of a particular proposed development within the local and even the regional economy. In other words, FIAs go around the relationship between a housing development, for example, and local government finances to look at the wider economic implications.

In the United States, there are two situations in which a FIA is typically prepared. The first, and most common, is for an individual development project. The developer prepares most such analyses. A second situation would be an attempt to forecast the anticipated, cumulative impacts of all developments over time. Only a few states require a fiscal impact analysis as part of their zoning or planning process. Vermont is unusual, therefore, in assigning fiscal or economic impact analysis a formal status in their statewide process for evaluating proposed development. Land-use decisions that have a significant impact beyond the boundaries of the local jurisdiction (such as decisions on large developments and certain developments near municipal boundaries) are subject to review by a regional commission. This review may consider (among other factors) the economic and fiscal impacts of the proposed development on adjacent communities. If the impacts are found to be negative, they can serve as one of the bases for rejection.

As with COCS studies, there are both conceptual and analytical issues involved with the preparation of FIAs. Most of the problems are related to the tendency of FIAs to take too narrow a focus in one way or another. FIAs done by a local government may not look at the financial implications of its decisions for other local jurisdictions or for other levels of government. Most FIAs consider projects one at a time and do not consider the cumulative impacts of a series of developments. This can be a serious problem when a region is undergoing rapid growth and a snapshot picture at one point in time may underestimate the longer-term cost implications. FIAs can also involve unduly rosy revenue projections, especially if heavy reliance is placed on the forecasts from developers. Finally, developments have impacts that go beyond municipal balance sheets. Environmental, social, and even visual impacts of development are also important.

The State of Wisconsin Community Guide to Development Impact Analysis recommends that the fiscal, environmental, socio-economic, and transportation impacts be considered by elected leaders, planners and citizens in making decisions on development proposals (Edwards, 2000). This approach presumes the existence of comprehensive land-use plans that would provide the necessary context in terms of the values and aspirations of the community for assessing particular proposals. Assessments involve the use of existing information, and where necessary the generation of new information. The *Guide* identifies impact areas, types of information required, worksheets and other methods used to assist local officials and planners along with a source for additional information and advice. The availability of such a practical guide for land-use planning recognizes that not all local governments will have the people with the required knowledge and the organizational capability to engage in carefully planned development.

Another approach to the control of sprawl and the financing of infrastructure to support new development is the imposition or negotiation of development charges (also called lot levies and impact fees). Development charges are made against developers who pass them along to their customers. Such charges are more widely used in the United States where they are usually called impact fees and are highly controversial. Canadian provinces vary widely in the extent to which they allow municipalities to impose development charges and the rules they apply to their use. In most provinces, the rules for the use of development charges are found in the provincial or municipal planning laws. Ontario is the only province with separate development charges legislation (*The Development Charges Act*, 1997).

Canadian municipalities use development charges to finance off-site infrastructure such as roads, sewers, water systems, and drainage (hard services). The alternative financing sources for new or expanded development within a municipality are general municipal revenues, reserve funds, municipal borrowing, charges to new residents, and grants from other levels of government.

Development charges gained popularity prior to the 1990s because of expanded support for the "user-pay principle", taxpayer resistance to higher property taxes, and reductions in financial transfers from the other levels of government. Controversies surrounding development charges caused some provincial governments to limit their use. Ontario, for example, banned their use to finance museums, art galleries, convention centers, parkland acquisition, waste management, hospitals, and city halls. In British Columbia, charges are permitted only to finance sewers, water, parks, roads, and drainage, although separate legislation allows Vancouver to finance housing and day care through this mechanism. In Manitoba, *The Planning Act* and *The City of Winnipeg Charter* authorize (but do not require) municipalities to collect development charges through the rezoning, subdivision, variance, or conditional use processes. However, when a development is a permitted use within a land-use zone, there is no authority to collect off-site development charges. This means that civic taxpayer must pay for new or upgraded off-site infrastructure generated by the developer. As part of a current review of the planning legislation, the Government of Manitoba is consulting stakeholders on the future use of development charges to finance off-site infrastructure where a development is a permitted use in a zone.

Critics of development charges, such as the Canadian Home Builders Association, have a number of reservations about the growing municipal reliance upon this source of infrastructure financing. Firstly, it is argued that the burden of financing infrastructure falls mainly upon first-time homebuyers and renters. This is said to be unfair because increased infrastructure costs are recognized as an inevitable consequence of population and economic growth that benefits society as a whole. New arrivals to a community pay higher prices for a house, but the growth they support increases the value of existing homes. Secondly, it is argued that local governments favour development charges because they represent a hidden tax, allowing governments to avoid raising taxes on existing properties. Thirdly, there is alleged to be too much discretion for local officials to determine development charges. As a result, numerous court cases have been fought over the reasonableness of such charges. Fourthly, development charges can provide short-term financial relief, especially for municipalities facing growth pressures, but can lead to property tax increases in the longer-term. Finally, critics question whether a financing method that adds to the cost of housing is the best public policy approach to the control of urban sprawl. Development charges may reflect a failure to plan for growth and/or a failure to maintain the existing infrastructure. (Lampert 2000; Slack, 2001).

To deal with some of these concerns, provincial governments place restrictions on the use of development charges. Municipalities in Ontario are required to forecast the need for infrastructure over ten years and specify what portion of future capital investment is growth-related. Ontario municipalities are also required to estimate the impact of their capital spending on future operating expenditures to determine if these costs can be met from local revenues. These rules are intended to avoid economically inefficient spending on infrastructure. The result has been lot levies higher than in Manitoba.

The RPAC believes that development charges have a part to play in financing infrastructure, but they should not be the primary mechanism to combat the problems of sprawl. Development charges should be seen as a supplementary and complementary means to support the land-use plans and regulatory processes. In determining the future use of development charges, the Government of Manitoba needs to address the following questions:

- Will development charges continue to be entirely voluntary on the part of municipalities?
- Will municipalities be required to apply charges selectively within their territory or to all similar developments throughout the municipality?
- Will development charges distinguish between "early" and "late" arrivals to a development area?
- What will be the process for establishing development charges? Will it be open to public scrutiny like other municipal financing processes?
- How will the amounts of development charges be calculated? Will there be consultation with stakeholders on the methodology of development charges?
- Will municipalities be required to estimate the costs of capital spending on future operating costs?
- How will financial accountability for development charges be ensured? Will revenues from development charges be held in a separate account? Will expenditures from those revenues only be used for infrastructure projects?

In summary, it is well accepted within Canadian jurisdictions that provincial governments set the rules respecting the use of development charges by municipalities. Development charges are not a panacea to the problems of sprawl and they are not a substitute for future planning.

Geographic Information Systems

A Geographic Information System (GIS) is a computer system that manages data identified by location. Examples of GIS data are administrative boundaries, land uses, and historic sites. With GIS, data can be displayed, assembled, stored, and manipulated. Such data are frequently displayed as maps. GIS represents a useful tool to enable public officials and the public at large to understand the content and the impact of various planning proposals and decisions. While planners and information technology specialists have used GIS to develop land-use policy for decades, recently the tool has been used more extensively to support public decision-making through growth modeling. GIS can be used to demonstrate the implications and impacts of development decisions, enabling officials to show not just how their community has changed over the years, but also how it will change for the future. Models can support overall growth planning and individual decisions, such as whether to build in an environmentally sensitive area. It can also be used to gather information on supply and demand of commercial and residential designated lands and lots on a regional basis. Growth modeling is not perfect; it cannot predict with certainty how communities will look in the future. The quality and quantity of the data used in the modeling will affect the validity and reliability of the forecasts. The programs offer the opportunity to examine different scenarios based upon different policy decisions. If applied on a regional basis, growth models can capture the cumulative impacts of the changes taking place within individual municipalities. This can combat parochialism in decision-making and promote the emergence of greater regional consciousness. (See: http://www.gis.com, a web page created by a GIS software firm for in introduction to GIS).

Portland, Oregon again provides a useful case study. In 1988, Metro, the regional government, began development of the Regional Land Information System (RLIS). RLIS was designed to be an urban planner's GIS to support community and regional planning. Its development was a collaborative project involving regional, county, and city planners who combined data from the region's cities and counties into an integrated whole. From a base layer of tax lot data, the RLIS has grown to cover more than 100 categories of data. The primary RLIS data layers are: tax lots, aerial photography, developed land, vacant land, land use, zoning, comprehensive plans, transportation, parks and open spaces, rivers, streams and watersheds, flood plains, political boundaries, places (schools, hospitals, etc.), building permits, and census tracts. RLIS has enabled development of an integrated land-use/transportation urban activity simulation model called metroscope, which is used to simulate future land development. The model's primary outputs are land availability and capacity, costs of development, changes in transportation infrastructure, and changes in demographics. Cooperative data sharing by all governments within the region has been a feature of the RLIS from the start. In 1997, RLIS was selected to receive an international GIS award.

Current and reliable data is essential for sound land-use planning and environmental management. The sixteen municipal governments which comprise the Manitoba Capital Region each collect data for their own purposes, and the provincial Department of Intergovernmental Affairs gathers data and generates analysis on some features of the region. However, during the course of its work the RPAC identified a number of significant gaps in the information available to guide governments in their decision-making, especially on a regional basis. Discussions are underway among governments about the development of a common database to capture the most salient features of the changing regional landscape.

The RPAC strongly endorses this initiative. The development of a GIS system represents an excellent region-building opportunity. A collaborative approach will ensure that the governments involved have a sense of ownership of the GIS asset. Once a GIS system is in operation, it will enable local officials to see the big picture, it will illustrate the interdependencies among the communities which comprise the region, and it will encourage more regional thinking and action based upon evidence of the likely future impacts of current decisions.

Good information is not a free resource, however. It takes time, staff and technology to produce a sound information system for planning purposes. There will be an enormous amount of work involved in collecting information and converting paper-based information into electronic files. A step-by-step, incremental approach probably represents the best way to promote cooperation and to control costs. The Portland model, often taken to represent the best practice in terms of GIS, took more than a decade to reach the current advanced stage of development and it is expensive, employing 40 developers and users and state-of-the-art technology.

The RPAC recommends that the provincial government fund a pilot project and work with the Partnership of Manitoba Capital Region Governments to prepare a business plan for a long-term development of a regional GIS system. The municipal contribution will consist of the gathering and input of data, along with the participation of municipal staff on technical committees. Issues of the ownership of the GIS data bank, where it is housed, who is responsible for its maintenance and when/how data gaps are to be filled, are all issues to be addressed cooperatively by the Partnership of Manitoba Capital Region Governments and the provincial government.

Conclusions

This chapter has put the wider debate over urban sprawl into the context of the Manitoba Capital Region. It has been noted that the debates over development involve balancing the choices of households and enterprises with the controls favoured by the community as determined through the political process. Balance is not always easy to achieve. It has to involve the accommodation of divergent interests and concerns. The results of regional planning will never be as spontaneous as the advocates of unfettered development would like to see, nor as orderly as the advocates of control would prefer.

Sprawl has become a loaded word; it suggests disorderly and uncontrolled development which wastes resources, leads to environmental damage and, for some people, creates aesthetically displeasing surroundings of homogeneous suburban communities served by large format shopping centers and continuous strip malls along major roads. This chapter has attempted to interpret the sprawl debate in more neutral terms and to examine the issues within the context of the Manitoba Capital Region. There are several forms of sprawl and multiple potential causes of the phenomenon. This means that there is no one policy response to the challenges posed by sprawl that will work in all circumstances. A practical and workable approach to addressing sprawl issues in the Manitoba Capital Region must take account of the distinctive features of the Region, including its relatively slow-growth character, its geographical and environmental features, and its history and traditions of how different governments have related to one another.

This chapter identified a number of policy approaches and regulatory techniques being used elsewhere to deal with sprawl. There are many different tools potentially available to support regional planning. During any given time period, certain tools are seen to represent "best practice," with the implication that all jurisdictions should adopt them as the "one best way" to improve the regional planning process. The RPAC favours the term "smart practice" rather than "best practice." The provincial government and its municipal partners within the Manitoba Capital Region should be aware of approaches being followed elsewhere, but they should not simply adopt such approaches without examining critically their relevance and transferability to the Manitoba context. Included in any assessment of the various approaches must be their affordability given the economic conditions of the Capital Region and the financial circumstances of its governments. Finally, the political feasibility of alternative approaches—that is the likelihood now or in the immediate future of securing political agreement among governments and others on their use—is another consideration.

None of the approaches reviewed in the earlier sections of this chapter represents a panacea or cure all for the challenges facing the Manitoba Capital Region. The RPAC believes that some of the approaches used elsewhere might supplement and complement the current planning system for the Manitoba Capital Region, but there is no need for a wholesale replacement or overhaul of that system. Put simply, the current planning system for the Region involves the setting of goals and standards for development by the provincial government with the achievement of those goals and the implementation of those standards occurring primarily through the development plan process at the local level. This system presumes that land-use decisions are normally best left to local governments familiar with local conditions and responsive to local concerns. The RPAC agrees with this presumption, but with an important qualification. It believes that both the language of the Provincial Land Use Policies and the application of those policies within the context of the provincial review of local development plans needs to be strengthened. This is the topic of Chapter Fourteen.