

ESEARCH REPORT

SMART GROWTH IN CANADA:
IMPLEMENTATION OF A PLANNING
CONCEPT

EXTERNAL RESEARCH PROGRAM







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SMART GROWTH IN CANADA: IMPLEMENTATION OF A PLANNING CONCEPT

Final Report

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Executive Summary

Smart Growth

Recently, a broad consensus has emerged concerning the growth and development of Canadian cities: our cities, as they have grown over the last 60 years, are contributing significantly to global and regional environmental problems, government deficits, and social inequity. In order to be sustainable, cities should alter their development patterns so as to be more compact, diverse in their land uses, with more defined urban boundaries and internal structures.

The broad-based movement that is advocating such changes in the way our cities grow is called "Smart Growth". Smart Growth refers to land use and development practices that limit costly urban sprawl, use tax dollars more efficiently and create more livable communities.

Although "Smart Growth" as a term is relatively new, the concept behind the rubric is not. In fact, the idea of managing urban growth to reduce environmental impacts, make cities more socially inclusive and more efficient to build and maintain is almost as old as urban planning itself. The assumption behind this study is that Canadian experience with growth management over the last two or three decades could help guide implementation of the Smart Growth concept. More specifically, answers were sought to the following questions:

- Which cities in Canada have made genuine efforts to manage growth so as to alter their development patterns in a fundamental way?
- What successes have these cities experienced and where have they failed?
- What are the reasons behind both successes and failures?
- And what are the lessons we can draw for the viability of Smart Growth in the Canadian context?

Methodology

In order to address the above questions, six urban areas were selected from different parts of the country and of various population sizes. All six regions have instituted growth management policies over the long term. Table 1 illustrates the time period considered for each study region.

Table 1: Study regions and time periods.

Study Region	Time Period
Halifax	1975-2005
Montreal	1978-2005
Toronto	1990-2005
Saskatoon	1990-2005
Calgary	1995-2005
Vancouver	1990-2005

The study identified each region's stated growth management goals, evaluated how well those goals were achieved in practice, and identified factors that might help to explain successes and failures. In an effort to use a consistent framework to analyze policies and

outcomes in all six regions, the following "indicators" of Smart Growth were used to structure the research and the final report:

- denser, mixed-use development in greenfield areas;
- intensify the existing fabric rather than expand into greenfield areas;
- take advantage of specific intensification opportunities
- increase transportation choice and reduce car usage;
- increase supply of new affordable housing;
- improve range of housing types;
- preserve agricultural lands;
- preserve lands essential to maintaining regional ecosystem functions;
- direct employment to strengthen the core and designated sub-centres, and;
- provide infrastructure to reduce ecological impacts of development.

Unfortunately, for many of these indicators quantitative data collected in a consistent manner across all urban regions do not exist in Canada. The following analysis is therefore based partly on quantitative data and partly on qualitative data (interviews with planners, academic literature, etc.).

Findings

Denser, mixed-use development in greenfield areas

Of all the indicators used in this study, density and mixed-use are among the most important from a Smart Growth perspective. These factors reduce the per capita consumption of land, lower the cost of per unit infrastructure, could reduce trip lengths, make transit more viable, increase walkability and may help preserve natural assets.

Until recently, greenfield development occurred at ever decreasing densities, resulting in a thinning out of the urban fabric. There is some evidence, however, that the density of greenfield development has been increasing moderately in some regions (Vancouver, Toronto, Montreal, and Calgary) over the last decade or so (typically, from 6 units per acre to 7 or 8 units per acre). This reflects the tendency towards reduced average lot sizes in new subdivisions, driven more by increasing land values than by specific planning policies. In some cases though (Vancouver, Montreal, Halifax), small-lot zoning is helping to encourage smaller lots in specific locations.

While this trend is welcome from a Smart Growth perspective, suburban densities in most areas of the study regions continued to fall far short of the levels needed to support high quality transit services (12 upa). Furthermore, some of the density boost from lot size shrinkage is being countered by an increasing amount of land being put aside for public purposes (such as storm water management) and by declining household sizes.

There is little in the way of mixed use development occurring in greenfield areas. Developers appear convinced that retail uses will not be commercially successful and that home buyers will want to avoid being adjacent to non-residential uses.

Several municipalities in the study regions (Halifax, Calgary, Toronto, Saskatoon) are equipped with design guidelines to encourage greenfield development that would be more supportive of transit and of other Smart Growth objectives. Implementation of these urban design policies has been poor. Most greenfield growth continues in the post-war pattern of homogenous lower-density residential areas on circuitous streets that are difficult to navigate by transit (or by walking). Key barriers to change include local regulations that prevent innovative forms of development, the way development charges are calculated, and consumer preference for single detached houses.

The case studies revealed specific exceptions to this rule in most regions (Halifax, Montreal, Toronto, Calgary, Vancouver), where individual neighbourhoods could be found that were designed using New Urbanist principles or alternative development standards. At the moment there is no evidence that travel behaviour is much different in these settings than in conventional suburban development.

Intensify the existing fabric rather than expand into greenfield areas

Many inner cities are serviced to accommodate much larger populations and therefore existing infrastructure is not being put to optimal use. Moreover, greenfield growth on the urban fringe is expensive to service, eats up agricultural, recreational or ecologically significant lands, and deepens car dependency.

Limited intensification is occurring in most jurisdictions. Most study regions have seen the populations of their central cities increase significantly after periods of decline in the 1970s and '80s. Vancouver has been particularly successful at accepting new growth in older urbanized areas. However, despite this relative success, the GVRD as a whole has not been able to meet its target for the amount of growth to be accommodated within the designated areas in and around the metropolitan core. In Toronto, the target for intensifying the former Metro Toronto, now the City of Toronto, has been surpassed, although it should be mentioned that the target was much lower than in Vancouver (only 40% compared to 70%).

In other regions, success at meeting the goal of increasing populations in already serviced areas is being undermined by declining household sizes. For example, Calgary set a goal of accommodating 10% of its population growth through intensification and, indeed, 16% of new housing has been located in the already established areas, but population levels are stagnant. Until recently, the story was much the same on the Halifax Peninsula, where populations declined despite intensification activity.

Most intensification is taking place in downtowns and inner cities. Little intensification is evident in most suburban areas outside central cities, where the great majority of urban growth is found. The one exception is the GVRD where suburban municipalities are seeing considerable intensification in addition to greenfield development.

Take advantage of intensification opportunities

The limited intensification documented in the preceding indicator is occurring through a wide range of processes.

The conversion of industrial lands in older urbanized areas is a major source of intensification opportunity in most of the study regions, i.e., Vancouver, Toronto, Montreal and Halifax. Brownfield sites have proved themselves as excellent opportunities for mixed-use higher density development in older areas of the city already serviced with urban infrastructure. Regulations governing brownfield decontamination have been updated in some provinces/urban regions to promote brownfield redevelopment and some cities are concentrating planning resources (e.g., conducting inventories of brownfield sites) to encourage the redevelopment of these urban lands to their maximum potential. The cost of decontaminating sites is the major impediment to this type of intensification. Montreal is the only urban region studied that has access to a provincial funding program to help with decontamination costs.

Although less significant than brownfield redevelopment, intensification along arterial streets is also happening to some extent in Vancouver, Toronto and Halifax. Infill development is occurring in all of the study regions. Some municipalities (Calgary, Saskatoon, Halifax) have changed zoning regulations to allow small-lot infill in specific areas, especially older areas of town. Infill development is also taking place on disused parking lots, gas stations, and other small parcels of urban land. Infill development that threatens to significantly alter neighbourhood character (i.e., through density increases) is strongly resisted by local residents. Other forms of intensification in the study regions include the redevelopment of public lands, including defunct hospital sites, military bases and schools.

Intensification can contribute to the emergence or strengthening of a distinct urban structure. Much intensification activity is in and around downtown cores where it contributes to the strength of the metropolitan core as a population and economic centre. Outside the downtown, however, it seems that only in Vancouver and to a lesser extent in Toronto is intensification activity contributing to the strengthening of a system of urban nodes.

Increase transportation choice and reduce car usage

Reducing car use and its impact on the environment (greenhouse gases, run-off pollution), health (noxious gases, noise and obesity) and cities (the predominance of asphalt and long trips) is a cornerstone of the Smart Growth movement.

Table 4: Automobile (driver and passenger) shares of morning commute, 1996 & 2001.

CMA	1991		2001	
	%	Rank	%	Rank
Halifax	76.97	4	77.61	4
Montreal	72.08	5	70.40	6
Toronto	71.29	6	71.43	5
Saskatoon	85.03	1	86.25	1
Calgary	80.04	2	78.56	3
Vancouver	77.18	3	79.22	2

Source: Census, 1996 \$ 2001.

Every region studied had adopted a transportation plan based on the need to move away from car dependency and create a more balanced transportation system. Despite this planning effort, four (Vancouver, Saskatoon, Toronto, Halifax) of the six study regions saw an increase in the car's modal share. In Calgary and Montreal, where major improvements to transit services were made, auto shares declined and transit shares improved.

Where sub-regional data was available, it was found that transit modal share was higher for downtown trips but extremely low for trips in suburban locations. This suggests that the decentralization of employment, in combination with suburban residential growth, will further erode transit share unless dramatic measures are taken to counteract these trends.

Increase supply of new affordable housing

A Smart Growth agenda is supposed to encourage the production of affordable housing by promoting intensification and infill and through regulatory and financial measures to attract housing developers to appropriate locations within the already urbanized areas.

Planning frameworks in all six regions contain policies encouraging the creation of more affordable housing. However, few have made major progress towards these goals, either through the private housing market or through public investment. In most cases, market prices and rents have been increasing while the social housing supply has been stagnant since federal government subsidies for new social housing were eliminated in the early 1990s. Montreal is the only study region that witnessed a significant improvement in housing affordability over the 1991 to 2001 period.

Table 2: Private Households Spending 30% of More of Income on Shelter (1991 & 2001)

CMA	1991		2001	
	%	Rank	%	Rank
Halifax	20.5	5	21.1	5
Montreal	24.9	1.5	22.4	3
Toronto	23.8	3	25.5	2
Saskatoon	20.5	5	21.8	4
Calgary	20.5	5	20.1	6
Vancouver	24.9	1.5	27.2	1

Source: CMHC Research Highlights Socio-economic Series 03-017

While housing costs are influenced by a wide variety of exogenous factors, local governments can add to housing affordability problems by having too little land zoned for multi-family and small-lot housing; imposing zoning restrictions on manufactured and mobile housing, group homes, secondary suites and rooming houses, and; adopting planning policies that prevent change towards higher density urban forms.

Improve range of housing types

A wider range of housing types is essential to achieve affordability goals, create more socially inclusive communities, and provide appropriate housing near employment opportunities.

Although all six study regions had adopted plans and policies to encourage the creation of a wider range of housing types, most regions in fact saw an evolution in the opposite direction between 1991 and 2001. Only Vancouver saw a significant reduction in the weight of single-detached housing in its housing stock.

Table3: Single Detached Houses as a % of all Housing Typologies (1991 & 2001)

CMA	1991		2001	
	%	Rank	%	Rank
Halifax	48.85	4	52.45	3
Montreal	29.79	6	31.71	6
Toronto	44.45	5	44.84	5
Saskatoon	62.85	1	61.69	1
Calgary	57.09	2	61.35	2
Vancouver	49.58	3	43.18	4

Source: Calculated from Canadian Census Data

Preserve agricultural lands

From a Smart Growth perspective, preserving agricultural land on the edge of urban areas is important as a way of stemming the spread of urbanization and deflecting growth energy back into the city.

Trends on this indicator varied over the six study regions. In three cases – Halifax Saskatoon and Calgary – conversion of agricultural land to urban purposes is of little concern because of the absence of good quality soils or the immensity of the resource at hand. In the other three cases – Vancouver, Montreal and Toronto – there is a constant tug of war between farmland preservation and urbanization. Vancouver and Montreal are equipped with systems of provincially-sponsored agricultural preservation while Toronto is not. Not surprisingly, the rate of farmland loss appears much lower in Vancouver and Montreal than Toronto. In Vancouver, there was a net loss of farmland of 225 hectares from 1996 to 2004, whereas Toronto lost 445 sq km of farmland to urbanization between 1986 and 2001. In Montreal, withdrawals from the reserve since 1991 (when a major removal was authorized) have totalled only 463 hectares.

Preserve lands essential to maintaining regional ecosystem functions

All six cases report loss of natural assets to varying degrees. In the absence of any cross-regional studies surveying actual changes in land cover or water quality, little can be said in terms of relative levels of damage. Each region has its unique challenges and accomplishments. In Toronto, for example, wetland destruction appears to have come to a halt in the 1990s (although by then most of the original wetland areas in the region had been lost) and threatened species' habitat is now well protected. On the other hand, woodlands and other types of habitat areas are not well protected and continue to succumb to urbanization.

By contrast, in Calgary, wetlands and ravines have not been well protected and the spread of the city has resulted in most of these being filled in, with resulting water quality problems. The park system in Calgary, however, provides an interconnected system of semi-natural

areas. In Montreal, the park system is fragmented and shorelines are largely developed in the heavily urbanized areas. In Saskatoon, shorelines have been protected. Halifax has a system of regional parks but water quality has been affected by sedimentation and erosion due to flooding, both related to urbanization in the affected drainage basins.

With its Green Zone, the Vancouver region appears to have had the most comprehensive system of ecological protection. Even here, however, there has been a lack of consideration as to how well the protected lands function as a system for preserving and enhancing biodiversity and how this can be optimized through future management. In other urban regions, provincial policy statements encourage municipalities to take steps to protect natural features, but the results are uneven.

Encourage employment growth to strengthen the core and designated sub-centres

A central element of the Smart Growth program is the need to direct employment growth
into specific centres within the urbanized portion of the region. A network of such nodes is
required in order to create major destinations that can be well served by good quality transit.

The case studies revealed that all six urban regions had policies to promote a nodal employment structure. However, outcomes have been disappointing. In Vancouver, only 16.6% of employment growth is going into town centres, while in Calgary the centres that were anticipated in suburban areas and around transit stations have failed to substantially materialize. Saskatoon has seen little in the way of suburban sub-centres described in the City's development plan. Toronto's successful sub-centres are limited to those found in the City of Toronto (especially North York) and Mississauga. In Montreal, the employment poles are holding their own with about one-third the total regional jobs. In Halifax, much of the employment growth has gone into car-dependent business parks scattered throughout the region, competing against each other for further growth.

Compounding this lack of performance in terms of employment concentration are the design issues that plague many sub-centres. Instead of the high-density, mixed-use activity nodes portrayed in planning documents, many nodes, especially suburban ones, are bleak areas with vast tracts of parking and monotonous commercial architecture, flanked by highway infrastructure. Few of them are served with good-quality transit.

Provide infrastructure to reduce ecological impacts of development.

Urban growth in all six study regions long ago overwhelmed the carryin

Urban growth in all six study regions long ago overwhelmed the carrying capacity of local ecosystems. Only through the installation of engineered systems can human populations continue to grow in these regions without incurring serious environmental problems.

All six urban regions are well served with drinking water, although there is some concern with contamination in Calgary, Toronto and Montreal, mostly from septic failure or sewage system loadings in surface water bodies serving as sources of potable water.

Sewage systems are continuously being upgraded in all six regions, with Vancouver and Saskatoon adding advanced (secondary or tertiary) sewage treatment facilities within the last few years. Montreal upgraded its system in the 1990s such that the whole CMA now

receives primary treatment but only 16.5% of the population receives advanced treatment. In Halifax, 77% of the population receives no sewage treatment at all and only 16.7% receives advanced treatment. Both Vancouver and Halifax are planning major upgrades to their sewage treatment facilities over the coming years.

Table 5: Percent population receiving secondary and tertiary sewage treatment (1989 & 1999)

Region	1989	1999
Halifax	15	16.7
Montreal	8	16.5
Toronto	100	100
Saskatoon	0	100
Calgary	99.1	100
Vancouver	0	52

Source: Municipal Water Use Database, Environment Canada

In addition to improving conventional water and sewer systems, municipalities and regions are beginning to experiment with innovative stormwater management at the site level and district energy systems.

Conclusions

This study has shown that there is a large gap between the stated growth management policies found in the planning documents of the six study regions and accomplishments on the ground. While major progress has been made in terms of language and policy goals, performance is lagging behind considerably.

Many of the indicators surveyed suggest that progress is absent (mixed use, nodal concentration of employment), minimal (density increases), or mainly retrograde (intensification, housing affordability, range of housing types, protecting ecologically significant features, increasing transportation options). The greatest advance seems to have been made in providing the infrastructure needed to support growth, although even here serious problems remain (especially in terms of sewage treatment).

These results reflect not only a historical lack of political will at all levels of government, but also other constraints such as the many regulations that have been put in place over the decades that militate against innovation in planning and development, the lack of widespread interest in the development community for non-conventional development designs, the financial barriers posed by municipal taxation and development charges policies, and consumer preference for lower density urban landscapes.

None of these constraints are insurmountable. Indeed, most of them have positive impacts in other frames of reference – preserving existing community character, risk reduction to developers and financial institutions, public health and safety, etc. – and only undermine sound growth management as an unintended side effect. Ultimately, they reflect the low priority that urban growth management has historically achieved in Canada.

This suggests that these barriers could be addressed by re-assessing their functionality and desirability in a society committed to building cities that work. Although we can't yet conclude that there has been a sea change in popular consciousness, there are many signs that urban growth management is rising rapidly on the agenda of important public priorities – witness the increasingly active role in this regard by the federal government and the spotlight being placed on urban sprawl by many provincial governments as well as mainstream organizations such as business associations and banks, health associations, transportation groups, affordable housing advocates, and others.

These are hopeful signs, but much work remains to be done. On the research level, a two pronged strategy is needed. On the one hand, we must continue to point to those cases where progress is apparent in the expectation that successful innovations can be repeated elsewhere. On the other hand, more in-depth research is required into the specific mechanisms that prevent policy intentions from moving forward into tangible changes on the ground.

Résumé

La croissance intelligente

Dernièrement, un large consensus est apparu concernant la croissance et l'aménagement des villes canadiennes. En effet, la croissance enregistrée par nos villes au cours des 60 dernières années est en grande partie responsable des problèmes environnementaux à l'échelle mondiale et régionale, des déficits gouvernementaux ainsi que des inégalités sociales. La durabilité de nos villes passe par la modification de leurs profils d'aménagement afin que l'occupation des sols soit plus dense, que l'utilisation des terrains soit plus diversifiée et que des limites urbaines et des structures internes mieux définies soient établies.

Le vaste mouvement qui milite en faveur de ces changements qu'il faut apporter au mode de croissance de nos villes est appelé la « croissance intelligente ». La croissance intelligente s'entend de pratiques d'aménagement et d'utilisation des sols qui limitent l'étalement urbain coûteux, affectent l'argent des contribuables plus efficacement et créent des collectivités davantage axées sur la qualité de vie.

Si le terme de la « croissance intelligente » est relativement nouveau, le concept sous-jacent, quant à lui, ne l'est pas. En fait, l'idée de gérer la croissance urbaine afin d'en réduire les effets environnementaux et de rendre les villes plus inclusives sur le plan social et plus efficientes à construire et à entretenir est presque aussi vieille que l'urbanisme lui-même. Selon l'hypothèse retenue pour cette étude, l'expérience accumulée par le Canada au cours des deux ou trois dernières décennies dans le domaine de la gestion de la croissance pourrait guider la mise en oeuvre du concept de la croissance intelligente. Plus particulièrement, on cherchait des réponses aux questions suivantes :

- Quelles villes canadiennes ont fait des efforts réels pour gérer leur croissance afin de modifier fondamentalement leurs profils d'aménagement?
- Quels ont été les réussites et les échecs de ces villes?
- Ouelles sont les raisons de ces réussites et de ces échecs?
- Quelles leçons pouvons-nous tirer quant à la viabilité de la croissance intelligente dans le contexte canadien?

Méthode

Pour répondre à ces questions, les auteurs de l'étude ont choisi six régions urbaines de taille démographique variée dans différentes zones du pays. Chacune des six régions a adopté des principes de gestion de la croissance à long terme. Le tableau 1 illustre la période couverte pour chaque région étudiée.

Tableau 1 : Régions étudiées et période couverte

Région étudiée	Période couverte
Halifax	1975-2005
Montréal	1978-2005
Toronto	1990-2005
Saskatoon	1990-2005
Calgary	1995-2005
Vancouver	1990-2005

L'étude a cerné les objectifs de gestion de la croissance fixés par chaque région, évalué l'atteinte de ces objectifs dans la pratique et relevé les facteurs susceptibles d'expliquer les réussites et les échecs. Dans le but d'utiliser un cadre uniforme pour l'analyse des principes et des résultats obtenus dans les six régions, on a fait appel aux « indicateurs » de croissance intelligente suivants pour structurer la recherche ainsi que le rapport final :

- accroître la densification et la diversification des aménagements réalisés sur des terrains propres;
- densifier le tissu existant plutôt que de prendre de l'expansion sur des terrains propres;
- tirer parti des occasions de densification;
- augmenter les modes de transport et réduire l'utilisation de l'automobile;
- augmenter l'offre de logements neufs abordables;
- élargir l'éventail de types de logement;
- protéger les terres agricoles;
- protéger les terrains indispensables au fonctionnement des écosystèmes régionaux;
- canaliser les emplois de manière à renforcer le centre-ville et les centres secondaires désignés;
- mettre en place une infrastructure qui réduira les impacts écologiques de l'aménagement.

Au Canada, malheureusement, bon nombre de ces indicateurs ne font l'objet d'aucune cueillette de données à la fois cohérente et portant sur l'ensemble des régions urbaines. Par conséquent, cette analyse est fondée sur des données en partie quantitatives et en partie qualitatives (entrevues avec des urbanistes, littérature didactique, etc.).

Constatations

Accroître la densification et la diversification des aménagements réalisés sur des terrains propres

Des indicateurs utilisés dans la présente étude, la densification et la diversification sont les plus importants dans la perspective de la croissance intelligente. Ces facteurs réduisent l'utilisation de terrain par habitant et les coûts d'infrastructure par logement. Ils peuvent aussi entraîner une baisse de la distance parcourue, accroître la viabilité du transport en commun, augmenter le nombre de trajets que l'on peut parcourir à pied et contribuer à la protection des biens naturels.

Jusqu'à tout récemment, l'aménagement des terrains propres était de moins en moins dense, ce qui se traduisait par un amincissement du tissu urbain. Toutefois, des signes indiquent que la densité des terrains propres aménagés a augmenté légèrement dans certaines régions (Vancouver, Toronto, Montréal et Calgary) au cours de la dernière décennie (en général, elle est passée de 6 logements par acre à 7 ou 8 logements par acre). Cette évolution reflète la tendance à réduire la dimension des terrains dans les nouveaux lotissements, une situation causée davantage par la hausse des prix des terrains que par des politiques d'urbanisme précises. Dans certains cas, comme à Vancouver, Montréal et Halifax, le zonage encourage l'aménagement de petits terrains dans certains secteurs.

Si cette tendance est souhaitable du point de vue de la croissance intelligente, les densités dans les banlieues de la plupart des régions étudiées ont continué de se situer en deçà des niveaux requis pour soutenir des services de transport en commun de qualité (12 logements par acre). De plus, la densification résultant de la diminution de la dimension des terrains est en partie annulée par l'augmentation des superficies affectées à des fins publiques (comme la gestion des eaux pluviales) et par la diminution de la taille des ménages.

La diversification est très faible dans les aménagements réalisés sur des terrains propres. Les promoteurs semblent convaincus que les commerces de détail connaîtront un échec et que les acheteurs de logement éviteront de s'installer à côté des aménagements non résidentiels.

Plusieurs municipalités des régions étudiées (Halifax, Calgary, Toronto et Saskatoon) se sont dotées de directives de conception qui encouragent l'aménagement des terrains propres d'une manière qui favorise le transport en commun et l'atteinte d'autres objectifs de croissance intelligente. Or, la mise en oeuvre de ces principes de conception urbaine a peu réussi. La majeure partie de la croissance qui se produit sur des terrains propres est calquée sur le profil d'après-guerre consistant à aménager des aires résidentielles homogènes et de faible densité sur des rues offrant des itinéraires indirects difficiles à suivre en transport en commun (ou à pied). Les principaux facteurs qui font obstacle au changement sont les règlements locaux qui empêchent les formes novatrices d'aménagement, les méthodes de calcul des droits d'aménagement et le penchant des consommateurs pour les maisons individuelles.

Les études de cas ont révélé des exceptions à cette règle dans la plupart des régions (Halifax, Montréal, Toronto, Calgary et Vancouver). En effet, on a trouvé des quartiers conçus selon les principes du nouvel urbanisme ou en fonction de normes d'aménagement non traditionnelles. Pour l'instant, rien n'indique que les profils de déplacement dans ces milieux diffèrent substantiellement de ceux des banlieues traditionnelles.

Densifier le tissu existant plutôt que de prendre de l'expansion sur des terrains propres Bien des quartiers centraux sont dotés de services pouvant répondre aux besoins d'un nombre beaucoup plus grand d'habitants. L'infrastructure existante n'est donc pas utilisée de façon optimale. De plus, la croissance sur les terrains propres situés à la limite des régions urbaines est coûteuse à viabiliser, accapare de grandes surfaces agricoles, récréatives ou écologiques et accroît la dépendance à l'égard de la voiture.

Pour la plupart des territoires administratifs, la densification est limitée. Dans la majorité des régions étudiées, la population des villes-centres a augmenté substantiellement après des périodes de déclin dans les années 1970 et 1980. Vancouver a particulièrement bien réussi à intégrer la nouvelle croissance dans ses vieux secteurs déjà urbanisés. Malgré son succès relatif, le district régional du Grand Vancouver n'a pas atteint ses objectifs concernant la croissance des secteurs désignés qui sont situés à l'intérieur et autour de l'agglomération métropolitaine. À Toronto, on a dépassé la cible concernant la densification de l'ancien Toronto métropolitain, appelé maintenant la ville de Toronto. Toutefois, il faut préciser que cette cible était beaucoup plus basse qu'à Vancouver (seulement 40 % comparativement à 70 %).

Dans d'autres régions, l'augmentation de la population des secteurs déjà viabilisés est entravée par la diminution de la taille des ménages. Par exemple, la ville de Calgary qui s'était fixée comme objectif de répondre à 10 % de sa croissance démographique par la densification a construit 16 % de ses logements neufs dans les secteurs existants. Or, les niveaux de population stagnent. Naguère encore, la situation était semblable dans la péninsule de Halifax, où la population a diminué malgré la densification.

La majeure partie de la densification se produit dans les centres-villes et les quartiers centraux. On relève peu d'activité de ce genre dans la plupart des banlieues situées à l'extérieur des villes-centres où se concentre le gros de la croissance urbaine. Le district régional du Grand Vancouver constitue la seule exception, car les municipalités de banlieue qui le composent enregistrent une densification considérable en plus d'aménagements en terrains propres.

Tirer parti des occasions de densification

La densification limitée couverte par l'indicateur précédent est le résultat d'une vaste gamme de processus.

La conversion de terrains industriels dans les anciens secteurs urbanisés présente de nombreuses possibilités de densification dans la plupart des régions étudiées, c'est-à-dire Vancouver, Toronto, Montréal et Halifax. Les terrains contaminés offrent d'excellentes occasions de densifier et de diversifier les aménagements dans les secteurs existants de la ville déjà pourvus de l'infrastructure urbaine. Les règlements visant la décontamination des terrains ont été mis à jour dans certaines provinces et régions urbaines afin de promouvoir le réaménagement de ces propriétés. De plus, certaines villes concentrent les ressources en urbanisme (p. ex. en procédant à l'inventaire des sites contaminés) de manière à maximiser le potentiel de réaménagement de ces terrains urbains. Le coût de décontamination des emplacements est le principal obstacle qui se dresse devant ce type de densification. Montréal est la seule région urbaine étudiée ayant accès à un programme de financement provincial qui paie une partie des coûts de décontamination.

Bien qu'il s'agisse d'un phénomène moins important que le réaménagement des terrains contaminés, il se produit aussi une certaine densification le long des artères de Vancouver, Toronto et Halifax. On construit sur des terrains intercalaires dans toutes les régions étudiées. Certaines municipalités (Calgary, Saskatoon et Halifax) ont changé leurs

règlements de zonage afin de permettre la construction intercalaire sur de petits terrains situés dans des secteurs précis comme les anciennes parties de la ville. Ce genre d'opération de densification a aussi lieu sur des terrains de stationnement et des stations-service abandonnés ainsi que d'autres petites parcelles urbaines. Les résidents locaux s'opposent farouchement aux opérations de densification qui menacent de modifier substantiellement le caractère des quartiers (c'est-à-dire par une hausse de la densité). Les autres formes de densification relevées dans les régions étudiées comprennent le réaménagement des terrains publics, notamment les emplacements occupés anciennement par des hôpitaux, des bases militaires et des écoles.

La densification peut contribuer à l'apparition ou au renforcement d'une structure urbaine distincte. Une grande partie de la densification se produit à l'intérieur et autour des centres-villes où elle contribue au renforcement de l'agglomération métropolitaine en tant que centre démographique et économique. Toutefois, à l'extérieur du centre-ville, il semble qu'il n'y ait qu'à Vancouver et, dans une moindre mesure, à Toronto, que la densification contribue au raffermissement d'un système de noeuds urbains.

Augmenter les modes de transport et réduire l'utilisation de l'automobile

La réduction de la place occupée par l'automobile et des effets de cette dernière sur l'environnement (gaz à effet de serre et pollution des eaux de ruissellement), la santé (gaz nocifs, bruit et obésité) et les villes (prédominance de l'asphalte et longs trajets) constitue la pierre angulaire du mouvement en faveur de la croissance intelligente.

Tableau 4 : Part des déplacements matinaux occupée par l'automobile (conducteur et passager), 1996 et 2001

RMR	1991		2001	
	%	Rang	%	Rang
Halifax	76,97	4	77,61	4
Montréal	72,08	5	70,40	6
Toronto	71,29	6	71,43	5
Saskatoon	85,03	1	86,25	1
Calgary	80,04	2	78,56	3
Vancouver	77,18	3	79,22	2

Source: Recensements de 1996 et de 2001

Chaque région étudiée a adopté un plan de transport visant à réduire la dépendance à l'égard de la voiture et à créer un système de transport mieux équilibré. Malgré ces efforts de planification, on a enregistré, dans quatre des régions étudiées (Vancouver, Saskatoon, Toronto et Halifax), une augmentation de la part occupée par l'automobile parmi les modes de transport. À Calgary et à Montréal, où on a apporté des améliorations majeures aux services de transport en commun, la part occupée par l'automobile a diminué et celle des transports en commun a augmenté.

Selon les données sous-régionales disponibles, la place occupée par les transports en commun était plus élevée dans le cas des déplacements au centre-ville, mais extrêmement faible dans le cas des déplacements en banlieue. On peut en conclure que la décentralisation

des emplois, combinée à la croissance du secteur résidentiel en banlieue, provoquera une érosion additionnelle de la place occupée par le transport en commun à moins que des mesures sérieuses ne soient adoptées pour contrer ces tendances.

Augmenter l'offre de logements neufs abordables

La croissance intelligente est censée encourager la production de logements abordables par la promotion de la densification et de la construction intercalaire ainsi que par des mesures réglementaires et financières qui attirent les promoteurs résidentiels dans les emplacements convenant le mieux à l'intérieur des secteurs déjà urbanisés.

Les cadres de planification des six régions contiennent des orientations qui encouragent la production de logements abordables. Cependant, peu de villes ont fait de vrais progrès par rapport à ces objectifs, que ce soit par l'entremise du marché de l'habitation privé ou par des investissements publics. Dans la plupart des cas, les prix sur le marché et les loyers ont augmenté, mais l'offre de logements sociaux a stagné depuis que les subventions du gouvernement fédéral à l'égard du logement social neuf ont été éliminées au début des années 1990. Montréal est la seule région étudiée où l'on a enregistré une amélioration importante de l'abordabilité du logement de 1991 à 2001.

Tableau 2 : Ménages privés qui consacrent 30 % ou plus de leur revenu au logement (1991 et 2001)

RMR	1991			2001
	%	Rang	%	Rang
Halifax	20,5	5	21,1	5
Montréal	24,9	1,5	22,4	3
Toronto	23,8	3	25,5	2
Saskatoon	20,5	5	21,8	4
Calgary	20,5	5	20,1	6
Vancouver	24,9	1,5	27,2	1

Source: Le point en recherche, Série socio-économique, numéro 03-017, SCHL

Si les coûts du logement sont influencés par une vaste gamme de facteurs exogènes, les gouvernements locaux peuvent aggraver les problèmes d'abordabilité en zonant des superficies insuffisantes pour la production de collectifs d'habitation et la construction résidentielle sur des terrains de petite dimension, en imposant des restrictions de zonage aux maisons préfabriquées, aux maisons mobiles, aux foyers de groupe, aux appartements accessoires et aux maisons de chambres, et enfin, en adoptant des règlements d'urbanisme qui empêchent la densification des formes urbaines.

Élargir l'éventail de types de logement

Il faut accroître les types de logement pour atteindre les objectifs d'abordabilité, créer des collectivités plus inclusives sur le plan social et fournir des logements convenables à proximité des lieux de travail.

Même si les six régions étudiées ont adopté des plans et des principes encourageant l'augmentation des types de logement, la plupart d'entre elles ont, en réalité, connu une évolution dans le sens contraire entre 1991 et 2001. Seule la ville de Vancouver a enregistré une réduction importante de la proportion occupée par les maisons individuelles à l'intérieur de son parc résidentiel.

Tableau 3 : Maisons individuelles en % de l'ensemble des typologies de logement (1991 et 2001)

RMR	1991		2001	
	%	Rang	%	Rang
Halifax	48,85	4	52,45	3
Montréal	29,79	6	31,71	6
Toronto	44,45	5	44,84	5
Saskatoon	62,85	1	61,69	1
Calgary	57,09	2	61,35	2
Vancouver	49,58	3	43,18	4

Source : Calculé à l'aide des données du Recensement du Canada.

Protéger les terres agricoles

Du point de vue de la croissance intelligente, la protection des terres agricoles en périphérie des zones urbaines constitue un moyen efficace d'endiguer l'étalement et de rediriger la croissance vers la ville.

Les tendances propres à cet indicateur ont varié parmi les six régions étudiées. Dans trois cas – Halifax, Saskatoon et Calgary – la conversion de terres agricoles à des fins urbaines pose peu de problèmes étant donné l'absence de sols de bonne qualité ou les immenses ressources disponibles. Dans les trois autres cas – Vancouver, Montréal et Toronto – la protection des terres agricoles et l'urbanisation se livrent une éternelle partie de bras de fer. Contrairement à Toronto, Vancouver et Montréal possèdent des systèmes de protection des terres agricoles financés par la province. Comme il fallait s'y attendre, le taux de disparition des terres agricoles semble beaucoup plus bas à Vancouver et à Montréal qu'à Toronto. À Vancouver, la superficie nette des terres agricoles perdues de 1996 à 2004 a atteint 225 hectares. Par comparaison, à Toronto, 445 km² de terres agricoles ont été engloutis au profit de l'urbanisation de 1986 à 2001. À Montréal, les terres retirées de la réserve depuis 1991 (lorsqu'on autorisait les retraits majeurs) n'ont atteint que 463 hectares au total.

<u>Protéger les terrains indispensables au fonctionnement des écosystèmes régionaux</u>

Dans les six cas, on rapporte la perte de biens naturels à des degrés variables. On peut affirmer très peu de choses quant au niveau relatif des dommages en l'absence d'études inter-régionales sur les changements réels survenus au niveau de la couverture terrestre ou

de la qualité de l'eau. Les défis et les réalisations de chaque région sont uniques. À Toronto, par exemple, la destruction des zones humides semble s'être stoppée au cours des années 1990 (quoique la plupart des zone humides originales de la région étaient déjà disparues à ce moment-là), et l'habitat des espèces menacées est maintenant bien protégé. À l'inverse, les boisés et les autres types d'habitats sont mal protégés et continuent de succomber à l'urbanisation.

Par contraste, à Calgary, les zones humides et les ravins ont été mal protégés, et l'étalement de la ville a abouti au remplissage de la plupart de ces aires, ce qui a causé des problèmes de qualité de l'eau. Toutefois, le réseau de parcs de Calgary fournit un réseau interconnecté d'aires semi-naturelles. À Montréal, le réseau de parcs est fragmenté et les berges sont en grande partie aménagées dans les zones très urbanisées. À Saskatoon, les berges ont été protégées. Halifax s'est dotée d'un réseau de parcs régionaux, mais la qualité de l'eau a baissé à cause de la sédimentation et de l'érosion provoquées par les inondations, deux phénomènes reliés à l'urbanisation des bassins de drainage.

Avec sa zone verte, la région de Vancouver semble avoir mis sur pied le réseau de protection écologique le plus complet. Malgré tout, on semble peu se demander dans quelle mesure les terrains protégés peuvent préserver et mettre en valeur la biodiversité ni comment ces caractéristiques pourront être optimisées au cours des activités de gestion futures. Dans d'autres régions urbaines, des énoncés de la politique provinciale encouragent les municipalités à protéger les zones naturelles, mais les résultats sont variables.

<u>Canaliser les emplois de manière à renforcer le centre-ville et les centres secondaires</u> désignés

La nécessité de canaliser la croissance de l'emploi dans des centres précis de la partie urbanisée de la région constitue un élément central du programme relatif à la croissance intelligente. Un réseau de noeuds fonctionnels de ce genre est nécessaire pour créer des destinations majeures adéquatement reliées à des services de transport en commun de qualité.

Les études de cas ont révélé que les six régions urbaines avaient adopté des orientations favorisant une structure d'emploi fonctionnelle. Toutefois, les résultats ont été décevants. À Vancouver, seulement 16,6 % de la croissance de l'emploi se produit dans les centres de la ville. À Calgary, les centres prévus dans les banlieues et autour des terminus et des gares ne se sont pas matérialisés autant qu'on l'espérait. À Saskatoon, très peu des centres secondaires de banlieue décrits dans le plan d'aménagement de la ville ont été réalisés. Les seuls centres secondaires de l'agglomération de Toronto se trouvent dans la ville même (particulièrement à North York) et à Mississauga. À Montréal, les pôles d'emploi se maintiennent et regroupent environ le tiers de l'ensemble des travailleurs régionaux. À Halifax, la majeure partie de la croissance de l'emploi est survenue dans des parcs d'affaires axés sur l'automobile et dispersés dans l'ensemble de la région qui se concurrencent les uns les autres pour continuer leur expansion.

Or, ce manque de performance en ce qui concerne la concentration des emplois est aggravé par les problèmes de conception qui affligent bien des centres secondaires. Au lieu des

noeuds d'activité à la fois denses et diversifiés dépeints dans les documents de planification, bien des noeuds, surtout en banlieue, se composent de secteurs mornes contenant de grands stationnements et des bâtiments commerciaux à l'architecture monotone situés en bordure d'une infrastructure routière. Peu d'endroits de ce genre sont reliés à des services de transport en commun de qualité.

Mettre en place une infrastructure qui réduira les impacts écologiques de l'aménagement Dans les six régions étudiées, la croissance urbaine a depuis longtemps dépassé la capacité de charge des écosystèmes locaux. Il faudra installer des systèmes artificiels pour que les populations humaines continuent de croître dans ces régions sans provoquer de problèmes environnementaux graves.

Chacune des six régions urbaines est bien approvisionnée en eau potable, quoique l'on éprouve certains problèmes de contamination à Calgary, Toronto et Montréal. Il s'agit surtout de fosses septiques défectueuses ou de rejets de réseaux d'assainissement dans les plans d'eau qui servent de source d'eau potable.

Les réseaux d'assainissement sont constamment améliorés dans chacune des six régions. Vancouver et Saskatoon ont même ajouté des installations d'assainissement complémentaires (secondaires ou tertiaires) ces dernières années. Montréal a amélioré son réseau dans les années 1990 : si toutes les eaux usées de la RMR reçoivent un traitement primaire, celles de seulement 16,5 % de la population font l'objet d'un traitement complémentaire. À Halifax, les eaux usées de 77 % de la population ne reçoivent aucun traitement, et celles de seulement 16,7 % de la population font l'objet d'un traitement complémentaire. À Vancouver et à Halifax, on planifie des améliorations importantes des installations d'assainissement au cours des prochaines années.

Tableau 5 : Pourcentage de la population dont les eaux usées reçoivent un traitement secondaire ou tertiaire (1989 et 1999)

Région	1989	1999
Halifax	15	16,7
Montréal	8	16,5
Toronto	100	100
Saskatoon	0	100
Calgary	99,1	100
Vancouver	0	52

Source : Base de données sur l'utilisation de l'eau par les municipalités, Environnement Canada

En plus d'améliorer leurs réseaux d'alimentation en eau ainsi que leurs réseaux d'assainissement, les municipalités de même que les régions commencent à expérimenter des méthodes novatrices de gestion des eaux pluviales sur place et des installations énergétiques de district.

Conclusions

Cette étude a révélé l'existence d'un écart énorme entre les énoncés officiels de gestion de la croissance relevés dans les documents d'urbanisme des six régions examinées, d'une part, et les réalisations sur le terrain, d'autre part. Les résultats demeurent nettement insuffisants, malgré les importants progrès réalisés au chapitre des intentions et des objectifs visés par les grandes orientations.

Pour un bon nombre des indicateurs examinés, les progrès sont inexistants (diversification, concentration de l'emploi dans des noeuds fonctionnels) ou minimes (hausses de la densité). En fait, on a surtout relevé une régression (densification, abordabilité du logement, types de logements, protection des caractéristiques écologiques importantes, hausse des options en matière de transport). Il semble que la percée la plus importante soit la mise en oeuvre de l'infrastructure nécessaire pour soutenir la croissance, quoique des problèmes graves subsistent à ce niveau (particulièrement sur le plan de l'épuration des eaux usées).

Ces résultats ne traduisent pas seulement un manque de volonté politique historique dans toutes les administrations publiques , mais aussi d'autres contraintes comme les nombreux règlements adoptés au cours des décennies qui freinent l'innovation dans les domaines de la planification et de l'aménagement, le manque d'intérêt chez les promoteurs à l'égard des concepts d'aménagement non traditionnels, les obstacles financiers que suscitent l'imposition municipale et les règlements relatifs aux droits d'aménagement ainsi que la préférence des consommateurs pour les paysages urbains à faible densité.

Aucune de ces contraintes n'est insurmontable. En réalité, la plupart d'entre elles ont des effets positifs quand on les examine sous un angle différent – la préservation du caractère de la collectivité, la réduction des risques pour les promoteurs et les institutions financières, la santé et la sécurité du public, etc. – leur seul effet secondaire involontaire consiste à empêcher une saine gestion de la croissance. En dernier ressort, elles reflètent la faible priorité accordée depuis toujours à la gestion de la croissance urbaine au Canada.

On peut penser qu'il serait possible de surmonter ces obstacles en réévaluant leur fonctionnalité et leur à-propos dans une société qui s'est engagée à construire des villes viables. Bien que nous ne puissions pas encore parler de changement profond de la conscience populaire, de nombreux signes indiquent que la gestion de la croissance urbaine prend de plus en plus de place au sein des grandes priorités publiques – témoin le rôle de plus en plus actif joué par le gouvernement fédéral dans ce domaine et l'accent mis sur l'étalement urbain par bon nombre de gouvernements provinciaux et d'organismes en vue comme les associations professionnelles, les banques, les associations de santé, les organismes de transport, les défenseurs du logement abordable et d'autres.

Malgré ces signes encourageants, il reste bien du travail à accomplir. Du côté de la recherche, une stratégie sur deux fronts s'impose. D'une part, nous devons continuer de souligner les cas où les progrès sont évidents dans l'espoir que les innovations réussies puissent être répétées ailleurs. D'autre part, des recherches plus approfondies sont requises quant aux mécanismes précis qui empêchent les intentions des administrations de se traduire par des changements tangibles sur le terrain.



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Table of Contents

1	Introduction	
	Overview of the Study Regions	
	The Vancouver Region	
	The Calgary Region	
	The Saskatoon Region	
	The Toronto Region	
	The Montreal Region	
	The Halifax Region	
	Conclusions	

1 Introduction

1.1 A Brief History of Smart Growth

Recently, a broad consensus has emerged concerning the growth and development of Canadian cities: our cities, as they have grown over the last 60 years, are contributing significantly to global and regional environmental problems, government deficits, and social inequity. In order to be sustainable, cities should alter their development patterns so as to be more compact, diverse in their land uses, with more defined urban boundaries and internal structures.

The broad-based movement that is advocating such changes in the way our cities grow is called "Smart Growth". As one recent publication on the topic put it: "Smart Growth refers to land use and development practices that enhance the quality of life in communities, preserve the natural environment, and save money over time. The aim is to limit costly urban sprawl, use tax dollars more efficiently and create more livable communities."

Smart Growth, as a concept and a movement, had its birth in the United States. Smart Growth became an urgent issue in the US due to a decades-long legacy of suburban sprawl at the expense of downtown cores. From the 1930s onwards, US federal housing programs supported suburban homeownership and discriminated against older urban (often African-American) neighbourhoods in cities, creating regions that are highly segregated by race and class, a legacy that remains even today.² Subsequently, the federal "urban renewal" program implemented in the 1950s and 60s funded the destruction of entire city neighbourhoods to make way for commercial and higher-end residential development, concentrating low cost housing in high-rises. In many cities, commercial cores became ghost towns after 5 pm.

At the same time, federal transportation funding in the US supported the construction of a vast network of highways, some of which cut through urban neighbourhoods and facilitated the escape from the problems of the city to the suburbs. Efforts to stop sprawl in the US were weakened by a legion of property rights advocates dedicated to challenging government decisions that may limit what landowners can do with their land.³

In response to the serious problems associated with sprawl in the US, the Smart Growth movement has become a powerful political force. A host of Smart Growth networks have sprung up at the federal, state and regional levels, often using the Internet as the organizing medium and offering research reports, "best practice" case studies, discussion groups, news clippings, event calendars and other services. State governments have adopted Smart Growth programs that provide powerful regulatory frameworks (such as in Oregon) or

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¹ Deborah Curran. 2003. A Case For Smart Growth. Vancouver: West Coast Environmental Law.

²² Kenneth T. Jackson. 1985. *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press; Douglas Massey and Nancy Denton. 1993. *American Apartheid: Segregation and the Making of the Underclass*. Cambridge, MA: Harvard University Press. .

³ See www.yourpropertyrights.org

financial incentives (such as in Maryland) to discourage sprawl and promote more sustainable growth patterns.⁴

In Canada, the Smart Growth movement has lagged behind, partially because our cities were generally not considered to be on the "critical list". Canadian cities benefited from witnessing the negative impacts of major urban highway and large-scale "urban renewal" projects in the US and largely avoided going down these paths. Canada has also benefited from a stronger urban planning system, based on a widespread acceptance of the role of government in regulating private property. And while discrimination based on racial and socio-economic status is not absent in Canada, the long-term effects of discriminatory land use practices have not created segregated neighbourhoods to the same extent as in the US.

Over the last few years, however, the health and well-being of Canadian cities have been catapulted onto the national agenda. A consensus is emerging among economists and politicians that city regions are the engines of the economy, driving technological innovation and growth. Quality urban environments are seen as increasingly crucial in attracting and keeping the brainy and footloose people needed to power innovation. The federal government has acknowledged that the way our cities work will have an important bearing on Canada's ability to meet its international commitments under the Kyoto protocol, and urban air pollution has been raised as a major threat to human health. Traffic congestion in major metropolitan areas is increasingly seen as a major obstacle to improving the country's economic competitiveness. These shifts in perspective have linked the fate of cities to the fate of the nation as a whole and attracted greater attention, not only from environmental groups, transit associations, and affordable housing activists, but from mainstream players such as medical associations, big banks, business groups, and senior governments.

Inspired by the movement in the US, the Smart Growth concept has migrated north and has been taken up by both government and NGO sectors. The first Smart Growth organization in English Canada emerged in 1999 in British Columbia. Called Smart Growth BC, the independent non-profit group was set up by the Eco-Research Chair of Environmental Law and Policy at the University of Victoria and the West Coast Environmental Law Association. Its mandate is to promote compact urban centres, protect resource lands, ensure adequate affordable housing, promote sustainable transportation and maintain environmental integrity.

In Ontario, the term "Smart Growth" was adopted by the former Conservative government when it launched its Smart Growth Ontario initiative in 2001 with a "made in Ontario" approach. Although there was controversy about the government's definition of the term (the program included not only a resumption of provincial transit spending, facilitation of brownfield redevelopment and protecting major ecological features like the Oak Ridges Moraine from urban sprawl, but also a major new highway building program), the Smart Growth Ontario initiative helped to stir action among other players. Thus, the Federation of Ontario Naturalists coordinated a series of workshops to educate and mobilize residents

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⁴ Bohdan Onyschuk, Michael Kovecevic, Peter Nikolakatkos. 2001. *Smart Growth in North America: New Ways to Create Livable Communities*. Toronto: Canadian Urban Institute.

⁵ Richard Florida. 2005. *Cities and the Creative Class*. New York: Routledge.

against urban sprawl and, in 2003, they joined with the Conservation Council of Ontario and other groups to create an Ontario Smart Growth Network. Vivre en Ville, which promotes Smart Growth in Quebec, has also been active since 1999.

Meanwhile, a number of municipalities across the country have been adopting the language of Smart Growth. In Ontario, Guelph, Ottawa, Niagara, Kitchener, and Hamilton saw Smart Growth mayors and Councillors elected to lead changes in the way their communities grow. Ottawa's new suite of growth management plans, including land use, transportation, environmental, heritage and economic master plans, were based on the principles that emerged from a major conference on Smart Growth in 2000. Guelph's City Council adopted eight SmartGuelph Principles as the basis of municipal decision-making and initiatives in 2003. In Edmonton, City Council launched a Smart Choices consultation program as a way of building public interest and acceptance of intensification processes in that city.

Smart Growth is also on the agenda in Halifax, which was amalgamated in 1996 with Dartmouth and surrounding counties to form an immense regional municipality, now in the midst of a regional planning exercise. Initiated in October 2001, the theme of the plan is "Healthy Growth" and is based on the familiar Smart Growth principles of mixed-use development, compact design, a range of housing choices, sense of place, walkable neighbourhoods and alternatives to car-based transportation.⁶

In May 2003, a meeting of NGOs from across the country took place in Vancouver to discuss the desirability of founding a national Smart Growth Canada Network. The full range of groups involved in building more livable, transit-oriented communities while stemming sprawl onto agricultural and resource land were represented, as were government agencies such as CMHC and Natural Resources Canada. The decision was made to move forward and the network, after two subsequent meetings, is now in the process of being further consolidated, with an intended future focus on awareness building, research, and tool development on a national scale.

1.2 Research Questions

Although "Smart Growth" as a term is relatively new, the concept behind the rubric is not. In fact, the idea of managing urban growth to reduce environmental impacts, make cities more socially inclusive and more efficient to build and maintain is almost as old as urban planning itself. Planning theorists have always advocated compact over sprawled cities, infill development over fringe growth, higher density over lower density, a variety of housing sizes and forms over monotonous rows of detached dwellings, and strong downtowns that lend themselves to transit use over car-dependent malls surrounded by parking lots. Many practicing planners and municipal politicians are aware of these principles, but implementation has been uneven. Despite planning theorists, most cities across North America have continued their relentless sprawl and moved deeper into car dependency.

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⁶ Halifax Regional Municipality. 2002. *Smart Growth Principles for HRM – Draft.* Halifax, NS: HRM. Available at: www.region.halifax.ns.ca/regionalplanning/smartgrowth-principles.pdf

Smart Growth, like its growth management predecessor, depends for its realization on the gradual alteration of growth patterns, including neighbourhood designs, housing mixes, and transportation systems. Of course, an individual development can be planned and built in a few years, depending on its size and complexity, but changes on a larger urban scale can take much longer to achieve. Much land is already designated for development on the urban periphery, major infrastructure to support fringe growth is already in the ground, and much development is already in the "pipeline" with their designs already fixed. Thus, ten to twenty years is often cited by planning analysts as a reasonable time frame before significant changes in planning approach can make much difference on the ground.⁷

This implies that it is still too early to begin analyzing and judging the success or failure of the current round of Smart Growth initiatives in Canada. Indeed, the literature on Smart Growth in Canada is currently preoccupied with the challenge of implementation rather than assessment of outcomes. This is evidenced by the several reports that have emerged in recent years focusing on as they do the general description of the tools available to implement the concept.⁸

While there is much of value in this literature, what has not yet been explored is how the Canadian experience with growth management over the last two or three decades could help guide implementation of the Smart Growth concept. These efforts have played or are now playing themselves out and should be thoroughly analyzed in order to identify what has worked in the past, and what tangible changes on the ground have been achieved and how.

To state it succinctly, the key question motivating this report is: *How can municipalities move from a general commitment to Smart Growth to actually implementing it on the ground, and how can the obstacles that are preventing them from doing so be overcome?* More specifically, we will seek to answer the following questions:

- Which cities in Canada have made genuine efforts to manage growth so as to alter their development patterns in a fundamental way?
- What successes have these cities experienced and where have they failed?
- What are the reasons behind both successes and failures?
- And what are the lessons we can draw for the viability of Smart Growth as a new approach to growth management in the Canadian context?

1.3 <u>Scope and Methodology of the Study</u>

In order to address the above questions, the consultants selected six urban areas from different parts of the country and of various population sizes. All six regions have instituted growth management policies over the long term. The consultants identified each region's

⁷ For example, see Municipalities Table. December 1999. *Options Paper*. Ottawa: National Climate Change Secretariat.

⁸ For example, see Phillipa Campsie. March 2001. *Smart Growth In Canada*. Toronto: Canadian Urban Institute.

stated growth management goals, evaluated how well those goals were achieved in practice, and identified factors that might help to explain successes and failures. In the conclusions to the report, the implications of these findings are placed in a wider context and specific recommendations are put forward.

The research proceeded in the following steps:

Step 1 – Identification of desired outcomes

We began with a characterization of Smart Growth by identifying the key outcomes "on the ground" that are desired from implementing a Smart Growth program. These outcomes were confirmed through a review of the Smart Growth literature:

- intensify the existing fabric rather than expand into greenfield areas;
- take advantage of specific intensification opportunities
- denser, mixed-use development in greenfield areas;
- improve range of housing types;
- increase supply of new affordable housing;
- increase transportation choice and reduce car usage;
- preserve agricultural lands;
- preserve lands essential to maintaining regional ecosystem functions;
- direct employment to strengthen the core and designated sub-centres, and;
- provide infrastructure to reduce ecological impacts of development.

Step 2 – Selection of case study cities

Cities that are reputed to have embraced growth management programs with what would now be called Smart Growth objectives were identified in the next step of the study. This identification was based on our own prior research and an informal survey of other experts in the field.

Several factors were taken into account in the selection of case study jurisdictions. An attempt was made to choose urban areas from different regions of the country and of different sizes. Obviously, cities with the longest history of support for managing growth would be preferred so that implementation and outcomes could be adequately assessed. Some jurisdictions selected have relatively comprehensive planning programs that touch on many of the elements of Smart Growth, whereas others focus on a subset of elements. Table 1-1 illustrates the key issues and the time period considered for each case study.

Table 1-1: Case study areas, focus of studies and time periods.

Case study area	Smart Growth Elements	Time Period
Halifax Region	Regional planning to direct residential	1975-2005
(now Halifax Regional	growth to designated areas, contain	
Municipality)	growth within an urban development	
	boundary, promote transit, and	
	strengthen employment nodes.	
Montreal Region	Regional growth management plan to	1978-2005
(now the Montreal	intensify the existing urban fabric.	
Metropolitan	Agricultural land reserve to preserve	
Community)	farmland and stem sprawl. Regional	
	transportation planning to promote	

	transit.	
Greater Toronto Area Planning to stem sprawl, create a definite urban structure, encourage		1990-2005
	intensification, reduce car use and	
	preserve farmland and essential ecosystem functions.	
City of Saskatoon	Program to promote affordable housing, planning to manage growth efficiently.	1990-2005
City of Calgary	Transportation and land use plans to	1995-2005
	discourage automobile dependence and	
	minimize new infrastructure needs.	
Greater Vancouver	Regional planning to limit sprawl,	1990-2005
Regional District	encourage intensification and strengthen	
	urban structure, achieve a fine-grained	
	land use mix, discourage automobile	
	dependence, and preserve farmland and	
	essential ecosystem functions.	

Step 3 – Preparation of case study research template

A template for guiding the collection of data in the selected case study cities was developed. The template included the types of policies that might be in place under each element of Smart Growth, likely outcomes and implementation tools and issues, including political issues, regulatory and fiscal instruments, and governance structures and processes.

Step 4 – Gathering case study information

For each of the case studies, the research team gathered information in order to identify key Smart Growth policies and desired outcomes, to assess the degree to which the desired outcomes have been achieved over time, and the factors that may explain implementation successes and failures. Information sources for this step included newspaper and magazine articles, municipal policy documents, statistical data from federal, provincial and local sources, Internet sources and personal interviews with planners and other municipal officials.

Step 5 – Analysis of results

The results of each case study were analyzed in order to identify conditions for success and failure in implementing a Smart Growth agenda and achieving desired outcomes. Where planning goals were found to have been translated into real changes on the ground, the authors analyzed the conditions that permitted such success. Where there was a gap between planning objectives and outcomes, we assessed the barriers to full implementation and why these have arisen.

Step 6 – Conclusions

A draft report was prepared, including lessons learned from the six case studies and an assessment of their relevance to the current challenges facing the Smart Growth movement in Canada.

1.4 Outline of this Report

In addition to this introduction, there are eight chapters to this report. In the next chapter (Chapter 2), we present a statistical overview of the six study areas in order set the context for the case studies. This overview presents data on governance arrangements, growth patterns, housing, transportation, and some environmental issues related to Smart Growth. It brings into relief the conditions being faced by growth management agencies across the country and some of the associated problems. It also reveals how the six regions differ in major structural ways in terms of their population size, land area, density and so on.

Chapters 3 to 8 present the six case studies, using a common format:

- brief summary of the case study with title, jurisdictional unit (region or municipality) and time period under consideration;
- historical and regional context for the case (including related planning initiatives);
- description of regional growth patterns;
- summary of growth-related issues in the study jurisdiction;
- description of Smart Growth policies and objectives;
- evaluation of Smart Growth outcomes, and;
- analysis of the reasons for success and failure.

In the Conclusions (Section 9), we present some conclusions, including lessons learned from the six case studies and an assessment of their relevance to the current challenges facing the Smart Growth movement in Canada.

2 Overview of the Study Regions

The study regions are geographically defined as Census Metropolitan Areas (CMAs), a Statistics Canada term that includes the central city and surrounding municipalities from which more than half the population commutes to the central city. The term "central city" refers to the economically, demographically and culturally dominant municipality around which the CMA has historically developed (e.g., the City of Vancouver in the Vancouver CMA). This section presents information on the study regions in order to contextualize the case studies and analysis that follows in subsequent sections of this report.

2.1 Population and Governance

As shown in Table 2-1, the six metropolitan regions show a wide range of governance and population characteristics. Regional population size ranges from major conurbations (Toronto) of almost 5 million inhabitants to smaller centres (Saskatoon) less than one-twentieth this size. The regions differ on the degree to which the CMA population is concentrated in the central city versus outer suburban and rural areas. The table provides CMA population figures and the percent of CMA population found in the central city.

The presentation of these figures is complicated by the fact that four of the six central cities have undergone some form of boundary change over the study period. In the Halifax region, the City of Halifax was amalgamated with Dartmouth, Bedford and Halifax County to form the new Halifax Regional Municipality (HRM) in 1996. In Toronto, the former City of Toronto was merged with the five adjacent municipalities that once made up Metro Toronto to create the new City of Toronto in 1997. A similar process took place in Montreal, in 2001, where the 28 municipalities that once made up the Montreal Urban Community on the Island of Montreal were fused into the new City of Montreal with the MUC being abolished.

The table shows that the regions can be grouped into two categories: those that have less than 55% of the regional population in the central city (e.g., Toronto, Vancouver, Montreal and Halifax before amalgamation), and those that have more than 85% of the regional population in the central city (Saskatoon, Calgary, and Halifax after amalgamation). Regions with high and very high proportions of their population within the central city are generally those that have extended the borders of the central city over time to annex or amalgamate with surrounding lands or municipalities.

Table 2-1: Demographic and Governance Char	racteristics (1996 & 2001))
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CMA	CMA Pop	Central City Pop	CMA Pop in Central City		Municipalities in CMA*	
			Percent	Rank	No.	Rank
Halifax 2001	359,183	359,111	100	1	1	1
Halifax 1996	332,518	113,910	34	7	4	2
Montreal 2001	3,426,350	1,039,534	30	8.5	80	11

Montreal 1996	3,326,447	1,016,376	30	8.5	111	12
Toronto 2001	4,682,897	2,481,494	53	6	23	8
Toronto 1996	4,263,759	653,734	15	12	28	10
Saskatoon 2001	225,927	196,811	87	5	23	8
Saskatoon 1996	219,056	193,653	88	4	23	8
Calgary 2001	951,395	878,866	92	3	8	3.5
Calgary 1996	821,628	768,082	93	2	8	3.5
Vancouver 2001	1,986,965	545,671	27	11	22	5.5
Vancouver 1996	1,831,665	514,008	28	10	22	5.5

^{*} Does not include Native Reserves or upper-tier municipalities.

Source: Canadian Census

Table 2-1 also shows that some regions are fractured in their municipal organization (i.e., many municipal units make up the metropolitan area), while others have a central municipality that covers much or all of the region. For purposes of this study, we will refer to the Halifax, Saskatoon, and Calgary as single-jurisdiction regions, while the Montreal and Toronto regions will be called multi-jurisdiction regions. The Vancouver region is a special case because most of the population and municipalities in the CMA are grouped into a regional government (the GVRD), which has some growth management powers. Thus, for some purposes, it may be considered a single-jurisdictional region, while for others it may be considered a multi-jurisdictional region. The table shows that the multi-jurisdiction regions vary widely in terms of the number of municipalities within the CMA, from a low of 1 in post-amalgamation Halifax to a high of 111 in the pre-amalgamation Montreal CMA.

2.2 CMA Growth Rates

Growth rates also vary significantly among study regions, as shown in Table 2-2. Most of the CMAs showed very strong growth from 1981-1991, with Saskatoon in the lead, but growth fell off in all six case study regions from 1991-2001, when Calgary and Vancouver showed the strongest growth. Halifax and Montreal regions have grown relatively slowly over the entire 20-year period.

Table 2-2: CMA Growth (1981-2001)

CMA	1981 CMA pop	1991 CMA pop	2001 CMA pop	% CMA Growth 1981-1991		% CMA Growth 1991-2001	
				%	Rank	%	Rank
Halifax	277,727	320,501	359,183	15%	6	12%	5
Montreal	2,828,349	3,127,242	3,426,350	11%	7	10%	6

Toronto	2,998,947	3,893,046	4,682,897	30%	3	20%	3
Saskatoon	154,210	210,023	225,927	36%	1	8%	7
Calgary	592,743	754,033	951,395	27%	4	26%	1
Vancouver	1,268,183	1,602,502	1,986,965	26%	5	24%	2

Source: Census, 1981-2001.

2.3 Growth Distribution

All metropolitan regions in Canada – including our six study regions – have seen their population balance shift from the central city to the suburban and rural areas outside the central city. This means that the regional population is increasingly located in areas with poor (or no) transit services and are thus becoming more car-dependent. As shown in Table 2-3, areas outside the central cities are growing faster than the central cities themselves in all six study regions. The Cities of Calgary and Saskatoon captured a very high percentage of regional growth than the other study regions over the 1990s, reflecting the fact that these municipalities have expanded to annex surrounding territory over time.

Table 2-32-3: Population growth balance between Central City and other Regions of the CMA (1981-2001)

CMA	CMA	Central	Non-	Central city	Non-
	growth	City	Central	growth as	Central
	1981-2001	Growth	City	% of CMA	City
		1981-2001	Growth	growth	Growth as
			1981-2001		% of CMA
					growth
Halifax	81,456	4,698	76,758	5.77	94.23
Montreal	598,001	20,925	577,076	3.50	96.50
Toronto	1,683,950	77,135	1,606,815	4.58	95.42
Saskatoon	71,717	42,594	29,123	59.39	40.61
Calgary	358,652	286,058	72,594	79.76	20.24
Vancouver	718,782	131,719	587,063	18.33	81.67

Source: 1981: Statistics Canada, Census E-Stat; 2001: Statistics Canada Community Profiles

2.4 Population Density

Table 2-4 shows the land area and densities of the study regions. Overall CMA densities vary from a low of 44 people per square kilometre in Saskatoon to 846 in Montreal. It is important to note that these densities are calculated on the basis of the total area of the CMA and include both urbanized (higher density) and rural (lower density) areas. Thus, CMAs that encompass large tracts of rural land will appear to have lower densities than those that are more fully urbanized. An alternative approach is to calculate the densities of urbanized areas only and these figures are also presented in the table. According to this measure, Halifax is the lowest density urban area in the study and Toronto is the highest.

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⁹ Tracking this shift quantitatively is made more complicated by the fact that municipal borders have changed either through annexation or amalgamation over time.

The table also shows the densities of central cities. With the doubling in land area that occurred when the former City of Halifax amalgamated with surrounding municipalities in 1996, and the relatively small population increase, at 65 people per square kilometre, the Halifax Regional Municipality (HRM) became by far the lowest density "central city" in the study sample. At 5,591 people per square kilometre, Montreal has the highest central city density in the study sample.

Table 2-4: Land Area and Density (2001)

CMA	CMA Land	CMA D	ensity	CMA Us	rbanized sity	Central City Land	Central City	Density
	Area (kms2)	People /sq km	Rank	People /sq km	Rank	Area (kms2)	People /sq km	Rank
Halifax	5,495	65	5	1,307	6	5,490	65	6
Montreal	4,047	846	1	2,730	2	186	5,591	1
Toronto	5,903	793	2	2,848	1	630	3,939	2
Saskatoo n	5,192	44	6	1,635	5	148	1,326	4
Calgary	5,083	187	4	1,682	4	702	1,252	5
Vancouv er	2,879	690	3	2,593	3	115	4,758	3

Sources: Canadian Census and Bert Guidon, Natural Resources Canada

2.5 Housing Form

Housing consumes significant amounts of land in all Canadian cities and detached housing occupies the largest footprint of any housing type. Communities dominated by low-density housing may suggest urban sprawl, segregated land uses and automobile dependency. Housing form also has a social dimension in that single detached dwelling caters to a specific family type – the nuclear family – and is less appropriate for the rising number of non-family households (e.g., single person households, students, and seniors).

Table 2-52-5 shows the percentage of single detached houses as a percentage of all housing types. Of the six CMAs, Saskatoon and Calgary had the highest percentages of single detached housing, while Montreal had the lowest by far. Vancouver and Toronto also had relatively low percentages of single detached housing. Except for Vancouver (which declined substantially) and Saskatoon (which declined marginally), the percentage of detached housing grew in all CMAs.

Table 2-52-5: Single Detached Houses as a % of all Housing Typologies (1991 & 2001)

CMA	Single Detached Dwellings as a % of all Housing Types 2001		Single Detached Dwellings as a % of all Housing Types 1991		
	%	Rank	%	Rank	
Halifax	52.45	3	48.85	4	
Montreal	31.71	6	29.79	6	
Toronto	44.84	5	44.45	5	
Saskatoon	61.69	1	62.85	1	

Calgary	61.35	2	57.09	2
Vancouver	43.18	4	49.58	3

Source: Calculated from Canadian Census Data

2.6 <u>Transportation Choices</u>

Automobile dependence has negative environmental, social, and economic impacts, including air pollution and social segregation, and requires substantial investments of public funds to build and maintain roads and other automobile infrastructure. In a chicken and egg relationship, reliance on automobiles also perpetuates urban sprawl and inefficient land use patterns. Lower levels of auto use in a CMA may reflect more efficient land use patterns and higher levels of investment in public transit. More walking may reflect more pleasant city environments, a finer grained land use mix and a greater attention to pedestrian environments in the design of the city.

Transportation characteristics of the six study regions are shown in Table 2-6. The figures show that Calgary and Saskatoon are the most car-dependent of the six regions. These two regions have high levels of vehicle ownership and the majority of the modal share is comprised of automobile travel. Automobile modal shares are the lowest in Montreal and Toronto. This is likely due to the fact that the central areas of these CMAs have the most established public transportation networks of the six CMAs. Montreal has the lowest rate of car ownership and the fewest commutes by car. Vancouver, Toronto and Halifax have relatively low percentages as well.

Trends from 1996 to 2001 are mixed. Median commute distances have remained stable or slightly declined in five of the six regions while automobile modal share has increased slightly in four of the six regions.

Table 2-6: Transportation Characteristics (1996 & 2001)

CMA	Median	Median	% House-holds	% Commute	% Commute
	Commute	Commute	with Vehicles	by Car/	by Car/
	Distance 2001	Distance 1996	2001	Truck 2001	Truck 1996
	(km)	(km)			
Halifax	6.3	6.3	82	77.6	76.9
Montreal	7.9	8.2	73	70.4	72
Toronto	9.2	9.3	82	71.4	71.3
Saskatoon	4.8	4.8	90	86.3	85
Calgary	7.7	7.5	89	78.6	80
Vancouver	7.6	7.7	82	79.3	77.2

Sources: Canadian Census, Statistics Canada special tabulation on car ownership and the Transportation Association of Canada

2.7 <u>Water Consumption and Quality</u>

Table 2-7 presents water consumption and quality for the study six municipalities.1 In general, municipalities that monitor water consumption and charge for its use on a per litre basis have lower consumption rates than those that do not. Much of the water that is pumped through Canadian municipalities is lost due to leakage. Thus, water consumption rates not only reflect usage rates, but also the state of municipal infrastructure. The

table shows that all six study regions reduced their rate of water consumption from 1989 to 1999. Consumption remained very high in Montreal at 902 litres per person per day, while Halifax had the lowest consumption at 544 litres per person per day.

Water quality is depicted by the percentage of the municipal population receiving secondary or tertiary treatment. Environment Canada's Municipal Water Use Database (MUD) defines secondary sewage treatment as biological waste treatment. Tertiary sewage treatment is a form of sewage treatment providing a higher level of treatment than secondary, usually including effluent polishing, phosphate removal, and sometimes spray irrigation. Three of the CMAs serviced almost their entire populations with advanced wastewater treatment in 1999: Saskatoon, Toronto and Calgary. Halifax and Montreal provided only a small part of the CMA populations with secondary or tertiary sewage treatment as of 1999. Vancouver had advanced treatment for just over half its population.

Table 2-7: Water Consumption and Quality (1989 & 1999)

CMA	Average daily	Average daily	% Population	% Population
	water	water	receiving	receiving
	consumption per	consumption per	secondary and	secondary and
	person 1999	person 1989	tertiary sewage	tertiary sewage
	(litres)	(litres)	treatment 1999	treatment 1989
Halifax	544	580	16.7	15.0
Montreal	902	953	16.5	8.0
Toronto	522	561	95.3	94.3
Saskatoon	566	662	93.9	0
Calgary	559	708	95.9	99.1
Vancouver	638	688	52.0	2.0

Source: Municipal Water Use Database

2.8 Housing Affordability

Housing affordability is a central Smart Growth issue. Housing is the largest component of many households' expenditure and is central to the ability to meet basic needs. When housing costs are too high relative to income, people have less residual income to spend on other essential household costs such as food and power, and on other important goods and services. Moreover, a lack of affordable housing can discourage investment in a community if employers believe that they will have to pay premium salaries to cover higher housing costs. Finally, high housing costs can force some households to seek low-cost housing in the rural fringe, adding to road congestion, air pollution and sprawl.

According to the CMHC, housing is affordable when households spend no more than 30% of their income on shelter that is adequate to their needs and in suitable condition. Table 2-7 shows the percentage of households – both renter and owner-occupied households – spending over 30% of their income on shelter. Of the six CMAs, housing affordability was the highest in Calgary, with the lowest percentage of the population spending 30% or more of their income on shelter. Vancouver had the highest percentage of residents spending 30% or more of their income on shelter costs.

Table 2-7: Housing Affordability (1991 & 2001)

CMA	Private Househol	ds Spending 30% of	Private Households Spending 30% of		
	More of Income of	on Shelter 2001	More of Income on Shelter 1991		
	% Rank 9		%	Rank	
Halifax	21.1	5	20.5	5	
Montreal	22.4	3	24.9	1.5	
Toronto	25.5	2	23.8	3	
Saskatoon	21.8	4	20.5	5	
Calgary	20.1	6	20.5	5	
Vancouver	27.2	1	24.9	1.5	

Source: CMHC Research Highlights Socio-economic Series 03-017

2.9 **Summary**

The data presented in the above sections indicates that many factors, including housing form, automobile modal share and housing affordability differ considerably from region to region. In some CMAs, the data indicates improvement from a Smart Growth point of view, while other regions show decline. For example, between 1991 and 2001, single family dwellings as a percentage of all dwelling types fell considerably in Vancouver but increased significantly in Halifax. Data for the other four CMAs remained relatively constant. The housing form data shows that between 1991 and 2001, four of the six CMAs had an increased percentage of single-family dwellings. While the percentage increase was relatively small in most CMAs, this trend is negative from a Smart Growth point of view as single family dwellings consume more land than other housing types and are typically associated with automobile dependency.

Transportation patterns reflect regional growth and land use patterns, as lower density, segregated land use development patterns generally reinforce automobile dependency. The least dense CMAs (Saskatoon and Calgary) have high modal shares of automobile travel to work. Automobile commuting to work increased in four of the six CMAs between 1991 and 2001. Median commute distances have remained stable or slightly declined in five of the six regions.

Water consumption and quality data was positive: Between 1989 and 1999, water consumption per capita decreased in all CMAs. Three of the six regions improved waste water (sewage) treatment levels, providing either secondary or tertiary treatment. One CMA, Calgary, maintained a high level of tertiary water treatment.

Housing affordability is a central Smart Growth issue because of its impact on the quality of life and the potential impetus to urban sprawl that high housing costs can create. Housing affordability increased in only two of the six CMAs between 1991 and 2001: Calgary and Montreal. Vancouver and Toronto have the least affordable housing of the six regions between 1991 and 2001.

3 The Vancouver Region

3.1 Introduction

3.1.1 Description of the region

The Vancouver CMA is home to 2,140,000 people as of 2004, and is expected to reach a population of 2.7 million by 2021 and 3 million by 2031. The CMA covers the same area as the Greater Vancouver Regional District (GVRD), which is comprised of 21 municipalities and one electoral area (see Figure 3-1). It is the third largest metropolitan area in Canada, and has been the second fastest growing of the regions included in this study. Of all the regions in Canada, it is the one that is most closely linked to the burgeoning economy of the Pacific Rim and South Asia, and its immigration patterns reflect this link.

To Whistler County Coun

Greater Vancouver Municipalities

Figure 3-1: Greater Vancouver Regional District Municipalities

source: Greater Vancouver Regional District

Unlike many of the other regions examined, growth in the GRVD is highly constrained by its geography – being bounded on the north by mountains, on the west by ocean, on the east

by farmland (which also extends into part of the GVRD), and on the south by the US, border. It is also fragmented by water bodies, with two bridges spanning the Burrard Inlet, three over False Creek, and seven auto/ truck bridges, a SkyTrain bridge (not to mention various rail bridges) and one tunnel all navigating the branches of the Fraser River.

There is also a SeaBus that links Vancouver and North Vancouver, a bridge that crosses the Pitt River, and a car ferry linking Langley and Maple Ridge. The region's main east-west artery is Highway #1, which crosses the boundary between Burnaby and Vancouver and then runs parallel until it reaches the Second Narrows Bridge. ¹⁰ In addition to its road network, the region is equipped with a commuter train that serves the Tri-Cities area of Port Moody, Coquitlam, and Port Coquitlam as well as the suburban communities on the north shore of the Fraser River out to Mission, an elevated light rail (SkyTrain) system, and a comprehensive local and commuter bus system, including three semi-rapid bus lines.

Most of the region's residential density can be found in the City of Vancouver and in the older ring of suburbs (North Vancouver, Burnaby, Richmond, and New Westminster), with much of the sprawl occurring in the more peripheral suburbs. ¹¹ Of these, Surrey is growing the fastest and is now the second largest municipality in the region.

Although its economy has shifted significantly in recent decades, the region still serves as the headquarters for many resource companies (forestry, mining, and energy) and features a strong agricultural and food-related sector. Other industries include tourism, culture and recreation; manufacturing, high tech and telecommunications, as well as financial services and real estate. The city's port is the largest in Canada.

3.1.2 Regional growth patterns

A major impetus for regional planning in its various forms has been one of preserving quality of life in the face of rapid population growth. As shown in Table 3-1, the population of the GVRD has grown a cumulative 83.6% in the 30 years since 1971. The strongest growth years were in the early to mid-1990s when large numbers of migrants arrived from Asia, especially from Hong Kong as anxiety grew in advance of the take-over by China. This trend continued until about 1997. On average, the region has seen a growth of over 30,000 people per year since 1971, requiring an average of at least 15,000 new housing units per annum, including demolitions. However, this growth has been quite uneven, with significant "boom" and "bust" phases.

Table 3-1: Population Growth in the GVRD, 1971-2001 (000s)

	1971	1976	1981	1986	1991	1996	2001
Population	1,082	1,166	1,268	1,381	1,603	1,832	1,987
Five-year Increase		84	102	113	222	229	155

¹⁰ It was originally slated to pass through a number of what are today very significant neighbourhoods, but this was stopped in the early 1970s by a groundswell of opposition. Hayne Y. Wai. 1998. "Vancouver Chinatown 1960-1980." In *New Scholars-New Visions in Canadian Studies*, vol. 3, No. 1. pp. 2-17.

¹¹ The peripheral areas also feature areas of significantly higher residential density.

¹² Andrew Ramlo and David Baxter. 2004. *Going, Going.*.. *Development Potential and Housing Starts in the Lower Mainland*. Vancouver: Urban Futures Incorporated and the Urban Futures Institute.

% Increase	7.8	8.7	8.9	16.1	14.3	11.8
Cumulative	7.8	17.2	27.6	48.1	69.3	83.6
Increase						

Source: Census, 1971-2001.

Where this growth occurs is important from a Smart Growth point of view because of the implications for farmland preservation, maintaining ecological systems, and infrastructural efficiency. As Table 3-2 shows, much of it has taken place in outlying areas, such as Surrey, Richmond, Langley, and the Northeast Sector.

Table 3-2: Population Distribution in the Vancouver CMA, 1971-2001

	1971	1976	1981	1986	1991	1996	2001
Vancouver -	430,199	414,409	419,223	435,991	477,748	522,235	554,792
UEL*							
Burnaby – New	168,495	169,992	175,044	185,133	202,443	228,560	248,610
Westminster							
North Shore	127,511	134,017	137,714	143,446	156,118	167,083	176,196
Northeast Sector	85,011	93,091	106,045	117,231	142,337	174,082	190,273
Richmond	62,130	80,034	96,154	108,492	126,624	148,865	164,345
Delta	45,941	64,542	74,771	79,789	89,434	95,927	97,429
Surrey-White	109,056	129,157	160,880	196,070	261,705	321,885	366,206
Rock							
The Langleys	26,680	46,844	59,804	70,457	86,335	103,234	111,046
Maple Ridge-Pitt	27,329	34,362	38,548	44,120	59,758	69,794	78,068
Meadows							
CMA Total	1,082,352	1,166,348	1,268,183	1,380,729	1,602,502	1,831,665	1,986,965

*UEL= University Endowment Lands

Source: Census, 1971-2001.

3.1.3 Growth-related issues in the region

As noted, livability and environmental quality in the GVRD have long been major priorities for planners, politicians, and the public at large. Livability in the GVRD context has typically meant ameliorating traffic congestion, ensuring a supply of affordable housing, preserving open space and maintaining air quality.

Growth and decentralization in the region over the last few decades has given rise to conflicts over land use. Attitudes towards development have been influenced by a strong public attachment to the region's spectacular natural setting – a combination of mountain peaks and ocean vistas. Concern over the loss of habitat and possible threats to recreational and conservation areas has created public opposition to the spread of urbanization onto sensitive or valued green spaces, such as wetlands and mountain slopes.

Despite the fact that the GVRD is not a highly industrialized area, it has some air quality problems. Sea breezes carry pollutants such as nitrogen oxides and volatile organic compounds from the urbanized areas near the coast up the Lower Fraser Valley "funnel". The result is occasional episodes of severe ozone pollution in the region, especially near

Abbotsford and Chilliwack. Motor vehicles are the area's largest single source of air pollution, accounting for two-thirds of pollutants.¹³

Indeed, one of the key issues associated with existing growth patterns in the region is transportation. Residents frequently point to congestion on commuter highways into the regional core, and on arterials from one suburb to another, as a major public issue compromising their quality of life. Congestion also spills over into city streets as commuters look for alternative routes. Air pollution and traffic congestion, along with an environmental lobby against global warming, have made automobile dependency a growing issue in the region and throughout the province.¹⁴

Housing choice and affordability is also an important concern in the region. Population and economic growth has been associated with soaring housing prices for ground-oriented housing and condominiums and low rental vacancies, which is encouraging continued flight to the suburbs as people search for cheaper housing and more commodious spaces for families. This is augmented by the increasing number of jobs that are locating outside the traditional metropolitan core. As well, the general ageing of the population is giving rise to demand for housing with easy access to amenities and services – a type of housing that is scarcer in suburban areas. Fortunately, it would appear that some of this demand is being met in regional town centres and in senior-friendly areas such as White Rock, Tsawwassen, Langley City, and West Vancouver

3.1.4 Municipal organization and regional governance

As already mentioned, the GVRD is comprised of 21 municipalities and one electoral area. The GVRD is a regional district, a form of regional government unique to British Columbia wherein each regional district is permitted to decide which services it should offer. The Board of Directors is appointed from locally-elected councils of member municipalities, and the municipalities are billed for services provided by the regional government, such as water treatment and waste management. The GVRD allows each municipality to decide which regional functions it wants to participate in.

The GVRD was created in 1967 when regional districts were created throughout the province. It was one of four regional districts that replaced the Lower Mainland Regional Planning Board (LMRPB), whose area of jurisdiction spanned the territory from Vancouver to Hope. The four resulting regional districts were eventually amalgamated into two: the GVRD and the Fraser Valley Regional District (FVRD). ¹⁵ Originally charged with a

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¹³ Greater Vancouver Regional District web site (http://www.gvrd.bc.ca/air), accessed 25 July 2005.

¹⁴ BC Energy Council. June 1994. Draft Energy Strategy. Vancouver: BEC.

¹⁵ This history is principally taken from: H. Peter Oberlander and Patrick J. Smith. 1993. "Governing Metropolitan Vancouver: Regional Intergovernmental Relations in British Columbia," in Metropolitan Governance: American/ Canadian Intergovernmental Perspectives, edited by Donald N. Rothblatt and Andrew Sancton. Berkeley, CA/ Kingston, ON: Institute of Governmental Studies Press, University of California/ Institute of Intergovernmental Relations, Queen's University. pp. 329-373; Patrick J. Smith and H. Peter Oberlander. 1998. "Restructuring Metropolitan Governance – British Columbia Reforms," in Metropolitan Governance: American/Canadian Intergovernmental Perspectives, edited Donald N. Rothblatt and Andrew Sancton. Berkeley, CA: Institute of Governmental Studies Press, pp. 371-405; Province of British Columbia.

regional planning mandate, over time the GVRD has taken on more functions. In 1972, authority for sewerage, water and parks was added, and the agency has since taken on waste, public housing and labour relations roles, as well as responsibility for monitoring air quality and some point sources of air pollution through its Air Quality Regulatory Program for businesses and industry. ¹⁶

The GVRD inherited from the LMRPB a planning culture devoted to protecting environmental amenities and resource lands and curbing sprawl – a heritage that was influenced, in part, by the limits imposed by mountains, ocean, and the U.S. border. The GVRD approved the first Livable Region Plan (LRP) in 1975. However, in 1983, a Social Credit government eliminated the planning powers of regional districts throughout BC on the grounds that they were trespassing on municipal jurisdiction. Despite this loss, the GVRD decided to maintain a small "development services" division that provided data but made no plans, and the Livable Region Plan became advisory only, without statutory authority. However, in 1989 the "development services" function was included in the letters patent of the GVRD and thereby became a legitimate regional service. Regional planning was further strengthened by the Growth Strategies Act of 1995, under which the GVRD approved a new Livable Region Strategic Plan in 1996 (see below).

Transportation governance in the region has also been strengthened over the years. Until 1998, regional transportation plans were developed by a partnership of local, regional, and provincial agencies, but major investment decisions were largely made by provincial fiat. For example, transit investment decisions were made by BC Transit, the Province's transit organization. Though represented on BC Transit's council, regions and municipalities often felt left out of major transit investment decisions, despite the impact such decisions had on development patterns and the ability of local authorities to implement land use plans.

The potential for a better linkage between land use and transportation decisions was fostered when the Greater Vancouver Transportation Authority (GVTA), better known as TransLink, was created through the Greater Vancouver Transportation Authority Act (Bill 36) in 1998. Though one of its central purposes is to support the regional growth strategy of the GVRD, it is a formally autonomous organization independent of both the province and the GVRD. While independent in operations, it is dependent upon the GVRD in several critical respects: the GVRD appoints the GVTA Board, and it reviews plans and capital spending decisions.

Bill 36, that created the GVTA, authorizes it to provide and manage through its subsidiary companies:

• public transit services: buses, SkyTrain (light rapid transit), the SeaBus (ferry) between downtown Vancouver and North Vancouver, the WestCoast Express

June/July 1999. A Municipal Act Reform, Regional District Legislation: A Discussion Paper. Victoria: Ministry of Community, Aboriginal and Women's Services; Vanessa Timmer and Nola-Kate Seymoar. 2004. The Livable City. Vancouver: International Centre for Sustainable Cities.

19

¹⁶ Prior to the formation of the GVRD, these services were managed under a regional district-style model, and the branches of the GVRD that manage them are still technically independent entities,

¹⁷ TransLink. [http://www.translink.bc.ca/Who_We_Are/, web site accessed 29 February 2004].

commuter train along the north shore of the Fraser River, and HandyDART services for people with mobility problems;

- the Albion ferry linking Langley and Maple Ridge;
- the Air Care program that checks vehicles for excessive emissions;
- transportation demand management programs to encourage trip reduction and transportation alternatives; and
- a partnership with area municipalities to maintain, rehabilitate, and upgrade the major regional road network, but excluding local roads and provincial highways.¹⁸

The GVTA was provided with a variety of funding sources in addition to fares collected from its public transit services. These include property taxes, vehicle levies, parking taxes, and the fees collected from Air Care. The Province, in turn, has to give its nominal approval to taxes and levies or, in some cases, is the agent for collecting them. In 2000, shortly before a provincial election and after a bitter fight between urban and suburban councillors and mayors, a proposed vehicle levy was adopted by a narrow margin by GVTA board members. However, the provincial government refused to collect the levy, thus precipitating a major funding crisis which, in turn, coincided with a long transit strike. More recently, the provincial government has refused to approve a tax on parking spaces. In the face of numerous challenges, the agency has developed a comprehensive 3-year strategic plan and a 10-year outlook that includes adding capacity to transit services to attempt to meet rising demand.

3.2 Smart Growth Policy and Objectives

3.2.1 Provincial

In 1974, the NDP government of the day created the Agricultural Land Reserve to protect the province's agricultural land base from urbanization, and established the Agricultural Land Commission to oversee its stewardship. Though subjected to political interference by subsequent governments, the reserve has remained largely intact, and has been credited as one of the principal bulwarks against urban sprawl in BC's Lower Mainland.²¹

In 1995, the NDP government, re-elected in 1991, passed the *Growth Strategies Statutes Amendment Act*. The Act represented an attempt to strengthen regional planning institutions. The Growth Strategies Act, subsequently incorporated as Part 25 of the Local Government Act, provided for a two-stage regional planning centred on preparation of Regional Growth Strategies and Regional Context Statements (RCS). A Regional Growth Strategy presents the shared local and regional vision. It is supposed to provide population and employment projections and proposed actions to meet the needs of the projected population, including actions for housing, transportation, regional district services, parks and natural areas, and

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¹⁸ TransLink web site; Province of British Columbia. 1998. *Greater Vancouver Transportation Authority Act.* Victoria: Queen's Printer.

¹⁹ Ibid

²⁰ See Greater Vancouver Transportation Authority. 2004. 2005-2007 *Three-Year Plan and Ten-Year Outlook*. Burnaby: GVTA.

²¹ Gerald Hodge and Ira M. Robinson. 2001. *Planning Canadian Regions*. Vancouver: UBC Press.

economic development. Normally it is initiated by regional government, developed by a consultation process, and then referred to municipalities and other affected local governments (such as neighbouring regional districts and the Greater Vancouver Transportation Authority, in the case of Vancouver) for acceptance. The province can initiate a growth strategy where there is a compelling need that is going unmet because of a local reluctance to act. However, this has never occurred.

Regional Context Statements are prepared by the municipalities in the region as part of their official community plans and sent to the regional government for acceptance. In this statement, a municipality must show how its plan is consistent with the Regional Growth Strategy. In cases where the plan is not consistent with the strategy, the regional context statement must show how the plan will work towards the goals of the strategy.²²

Essentially, this system is based on "horizontal" rather than "vertical" relationships between the regional district and its member municipalities in that the region has no formal "authority" over the latter. The municipalities buy into a regional plan and are then required to reflect the plan in their own planning documents. Where non-resolvable disputes arise between municipalities, or between a municipality and the regional body, the Growth Strategies Act allows the province to step in to mediate at the request of the municipality. The Act was based on an approach developed during the early 1990s, informally referred to as the "consensus model," where it was recognized that, in a municipality-dominated governance system, no forward steps could be taken without the willing agreement of all partners. The process aims for the creation and adoption of a regional plan with a high degree of support amongst all local government partners and related agencies.

3.2.2 Regional

3.2.2.1 Land Use Planning

In the late 1960s, the GVRD set about producing a regional plan for the metropolitan area. After an elaborate and innovative consultation process, the GVRD approved the first Livable Region Plan (LRP) in 1975. This was a growth management strategy that included:

- a vision of a more compact urban region based on improved transit and reduced car use:
- population growth targets for each municipality in the region with growth concentrated in the metropolitan core and constrained up the Fraser valley;
- job growth directed to regional town centres and second-order municipal town centres connected by high quality transit; and
- a regional green system made up of regional recreational lands and environmentally valuable areas.

²² Patrick J. Smith and H. Peter Oberlander. 1998. "Restructuring Metropolitan Governance- British Columbia Reforms," in *Metropolitan Governance: American/ Canadian Intergovernmental Perspectives*, edited by Donald N. Rothblatt and Andrew Sancton. Berkeley, CA: Institute of Governmental Studies Press. pp. 371-405.

In 1989, strong growth pressures in the region prompted the GVRD to embark on an ambitious program to update the Livable Region Plan. Preparation of the new plan involved an extensive public consultation process that lasted for over five years, including conferences, workshops, public meetings, phone-in shows, cable television programmes, mail-out questionnaires and written briefs. The process was punctuated by the publication of documents that provided an increasingly detailed picture of what participants wanted the region to look like in 30 years (2021): "Choosing our Future," "Creating our Future," and Livable Region Strategy: Proposals (August 1993).

The key goals put forward in these discussion documents – and maintained throughout the planning process – were to:

- protect the Green Zone (agricultural and habitat lands);
- build complete communities
- achieve a compact metropolitan region
- increase transportation choice.

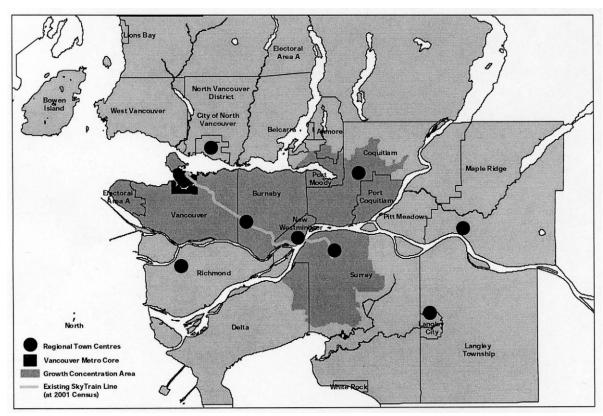


Figure 3-2: Growth Concentration Area and Regional Town Centres Source: GVRD.

As part of this planning process, a number of growth options were identified and evaluated, and one was chosen as the basis for the new plan. ²³ The chosen option involved

22

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²³ At this point, GVRD planners were anticipating the addition of one million more people by 2021 or sooner. What was interesting about the planning process was that the planners took into account the whole region as far as Chilliwack so as to look at regional growth in dynamic and systemic terms, rather than simply focusing

concentrating growth south and east of the Burrard Peninsula and in the northern parts of Surrey and Delta (see Figure 3-2). In this way, development would be diverted away from the prime agricultural lands of the Fraser Valley.

At this point, the regional district turned its attention to building a consensus among member municipalities on how to flesh out the vision in terms of urban structure, protected areas, housing targets, and population and employment distribution. The resulting Livable Region Strategic Plan (LRSP) was approved in principle by the GVRD in December 1994 and finally adopted in January 1996. Since that date, annual reports have been published to report on progress in meeting the Plan's targets and goals.

When the Choosing Our Future exercise was begun in 1989, it was assumed the resulting plan would have voluntary status only. The region had no authority to force municipalities to incorporate the regional targets into their official community plans. By the time the plan was adopted in 1996, however, things had changed somewhat. In 1991, the New Democratic Party had won office and almost immediately started work on legislative changes that would give regional plans a stronger legislative foundation. This led to the 1995 passage of the Growth Strategies Act. However, compliance by municipalities in regional plans was still to be voluntary.

In February 1996, the Minister of Municipal Affairs deemed the GVRD's Livable Region Strategic Plan a regional growth strategy under the Act, even though it was written prior to the passage of the Act and treated differently some of the elements stipulated by it. The Act requires that municipalities submit their Regional Context Statements within two years after acceptance of the Regional Growth Strategy. By the time this period had elapsed in 1998, all GVRD municipalities had completed their statements and these had been approved by the GVRD Board.

Through the Livable Region Strategic Plan and other initiatives, the GVRD has endeavoured to address Smart Growth issues in a fairly comprehensive fashion, though not under that name. For instance, in relation to intensification of growth rather than expansion of development into greenfield areas, the LRSP encouraged the channelling of growth into the Growth Concentration Area (GCA) such that, by 2021, 70% of all residents would be living there, as opposed to the 65% in 1991, while the proportion of employment in the GCA was to rise from 70.8% in 1991 to 72.2% in 2021.²⁴ However, it should be noted that the plan did not set any interim targets that would serve as markers for achieving that goal.²⁵

In relation to taking advantage of potential intensification opportunities, the GVRD and its partners sought to encourage a greater proportion of medium and higher density development in all areas of the region, and implicitly also in greenfield areas. It also envisioned denser, more mixed-use forms of development. The principal strategy for achieving this mix of land uses was through encouraging residential, commercial, and

on the area directly under GVRD jurisdiction. GVRD. 1996. The Livable Region Strategic Plan. Burnaby: Policy and Planning Department.

²⁴ Ibid. p. 9.

²⁵ At the time of the LRSP's publication, the GCA constituted 46% of the urbanized portion of the GVRD.

employment development in three types of centres: the metropolitan core (downtown Vancouver and Central Broadway), regional town centres, and municipal town centres. However, no specific targets were established, and the policy foundation in the relevant "Complete Communities" section of the LRSP was left vague and rather undeveloped.

In terms of preserving agricultural land (approximately 54,000 hectares of farmland within the GVRD, and the land beyond it in the in the Fraser Valley), the LRSP sought to protect such land as an integral part of the Green Zone, from which urban growth was to be diverted. The GVRD has also sought to preserve lands essential to maintaining regional ecosystem functions. High value habitat lands were seen as being an integral part of the Green Zone for both their ecological value and to maintain "Greater Vancouver's character as a region in nature." The LRSP, through a process of municipal nomination, identified 173,000 hectares to be included in the regional Green Zone. ²⁶

The GVRD has a limited role in housing affordability – mainly though the creation and management of some social housing units. However, by encouraging a diverse supply of housing forms, it has indirectly been seeking to address affordability issues, and the region has undertaken a number of studies and initiatives on affordability and homelessness issues.

The LRSP itself does not explicitly address infrastructure issues. However, the Act governing regional districts says that the bylaws and plans of regional service boards must be consistent with the regional growth strategy. The GVRD policy of concentrating growth is motivated, in part, by a desire to maximize fiscal efficiency and minimize the impacts of infrastructure on the environment. In recent years, the GVRD has also initiated a Sustainable Region Initiative (SRI) to more explicitly link the region's growth management goals to the concept and practice of sustainability. However, it is not yet clear how the strategy, and proposed action plan, will translate into tangible changes on the ground.²⁷

3.2.2.2 Transportation Planning

Transportation planning and investment decisions are crucial to achieving the region's growth management objectives. In 1994, a regional transportation plan was developed by a partnership of local, regional, and provincial agencies. Transport 2021 was a medium- and long-range transportation plan developed in parallel with the Livable Region Strategic Plan.²⁸ The principles and vision behind the Transport 2021 plan built on and expanded some of the concepts found in the transportation section of the 1975 Livable Region Plan.

The region has sought to increase transportation choice and reduce car usage. This goal follows from the GVRD's desire to reduce the problems of air pollution, congestion, and the spiralling public costs associated with them. It was envisioned that encouraging more

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²⁶ GVRD. 1996. The Livable Region Strategic Plan. Burnaby: Policy and Planning Department.

²⁷ For more on the SRI, see http://www.gvrd.bc.ca/sustainability/.

²⁸ See GVRD/ Province of British Columbia, September 1993. *A Long-Range Transportation Plan for Greater Vancouver*, and October 1993. *A Medium-Range Transportation Plan for Greater Vancouver*. Burnaby: Victoria: GVRD/ Province of BC.

compact and mixed use communities could have the effect of shortening travel distances, and enabling residents to access employment and services closer to home. The Transport 2021 plan aimed to reduce reliance on the private automobile by boosting the transit share of rush hour trips – from 13% to 17% in 2006 and 18% in 2021 – and to provide greater choice in the mode of transport through strategic expansion of public transit and opportunities for walking and bicycling. It also sought to keep the number of rush hour vehicles travelling west across the region's eastern perimeter from exceeding 5500 vehicles north of Fraser River and 2000 vehicles south of the river. The goal was echoed in the LRSP.

3.2.3 Municipal

In theory, the official plans of all member municipalities are supposed to support the policies and objectives of the GVRD, and this is to be demonstrated through the submission of regional context statements by each member municipality. While almost all municipalities pay lip service to regional growth management goals in their policies and plans, some communities are more explicit and are more aggressive in the pursuit of such policies.

Vancouver's policies, for instance, include:

- taking a larger than "trend" share of regional growth to reduce urban sprawl;
- creating a vibrant central area by balancing jobs and housing to reduce commuting and increase housing choice;
- increasing housing/ job densities in lower density areas to make more efficient use of existing services;
- reducing commuting and improving air quality by developing and strengthening neighbourhood centres with shops and services close to home, and
- seeking to reduce automobile dependence, increase housing diversity and affordability, and improve environmental quality.²⁹

These policies build on a practice, of over thirty years, of converting derelict industrial land – especially in areas close to downtown – to housing, initially taking a medium-density ground-oriented form, and more recently taking the form of tall, slender high rises. Moreover, since the mid-1990s, the City has been developing a set of policies that, over time, have more explicitly established parameters for a model sustainable community on a 35 ha site at Southeast False Creek, one of the last industrial sites close to downtown.

The City has also had a policy of developing greenways and bikeways on city streets to facilitate walking and cycling, and of introducing traffic calming measures in neighbourhoods. It has adopted a Downtown Transportation Plan that seeks to shift the modal split in the CBD more towards transit, walking, and cycling.

The City of North Vancouver, for its part, also has a policy of converting waterfront industrial lands to residential and mixed uses, and has been seeking to introduce greater

²⁹ See City of Vancouver, *Regional Context Statement* (http://www.city.vancouver.bc.ca/commsvcs/BYLAWS/odp/rcs.pdf) and *CityPlan and Community Visions* (*Area Plan*) *Program and Terms of Reference* (http://www.city.vancouver.bc.ca/commsvcs/planning/cityplan/Visions/index.htm).

density into long-established neighbourhoods, but has been encountering stiff opposition from existing residents. The City has been developing a district heating system for downtown, and has introduced a by-law for the protection of riparian zones throughout the city.

Richmond's Official Community Plan (OCP) commits the City to pursuing Smart Growth principles, and designates the City Centre as a major growth area that will accommodate about half of the expected population and employment increase to 2021. Richmond's OCP and City Centre plan envisions a vibrant commercial core, with high-and medium-density development, able to attract a greater and varied number of residents and businesses than have been historically been present in the area.

Infill is also being encouraged through the gradual implementation of an arterial road redevelopment policy for established neighbourhoods outside the City Centre. This process encourages the redevelopment of low-density residential lots along selected arterial roads with small-scale infill projects (mostly 20 units or less). The process is transforming selected roads into more urban landscapes, with higher densities, back lanes and fewer driveways. The City has also designated new residential zones allowing smaller single-family lot sizes and a second unit above garages.

The City has established an innovative process, referred to as the Single Family 702 Lot Size Policy, which sets out a procedure for amending the zoning bylaw to permit property owners in specific single-family areas to divide their lots into two smaller lots, essentially doubling the housing densities.

Many of Richmond's residential subdivisions have been based on conventional designs, including cul-de-sacs and poor pedestrian connectivity. This appears to be changing as plans for major new development areas adjacent to the City Centre (which are evolving from semi-rural to urban) feature streets on a grid pattern (which are easier to serve by transit), with a mix of uses, and a pedestrian-friendly urban design.

The OCP encourages the application of transportation management techniques, such as allocating more road space to non-car travel, providing employer incentives for trip reduction programs, launching a "walk to school" campaign, reducing parking requirements, and introducing traffic control devices to give transit, pedestrians and bicyclists priority over cars.

The OCP also supports the preservation of agricultural land and activities within the municipality. Environmentally-sensitive areas of the city have been mapped and catalogued, and are protected through a Development Permit process.

3.3 Smart Growth Outcomes

3.3.1 Intensification of growth rather than expansion of development into greenfield areas

When the LRSP was adopted in 1996, the region had a significant reserve of underutilized land outside the Green Zone, in both Growth Concentration Area (GCA) and in non-GCA areas. Most of this land was rural residential in character or consisted of very low-density suburban development. It was anticipated that some housing, and other forms of development, would go onto this "greenfield" land. However, a greater proportion would go into already urbanized areas.

The 1996 plan sets a target of accommodating close to 70% of population growth in the Growth Concentration Area by the year 2021. This was up from the then-current rate of 65%. It is worth noting, however, that the original draft targets (which were higher) were challenged by some municipalities who saw them as interfering with their already initiated planning processes and objectives. Richmond, in particular – which was becoming a significant urban node – objected to being left out of the GCA altogether. Thus, the targets in the LRSP were significantly lower than those discussed in earlier research reports and projections.³¹

According to figures released in the organization's 2002 annual report, 73% of all growth since the adoption of the LRSP has occurred in the Growth Concentration Area. However, a detailed analysis of population change at the census tract level suggests that, in fact, the percentage of growth going into the GCA is essentially the same as the trend that obtained up through 1996, namely 65%. In other words, the status quo remains unchanged. 33

Obviously, some municipalities that are outside the GCA are accepting more growth than foreseen in the LRSP. Surrey, for instance, is geographically divided by the GCA line, with the northern half of the municipality within the GCA and the southern half outside of it. In 1997, only 45% of its housing growth was outside the GCA, while in 2003, 67% of additional units were outside the GCA. Thus, the trend appears to be in the opposite direction than was envisioned in the LRSP. Of a total growth of 16,720 housing units built

30

³⁰ In 2001, 15.4% of the GVRD's remaining land base was non-Green Zone and was potentially available for urban development. GVRD. 2001. Land Use 2001. Burnaby: GVRD.

³¹ Ray Tomalty. 2002." Growth Management in the Vancouver Region." *Local Environment* 7 (4): 431-445; Ray Tomalty. March 2002. *Growth Management in the Vancouver Region* [Assessment and Planning Project, BC Case Report No. 4, Department of Environment and Resource Studies, University of Waterloo], available at http://ersserver.uwaterloo.ca/asmtplan. As Tomalty notes, the targets went from one Compact Region Scenario projection in 1992 of 94.5% of all growth to 2021 going to the already urbanized core, to a second iteration in which the figure was revised to 78.4%, to 73.4% in the LRSP, and finally to 69.6% in informal figures used by planners in 2000.

³²GVRD. 2004. 2003 *Annual Report: Livable Region Strategic Plan*. Burnaby: Policy and Planning Department.

³³ James Steidle. 2004. "Failure of the Compact Region, The Greater Vancouver Regional District: Unrealistic Hopes of Policy Integration -or- 'Will This Dog Hunt'?" Paper presented at the British Columbia Political Studies Association Annual Meeting, 1 May, Richmond, B.C. GVRD staff have acknowledged the error and will be correcting it in future reports.

from 1997 to 2003, 8454 units or 51% were outside the GCA. Richmond, for its part, has had a total of 7274 units added to its housing stock in the 1997-2003 period, all of it outside the GCA.

Table 3-3: Location of additional housing in Surrey, 1997-2003 (%)

	1997	1997-2003	2003
Outside GCA	45	51	67
Inside GCA	55	49	33

Source: 2004. GVRD. New Housing Completions in Greater Vancouver, 1997-2003.

Although intensification is apparently below that targeted by the LRSP, the amount of growth occurring in the already urbanized areas is still significant. This is leading to increased population densities in the GCA, regional town centres and along Sky Train lines, as shown in Table 3-4.

Table 3-4: Increases in Population and Population Density in the GVRD

Area	Density Increase from
	1991 to 2001
GCA	24.0%
Regional Town	43.6%
Centres	
Metropolitan core	44.5%
Within 500 metres of	45.6%
SkyTrain line	
Within 1000 metres	32.4%
of SkyTrain station	

Source: Population Density in Greater Vancouver, 1991-2001 (Burnaby: GVRD, March 2003).

3.3.2 Take advantage of residential intensification opportunities³⁴

Intensification in already urbanized areas is not a new phenomenon in Greater Vancouver; it goes back at least fifty years in the central core, and has taken a variety of forms. Since the acceptance of the Livable Region plan, trends that were already in motion – as a result of market factors and previous policies – have continued to unfold, and stronger efforts have been made to encourage intensification in municipalities that were traditionally low density.

For instance, the conversion of industrial lands around False Creek, that began in the early 1970s, has intensified and taken on more of a high-rise form, as in the Concord Pacific development on the north shore of False Creek. The adjacent areas of Yaletown and Downtown South have also seen the construction of many high-rises, and these have tended to take the form of tall, slim towers (to preserve views) on a podium base, to provide townhouse units and commercial storefronts that connect the buildings to the street.

³⁴ We acknowledge the contribution of Barton Reid in this section. For more on the historical background to intensification in the region, see his 1998 Ph.D. dissertation: *The Political Economy of Densification – Searching for the Postmodern City: A Case Study of Urban Transformation in Greater Vancouver*. Winnipeg: University of Manitoba.

The return of the high-rise form, the first form of which occurred in the West End of Vancouver in the late 1950s and '60s, has drastically increased the ability of the metropolitan core to absorb more density. Over the past decade and a half, the metropolitan core has experienced the fastest growth rate of any in North America. Because of this high-rise intensification, it has been transformed into the densest metropolitan core in the country. These dramatic changes are reflected in the sharp rise in population density, which increased from 65.6 persons per hectare in 1991 to 94.8 hectares in 2001 – a 45% increase in just ten years. ³⁵

A key aspect of this has been the development of policies and buildings intended to better meet the needs of families. This effort has proven quite successful, as reflected in the fact that the explosion of the number of children in the downtown area has exceeded the availability of schools and daycare facilities to accommodate them in some cases.

However, with high-rise building in the metropolitan core approaching or exceeding the record levels achieved between 1967 and 1971, land zoned for high-rise residential development is quickly becoming depleted, as evidenced by the conversion of some office buildings for residential use. This has moved much of the momentum for high-rise development outwards into the suburbs, to areas zoned for transit-oriented development.

Aided by the expansion of the SkyTrain network, and the growing demand for condominiums, regional town centres and municipal centres have seen an explosion of high-rise development – for instance, at the Joyce Street SkyTrain station in Vancouver, and at the Brentwood Station in Burnaby. Ten years after the arrival of SkyTrain into downtown Surrey, the Central City development has appeared consisting of five buildings with a total of 1500 units.

Current conversions of industrial land now moving forward include a plan in the City of Coquitlam to redevelop the 33 ha Fraser Mill Site into a mixed-use development holding 3,700 residential units, and the City of Vancouver plan to turn 51 ha of industrial land along the Fraser River into a mixed-use community of 10,000.³⁶

Although far less significant, residential intensification along major arterials – beginning in Vancouver and now occurring in other parts of the region – and rezoning to allow for lofts and live-work spaces in the Mount Pleasant and Gastown districts of Vancouver have added to the variety of forms taken by intensification. Also worth mentioning are higher density and New Urbanist developments on university campuses. UniverCity, a mixed-use development with 4,500 housing units, adjacent to Simon Fraser University in Burnaby, is one such example. Another is the community being constructed on the UBC Endowment Lands, where housing for more than 10,000 people is expected to be provided when build-out is achieved.

³⁶ Standing Committee on Planning and Environment. 2004 (December). *East Fraser Lands Policy Statement*. Vancouver: City of Vancouver.

³⁵GVRD. March 2003. *Population Density in Greater Vancouver*, 1991-2001. Burnaby: Policy and Planning Department.

3.3.3 Denser mixed-use development

Densities have also been rising in suburban municipalities. However, often increases in density that look good on paper reflect more a low starting point than major progress. For instance, Pitt Meadows and Maple Ridge posted a 30.3% increase between 1991 and 2001. However, this only amounted to an increase from 6.3 persons per hectare to 7.3^{37}

A paper, entitled "Growth and Change in Greater Vancouver" produced for the GVRD planning department by the Urban Futures Institute, defined a density of about 35 people per hectare as a benchmark separating auto-dependent low density urban form from a more transit-supportive one. In many areas outside the GCA, in the Town Centres and along major corridors, development densities are significantly below this threshold.³⁸ Thus, although densities are moving in the appropriate direction in some parts of the GVRD, low densities in much of Surrey, Langley, Maple Ridge, and elsewhere are helping to deepen car dependency in the areas where development is occurring at densities of 20 people per hectare or less.

Because of the shortage of land available for greenfield development, the kinds of New Urbanist greenfield experiments being seen in other metropolitan areas (such as the Greater Toronto Area) are not as prevalent or on as large a scale in the Vancouver region. So far, East Clayton in Surrey appears to be the largest greenfield suburban development using New Urbanist principles to organize residential space. At present, it is a development largely composed of single-detached units. When completed this 560-acre site is expected to house 13, 000 people.

3.3.4 Wider range of housing types

The LRSP seeks a diversity of housing types, which means reducing the tendency towards an overwhelming preponderance of single-detached homes where this is occurring. In this regard, the performance of some municipalities has been mediocre at best and poor at worst. For instance, in Pitt Meadows and Maple Ridge, the proportion of new housing units that were single-detached increased from 71% in 1997 to 90.7% in 2003.³⁹ In Surrey, the rough parity between single and multi-family housing forms that existed in 1997 has shifted decidedly in favour of detached housing. As Error! Reference source not found. shows. twice as many detached as multi-family homes were being built by 2003.⁴⁰

Table 3-5: Single vs. multi-family housing additions, Surrey, 1997-2003 (%)

	1997	1997-2003	2003
Multi	51	41	34
Single	49	59	66

Source: GVRD. 2004. New Housing Completions in Greater Vancouver, 1997-2003.

³⁸ TransLink. 2000. Draft Strategic Transportation Plan: Appendices. Vancouver.

³⁹ GVRD. 2004. New Housing Completions in Greater Vancouver, 1997-2003. Burnaby: Policy and Planning Department.

⁴⁰ Ibid.

Richmond appears to be achieving a better balance in housing form. Almost three-quarters of new growth from 1997-2003 was multi-family in form. But its proportion of housing in multi-family forms is also falling (see Table 3-6).

Table 3-6: Single vs. multi-family housing additions, Richmond, 1997-2003 (%)

		T	
	1997	1997-2003	2003
Multi	84	74	75
Single	16	26	25

Source: 2004. GVRD. New Housing Completions in Greater Vancouver, 1997-2003.

Over the long term, the housing mix figures for the GVRD are variable. Only 32.2% of all housing starts built from 1996 to 2001 were single-detached, compared to 38.7% in the 1981-85 period (see Table 3-). However, data for 2003 shows that the yearly percentage for this category was up to 39.4%, higher than in the 1981-85 period. Nonetheless, the overall change in the housing stock has been towards a lower proportion of single-detached housing, as shown in Table 3-8.

Table 3-7: Housing Starts by Housing Type, GVRD, in five year averages, 1981-2001

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	1981-85		1986-90	1986-90		1991-95		1996-2001	
	#	%	#	%	#	%	#	%	
Single Detached									
House	24,606	38.7	42,234	47.4	29,991	30.7	23,342	32.9	
Semi-Detached and									
Duplex	6,331	9.9	3,057	3.4	7,118	7.3	3,394	4.8	
Row	7,902	12.4	12,379	13.9	10,015	10.3	8,203	11.5	
Apartment and									
Other	24,814	39.0	31,473	35.3	50,581	51.8	36,084	50.8	
Total	63,653	100.0	89,143	100.0	97,705	100.0	71,023	100.0	

Source: CMHC Housing Statistics

Table 3-8: Total Housing Stock by Housing Type, GVRD, 1981-2001

	1981		1986	1986		1991		1996		2001	
	#	%	#	%	#	%	#	%	#	%	
Single											
Detached	273,657	57.4	28,3673	53.3	302,277	49.6	315,297	45.5	330,740	43.6	
Semi											
Detached											
and Duplex	13,826	2.9	34,062	6.4	14,627	2.4	15,938	2.3	84,790	11.2	
Row	28,605	6.0	25,547	4.8	36,566	6.0	49,200	7.1	56,265	7.4	
Apartment											
and Other	160,667	33.7	188,938	35.5	255,960	42.0	312,525	45.1	286,915	37.8	
	476,755	100.0	532,220	100.0	609,430	100.0	692,960	100.0	758,710	100.0	

Source: CMHC Housing Statistics

⁴¹ Ibid.

31

3.3.5 Increase supply of affordable housing

It is a testament to the perceived and actual "livability" of the region that it continues to experience strong rates of growth. However, this is also contributing to rapid inflation in the price of housing. The prices of detached houses have increased by 48.9% over the past five years, while attached houses have increased 50.1%, and apartments, 51.7%. ⁴² This occurred after a brief period of deflation in prices in the late 1990s.

Moreover, owing in part to low interest rates, many former renters have been purchasing condominiums or other forms of housing. Thus, little of the housing stock added in the last few years has been formal or purpose-built rental, and the proportion of housing units overall that are rental has slipped from 46% in 1986 to 39% in 2001.

Furthermore, rents have been increasing. Rental costs have increased – 10.9% between 1998 and 2003 for a two-bedroom apartment. With an average rent of \$965 per month for a two bedroom apartment, rents in Vancouver are amongst the highest of the study CMAs, second only to Toronto. At 2% in 2003, the vacancy rate in Vancouver was amongst the lowest of the study regions.

The result is a general decline in affordability for both ownership and rental housing in the GVRD. This is reflected in the fact that, as of 2001, 43% of renters and 24% of homeowners were paying more than 30% of their income on housing charges, for a total of 31.4% of all households, the highest of all the major metropolitan regions in Canada (see Table 3-9).⁴³

To make matters worse, owing to the slashing of senior government programs, the production of social housing units has fallen dramatically: from 1000 in 1992 to 241 in 2003. Of the units produced in 2003, the vast majority was produced in just two of the member municipalities: Vancouver (62.7%) and Port Moody (35.7%).

Table 3-9: Housing Affordability: % Households paying 30% or more for shelter costs

1981*		1986		1991		1996		2001	
Owners	Renters								
17.8	16.2	16.2	44.7	10.9		23.5	46.6	24	43.2

^{*} Housing affordability cut off defined at 25% for 1981

Sources: Statistics Canada: Specified Census Families in Private Households by Selected Family, Household, and Dwelling Characteristics and CMHC Research Highlights Socio-economic Series 03-017.

3.3.6 Increase transportation choice and reduce car usage

As shown in Table 3-10, GVRD residents drove (as auto drivers) for 57.1% of all trips in both 1994 and 1999. This was due to the growth in auto driver trips of 14.6% in the 5-year period – the same growth rate as that of total trips in the region. Auto passenger trips grew by only 2.3% between 1994 and 1999, resulting in a drop in auto passenger mode shares

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⁴² September 2004. *Realty Link*.

⁴³ GVRD. April 2004. 2001 Census Bulletin #12 – Shelter Costs. Burnaby: Policy and Planning Department.

from 19.1% to 17.1%. This caused a drop in the regional daily auto occupancy rate from 1.33 passengers per automobile in 1994 to 1.30 passengers per automobile in 1999.⁴⁴

A significant increase was observed in walk and bike trips, with this mode share up from 12.7% in 1994 to 14.3% in 1999, due to an increase in walk and bike trip totals of 28.8% within this period. Transit trip totals grew by 16% from 1994 to 1999, slightly increasing the transit mode share from 10.2% to 10.3% in that period. Transit ridership has been especially strong in the last couple of years, increasing by 11.7% in 2003 and by 8.3%, in 2004. By 2004, the regional transit mode share had increased to 10.8%.

TransLink is only one out of two major transit systems in Canada that has experienced increased ridership in the past few years. This is despite the challenges of an aging population and the ongoing dispersal of employment locations, which are much more difficult to serve by transit. Overall, an estimated 13.4% of GVRD residents used transit for at least one, one-way trip during a typical weekday.

Other surveys and data tend to suggest that ridership would be higher if there was more capacity. Unlike many other regions, Greater Vancouver appears to have more people wanting to be transit riders than it has capacity to accommodate.

Table 3-5: Modal Share, 1994-1999, and 2004⁴⁶

	Number of			Modal			
	trips			share			
Mode of	1994	1999	% change	1994	1999	Change	2004
Travel			94-99			94-9	
Auto Driver	2,728,500	3,127,600	14.6	57.1%	57.1%	0.0%	
Auto	914,100	935,300	2.3	19.1%	17.1%	-2.0%	
Passenger							
Transit	488,200	566,200	16.0	10.2%	10.3%	0.1%	10.8
Walk/Bike	608,300	783,500	28.8	12.7%	14.3%	1.6%	12.8
Other	40,900	65,800	60.9	0.9%	1.2%	0.3%	

Source: Glen Leicester, Vice-President, Planning. June 16, 2005. Memo, To: GVTA Board of Directors. Subject: Transit Capacity Study. Burnaby: GVTA.

While transit and walking/cycling have improved their share of trips undertaken, more trips per capita are occurring in the region and these follow an ever more dispersed pattern. Partly, this is because much of the job growth is occurring in outlying areas, partly because

⁴⁴ Clive Rock, Strategic Planning and Policy. June 7, 2005. "Memo To: GVTA Board of Directors. Subject: Recent Trends in Travel Characteristics: Analysis of the 204 Greater Vancouver Trip Diary Survey." Burnaby:

⁴⁵ TransLink. 2005. TransLink 2004: Annual Report. Burnaby: GVTA.

⁴⁶ In contrast with past trip diary studies, the 2004 study was conducted in the spring and resulted in modal share figures that the researchers felt were unreliable. They were able to adjust the data for transit and walking/ cycling by various means, but were not able to do so for driving (as driver or passenger) and, as a result, this information was not released. Jim Wang, program manager, transportation planning, GVTA, personal communication, 3 August 2005.

the proportion of personal business trips is increasing. However, the length of commutes has been declining on average, as shown in the following table.

Table 3-11: Commuting Distances GVRD (20% Sample)

	1996		2001	
	#	%	#	%
Less than 5				
km	250,915	33.80	279,885	34.84
5 - 9.9 km	195,205	26.30	207,445	25.82
10 - 19.9				
km	188,345	25.37	204,100	25.40
20 km - or				
more	107,865	14.53	111,960	13.94
Total (All				
commuters	742,330	100.00	803,390	100.00
Median				
commuting				
distance	7.7 km		7.6 km	

Sources: 1996: Canada Nations Series, Commuting Distance; 2001: Topic Based Tabulations 97F0015XCB2001001.

The number of private vehicles in the region increased by 12.5% from 1999 to 2004. It is interesting that the core areas of the region are becoming more self-sufficient, with fewer trips leaving their respective sub-areas than in 1999, whereas suburban areas are seeing an increase in the number of trips leaving.⁴⁷

3.3.7 Preserve agricultural land

Agricultural land in BC is protected in the Agricultural Land Reserve established by the New Democratic Party (NDP) government in 1974 and administered by the Agricultural Land Commission. Owners of land within the reserve can apply to have land removed, and the GVRD can review the application and strongly advise against it if it is perceived to be inconsistent with the regional context statement of that municipality.

When it was first set up, the Agricultural Land Reserve (ALR) in the GVRD amounted to 58,782.9 hectares. From that point until 2003, 5,422.8 hectares of farmland were removed from the ALR, or just under 10% of the total reserve in the region.⁴⁸

In 1996, when the Livable Region Strategic Plan was approved, there were approximately 53,000 hectares of land in the agricultural reserve in the GVRD. From 1996 to 2004, 371.5 hectares of land were removed, and close to 70 hectares added, for a net loss of 225

⁴⁷ Ibid.

 $^{^{48}\,}http://www.alc.gov.bc.ca/alr/stats/A5_incl-excl_RDallyears.htm$

hectares. New land has been brought into production between 1996 and 2001, but most of this land was outside the ALR. Of the municipalities with the greatest amount of agricultural land, Surrey and Richmond did the best job in terms of avoiding withdrawals, and Maple Ridge and Pitt Meadows did the worst. Delta and the Township of Langley also lost a considerable amount of land.

Table 3-12: Agricultural land inclusions and exclusions in the GVRD, 1 January 1996 to 1 November 2004 (hectares)

Name of	Inclusions	Exclusions	Net Loss
Municipality			
Bowen Island		0.8	-0.8
Burnaby	1.0	27.5	-26.5
Delta	3.8	44.7	-40.9
Langley District	26.3	46.7	-20.4
Maple Ridge	14.4	88.9	-74.5
Pitt Meadows	21	61.7	-40.7
Richmond		13.6	-13.6
Surrey		7.6	-7.6
TOTALS	68.8	371.5	-225.0

Source: Boyd Porteous, B.C. Agricultural Land Commission

The agricultural sector in the GVRD appears to be relatively healthy, with a 40% growth in agricultural receipts between 1995 and 2000. Indeed, the GVRD, with only 2% of the total provincial agricultural land base, generates 30% of total sales. However, farms are getting larger and more consolidated, and more space is being given over to greenhouse operations, which effectively sterilizes the soil and removes the land's former habitat value. Livestock operations have also been declining, perhaps in part due to increased conflicts with residential land uses.⁴⁹

3.3.8 Preserve lands essential to maintaining regional ecosystem functions

The Green Zone is another principal component of the 1996 Livable Region Strategic Plan, an extension of the Open Space Conservancy concept from the 1975 Livable Region Plan. Approximately 42% of this is agricultural land, some of it still performing an important habitat function, especially as part of the Pacific Flyway for waterfowl migration. Much of the rest of the Zone is protected regional watershed land; miscellaneous forests and mountains; municipal, regional, and provincial parks; tidal flats, and wetlands. Besides preserving ecological functions and recreational amenities, the Green Zone was intended to act as a brake on urban sprawl.

As part of the strategic planning process involved in the LRSP, municipalities were invited by the GVRD to nominate areas for inclusion in the Green Zone. By 1992, most municipalities had completed their identifications for inclusion in the Green Zone: a total of 173,300 hectares (including the regional watersheds) – about two-thirds of the region's total

⁴⁹ GVRD Policy and Planning Department. February 2003. 2001 Bulletin #2 – Census of Agriculture. Burnaby.

⁵⁰ Of the regional parks, 31% of their area, or over 9300 hectares, are wetlands, which is a particularly valuable habitat.

land area. Following the adoption of the Livable Region Strategic Plan, designated lands needed to be identified in the municipalities' Regional Context Statements. Subsequent amendments resulted in some minor removals from the zone, but as Table 3-13 shows, the amount of land included in the Green Zone at the end of the Regional Context Statement process actually exceeded that originally included in the LRSP. When the Pitt Meadows/ Maple Ridge area is discounted from the following table (it wasn't part of the GVRD when the Livable Region Strategic Plan was passed), the Green Zone is still 600 hectares larger now than in 1996.⁵¹

Table 3-13: Green Zone Targets and Outcomes (hectares)

Sector	Green Zone Goals	Actual Green	Difference
		Zone	
North Shore	49,000	51,000	2,000
Burrard Peninsula	3,900	4,400	500
Northeast Sector	60,200	60,100	-100
Bowen Island	6,000	4,400	-1,600
Richmond	5,300	5,500	200
South of Fraser	25,200	25,000	-200
Langleys	23,700	23,500	-200
Pitt Meadows/Maple Ridge	NA	26,000	26,000
Total	173,300	199,900	26,600

Source: GVRD

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⁵¹ Much of this is the result of additions to the provincial park base under the former NDP government.



Figure 3-3: Vancouver's Green Zone

3.3.9 Encourage employment growth in the metropolitan core and designated growth centres

One of the key goals of the LRP was to direct employment growth to specific locations within the GVRD, namely the metropolitan core and the regional town centres. Table 0-13 shows employment levels in these areas as of 1996 when the LRSP was approved, and in 2001. The figures show that over that five year period only 16.6% of employment growth in the GVRD went into the regional town centres and only 6% went into the Metropolitan Core, for a total of 22.6% in the centres and core areas combined.

Table 3-14: Jobs in Regional Town Centres

	1996	2001	change
Coquitlam Town Centre	6,505	8,820	2,315
Langley Town Centre	15,185	16,460	1,275
Lonsdale (North Vancouver)	12,930	13,150	220
Maple Ridge Town Centre	4,470	4,930	460

Metrotown (Burnaby)	16,755	18,620	1,865
New Westminster Downtown	6,245	6,950	705
Richmond City Centre	25,300	26,615	1,315
Surrey City Centre	11,185	13,025	1,840
Total Regional Town Centres	98,575	108,570	9,995
Centres as a percentage of GVRD	13.5%	13.7%	16.6%
total.			
Metropolitan Core	157,405	161,005	3,600
Metropolitan Core as a percentage	21.6%	20.4%	6.0%
of GVRD total.			
Total Regional Town Centres plus	255,980	269,575	13,595
Metropolitan Core			
Centres plus Metropolitan Core as a	35.10%	34.10%	22.60%
percentage of GVRD total.			
GVRD Total *	729,560	789,625	60,065

^{*} excludes 'no fixed workplace'

Source: 2592 T3 (R) 2001 Census; J2592 T7 (R) 1996 Census

Although the town centres have succeeded in attracting residential growth, they have largely failed to attract the kind of office employment that the region's policy goals had aimed for. Moreover, their quality from an urban design perspective is very uneven. From a residential and pedestrian point of view this diminishes their efficacy as mixed-use centres.

Instead of going to the designated centres, much of the region's employment growth appears to be gravitating towards business parks outside the town centres. Business parks have seen their square footage increase by 322% between 1991 and 2001, and the number of jobs they have attracted has increased by 335%. Overall, these business parks have increased their share of GVRD office space from 6.8% in 1991 to 15.8% in 2001, while other non-town centre locations have increased their share by a nearly equal amount. Most business parks are isolated from rapid transit and require automobile use to access; thus their growth is a worrisome trend. Same trend.

Another goal of the LRSP was to achieve a better balance among residential and employment uses throughout the region in order to reduce commuting distances. In background studies for the LRSP, it was felt that core areas of the region would continue to have more jobs than members of the labour force (with employment in the GCA increasing from 70.8% of the regional total to 72.2%), while a desirable jobs/ labour force ratio for the outlying municipalities would be somewhere in the range of 0.7 to 0.9.

Table 3-6: Share of Greater Vancouver Jobs and Labour Force Growth by Sub-Region, 1991 – 2001

Sub-Region	1991	1991	1991	2001	2001	2001

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⁵² Royal LePage Advisors Inc. August 2003. *Commercial, Industrial and Real Estate Development Trends*. Burnaby: GVRD; Royal LePage Advisors Inc. December 2001. The GVRD Office Market: Supply, Demand and Spatial Distribution. Burnaby: GVRD.

⁵³ GVRD. 2004. 2003 Annual Report: Livable Region Strategic Plan. Burnaby: Policy and Planning. Department.

	Labour	Jobs	Jobs to	Labour	Jobs	Jobs to
	Force		Labour	Force		Labour
			Force			Force
Burnaby / New	104,270	120,735	1.16	120,680	140,580	1.35
Westminster						
Vancouver/	244,180	334,395	1.37	282,971	364,025	1.29
University						
Endowment						
Lands (UEL)						
Langleys	42,204	34,770	.82	57,550	52,455	.91
Maple Ridge /	28,939	17,630	.61	39,070	23,430	.60
Pitt Meadows						
North East	73,720	44,695	.61	97,100	61,370	.63
Sector*						
North Shore**	85,167	59,445	.70	91,673	70,170	.70
Richmond	66,475	85,990	1.29	79,510	117,475	1.48
South Region***	169,090	113,775	.67	226,766	169,600	.75

*Coquitlam, Port Coquitlam, and Port Moody **City of North Vancouver, District of North Vancouver, and Municipality of West Vancouver ***City of Surrey, City of White Rock, and Corporation of Delta. Source: Statistics Canada⁵⁴

As indicated in Table 3-15, results were uneven. The Langleys increased their jobs to labour force ratio substantially (0.82 to 0.91), as did the South Region (0.67 to 0.75), but Maple Ridge/Pitt Meadows dropped slightly (0.61 to 0.60), the North Shore was stagnant (0.70), and the North East Sector only marginally increased its jobs to labour force ratio (0.61 to 0.63). Richmond, which is outside the GCA, has seen its job creation rate increase at 2.5 times the rate as its population growth and has now become more job rich than areas within the GCA.⁵⁵

3.3.10 Provide infrastructure to reduce ecological impacts of development

At present, the GVRD has five sewage treatment plants. Of these, two have primary treatment only and three have both primary and secondary. Improvements are made on an ongoing basis and water quality monitoring is carried out regularly. In its annual evaluation of 22 municipalities and regions throughout the country, the Sierra Legal Defence Fund gave Greater Vancouver a "D" for its management of sewage – primarily, because of discharges of raw sewage during major storm events and the fact of having only primary treatment at two of its plants. To address the problem of raw sewage spills, individual municipalities, such as Vancouver, are in the process of replacing old combined sewage and storm sewer systems with separate lines so as to avoid overflow via cross sewer connections during storm events. However, this will take decades to complete.⁵⁶

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⁵⁴ The figures for these years are not directly comparable due to changes in the methodology at Statistics Canada. Given improved collection of "no fixed workplace" figures for 1996 and 2001, the 1991 figures may overestimate the actual number of jobs, almost 10% of which might actually have been footloose. Ralph Perkins, senior planner, GVRD, personal communication.

⁵⁶ Rhiannon Coppin. July 6, 2005. "When Flush Comes to Shove." Vancouver Courier. pp. 1, 4-6.

While not a goal in the LRSP, the GVRD has been encouraging awareness of the value and feasibility of green building projects, and it has, along with some of its member municipalities, been building LEED-certified buildings for its own use. Moreover, municipalities, such as Surrey and Vancouver, have been experimenting with alternative strategies for stormwater management and other infrastructure, including "green streets".

For instance, Surrey has inaugurated a new greenfield development in East Clayton that employs narrower streets, retention of riparian zones, and natural stormwater management systems. It also features a greater density and diversity of housing types, and some nonresidential uses. However, the engineers at the City insisted that the developer install a backup conventional stormwater system "just in case," thus penalizing him for being willing to embrace a more sustainable approach to development.⁵⁷

3.3.11 Summary of Smart Growth Outcomes

Positive

- significant residential intensification in the metropolitan core and in regional town centres
- densities are rising throughout the region
- declining proportion of new housing stock in single-detached dwellings, and a greater diversity of housing types
- significant increments of denser, mixed use in the metropolitan core, with some improvement of the same in regional town centres and along major arterials and transit lines
- minor improvements in participation rates in non-automobile forms of transportation, with minor decreases in commuting lengths
- fairly robust protection of farmland and a continuing viable agricultural sector
- extensive Green Zone, including large tracts of green space and habitat areas, with efforts being devoted to watershed planning and biodiversity strategies
- minor improvements in jobs to labour force ratios, and other measures of economic "self-containment" for municipalities, and
- fairly significant investments in infrastructure improvements and interest in new approaches to stormwater management and green buildings.

Negative

- a failure to contain low-density suburban spread, especially in a few key municipalities. Moreover, growth is not being diverted into the Growth Concentration Area in significantly greater proportions than in the past
- density increases are very modest in suburban areas and not enough to make transit significantly more viable. Indeed, the very structure of land uses in these areas makes it difficult to provide levels of service adequate enough to lure people out of their cars
- declining housing affordability for owners and renters alike
- some regional town centres not attracting significantly more employment, and

⁵⁷ William Boei. September 6, 2003. "The New Suburbia." *Vancouver Sun.* p. C1.

• rising percentage of new office space and job growth occurring in stand-alone office parks.

3.4 Analysis of the Reasons for Successes and Failures

3.4.1 Broad-based support for growth management initiatives

The many successes of the LRSP are, in part, a reflection of the progressive planning culture in the region. Planners from all levels of government, along with academics, private consultants and urban activists seem to agree on the main elements that need to be put in place in order to move towards regional sustainability. This helps to account for the remarkable consistency in the vision that has sustained planning discourse in the region for 30 years or more.

The Green Zone initiative, for instance, has been successful largely because the concept is heavily endorsed by the general population of the area, in particular by urban residents who look upon the zone as a recreational resource and aesthetic refuge from the city. Municipal officials and politicians appear to share in the assumption that the Green Zone should be protected as a recreational and resource area.

Another success factor is perhaps less obvious but equally important. It is that the planning and definition of the zone was a "bottom-up" process, which minimized conflict, predisposed the players to reaching consensus and almost guaranteed successful implementation. Although the GVRD initiated the process, the municipalities proposed specific parcels of land to be included in the zone. This ensured the least possible friction between the GVRD and municipalities, and is another example of the consensus building type of regional planning for which the GVRD has become known and admired.

This process also has its drawbacks, however. Because of the "bottom-up" process involved in identifying lands to be included in Green Zone, some concern was expressed at the time that this would exclude some agriculturally and ecologically important features of the region. Indeed, the map of the Green Zone that appears in the Livable Region Strategic Plan suggests that while the sheer quantity of green areas to be preserved within the region is impressive, there is no obvious linkage or integration among the various parcels. From an ecological perspective, such fragmentation may seriously undermine the usefulness of a green system if, for instance, it means that the minimal ranges and migration corridors needed by many forms of wildlife are unmet.

It is also important to qualify the success of the Green Zone initiative by noting that the vast majority of the land that ended up in the Green Zone was already protected through public ownership, provincial park status or through inclusion in the Agricultural Land Reserve.

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⁵⁸ Project interviewee personal communication, , January 2000.

⁵⁹ A GVRD Regional Greenway Vision (July 1999) was approved by the GVRD Board in 1999. If implemented, it will help address this issue. The vision includes provisions for both recreational and ecological corridors. Sixteen municipalities in the GVRD have approved the vision and it may eventually become part of the Livable Region Strategic Plan.

Municipalities had no choice but to include these lands in their designations. In many cases, they did not go much further in designating new land for inclusion.

Moreover, it is important to note that the Green Zone label is somewhat misleading. Most of the lands in the Agricultural Land Reserve are not "green" in the sense of being natural or even semi-natural. No systematic survey has been conducted of the habitat and ecological value and connectivity of the total land mass, nor of how much of it is in the public domain. The region has recently initiated a biodiversity conservation strategy to begin to address these issues. ⁶⁰ It has also been engaging in the preparation of watershed and integrated stormwater management policies and plans, carrying out stream mapping and classification, discouraging unnecessary pesticide use, doing restoration and enhancement work, and developing habitat management guidelines for new development. ⁶¹

Although the Green Zone concept is broadly supported in the region, those who bear the cost of preservation are not silent. Property owners, farmers, and municipalities that forgo development revenues complain that they are unfairly burdened by society's wish to have green and open spaces. These voices are raising the possibility that the Green Zone could be breached if the social value of doing so exceeds the environmental, resource and recreation value of maintaining its current contours.⁶²

Land in the Agricultural Land Reserve is thought to be more secure than municipally-protected land because it requires the approval of the Agricultural Land Commission to convert it to other uses. However, this system of protection is itself constantly being brought into question by those who would like to free up more development sites across the region. For instance, a 1997 report by the 1,200-member Canadian Home Builders' Association of BC claimed that unprecedented population growth, rising home prices and government-imposed costs are threatening the \$2-billion-a-year industry. The association asked the province to revise Agricultural Land Reserve legislation in order to make it "more responsive and realistic to modern demands for housing."

Indeed, there is some concern in the region that recent changes to the rules governing the workings of the Agricultural Land Commission may make exclusions easier to achieve in the future. Regional panels have been introduced that some groups, such as Smart Growth BC, fear will be more easily influenced by municipal councils and developers hungry for more "raw" land. 64 Currently, the panels are entrusted with upholding the same statute requirements as the full commission and no major withdrawals have been proposed or made, but that could change in the future.

⁶¹ GVRD. 2004. 2003 Annual Report: Livable Region Strategic Plan. Burnaby: Policy and Planning Department.

⁶⁰ See http://www.gvrd.bc.ca/growth/biodiversity.htm.

⁶² See for instance, the article "Delta unfairly burdened with costs to save open farmland: Councillors ask why their taxpayers are hit hardest to preserve a regional amenity." *Vancouver Sun*, June 22, 1998, p. B1.

⁶³ Canadian Home Builders' Association of B.C. 1997. *Housing 2020: A Time for Action*. Burnaby.

⁶⁴ Cheeying Ho, Executive Director, Smart Growth BC, personal communication, 4 March 2005.

3.4.2 Integration between land use and transportation planning

The GVRD, GVTA, and other partners have made a laudable effort to harmonize land use and transportation planning initiatives beginning with the GVRD's Transport 2021 process in the early 1990s, and they have been successful in maintaining and slightly increasing the proportions of trips taken on transit.

Despite a strong demand for transit, the Greater Vancouver Transportation Authority (GVTA) has been struggling to keep pace, and provincial and federal interventions have to some degree deflected efforts to expand transit service to those areas designated for major growth.

For instance, the Tri-Cities area of Coquitlam, Port Coquitlam, and Port Moody was designated in the Livable Region Strategic Plan (LRSP) as a major recipient area for growth, and yet enhancement of transit services to the area has been repeatedly postponed. The *Transport 2021* plan also made expanding rapid transit (not necessarily SkyTrain) to the area a major priority.

However, in the late 1990s, the NDP government, in a bid for votes, forced through a new alignment for the Millennium SkyTrain that was seen by many as less than optimal and incomplete (GVRD planners, for instance, wanted the line to extend to Coquitlam Centre), and whose principal virtue was that it ran through NDP ridings. It also insisted on an expensive technology when other light rail options would likely have been more cost-effective.

Similarly, the federal and provincial governments have again been dictating the region's transit priorities by only offering major funding for the highly expensive RAV line (Richmond-Airport-Vancouver) rapid transit system from downtown Vancouver to the Vancouver International Airport in Richmond in time for the 2010 Olympics. And, recently, BC Minister of Transportation, Kevin Falcon has threatened to take back control of regional transportation planning in the face of GVRD's questioning of plans to widen Highway 1, and twin the Port Mann bridge over the Fraser River.

Given the relatively slim margin of the provincial Liberals' recent re-election victory, it is unlikely that they will follow through on threats to revoke the autonomy of the regional transportation agency. However, if the twinning of the Port Mann Bridge and expansion of Highway 1 go ahead, this could facilitate further sprawl in what remains of the region's underdeveloped urban land base.

43

⁶⁵ Some have argued, however, that this alignment allows for the redevelopment of underutilized industrial areas into higher density residential and employment nodes. This insight comes from Barton Reid, one of the commentators on an earlier draft edition of our report. He made a number of useful comments about the GVRD and Saskatoon chapters.

⁶⁶ This Richmond-Airport-Vancouver (RAV) line at least has the virtue of linking by transit several major employment nodes, thus potentially reducing automobile dependence, and its alignment is consistent with the LRSP.

⁶⁷ Maurice Bridge. February 26, 2005. "GVRD pressures province." *Vancouver Sun.* p. B9.

3.4.3 Spending on public transit

As mentioned above, the GVRD experienced an increase in the daily transit share form 10.3% in 1999 to 10.8% in 2004. While this might appear small in percentage terms, given the rapidly growing population and the overall trend in Canadian cities for transit ridership to decline, this is significant and represents an increase in ridership of almost 25% or around 30 million transit rides per year since 1999. This rate of ridership increase far outstrips the rate of population increase, which was only 5.9% over the same time period.

To some degree, this success likely reflects the significant expansion in transit services in the region. In terms of transit supply, with the exception of 2001 (when there was a service stoppage), there has been a sustained increase in vehicle service hours provided (buses, SeaBus, West Coast Express and SkyTrain). Between 1999 and 2004, service grew by 13.0%, from 4.15 million service hours to approximately 4.69 million hours, respectively. This is a higher level of growth compared to the previous period from 1994 to 1999, when service hours grew by 10.8%, from 3.60 million hours to 4.15 million hours. Some of the transit improvements included the opening of the SkyTrain Millennium Line, more rapid bus service and other bus improvements, including Community Shuttle services.

Also of significance is the impact of the U-Pass program at UBC and SFU. TransLink introduced the U-Pass program in 2003 with sponsorship support from VanCity Credit Union. About 60,000 UBC/SFU students have participated in the program, which produced ridership increases of 53% at UBC and 39% at SFU. ⁶⁸ Bike infrastructure is also an area where TransLink has begun to invest more resources, having increased its budget for it from \$1 million in 2002 to \$3 million in 2004.

The expansion of services has required an expansion of revenues. When the province refused to approve TransLink's controversial vehicle levy in 2001 – a mechanism that had been provided for its governing legislation – the organization increased property taxes and transit fares. The Auditor-General also strongly urged the province to compensate TransLink for the vehicle levy and, in response, the province agreed to allow for an increase of two cents in the region-wide fuel tax. In 2005, fares were again increased slightly, property taxes were increased, and a new tax on non-residential parking spaces (parkades and pay parking lots) will soon be approved. The agency is also expecting to receive over \$250 million in capital funds from the New Deal for Cities inaugurated by the federal government.⁶⁹

3.4.4 Lack of regional enforcement mechanisms

One evident conclusion from the case study is that the consensus building model for regional planning and growth management is not as effective as many authors seem to assume. ⁷⁰ The main virtue of the model appears to be its adeptness at minimizing open

⁶⁸ TransLink. 2005. TransLink 2004: Annual Report. Burnaby: GVTA.

⁶⁹ Bob Paddon, vice-president, Communications and Public Affairs, TransLink, personal communication, 25 July 2005.

⁷⁰ For example, see Patrick Smith. 1996. "Restructuring Metropolitan Governance: Vancouver and BC Reforms." *Policy Options* 17 (2): 7-11.

conflict between the various players at the regional planning table, and getting at least philosophical commitment to shared goals.

However, because it provides a mechanism for agreement without a mechanism for enforcement, the model lends itself to ambitious policy statements that often are not followed up with concrete action and desired outcomes. Municipalities are able to use the regional level to reach accords where there is shared interest in collective action. However, this structure is much less adapted to resolving conflicts of interest when, for example, when the regional and the local interest are pitted against each other. This is illustrated by the relative success of the Green Zone, and the relative lack of success in diverting population growth to the Growth Concentration Area.

The case study also shows that the consensus model does not work well when key stakeholders are not at the table or are making decisions that essentially ignore the regional consensus. This was seen with decisions regarding the routes for the Millennium SkyTrain Line and the proposed RAV line to the airport. While the RAV line was eventually approved by regional decision-makers, they did not have the option of using the proffered funds for other purposes and were essentially in a "take it or leave it" position.

The slippage between the growth management goals contained in the LRSP and the actual growth patterns on the ground can also be explained by the fact that the GVRD has no power over the development of member municipalities. Rezonings and amendments to the official community plan do not need to be approved or even reviewed by the regional district. The district can complain about municipal decisions that are not consistent with the LRSP, but ultimately has no power to stop such decisions from being implemented. In a recent case involving a rezoning of land in Richmond, the GVRD, which was not in agreement, requested that the relevant minister trigger the dispute resolution mechanism allowed for under the Act and the minister refused, thus leaving the municipal decision unchallenged.

The GVRD potentially has the power to control where infrastructure will go, since it controls the purse strings. However, a direct connection between growth management and service provision was not intended by the Act that established regional districts. Moreover, in practice, the municipalities own the infrastructure systems jointly. With a tweaking of the legislation, the GVRD could have the option of only authorizing infrastructure development where this will support the aims of the LRSP with respect to growth management, but this is likely to be resisted.

The GVRD publication, *GVRD Trends*, ⁷³ notes that the regional growth patterns do not match those aimed for in the LRSP. Because the authors do not see withdrawal of regional

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⁷¹ James Steidle. 2004. "Failure of the Compact Region, The Greater Vancouver Regional District: Unrealistic Hopes of Policy Integration -or- 'Will This Dog Hunt'?" Paper presented at the British Columbia Political Studies Association Annual Meeting, 1 May, Richmond, B.C.

⁷² In one instance where the Board decided to use sewerage area boundaries as a growth management tool, it changed its mind upon municipal appeal.

⁷³ GVRD. May 1999. Trends.

investments from areas not in keeping with the LRSP as an option, they conclude that the Region's transportation operations should be adapted to better serve the new situation, which would include new engineering investments and new roads. Planners at the GVRD point out that the Board's water and sewer service mandates require the district to provide services to member municipalities as they are needed and that, as a federation of municipalities, the GVRD board is unlikely to enforce its planning objectives by selective provision of services. The region is caught between its contradictory roles – as a "value-neutral" provider of municipal infrastructure, and as agent for responsible "smart" regional land use planning. These two roles are not fully compatible.

The Act's lack of enforcement mechanisms tends to cast a long shadow back into the goal setting process. Because all the players are aware that at the end of the day the region has only moral suasion on its side, ambitious planning goals tend to be diluted as they move through the formulation process unless, by consensus, municipalities find goals that all are comfortable with. Thus, growth management goals that challenge established trends – such as sprawl – tend to be diluted through negotiation until they become indistinguishable from existing trends. However, where there is strong consensus, such as on Green Zone issues, progress can be impressive.

In the absence of strong enforcement powers, ambitious goals rely on moral suasion for implementation. Moral suasion can be an effective tool where citizens and regional leaders share a commitment to a certain planning direction. The problem is that while the growth management vision promoted by planners in the region is broadly supported by citizens in the abstract (i.e., during public consultations on planning principles), implementation is frustrated in practice, for example when specific intensification projects or bridge tolls are proposed.

The oscillation between visionary principles and the evident reluctance of many Greater Vancouverites to cede to dramatic changes in their living and travel arrangements seems to lie behind much of the conflict and debates over growth management in the region. As many authors have noted, trends towards low-density living and car-based transportation set up a self-reinforcing dynamic that is difficult to break.⁷⁴ The danger in the GVRD is that the broad consensus on the growth management vision for the region – and whatever concrete progress that has been made to date – will gradually be undermined by the skepticism generated by a lack of significant progress on key indicators or cynical flouting of GVRD policies as is routinely practiced by some municipal leaders.⁷⁵

Clearly, the GVRD has significant achievements to its credit, but more is needed. Some suggest a change in governance model. As one analyst writes,

[r]ecent trends throw into question whether the current governing system is still capable of achieving the regional goals coalescing around the compact region.

⁷⁵ Patrick Dare. April 29, 1998. "'Someone must be in charge': Vancouver's loose, decentralized regional district authority is not well suited to handle the tough challenges it faces." *Ottawa Citizen*. p. C5.

⁷⁴ Pierre Filion. 1995. "Planning Proposals and Urban Development Trends: Can the Gap be Bridged?" *Plan Canada* 35 (5): 17-19.

Initially, it suggests that a two-tier system of metropolitan governance with a regionally elected upper-tier is desirable. This upper-tier government would be responsible for most of those functions currently in the hands of the GVRD and its related bodies, including Regional Context Statement approval, transportation and infrastructure provision, as well as Development Cost Charges cost scheduling and collection. The constitution governing the region, however, would give the elected body teeth to enforce these policy tools, contributing to the resolution of the collective action problem noted above. ⁷⁶

3.4.5 Need for more effective planning signals and controls

Progress on Smart Growth would be more likely to come about if planning signals in the region were better aligned through clarifying the roles and responsibilities of the different levels of government. Because the province sets the rules for the planning and development "game" in BC (as elsewhere in Canada), the primary responsibility for reform lies with it. For instance, the Growth Strategies Act could be amended to require regional authorities to use their spending and investment powers to enforce municipal compliance with regional goals. The province could also help strengthen transportation planning – and the link between transportation and land use goals – by providing the GVTA with a more stable funding base with which to carry out its transit expansion and demand management plans. For instance, it could permit the GVTA to impose tolls and other road pricing mechanisms, as foreseen by Transport 2021.

The province could also make its commitment to preserving the Agricultural Land Reserve clearer, explicitly rejecting any move to water down the definition of permitted uses on farmland or to make withdrawals from the Reserve any easier than at present. This would short-circuit land speculation on the fringe and boost farmer willingness to invest in their businesses and to maintain a healthy rural economy as a bulwark against urban sprawl.

Finally, the provincial legislation governing the use of municipal development cost charges could also be revised in order to ensure that these fees imposed on developers to pay for infrastructure needed to support growth do not distort development patterns and fuel sprawl. For instance, the legislation could require that development charges be calibrated to reflect a given development's demands on infrastructure.⁷⁷

Of course, local authorities also have an important role to play. The City of Vancouver has experimented with policies that reward neighbourhoods that are willing to accept change with better community facilities. Other municipalities could explore the use of this or other incentive mechanisms that would encourage acceptance of densification initiatives in established neighbourhoods.

47

⁷⁶ James Steidle. 2004. "Failure of the Compact Region, The Greater Vancouver Regional District: Unrealistic Hopes of Policy Integration -or- 'Will This Dog Hunt'?" Paper presented at the British Columbia Political Studies Association Annual Meeting, 1 May, Richmond, B.C.

⁷⁷ Ray Tomalty. 2001. The Effects of Development Charges on Urban Form. Ottawa: CMHC.

Developers and builders also need to be given the right signals, i.e., that land must be used more efficiently in the future. Towards this end, municipalities could enhance their use of the many planning tools that are becoming better understood in Canada. This includes density bonusing, inclusionary zoning requirements, basing development cost charges on a per square metre basis, alternative development standards, and performance based zoning. Already, Surrey has reduced residential development cost charges for Surrey Regional Town Centre, and these are achieving significant success. Ideally, DCC rates should be controlled on a region-wide basis to reinforce the stated objectives of the Livable Region Strategic Plan, and tolls should be added to new major roads and bridges to reinforce the region's transportation goals.

Although the GVRD faces many challenges, it alone of all the cases, seems to be making the most progress and has exhibited the strongest commitment to Smart Growth through the language and concepts of the Livable Region.

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⁷⁸ For a description of these tools, see Ray Tomalty et al. 2000. *Municipal Planning for Affordable Housing*. Ottawa: Canada Mortgage and Housing Corporation.

4 The Calgary Region

4.1 Introduction

4.1.1 Description of the region

In 2001, the Calgary CMA had a population of 951,395, with 878,866 or 92.38% living within the City of Calgary. The CMA has the fastest growth rate of all the study regions, increasing by 15.8% between 1996 and 2001. Other than the Halifax Regional Municipality (which covers the whole CMA), the population of the Calgary CMA is more heavily weighted to the central city than any other region studied in this report. This reflects the very large geographic scope of the central city: at 702 sq kms, the City of Calgary is over six times larger than the City of Vancouver with only about 50% more population.

The Calgary CMA comprises 5,083 sq kms of land, of which about 92% is agricultural. The average density in the CMA is 187 people per sq km, third lowest in our study next to Halifax and Saskatoon. At 1,252 people per sq km, the City of Calgary is the least dense central city in our sample, next to the Halifax Regional Municipality, which is itself a vast urban region.

The Calgary region is centered on the Bow River at the base of the Rocky Mountain foothills in southern Alberta. The city has developed around a concentrated commercial core with residential development radiating away from the downtown to the north, west and south, and an industrial district to the east. Although the downtown maintains a dominant position with respect to regional employment, jobs have gradually decentralized to dispersed areas such as along major arteries, in light industrial areas and regional shopping centres, many of which are not well served by or friendly to transit. This development pattern has produced a high level of commuting, both to the downtown and across town.

The older areas of the city including the downtown and inner-city are based on a grid street pattern. Beyond that, only major arterials resemble anything like a grid: most post-war development takes the conventional form of neighbourhood cells based on curvilinear street patterns. Urbanized areas within the city limits are contiguous and fully serviced, i.e., there is little leapfrog development. The city has a large amount of farmland within its boundary (in accordance with its long-standing practice of annexing adjacent areas in order to have enough land to accommodate development for up to 30 years). The City does not permit rural subdivision of land within its limits, although there is a small amount of septic-based development that took place on lands later annexed to the city.

The City of Calgary is bordered on three sides by the Municipal District of Rocky View, a largely agricultural district with 30,688 of the 72,529 people that live within the CMA outside the City of Calgary. The City of Airdrie (20,382) and the Town of Cochrane (11,798), which are administratively separated from but physically surrounded by the MD of

⁷⁹ To the south is the District Municipality of Foothills, but this is not considered part of the Calgary CMA.

Rocky View, are the two largest population centres outside the central city. They are fully serviced with water and sewer and have developed from rural service centres to more diversified communities. Although there is no formal greenbelt, these settlements are well removed from the central city. The rest of the exurban population is to be found on farms, ranches, and rural subdivisions. In the past, ribbon development along major roads was not widely permitted although this situation appears to be changing (see below). As development outside the City of Calgary has accelerated, commuting from country residential areas into Calgary has steadily climbed.

The mass transit system is operated by Calgary Transit, a city department, and extends to all parts of the central city but not beyond city limits. The system is considered to be of good quality and is composed of regular buses, shuttle buses (smaller vehicles on very low-density routes), express buses and an LRT system called the C-Train. The C-Train first opened in May of 1981 and now has two routes with 35.7 kilometres of track and 34 stations. Private bus services connect outlying communities to Calgary's downtown. The provincial system of conditional grants for transit was discontinued in 1996, but since 1999 the province has transferred a specific portion of the fuel tax it collects in the City of Calgary to the municipal government and a portion of this (at the discretion of the city) is spent on transit development.

The provincial transportation department (Alberta Transportation) is responsible for highways throughout rural areas of the province. There are eight highways under provincial jurisdiction in the Calgary region, all emanating from the central city. In most cases, provincial jurisdiction ends at the city limits, but, in certain cases, the province has agreed to accept responsibility for major roads within cities. In Calgary, the province has jurisdiction over (and funds improvements to) only one major road, the Deerfoot Trail, a key north-south corridor. All other roads within the City of Calgary are owned by the municipal corporation, which pays for their construction and upkeep. In the rural areas outside the city, Alberta Transportation funds the construction of secondary roads and pays 75% of construction costs for roads in the separated cities and towns.

The basic provincial highway network around Calgary was completed by the end of the 1970s and has been gradually upgraded on a piecemeal basis without the benefit of a long-term plan. Most of the highways in the region are now four- or six-lane limited access routes with interchanges at major intersections. Major construction over the last ten years included the building of Highway 22x east of the city to Gleason and portions of Highway 1a to Cochrane. Since the early 1970s, the province has been planning to build a ring road around the city and completed several links, including Stoney Trail between Highways 1a and 1, and is currently building a link east to Highway 2. The ring road is expected to be completed within 10 years, including a major link running north-south on the east side of the city. Also recently completed is a major upgrade of Deerfoot Trail within the city and an extension outside the city with a crossing of the Bow River just beyond the city limits.

4.1.2 Regional growth patterns

Population growth in the region has been very strong over the 19811-2001 period, especially the latter half. At 26.17%, growth over the 1991-2001 period the Calgary CMA has outstripped Vancouver (23.98%) and Toronto (20.11%). The central city has captured 85.16% of this growth, which is the highest for any region studied, and again, reflects the very large geographic scope of the city. Exurban growth has also been strong with almost 30,000 people added to the population outside the central city between 1991 and 2001: Chestermere increased its population by 269%, Cochrane more than doubled its size and Airdrie increased by 63% over the decade.

Table 4-1: Population Distribution of the Calgary CMA, 1981-2001*

Territory	1981		1991		2001		% Change	
	#	%	#	%	#	%	1981-1991	1991-
								2001
Airdrie	8412	1.3	12,456	2	20,382	2.1	48.1	64
Beiseker	500	0.1	605	0.1	838	0.1	21.0	39
Chestermere	487	0.1	926	0.1	3,414	0.4	90.1	269
Cochrane	3544	0.6	5,267	0.7	11,798	1.2	48.6	124
Crossfield	1335	0.2	1,739	0.2	2,389	0.3	30.3	37
Irricana	558	0.1	812	0.1	1,038	0.1	45.5	28
Rocky View	17279	2.8	18,939	2.5	30,688	3.2	9.6	62
Sarcee 145	1061	0.2	2,494	0.3	1,982	0.2	135.1	-21
Outside City of	33,176	5.3	43,238	5.7	72,529	7.6	30.3	68
Calgary								
City of Calgary	592,898	94.7	710,795	94.3	878,866	92.6	19.9	24
CMA	626,074	100	754,033	100	951,395	100	20.4	26

Source: Statistics Canada

The City of Calgary is expected to attain a population of 1.16 million by 2023 while the CMA population is expected to grow to 1.449 million by that year.⁸⁰

4.1.3 Growth-related issues in the region

Unlike most major Canadian cities, Calgary sits on an agricultural plain and has no natural limits to sprawl. The economic boom in the petroleum industry in the 1970s triggered a wave of rapid growth and highway investment, setting the pattern for a highly car-dependent form of urbanization.

By the nineties, the high rate of car ownership and use in the region gave rise to serious concerns over road congestion. Over the 1990s, rapid population growth at a time of restraint in public expenditures on the transportation network contributed to continually worsening traffic problems, especially in the central city. A mismatch between residential development on the west side of the city and industrial development on the east side also contributed to the high level of car-based commuting.

51

^{* 2001} CMA constant boundary is used.

⁸⁰ Jim Francisco, City of Calgary, personal communication.

Worsening traffic congestion is engendering a public debate about land use and travel patterns. Some observers are claiming that the best way forward is to invest more heavily in the road system, while others point to the need to reign in low density development and to manage growth in order to better balance housing and employment. Over the last few years, the debate has swung heavily in favour of those advocating improvements to the transit system, with major new investments being made.

Although there is some infill development, the vast majority of the region's growth has been accommodated through greenfield development within the City of Calgary or in bedroom communities outside the city. However, the conversion of farmland to urban uses is not a major issue in the region, perhaps reflecting the fact that urban uses represent only a tiny fraction of the agricultural land base of the province. There is some septic-based development in the region and numbers are growing. Although soil conditions are good, some septic systems have failed, giving rise to occasional water quality concerns in the rivers supplying drinking water to the city and surrounding rural centres. Sprawl has been blamed for other environmental problems such as habitat loss and destruction of wetlands.

Other key issues associated with sprawl in the region relate to the fiscal costs of growth. Because much of the development in Calgary is tied to the fortunes of the oil industry, and because those fortunes vary over time, borrowing for infrastructure investment today may be difficult to pay for tomorrow. This has created concern about the long-term expenditure capability of the City and its ability to maintain and replace infrastructure created during boom times.

Making the financing and infrastructure provision issue even more difficult was the shortfall in funds from provincial sources as the government tried to reduce its own debt by eliminating subsidies to the municipal sector while downloading service responsibilities. The prevailing form of growth in the city, low-density, segregated uses, was also raising the cost of servicing new subdivisions and leading to calls to intensify development close to LRT lines and other transit infrastructure. By the mid-1990s, the City was faced with a major debt challenge and was looking for ways to reduce expenditures. The result was a "no more debt" policy, such that the municipality would only spend in a given year what it received in taxes.

Another growth-related concern is the gradual loss of dominance of the regional core in terms of employment. In 1964, the downtown's share of city jobs was 37%; this had fallen to 27% in 1981 and to 23% in 2001. In relation to housing, city planners were also concerned with the imbalance in housing forms, with the vast majority of new growth taking the form of detached dwellings.

In the rural areas outside the City of Calgary, the main sprawl-related issues relate to the cost of providing infrastructure to service new growth, the increase in traffic associated with exurban development, and the growing number of urban land uses being located in rural areas. For example, the road between Calgary to Canmore started to show signs of a changing landscape in the 1990s, e.g., an amusement park, an RV sales lot, discount

retailers, golf courses, and a host of urban, industrial and commercial development proposals, all just outside Calgary's borders.

4.1.4 Municipal organization and regional governance

The Calgary CMA is comprised of nine local jurisdictions, including two cities (Calgary and Airdrie), three towns (the largest of which is Cochrane), two villages, one municipal district (Rocky View) and one Indian Reserve.

There has never been a full-blown regional level of government in Calgary with comprehensive powers over land use and transportation planning. However, the Town and Rural Planning Act of 1950 established special purpose bodies known as district planning commissions, including one in Calgary, which were advisory bodies made up of elected officials from municipalities within the district. Municipal membership in the commission was determined by order of the provincial cabinet. The cost of running the commission was shared among the members with subsidies from the province.

As it became clear that advisory bodies had little influence on planning matters in the region, the province altered the legislation in 1957 to make membership in regional planning commissions mandatory and to give their plans the clout of law. In 1977, the system of regional planning was strengthened by establishing the regional planning commissions as legal, corporate entities and enabling them to enforce their plans by using legal remedies when pressures of persuasion failed.

The Calgary RPC covered an area much larger than the CMA. In addition to the City of Calgary and the MD of Rocky View and the separated towns and cities, the commission included the MD of Foothills to the south, the County of Wheatland to the east and the MD of Bighorn to the west, along with the many separated towns and cities encapsulated within these larger jurisdictions.

The power to enforce planning decisions on reluctant members of the regional planning council would eventually contribute to the dissolution of the regional planning system in Alberta. The high level of conflict between rural and urban municipalities within RPCs, combined with the Conservative government's disdain for central planning and desire to cut provincial spending, led to the decision to cease funding the RPCs in 1995. The government also eliminated the legislative basis for the RPC by abolishing the Planning Act and rolling parts of it into a new Municipal Government Act. Thus, the relatively integrated system of regional planning that had emerged in the 1950s was completely swept away in 1995.

Since then, regional governance has been carried out through voluntary associations of municipalities in the Calgary region as set out in the new Act. The legislation permits neighbouring municipalities to become involved in the preparation of municipal development plans and to establish intermunicipal service agencies to provide planning services to individual municipalities. In the Calgary region, planning agreements (to prevent inappropriate development in the path of Calgary's expansion) have been negotiated

between each of the two surrounding rural municipalities and the City of Calgary. A Calgary Regional Partnership among municipalities in the region was created in 2000 (see below).

4.2 Smart Growth Policy and Objectives

4.2.1 Provincial

With the elimination of regional planning in 1995, the province undertook to fill the policy gap and provide some provincial guidance on municipal planning matters by creating a set of Land Use Policies. Adopted in 1996 under the Municipal Government Act, the policies covered regional cooperation, settlement patterns, agriculture, resource extraction, water, transportation and residential development.⁸¹

The policies encouraged municipalities to cooperate in fringe areas and to pursue joint use projects. In terms of land use patterns, municipalities are encouraged to provide an appropriate mix of land use types, develop in an orderly fashion to enhance local employment, accommodate resource extraction, provide a variety of residential environments and densities, which make use of existing facilities, infrastructure and public transportation.

As for the natural environment, municipalities are supposed to identify unique land features (ravines, valleys, streams, lakeshores, wetlands) and establish land uses near them "having regard for their value." Where such uses include subdivisions, they are encouraged to "utilize mitigative measures designed to minimize possible negative impacts." Appropriate land uses are encouraged in areas subject to flooding, erosion, or landslide. Significant habitat areas are to be identified and land use patterns are supposed to minimize loss to such areas, with mitigative measures where appropriate. Significant water features are to be identified and settlement patterns adjusted to reduce or mitigate impacts on watersheds and local resources.

The agricultural policies encouraged municipalities to identify lands were farming would be the primary use and not to fragment farmland with incompatible development. Finally, under the heading of residential development, the policies encourage municipalities to identify the need for housing, to accommodate a wide range of housing types, provide intensification opportunities, and to review current development standards and practices.

4.2.2 Regional

As mentioned above, from 1951 to 1995, the Calgary region had a planning commission that was responsible for regional planning. The first RPC plan was adopted in 1963. This plan established a protective belt around the City of Calgary by preserving the rural character of the area and maintaining a low population density. Permitted uses included farming, resource extraction, institutional and public uses, and recreational facilities such as

⁸¹ Province of Albert. 1996. *Land Use Policies*. http://www.municipalaffairs.gov.ab.ca/ms/pdf/LandUsePoliciesMGA.pdf.

campgrounds. The plan was revised in 1971 and a new plan was approved by the province in 1984. 82

The 1984 plan aimed to manage growth in an orderly fashion by ensuring that sufficient land was designated to accommodate projected growth, match growth with the supply of urban services, conserve agricultural land and prevent unnecessary encroachment, protect valuable features of the environment, and preserve future long-term growth options for expanding urban centres. It discouraged new urban uses adjacent to existing urban municipalities and encouraged a distinct break between urban and rural uses. It prohibited new country residential uses on high-capability agricultural land, but continued to permit them on low-capability land. Subdivision of existing country residential lots was encouraged in order to create clustered settlement. The plan permitted rural industrial development, but required that it be directed to rural industrial parks. Urban fringe areas were designated (five miles outside Calgary, two miles outside smaller centres) within which land use change would be limited in order to prevent settlement patterns that would interfere with orderly development of the urban centre when its boundaries were extended.⁸³

While this plan had some Smart Growth characteristics, it could not be called a Smart Growth plan. Most importantly, it lacked a substantial transportation component and referred to public transit only in passing (calling for "an early positive attitude towards public transit"). There were no provisions that would encourage a more transit-supportive urban region to develop in place of the sprawling car-dependent settlement patterns that were then prevalent. Secondly, the plan did not establish an urban growth boundary or attempt to reduce the amount of development in rural areas – it merely tried to moderate the impacts such development would have. It did not put limits on the spread of urbanization, merely saying that premature conversion to urban uses should be discouraged. Finally, the plan did not attempt to raise densities of new development or facilitate intensification in existing urban areas.

When the province abolished the RPC in 1995, the regional plan that had been in effect up until that moment was immediately rendered null and void. The new Municipal Act gave district municipalities in the province the power to approve subdivision applications within their borders and a much wider range of urban land use were allowed than under the old system. The result in the Calgary region has been a gradual increase in the number of rural subdivisions throughout the region, and in commercial development along major roads and interchanges in rural areas.

Since the dissolution of the RPC, municipalities in the region have begun to develop a voluntary partnership, supported by funding and staff assistance from Alberta Municipal Affairs, to help with organizational development and special projects. The Calgary Regional Partnership includes 13 municipal jurisdictions and encompasses an area somewhat larger

⁸³ Since the mid-fifties, the City of Calgary has used a "uni-city" concept of growth management, meaning that its boundaries are progressively expanded through annexations to include new development on the city's periphery with the aim of preserving a 30-year supply of developable land within its boundary. Major annexations occur every 15 years or so with minor ones taking place at more frequent intervals.

⁸² Calgary Regional Planning Commission. 1984. The Calgary Regional Plan. Calgary.

than the CMA. The partnership has adopted a regional vision of values and concerns and is now defining its organizational structure and financing mechanisms. Several projects are underway, such as a review of emergency response measures, economic development promotion, and watershed mapping. The partnership is participating in the development of a regional transportation model, a major project being led by the City of Calgary (see below).

The voluntary partnership is helping to heal rifts between urban and rural municipalities in the region, but the absence of a regional planning authority has made it difficult to resolve issues related to spill-over effects of growth and development. For instance, the rapid growth in the certain municipalities is affecting water quality in adjacent jurisdictions. But the Calgary Regional Partnership has shied away from land use coordination because it is considered a controversial and divisive issue. A regional land use plan is unlikely to emerge in the foreseeable future from the partnership.

A more formal arrangement is in place to help facilitate cross-boundary cooperation between the City of Calgary and its immediate municipal neighbourhoods. The Municipal Government Act requires that intermunicipal development plans be prepared by neighbouring municipalities to identify issues of mutual interest. In 1998, The City of Calgary jointly adopted intermunicipal development plans with the MD of Rocky View and the MD of Foothills. The plans cover a corridor several kilometres wide on the city's edge, wider in the city's growth path and narrower where city growth is not anticipated. Both existing intermunicipal development plans contain sections that provide guidance for the mutual notification and review of development proposals, facilitate requests for the extension of city services outside city boundaries, and lay out dispute resolution procedures. The plans coordinate the long-term growth and development strategies between municipalities and help prevent development adjacent to the city that is incompatible with city growth plans.

4.2.3 Municipal

4.2.3.1 Transportation Planning

The Calgary Transportation Plan (GoPlan), approved by city council in 1995, represented a serious attempt to integrate transportation and land use planning in order to moderate the degree to which automobiles are used for urban mobility. The previous transportation plan had included proposals to add new road links and bridges, which could only be accomplished at great public expense along with community and environmental disruption. A shift in perspective was occasioned by the gradual reduction and eventual elimination of provincial grants for transportation improvements, the serious financial condition of the city following the recession of the 1980s, and rising public awareness of the environmental and social costs associated with a car-based transportation system.

The GoPlan process was an enormous four-year undertaking involving close cooperation between transportation (including roads and transit) and land use planners in the context of a multi-departmental management team and involving extensive consultation with the public.⁸⁴ The plan was built around a "Vision Statement" describing a compact, transit-friendly, higher-density, healthy and vibrant city that relies less on the car for mobility. The plan would come to serve as the cornerstone for future community planning in Calgary and heavily influenced the subsequent preparation of the municipal development plan (see below).

At the heart of GoPlan was the desire to reduce the need for new river crossings (bridges), which were not only expensive, but would involve destruction of environmental areas along the river and cause disruption to existing communities. To achieve this end, the study team conducted a series of future development and transportation scenarios, all of which assumed a population growth of about 542,000 people to 1.25 million by 2024 (30 years). The four scenarios included a "business as usual" one with a continuation of current land use trends with an automobile orientation, a trend scenario with a transit-orientation, a compact scenario with transit orientation, and one that was dispersed and auto-oriented.

The scenarios were assessed using 20 different criteria, including travel times, safety, contribution to travel mode choice, support for economic development, difficulty of changing travel behaviour to suit the scenario, impact on natural areas and on the sense of community, and costs. The results were submitted to the public for feedback and a hybrid scenario was developed that combined higher densities to support transit with dispersed employment as a way of reducing commuting distances. This scenario, which became the basis of the GoPlan, eliminated the need for three (and possibly four) new rivers crossings compared to the previous transportation plan and rededicated some road corridors for eventual transit usage. It contained quantitative modal share targets aiming to reverse the decline in transit modal share and to begin to chip away at auto's modal share.

The hybrid scenario foresaw employment channelled to new town centres in the north, southeast and south while residential development would be shifted from the west to more central and eastern areas. This would help spatially balance population and employment and reduce cross-town commuting. The plan assumed that over 90% of the city's population growth would take place in suburban districts, premised on the strong cultural preference for suburban lifestyles. Given this assumption, the plan authors recognized that achieving their modal choice objectives would only be possible if the new suburban areas were substantially re-designed. Towards this end, the plan called for the mixing of land uses, a greater variety, density and mix of housing type, increasing overall residential densities from the contemporary average of 5 units per acre (upa) to at least 7 upa, and creating walkable, transit-supportive town, community and neighbourhood centres. The plan made reference to the Sustainable Suburbs Study (see below) as a more detailed blueprint for achieving these objectives.

⁸⁴ The transportation plan was prepared prior to the merging of transportation and land use planning into one "business unit".

⁸⁵ The city had originally proposed that the average density to be achieved in new subdivisions be increased from the current 5 upa to 8 upa, to which the development community and resident associations reacted very negatively.

The downtown and inner-city areas were slated for strong infill development and redevelopment. Intensification around transit facilities and transit-friendly locations and neighbourhood intensification were expected to achieve these goals. The older inner suburbs were to add new residents through similar processes, while newer established neighbourhoods were expected to lose population as households went through the typical life cycle (i.e., empty nesters).

Although it was recognized that the downtown share of employment would fall, the plan's authors assumed job growth there would still be strong in absolute terms. Outside the downtown, the plan relied on the location of new jobs in transit-friendly suburban nodes (including two town centres) with higher-density, mixed-use development. New employment was also to be encouraged within neighbourhoods in order to encourage walking, biking and shorter vehicle trips. Job growth would have to be strongest on the western side of the city to reduce cross-town commuting and the need for new river crossings.

The clearest signal that the city was setting off a new path with respect to transportation planning was the candid recognition that the city could not – and in fact should not – eliminate traffic congestion. The plan proposed that the city "strategically manage congestion in the system to encourage other mode choices," in other words, allow traffic jams in order to discourage people from driving. This is not to say that the plan did not call for major road improvements: the hybrid solution included completion of a "skeletal road network" upon which free-flow traffic conditions would be maintained, including widenings and extensions to existing roads and major new roads. but no new river crossing. The capital cost of the road improvements was to be \$2.2 billion over the 30-year planning period.

Travel demand would also be managed through the introduction of transportation demand and supply management strategies such as high occupancy vehicle lanes, transit priority measures, and so on. Parking would also be used as a strategic lever to discourage car usage: the supply of long-stay parking was to be reduced gradually in the downtown area. Transit services would be improved in terms of frequency and the transit system expanded, including extensions to the C-Train system and the introduction of new bus routes. The capital cost of the transit improvements was to be \$1.8 billion over the 30-year planning period. The result was expected be an increase in transit modal share from 18% to 21% of total travel by 2024 (see Table 4-2). In the downtown area, transit use was expected to climb from 39% to 50% of total trips.

Table 4-2: City of Calgary, morning peak hour travel modal split trends and targets, 1971, 1991, and 2024.

	1971		19	91	2024		
	#	%	#	%	#	%	
Auto	64,000	76	144,000	79	233,000	77	
Transit	16,000	19	33,000	18	63,000	21	
Other	4,500	5	6,000	3	7,000	2	
Total	84,500	100	183,000	100	303,000	100	

Source: Calgary Transportation Plan, 1995.

Alternative modes of travel would also be encouraged. To promote walking, the pedestrian environment was to be considered in the design of all land uses and plans for roads, LRT and transit facilities. Cycling was to be supported through the preparation of a comprehensive bike plan that would strengthen the system of on- and off-street bike paths and facilitate the integration of cycling into existing transportation facilities and future land use and transportation planning processes.

Unlike many similar plans in other cities, the GoPlan was accompanied by an implementation strategy, including a requirement that a monitoring and reporting process be set up within six months of adoption of the plan.⁸⁶

4.2.3.2 Land Use Planning

The current land use plan for the city was adopted in 1998. It could not be called a full-scale plan review as it did not involve an extensive public consultation process and had the limited objective of bringing together into one official (and legally required) document the several strands of an integrated approach to community planning that had already been prepared over the previous five years. This included the Calgary GoPlan (discussed above), the Sustainable Suburbs Study, and the Transit Friendly Design Guide (discussed below).

The municipal development plan is based on the concept of sustainable development, understood as an integrated approach to planning that incorporates environmental, social and economic concerns. One of the cornerstones of the plan was a growth management strategy based on "linking land use and mobility" that would increase mobility options, reduce the need for additional road infrastructure, reduce the reliance on the automobile, and increase transit use. Specific policies designed to achieve these goals were laid out in the plan, but because they largely reprised the policies found in the Calgary GoPlan, we will not repeat them here.

Residential areas built in Calgary since the 1950s have been typically suburban in their design: large lots, segregated land uses, homogenous housing types, low densities and a street systems designed with the requirements of the car foremost in mind. In the early 1990s, there was a movement towards New Urbanist community design that put more emphasis on designing the street system so the needs of pedestrians, cyclists and transit users are better balanced with the needs of drivers. Complementing this approach is a greater emphasis on the design of public spaces and the encouragement of a greater mix of land uses and housing variety than seen in typical suburban communities.

These new design ideas were gathered together into a single document, *The Sustainable Suburbs Study*, adopted by City Council in July 1995. The study was prepared by the planning and building department and has become one of the primary policy documents used by the City of Calgary to support more integrated community planning and to implement the Calgary Transportation Plan. The study recommends that communities be designed along the lines of an urban village, with:

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⁸⁶ So far, only one monitoring report has been issue, in 1998. Another report is said to be scheduled for public release in the coming months.

- an activity centre with a mix of land uses that would provide a variety of goods and services to meet residents' daily needs
- parks, schools and shops within a comfortable walking distance to homes
- pedestrian and cyclist-friendly streets with direct connections to community and transit facilities and to the regional pathway system
- a wide range of local employment opportunities
- a public transit service that provides a viable alternative to the car.

Later the same year, in December 1995, city council approved the *Transit Friendly Design Guide*, prepared by Calgary Transit. The guide draws from GoPlan and the Sustainable Suburbs Study to describe techniques for the improved integration of transit into the design of residential and non-residential areas.

4.3 Smart Growth Outcomes

4.3.1 Intensification of growth rather than expansion of development into greenfield areas

The GoPlan assumed that 90% of the population growth in the City of Calgary would occur through greenfield growth and that 10% of the growth would be through intensification of established areas.

The available data suggests that established areas are accommodating about 16% of new housing growth, but that intensification in terms of population growth is not achieving the 10% target level due to falling household sizes. Over the 2001-2004 period, Calgary's suburbs saw the addition of more than 29,000 new housing units (20,870 single-family housing units and 8,487 multi-family units such as condos and duplexes). At the same time, the inner city has seen 5,600 new housing units, especially multi-family development as well as the replacement of older single-family homes with new infill housing (4,930 multi-family dwellings and 693 single-family units built). This type of development generally attracts single and two-person households, so even though the housing stock is increasing in the older areas of the city, population increase has been less dramatic.

Outside the City of Calgary, there has been a gradual increase in the number of rural subdivisions, and in commercial development along major roads and interchanges in rural areas. The urban-rural distinction, which until then had been quite clear in the region, has begun to blur somewhat since 1995 when the RPC was abolished, a tendency that is expected to continue into the future.

4.3.2 Take advantage of residential intensification opportunities

In the mid-1990s, Calgary's inner city and downtown became attractive places to live again. Over the last ten years, there have been two large-scale intensification projects in Calgary, including the redevelopment of a military base and a former hospital site. The first involves the major redevelopment of Calgary CFB, a former military base that straddles the inner city and the post-war mature suburbs. The first phase of the project, known as Garrison Woods, adopts a New Urbanist design, with modified grid street pattern, and mixed housing types

(singles, townhouses and low-rise apartment buildings). The site of 71 ha accommodates 1600 housing units, including the original 565 low-density housing units used for military personnel. The gross density of the development is around 25 uph (which is substantially higher than surrounding neighbourhoods), or about 10 units per acre. A commercial street on the edge of the former base has been extended two blocks into the new development, providing walkable access to retail and services. There is a large public square, a museum, hockey arena and two private schools. Even though the site has excellent transit service, parking standards are the same as for other suburban areas. The first phase of the project is completed and planning is now being done for the second phase. The second phase will have office, industrial, retail and residential components.

Another major intensification project is the redevelopment of a City-owned regional hospital site into a mixed use, higher-density residential area to be called The Bridges. The first phase of the project – including two six storey and two four storey residential buildings, some with commercial uses on ground floor – is currently under construction. The site is on a main street with an LRT station nearby. When completed, the development will house 1,525 residential units.

The City recently adopted an outline plan for the East Village project, a mixed-used high-density neighbourhood of 10,000 residents near City Hall. This New Urbanist development will be pedestrian-oriented with strong public transit links revolving around a central commercial square, through which the already existing light rail train will pass.

Beyond these major redevelopment projects, the downtown and inner city (especially on the west side) have seen a number of high-rise condominium developments on former parking lots or low-density residential sites. Small-scale infill activity has increased in the inner suburbs, the inner city and the downtown in the last several years, encouraged by the city's streamlining of design guidelines and removal of zoning barriers to the subdivision of older 50-foot lots into two 25-foot lots. This process has added some 4800 new houses to the inner core over the last five years but, because the household sizes tend to be small, population is not increasing significantly in these areas.

Other intensification opportunities exist in older neighbourhoods, but are soundly resisted by local residents. The planning goal of intensifying transit corridors has not materialized due to the anticipation among developers that local residents would resist such changes. The intensification of suburban nodes, as designated in planning documents, has not occurred to any appreciable extent.

4.3.3 Denser, mixed-use development

The City of Calgary has made a commitment (expressed in its Sustainable Suburbs Study, the Calgary Transportation Plan, and the Calgary Plan) to raise residential densities in new suburban communities to between 6-8 units per acre.

The City did not consistently track residential densities prior to 1995. However, planners did collect and compile densities for 28 suburban and 3 inner city communities that were

representative of the communities being built in the 1960s to the mid-1990s. Suburban communities that were evaluated averaged around 5.5 units per acre. Since 1995 the City has tracked the planned land supply in the new suburban areas and found densities to be between 6.2 upa and 7.0 upa, with an average of 6.72 between 2000 and 2004. This represents a density increase of about 22%. Higher densities have been observed (up to 8 upa) in projected plans from the development industry that have been submitted as preliminary concept plans. These figures indicate that the City's density targets are being met. However, the move towards higher densities seems to be market-driven, i.e., due to higher real estate prices and the increasing popularity of small-lot homes.

From an urban design perspective, however, implementation of planning policies has been poor. In the early 1990s, City planners became interested in the potential for New Urbanist community designs to create more transit-supportive, walkable and bikable communities, as expressed in the Sustainable Suburbs study. The principal attempt to apply New Urbanist design principles in Calgary was in McKenzie Towne, a suburban development on 970 hectares of land located on the southeast periphery of the city. The area is divided into several neighbourhoods, the first of which was opened in 1995. Residential land use within the neighbourhoods is predominantly detached housing with mixed small- and large-lot houses on the same street. Neighbourhood commercial was planned for each village square and a main street and town centre have district commercial uses and multi-family housing in higher proportion than the neighbourhoods. The neighbourhoods were designed on a modified grid with sidewalks and treed boulevards. They are pedestrian- and bike-friendly and all homes are within 400 metres of a bus stop. Alternative development standards were also used, with narrower roads and lanes and smaller curb turn radii in order to slow traffic. Off-street parking lots are minimized in favour of on-street parking throughout. The overall density is about 6.5 upa, higher than past suburban developments.

Based on his experience in four of the 12 planned neighbourhoods, the developer reported that the New Urbanist approach was significantly more expensive than conventional designs (due to more land used for the grid street pattern, sidewalks on both sides of the street and treed boulevards) and has decided to abandon the approach in the areas not yet approved. Thus, Mackenzie Towne will be only about half the size originally planned and the remaining sections will be developed using a conventional design.

But even in the sections built according to New Urbanist principles, the transit benefits are not clear. According to transportation officials, transit usage in the areas completed is no higher than the average for a conventional suburb and vehicle ownership is relatively high. Parking standards are the same as for conventional designs and the road system was designed to accommodate car travel irrespective of how transit, walking and biking might contribute to mobility needs. While the proximity of convenience stores at village squares and the pleasant walking environment may have reduced local vehicle trips, automobiles are still required for the overwhelming majority of trips: the development does not contain a full array of retail activities and there is virtually no employment that is likely to attract the middle income people who purchase homes there. As a suburb distant from the downtown, transit service is limited and an LRT line to the area will not be constructed before 2016. In the long term, planners do expect transit usage in the area to increase, in part due to the

transit-friendly features of the design, but mostly because car travel to the downtown is expected to become progressively more congested as the city grows.

Apart from Mackenzie Towne, developers have resisted New Urbanist designs in Calgary, arguing that there is no market for such designs and that they are more expensive to build. Thus, developers have chosen more conventional urban designs with segregated land uses, homogenous housing types, relatively low densities and a street system designed with the requirements of the car foremost in mind.

4.3.4 Wider range of housing types

Table 4-3 shows that detached dwellings rose from 45.2% of starts in the 1981-1985 period to 69.5% in the 1996-2001 period, while apartments fell from 28.6% to 18.4% over the same interval. Row housing decreased its share of the housing starts from 11.2% between 1981 and 1985 to just 7.2% between 1996 and 2001. And, as Table 4-4 shows, the portion of detached housing making up the total housing stock has increased over the 1981-2001 period, going from less than 55% to more than 61%, while apartments and row housing declined. Thus, we cannot conclude that the diversity of housing types has increased across the region.

Table 4-3: Housing starts in the Calgary CMA by type, 1981-2001*, # and % by five-year aggregates⁸⁷

	1981	1-85	1986	5-90	199	1-95	1996-	-2001
	#	%	#	%	#	%	#	%
Detached	17,176	45.2	19,443	83.9	24,918	60.2	43,658	69.5
Semi-Detached								
and Duplex	5,712	15.0	954	4.1	5,561	13.4	3,171	5.0
Row	4,250	11.2	1572	6.8	2,754	6.7	4,497	7.2
Apartment and								
Other	10,886	28.6	1208	5.2	8180	19.8	11,536	18.4
Total	38,024	100.0	23,177	100.0	41,413	100.0	62,862	100.0

Source: CMHC Housing Statistics

Table 4-4: Total dwellings, Calgary CMA, 1981-2001

	1981		1986		1991		1996		2001	
Calgary	#	%	#	%	#	%	#	%	#	%
Detached	115,527	54.8	139,210	56	157,308	57	180,744	59.2	218,810	61.4
Semi										
Detached										
Duplex	10,541	5	23,616	9.5	18,767	6.8	19,235	6.3	33,125	9.3
Row	31,622	15	22,622	9.1	25,390	9.2	27,172	8.9	31,695	8.9
Apartment										
Other	53,125	25.2	63,142	25.4	74,515	27	78,159	25.6	72,730	20.4
Total	210,815	100	248,590	100	275,980	100	305,310	100	356,360	100

Source: CMHC Housing Statistics

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⁸⁷ Figures for housing starts and total dwellings were taken from CMHC Housing Statistics. The discrepancy between the two data sets may be due to several factors including the Statistics Canada's changing definitions for multi-unit housing.

4.3.5 Increase supply of affordable housing

As in the other study regions, housing prices in Calgary have increased substantially in recent years – rising 34.1% between 1998 and 2002. While rental costs have increased – 13.7% between 1998 and 2003 – this growth is relatively low compared to other study regions such as Vancouver and Toronto. At 4.4%, the vacancy rate in Calgary was the highest of all the study regions in 2003.

As in all the other study CMAs, affordability for both ownership and rental housing in Calgary has declined. In 2001, 36.5% of renters and 17% of homeowners spent 30% or more of their household income on housing costs, or a total of 20.1% (see Table 4-5). Despite the relatively high housing prices in Calgary, affordability is less salient an issue there, due in part to high levels of income. Rental affordability, however, remains a problem. This is due largely to the failure of the private market to deliver new rental stock, the demolition of existing rental stock or conversion to condos, a buoyant economy that has bolstered inmigration causing a higher demand for rental housing, and Alberta's low minimum wage (the second-lowest in Canada) and social assistance rates.

The 2001 merger of the provincial and municipal social housing agencies created the municipally-owned and operated Calgary Housing Company (CHC). CHC owns or manages approximately 7500 housing units. There has been little addition to the subsidized housing stock since 1993, when the Provincial and Federal governments substantially reduced the capital funding of new affordable housing.

Table 4-5: Calgary CMA, percentage households paying 30% or more on housing

19	81	19	86	19	91	19	96	20	01
Owners	Renters								
22.8	19.7	17.5	35.9	10.5	13.9	16.9	38	17.2	36.5

Source: Statistics Canada, and CMHC Research Highlights Socio-economic Series 03-017

4.3.6 Increase transportation choice and reduced car usage

The GoPlan projected an increase in transit modal share for downtown commutes from 39.2% in 1991 to 50% by 2024 and from 5.9% to 7.9% of non-downtown trips. By 2001, the modal splits had moved in the desired direction, with 41% of downtown commutes and 9% of non-downtown commutes being by transit.

Table 4-6: Travel Mode Choices (% AM Peak Hour mode Home-to-Work)

	1991	1996	1999	2001	GoPlan Target*
Downtown					
Walk/Cycle	8.8	8.1	10.1	10.9	9.0
Transit	39.2	37.9	38.5	41.0	50.0
Vehicle Drivers	39.7	41.6	39.4	36.2	29.7
Vehicle Passengers	12.3	12.3	12.0	12.0	11.3

Non - Downtown					
Walk/Cycle	3.9	4.0	4.0	4.1	4.0
Transit	5.9	5.7	7.5	9.0	7.9
Vehicle Drivers	82.9	83.0	81.5	79.9	77.3
Vehicle Passengers	7.3	7.3	7.0	7.0	10.8

^{*}The GoPlan Target represents the goals of the Plan to be achieved at the 1.25 million population level. Source: City of Calgary. 2002. Progress Review On Calgary Transportation Plan Goals. Attachment 3.

The above table is based on a 2001 traffic survey. Using more recent screenline assessments, transit planners now estimate that transit modal share for downtown commutes is at least 45%. 88 If this is correct, it would mean that the transit share to the downtown has regained the historic high experienced during the 1979-1981 period (see Table 4-7).

Table 4-7: City of Calgary, work trips to downtown transit shares, 1971-2001.

Year	Transit
	Share
1971	34%
1976	37%
1979	45%
1981	45%
1985	43%
1988	41%
1996	37%
1999	41%
2001	41%

Source: The City of Calgary Planning & Transportation Policy Forecasting. January 2002. Working Paper 2001 Civic Census Travel to Work Survey

Table 4-6 also shows that walking and cycling are on the increase in the city and that the GoPlan targets have been exceeded for both downtown and non-downtown commutes. This may reflect the success of the recreational path system that ties new developments into a vast network of biking and walking trails. As of 2001, the city had 800 kms of such trails, up from 480 kms in 1996. The City has also negotiated an agreement with the Calgary Urban Development Institute such that they will build wide-curb lanes on all major roads in new subdivisions in order to better accommodate bike travel.

In terms of commuting distances, however, trip lengths are increasing as the city expands into suburban areas. Table 4-8 shows that the median commute, which was 7.5 km in 1996, had increased to 7.7 kms by 2001.

Table 4-8: Average Commuting Distance, Calgary CMA (2001, 1996)

	2001		1996	
	#	%	#	%
All commuters	437,955		367,315	
Less than 5 km	139,750	31.91	117,320	31.94

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 $^{^{88}}$ The City of Calgary numbers include only motorized trips – i.e., bike and walk and other are excluded from the modal shares.

5 - 9.9 km	139,945	31.95	125,565	34.18
10 - 14.9 km	93,815	21.42	75,435	20.54
15 - 19.9 km	32,120	7.33	23,245	6.33
20 - 24.9 km	10,980	2.51	6,410	1.75
25 - 29.9 km	56,65	1.29	4,285	1.17
30 km or more	15,680	3.58	15,060	4.10
Median commuting distance	7.7	100	7.5	100

Source: Canadian Census, 2001 and 1996.

4.3.7 Preserve agricultural land

Over 90% of the Calgary CMA is farmland (4676 sq km of 5,083 sq km). Urbanization chips away at this large agricultural base but the loss is not significant in relative terms. For example, between 1986 and 1990, the City of Calgary converted some 1450 ha of farmland to urban uses while the municipal districts of Rocky View and Foothills, were responsible for using up about 3900 ha, even though population growth there was lower. ⁸⁹ The total loss of farmland for these five years was 5350 ha or about 1070 ha per year, about one-hundredth of one percent of the agricultural land base in those areas.

4.3.8 Preserve lands essential to maintaining regional ecosystem functions

The amount of urbanized land in Calgary has increased 33% over the last decade. This growth has been accomplished with the loss of many natural features. For example wetland destruction has proceeded to the point where over 90% of those that existed in 1961 have now disappeared. Many of the ravines that once criss-crossed the region have also been filled, with storm water now flowing through sewers. This loss of natural capital has contributed to water quality problems in the Bow and Elbow rivers (sediments that would have settled in wetlands now get washed into rivers) and flooding (the wetlands and ravines helped moderate flows during wet weather).

In the last few years, however, the City has taken steps to prevent further loss of ecological functions. Most importantly, a wetlands conservation policy was adopted in 2004 to prevent any further net loss of wetlands in the municipality. This means that any wetland sacrificed for development must be replaced with an engineered wetland elsewhere in the city. In order to help implement this policy, city engineers have created several demonstration wetlands within new subdivisions. Ravines are now being protected by a city bylaw that prohibits filling during development.

The city has a very successful system of integrated parklands. Since the City undertook its master plan for parks in 1994, an extensive network of parks has been developed along the banks of both major rivers in the city. The system is now 100% continuous, with pedestrian bridges that cross the river in several places to get around privately held land along the shore. A total of about 65 kms has now been put in place with much of the land being donated by private citizens or purchased by the City. The park system also links with the

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⁸⁹ The development of a country residential area yields only one home per five acres of land versus five homes for every acre in the city.

city's remaining ravines and the pedestrian/bike pathways mentioned above. A number of other major parks have also been created in the city, including Nose Hill Park, a prairie land of 24 sq. mi in the northern end of the city. Much of the park development has been carried out through the agency of the Calgary Parks Foundation, a non-profit citizens' group.

4.3.9 Encourage employment growth in the metropolitan core and designated growth centres

Of the GoPlan's land use goals, the most successful to date has been the strengthening of the downtown and inner city as an employment centre. A booming economy has driven office building in the area, adding about 35,000 jobs since 1991 and bringing the total employment there to almost 170,000 (see Table 4-9) This suggests that the 2024 target of 180,000 jobs is within easy reach and will likely be surpassed well before that date. Likewise, there has been substantial employment growth in the inner and established suburbs, with growth there exceeding GoPlan expectations. The main shortfall compared to GoPlan expectations has been job growth in the New Suburbs, where 140,000 jobs are supposed to be created by 2024. Although the city is already half way to the GoPlan goal in terms of total job creation, the New Suburbs have added only 24,000 jobs or 17% of the anticipated growth. This suggests that new areas are being developed without the employment needed to reduce the need for long-distance commuting.

Table 4-9: Job growth in City of Calgary by geographical sector, 1991-2001 and projected growth.

	1991	2001	% Actual	GoPlan	% Target
			Change	2024	change
			1991-2001	Target	1991- 2024
DT/Inner City	144,022	169,597	18	180,000	25
Inner Suburbs	65,439	74,990	15	71,000	8
Established	74,997	90,457	21	81,000	8
Suburbs					
New Suburbs	8,423	36,682	336	148,000	1657
Other Areas	59,304	93,476	58	105,000	77
Total	352,185	465,202	32	585,000	66

Source: Jim Francisco, Calgary Planning

The prospects for implementing some of the other employment-related elements of the plans are dimming. The city has had little success in developing the suburban employment nodes foreseen in the plans and some have been irretrievably lost to low-density retail development since 1995. Instead of higher density commercial and residential projects, these nodes are attracting big box retailers, call centres, and car dealerships. The anticipated higher density mixed-use concentrations around suburban transit facilities have also been slow to materialize: residents adjacent to LRT stations have successfully lobbied city council to derail many such plans. Moreover, the city is not seeing the neighbourhood-based employment projected in the plan – again, largely because residents resist it.

The GoPlan and Calgary Plan urged that population and employment growth be better balanced by directing job growth to the western part of the city and population growth to the east. This has not happened. The population split between east and west is not changing and new residential growth is still weighted toward the west. Employment growth has continued to be strongest on the east side, with only 38% of new jobs in the 1991-2001 period (not counting the downtown job growth) locating on the west side, compared to the 63% GoPlan target. GoPlan target.

4.3.10 Provide infrastructure to reduce ecological impacts of development

The entire population of the City of Calgary is supplied with both drinking water and sewage treatment services. Beyond the municipal boundaries, the City of Calgary supplies drinking water and wastewater treatment services to urban centres (e.g., Airdrie and Chestermere). Outside these urban centres, development is well- and septic-based.

Drinking water is drawn from the Bow and Elbow rivers to supply Calgary's two water treatment plants (WTP). The Elbow River originates in the mountains and foothills west of the city and supplies the Glenmore WTP. The Bow River starts from the Bow Glacier, north of Lake Louise, and supplies the Bearspaw WTP. The City also operates two sewage treatment plants and is building a new plant in the south to accommodate needs arising from new development. Water and wastewater infrastructure is paid for in large part through development fees, assessed on an acreage basis.

There is some concern about pollution loadings in the Elbow River from which the City's drinking water partly comes. As septic-based development increases in the region, septic failure has raised concerns about fecal coliform contamination. Also, the absence of stormwater management facilities in most of Calgary (e.g., retention ponds) means that stormwater runoff is heavily contaminated from chemical and organic residues on city streets and lawns. 92

4.3.11 Summary of Smart Growth Outcomes

Positive:

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- Some large-scale intensification projects in the inner city, along with condodevelopment and small-scale infill. This is increasing the housing stock on older areas but is not adding significantly to the population weight of these areas due to small household sizes.
- Densities in suburban areas of Calgary are rising so as to reach or exceed planning targets.
- One major example of a New Urbanist type development in the new suburbs.

⁹⁰ Cultural factors strongly favour residential development on the western side of the city. This area has excellent views of the Rocky Mountains and is where upscale housing has traditionally been located.

⁹¹ City of Calgary. Calgary Transportation Plan 2005 Update. Calgary.

⁹² Alberta Environment and the City of Calgary. May 2004. *Impacts On Water Quality In The Upper Elbow River*. Calgary.

- Amount of detached housing as percentage of new starts is declining while apartments (condos) increasing.
- Transit, walking and biking to the downtown increasingly significantly and have achieved relatively high levels.
- Downtown and inner city employment growth above plan targets.
- Infrastructure is well planned and operated to reduce ecological impacts of urban development.

Negative:

- With few exceptions, new suburbs are not moving towards transit-supportive
 designs. Most new suburbs retain conventional features of curvilinear street patterns,
 segregated uses, relatively low densities (although increasing) and limited housing
 type range.
- Amount of detached dwellings as a share of total stock still increasing and apartments declining.
- Transit modal share outside downtown has increased to meet GoPlan targets, but is still at very low levels.
- Agricultural land being converted to urban uses, but amounts not significant given availability of farmland in the region.
- Employment in the new suburbs is well below plan targets.
- Many new jobs are located on east side of city, aggravating the jobs-housing imbalance and leading to more cross-town commuting.
- Housing affordability, especially for rental, is a significant problem.
- Some water quality concerns from septic-based rural development and stormwater runoff from suburban/urban areas with no retention facilities.

4.4 Factors Explaining Results

4.4.1 Public spending or financial incentives to direct population and employment growth to designated growth areas

Public spending on institutions and amenities is an important instrument in encouraging growth to occur in specific locations. The City of Calgary and the Alberta government have not made use of their spending powers to curb sprawl and direct growth to the downtown, inner city and suburban nodes designated in the GoPlan and Calgary Plan. From a transit spending point of view, no investment has been made to support high-density commercial and residential development in the designated suburban nodes. As a result, car-dependent uses (big boxes, car sales lots, etc.) have mushroomed in those areas. The downtown has seen significant transit improvements, but there has been little in the way of major public investment in services to attract new residents. Indeed, the central core continues to see schools, libraries and recreational facilities and other services closed while property taxes rise to support services in low-density edge communities. Nor does the city use financial incentives to direct growth. For example, there are no tax incentives, subsidies or planning permit waivers to attract residential development to the downtown or in the designated suburban nodes.

This situation will be addressed in part in the City's new approach to Transit-Oriented Development. The transit nodes will be stimulated through City-led demonstration projects, private-public partnerships, and locating public institutions in strategic locations. The City is also experimenting with innovative financial strategies (such as tax-increment financing) in the development of the East Village.

4.4.2 Integration between land use and transportation planning

As in other study regions, Smart Growth objectives in the Calgary region are undermined by the inability of the provincial transportation planning process to link transportation investment with land use goals. The provincial highways department (Alberta Transportation) does not examine the potential for managing growth to reduce the need for investment in upgrading provincial roads. Decisions to upgrade specific stretches of highway are made based on traffic volumes and travel times, safety factors and cost-benefit analysis, in addition to political factors. No attempt is made to compare the costs and benefits of specific road projects with investment in TDM or transit.

Departmental involvement in the development of municipal plans in the region is limited to comments on proposed development near provincial highways in order to control highway access points. Highways are upgraded by the province as growth creates more road demand: there is no attempt to work with municipalities to restrain growth in order to reduce travel demand or to shift it to other modes. As one department official said: "we have always said we don't try to control land use other than where it comes out on our highways. We say yes you can or no you can't come out here. That's the only restriction."

The department's primary mission in the region is to plan and carry out improvements to the highway system in order to provide free-flowing traffic around the urban area, especially for transport trucks. In some cases, highway upgrades are made necessary due to congestion from commuter traffic that results from growth in bedroom communities outside the central city. In other cases, it is heavy inter-city travel on provincial roads that triggers upgrades. In either case, officials acknowledge, "whatever we build in the region becomes a commuter highway. When we build these connections, we find that 95% of the traffic on them will be commuter traffic." Despite this understanding, planning for highway improvements does not take into account the impact the projects will have in triggering land development and associated induced traffic. For instance, Highway 2 (a heavily travelled route between Calgary and Edmonton) was realigned through a new corridor outside Calgary, following which the population of the City of Airdrie, located along the new corridor, boomed.

Induced development is also a problem around the province's interchanges in urban areas. "The municipalities always want development because they view it as more taxes and more jobs. So as soon as we plunk down an interchange, commercial development quickly follows so our interchange no longer works properly. We look at their growth plan and make our road improvements to fit, but then the induced development makes our system less efficient. They [municipalities] have never refused a development application because it would create too much pressure on the highway system." This process encumbers provincial roads

through cities and increases the need for building new highway by-passes (such as Calgary's ring road) around urban areas.

Linkage between land use and transportation is better at the City level, but problems still persist. Calgary Transit (a City department) has a full-time position dedicated to the review of neighbourhood plans and development proposals in order to ensure that basic transit-friendly measures are in place in growth areas. This ensures that collector roads are suitable (i.e., wide enough and properly linked) for transit, appropriate pedestrian facilities are installed so that people can access transit services, and that land needed for bus facilities (shelters, stops, benches) are placed on title as covenants during home purchases.

Developers are required to submit a transit impact statement with their subdivision plans, laying out compliance with city-wide policies on maximum distances to transit stops. There is almost complete compliance with the 400 m maximum distance standard and with the requirement that 70% of housing be within 300 m of a stop. A travel demand study is usually also required in order to assess impact on surrounding roadways and the need for upgrades. However, these studies usually assume historical modal shares of transit, walking and biking rather than the higher shares envisioned in city planning documents. As one official explained: "We don't know if the city's transportation goals will be realized 20 years down the road so we have to be conservative in our road planning."

The development review team has not been successful in convincing developers to adopt more connected street patterns or other transit-supportive urban design features (such as having higher density uses located near transit). Developers have vigorously debated the benefits of such patterns and claim they are more expensive and less marketable than conventional suburban patterns. For example, the City has a number of road standards that developers can pick from but leaves it completely up to them to decide which standards to use. Overall, transit and transportation planners do not seem to use the review process to advocate for less car-dependent land use patterns in new suburban areas. Their success is limited to the nuts and bolts of walking distances to transit stops and the provision of street shelters.

It appears that integrating the needs of bike users into subdivision and road design has proceeded more smoothly, perhaps reflecting the fact that bike planning is done within the transportation unit while transit planning is conducted in a separate business unit. The city's new bike plan requires all new major roads to have a wider curb lane to accommodate cyclists. The standard subdivision agreement has been amended to require developers to pay for dedicated bike paths along suburban streets. All higher density residential and commercial developments are required to provide bike parking facilities. Bike parking facilities and lockers have been installed at LRT stations and bike racks have been installed on streets in the downtown area. Bikes are permitted on the LRT during certain weekday hours and on weekends.

4.4.3 Provincial growth management policies

The Municipal Government Act of 1995 devolved planning authority from the province and regional planning commissions to local municipalities. Under the old regime, municipal plans, neighbourhood plans, and subdivision decisions had to abide by the regional plan and ministerial approval was needed for major planning decisions. Under the new system, municipalities are required to set up their own subdivision authority and the need for ministerial approval is eliminated. However, in order to help provide some provincial guidance on municipal planning matters, the government introduced a set of policies in 1996 under the Municipal Government Act, briefly described in Section 4.2.1.

These policies have been criticized as being vague and incapable of providing strong direction to municipalities on how to successfully manage growth. He wording of the policies is loose and leaves much room for interpretation. Of the 49 policies set out in this slim 12-page document, 44 included the words "municipalities are encouraged." Only the remaining five said, "municipalities are expected" to act in certain ways. Moreover, the legislation laying out the policies required municipal plans to be consistent with the policies, but the policy document says, "the province is entrusting to each municipal the responsibility to interpret and apply the Land Use Policies." Indeed, officials acknowledged that there is no mechanism to ensure enforcement. The province does not review municipal development plans or development applications and there is limited recourse for appeal of municipal decisions by citizens or stakeholders in the development process. Little monitoring of the implementation of the policies has been carried out. He provided that the policies has been carried out.

The substantive content of the policies is also weak from a Smart Growth perspective. One section refers to land use patterns, but no particular direction is given on compact form, density, the mix of land uses, or urban structure. The agriculture policies discourage land development that fragments agricultural land or prematurely converts it to other uses, but does not prohibit conversion of even prime agricultural lands. The section on transportation is narrowly concerned with land development adjacent to major corridors. There is no reference to the key elements of a sustainable transportation policy such as providing modal choice, balanced investment in transportation and transit, provision for walking and cycling, or encouraging land use patterns that facilitate transit, walking and biking. The section on residential development refers to the need for municipalities to provide intensification opportunities and a wide range of housing types but sets no particular targets. The document also encourages municipalities to "review" planning and engineering standards, but does not specify what the objective of such a review might be.

In short, the policies, although vaguely supportive of Smart Growth, do not specifically guide municipalities in this direction. As one provincial official said: "it's something we've left to municipalities to pursue through their own development plans, to the degree they are

⁹⁴ P.S. Elder. 1996. "Alberta's 1995 Planning Legislation." *Journal of Environmental Law and Practice*. Vol. 6, pp. 25-58.

⁹³ Province of Albert. 1996. Land Use Policies.

⁹⁵ At one point, a study was made of the degree to which the agricultural land policies were being implemented, but the province does not have a comprehensive and ongoing monitoring program to determine if the policies are being observed in practice.

interested in it. In Alberta, municipalities are able to do whatever they need to do to achieve their ends except what they are expressly not allowed to do by us."

4.4.4 Transportation investment decisions

Transportation spending decisions undermined implementation of the plan in its early phases. In 1996, the province eliminated its transportation grants to the city (and other municipalities in Alberta), while city politicians were promising zero-tax increases as a reelection strategy. As a result, the city was starved of funds with which to realize the capital expenditure elements of the plan. The result was increasing congestion for several years, with transportation issues being identified in public surveys as the number one problem with living in the city.

The province responded by establishing the Premier's Task Force on Infrastructure. In fall 1998, the province announced an increase in provincial transportation grants to municipalities. Further discussions in 1999 led to agreement to transfer responsibility for two main Calgary arteries (Deerfoot and Stoney Trails) to the province as part of the provincial highway network. A long-term agreement to remit to the City five cents of the fuel tax per litre of fuel sold in Calgary was also reached. The City was then successful in persuading the Calgary Parking Authority and the development industry to increase their contribution for transportation infrastructure. Through these measures, The City had finally secured long-term capital funding for transportation infrastructure. In October 1999, The City announced the Transportation Infrastructure Investment Program, which is providing \$1.2 billion over 10 years for transit and road projects. At present, the City of Calgary divides its transportation program budget roughly in half between roadway and transit system improvements (as per the GoPlan), an unusual arrangement in Canadian cities of any size, where the lion's share of public spending typically goes to roadway improvements.

The combination of provincial spending on highway upgrades and municipal spending from the fuel tax fund has resulted in a spate of road improvements over the last three years. The Province is spending over \$200 million installing interchanges on and extending Deerfoot Trail while the City is widening the Trans Canada within city limits from four to six lanes, and improving the road network in the inner city.

The LRT system has been extended with the addition of six new stations since 1995 and further improvements are being planned. In deciding which of the recommended road and transit improvements to fund, the City uses a set of criteria based on the strategic goals set out in GoPlan, including safety, contribution to the development of the road system, improving network performance (e.g., reducing delays), benefit/cost, and potential to support land use goals.

Of great importance in this context is that the City has kept to the GoPlan policy of not investing in any major upgrades (e.g., expansions) to the road network leading to the downtown. This combined with the major investments that have been made in the C-Train system (which is centred on the downtown and for which fares are free for trips within

downtown) and in express buses to the downtown from suburban locations, has greatly contributed to the rising transit share for downtown trips.

4.4.5 Transportation demand and supply management measures

As we saw, commuting to the downtown has increased since the mid-1990s, as envisioned by the Calgary GoPlan and municipal development plan. This is in part due to the fact that downtown development has been very strong. However, this success can be partially attributed to city efforts to manage travel demand. For example, the City has a policy of reducing long-term parking in the downtown area. This has been implemented by setting a maximum parking requirement which is half or three-quarters the normal parking minimum. Developers contribute the cost savings to a parking reserve fund, which is used to build underground parking lots on the periphery of the downtown area. The City also encourages infill on former downtown parking lots, which not only reduces parking in the area but increases the density of land use and strengthens the downtown as a living and working environment. Finally, the reduction in parking combined with the employment boom in the downtown has allowed the Calgary Parking Authority to drive up parking rates in the area to \$220 a month, which itself favours a shift to transit use.

A series of other transportation demand and supply management measures have been implemented since the GoPlan was approved. A full-time TDM coordinator works with employers to encourage car pooling and teleworking (from home), does public education on travel choices through special events such as Earth Day, and has helped boost transit demand by pushing for measures such as a transit pass discount for university and college students.

Transportation supply measures designed to reduce peak hour flows or optimize use of existing road infrastructure have also been taken by the City, including HOV/bus express lanes with signal priority for transit vehicles, queue jumps for transit vehicles, increased transit service frequency, and lane reversals to take full advantage of existing road capacities. The City has a policy of providing transit to newly developing areas at an earlier stage than would normally be justified. This allows new residents to establish pro-transit habits from the start and avoid purchase of second or third cars. The service is provided in the form of smaller shuttle buses, and requires a much higher rate of public subsidy than transit provided to established areas using regular buses.

The bike-related policies found in the GoPlan have almost been fully implemented. A bike plan was completed by city's transportation unit along with the parks department in 1996 and updated in 2001. The city's already extensive system of dedicated bike paths and onstreet bike routes (painted routes on low-volume streets) will be doubled and all new major roads are required to have a wider curb lane to accommodate cyclists.

As a way of optimizing the use of the current road and transit infrastructure, the City is also embarking on an Intelligent Transportation Systems, the application of "smart" technology to significantly expand traffic management capabilities. It will include such features as traveller information, detection of incidents or areas of congestion, coordinated traffic signal

operation and implementation of preferential treatment for transit and emergency vehicles. It is a multi-modal approach and applies to roads, public transit, emergency vehicles, commercial vehicles and goods movement.

4.4.6 Growth management by municipal governments

Since the mid-fifties, the City of Calgary has used a "uni-city" concept of growth management, meaning that its boundaries are progressively expanded through annexations to include new development on the city's periphery with the aim of preserving a 30-year supply of developable land within its boundary. Major annexations occur every 15 years or so with minor ones taking place at more frequent intervals. This system has provided for a very orderly growth patterns, with no leap-frog development within the city and well-planned extensions of the service boundary. From a Smart Growth point of view, however, there is a negative side to this process, unlike some of the other large cities in our study, Calgary grows without ever reaching its urban limits and being forced to consider intensification and infilling as the main growth option. Thus, the vast majority of growth in Calgary is through accretion of new communities on the growing edge of the city.

Another negative aspect of growth management in Calgary has been the lack of political will to strongly guide the development industry in its locational and urban design trends. Thus, there are few carrots or sticks to encourage or require developers to locate jobs and employment in designated areas, to create innovative suburban designs that would be more transit-supportive, or to discriminate between desirable and undesirable development proposals. This has been especially acute in terms of the failure of the city to achieve the suburban nodes vision of the type of higher-density mixed-use development that was foreseen around LRT stations. As mentioned above, incompatible land uses have been approved in these areas by council, often in opposition to recommendations provided by planning staff, This was understandable to some extent during the mid-1990s when there was little demand for commercial or office development or higher-density residential units, but the trend has continued despite the stronger demand in these markets that is now visible. This issue may be addressed by the recent creation of Transit Oriented Development Guidelines, approved by council in early 2005, which will provide a stronger framework for what is permissible and desirable in areas around transit stations.

The existence of planning guidelines, however, has not done much to encourage transitoriented development in new suburban subdivisions. As we saw above, most developers continue to propose and receive approval for suburban designs based on conventional street patterns and homogeneous land uses. There are few mechanisms for altering developer choices in Calgary and the laissez-faire attitude towards business seems to undermine implementation of planning goals.

4.4.7 Metropolitan planning

There is currently no regional land use or transportation planning activity covering the Calgary CMA and no government body advocating for more sustainable land use and transportation patterns on a regional level. As mentioned above, the Regional Planning

Commission, which moderated the centrifugal forces in the region, was eliminated in 1995 and replaced by a weak voluntary partnership that steers clear of land use issues. The provincial department concerned with municipal affairs has a set of land use policies, but they are not used (and probably cannot be used given their enforcement limitations) for controlling regional growth patterns. Given the high level of growth in the region, the continued provincial spending on highway upgrades, and the lack of regional governance institutions, exurban development outside the City of Calgary's boundaries is likely to become a more salient issue in the future. This development also undermines Smart Growth objectives within Calgary as it is frequently argued by those advocating a more laissez-faire approach to planning that managing growth with strong regulatory instruments will only push residents in search of low-density, segregated and homogenous communities into the exurban regions, an outcome worse than sprawling development within the city limits.

4.4.8 Municipal fragmentation and fiscal competition

Even though the region was equipped with a regional planning commission from 1951 to 1995, municipal competition still influenced growth patterns. Within the RPC, there were evident conflicts among member municipalities, especially between the City of Calgary and Rocky View. Since the dissolution of the RPC in 1995, the rural municipality has continued to oppose plans to manage growth in the fringe area outside Calgary's municipal borders and to resist proposals for annexation of land to feed Calgary's growth. In order to enhance its tax base, The District Municipality of Rocky View has promoted the development of industrial parks, commercial enterprises, institutional facilities, and county-residential development in the fringe area.

5 The Saskatoon Region

5.1 <u>Introduction</u>

5.1.1 Description of the region

The Saskatoon urban region lies in south-central Saskatchewan in an area of slightly undulating prairie. The CMA is characterized by a dominant central city – the largest in Saskatchewan – surrounded by rural towns and villages on a mostly agricultural land base.

The CMA is bisected by the South Saskatchewan River, with the City of Saskatoon straddling both banks. Development in the central city is contiguous, with an older more compact downtown, surrounded by mature suburbs on a gridded street pattern, which in turn are flanked with newer residential districts based on curvilinear street patterns. There is a clear line separating the urban and rural areas in the region with some rural lands remaining within the city. ⁹⁶

The City of Saskatoon is at the centre of a major trade area comprised of approximately half a million people, one of two such areas in the province. The main economic base of the region is focused on the University of Saskatchewan, related research and development organizations (such as agricultural biotechnology firms), the hub and servicing role that the city plays in relation to the regional agricultural (primarily, grain) economy, and the city's proximity to the uranium and potash mining sectors. 97

The region is crossed by a number of provincial highways, and access across the River is limited to five bridges. It is also surrounded by a major circular arterial, Circle Drive, that surrounds the city and connects to major thoroughfares. Though not a dominant mode in the region, public transit in Saskatoon has been in place since the first electric street railway was completed in 1913. After almost forty years of service the electric railway system was discontinued in 1951, to be replaced by electric trolley coaches. In 1974, the trolley coaches were retired and replaced with a system of diesel buses.

Up until 1975, the city was served by a radial transit system, with the major terminal located downtown. With the increasing suburbanization of the city, and the dispersal of activities and centres throughout the metropolitan area, the system changed to a multi-terminal

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⁹⁶ Until a recent annexation in the west sector, the city had enough land to accommodate another 65,000 people in addition to its 2005 population of 205,000. City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon: Community Services Department; Jon Markus, planner, City of Saskatoon, personal communication, 30 March 2005.

⁹⁷ Saskatoon Quick Facts [http://www.city.saskatoon.sk.ca/org/quick_facts/index.asp]; City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon: Community Services Department. ⁹⁸ Circle Drive, which is mostly complete, was planned in the 1960s as a free flowing perimeter road around the city, but is now a heavily used local road with dozens of traffic signals and stop signs due to induced commercial development along the corridor. Political decisions to allow development in the corridor overrode planning policies to prevent such development.

system, which was completed in 1979. The system consists of six terminals serving regional areas (North-Lawson, West-Confederation and East-Wildwood, Circle and 8th). An express bus connects each terminal to the new downtown terminal on 23rd Street between 2nd and 3rd Avenues, completed in 1984. There is also a terminal at the University of Saskatchewan.

In 1996, Saskatoon Transit Services introduced low-floor transit buses on designated routes. There are 113 diesel buses in the fleet, which consist of 26 low-floor buses, 1 elf (miniature) bus, and 86 40-foot standard buses. In addition, the City recently acquired 14 small buses for special needs transportation. With this service having been brought in-house, the City now employs approximately 300 people in its transit division with an annual budget of \$22 million. ⁹⁹

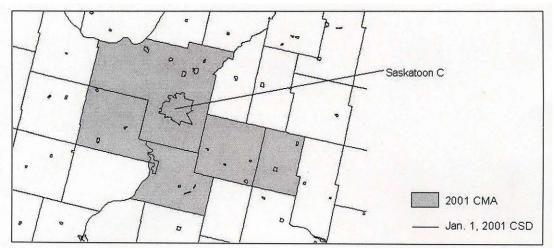


Figure 5-1: Saskatoon Census Metropolitan Area

Source: Statistics Canada.

5.1.2 Regional growth patterns

Between 1991 and 2001, the CMA grew by 8%, making it a moderate-growth area compared to the other urban regions studied for this report. The City of Saskatoon captured an unusually high share of that growth: 71.73% of the 1991-2001 growth went to the central city. But this tendency is declining: in 1991-96, 93.5% of CMA growth was in the central city, while only 46.05% of growth went there in 1996-2001. The result, as shown in Table 5-1, is the declining weight of the City of Saskatoon within the CMA, from 100% in 1981 to 87% in 2001.

Table 5-1: City of Saskatoon and Saskatoon CMA Populations, 1981-2001¹⁰⁰

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Year	City of	Saskatoon CMA	Saskatoon's
	Saskatoon		Share of CMA

⁹⁹ Wade Coombs, operational manager, Transit Services, City of Saskatoon, personal communication, 9 December 2004.

¹⁰⁰ Statistics Canada expanded the Saskatoon CMA after the 1981 Census based on place of work data. The CMA was expanded to include an additional three Rural Municipalities. Currently, 20-30% of all new home construction takes place outside Saskatoon in the larger Saskatoon CMA. Alan Wallace, senior planner, City of Saskatoon, personal communication, 18 July 2005.

			Population
1981	154,210	154,210	100%
1991	186,020	210,023	88.57%
1996	193,647	219,056	88.40%
2001	196,811	225,997	87.09%

Source: Statistics Canada – 1981, 1991, 1996, and 2001 Census Data

The City of Saskatoon itself has an area of 13,700 hectares, and a 2001 census population of 196,811. The City has had varying population growth rates over the past 50 years (see Table 5-2), but the trend has generally been a decelerating one. The population of Saskatoon has grown by 270% since 1951. It is anticipated that, by 2020, another 50-60,000 people could be living within the city limits.

Table 5-2: City of Saskatoon Population Growth 1951-2001

	Census Population	Population Growth Rate	1951-2001 Population Growth
1951	53,268		
1956	72,858	36.8%	
1961	95,526	31.1%	
1966	115,892	21.3%	
1971	126,445	9.1%	
1976	133,750	5.8%	270%
1981	154,210	15.3%	
1986	177,640	15.2%	
1991	186,058	4.7%	
1996	193,647	4.1%	
2001	196,811	1.6%	

Source: City of Saskatoon, *Future Growth of Saskatoon: "A Tradition of Planning."* June 2000 June. Saskatoon: Community Services Department.

Much of Saskatoon's growth has been accommodated through annexing areas surrounding the municipality. As Table 5-3 shows, between 1950 and 2000, the area of the city grew from 3,737 hectares to 13,700, an increase of 267%, almost exactly matching its population growth. ¹⁰¹

Table 5-3: City of Saskatoon Area Growth 1950-2000

Year	City Area (Hectares)	Ten-Year Growth Rate	1950-2000 Area Growth
1950	3,737		
1960	7,599	103%	
1970	8,915	17.3%	267%
1980	11,775	32%	
1990	13,571	15.2%	
2000	13,700	1%	

¹⁰¹ City area information compiled from: City of Saskatoon. June 2003. *Future Growth of Saskatoon: "A Tradition of Planning."* . Saskatoon: Community Services Department.

Source: City of Saskatoon, Future Growth of Saskatoon: "A Tradition of Planning." 2000 (June). Saskatoon: City of Saskatoon Community Services Department.

5.1.3 Current growth-related issues in the region

As a medium-size prairie city with little heavy industry or road congestion, air quality is very good in the Saskatoon region and is not the subject of public or official concern. And as a moderate growth city, the issue of compact and denser urban development is not as much of an issue here as in metropolitan regions experiencing more explosive growth, such as Calgary and Edmonton.

Car dependency is very high in the region, with 86.1% of all commuting trips taking place by private automobile and only 5.1% of trips by public transit. 102 However, there is little concern about the level of automobile usage in the region, as the car is widely accepted as the transportation mode of choice. Moreover, the highway and arterial road system is extensive (Saskatchewan has more roads per capita than any other province in Canada), and congestion is limited to bottlenecks over the city's bridges at peak hours.

Despite the high level of car use, commuting distances are short (only 4.8 kilometres on average). This is only partially explained by the relatively small population size of the CMA. Another factor is undoubtedly the compact urban form found in the area: the City of Saskatoon makes up the vast majority of the regional population and controls development closely within its boundaries. This planning approach appears to be motivated by a desire to maximize the efficiency of existing infrastructure and to avoid the excess public expenditures needed to support a more sprawling urban form.

The tight control on development within the central city has obviated the sprawling development patterns found in some other central cities profiled in this report. However, as noted below, the rural areas outside the City of Saskatoon are attracting an increasing number of new housing starts in serviced towns and villages and in unserviced country subdivisions. But rural development outside the city has not raised many red flags in the region, if only because the numbers are still small, there is a vast quantity of farmland in the region, and it has not led to congestion of the regional road system. Nor has rural development resulted in serious health concerns related to septic system failure as it has in some of the other jurisdictions.

Of the seven neighbourhoods surrounding the CBD, two are experiencing difficult trends of low income, high vacancy, low property values and high absentee ownership. However, the rest are quite healthy, and the downtown is well-used after business hours. 103 Housing affordability and keeping a reign on infrastructure costs through encouraging a jobs-housing balance on both sides of the river remain pre-eminent issues within the city.

¹⁰² Statistics Canada, 2001 Census.

 $^{^{103}}$ Alan Wallace, senior planner, City of Saskatoon, personal communication, 18 July 2005.

5.1.4 Municipal organization and regional governance

The Saskatoon Census Metropolitan Area (CMA) is comprised of one city (Saskatoon), five rural municipalities, ten towns, five villages and one Indian reserve. In 2001, the Saskatoon CMA population was 225,927 with 196,811 people (87.11%) living within the boundaries of the City of Saskatoon. Meanwhile, only 29,116 people were recorded as living in the rural municipalities and small towns surrounding the central city. The most populous of these is Corman Park (2001 population of 8,093) which completely surrounds Saskatoon. Like the other four rural municipalities in the CMA, Corman Park encloses a number of separated towns and villages, the largest of which are the Towns of Martensville (2001 population of 4,365) and Warman (2001 population of 4,365).

There is no land use planning authority responsible for the metropolitan region. Nor does the provincial Department of Government Relations and Aboriginal Affairs serve a regional planning function in the absence of a regional authority: the department has no province-wide land use policies with which to guide municipal planning and development decisions. ¹⁰⁴ Thus, although the department does approve subdivision applications in rural municipalities throughout the province, the review process is based on technical issues only and there are no overriding growth management objectives. In fact, the department is concerned about declining populations in many rural areas and the under-utilization of existing rural infrastructure. It would not contemplate undertaking steps to further reduce rural populations outside city centres.

However, the province does encourage urban and rural municipalities to work together to solve common land use problems. Created in 1956, the Saskatoon Planning District provides a mechanism by which the City of Saskatoon and the Rural Municipality of Corman Park exercise joint control of development in a district five to seven kilometres in width surrounding the city. The district has a District Planning Commission and its own Development Plan and Zoning Bylaw, with which planning decisions must be consistent. One of the key objectives of the commission is to avoid development in the district that could compromise future growth plans of the city. Thus, new country residential subdivisions are not permitted in the district; however, large parcel land uses such as golf courses or greenhouses are.

The Commission also provides a mechanism for discussion of the city's future growth plans: growth requirements are identified up to 25 years in advance, and areas of Corman Park are annexed in order to accommodate the projected growth. Since 1960, over 6,000 hectares of land have been incorporated into the city in this fashion. The relationship between the two partners is generally smooth, but there are occasional conflicts over annexations. ¹⁰⁵

The province has attempted to consolidate planning in the region through a number of means (a regional planning board, amalgamation, two-tier municipal government, service

¹⁰⁴ This is partially due to political influence of farmers in the province who want to maintain full control over the disposition of their land, including making their land available for development if they so choose. ¹⁰⁵ In addition, "the City has played a major role in the development and execution of compatible land use agreements with Aboriginal First Nations to ensure that Treaty Land Entitlements are integrated into the city and region's growth models." City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon: Community Services Department, p. 8.

delivery districts), but proposals have always been defeated due to stiff opposition from rural areas. Only the Regional Economic Development Authority – a regional business promotion unit – has seen the light of day. Land use planning within Saskatoon itself is carried out by the Community Services Department.

Transportation planning in the region is fragmented, with no regional transportation authority or regional plan. Transit provision is limited to the City of Saskatoon, and is operated by a city department without provincial subsidies. The provincial Department of Highways and Transportation is responsible for planning and constructing the ten major roads in the region that radiate out from the city, some of which are limited-access divided highways. When provincial highways cross into the City of Saskatoon, planning and improvement costs are, for the most part, borne by the municipal government. All other roads in the city are planned and funded by the City without provincial assistance. Roadway and traffic planning (including bike planning) in the city is done in the Infrastructure Services department, while transit is planned and operated by Utility Services.

5.2 Smart Growth Policy and Objectives

5.2.1 Provincial and Regional

As mentioned above, there is no land use or transportation planning authority responsible for the metropolitan region and there is no regional land use or transportation plan. The Department of Government Relations and Aboriginal Affairs does not have province-wide land use policies with which to guide municipal planning and development decisions.

There is, however, the collaboration of the City, province, and University of Saskatchewan as embodied in the autonomous environmental agency, the Meewasin Valley Authority (MVA). The MVA resulted from a study conducted by the original partners, completed in 1976, that was occasioned by the threat of residential development along the river's edge. The study recommended the creation of a 100-year plan for the Valley, and provincial legislation authorizing the creation of the Authority was passed in 1979. The Act gave the agency authority over 80 kms of the river and adjacent lands. The agency was invested with powers to plan the corridor, regulate land and water use, and acquire land through purchase, expropriation and right of first refusal. ¹⁰⁶

As a result of opposition from a diversity of groups, including the Municipality of Corman Park, the Act was eventually revised, largely removing private lands from the agency's purview, and ending its powers of expropriation. These changes greatly reduced the body's effectiveness. ¹⁰⁷ However, it still retains powers of development review for some conservation and buffer zones adjacent to the river, and engages in a variety of conservation and education programs in the region. ¹⁰⁸

82

¹⁰⁶ Gerald Hodge and Ira M. Robinson. 2001. *Planning Canadian Regions*. Vancouver: UBC Press.

¹⁰⁸ See http://www.meewasin.com/background.html.

5.2.2 Municipal

5.2.2.1 Land Use Planning

The 1998 City of Saskatoon Development Plan, which we will use as the benchmark for evaluating practical achievements up through 2005, mentions its support for sustainable development, and suggests that one of its main goals is to "develop an urban form and settlement pattern that will enhance the efficiency of the roadway system, encourage the use of alternative forms of transportation including walking, cycling and public transit, and help to promote a balanced transportation system." ¹⁰⁹

The plan promotes developing Saskatoon as a sustainable community, featuring economic diversity, economic security, fiscal responsibility, environmental protection and security. It also seeks efficient use of land, infrastructure, and other resources in managing and accommodating the City's growth and change. The plan makes reference to developing "a compact and efficient urban form," and maintaining the downtown as "the centre and heart of the Region," in addition to cultivating other centres of lesser importance. These are to include suburban nodes with higher-density residential development, commercial uses and some office space.

More specifically, the plan encourages:

- an overall density objective of at least five dwelling units per gross acre (up from an average of four units per acre at present in new development)
- infill development on vacant and underutilized lands in existing neighbourhoods
- secondary suites in all single-family areas
- continued predominance of the downtown as the administrative, commercial, cultural centre of the region with a growing resident population
- a hierarchy of designated centres and arterials with higher density development and a mix of land uses, and
- forbids non-contiguous (leap-frog) development.

The 1998 plan applied to the then current city boundaries, which were expected to be fully built out by 2020 when the population is projected to reach 250,000. In order to accommodate the ultimate city population of 400,000, the municipality will continue to annex lands from the surrounding Rural Municipality of Corman Park, and it has already annexed some in the intervening period.

All additions to the city's existing built form are to take the form of pre-planned, fully-serviced neighbourhoods. And the main focus for mixed land uses outside of the downtown are Suburban Centres that will provide "commercial, institutional and recreational lands and activities" for approximately 8 to 10 neighbourhoods, with a total population of about 50,000 people. District Commercial Areas will service smaller areas of 2 to 5 neighbourhoods. These are to be oriented to both automobile and pedestrian traffic.

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¹⁰⁹ City of Saskatoon. December 2001. *Development Plan Bylaw*, 1998.

Mention is made of traffic calming and ensuring that collector streets in new developments can be used for transit. A variety of housing forms, lot sizes, and densities are to be provided to meet the needs of a variety of income levels, and infill development is encouraged along with secondary suites.

The City has one of the most progressive housing policies in the country. In 1996, the City of Saskatoon's Social Housing Advisory Committee established a Housing Facilitator position – once full-time, and now part-time. This individual's role was to explore ways the City could continue to respond to housing needs given the withdrawal of federal and provincial governments from the social housing sector at that time.

This involved working with the community to find ways to meet identified housing needs and to facilitate the development of appropriate civic policies and practices that address demand for affordable and special needs housing. This has included assisting community groups with needs identification, project planning and development; general public education and information sharing around housing issues; and implementation of monitoring to enable the impacts of policy on housing availability to be better understood and evaluated.

Specific responsibilities include membership on the Saskatoon Housing Initiative Partnership (SHIP) board; liaison with provincial, federal, and national housing agencies and groups; and working on Affordable Housing Demonstration Projects with the Saskatoon Home Builders.

Another motivation for the creation of the facilitator position has been the desire to respond to the deterioration of housing stock and social conditions in the inner city, a problem not as severe as in Regina and Winnipeg, but a problem nonetheless. This problem is bound up with the in-migration of large numbers of aboriginal people from rural hinterland areas who have not been well-integrated into existing social structures, with the result that a large and significant urban underclass has emerged. This has helped to spur middle class and white working class flight to the suburbs and a cycle of disinvestment in the central core.

In addition to having a housing facilitator to facilitate the creation of a variety of affordable housing options – rental, social, and low-end market – the City seeks to encourage residential development in the downtown area more broadly by providing financial and/or tax-based incentives to developers or owners of eligible residential properties, as recommended by the Downtown Housing Study completed in 1998. The objective of the program is to stimulate the development of new housing projects in order to double the downtown population from its 1997 level of 5,000 over the next 25 years. As part of this program, the City offers a variety of financial incentives to developers. The program is now going into its fifth year. It was recently revised to provide better incentives, including five-year tax exemptions for new residential development. 110

In the 1998 development plan, the City commits itself to developing "an urban form and settlement plan that will enhance the efficiency of the roadway system, [and] encourage the

¹¹⁰ Terry Scadden and Lorne Sully. 2004. *Residential Intensification Studies, Municipal Initiatives: Downtown Housing Incentives Program, Saskatoon, Saskatchewan*. Ottawa: CMHC.

use of alternative transportation systems including walking, cycling and public transit..."

The plan strengthened the hand of transit advocates within the city administration by requiring that the application review process:

- encourage neighbourhood designs, densities, and forms of development that will support public transit, and
- ensure that the collector road system is designed to facilitate transit.

However, no commitment is made to reducing parking requirements in such developments.

Besides land use policies to support more efficient use of existing transportation infrastructure and a shift to transit, the 1998 development plan commits the City to undertaking a comprehensive bike plan and to promoting design practices that would make biking a more viable option, including bike routes, traffic calming, provision of bike parking facilities and separation of bikes from vehicles on busy roads.

In 1999 the city carried out a Future Growth Study in order to identify candidate lands for annexation. One of the key issues influencing the study conclusions was the need to grow in such a way as to minimize the need for major new public investments in road infrastructure. At issue here was the fact that growth has been stronger on the eastern side of the river since 1970. Currently, the majority of residents (67%) are located on the east side while the majority of employment (62%) is on the west. This has resulted in more commuting and peak-hour congestion of the five bridges crossing the river, increasing the pressure for new – and very expensive – river crossings. 112

Although given less importance than river crossings, another issue considered in the future growth assessment was the need to choose a form of development that would promote transit. The city transit system is a hub and spoke system focused on the CBD, i.e., all routes lead to the downtown core. Thus, a concentric development centered on the downtown is most efficient from a transit point of view. This consideration also favoured channelling growth on the west side of the river so as to correct for the lopsided pattern of growth over the last 30 years and to maintain the downtown (which is on the west side) as the geographic centre of the city.

The City has no specific policies to protect agricultural land. However, it commits itself to identifying and protecting important ecosystems and other natural areas, most of which are along the River. The City commits itself to "protecting or conserving the natural, historical and recreational features of the Riverbank Area of the South Saskatchewan River," and where possible designating it as a Municipal or Environmental Reserve. It seeks to "conserve the biodiversity of both plant and animal life for the enjoyment of future generations, and to place natural areas" of significant value under public ownership. 113

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¹¹¹ Most important is the city policy (in place since the 1970s) that single family dwellings must be within 450 metres, and medium or high-density dwellings within 250 metres, of a transit stop. Furthermore, special needs uses or land uses that generate high transit use are to be within 150 metres of a transit stop.

¹¹²The bridges are nearing capacity, with some at 95% capacity during peak hours.

¹¹³ City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon: Community Services Department, pp. 41 and 44.

The City seeks to maintain a jobs-housing balance by encouraging an equal balance of residential development on both sides of the South Saskatchewan River, which means taking special measures to encourage growth on the west side – where the bulk of the jobs are. However, beyond that, there is no strong policy favouring a jobs-housing balance within existing or new neighbourhoods.

The City implicitly seeks to promote the efficient use of infrastructure through its policies of controlled expansion, and by seeking to reduce the need for new river crossings. However, fostering green infrastructure has not been a significant policy objective. The Development Plan is amended from time to time, on an ongoing basis, but the 1998 Development Plan remains mainly intact as a major new Development Plan for Saskatoon. 114

5.2.2.2 Transportation planning

The 1998 development plan for the City of Saskatoon contained policies to promote a better balanced transportation system and to shift demand to transit, but did not include a detailed list of projects or a map showing proposed changes. The most recent transportation plan was prepared in 1992, when the City's engineering branch commissioned a study in order to update the first transportation plan, prepared in 1977. The study forecasted future transportation system requirements for a projected city population of 250,000 (i.e., built out to the current city limits, which was expected to occur in 2020).

The plan did not attempt to analyze how changing land use policies or favouring transit could affect travel demand and the need for new road infrastructure. The plan recommended 32 separate roadway improvements, including interchanges, intersection upgrades, lane additions (mostly to four from two, but also to six lanes in some cases), and two four-lane bridges across the South Saskatchewan River. The total price tag (in 1992 dollars) was \$107 million, not including the costs involved in purchasing right-of-way land, which could add millions more to the total. Of this amount, over 40% was for the two proposed bridges. The study did not contemplate the notion that roadway investments on this scale could alter land use patterns and indirectly travel demand.

The study did provide a limited examination of the long term need for transit facilities. Transit demand was forecasted over the study period based on expected growth patterns but, in terms of modal split, the study authors assumed that future travel behaviour would mirror past trends. They concluded that an LRT or transitway system would not be justified in Saskatoon due to the low level of forecasted transit demand. No other improvements to the transit, biking or walking systems were considered in the study.

The study mentioned the potential for transportation demand management (TDM) measures to reduce the demand for new and wider roads. It claimed that TDM programs such as development controls, neo-traditional urban design, ride sharing programs, company subsidized bus passes, auto-restricted zones in the CBD, parking supply and pricing

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¹¹⁴ See, for instance, the City Of Saskatoon, Development Plan, Schedule A to Bylaw No. 7799, passed by City Council 4 October 2004; approved by the provincial Deputy Minister 16 November 2004.

mechanisms, HOV lanes and a continuous bike and pedestrian system would see much greater use in the future, but no attempt was made to incorporate TDM measures into the planning study itself in terms of actual contributions to solving travel demand problems. Likewise, the study raised the issue of alternative sources of funding for transportation system improvements, such as increased use of road tolls, parking taxes, use of provincial sales and gas taxes, but these funding sources were not assumed to be available for purposes of the study recommendations.

In a separate transportation study – the 1999 River Crossing Study – some attention was given to the potential of long-term growth management for limiting or avoiding the need to construct a new bridge across the South Saskatchewan River. In particular, the study authors looked at refocusing population growth from the east side of the river to the west side, resulting in a better jobs-housing balance and less cross-river commuting. They concluded that the need for a new river crossing could be delayed for up to 15 years in this way, a significant enough gain to justifying moving development in this direction . The study did not look at the potential of other growth management measures, such as significant increases in residential densities or urban design changes to alter travel patterns.

In 1999, the City produced an Integrated Transportation Policy Report that was designed to better integrate transit, bike and pedestrian requirements into the overall transportation system planning, including the budgetary process. It summarized council's policies on transit-supportive land use and urban form and called for a move away from "the City's dependency on the automobile" and towards more transit use, biking and walking. However, the report's impact appears to have been limited, due in part to the fact that the report contained few concrete targets (e.g., no targets for modal split change) or specific proposed policy measures. ¹¹⁵

A new study of the city's transit needs, partly funded by the Federation of Canadian Municipalities' Green Municipal Enabling Funds, is now complete and has yielded a 10-year strategic action plan, the recommendations of which are starting to be implemented. 116

5.3 Smart Growth Outcomes

5.3.1 Intensification of growth rather than expansion of development into greenfield areas

Although the 1998 city development plan did not contain any specific intensification objectives beyond the goal of five DUA, it did aim to encourage orderly, compact growth and prevent sprawl. Of the anti-sprawl policies contained in the plan, the most fully realized is the prohibition on leap-frog development. This reflects the orderly planning process that

¹¹⁵ Reid Crowther and Partners Ltd. September 1999. *Integrated Transportation Policy Study, Final Report.* Saskatoon: City of Saskatoon, Infrastructure Service, Municipal Engineering Branch.

¹¹⁶ City of Saskatoon, "Strategic Plan Study," http://www.city.saskatoon.sk.ca/org/transit/strategicplan.asp, accessed 4 January 2005.

has been in place in the city for the last 30 years. Each new development is comprehensively planned as a neighbourhood and each neighbourhood is planned as part of a Suburban Development Area (SDAs). Each SDA contains 8-10 neighbourhoods and up to 50,000 people. There are currently six SDAs in Saskatoon. From three to five neighbourhoods are at various stages of development at any one time. As a result, a clear divide is maintained between urban and rural areas within the city's boundaries.

No unserviced development has been permitted within city boundaries and development outside the central city tends to take the form of compact, well-defined settlements focused on historically existing towns separated from the city. There is little ribbon development along rural roads or provincial highways; however, a number of rural subdivisions exist with up to 30 clustered dwellings each.

5.3.2 Take advantage of potential intensification opportunities

While the City of Saskatoon's share of the metropolitan population declined somewhat in the period 1991 to 2001, the core neighbourhoods of the city¹¹⁷ have also experienced an overall declining share of the City of Saskatoon's population. While experiencing marginal growth between 1991 and 1996, these neighbourhoods experienced some decline between 1996 and 2001.

Table 5-4: Core City	v Population	Growth an	nd Proportion	to Saskatoon	Population

	Core Neighbourhoods	City of	Percentage of Saskatoon City
		Saskatoon	Population
1991	30,667	186,020	16.5%
1996	32,352	193,647	16.7%
2001	31,695	196,811	16.1%

Source: Statistics Canada – Census Data, 1991, 1996, and 2001.

To combat this, the City has been encouraging infill development. For instance, small-lot infill on 25-foot lots is now permitted, a change that affects the older areas of town where lots of this size have stood vacant due to impediments in the zoning bylaw. Uptake, however, has been modest due to limited interest on the part of developers. Secondary suites have been legalized and hundreds of property owners have registered their suites although the new regulation merely formalized an existing trend and is not expected to add significantly to the housing density of the city.

Since the introduction of the original downtown housing program in 1999, two housing developments have taken advantage of the incentives, adding a total of 104 units to the downtown area. A third is in the application stage. These are the only housing developments that have occurred in the downtown since 1999. Thus, despite a considerable effort by the City, the program has had a limited effect (see also the section on affordable housing).

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¹¹⁷ Defined as Census Tracts 5, 6.01, 6.02, 7, 16, 17, 19, 20.

Despite these limited results, the inner city neighbourhood of Nutana (adjacent to the University of Saskatchewan), and its "high street" of Broadway, are showing signs of revival, and this is almost certainly connected to the large number of professionals choosing to live in this area. There is also some anecdotal evidence that their presence is responsible for the increase in cycling to work that is cited in the section on transportation.

5.3.3 Denser, mixed-use development

While population growth has largely been channelled into the city itself, this has not occurred in a fashion that has contributed to rising densities within existing neighbourhoods, but has mostly taken the form of the development of new neighbourhoods on greenfield sites within city boundaries.

In the development of these neighbourhoods, the City is seeking an overall density objective of at least five dwelling units to the acre (DUA). However, this is regressive as the current density of the city is 5.75. Densities in the city have remained relatively constant between 1951 and 2001 – at around 14 people per hectare. This is not surprising as population growth has only been slightly higher than areal expansion (270% vs. 267%).

	City of Saskatoon Density (People per Hectare)
1951	14.25
1961	12.57
1971	14.18
1981	13.1
1991	13.71
2001	14.37

Source: City of Saskatoon, "City History" (http://www.city.saskatoon.sk.ca/org/clerks office/archives/ardates.asp) accessed December, 2004, and City of Saskatoon, Future Growth of Saskatoon: "A Tradition of Planning." June 2000 June. Saskatoon: Community Services Department.

In its greenfield development, the City of Saskatoon has not deviated significantly from the urban design principles found elsewhere in Canada. New neighbourhoods have been based on curvilinear street patterns, with wide roads, large lots and a preponderance of single family dwellings. Few new neighbourhoods have a fine grain mix of housing types or land uses. As is the case elsewhere, these design features facilitate car usage and undermine transit.

As mentioned above, the 1998 Development Plan requires that the application review process encourage neighbourhood designs, densities, and forms of development that will support public transit. Two new neighbourhood developments in the city show the extent to which these principles are being implemented on the ground. The concept plans for

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¹¹⁸ Ibid., p. 9. The concept plans for Willowgrove in the east and Hampton Village in the northwest have both exceeded the official density objective of 5 dwelling units per acre (dua), with average densities of 5.6 dua and 5.9 dua respectively.

Willowgrove (city owned) in the east and Hampton Village (City and private) in the northwest show that both developments have both exceeded the official density objective of five DUA, with average densities of 5.6 DUA and 5.9 DUA respectively. These developments are also showing a much more fine grained mix of housing types, with only about half the units in the Willowgrove project being detached dwellings. Each neighbourhood will have a village centre with higher density development, some commercial activity and transit associated with it. Local roads may be narrower than in past suburban designs in order to reduce maintenance and construction costs.

While these innovations will help support transit usage, the main motivation seems to be a changing housing market that favours smaller and more affordable housing options with easy access to local services. Other official policy goals linked more directly to transit-supportive design, such as roadway patterns that are easier to serve by transit, will not be implemented. Outside the village centre, the developments will have a conventional curvilinear street pattern instead of a modified grid. The parking and roadway requirements assume a level of car use similar to conventional developments, i.e., a higher level of transit use is not expected to materialize in the new neighbourhoods, and transit-friendliness is not strengthened use in the traffic system design. Moreover, development densities, though inching up in newly developing areas, are still quite low.

In an attempt to take new design ideas further, and to ensconce them as regular options in all future development projects, the Community Services Department has conducted a Neighbourhood Design Options Study, which sets out a series of recommendations for changes to the development plan, zoning bylaws, development standards, street layout guidelines, parking regulations, and the building code.

Mixed use development in focal areas and along arterials has been difficult to achieve. The city has major employment areas (such as the Northwest Industrial Park, which contains approximately one third of all the commercial and industrial space in the City), but they tend to be segregated from residential areas. Mixed use on arterial roads is limited to the city's three main thoroughfares. There is little mixed use within neighbourhoods and many neighbourhoods have no commercial activity at all, due largely to resident opposition.

In new neighbourhoods and SDAs, new nodes are being designed to contain higher density housing, along with commercial development and some office space. However, given the low density of the surrounding communities, it is hard to imagine that these will be much more than traditional suburban service centres. While these centres can be potentially accessed by means of cycling and walking, the norm is that people will drive. Moreover, the city also has the usual plethora of suburban malls.

The City has also approved Saskatoon's first 48-acre big box "power centre" on university lands. Given that it is not that far from downtown, it is not clear if it will bolster, or detract from, the commercial health of the CBD. Moreover, the city has a number of "mini power centres" scattered throughout the city. The City of Saskatoon has been very prescriptive

¹¹⁹ Developers appear to consider grid street patterns as an inefficient use of space and they tend to deliver lower yields on investment.

when it comes to big box centres, utilizing a 'Direct Control District' and development agreements to try to ensure that the effects of these developments are minimized and that they fit within the existing commercial hierarchy. This approach does not appear to be the standard approach elsewhere in Canada. ¹²⁰

5.3.4 Increase range of housing types

Single-family dwellings remain the predominant housing type in the region, but are declining as a share of new housing starts. The City of Saskatoon, as compared to Saskatoon CMA, has a slightly smaller share of its housing stock in SFDs, at 58.3%. This figure has been declining slightly over the past ten years. Rowhouses and multiple-unit dwellings have also seen growth between 1991 and 2001 (see Tables 6 and 7). For instance, in the last three approved neighbourhoods – Stonebridge, Willowgrove, and Hampton Village – have a combined average of 43% multiple unit dwellings. ¹²¹

Table 5-6: City of Saskatoon Housing Stock

	Single Family Detached	Row House/Multiple ¹²²	Apartment	Total Occupied Private Dwellings
1991	60.2%	8.3%	31.5%	71,785
1996	58.6%	7.8%	33.5%	76,260
2001	58.3%	8.6%	33.0%	79,305

Source: Canada Mortgage and Housing Corporation. Canadian Housing Statistics [1991-2002]. Ottawa: CMHC.

Table 0-7 shows that the proportion of single detached dwellings among housing completions has declined from 1991 for the Saskatoon CMA, going from over 70% to a low of 41% in 2002 and then back up to 57% in 2003.

Table 5-7: Housing Completions by Type in Saskatoon CMA, 1991-2003

	Single Detached	Semi	Row	Apt	Total	% SFD
1991	223	16	44	35	318	70.13%
1992	299	62	8	58	427	70.02%
1993	306	54	25	240	625	48.96%
1994	345	30	12	154	541	63.77%
1995	429	50	16	120	615	69.76%
1996	601	61	82	178	922	65.18%
1997	672	116	124	214	1126	59.68%
1998	696	108	243	268	1315	52.93%
1999	691	82	60	148	981	70.44%
2000	655	78	119	399	1251	52.36%

¹²⁰ Alan Wallace, senior planner, City of Saskatoon, 18 July 2005.

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¹²¹ Ibid

¹²² This category includes movable dwellings (trailers).

2001	530	90	132	180	932	56.87%
2002	560	68	262	120	1010	55.45%
2003	686	74	497	418	1675	40.96%
Total	6,693	889	1,624	2,532	11,738	57.02%

Source: Canada Mortgage and Housing Corporation. *Canadian Housing Statistics* [1991-2003]. Ottawa: CMHC.

5.3.5 Increase supply of affordable housing

The main approaches that have been used to improve housing conditions in the City of Saskatoon are:

- providing incentives and infrastructure improvements to encourage market development in the downtown core;
- providing flexibility in zoning options for instance, allowing for houses to be built on 25 foot lots;
- facilitating non-market housing through assisting with land and financing, undertaking community development strategies, and developing partnerships;
- changing City policies and practices that impact housing affordability including secondary suite policies, land bank policies, and land development policies; and
- developing better tools for monitoring housing issues and impacts, including liaison
 with local, provincial, and federal organizations and agencies to address broad
 housing policy issues and educational needs.

A key role in all this has played by the Housing Facilitator. When the position first started, the facilitator was heavily involved in capacity building with the various groups that were addressing affordable housing issues (the homebuilders' association, real estate foundation, and First Nations' groups). The Housing Facilitator was also instrumental in creating a strategic plan to facilitate the delivery of new housing.

Through a community development approach, the Housing Facilitator has explored integrated solutions for addressing the housing needs of the community, rather than seeking provision solely through social housing. This approach has been quite successful. For example, between 1994 and 1998, there was no affordable housing activity of any kind in the city. Since then, Saskatoon has spent \$2.4 million to aid in the building of over 700 housing units with a total project value of approximately \$45 million. Projects range from assisting low-income home ownership (including rehabilitation) in central neighbourhoods, to increasing the existing social housing stock, to demonstration projects for market-driven affordable housing, including housing in the downtown. In addition, Saskatoon Housing Initiative Partnership (SHIP) assisted the Metís Nation to rehabilitate three apartment buildings in the inner city. ¹²³

The City has also made use of funds under the federal affordable housing initiative (called the Centenary Affordable Housing Program in Saskatchewan), and maintains an Affordable Housing Reserve. Moreover, the City's land bank makes lands available through a direct sale option for affordable housing. Developers, either profit or non-profit, wishing to build

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¹²³ Elisabeth Miller, housing facilitator, City of Saskatoon, personal communication, 5 January 2005.

housing that meets the City's affordability criteria (affordable to households up to 66% of the average local income) can purchase land directly from the City's land bank without having to go through the competitive bidding process, saving both time and money. In return, the City is guaranteed that housing built through this process will remain affordable for at least 10 years.

In addition to directly seeing to the construction of affordable units, the City has used other more indirect mechanisms, such as facilitating the development of 25-foot lots in the inner city, partial refunding building permit fees for development downtown, and tax abatements on rental housing. The City's Innovative Housing Incentives policy has also been encouraging a diversity of housing types, and its Municipal Zone addresses housing and commercial revitalization issues in the downtown core. 125

Whereas most urban regions have seen an erosion in housing affordability, Saskatoon has been holding relatively steady. Ownership rates rose from 1996 to 2001, from 58.5% of all households to 62.2%. Moreover, while the percentage of owners spending more than 30% of their income on housing rose from a modest 10.9% to 13.8%, the percentage of renters rose less significantly, from 44.1% to 46%.

5.3.6 Increased transportation choice and reduced car usage

Transit ridership in Saskatoon has been falling consistently. As Table 0-8 shows, annual transit trips per capita have dropped from around 91.4 in 1981 to around 45 in 2001.

The overall system peaked in 1991, with 5.7 million kilometres of service, dropping down to 5.3 million in 2001, but climbing back up to 5.5 million in 2003. However, this growth has not fully kept pace with population growth, and per capita kilometres of service, at least up until the 2001 census, has been decreasing. 126

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Table	5-X·	Trancit	\ \ \ \ \	rviico	Indicators.	TUXI.	
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	Number of Transit Passengers	Kilometres of Service	Trips Per Capita	Kilometres of Service Per Capita
1981	14,096,236	5,075,079	91.4	32.9
1986	13,708,500	5,406,700	77.2	30.4
1991	12,672,000	5,746,900	68.1	30.9

¹²⁴ Ibid.; Ray Tomalty. 2002. Achieving Energy Efficiency Through Integration of Land-Use and Transportation Planning in Canadian Metropolitan Regions: Final Report. Ottawa: CMHC; Terry Scadden and Lorne Sully. 2004. Residential Intensification Studies, Municipal Initiatives: Downtown Housing Incentives Program, Saskatoon, Saskatchewan. Ottawa: CMHC.

¹²⁵ Elisabeth Miller, housing facilitator, City of Saskatoon, personal communication, 9 March 2005. For more on the Enterprise Zone, see http://www.city.saskatoon.sk.ca/org/city_planning/enterprise/index.asp.

¹²⁶ This may start to change now that the Saskatoon Transit Short-Term Report has been completed and approved by City Council. It recommends restructuring the layout of current transit services, incorporating bus rapid transit, creating a better downtown terminal, adding a new suburban terminal, and improving access to the University. A Long-Term Report is due out in December 2005. Jill Beck, transit planner, City of Saskatoon, personal communication, 17 May 2005.

1996	9,540,500	5,323,300	49.3	27.5	
2001	8,831,400	5,308,300	44.9	27.0	
2002	8,615,253	5,395,480			
2003	8,434,558	5,497,325			

Source: Office of the City Clerk, 2004. The City of Saskatoon Municipal Manual. Saskatoon, SK: City of Saskatoon.

As is evident from Table 0-9, transit modal share in the City of Saskatoon declined from 1996 to 2001 (5.7% to 4.6%) while car and truck use is gradually increasing (84.2% to 85.3%). Walking and biking shares are level (8.7%). Car dependency is even greater in areas outside the city proper.

Table 5-9: Modal Split 1996 and 2001: Saskatoon City and its Fringe

	Saskatoon City				Saskatoon Fringe			
	1996	1996		2001		1996		
	Trips	%	Trips	%	Trips	%	Trips	%
Cars/Trucks	74,405	84.2	79,160	85.3	9530	92.7	12,340	93.0
Transit	4995	5.7	4295	4.6	20	0.2	0	0.0
Walking/Bicycling	7730	8.7	807 ¹²⁷	8.7	600	5.8	720	5.4
Motorcycle/Taxi/Other	1220	1.4	1280	1.4	125	1.2	205	1.5
Total	88,350	100	92,810	100	10,275	100	13,265	100

Source: Statistics Canada – Census Data, 1996 and 2001.

Table 5-10 shows the breakdown of commuting distances for the Saskatoon CMA. It shows that the median commuting distance was stable from 1996 to 2001.

Table 5-10: Commuting Distances Saskatoon CMA (20% Sample)

	19	96	2001	
	#	%	#	%
Less than 5 km	46,810	51.83	49,385	51.47
5 - 9.9 km	29,970	33.18	31,035	32.34
10 - 19.9 km	4,865	5.39	6,350	6.62
20 km and more	8,675	9.60	9,180	9.57
Total - All commuters	90,320	100.00	95,955	100.00
Median commuting distance	4.8 km		4.8	

Sources: 1996: Canada Nations Series, Commuting Distance; 2001: Topic Based Tabulations 97F0015XCB2001001

As for roadway improvement projects, the 1998 plan requires that roadways be designed in order to facilitate cycling and walking. The city's transportation engineers do give consideration to these alternate forms of mobility when designing major new infrastructure projects, but no specific design improvements have been made in response to the new planning policy.

¹²⁷ What these statistics fail to reveal is that, while walking to work declined between 1996 and 2001, cycling increased quite significantly – by 31.6%, while population growth was only 1.6%. Statistics Canada, 2001 Census.

5.3.7 Preserve agricultural land

Because the CMA is in the middle of vast swathes of agricultural land, there seems to be little sensitivity to the need to preserve farmland, and this is reflected in the lack of policies on the part of the CMA's municipalities. While the City, in its future expansion studies, takes into account a number of factors in terms of prioritizing lands, agricultural land is not one of the major ones. However, in a 2000 growth options study, it was observed that the city is fortunate in that it "is virtually surrounded by Class 3 and Class 4 soils.... Only a relatively small area in [the] East and North East [areas being considered for annexation] are Class 2 soils representing only 9% of the total land area identified for future urban growth. There are no Class 1 soils within the Saskatoon Planning District." 129

5.3.8 Preserve lands essential to maintaining regional ecosystem functions

The lands adjacent to the South Saskatchewan River are under the purview of the Meewasin Valley Authority (MVA), an autonomous agency comprised of a partnership of the City of Saskatoon, the University of Saskatchewan (which has major holdings along the river), and the province. In addition to protecting environmentally sensitive riparian areas, the MVA carries out public education concerning conservation issues. Most of the lands along the river bank or draining into it, within the city limits and beyond, are classified as being within a conservation zone or a buffer zone, and are subject to development review by the Authority. In addition, the City, through a rigorous screening process, takes into account environmentally sensitive areas in its future expansion studies. However, these are relatively few in number. No environmental indicator data are collected by the City.

5.3.9 Encourage employment growth in the metropolitan core and designated growth centres

The 1998 Saskatoon Development Plan designated a number of suburban centres that would accommodate a mix of retail, services, public uses along with higher density residential development. However, the mixed use development in focal areas and along arterials has been difficult to achieve in practice. The city has major employment areas (such as the Northwest Industrial Park, which contains approximately one third of all the commercial and industrial space in the City), but they tend to be segregated from residential areas. Mixed use on arterial roads is limited to the city's three main thoroughfares. There is little mixed use within neighbourhoods and most neighbourhoods have no commercial activity at all, again due largely to resident opposition.

5.3.10 Provide infrastructure to reduce ecological impacts of development

All developments within city limits are fully serviced, and the costs are borne by the developer. Very little infrastructure has been provided for development outside of the city, and this only on a cost recovery basis. Annexed land is not developed and serviced until

¹²⁸ Jon Markus, planner, City of Saskatoon, personal communication, 7 December 7 2004.

¹²⁹ City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon, Community Services Department, p. 11.

¹³⁰ Jon Markus, planner, City of Saskatoon, personal communication, 7 December 7 2004.

existing city lands have been fully developed. The fact that all land is developed through the phased growth of Suburban Development Areas, and their constituent neighbourhoods, ensures that infrastructure development occurs in an orderly fashion.¹³¹ What could further improve infrastructure efficiency is higher density in new development and a stronger focus on urban intensification.

At present, there is one sewage treatment plant that offers secondary treatment, and the City plans to spend an additional \$180 million dollars in the next ten years to further upgrade both water and wastewater facilities. There is no evidence that the City has experimented with alternative infrastructure that seeks to reduce the impacts of development on the natural environment, apart from contemplating narrower road widths in some developments. However, in the Neighbourhood Design Options being implemented in 2005, planners will be looking at opportunities for experimenting with green buildings, alternative stormwater management, and further implementation of narrower and more pedestrian and transit-friendly street systems.

5.3.11 Summary of Smart Growth Successes and Failures

Positive

• most growth in the CMA captured by the City of Saskatoon

- little ribbon development along major roads in rural areas
- minimal rural subdivision and estate development, with most rural residents living on farms or in well defined towns and villages
- a buffer zone around the central city with restrictive development policies
- contiguous development within the city, with no unserviced development permitted
- some support for residential intensification in the historic core and in new neighbourhoods
- service and commercial nodes being created in new neighbourhoods
- somewhat declining rates of new housing starts that are single detached
- aggressive and somewhat successful affordable housing policies
- commitment to using land use planning as a tool to reduce the need for expensive new transportation infrastructure
- consideration given in future growth decisions by the City to the strategic needs of transit, including expressions of support for compact urban form and transitsupportive design at the site level
- a progressive transportation policy document and neighbourhood design study that will likely reinforce these trends
- implementation of a cycling plan and growing bike modal split
- overall length of commute to work remains short

¹³¹ City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon, Community Services Department; Jon Markus, planner, City of Saskatoon, personal communication, 28 March 2005.

¹³² The one exception is the fact of the City giving a \$25,000 loan to the A.C.T. Arena to be retrofitted with energy efficient lighting, reflective ceilings, and ice temperature control equipment. City of Saskatoon, "New Release: A.C.T. Arena to Receive First 'Green Loan'" [press release], 18 February 1997.

- minimal loss of high quality farmlands
- protection of key riparian areas adjacent to the South Saskatchewan River
- effort to achieve jobs/ housing balance on both sides of the river, and
- planning development to minimize investment in water, sewer and transportation infrastructure, thereby reducing the associated ecological footprint.

Negative

- overall low densities of development
- limited new residential development in the downtown core, though with some revitalization occurring
- high proportion of housing stock in SFD, and limited success in changing
- limited success in achieving, denser mixed use communities
- increasing automobile dependence and declining transit use
- not much achieved with respect to integrating land use and transit planning
- no commitment to farmland protection
- weak jobs/housing balance in individual neighbourhoods, and
- negligible commitment to alternative infrastructure

5.4 Factors Explaining Smart Growth Successes and Failures

5.4.1 Proactive city policies

One factor that has enabled the City to be proactive on compact development is the substantial portion of the developable land within the city that is owned by the Saskatoon Land Bank, a municipal department. The department purchases land in future growth areas, services lots and sells them to private builders. This has strengthened the hand of the municipality in its efforts to ensure an orderly growth of the city and could help the City implement urban design changes that are even more compact and supportive of alternative transportation choices in the future.

This proactive spirit is also evident in the City's housing policies, where it has undertaken a coordinating role vis-à-vis the other housing providers and stakeholders in the city. Affordable housing has been an area of ongoing advocacy, and the City's relative strengths in this area seem to be related to the existence of a facilitator – who can orchestrate the City's efforts – and the fact that the City does not see itself principally as a housing provider, but as a catalyst for the actions of numerous potential actors in the housing field.

5.4.2 Conservative fiscal culture

The City has developed infrastructure in a thoughtful and fiscally responsible way. Developers are required to pay for most on-site servicing costs, but major city-wide infrastructure – such as new bridges, interchanges, sewage and water treatment facilities – are funded separately. The City has adopted a "pay as you go" philosophy, meaning that it does not normally borrow funds beyond its capacity to fully cover interest payments from the existing tax base and reserves.

This controlled low-density approach to development reflects a history of wanting to minimize infrastructure costs, rather than a full commitment to Smart Growth. Despite the enormously important land bank tool, the City seems to have seen itself as largely a passive agent of existing development and consumer trends, in that it has largely been unwilling to use its power to achieve smarter, more dense, forms of development.

5.4.3 Suburban and automobile-oriented culture

Although the City of Saskatoon has avoided some of the pitfalls of a sprawling urban form found in many other Canadian cities, it has not deviated significantly from the planning and development practices found elsewhere at the site level. New neighbourhoods have been based on curvilinear street patterns, with wide roads, large lots and a preponderance of single family dwellings. These design features facilitate car usage and undermine transit, and this is further reinforced by the inclement weather that obtains for much of the year.

Few new neighbourhoods have a fine grain mix of housing types or land uses. As mentioned this has been partly the result of resistance by adjacent residents, who have also resisted commercial development in residential neighbourhoods. Because of short commuting distances, and a general proclivity for suburban living, the City has also made only limited progress in locating residential and employment areas near to one another. Much work remains to be done in engaging the public in a discussion of the benefits of smarter forms of development.

5.4.4 Incomplete integration of land use and transportation planning

There have been some efforts at collaboration among the land use planning, transportation and transit planning units within the City. However, it appears that the various departments have different long-term agendas. Those responsible for roadway planning in the engineering department appear to be reluctant to accept fundamental change unless it can be justified by evidence that the proposed changes will reduce infrastructure spending. Thus, the transportation department supports growth management initiatives that will reduce the need for new river crossings and urban design changes (such as narrower local roads) that will reduce expenditures on local road construction and maintenance. But the department appears less motivated to implement major changes to the design of neighbourhood road networks, adopting grid (or modified grid) street patterns, or to undertake important design changes to roadway improvement projects that would facilitate walking and transit use.

Saskatoon's transit department reviews development applications and ensures that basic provision is made for transit service. The transit department also ensures that basic facilities, such as benches and shelters, are appropriately placed in new developments. However, the transit department has not had the resources to push for transit-supportive urban design measures beyond these basic requirements. The review process is dominated by traffic engineers, and transit involvement typically comes towards the end of the review process after the main design decisions have already been made.

However, one promising development is the Neighbourhood Design Options Study conducted by the Community Services Department, which sets out a series of recommendations for changes to the development plan, zoning bylaws, development standards, street layout guidelines, parking regulations, and the building code. The recommendations, which are in the process of implementation, could go a long way towards making integrated land use and transportation planning more the norm in Saskatoon.

Another important shift is reflected in the promotional information on the City's 10-year Strategic Plan Study on transit, just completed, which makes mention of greenhouse gas reduction as an explicit goal for the first time.

5.4.5 Spending on transportation

The increasing car dependency in the city may reflect spending priorities. On average, \$5-10 million is spent each year by the City in funding improvements and repairs to the road system. This compares to capital budgets for transit improvements that are less than half a million dollars unless bus purchases are to be made, which may bring the total to between \$2 and 4 million. In contrast with Calgary and Edmonton, the City has no major capital-intensive transit system, like LRT, and in contrast with those cities, transit use is falling. A 2000 study on future growth options recommended the identification, and eventual securing, of a light rail transit (LRT) corridor for the city. 133

While lacking light rail, the City's bike plan has been completed and has started implementation. Originally, planners requested \$3.5 million over four years for the program. However, it is currently being funded on an annual basis of approximately \$200,000. 134

5.4.6 Lack of regional planning institutions/ lack of strong provincial leadership

The region is characterized by a lack of adequate region-wide planning instruments, either for land use or transportation, and a passive attitude to regional growth and development on the part of the provincial municipal affairs and transportation departments, in part because of rural opposition to more stringent controls. Essentially, the province has avoided direct involvement in managing regional affairs and has limited its role to the creation of intermunicipal mechanisms for resolving land use conflicts. These mechanisms can help avoid local inefficiencies in land use, but cannot provide a region-wide vision that integrates all aspects of community planning.

The City and province are also at odds over the role of public transit in transportation planning. For the City, on the one hand, investment in public transit may be the wisest choice because it could reduce pressure on the existing bridges and other bottlenecks. For the Department of Highways and Transportation, public transit is seen as irrelevant as it cannot help with getting trucks and cars through or around the city. Thus, the department has

¹³³ Angie Larson, accounting coordinator, City of Saskatoon, personal communication, 18 July 2005. City of Saskatoon. June 2000. *Future Growth of Saskatoon: "A Tradition of Planning."* Saskatoon, Community Services Department.

Don Cook, transportation planner, City of Saskatoon, personal communication, 9 December 2004.

no interest in promoting the use of public transit in the region. Indeed, there are no provincial policies of any kind to promote transit or alternatives to car use – in the Saskatoon region or anywhere else in the province. Provincial funding favours car use over other transportation choices: the province funds highways and subsidizes rural road construction, but provides no financial (or policy) support for transit, walking or biking.

Agricultural protection has not been a major objective for the province or the City, in part because it may seem like "carrying coals to Newcastle," and most of the land slated for urban expansion is not high quality farmland. Environmentally significant lands are few in number, apart from the river lands and these are protected under the Meewasin River Authority.

5.4.7 Opportunities offered by neighbourhood planning process

In addition to its Land Bank, the City has a unique asset in its neighbourhood planning process that could help address some of the public concerns over more compact urban form, mixed use development, and reduced reliance on car-based travel. The Local Area Planning process is a public participation-oriented planning approach that gives residents an active role in determining the future of their area or neighbourhood and covers land use, housing, transportation, zoning, urban design, and open space. Through assessment of current conditions, strengths and weaknesses, and identification of trends, the process can allow residents to see the trade-offs involved in planning issues.

For instance, many residents want to reduce outward expansion of the city but don't want to accept higher density housing in their neighbourhoods. They want an inclusive city, but don't want affordable housing in their neighbourhoods, or they want to have a less congested, noisy city, but don't want restrictions on car use.

By working together local residents and other stakeholders can discuss alternatives, solutions, and projects to meet the goals they have set. Seven neighbourhood plans have already been completed, two more are in process, and three are planned for the future. This planning process could be used to engage residents in discussions about the value of Smart Growth solutions and the importance of creating more affordable housing.

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¹³⁵ Jon Markus, planner, City of Saskatoon, personal communication, 8 December 2004.

6 The Toronto Region

6.1 Introduction

6.1.1 Description of the region

The Toronto region is the largest and, after Calgary, the fastest growing metropolitan area in Canada. With a population of over 5 million and an employment base of about 2.5 million, the CMA covers approximately 5900 sq kms, of which about 45% is agricultural land.

The region is centered on the City of Toronto, located on the north shore of Lake Ontario. Along the western edge of the region runs the Niagara Escarpment and on the north is the Oak Ridges Moraine, an ancient glacial deposit that acts as a source for most of the rivers and streams flowing south to Lake Ontario. The most significant rivers are the Rouge in the east, the Don through the centre of Toronto, and the Humber and Credit rivers in the west, all running along a north-south axis. North of the moraine is Holland Marsh, a fertile agricultural area.

Densities in the Toronto region gradually decrease from the centre in concentric zones. At the core of the region is the area covered by the former City of Toronto (which had the highest population density of any city in Canada) and its pre-war suburbs. About 676,000 people currently live in this first zone.

Adjacent to this core area is a zone of inner suburbs with mid-range densities making up the former municipalities of East York, Scarborough, York, and Etobicoke, most of which were built in the 1950s and 60s and 70s. This zone (with a population of about 1.8 million) is characterized by the predominance of single-family homes and concentrations of high-rise apartments around transit stations and highway interchanges, retail strips, shopping centres and older industrial areas. The urban fabric in this part of the region is structured by a grid of main avenues, with mixed retail and housing.

Third is the group of municipalities outside the City of Toronto that straddle Yonge Street to the north as far as Newmarket and the municipalities lining Lake Ontario, including Mississauga and Oakville to the west and Ajax and Pickering to the east. Mostly built since the 1970s, this zone has a mixture of relatively compact historic centres surrounded by an ever-expanding sea of low-density newer suburban areas, industrial parks, power centres, and regional shopping centres. Its current population is about 2.4 million. The rest of the region is made up of rural areas with very low densities. ¹³⁶

¹³⁶ Larry Bourne. July 2001. "Designing a Metropolitan Region: The Lessons and Lost Opportunities of the Toronto Experience." The Centre for Urban and Community Studies, University of Toronto. Research Bulletin #1.

The region is polynuclear, with a central core that comprises about a quarter of the region's employment (within 5 kms of the centre) and a series of sub-centres spread across the region, including Scarborough, North York, Vaughan, Markham and Mississauga.

The highway system is well developed with a series of east-west and north-south highways linking the central city with outlying suburban areas and other cities in Ontario and the US. The provincial highway system serving the region consists of approximately 400 km of controlled access freeways (such as Highways 400, 401, 403, 404, and 407, with the latter being a private toll road), plus secondary highways.

There are 12 public transit systems in the GTA, including the metropolitan rail and bus service called GO Transit, one system operated by a regional municipality (York Transit), nine operated by lower-tier municipalities, and the City of Toronto's Toronto Transit Commission (TTC). While the other municipal transit systems rely exclusively on buses, the TTC, the second largest transit system in North America, is based on a combination of subway lines, LRT, streetcars and buses. GO Transit provides commuter rail and regional bus services on a radial pattern from downtown Toronto out towards suburban centres. Transit services in the City of Toronto and along the GO corridors are heavily used, accounting for a very high share of total trips. For the most part, transit services in the outlying suburban areas are of lower quality and are poorly used. There is no GTA-wide authority to coordinate transportation or transit services in the region.

Economically, the region is very robust and diverse, having the highest per capita GDP in the nation. The region is home to more head offices of large companies than any other city in Canada and is a major player in the automobile, clothing, biotechnology and professional services sectors. Population and economic growth is fuelled primarily by its immigrant population; the Toronto region attracts 45% of all new arrivals in Canada. As a result, the Toronto region is one of the most culturally diverse cities in North America, with the second largest proportion of foreign-born residents next to Miami.

For purposes of this study, the region is defined as making up the City of Toronto and the four Regional Municipalities surrounding it – Durham, York, Halton and Peel. This area is close in geographical terms to the Toronto CMA and is the administrative definition of the Toronto region that has been in use since the late 1980s (see map).

6.1.2 Regional growth patterns

In 2001, the GTA had a population of just over 5 million (see Table 6-1). About 49% of the region's population lives in the City of Toronto, which comprises less than 9% of the land surface of the GTA. The GTA is among North America's most rapidly growing urban regions, with about 70,000 to 80,000 people being added each year for the last 30 years.

Before 1971, most of the region's population growth occurred within what is now the City of Toronto (formerly Metro Toronto), but since then, the majority of the GTA's growth has occurred in surrounding regions, mostly areas lacking good quality public transit. Growth has been especially strong to the north and west, with York more than quadrupling its population since 1971, with Peel close behind. Growth has been weaker in Durham,

experiencing over a doubling, and Halton just under a doubling of its population over that time. At present, about 75% of the population growth in the region occurs in the outer four regions.

Table 6-1: Changing Population Distribution in the GTA, 1971-1991

Territory	1971		1981		1991		2001	
	000s	%	000s	%	000s	%	000s	%
Old City of Toronto	713	24.4	599	17.5	635	15.0	676	13.3
Toronto (old Metro)	2,090	71.6	2,137	62.5	2,276	53.7	2,481	48.8
Durham	215	7.4	284	8.3	409	9.7	507	10.0
York	166	5.7	252	7.4	505	11.9	729	14.3
Peel	260	8.9	491	14.4	733	17.3	989	19.5
Halton	190	6.5	254	7.4	313	7.4	375	7.4
Four Regional Mun	831	28.5	1,281	37.5	1,960	46.3	2,600	51.2
GTA	2,920	100	3,418	100	4,235	100	5,082	100

Source: Statistics Canada

Between 1971 and 1981, the old City of Toronto experienced a dramatic population decline from 713,000 to 599,000 but then partially recovered to a 1991 population of 635,000 and 676,000 in 2001. However, relative to population growth in the rest of the GTA, the old City of Toronto continues to decline: it accounted for less than 5 percent of the regional population growth in the years 1981-2001, although it opened that period with more than 17.5% of the total regional population. The new City of Toronto (old Metro) experienced very slow growth from 1971 to 1991: from 2.09 million to 2.276 million, representing only a 9% increase over 20 years, with all the growth being in the inner suburban municipalities. The population weight of this area compared to the GTA as a whole also continues to fall, from 62.5% in 1981 to 48.8% in 2001.

It is estimated that the region's 2001 population of 5 million people will grow to about 7.5 million inhabitants by the year 2031, an increase of 50% over 30 years. This assumes an increasing growth rate, from about 73,000 people per year in the 1981-2001 period to about 83,000 per year. About 80% of this growth will be in the regional municipalities surrounding the City of Toronto. Thus, the demographic weight of the City will continue to decline; by 2001 it is expected to contain only 39% of the regional population.

6.1.3 Growth-related Issues in the region

The call for GTA-wide regional planning that emerged in the late 1980s was based primarily on the need to coordinate infrastructure investment after decades of under-investment, poor infrastructure planning, and high rates of growth. One result of the lack of regional planning was a serious mismatch between population growth in suburban areas and infrastructure availability. In the eastern part of the region where infrastructure was furnished to service a much higher population than actually occurred, there was an over-capacity of sewerage. On the western side of the region, water and sewage infrastructure was deficient, and some municipalities were forced to declare development freezes in the late 1980s. North of Metro Toronto, sewage facilities were nearly exhausted and development caps were imposed.

The region had seen very little transportation infrastructure investment since the mid-1970s. Subway and rapid transit expansion had ceased after the construction of the Scarborough LRT. Other than the northward extension of Highway 404 and improvements to Highway 427, there were no major highway expenditures. By 1989, the resulting traffic congestion had become the top concern of GTA residents. Increasing traffic congestion in the GTA gave rise to concerns about the economic impacts due to slower movement of goods across the region. The Metropolitan Toronto Goods Movement Study, conducted in 1988 for the Metropolitan Toronto Department of Roads and Traffic, estimated that \$1.9 billion of the \$6.4 billion total annual costs of goods movement within the GTA or between the GTA and other regions in 1986 could be attributed to traffic congestion. The report estimated that the cost would rise from this 30 percent level to about 50 percent in 1997. ¹³⁷ In 2002, local businesses cited congestion as their number one worry in a Board of Trade survey, and it was the number two issue for residents of the regions making up the GTA, according to an Environics poll. About 70% of highways in the GTA are at total capacity during rush hour, and in some parts of the region, rush hour now lasts up to 13 hours a day.

The demands of the development and business community for provincial action to coordinate and fund growth in the region were strongly endorsed by the suburban municipalities of the GTA. This was not surprising, given that suburban regions would be the major beneficiaries of the sewer and road infrastructure development projects being demanded. Given the historic imbalance between population and employment growth in the suburban areas, these municipalities were particularly interested in public investments that would open up new land for commercial and industrial development, increase access to markets, and generally enhance their attractiveness to potential employers.

Economic interests in the City of Toronto were concerned about the decline of the regional core as an employment centre. Councillors and planners from the city proclaimed the need for the province to direct growth into the core area and to invest in infrastructure to support that growth. This issue gathered momentum over the early 1990s and had emerged as a preeminent issue by mid-decade. Compared to other areas of Ontario or Canada, the Toronto region had been especially hard hit by the recession of the early 1990s.

The need to modify regional growth and travel patterns in order to improve environmental quality has been recognized in a succession of government and quasi-governmental reports and in the advocacy efforts of non-governmental organizations. Groups like Save the Oak Ridges Moraine and Environmentalists Plan Transportation emerged towards the end of the 1980s demanding that growth in the Toronto region be better managed in order to reduce automobile dependency and environmental impacts. Their voices were strengthened by reports by government appointed commissions, such as the Kanter Report, which called for a greenbelt around the GTA to preserve natural areas and put a brake on sprawl, and the Royal Commission on the Future of the Toronto Waterfront, which coined the term "Toronto Bioregion" and called for strong regional planning measures to curb sprawl and

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¹³⁷ Metropolitan Toronto Department of Roads and Traffic. 1988. *The Metropolitan Toronto Goods Movement Study*. Toronto.

¹³⁸ *Toronto Star*, June 3, 1989: D3.

auto-dependency. The ecosystem approach advocated by the commission was characterized by the integration of land use, transportation and environmental planning. 139

Over the 1990s, the link between sprawl, car dependency and air pollution came to the fore. The first public health report on the topic, the 1993 study on outdoor air quality by the City of Toronto's Department of Public Health, called for a number of measures to reduce air emissions, including the need to "give priority to policies that reduce urban sprawl, and shift urban form away from an automobile-dominated one toward a pedestrian-centered one." Subsequent reports from Toronto's Department of Public Health continued to press this point. With rising concerns about global warming, many groups were pointing to sprawl as a major contributor to greenhouse gases by the late 1990s and this linkage was strengthened into the 2000s.

6.1.4 Municipal organization and regional governance

As mentioned above, the Greater Toronto Area (GTA) is an administrative unit defined by the provincial government and corresponds roughly with the Toronto Census Metropolitan Area (CMA).

The GTA is comprised of the City of Toronto and four surrounding "regional municipalities" (called collectively the "905" area due to the common telephone area code): Durham, York, Peel and Halton. These upper-tier municipalities were created in the early 1970s to promote efficient capital planning and effective administration of regional services. They have separate governing councils made up of representatives sent from the councils of lower-tier municipalities within their borders. The four regional municipalities are comprised of 24 lower-tier municipalities, ranging from large cities such as Oshawa to relatively sparsely populated areas such as East Gwillimbury. Upper-tier governments are responsible for determining the pattern of settlement and for identifying region-wide infrastructure needs such as arterial roads and trunk sewers. Lower-tier governments maintain most of the land use planning powers to control development, although they are subject, through plan approval requirements, to regional and provincial land use policies.

The City of Toronto is an amalgamated municipality composed of the former City of Toronto and five other municipalities: York, North York, East York, Etobicoke and Scarborough. Prior to amalgamation in 1998, the area had an upper-tier government, Metropolitan Toronto, which had been created by the province in 1953 to foster coordination of planning, infrastructure and service provision within its borders.

¹³⁹ Ron Kanter. 1990. Space for All: Options for a GTA Green Strategy. Toronto: The GTA Greenlands Strategy; Royal Commission on the Future of the Toronto Waterfront. 1990. Watershed. Toronto: RCTFW; Royal Commission on the Future of the Toronto Waterfront. 1992. Regeneration. Toronto: RCFTW. 140 The most recent report, published in July of 2004, set as its first priority for action on emission sources the need to reduce use of, and emissions from, the transportation sector. In this respect, it claimed that the "two goals deemed most significant for air quality are: Increasing ridership on public transit within the Greater Toronto Area; and curbing urban sprawl and integrating land-use and transportation planning to both decrease dependence upon cars and trucks and encourage the use of alternative modes of transportation."

There is at present no GTA-wide government and no metropolitan authority to undertake land use, transportation or environmental planning. Some claim this reflects the reluctance of the provincial government to create another level of government in a region already equipped with two levels of municipal government. Others have opined that the province does not want to create a metropolitan agency representing 40% of the province with any real authority. However, there have been several efforts in this direction, which we will briefly summarize here.

In the early 1990s, the recession-ravaged region was suffering from a serious decline in the economic fortunes of the central city and a serious erosion of its tax base as businesses decamped to suburban areas or beyond. By 1995, voices were being raised demanding some form of dramatic restructuring in the region, with proposals ranging from the creation of a new province, some kind of regional government, to the establishment of a number of special boards to oversee regional services. Thus, in April 1995, the province formed the Task Force on the Future of the GTA, made up of five community leaders including the chair Anne Golden. The task force's mandate was to propose ways to arrest the further decline of the central city and to resolve the governance, fiscal and infrastructure financing issues dogging the region. The report of the task force was issued in January 1996.

The task force recommended that the five existing upper-tier governments in the GTA be abolished and replaced by a new Greater Toronto Council (GTC), made up of municipal mayors and councillors drawn from across the GTA. The new GTC would have somewhat fewer powers to control physical development than the upper-tier municipalities it was to replace. It would be responsible for regional planning, economic development, and the construction and maintenance of regionally significant highways. The GTC would coordinate the activities of so-called flexible service districts for the provision of non-local services such as transit, water, and sewage treatment. The task force hoped that this would allow for region-wide planning and coordination by the GTC, while ensuring that services were delivered on a more local basis. The GTC would not have jurisdiction over arterial roads and adjacent land uses, which would instead be transferred to local municipalities.

The strongest support for a metropolitan-wide government came from Metro Toronto, itself under attack from its area municipalities as obsolete or in need of fundamental reform. Few other municipal governments in the region endorsed the GTC idea. Not surprisingly, the strongest opposition to the GTC came from the suburban upper-tier governments – Durham, York, Peel, and Halton – which would be eliminated in favour of the GTC. Suburban municipalities feared that any regional plan prepared by the GTC would constrain growth or force them to build at higher densities than they were willing to contemplate. The Conservatives came to power in the election that intervened before the Task Force's final recommendations were made public. Because of the intense controversy surrounding some of the task force's proposals, the new government set up a review panel to gauge public opinion on the most important recommendations. The panel found that there was little support for regional government anywhere in the GTA and the Task Force recommendations were quickly forgotten.

The ground had been prepared, however, for some kind of governance reform. The new government decided to resolve the fiscal crisis affecting the old City of Toronto by eliminating all the lower-tier city boundaries within Metro and creating a single-tier municipal administration with a population of 2.3 million. The government also continued to explore options for a GTA-wide mechanism to manage regional growth. Although it was obviously not ready to create a full-fledged metropolitan government, the critical levels of traffic congestion reached in the GTA moved the province to create the Greater Toronto Services Board (GTSB) in 1999. It had a mandate to run GO Transit and promote coordinated decision-making on matters related to transportation (and other infrastructure) among municipalities in the GTA. The board was made up of the upper-tier municipal chairpersons and lower-tier mayors, along with several City of Toronto councillors. With the exception of its authority over GO Transit, the board had no implementing powers: it acted as an advisory and co-ordinating body to member municipalities. It was not a regional level government and did not collect taxes. The province and the regional and local municipalities retained their roles in transportation planning.

As will be recounted below, the GTSB proposed a transit-supportive transportation plan for the region but ended up wandering into sensitive political territory and was disbanded in 2001. Since then no metropolitan-wide authority to conduct transportation or land use planning in the GTA. As we will see in the next section, region-wide planning has been conducted largely through initiatives of the provincial government working in consultation with the region's municipalities.

6.2 Smart Growth Policy and Objectives

6.2.1 Provincial

The provincial government affects settlement patterns through its control over the municipal planning framework. This framework is made up of the Planning Act, which specifies municipal authority over land use and how planning decisions must be made, and the Provincial Policy Statement, which sets out the province's priorities for how communities should grow while protecting the environment. The policies are implemented through local official plans, which integrate all applicable provincial policies and apply appropriate land use designations and policies.

The current provincial policy statement has evolved from a series of formerly separate statements and policy guidelines covering the need to provide affordable housing (especially through intensification of the existing urban area), to preserve agricultural land, manage growth in a way that would reduce the need to extend infrastructure into new areas, create transit-supportive urban designs, and protect wetlands and other valuable ecological features. These policies had been adopted on a piecemeal basis in the late 1980s and early 1990s and varied in their legal force: some of them were adopted under the Planning Act (which required that municipalities "have regard" for them in their planning decisions), while others were guidelines and only advisory in nature. Overall, provincial planning policies helped ensure that growth occurred in a fairly orderly manner (e.g., with limited leap-frog development), but did not provide a strong Smart Growth framework.

In 1995, a set of integrated, more detailed and directive planning policies was issued under Section 3 of the Planning Act as part of a major overhaul of the planning system by the NDP government of the time. These reforms were made as a result of recommendations by the Commission on Planning and Development Reform, which was established in 1991 by the province to recommend changes to the planning system that would "restore integrity to the planning process, would make that process more timely and efficient, and would focus more closely on protecting the natural environment". The Commission had identified urban sprawl, automobile-dependent development, air pollution and high levels of energy consumption as key issues that were not being adequately addressed by the planning system. ¹⁴¹ Its final report was issued in 1994, and legislative and policy changes came into effect in March 1995, implementing the Commission's vision of a more regulated planning and development process.

However, these reforms were not to stand. The election of a Conservation government in June of 1995 resulted in the reversal of the planning reforms and the adoption of a more laissez-faire planning framework. The new Planning Statement was a much briefer statement of basic principles and provided less direction to municipalities on how to manage growth and protect the environment. The new policy statement emphasized the provincial interest in promoting development as a form of economic growth and protecting resource lands for the economic benefits they offered. Policies aimed at protecting the environments, stemming sprawl and encouraging alternatives to the car were downplayed in or entirely removed from the new policy statement. The new policies protected significant wetlands in Southern Ontario but permitted development in significant woodlands, valley lands, wildlife habitat, and areas of natural and scientific interest if it could be shown that there would be no negative impacts on the natural feature or ecological function. Apart from the specialty croplands on the Niagara Escarpment, agricultural lands were very weakly protected: municipalities were required to ensure a supply of designated and serviced land for growth, and farmland could be used for this purpose if a municipality could show it needed the lands for expansion.

The new government also decided to substantially reduce its role in the review and approval of municipal plans: it would no longer need to approve upper-tier municipal plan amendments or lower-tier plans or amendments. The result of this series of changes was a dramatic reduction in the province's ability to shape urban growth throughout the province. Since that time, the new Liberal government, elected in 2003, has once again launched major changes to the planning framework in Ontario. These changes will be discussed in Section 6.4.1.

6.2.2 Regional

The Toronto-Centered Region (TCR) Plan, covering an area stretching from Hamilton in the southwest to Peterborough in the northeast, was launched by the provincial government in the 1960s. This exercise was designed to better balance growth in the region by putting limits on new growth in Toronto and promoting development in other centres, especially in the eastern part of the region. The main motivations behind the plan were to share the

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¹⁴¹ Commission on Planning and Development Reform in Ontario. December 18, 1992. *Draft Report on the Commission on Planning and Development Reform in Ontario*. Toronto.

benefits of economic growth more widely in the region, to contain growth within specified areas and to preserve agricultural, recreational and natural lands. The plan introduced the notion of growth nodes around which public investment (in roads, transit, sewerage, etc.) could be rationalized. Reducing car travel, energy use and their associated environmental consequences were not considered important issues at the time.

While the TCR concept was adopted as provincial policy in 1971, it was not substantially implemented. This failure has been attributed to the resistance to the plan offered by municipalities and developers whose economic opportunities might have been curtailed by the plan. Indeed, the province itself was not following the plan in terms of its major infrastructural investments. Thus, dispersed, relatively unstructured growth in the region accelerated, especially to the north and west of Toronto. ¹⁴²

In 1989, the Liberal government appointed Ron Kanter, a member of the Ontario legislature, to undertake a study of the options for preserving or creating a regional natural heritage system. The resulting report identified all the existing greenlands in the GTA and provided a strong rationale for preserving them and creating an integrated network of green nodes and corridors. Greenlands included wetlands, forested areas, valley lands, designated environmentally sensitive areas, provincial parks and conservation areas. Although the report was never translated into an official policy statement, it was incorporated into the province's planning vision for the region and was expected to be reflected in the official plans of upper- and lower-tier municipalities.

In 1988, the province created the Greater Toronto Co-ordinating Committee (GTCC), a forum for discussion among regional chairs and senior municipal staff, and the Office for Greater Toronto Area (OGTA), a group of policy specialists within the Ministry of Municipal Affairs and Housing that conducted research, facilitated region-wide dialogue on planning issues, and coordinated provincial actions affecting growth and development in the GTA.

In 1990, the GTCC commissioned a major study to explore the implications of the rapid population growth that had been forecasted for the area. Three regional urban form scenarios were examined: spread (current trends), nodal (much growth would go to the suburbs, but would be focused on medium-density, mixed-use "nodes"), and concentrated (a larger share of growth directed to Metro Toronto). The scenarios were assessed from a variety of perspectives, including environmental and fiscal. The compact scenario scored best on 22 of the 42 measures used to assess the various options, whereas the nodal and spread options placed first in only six each. In response to the report, municipalities acknowledged the need to curb sprawl but largely rejected the compact scenario as a tooradical shift from existing trends. Instead, they favoured the proposed nodal structure, which would give many of the region's municipalities their "fair share" of expected growth.

¹⁴³ Ron Kanter. 1990. *Space for All: Options for a GTA Greenlands Strategy*. Toronto: Province of Ontario.

¹⁴² Andrew Farncombe. 1993. *Housing on Toronto's Main Streets: A Case Study in Intensification*. Faculty of Environmental Studies, York University.

¹⁴⁴ IBI Group. June 1990. *Greater Toronto Area Urban Structure Concepts Study: Summary Report.* Toronto: Greater Toronto Coordinating Committee.

The OGTA proceeded to convene municipal planners and leaders and to generate a schema for the Toronto region based on the nodal concept. Although it was not called a "plan" (as this was seen as too directive given municipal sensitivities to provincial involvement in planning issues), the goal was to suggest something that could serve as a basis for municipal planning in the region. The result was an urban structure concept based on a hierarchy of nodes (major and minor nodes) connected by transportation corridors, designed to steer the region towards a more compact, less-auto-dependent urban form with a well-protected countryside. ¹⁴⁵

The next step in this regional planning process was to agree on the target distribution of population growth over the coming decades. A 1993 study for the OGTA considered three growth scenarios:

- The "Reference Scenario" assumed that intensification efforts by Metro Toronto would be successful.
- Scenario One, based on much more aggressive intensification policies, had Metro Toronto accommodate a larger component of growth than the reference forecast.
- Scenario Two assumed that current trends would continue and that very little new population growth would occur within Metro.

Table 6-2: Population distribution scenarios in the GTA (to 2021)

	Reference Scenario	Regional	Scenario 1	Regional	Scenario 2	Regional
		Dist (%)		Dist (%)		Dist (%)
Metro	2,410	36	2,700	40	2,230	33
Peel	1,320	20	1,260	19	1,350	20
York	1,290	19	1,110	17	1,320	20
Durham	970	15	950	14	1,000	15
Halton	670	10	650	10	690	10
GTA	6,670	100	6,670	100	6,670	100

Source: Hemson Consulting Ltd., and Cooper & Lybrand Consulting Group. August 1993. *The Outlook for Population and Employment in the GTA*. Toronto: Office for the Greater Toronto Area.

Table 6-2 shows the distribution of population forecasted for the alternate scenarios. It shows that in the Reference Scenario, Metro would have a population of 2.4 million by 2021, while in scenario one, Metro was expected to accommodate 2.7 million people, and in scenario two, Metro achieves a population of only 2.32 million. Soon after the publication of the Hemson report, the Ministry of Municipal Affairs announced that it had accepted Scenario One as the basis for regional land use planning in the GTA.

As mentioned above, the provincial government created the Greater Toronto Services Board (GTSB) in 1999 as a means to address the serious problems in the region that were being exacerbated by the absence of any region-wide planning entity. The board's regional transportation plan, called *Removing Roadblocks*, was released in June 2000. Although the plan focused on transportation matters, it had broad land use implications in that it favoured

¹⁴⁵ Office for the Greater Toronto Area. 1992. *Urban Form: Bringing the Vision into Focus*. Toronto: OGTA Provincial-Municipal Urban Form Working Group.

(in fact depended on) a strengthened nodes and corridors regional structure, and denser, transit-oriented development. Transit, it concluded, should be given priority over car usage as a way out of the region's growing congestion problem

The plan identified 42 nodes within the GTA, which would serve as hubs on a future rapid transit network spanning the entire region. It was essential to the plan's success that these hubs be supported by higher-density mixed-use development. Although the nodes were identified in municipal official plans (OPs), the plan authors believed that this was not enough to ensure their concrete realization. To address this situation, the plan called for tighter coordination among land-use planning and phasing of development, transportation planning and the supply of other infrastructure. As a vehicle to realize this higher level of coordination, the plan drafters recommended that a GTA-wide Growth Management Strategy be prepared. Following the publication of Removing Roadblocks, the GTSB itself claimed it should be given broader powers to manage growth in the region. This created a certain amount of controversy in the region and the Province opted to dissolve the board at the end of 2001. No immediate action was taken to implement the GTSB plan.

The GTSB plan was quickly superseded by another planning initiative in the GTA. The province-wide Smart Growth Ontario initiative was launched in January 2001 and five regional panels were set up to create strategies for dealing with growth-related issues. The Central Zone Panel (CZSGP), appointed in February 2002, was composed of major developers, business leaders, well-known environmentalists and high-ranking municipal officials. The Central Zone covered the GTA, the City of Hamilton (as did the GTSB) plus neighbouring areas as far as Waterloo in the west, Niagara in the south, Simcoe in the north, and Peterborough in the east. "Unlocking gridlock" was among the main priorities given to the committee by the government.

The CZSGP issued its final recommendations to the government in April 2003. The proposed plan recognized the need for compact, transit-oriented growth. It favoured an urban structure based on regional economic centres and corridors, and proposed (as did the GTSB) a rapid-bus system to link them. The report identified only 16 major urban centres, a more manageable number than the 42 recommended by the GTSB. However, the panel counter-balanced this Smart Growth orientation with a number of other provisions that emphasized the importance of investments in highways. The panel proposed a series of major extensions of highway capacity within the region, crossing largely unurbanized areas, without recommending any mechanism to avoid the inevitable development pressures that accompany highway extensions. No estimate of the costs involved in either transit or highway investments was provided. 147

As part of its Smart Growth Initiative for the GTA – and while the CZSGP was preparing its regional vision – the province undertook two other important actions. In 2001, *The Oak Ridges Moraine Conservation Act* was passed by the Ontario Legislature. This Act allowed the government to institute a land use plan for the protection of all significant natural and

Not surprisingly, then, the SZP report has been used by the government to justify major highway ex in the region, e.g., the mid-Peninsula Highway linking Toronto with Fort Erie.

Central Ontario Smart Growth Panel. April 2003. Shape the Future. Toronto: Ontario Smart Growth.
 Not surprisingly, then, the SZP report has been used by the government to justify major highway expansion

water resource features on the Moraine, protect agricultural land and focus development in approved settlement areas. Decisions on planning and development applications are required to conform to the Oak Ridges Moraine Conservation Plan. The plan includes strict policies to protect water quality and quantity on the Moraine. It protects cold-water streams, wellheads, and all kettle lakes on the Moraine. It also requires innovative stormwater management practices to protect sensitive recharge areas, and prohibit technologies that cause rapid infiltration of stormwater into groundwater.

In 2002, the province released a document entitled *Strategic Transportation Directions*, essentially a new transportation plan for the Central Zone region. The document clearly recognized that transportation problems were linked to settlement patterns in the region but made no proposals for altering settlement patterns as a means to reduce car dependency and congestion. The document laid out a series of transit and highway improvements. Transit improvements echoed those proposed by the GTSB, including endorsement of a new GO Transit rapid bus system linking nodes using regional transportation corridors. However, the proposed highway improvements went far beyond anything in the GTSB plan and included not only extensions to existing highways, but two brand new highways: one linking the Toronto area with Niagara Falls and the other linking with Guelph in the west.

The brief historical summary above makes it clear that there has been no lack of planning initiatives in the GTA (or the larger southern Ontario area). We can even see in the various regional plans a number of common themes: control the spread of the urbanized area, increase overall densities, and encourage a definite urban structure based on nodes and corridors that would support a system of rapid transit.

6.2.3 Municipal

From its inception in 1953, Metro Toronto's planning and investment activities played an important role in helping a regional structure to emerge, one based on higher-density development adjacent to transit facilities and sub-centre development. Central to this was the 1980 Urban Structure Plan (Metroplan), which called for a hierarchy of urban centres supported by rapid transit. Metro Toronto emerged as a champion of intensification in the latter half of the 1980s, when it undertook studies on residential intensification and public consultations as part of its official plan review process.

Around this time, Metro also began a process of setting population targets for the metropolitan municipality as a whole and its component municipalities. In 1989, Metro adopted a population target of 2.5 million by 2011. This was thought to require about 300,000 new housing units. This was to be achieved through two main processes:

- redevelopment of obsolete commercial and industrial areas, underdeveloped sites within mixed-use nodes and centres, and within 750 metres of rapid transit stations
- implementation of a Main Street program to increase densities in low-density areas along arterials.

In its 1994 revisions to the official plan, Metro reiterated that intensification would be promoted by concentrating new development in designated centres and corridors. The

centres corresponded to those proposed by the OGTA urban form exercise: three major nodes (in addition to the central node in the City of Toronto) and 10 intermediate nodes. Metro's plan addressed the thorny issue of industrial land redevelopment. It proposed that other land uses be allowed within industrial areas and that area municipalities rezone industrial areas for residential use where the rezoning does not result in land uses incompatible with remaining industrial areas. The population objective of 2.5 million was retained.

After amalgamation in 1997, the new City of Toronto launched an official planning process and in 2000 the City's planning vision, *Toronto at the Crossroads: Shaping Our Future*, was published. The report placed a strong emphasis on intensification and redevelopment as a way of achieving population growth targets over the next 30 years. The new official plan was approved by council in 2002 and set a new population target of about 3 million residents by the year 2031, relying heavily on intensification of main streets ("Avenues"), the downtown (including the Central Waterfront) and sub-centres.

In the suburban areas outside the old Metro Toronto (now City of Toronto) growth management is carried out by upper-tier regional municipalities. In principle, upper-tier plans are supposed to reflect provincial interests and provide a framework for lower-tier municipalities to carry out detailed land use planning and zoning. Upper-tier official plans set the urban envelopes to be respected in the local official plans, project major infrastructure requirements, designate areas to be protected from development, and propose policies with respect to the desirable location and form of development. Thus they set the broad policy and spatial framework for development, suggesting the future development patterns and urban structure for the regional municipality.

In the early 1990s, all four regional municipalities were preparing new official plans. In order to help shape these plans into a coherent whole, the province set up the GTA Official Plan Project, a group of planning officials within the Ministry of Municipal Affairs that was responsible for approving the upper-tier plans using a consistent framework based on the OGTA planning vision and the more general provincial planning polices. This included the following key parameters:

- base urban structure on nodes and corridors;
- achieve a transit-supportive urban form;
- firm up urban boundaries and protect key natural features such as the Niagara Escarpment and the Oak Ridges Moraine;
- increase greenfield residential density from a recent average of 10 units per gross ha to 17 units per gross ha;
- 20% of residential growth to occur through intensification;
- achieve a better balance between residential and employment land uses through mixed-use development;
- lower the proportion of detached and semi-detached housing from historical 80 85% to 55-65%;
- 10 15% of employment growth will occur via intensification in existing office/commercial nodes;
- 25 30% of employment growth will occur in residential areas.

A review of the four regional official plans shows that this strongly transit-supportive growth management framework was in many ways well reflected in the plans. All four plans designate a hierarchy of higher-density mixed-use nodes, implant a firm urban growth boundary, encourage transit-oriented development around transit nodes, support intensification and infill development, mixed use development, higher density greenfield development, better mix of housing types, an improved jobs/housing balance, and a grid pattern for major arterials.

The major weakness in the translation of the OGTA planning framework into regional official plan policies is found in the designation of nodes and corridors. The provincially-approved OGTA plan had 29 nodes in total with 15 nodes outside the City of Toronto whereas the combined upper-tier official plans have 47 nodes in total, including 33 nodes outside the City of Toronto, 2.5 times the OGTA number. As for the network of high-density, mixed-use, rapid transit corridors that were supposed to be designated in upper-tier plans, only York region made any effort to do this.

In terms of protection of greenlands, the regional official plans have reflected rather faithfully the greenland vision put forward by the Kanter Commission in 1990. Table 6-3 shows that the quantity of designated lands found in regional official plans is similar to that found in the Kanter recommendations. The main exception is found in Durham, where the regional municipality designated a large area of the Oak Ridges Moraine, which was classified separately in Kanter's system. Maps overlaying regional official plan designations with Kanter's recommendations show a close correspondence in terms of spatial layout. Greenland and agricultural land protection policies in all four regional official plans reflect the level of protection afforded by the Provincial Policy Statement.

Table 6-3: Correspondence between Kanter recommendations and regional official plan (ROP) policies

Regional	Regional Area	Kanter	% of RM	ROPs	% of RM
Municipality					
Durham	2,533	525	20	1,029	40
York	1,773	344	19	467	26
Metro/	632	104	16	138	21
new Toronto					
Peel	1,252	239	19	237	18
Halton	971	282	29	196	20
GTA	7,162	1,494	20	2,060	29

Source: Robert Wright. 2000. *The Evolving Physical Condition of the Greater Toronto Area: Space, Form and Change.* University of Toronto.

6.3 Smart Growth Outcomes

6.3.1 Intensification of growth rather than expansion of development into greenfield areas

As discussed above, the Ministry of Municipal Affairs accepted population targets for Metro Toronto and the four Regional Municipalities in 1993. Table 6-4 shows how growth patterns from 1981 to 2001 compare with the target distribution of population for 2001.

Table 6-4: Por	pulation growth	n in target areas.	1981-2001, c	compared to target growth

	Actual 1981-1991		Actual 1991-2001		Scenario 1 1991-2001	
Target Areas			Pop. % of		Pop.	% of GTA
		GTA	Growth	GTA	Growth	Growth
		Growth		Growth		
Metro/new	344	20.7	205	24.3	139	14.3
Toronto						
Peel	705	42.4	256	30.3	253	25.9
York	477	28.7	224	26.5	274	28.1
Durham	16	1.0	98	11.6	203	20.8
Halton	121	7.3	62	7.3	105	10.8
GTA	1,664	100.0	845	100.0	975	100.0

The table reveals that the new City of Toronto increased its population far in excess of that forecasted even under the "aggressive intensification" scenario put forth in the early 1990s: it grew by 205,000 when it was expected to grow by only 139,000. Moreover, because the metropolitan growth rate was lower than expected, the share of Toronto's growth is much higher than the forecasted share (24.3% instead of 14.3%). To put this in perspective, however, it is important to note that even if the City continues to capture about one quarter of population growth, its share of the metropolitan population will continue to decline. And of course, maintaining this pace of growth within the City of Toronto may become more difficult over time as prime intensification opportunities are exploited and new opportunities become scarce.

Almost all of the population added to the City of Toronto over the 1991-2001 was through intensification. Outside the core city, however, growth is largely on greenfields. The most recent data for the GTA shows for example, that as of 2001, there were about 260,000 residential units in the development approvals process in the GTA. Across the GTA, about 15% of these units were slated to be developed on already-urbanized lands; however, the City of Toronto accounted for 81% of these. In the four regions surrounding the City, only 3% of the units are slated for already-urbanised land. This is a far cry from the province's goal of 20% of all projected residential growth to occur through intensification. 148

¹⁴⁸ Pamela Blais. 2003. Smart Development for Smart Growth. Issue Paper No. 6. Toronto: Neptis Foundation.

6.3.2 Take advantage of potential intensification opportunities

Since the mid-1970s, planning philosophy in the City of Toronto (old Metro) has embraced a respect for existing neighbourhoods and steered residential development into less disruptive forms, the most important of which was the redevelopment of obsolete industrial or commercial sites. Planners favoured such sites because the land was already assembled and serviced, generally near cultural amenities and community facilities, and well served by transportation links. The high densities that are usually permitted on such lands helped make the projects more financially attractive to developers and financiers.

The outstanding example of industrial land redevelopment in this period was the St. Lawrence Community, located on derelict industrial land southeast of the city core. By inner-city standards, it was a huge redevelopment project of 20 hectares. It was designed to fit into, and complete, the surrounding urban fabric and to look like a traditional Toronto neighbourhood including red brick row houses, a mix of uses, and a typical downtown road pattern.

The redevelopment of the Massey-Ferguson site in the Niagara neighbourhood carried this form of intensification into the 1980s. And in the late 1990s, large-scale redevelopment of the railway lands and Garrison Common near the waterfront got underway and is continuing. Redevelopment of industrial land still holds the greatest intensification potential for the city. The West Don Lands (formerly known as the Ataritiri site) on the east side of the downtown area, and the Junction Triangle and the Stockyards in the west end, have all been zoned or are under consideration for zoning as residential or mixed-use areas. Redevelopment of the Port Lands along the central waterfront is being planned to for 100,000 new residents and 25,000 new employment places.

Another form of intensification that is proceeding in the City of Toronto is the conversion of older office buildings to residential use. This is an attractive intensification option for a variety of reasons: the reuse of existing building stock preserves heritage, reduces development costs and times, and makes efficient use of existing infrastructure.

Two major residential intensification opportunities emerged in the mid-1990s with the rezoning of the King-Spadina and King-Parliament areas, adjacent to Toronto's financial core. Historically these areas served as manufacturing districts, but entered a period of decline in the 1970s that accelerated in the later 1980s and early 1990s as manufacturing activity migrated to suburban locations. In 1996, the city rezoned these areas to permit much more flexible development standards, including a broad range of land uses, higher densities, and flexible height limits. Mixed-use spaces are mostly occurring in industrial warehouses and mercantile buildings. As of 2002, 86 development projects were either built, under construction or are being planned in the two areas. Once built out, these projects will add 7,040 housing units.

The City of Toronto attempted to translate the main streets idea that had been advocated by Metro Toronto into regulatory changes that would give it concrete form. By creating a regulatory framework that would encourage property owners to redevelop their sites and by adding further residential storeys on top of existing buildings, it was hoped that new housing

units could be added to the city's stock without the need for expensive new infrastructure and municipal services. In the new City of Toronto official plan, the main streets have been re-baptized as Avenues, but the strategy remains similar. However, implementing of the main streets vision has been blocked by fragmented land ownership, lack of developer interest in creating rental housing, and low demand for units above retail.

Planners have consistently called for higher density residential development in the many nodes designated in provincial and regional documents. To test this on the ground, one analyst compared the location of residential development applications in the planning pipeline as of 1998 to nodal locations designated in regional official plans. She concluded that in the suburban regions outside the City of Toronto, the vast majority of residential development is located outside the designated nodes. In contrast, within the City of Toronto, much of the potential development was focussed on nodes and corridors, such as Yonge Street, the North York City centre, and the Scarborough City Centre. Another study for 1996 found that only 10% of housing units in the approvals process were located in designated nodes. Of those units, only 15% were apartments (1.5% of the total) and virtually all of these were in Metro Toronto. Section 1500

6.3.3 Denser, mixed-use development

Population densities have been increasing across the region since the early 1990s. As Table 6-5 shows, densities have increase in all four regional municipalities and the City of Toronto from 1992-1999.

Table 6-5: Density change	ge in the GTA, 1992-1999
1992	

	1992			1999		
	Urban Area	Pop.	Density	Urban Area	Pop.	Density
			(per./ha)			(per./ha)
Toronto	59,390	2,356,130	39.67	59,480	2,523,550	42.43
Halton	15,024	329,420	21.93	16,700	368,980	22.1
Peel	34,012	781,190	23.06	37,170	975,760	26.25
York	26,871	543,130	20.21	32,056	693,200	21.62
Durham	16,106	435,150	27.02	17,846	501,990	28.13
GTA	151,404	4,448,020	29.38	163,234	5,063,480	31.02

Source: GHK Canada. 2002. *Growing Together: Prospects for Renewal in the Toronto Region*. Toronto: City of Toronto.

Most of the increased density in the metropolitan region is due to intensification in Toronto and Mississauga (in Peel), both of which are entirely urbanized and have no greenfield space to accommodate new development. Outside these areas, population densities have increased, but only slightly. The main reasons for this increase has been the falling average lot size. There is no recent data on residential densities in new suburban developments in the GTA,

¹⁵⁰ Glenn Miller, Janice Emeneau, and John Farrow. 1997. *GTA Urban Structure: An Analysis of Progress Towards the Vision*. Toronto: Canadian Urban Institute.

¹⁴⁹ Pamela Blais. 2000. *Inching Toward Sustainability: The Evolving Urban Structure of the GTA*. Toronto: Neptis Foundation.

but the trends indicated in the table suggest that the province's density target by (i.e., to increase greenfield residential density from an average of 10 units per gross ha to 17 units per gross ha) is not being achieved.

There is some evidence that population densities would have risen more if not for the increasing share of land devoted to public uses and infrastructure. For example, a 1995 study of land use in the GTA showed that public open space accounted for between 1.6 and 5.6% in older communities, compared to 10.7 to 16.7% of newer ones. The share of land devoted to schools ranged from 2.4 to 5.3% in older communities, compared to 4.3 to 8.2% of land in newly developing areas. ¹⁵¹ More recent studies support the view that public uses are accounting for an increasing share of the land base. ¹⁵² Thus, while gross residential densities (which includes land used for public purposes) are only slightly higher in suburban areas than they were in the early 1990s, net densities may be substantially higher.

Data on non-residential densities is very poor and thus it is difficult to say at this point what the trend is across the region as a whole. Most such development in the GTA has occurred in suburban areas in recent years, particularly upon greenfield sites. Offices, industrial, distribution or retail facilities most frequently consist of single-storey buildings surrounded by surface parking and generous setbacks. Office buildings are a notable exception, which can be found in the two- to eight-storey range. 153

There is little data on trends in the mixing of land uses in new development within the GTA, i.e., combining residential and employment-oriented uses. There is certainly no evidence to suggest that a greater mixing of uses has been achieved anywhere in the region. Thus, it is unlikely that the province's target of 25-30% of employment growth to occur in residential areas is being achieved in practice.

Most new developments use a local road system of cul-de-sacs rather than a transit-friendly grid or modified grid pattern with more connectivity. Alternative development standards have been experimented with here and there across the region, but have not entered the main stream. The Town of Markham in York Region has been the most innovative in this respect, with two significant New Urbanist style developments. Cornell, the largest of the two, is a 625 ha greenfield project with good street interconnectivity, neighbourhood centres within a five minute walk of all residences, a definable core with civic buildings and spaces, and a range of housing forms and prices. When completely built out (2015-2020) it will have 10,000 housing units. 154

6.3.4 Wider range of housing types

We saw above that the provincial government had targeted a lower proportion of detached and semi-detached housing for the regional municipalities around the City of Toronto, i.e.,

¹⁵¹ Lehman & Associates. March 1995. *Urban Density Study*. Toronto: Office for the Greater Toronto Area. ¹⁵² Blais, Pamela. 2000. *Inching Toward Sustainability: The Evolving Urban Structure of the GTA*. Toronto: Neptis Foundation.

 ¹⁵³ Pamela Blais. 2003. Smart Development for Smart Growth. Issue Paper No. 6. Toronto: Neptis Foundation.
 ¹⁵⁴ Robyn Waxman. 2000. Subdivision Design for Local Environments. Current Issue Paper, University of Toronto, Program in Planning.

to shift the proportion of detached and semi-detached housing starts from 80-85% to 55-65%.

Table 6-6 shows that the proportion of singles and semi-detached starts as a proportion of all starts in the Toronto CMA excluding the City of Toronto (corresponding roughly to the four regional municipalities) has in fact increased over the years 1993-2001, rising from 67% of the new housing starts to 81%. The increase was due to a rise in semi-detached units. The proportion of apartment units fell substantially, from 18% to 4%. This data suggests that the provincial housing mix target is not being achieved on the ground.

Table 6-6: Housing type shares of housing starts in the Toronto CMA, not including the City of Toronto, 1993-2001¹⁵⁵

Year	Single	Semi	Town	Apts	Total
1993	60	7	16	18	100
1994	66	9	17	9	100
1995	56	7	29	7	100
1996	63	10	24	3	100
1997	65	11	22	1	100
1998	60	15	21	5	100
2000	58	19	18	6	100
2001	61	20	16	4	100

Source: CMHC Housing Statistics

As shown in Table 6-7, the number and percentage of single detached dwellings increased in the Toronto CMA between 1981 and 2001, while multi-unit housing decreased.

Table 6-7: Total dwellings in Toronto CMA 1981-2001

	1981		1986		1991		1996		2001	
	#	%	#	%	#	%	#	%	#	%
Single Detached	419,257	40.3	518,316	43.2	608,182	44.5	645,953	43.4	737,325	45.1
Semi Detached Duplex	14,565	1.4	137,977	11.5	128,470	9.4	125,023	8.4	179,845	11.0
Row	196,624	18.9	74,388	6.2	83,368	6.1	98,232	6.6	124,640	7.6
Apartment Other	409,894	39.4	469,124	39.1	546,680	40.0	619,162	41.6	592,940	36.3
Total	10,40,340	100.0	1,199,805	100.0	1,366,700	100.0	1,488,370	100.0	1,634,750	100.0

Source: CMHC Housing Statistics

6.3.5 Increase supply of affordable housing

Toronto's housing prices increased by 35% between 1998 and 2002. Average housing prices in Toronto are now second only to those of Vancouver. Homeownership rates are average compared to the other study regions and have increased gradually over the past two decades from 57.3% of households in 1981 to 63.2% in 2001. With an average rent of \$1040 per

¹⁵⁵ Figures for housing starts and total dwellings were taken from CMHC Housing Statistics. The discrepancy between the two data sets may be due to several factors, including the Statistics Canada's changing definitions for multi-unit housing.

month, rents in Toronto are higher than in any other Canadian metropolitan area. Rental costs have increased by 18% between 1998 and 2003.

The result of these trends is a general decline in affordability for both ownership and rental housing in Toronto, as shown in Table 6-8. In 2001, 42% of renters and 22% of homeowners spent 30% or more of their household income on housing costs, or a total of 25.5%. Of the renters, 20% paid 50% or more of household income to rent.

Table 6-8: Percentage of owners and renters paying 30% or more on shelter costs, Toronto CMA

	1981*		1986		1991		1996		2001	
	Owners	Renters								
Toronto	16.5	14.9	14.1	30.6	20	9.8	23.9	44	21.5	42.1

^{*}Affordability cut-off defined at 25% in 1981.

Source: Statistics Canada, and CMHC Research Highlights Socio-economic Series 03-017

6.3.6 Increase transportation choice and reduced car usage

Table 6-9 shows that the transit modal share in the GTA (here defined to include Hamilton, which is also served by GO Transit) has been decreasing since at least 1986, when large-scale travel surveys were first initiated in the region. Overall transit use across the GTA in 1986 was 22% while in 2001 it was just 16, despite an overall increase in ridership (from 417,868 to 424,400 trips per peak period). As GO Transit services have been improved in the region, they have doubled their modal share, but local transit use has declined from 21% to 14% of morning commutes over that time period, a decline of 33% in 15 years. Meanwhile auto trips increased from 67% to 71%.

Table 6-9: Modal share (%) of morning peak travel, GTA (including Hamilton), 1986-2001

Year	Daily Trips	Auto Driver	Auto Pass- anger	Local Transit	GO Train	Walk & Cycle	Other
2001	2,652,500	59	12	14	2	9	4
1996	2,303,500	57	12	15	2	10	4
1991	1,927,700	58	11	17	2	9	4
1986	1,899,400	57	10	21	1	9	3

Source: Joint Program in Transportation Data Management Group at the University of Toronto

Table 6-10 shows the regional distribution of transit use over time and reveals that transit has declined in all sectors of the agglomeration, including older cities with relatively well developed transit systems (Toronto and Hamilton). In the newer suburban RMs, transit shares declining despite the increasing share of GO Transit, which implies that local transit share is in steeper decline.

¹⁵⁶ The travel surveys are carried out by the Joint Program in Transportation Data Management Group at the University of Toronto in association with local governments and major transit providers in the region.

Table 6-10: Modal Share of Transit by Sub-Region, 1986-2001

Sub-Region	2001	1996	1991	1986
Toronto	27	28	29	33
Durham	7	8	8	8
York	8	8	10	10
Peel	9	9	10	11
Halton	7	7	9	8
Hamilton	7	8	14	12

Source: Joint Program in Transportation Data Management Group at the University of Toronto

6.3.7 Preserve agricultural land

Agriculture is a very significant land use in the GTA outside of the City of Toronto, which has almost no agricultural land. Of the approximately 6386 sq km that make up the four Regional Municipalities, 2861 or 44.8% was classified as farmland by Statistics Canada in 2001. Most of the farmland in the GTA is prime farmland.

Table 6-11: Farmland in the GTA compared to total land, absolute and percent 1986-2001 (sq km)

							_			
	Total	1986)	1991		199	6	2001		
	land									
		Farmed	%	Farmed	%	Farmed	%	Farmed	%	
Halton	983	482	48.9	465	47.4	441	44.9	392	40.7	
Peel	1263	522	41.5	465	37	486	38.5	421	33.5	
Durham	2420	1449	59.9	1364	56.4	1364	56.3	1335	55.2	
York	1720	854	49.6	769	44.8	785	45.6	712	41.4	
Total	6386	3306	51.8	3063	48.0	3076	48.2	2861	44.8	

Source: Agricultural Statistics for Ontario, 1986, 1991, 1996, 2001

Table 6-12 presents a breakdown of the percentage of land farmed in each of the regional municipalities in the GTA from 1986 to 2001. The rate of change in farmland acres varies from one regional municipality to another. Loss has been lowest in Durham where growth has been weaker. Losses are larger in the west and north, where growth has been more intense.

Table 6-12: Farmland in the GTA, percent change 1986-2001

	1986-1991	1991-1996	1996-2001	1986-2001
Halton	-3.4	-5.2	-11.0	-18.5
Peel	-10.9	+4.3	-13.3	-19.4
Durham	-5.9	0.0	-2.1	-7.8
York	-10.0	+2.1	-9.3	-16.6
Total	-7.3	+0.4	-7.0	-13.5

Source: Agricultural Statistics for Ontario, 1986, 1991, 1996, 2001

A total of 445 sq km was taken out of agricultural production in the GTA (outside the City of Toronto) in 15 years. The rate of change for the study area between 1986 and 2001 is shown in Table 6-12. The figures show that losses slowed in the first half of the 1990s, during the recession, and then picked up to levels similar to those that prevailed in the latter 1980s, during a construction boom.

6.3.8 Preserve lands essential to maintaining regional ecosystem functions

As mentioned above, the Kanter commission recommended in 1990 that a GTA Greenlands Strategy be developed by the province to enhance and protect the system of natural areas in the region. No action was taken to implement this recommendation for the next decade but most of the Kanter vision was incorporated into regional official plan policies to protect natural areas and discourage development that affect them. However, there is no absolute prohibition on such development. In fact, there are varying approaches to the protection of greenlands.

The best protection is afforded to significant wetland areas and habitat of threatened species, both of which are off-limits to development under the provincial policy statement. This is generally accepted by municipalities and developers and little erosion of these features is thought to have occurred in the GTA since 1990. Valley lands are also well protected under the Federal Fisheries Act, which prevents alterations to shorelines that could affect fish habitat. The two natural features that are the least well protected in the GTA are woodlands and wildlife habitat. The provincial policy statement permits development in these areas if can be shown that there would be no negative impacts on the natural feature or ecological function. In practice, however, quite a high level of impact is tolerated before municipalities disallow development in or near these features. Incremental loss of habitat continues based on site-by-site decisions without regard for the larger regional ecosystem context. This approach leads to natural areas becoming degraded, especially in the rapidly urbanizing areas around the fringes of the GTA.

Another reason for loss and impairment of greenlands in the GTA is agricultural practices. Farmers, who are exempt from any requirements to preserve greenlands, still drain smaller wetlands and cut down woodlots to create more agricultural land. There are numerous examples in the GTA of areas where groundwater and surface water quality and associated fish habitat have been severely degraded by contaminated runoff from farms. Finally, the ever-growing number of golf courses in the GTA is also eroding natural areas. Although they often contribute to local environment problems, gold courses are often a permitted use in natural areas under official plan designations.¹⁵⁷

No detailed data on the loss of greenspace could be found for the GTA as a whole.

122

¹⁵⁷ Donald Fraser. 2003. *Greenlands in the Central Ontario Zone*. Issue Paper No. 4. Toronto: Neptis Foundation.

6.3.9 Encourage employment growth in the metropolitan core and designated growth centres

A nodal structure has been at the heart of all Smart Growth efforts in the GTA for at least the last 15 years. These are areas where employment, especially office growth, is expected to occur in order to create a network of high-density transit destinations and activity centres. Unfortunately, there is currently no data available on employment growth in these nodes, despite their importance from a Smart Growth point of view. ¹⁵⁸

We have seen the regional official plans designate far more nodes than found in the metropolitan planning documents. This is a significant weakness in the regional planning framework because a surfeit of nodes undermines the regional structure by dispersing private development energy and public transportation investment. In other words, there are far too many nodes designated in regional official plans to be realistically supported by the level of employment and population growth anticipated in the GTA.

Furthermore, when we look at the actual form of development on the ground, we find that many of the nodes designated in regional official plans do not necessarily represent denser concentrations of employment. For example, many suburban city centres are focussed around regional shopping malls or other low-density uses with large amounts of surface parking. Many have not achieved the critical mass needed to become major destinations and those that have achieved that threshold (e.g., Mississauga Centre) have not been serviced with the high-quality transit system they need to shift the system away from car dependency. Many of the centres are far from pedestrian-oriented, denser community centres envisaged in the metropolitan planning documents.

6.3.10 Provide infrastructure to reduce ecological impacts of development

The GTA is part of the Lake Ontario basin with three main rivers and a number of smaller creeks flowing into the lake. Most drinking water in the GTA is drawn from Lake Ontario and is easily treated to acceptable standards. There is little concern over water quantities in the region. However, most treated wastewater is discharged either directly or indirectly to the lake. Thus, a major environmental concern in the region is the water quality along the Lake Ontario waterfront. ¹⁵⁹

The City of Toronto's water supply system services the whole population of Toronto plus the southern part of York Region. The system of underground pipes has sufficient capacity to support intensification of the city but water treatment plants will require expansion to meet the city's intensification targets. Meanwhile, the municipality has adopted proactive water conservation and efficiency measures in order to avoid the need for system expansion. Stormwater and sewage systems are combined in many older parts of the city, which results

¹⁵⁹ Earth Tech Canada Inc. 2002. *Water and Wastewater Services in South Central Ontario*. Background Report #3 to Growing Together: Prospects for Renewal in the Toronto Region. City of Toronto.

¹⁵⁸ A research project is currently underway, sponsored by the Neptis Foundation, that will provide this data sometime in the fall of 2005.

in overflow contamination of the area's rivers and lake during storms. The city is building a large reservoir and encouraging downspout disconnections to remediate this situation.

Outside the City of Toronto, most regional municipalities operate their own treatment facilities. In York Region, however, wastewater is piped to the Region of Durham for treatment in a jointly owned treatment facility. Critics of sprawl in the region have claimed that the York-Durham Trunk Sewer System was largely responsible for unleashing massive growth in York Region after it was built in the 1970s.

Many sewer systems and treatment facilities in the regional municipalities are now at or nearing capacity and additional capacity is being planned and added in order to accommodate projected growth. Over the next 30 years, several billions of dollars in capital investment will be made in water infrastructure, largely funded through development charges.

Most municipalities in the GTA have some conservation and efficiency measures in place to reduce water consumption and wastewater generation. Moreover, developers are required by municipalities to prepare Environmental Servicing Plans including comprehensive stormwater management plans. The plans are reviewed by Conservation Authorities based on larger-scale watershed management plans, as part of the municipal permitting process. This process has resulted in the implementation of myriad stormwater management measures such as stormwater ponds, infiltration facilities and wetlands, which have alleviated increases of runoff and pollution loadings from new development in the GTA. However, there is little experimentation with more innovative approaches (such as lowimpact development) that could further reduce demand for conventional wastewater facilities.

Outside of serviced areas, development is septic-based. As development intensifies in these rural, sewage effluent may exceed local ecological capacities and result in groundwater contamination and health impacts. This in turn becomes a powerful justification for extending water and wastewater services into these areas. This drives the constant expansion of the lake-based treatment systems in the GTA. Critics claim this leads to further sprawl in the affected areas. At the time of writing, a major debate was taking place in the region as to whether York Region's plan to extend the York-Durham Trunk Sewer into King Township could be justified on Smart Growth terms. ¹⁶⁰

6.3.11 Summary of Smart Growth Outcomes

Positive

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• The City of Toronto is achieving its population growth objectives as set down in the early 1990s through negotiation among the regional municipalities and the provincial government and is surpassing the objectives in terms of the share of metropolitan growth it captures.

 $^{^{160}}$ John Barber. June 11, 2005. "Huge sewer risks turning greenbelt into pipe dream," $Globe\ \&\ Mail$, p. M2.

- The City of Toronto (old, new and former Metro) has taken advantage of myriad intensification opportunities while leaving established neighbourhoods relatively untouched.
- Development densities appear to be rising slightly across the region, including in greenfield areas, probably due to the generally small lot sizes used for single and semi-detached housing. This is somewhat dampened by the increasing share of the land base dedicated to public purposes (stormwater reservoirs, roads, etc.).
- Although hard data is not available on changes to environmental features in the region, regional municipalities are attempting to protect and enhance the regional green network through planning policies.
- Infrastructure is being provided and planned in order to mitigate the impacts of urban development in most locations.

Negative

- Little growth in suburban municipalities outside the City of Toronto is occurring through intensification of the existing fabric.
- There is no evidence that the fine grain mix of land uses is increasingly prevalent in the region, aside from a few exceptional developments.
- The rate of agricultural land loss in the latter part of the 1990s is similar to that of the late 1980s. This suggests that the growth management framework that was put in place in the late 1980s and early 1990s has not been that effective in preventing loss of farmland.
- Natural features are still being encroached upon and in some cases destroyed by urban development.
- Car dependency is deepening in the region.
- Housing has become increasingly unaffordable.
- The range of housing choice is deteriorating.
- Few growth centres have achieved the critical mass needed to become major
 destinations and those that have achieved that threshold have not been serviced with
 the high-quality transit system they need to shift the system away from car
 dependency.

6.4 <u>Factors Explaining Results</u>

6.4.1 Provincial planning policies and enforcement

The provincial government provides a planning framework to guide municipal land use and development decisions. We noted above that this planning framework had undergone many changes over the 1990s. The framework was set out in a piecemeal fashion in the late 1980s by the Liberal government and then consolidated and enhanced by the NDP government in 1995. In 1996 the incoming Conservatives dismantled this comprehensive Smart Growth framework and adopted a weak provincial planning statement that provided little direction on how municipalities should manage growth to reduce environmental and social impacts.

We saw, for instance, that urban expansion onto agricultural land was permitted if a municipality concluded that expansion was needed to accommodate projected growth and there are "no reasonable alternatives that avoid prime agricultural land." Because the

rationalization for the need to expand urban areas is done on a municipality-wide basis rather than on a region-wide basis, it is often not difficult to demonstrate the lack of reasonable alternative locations where urban growth can be accommodated. Natural feature protection in the policy statement was also supported by weak language that permitted exceptions and was open to interpretation. Housing policies were vague. Moreover, the Ministry of Municipal Affairs and Housing chose not to strongly enforce the aspects of the policy statement relating to the protection of ecologically significant areas, the containment of urban sprawl on agricultural land, and the need for transit-supportive development. ¹⁶¹

With the election of the Liberal government in October of 2003, the evolution of the land-use planning system in Ontario has taken a new turn. The new government has proposed several important changes to the planning system that would reintroduce many of the reforms adopted by the NDP in 1995, which were soon to be repealed by the Conservatives. The first step in the new Liberal government's program of planning reform was the introduction of Bill 26, The Strong Communities Act, in December 2003. This amendment to the Planning Act includes measures that would:

- prevent appeals by developers to the Ontario Municipal Board (OMB) of urban expansions that are opposed by elected municipal governments, and
- require that land-use planning decisions be "consistent with," rather than "have regard to," the Provincial Policy Statement.

The next step in planning reform was to propose major changes to the Provincial Policy Statement (PPS). Whereas the existing PPS has no air quality provisions and only limited reference to transit-supportive land use, the proposed PPS has several provisions that would help reduce air emissions by ensuring a transit-supportive urban form and transportation alternatives to the car. The proposed policy statement includes policies that would: provide for a multi-modal transportation system that is integrated with those of other jurisdictions;

- promote transit-supportive land use patterns;
- direct new development to areas well served by transit;
- provide housing / jobs in close proximity to one another;
- link transportation and growth planning.

The proposed PPS also provides a much stronger framework for managing the growth and limiting the expansion of the urban envelope by requiring municipalities to:

- favour intensification, redevelopment and infill of employment, residential and other lands prior to expanding onto greenfields;
- allow boundary expansions only at time of comprehensive municipal review;
- set targets for intensification / minimum densities (by upper-tier municipalities, where they exist), and
- plan infrastructure to support priority growth areas.

The reforms to Ontario's planning system will certainly provide a stronger framework for municipal planning in Ontario. However, from a Smart Growth perspective, there are still

¹⁶¹ Mark Winfield. 2003. *Building Sustainable Urban Communities in Ontario: Overcoming the Barriers*. Ottawa: Pembina Institute.

some weaknesses: The policy statement needs a greater focus on urban definition or structure and on transportation issues. The current version of the statement does not mention the need to concentrate development around designated nodes and corridors and to ensure these areas are well served by transit, walkable and diverse in terms of land uses. Also, the transportation section suffers from the lack of policies designed to reduce car use (e.g., there is no mention of the need to set parking requirements and manage parking facilities to discourage car use) or promote cycling and walking. ¹⁶²

6.4.2 Metropolitan planning

The brief historical summary of metropolitan planning initiatives presented above makes it clear that there has been no lack of planning initiatives in the GTA (or the larger southern Ontario area). We can even see in the various regional plans a number of common themes: control the spread of the urbanized area, increase overall densities, and encourage a definite urban structure based on nodes and corridors that would support a system of rapid transit. The problem has not been in the planning, but in the realization of the plans.

For most of the study period, the GTA had no single planning authority. Planning has been divided amongst the many local municipalities and upper tier governments that exist in the region. This means a lack of coordination within and across the region regarding where growth and accompanying infrastructure investments should occur. Within the region, municipalities often compete with one another to attract development – leading to overly optimistic plans, and over-designation of nodes and urban expansion areas, undermining transit-supportive land use. An over-abundant supply of land at the fringe depresses land prices and removes incentives to use land more efficiently. It is estimated that, even if current development patterns are maintained, enough land is available in the GTA and surrounding area until 2031 without expanding most current urban boundaries or infringing on the Oak Ridges Moraine. ¹⁶³

The lack of a GTA-wide planning authority means that the regional land use plans that have been offered have always suffered from a lack of carrots and sticks: they have been equipped neither with effective mechanisms to persuade key stakeholders to voluntarily come on board or with the legislated authority to force them to do so. For example, developers have expressed little interest in locating higher-density mixed-use projects within the designated nodes and corridors, provincial transportation planners have promoted highway expansion, and municipalities have shown a reluctance to have their land-use decisions influenced by GTA-wide boards or committees with no real authority to see their visions through. Homebuyers have been allowed to escape paying the full costs associated with low-density suburban development and few mechanisms have ever been put in place (other than inadvertent congestion) to discourage car use. Realizing the urban structure vision has depended on the force of official plans, which have proven to be unsuited to the expectations placed upon them.

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¹⁶² For a detailed critique, see Mark Winfield. 2004. *Comments on the June 2004 Provincial Policy Statement: Draft Policies*. Ottawa: Pembina Institute.

¹⁶³ IBI Group in association with Dillon Consulting and Metropole Consultants. June 2002. *Toronto Related Region Futures Study*. Prepared for the Neptis Foundation, Draft Interim Report, p. 47.

In the summer of 2004, the province moved to set up a regional plan with its discussion paper on a proposed plan for the "Greater Golden Horseshoe." The plan – entitled "Places to Grow" – promotes growth in existing urban centres, encourages intensification and compact, mixed-use development, and expands transit opportunities. The physical structure of the region envisioned in the plan draws heavily from the SGCZP report (and covers about the same region): A total of 15 (instead of the CZSGP's 16) urban centres are identified, including seven priority centres and eight emerging centres. The transit improvements proposed in the plan are somewhat more modest than those proposed by the SGCZP, but the plan incorporates the notion of a rapid bus network lacing the GTA and connecting the urban centres. Also of major importance in terms of regional planning is the newly enacted Greenbelt legislation, which creates a 1.8-million-acre protected area, stretching from Rice Lake, which is southeast of Peterborough, to the Niagara Peninsula.

6.4.3 Transportation planning

Our overview of transportation planning in the GTA revealed that there have been many GTA-wide initiatives that have been put forward by a variety of different agencies attempting to bring order to the regional transportation system. With the brief exception of the GTSB (established in 1999 and disbanded in 2001), there has been no coherent transportation plan or planning authority for the GTA. Urban regions elsewhere in Canada, including Vancouver and Montreal, have successfully implemented regional transportation authorities. But in the GTA, transit operators plan within the framework of their own modalities (rail, bus, subway, train) and their geographical (metropolitan, regional, municipal) borders while the province proceeds almost independently with the expansion of the highway network. There are few linkages among transportation modalities or operators and between transportation and land use goals. Although individual parts of the system may be well run, the existing transportation system in the GTA is widely considered to be inefficient, inconvenient, and congested. And according to many analysts, the system – especially transit – is massively underfunded. The chaotic nature of the system is a primary driver of urban sprawl and car dependency.

Over the last few years, pressure for government action to resolve this situation has mounted significantly. Academics and environmental groups have echoed real estate developers and business organizations in their demands for some kind of planning or coordinating body that could bring coherence to the transportation system in the GTA. ¹⁶⁶

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¹⁶⁴ Ontario Ministry of Public Infrastructure Renewal. Summer 2004. *Places to Grow: A Growth Plan for the Greater Golden Horseshoe*. Discussion Paper. Toronto.

¹⁶⁵ In their 1999 study *Funding Transportation in the GTA and Hamilton-Wentworth*, the IBI Group and Hemson Consulting estimated that the annual capital funding shortfall in GTA transportation and transit is \$800 million per year. The Toronto City Summit Alliance working group estimates that the annual operating shortfall to fund system growth is approximately \$500 million per year on top of the capital shortfall. See Toronto City Summit Alliance. April 2003. *Enough Talk An Action Plan for the Toronto Region*. Toronto. ¹⁶⁶ For example, see Pollution Probe, National Conference, April 29, 2003. "Remarks by Elyse Allan President and CEO," Toronto Board of Trade.

The provincial announcement that it intends to develop a growth management plan for the Greater Golden Horseshoe will help respond to these demands. *The Places to Grow* discussion paper released in the summer of 2004 gives priority to transit, would shift travel demand away from cars, and links with a well-defined urban structure of centres and subcentres. The province has also announced that it intends to create a new Greater Toronto Transportation Authority to help bring order to the transportation system and implement the transportation aspects of the growth management plan, but few details on this development were available at the time of writing.

6.4.4 Transportation funding

The most significant provincial actions affecting transportation patterns over the last few years have been changes in the funding for roads and transit. Traditionally, provincial governments in Ontario have balanced investment in highway expansion and roads with subsidies to municipal governments for transit, both capital and operating costs. In January 1997, the Conservative government eliminated all operating and capital support for public transit (which had averaged about \$600 million annually from 1995-1997), and withdrew from subsidizing municipal roads, but continued funding highway expansion. As a result, municipalities became responsible for all capital and operating costs for municipal roads and transit. Responsibility for subsidizing GO Transit, the province's network of commuter trains and regional buses in the GTA, was also transferred to municipal governments in the region.

These decisions placed a heavy burden on municipal budgets. Municipalities attempted to reduce costs by cutting routes or reducing service levels. Confronted with mounting public controversy over traffic congestion and the public health impacts of poor air quality in major urban centres, the government began to modify its policy stance on these issues. As part of the Smart Growth Ontario Initiative the government announced some major changes to the funding of transportation infrastructure. Although it did not restore operating subsidies for municipal transit, it partially re-entered the transit funding field in 2001 by announcing major new public transit funding programs: a 10-year, \$3 billion transit investment plan, of which \$1.25 billion was earmarked for expansion of inter-regional transit services in the Toronto area. The objectives of these major funding programs were to provide solutions to inter-regional and region-wide congestion and growth pressures; position transit as an attractive and financially viable alternative to automobile use; expand transit ridership and achieve a significant automobile-to-transit modal shift in key commuter transportation markets; and integrate transportation infrastructure planning with land use development strategies.

Undoubtedly, these major investments in transit would have helped to achieve the government's stated objectives but for the fact that these objectives were in conflict with another of the government's key goals: to bring major highways within 10 kilometres of 90% of the provincial population. In service of the latter objective, the government was also undertaking a campaign – also part of the Smart Growth Ontario initiative – to massively expand the province's highway system.

Although the public transit investments were added to SuperBuild's mandate in 2001, the corporation's emphasis in transportation matters had always been and remained the expansion of the province's highway network. From 1999 to 2003, on average, SuperBuild spent \$1 billion per year on highway improvements, over three times the average spending on transit in 2002-2004. Realizing the province's ambitious highway program, an expansion unprecedented since the 1970s, would cost over \$10 billion (the GTA components of the highway building program will be discussed below).

The conflicting objectives expressed by the Smart Growth initiative was perhaps inevitable given the nebulous definition given by the government to the concept of Smart Growth. The Smart Growth Ontario Initiative was based on three principles: "a strong economy, strong communities, and a healthy environment." Beyond this, the government did not offer any definition of what it meant by Smart Growth. Even the province's own Environmental Commissioner raised an eyebrow about the definition of Smart Growth being used by the government. "The Minister of Municipal Affairs and Housing said the Smart Growth goals were based on choice — the idea that individuals can choose where they want to live, and have the flexibility to live in the way they choose. The government calls this a 'made-in-Ontario' Smart Growth strategy... Our view is that the initiative is vague and remains somewhat amorphous." 168

The new Liberal government has combined the Smart Growth Ontario initiative with the SuperBuild Corporation to create Ministry of Public Infrastructure Renewal (PIR). Beyond this administrative reorganization, it has not provided any further definition of the goals of the Smart Growth Ontario initiative. The 2004 budget put forward by the new Liberal government raises capital spending on transit in the province from \$359 to \$448 million, but has maintained spending on highway construction and maintenance at \$992 million, approximately at the same annual level as that of the previous five years. ¹⁶⁹ This level of highway spending, a legacy of the previous government, has the potential to undermine the growth management efforts of the current government.

While capital investment in transit is crucial to enabling transit to offer a realistic alternative to the private automobile, a restoration of provincial subsidies for transit operation is equally important. The 2004 budget fulfilled the Liberal election campaign commitment to allocate two cents per litre of the provincial gasoline tax revenues to municipalities for public transit. This is projected to result in a contribution of \$312 million per year to the operation of public transit systems across the province.

6.4.5 Poor linkage between transportation and land use planning

One of the key barriers to expanding transit share in the 905 area of the GTA is the fact that as subdivisions grow, transit services are not implemented early enough to give new

 $^{^{167}}$ Actual spending on these programs in 2002/03 was just under \$200 million, while spending for 2003/04 was \$359 million.

¹⁶⁸Environmental Commissioner of Ontario. 2002. 2001-2002 Annual Report. Toronto: ECO, p. 70.

¹⁶⁹ Mark Winfield. July 2004. *Building Sustainable Urban Communities in Ontario: Towards Implementation?* Ottawa: Pembina Institute.

residents the choice of using transit. Instead, many people opt to purchase a first or second vehicle. When it is finally introduced into a growing area, travel mode is already firmly established and transit has to "catch-up" to other modes, namely cars. This issue can be addressed through the early introduction of transit services as new residential areas are constructed.

Another barrier to transit development is the lack of input by transit providers in the planning process, from official plans covering the whole regional municipality to subdivision plans for particular developments. This may result in community designs that are more difficult and expensive to serve by transit than necessary (e.g., less connected street patterns, poor development phasing that results in temporarily discontinuous collector streets, poor pedestrian connectivity with transit stops, transit stops too far from homes, etc.). A more proactive approach would see transit providers involved in planning consultation at the earliest stages in order to ensure that transit-supportive planning is respected both in the general principles and the technical details of planning and development decisions. A useful tool to facilitate this involvement would be a list of urban design guidelines to promote transit-supportive land use and street design. A template for such guidelines was prepared by the province in the early 1990s. 170

Early transit introduction and transit agency involvement in planning are practices that are already used by some area municipalities in the GTA – most notably Brampton, where it has helped increase transit ridership by 40% in four years, double the percentage of population growth for the same period ¹⁷¹ – but they need to be expanded to cover all municipalities with transit service.

6.4.6 Municipal plans and regulations

We have found that few developers are experimenting with the urban design and alternative standards suggested by the provincial government in its planning reports and guidelines. There are powerful forces militating against change. Attempts to use the more land-efficient standards have run up against the body of codes that are embedded in the practices of planning, public works, parks and engineering professionals. Less costly, more land efficient and environmentally friendly municipal infrastructure solutions are frequently not permitted by municipalities and other regulatory agencies. Municipal transportation engineers resist reductions in road rights-of-way and the introduction of lanes (which allows frontages to be reduced), parks departments object to smaller parkettes, school authorities do not like to see their school yards reduced in size, and legal departments frequently raise the paralyzing liability questions that the use of innovative housing designs and development standards may involve.

Parking is one of the key impediments to achieving smart development, especially at key locations, where a compact, walkable and transit-supportive urban form is desired. The large

¹⁷⁰ Ontario Ministry of Transportation and Ministry of Municipal Affairs. 1992. *Transit-Supportive Land Use Planning Guidelines*. Toronto: MTO and MMA.

¹⁷¹ FCM-CH2M HILL. 2002. *Municipal Governments and Sustainable Communities: A Best Practices Guide*. Ottawa: Federation of Canadian Municipalities.

areas devoted to surface parking result in low effective net densities and preclude the establishment of a compact, walkable, transit-supportive environment, which is particularly critical at key Smart Growth locations. Moreover, parking standards set down by municipalities are expensive to comply with in central areas and may discourage development altogether. Reduced parking in areas well served by transit is one way to address this.

The fact that transit-supportive and alternative development standards have been released as guidelines rather than as provincial policy means that application of these alternative standards is purely voluntary on the part of municipalities and developers. One way to address this would be to link provincial funding for infrastructure to the achievement of Smart Growth design targets.

Another factor that contributes to the lack of enforcement of regional official plans is the system of planning and development approvals that prevails in the GTA. As already mentioned, regional municipalities do not have direct control over development decisions; development proposals are submitted to, reviewed and approved by lower-tier municipalities. An often-cited factor to explain why regional plans are not fully implemented in local planning and development decisions is the absence of formal mechanisms to encourage lower-tier municipalities to enforce regional planning policies. For instance, a lower-tier municipality may adopt an official plan, approved by regional council, showing a good balance between areas designated for higher and lower density housing. Subsequently, however, a developer may propose that areas designated for higher density development be redesignated for lower-density development. An OPA may be prepared to this effect and adopted without regional objection, either because it was exempted from regional approval due to its local nature, or because councillors on the regional council do not want to force a showdown with a member municipality over such a minor issue. But minor decisions like this can accumulate to the point that the regional official plan is undermined.

Elsewhere in North America, selected jurisdictions have employed targets, checklists, guidelines and other implementation tools to ensure that policy statements are given weight in the day-to-day decisions of local planners and developers. The research conducted for this report did not unearth any decision-support tools designed to formalize Smart Growth review of development applications. The research conducted for this report did not unearth any decision-support tools designed to formalize Smart Growth review of development applications.

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¹⁷² For a discussion of such tools, see IBI. March 2002. *Strategy to Design a Framework to Guide the Advancement of Sustainable Urban Transportation Planning*. Draft Report. Ottawa: Environment Canada. ¹⁷³ Among lower-tier municipalities in the GTA, the Town of Milton in Halton Region has made some progress in this direction. Its Sustainable Development Guidelines for the new Eco-Tech Village cover transportation, stormwater management, water conservation, park facilities and landscaping and provide best management practices and performance targets for each item. The guidelines are weakened by the fact that they do not cover land use issues such as mix of uses and density. See: Town of Milton. October 2003. *Eco-Tech Village Pilot Project Sustainable Development Guidelines*. Prepared by CH2M HILL Canada Limited.

6.4.7 Subsidized sprawl

One factor that has been linked to sprawl in the GTA is the legal and regulatory framework governing municipal development charges. These fees are imposed on developers to pay for the municipal capital infrastructure needed to support growth and can amount to a substantial percentage of the cost of new housing (e.g., \$20,000). The development charge system undermines Smart Growth in a number of ways. First, although development charges can be used to fund expansion to the road system and capital spending to maintain transit at current service levels, they cannot be used as a source of funding for improvements to transit service levels or for the introduction of new transit technologies such as bus rapid transit due to constraints imposed by the Ontario Development Charges Act. 174

Secondly, many critics have pointed out that the way the charges are structured, being calculated on the basis of the number of units rather than on the amount of space and infrastructure used, encourages developers to create a smaller number of larger units and to favour greenfield locations for new development.¹⁷⁵ In addition, separate DC policies for innovative development that acknowledge the different costs associated with innovative development forms, such as apartments over garages or medium density apartment buildings, do not exist at present.

These issues could be addressed by charging for hard infrastructure on a land area basis, which creates an incentive to build more densely. The per hectare charge could vary from area to area to reflect actual cost variations, and could also vary by type of development where warranted (e.g. higher levels for retail, which contributes proportionately more to road costs). True-cost based charges for innovative forms of development (e.g. apartments over garages) could also be established up front. These changes would require modifications to the Development Charges Act and accompanying regulations that set out the calculation method for the fees and through changes to development charge bylaws.

Furthermore, the charges do not cover the federally- and provincially-funded infrastructure needed to support growth (e.g., schools, courthouses, airports, hospitals, new highway interchanges, rapid transit). This is not only another form of sprawl subsidy, but these investment decisions are rarely coordinated with Smart Growth plans. When newly developing suburban locations are targeted for new government buildings that could have been located on infill sites or in designated nodes, Smart Growth goals can be undermined. Public spending at the federal and provincial levels needs to be much more closely aligned with Smart Growth plans.

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¹⁷⁴ The Development Charges Act requires that the calculation be based on the capital costs associated with meeting performance levels typical of the last ten years. Obviously, an entirely new transit technology has no such track record and therefore cannot be included in the dc regime.

¹⁷⁵ Ray Tomalty. 2001. The Effects of Development Charges on Urban Form. Ottawa: CMHC.

7 The Montreal Region

7.1 Introduction

7.1.1 Description of the region

The Montreal CMA is made up of the City of Montreal, two large suburban cities (Longueuil and Laval), and 61 other municipalities on the North and South Shores of the St. Lawrence River. In 2001, the region had a population of 3,426,350 over a total land area of 4,047 square kilometres.

The Montreal region is a large, spread-out region comprising close to 50% of the provincial population. From a physiographic point of view, it is unique among the case study areas in that the core area is an island, where about half the regional population is located. A second large island – Laval – lies to the north of Montreal. The rest of the population is located along the North and South Shores and smaller patches of urban, suburban and rural settlement spread out across the St. Lawrence Valley.

The region as a whole covers about 4,000 sq km, of which approximately 57% is agricultural land. Very little farmland remains on the Island of Montreal, but there are still significant patches of woodland on the island and of course, Mont Royal, which serves as the central landmark of the region. Some larger former industrial sites have been redeveloped (Angus Yards, the Canadair Airport), and a few other such sites remain.

Montreal is a major economic development pole for Quebec and Canada. The city has a very diversified industrial base but its most dynamic sectors are linked to high-knowledge industries such as aeronautics, biotechnology and telecommunications. Montreal is the only Canadian city with four major universities and has the highest student population of any city in Canada. It also benefits from its proximity to large North American markets and from the fact that, among North American metropolitan areas with more than 1.5 million inhabitants, it has the lowest business costs. However, some of the basic sectors of the city's economy are not thriving and with regards to per capita GDP, a significant indicator of a region's economic vitality, Montreal ranks last out of the 26 largest metropolitan regions in North America.

In many ways, the Montreal region is unique in its housing profile. Tenants make up 50% of households in the CMA, higher than for the other study regions, where homeowners usually far outnumber tenants. The city's housing stock contains a very low proportion of single-family houses – 31% of the total number of units. Also unusual is the dominant housing style in the older areas, the "plex": a wood frame building of up to three storeys containing two to five units, each with a private entrance.

Montreal is one of the oldest urban areas in the country and much of the housing stock in the central area is deteriorating and needs to be upgraded. During the 1980s and 1990s, poverty

and unemployment in Montreal were among the highest of any major city in Canada. While the rate of unemployment has significantly improved in recent years, ¹⁷⁶ income differentials are very steep in some areas, with very well-to-do neighbourhoods such as Westmount cheek by jowl with impoverished areas such as Pointe St. Charles.

Very high densities (up to 8000 person per sq km) are found in the central area and densities remain high (over 5000 person per sq km) on the east side of the Island. Densities on the west side of the Island are lower (ranging from about 600 to 3000 persons per sq km). The entire Island has major arterials organized in a grid fashion but local streets tend to follow the grid in the centre and east whereas local streets in the west end follow a more conventional suburban pattern. Densities are moderate in Laval (about 1400 persons per sq km) and along the river corridor on the South and North Shores, but fall off quickly as one moves inland. Off the Island of Montreal, the region is structured more by its many autoroutes (divided highways) than by arterial roads. Low-density (less than 1000 persons per sq km) suburban communities with regional retail nodes sprawl out from key interchanges. A loose regional urban structure has emerged that includes Montreal's central business district as its hub, three sub-centres on the island of Montreal (Anjou, St. Laurent, Pointe-Claire) and two off-island sub-centres (Laval, Longueuil).

As a whole, the Montreal metropolitan region is compact relative to the other large cities included in this study. The average population density for the Montreal CMA is 846.6 persons/square kilometre, compared with 793.3 for Toronto and 690.3 for Vancouver. Montreal's higher density is also apparent when comparing central cities; the City of Montreal has almost 5,590 people per square kilometre while Toronto has 3,939 and Vancouver has 4,759.

The region is equipped with a fairly extensive public transit system, especially on the Island of Montreal where an underground subway and regular bus routes provide frequent service. Laval and the South Shore also have regular bus service. In the outlying areas, bus service is sparse. A series of commuter trains serve off-Island suburban areas to the south, west and north. The highway system in the region is relatively well developed, although there are some major gaps in the system. There are only 14 bridges and one tunnel linking the Island of Montreal to the surrounding parts of the region, a situation that leads to high degrees of traffic congestion and long commute times.

7.1.2 Regional growth patterns

Table 7-1: Population Distribution of the Montreal CMA, 1971-2001*

Territory	1981	1981 1		1991		
	(000s)	% of CMA	(000s)	% of CMA	(000s)	% of CMA

 $^{^{176}}$ The Montreal CMA's 2001 unemployment rate was 7.5%, compared to 5.9% in Toronto and 7.2% in Vancouver.

Former City of Montreal	1,029	35.22	1,018	31.75	1,039	30.38
Island of Montreal	1,760	60.26	1,776	55.40	1,813	52.97
Laval	268	9.19	314	9.81	343	10.02
Northern Ring	313	10.72	431	13.45	526	15.37
Southern Ring	579	19.84	684	21.34	740	21.63
Montreal CMA	2,928	100.00	3,205	100.00	3,422	100.00

Source: Statistics Canada (E-Stat)

Population growth in the Montreal region has been slow compared to many of the other study areas. Between 1981 and 2001, the region of Montreal grew at the rate of only 1% per year. As shown in Table 4-1, however, there has been a substantial shift of the population balance within the metropolitan area. In 1981, 35% of the regional population lived in the old City of Montreal, but this had declined to about 30% in 1991. Indeed, the former City of Montreal experienced a net population loss from 1981 to 1991, although the loss was stemmed after 1991.¹⁷⁷

Meanwhile, suburban areas have been growing rapidly: in Laval, and on the South and North Shores, the population has grown from a combined 40% of the regional population in 1981 to over 47% in 2001. Laval's share of the regional population has grown more slowly as migration into the area from the island of Montreal has been partly counter-balanced by out-migration to suburban communities further north, where growth has been strongest.

It is estimated that the region's population will grow to about 3.8 million inhabitants by the year 2021. This assumes a diminishing growth rate, from about 1% in the 1981-2001 period to about .9% in the 2001-2021 period. Furthermore, the demographic weight of the City of Montreal will continue to decline, with the province projecting that only 36% of new growth in the region will occur on the Island of Montreal.¹⁷⁸

7.1.3 Growth-related issues in the region

One of the key issues putting sprawl on the public agenda in the Montreal region is the link with the performance of the regional economy. During the 1980s and most of the 1990s, the Montreal economy gradually deteriorated. Unemployment levels rose to over 12% in 1991, for the first time higher than the rate of unemployment in the rest of Quebec, and one of the highest unemployment rates in any major North American city. Particularly hard hit was the

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^{*} Data for all years is constant with 2001 CMA boundaries.

¹⁷⁷ There is still substantial out-migration (mostly of young francophone households) from the Island of Montreal to Laval, the North and South Shores, but this loss is being balanced by immigration from the rest of Ouebec and abroad.

¹⁷⁸ Ministry of Municipal Affairs. 2001. A Shared Vision for Action: Planning Framework and Government Orientations, Montreal Metropolitan Region 2001-2021. Québec.

central city; in the period from 1981 to 1991, the old City of Montreal's share of metropolitan employment declined from 55% to 50%, while the North and South Shores experienced very significant increases in their share of employment from about 16% to 22% of the metropolitan total. Thus, many observers linked the economic troubles of the city with off-island sprawl.

The migration of population from the central area of the region to ever more distant suburban locations has resulted in serious fiscal strains for those municipalities facing stagnation or population decline. This is an issue for older suburban areas on the island of Montreal, and is becoming a concern for the more mature municipalities off the island, like Longueuil and Laval. Most affected by these changes, however, is the City of Montreal itself.

The City of Montreal has higher expenditure obligations due to its funding of regionally-significant recreational and cultural facilities, its higher policing and planning costs, higher social outlays, and greater infrastructure maintenance costs. Therefore, the tax rate in the central city tends to be higher than on similarly assessed properties in suburban locations. This has contributed to the flight of mobile residents and businesses to lower-tax suburbs.

In 1990, province-wide reforms reduced provincial transfers by giving municipalities responsibility for funding transit, roads, and other services. Because of the dependence on property taxes as a source of revenue, municipalities in the Montreal region tend to compete with each other for new residents and businesses as a way of adding to their assessment base.

Sprawl is also widely seen as undermining the efficient supply of urban infrastructure. As population deserts the city centre for the growing fringe, the expected benefits from investments in the older areas are unrealized while new investments are required in new areas. This applies to all municipal infrastructure, but in Montreal much attention has been paid to the impact of sprawl on the efficient provision of school buildings and the need to transport students. ¹⁸¹

Another issue associated with sprawl in the region is the increasing reliance on automobiles and the associated congestion and lengthening of commute times. Traffic conditions are particularly poor on and around the bridges linking the Montreal Island to the rest of the region. A 1997 conducted by the Quebec Ministry of Transport showed that the annual cost of traffic congestion in the region was over \$500 million, most in the form of lost time but also including wasted gas, car wear, pollution and greenhouse gas emissions. Five years later, an update showed the costs had risen to \$780 million. 182

One issue that makes Montreal unique among the study regions is the linguistic situation. French households have gradually emigrated to suburban locations, leaving French in a

¹⁷⁹ William Coffey. 1994. *The Evolution of Canada's Metropolitan Economies*. Montreal: Institute for Research on Public Policy.

¹⁸⁰ Task Force on Greater Montreal. December 1993. *Montreal: A City-Region*. Montreal.

¹⁸¹ Des Rosiers, Francois. 1992. "Urban Sprawl and the Central City." *Plan Canada* 32 (1): 14-18.

¹⁸² Ministry of Transport. 2002. Évaluation de la congestion routière dans la région de Montréal. Quebec.

more precarious position as the dominant language on the Island of Montreal. This issue has gathered importance over the 1990s, but broke into the open when the 2001 census showed that only 54% of households on the island spoke French at home. The need to stem suburban sprawl was thus linked to the survival of French as the dominant language in Montreal.

Finally, a number of serious environmental issues are associated with development patterns in the region:

- there is a low availability of green space in the heavily urbanized areas
- about 85% of the region's wetlands have been lost due to human intervention
- 40% of the region's shorelines have been urbanized
- a large number of the small suburban municipalities are unable to afford municipal recycling programs, with the result that the regional diversion rate is only 17% of the solid waste stream
- the region has suffered a higher rate of agricultural land loss than the rest of Quebec, and
- rising concentrations of ground-level ozone, which are closely associated with automobile use, have led to an increasing number of smog alerts in the region (64 such alerts in 2004).

7.1.4 Municipal organization and regional governance

At the centre of the region is the City of Montreal, a single-tier municipality that covers the Island of Montreal plus some smaller adjacent islands. When it was amalgamated in 2002, this new single-tier municipality replaced the 28 former municipalities on the island and the Montreal Urban Community, an island-wide upper-tier government. The new City of Montreal became responsible for police, public transit and road planning, the parks systems and island-wide planning, while the newly created boroughs became responsible for local services. The City of Laval, with a population of 343,000, was formed in 1966 when the 14 municipalities on Ille Jesus were amalgamated. The City of Longueuil is on the South Shore across from central Montreal. It was formed through amalgamation of eight former municipalities in 2002 and has a population of about 380,000

Beyond these three large cities, the region has 34 municipalities on the North and Shore and 40 on the South Shore. The large number of municipalities, some of them with tiny populations, creates a fragmented patchwork of local government that has not lent itself to effective growth management. The introduction of upper-tier municipal jurisdictions (regional county municipalities or RCMs) was meant to help coordinate services and stimulate more effective land use planning over wider areas. At present, there are 12 RCMs in the Montreal region.

The metropolitan region as a whole has never had a coherent governing institution with real powers to manage growth and plan infrastructure. Although many municipalities in the region have joint servicing arrangements that cover sub-areas of the region for particular municipal functions (water, transit, etc.), they had organized no effective region-wide

138

¹⁸³ Of the 114 off-island municipalities, 11 have less than 1,000 inhabitants, and 61 have between 1,000 and 10.000 inhabitants.

decision-making mechanism. The provincial government, which would normally lead regional planning efforts for such a large metropolitan area, has historically been reluctant to set up a rival government representing almost half the provincial population. The historical lack of an effective metropolitan planning entity meant that municipal frictions have been rife in the region and investment in infrastructure to support growth has been uncoordinated and somewhat inefficient.

In the early 1990s, the economic downturn in the region had put regional development patterns on the public agenda. The provincial government responded by striking a Task Force on Greater Montreal. Reporting in 1993, the Task Force targeted urban sprawl as a key challenge and recommended the creation of a metropolitan council that would have jurisdiction in matters of regional planning and development. However, the report came just before an election year at a time when bold moves by the province were unlikely to occur. Another factor may have been that the province found the proposed structure to be too independent of provincial control. The report's specific recommendations were not implemented but the stage was set for some sort of governance reform in the region.

In the mid-1990s, the province began to act to create metropolitan structures. First, the Metropolitan Transportation Agency (MTA) was formed in 1995 to coordinate public transportation investment and services in the region. The agency has an independent source of income (from car registrations and gas taxes, plus a small share of property taxes collected by municipalities in the region). It works with the sub-regional transit providers (Montreal, Laval, and South Shore) to coordinate existing transit services and directly manages commuter rail and bus services linking Montreal to the suburbs. It developed a regional transportation plan in 1997 (see below). At present, the MTA is an agency of the provincial Ministry of Transport (e.g., the director of the MTA is selected by the MOT), although the province says that eventually control will be transferred to a regional entity.

In 1996, the Parti Quebecois government established the Ministry of the Metropolis (Ministère de la Metropole), which provided some coordination of provincial decisions affecting the region. The Minister was given the task of coming up with a governance structure for the metropolitan region. In 1997, the government adopted a law that would create the Metropolitan Development Commissions, in charge of land use, transportation and environmental planning and coordination in the Montreal region, but the law was not put into effect due to resistance from suburban municipalities.

By the turn of the century, a consensus emerged that some kind of metropolitan governance was either desirable or inevitable. The province proceeded to pass legislation creating the Montreal Metropolitan Community (MMC), which covers a territory slightly smaller than the CMA (see map), with a population of 3,350,000. The MMC Council is made up of 28 mayors and councillors from member municipalities. It has equal representation from the City of Montreal and the surrounding suburbs, with the Mayor of Montreal serving as chairperson. The legislation gave the MMC responsibility for regional land-use planning, economic development, social housing, regional infrastructure, public transit and solid waste management. Although it has no power to tax residents or businesses, it does have the power to set up tax-sharing arrangements among member municipalities in order to lighten the tax load in the older municipalities where growth is slower and costs are higher. Unlike the

governing council that had been outlined by the 1993 Task Force (mentioned above), the MMC will remain under control of the provincial government: all metropolitan plans and policies will have to be submitted to Quebec for ministerial approval.

Observers have called the MMC "a coordinating agency that can propose specific planning directions, but without real governing powers." Indeed, it appears that the MMC will not serve as a strong metropolitan planning authority. The first meeting of the agency erupted into bitter fights with the suburbs pitted against core municipalities. Since then tangible progress has been made on the waste dossier, with the publication of a solid waste management plan for the region in 2004. A land use plan is expected to appear in the near future, based in large part of the provincial government's own Planning Framework, published in 2001. This planning framework strongly favours consolidation of existing urban areas and preservation of agricultural and natural lands.

Figure 7-1: Map of the Montreal Region

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¹⁸⁴ Gilles Sénécal, Pierre Hamel, Ludovic Guerpillon, Jean Boivin. 2001. "Aménager la métropole nature: retour sur les efforts passés de planifcatin dans la région de Montréal et essai d'évaluation de la situation actuelle des banlieures." *Geocarrefour*. Vol. 76 no. 4. Pages 303-317.

7.2 Smart Growth Policy and Objectives

7.2.1 Provincial

The 1960s saw a vast increase in the rate of suburbanization in the Montreal region, aided by an aggressive program of highway expansion¹⁸⁵ and housing programs that favoured home ownership in suburban areas. By the late 1970s, the provincial government could no longer ignore the structural problems presented by patterns of growth in the Montreal region.

A key provincial initiative to manage growth came with the creation of the Office de planification et de développement du Québec (OPDQ) in 1967. This agency had no implementing powers but was mandated to undertake studies on development trends and to identify potential problems.

Studies undertaken by the OPDQ indicated that the creation of the MUC in 1969 had not resolved regional issues, that the agricultural economy was under pressure in the region, that infrastructure costs needed to be brought under control, that the central area was experiencing a gradual loss of population, and that provincial action was required to better coordinate provincial policies and the planning activities of municipal governments. The lack of a coherent framework within which to make major provincial investments had already caused the government to impose a moratorium on further subway construction in the region in 1977, and to withdraw commitments to fund major water and sewage treatment plants on the island of Montreal.

In this context, the Parti Québécois government introduced two major growth management tools in 1978: the Agricultural Land Protection Act, which affected all agricultural regions throughout the province, and a growth management strategy specific to the Montreal region called the Preferred Option.

The plain around Montreal, especially to the south, is the most important agricultural area in Quebec. By the 1970s, however, serious problems had arisen in the farm economy of the region: farmers were avoiding long-term investments, much land was being taken out of production or converted to urban use, and production was only a fraction of its potential. Studies pointed to the leap-frog, low-density residential development in the suburban regions of Montreal, and the speculative activities of developers, as the primary culprits. ¹⁸⁷

In response, the Ministry of Agriculture prepared Bill 90, the Protection of Agricultural Land Act (Loi sur la protection des terres agricoles). Despite strong municipal opposition, it became law in 1978. The Act established an agricultural zone where it would be prohibited

¹⁸⁵ 400 kilometres of expressway were built by the provincial Ministry of Roads between 1958 and 1976 within and around the island of Montreal.

¹⁸⁶ Office de planification et de développement du Québec. September 1977. *Evolution et orientation du développement et de l'aménagement de la région de Montréal*. Québec: OPDQ.

¹⁸⁷Jean-Claude Thibodeau, Marcel Gaudreau, and Jeannine Bergeron. 1986. *Le Zonage Agricole: Un Bilan Positif.* Montreal: Institute national de la recherche scientifique.

to subdivide or use a lot for non-agricultural purposes without authorization from the Commission for the Protection of Agricultural Land.

To establish the original boundaries of the so-called "green zone", the Commission began by identifying those municipalities whose agricultural lands would be protected. Land adequate to accommodate an estimated twenty years of urban growth – at then current rates of growth – were left in the "white zone" around each urban area. Maps showing the proposed green and white zones were put forward by the Commission, and municipal comments were invited. Once the permanent boundaries were fixed, requests for inclusion or exclusion from the zone were considered by the relevant municipality and then forwarded with a recommendation to the commission, which made a final decision. As we will see in below, this system has been modified several times over the 27 years of its existence, but remains in effect.

As in other provinces, the Quebec Ministry of the Environment has policies on wetland and flood plain protection, shoreline buffering, stormwater management, and woodlot preservation that require setting aside land from development. The first environmental policies were formulated in 1987 and focused on shoreline protection. In 1996, these policies were expanded to include other ecological features. Municipalities are required to incorporate environmental protection policies into their municipal plans and to avoid approving development that would violate provincial policies.

7.2.2 Regional

7.2.2.1 Land use planning

The second tool adopted by the provincial government in 1978 was specific to the region of Montreal. Called the "preferred development option for the region of Montreal" (the "Preferred Option" for short), this initiative was meant to address the key problems facing the region:

- the increasing consumption of land per household and leapfrog development on the fringe, with the associated waste of social resources, and
- the gradual depopulation of the metropolitan core where the remaining population grew older and poorer and financially less able to support major regional services.

The Preferred Option was based on three principles:

- consolidate the urban fabric within the present built-up areas of the region (Montreal, Longueuil and Laval)
- give priority to redeveloping the Island of Montreal and stem urban sprawl off the Island
- pay special attention to improving the quality of life on the Island of Montreal.

The Preferred Option was an attempt to guide the strategic decisions made by the government in the Montreal region to curb urban sprawl: decisions on the location of government facilities, infrastructure investments such as new subways and freeways, sewage treatment plants, greenbelts, and so on. This vision was to be realized by a moratorium on

bridges and freeways connecting the central city to its suburbs, which served as the basis for the 1979 transportation plan for the region, and by preventing the urbanization of farmland in the outer reaches of the region (see below). The Option was also meant to provide guidance to the newly formed RCMs in adopting their first strategic plans and for strategic planning by the MUC on the Island of Montreal.

Since 1978, the government has frequently reiterated its support for the Preferred Option and the basic principles behind the planning concept have continued to show up in government policy statements. For example, in February 1997, the Minister of the Metropolis and the Minister of Municipal Affairs announced that the government would increase its efforts to coordinate its policies, programs and projects in the Montreal region in accordance with three land use strategies: consolidate existing urbanized areas and limit the spread of the urban area, strengthen activity poles and revitalize mature centres, and optimize use of existing infrastructure before extending services to new areas.

7.2.2.2 Transportation planning

In 1988, the Liberal government responded to growing automobile congestion in the Montreal region with a transportation plan calling for the expenditure of \$1.6 billion for system improvements in the metropolitan region. This announcement was severely criticized for violating the Preferable Option and promoting sprawl. Critics pointed to the new highways that would be built in the outer part of the region, and to the subway extension to Montreal North, where commuters from suburban Laval could be served, rather than to Ville d'Anjou (on the eastern side of the Island of Montreal), which the MUC had already identified as a growth node. The plan did little to strengthen the other nodes in the region's urban structure, thus undermining transit development.

After the Parti Quebecois came to power in 1994, the new government undertook to revise the regional transportation plan along lines more compatible with Smart Growth principles. The Ministry of Transportation (with the participation of the Ministry of Municipal Affairs) identified urban sprawl as a prime cause of growing inefficiencies in the transport system and proposed the following principles for the new Montreal region transportation plan:

- promote the integration of the various modes of transport
- promote public transit

• optimize the use of existing infrastructure. 189

The plan that emerged from this process was unveiled in 2000.¹⁹⁰ This 10-year plan commits the province to \$3.8 billion in spending to undertake "the biggest construction project in Quebec since the 1970s".¹⁹¹ Unlike the 1988 plan, the 2000 plan focused on transit

¹⁸⁸Frances Frisken. 1994. "Provincial Transit Policy-Making for the Toronto, Montreal and Vancouver Regions." In *The Changing Canadian Metropolis*, edited by F. Frisken, 497-540. Berkeley and Toronto: The Institute of Governmental Studies and the Canadian Urban Institute.

¹⁸⁹ Quebec Ministry of Transportation. 1995. *Towards a Transportation Plan for the Region of Montreal. Phase 1: Choices.* Quebec City: Ministry of Transport.

¹⁹⁰ Quebec Ministry of Transport. April 2000. *Plan de gestion des déplacements*. Région Métropolitaine de Montréal.

¹⁹¹ Michael Mainville. April 12, 2000. "\$3.8 billion pledged for roads, transit." *Montreal Gazette*, p. A1.

investment as a means of curbing congestion. The \$3.8 billion in projected spending was split between investment in public transit (\$1.56 billion) and road and highway repair (\$1.36 billion). By way of transit projects, the plan proposed eight new metro stations, several new suburban train lines, new bus-only lanes on the Island of Montreal, and a bridge over the St. Lawrence reserved by public transit. Only one major highway expansion project was proposed: extending Highway 30 on the South Shore. This plan, if implemented, would tend to favour consolidation of the transit system and reduce car dependency in the region. Since the Liberals returned to power in 2003, the government has announced higher spending levels on highway repair and expansion, including a new auto route bridge over the La Prairie Rivers to connect the east end of Montreal to Laval. Spending could be as much as \$3 billion over the next three years.

While the 2000 plan was in preparation, the newly formed Montreal Transportation Agency (MTA) was preparing its own strategic plan covering public transit. This plan was adopted by the MTA in 1997 and provided for the development of the metropolitan transit system to 2007. This included an integrated fare system, a system of reserved bus lanes, park and ride facilities, new suburban rail lines and improvements to existing rail lines. Capital costs were to amount to about \$2 billion over 5 years and ridership was expected to increase by 1% per year.

This plan was more or less completely implemented when it was thoroughly revised in 2002. With the new Montreal Metropolitan Community (MMC) in place (which has approval power over the MTA plan) the new plan focuses more directly on the need to link transportation planning with the management of growth in the region, to achieve higher densities, mixed-use development, and a defined urban structure based on activity nodes. New infrastructure is to include new reserved express bus routes, a doubling of park and ride spaces, new metropolitan bus terminuses, extensions to several metro lines, new and extended commuter rail lines to the north and east, and even new tramway projects in the downtown. 192 Projected capital costs are over \$6 billion to 2012 and ridership is expected to increase by 1.7-2.7% per year.

7.2.3 Municipal

Until the end of the 1970s, there was no legislation in Quebec governing land use planning. Municipalities controlled zoning, lot creation, and construction activities on an independent and voluntary basis. In 1979, soon after the Protection of Agricultural Land Act, the Land Use Planning and Development Act was passed to create a basis for local and regional planning. The Act provided for the creation of regional municipalities (municipalités regionales de comté or RCMs), all of which would have a minimum population size and maximum territorial size. Typically, a RCM council is comprised of the mayors of the component lower-tier municipalities, with a chairperson elected by the council members. The RCMs covered the entire province except the territory already included in the MUC, the Quebec Urban Community and the Outaouais Urban Community. The upper-tier RCM is responsible for strategic planning while the lower-tier municipalities are responsible for

¹⁹² Agence Métropolitaine de Transport. December 2003. Plan strategique de developpement du transport metropolitain. Montréal.

detailed planning. Unlike the MUC, the RCMs were not given responsibility for delivering regional services, such as water, sewage and transit.

According to the Act, the RCMs were obliged to create development plans that give local municipalities direction on general land uses, urban limits and areas for urbanization, identification of land uses of regional interest because of ecological, heritage or cultural reasons, requirements for regional infrastructure, approximate densities permitted, and the location and type of major roads. Once the regional plan is approved by the provincial government, local municipalities are required to pass official plans that corresponded to it within two years of its adoption.

All RCMs in the Montreal region had adopted official plans by the end of the 1980s. This first generation of plans were typically mere compilations of lower-tier aspirations and therefore tended to confirm existing development patterns. A second round of official planning was undertaken by the RCMs in the mid-1990s, this time with more policy guidance provided by the province on the contents of each plan. Provincial policy guidelines included:

- promote the consolidation of existing urban areas, favour more compact development patterns at higher densities, and provide for a greater mix of land uses
- give priority to the revitalization of downtowns and older areas
- manage the extension of urban envelopes so as to minimize economic costs (such as the need for new infrastructure), and to promote the economic feasibility of public transit
- manage the extension of the urban envelope so as to minimize environmental costs, such as the consumption of farmland, and to respect provincial environmental policies on waterways, shorelines and floodplains, and so forth
- improve housing conditions and adapt housing supply to the changing socioeconomic context.

On the Island of Montreal, the provincial government required that a plan be produced by the MUC covering the items mandated for an RCM plan. MUC planners were faced with a number of serious challenges: population and employment had decentralized toward the extremities on the island, while the most valuable infrastructure remained largely in the central area: universities, hospitals, museums, cultural attractions. Several growth poles had emerged outside the central city – in Anjou, Pointe-Claire and Saint-Laurent – but they were not well served by public transit. The central city was declining in its share of population and employment, and the built environment was aging. New, weakly structured, residential areas were developing on the periphery of the island. Regionally significant green spaces were disappearing.

The 1986 development plan, which came into effect in 1987, contained two general principles that reflected the objectives of the Preferred Option: consolidation and structuring of the urban fabric in the suburban areas of the MUC, and revitalization of the central area of the MUC. In pursuit of the first objective, the plan contained a number of important policies:

• employment growth to be concentrated in the designated growth poles

- an urban limit line was established on the western side of the island to preserve remaining farmland
- intensification around transit stations was promoted
- consolidation of the urban fabric was encouraged
- medium and high-density housing was favoured, especially near existing and planned infrastructure.

Measures to achieve the second objective included:

- rehabilitate the existing housing stock
- promote housing for families
- promote rental housing
- maintain the residential function of the downtown and adjacent areas.

Of course, policies and plans promulgated by higher-orders of government favouring consolidation of the urban fabric cannot be realized unless lower-tier municipalities adopt appropriate policies themselves, i.e., policies that would support intensification. While we cannot here review the planning policies of the 64 municipalities in the Montreal CMA, we can mention efforts made in the City of Montreal. In 1992, the City adopted its first master plan, which included planning policies to intensify the downtown in order to make use of existing infrastructure, maintain a lively street life and safe atmosphere, and reverse the population decline that had plagued the city, especially its downtown area, since the 1970s. The plan removed regulations that dictated lower-density ceilings for residential projects than for other land uses in the downtown.

Although the plan was supposed to be revised in 1997, a new master plan had to wait until 2004, after the old City had been amalgamated with its Island suburbs. The new master plan is very much focused on protecting remaining green spaces, reducing car use, increasing transit and walking, consolidating the urban fabric on the Island and stemming off-island sprawl.

7.3 Smart Growth Outcomes

7.3.1 Intensification of growth rather than expansion of development into greenfield areas

The area identified by the Preferred Option to serve as the focus of population growth since 1978 was the Island of Montreal, especially the old City of Montreal, and the old City of Longueuil. Table 7-2 shows the degree to which growth was focused in these areas. It shows that only 13.4% of the total growth in the Montreal CMA was accommodated in the target areas from 1981 to 2001. While the Preferred Option did not set specific targets, it would be difficult to conclude that this level of intensification could be called significant by any measure.

Table 7-2: Population growth in target areas, 1981-2001

Ī	Pop	Pop	Pop	Growth	% of	Growth	% of	Growth	% of
	1981	1991	2001	1981-	MCMA	1991-	MCMA	1981-	MCMA

				1991	Growth	2001	Growth	2001	Growth
					1981-1991		1991-		1981-
							2001		2001
Former									
City of									
Montreal	1028.6	1017.7	1039.5	-10.90	-3.83	21.80	10.07	10.90	2.17
Island of									
Montreal	1760.1	1775.9	1812.7	15.80	5.55	36.80	17.00	52.60	10.49
Old City									
of									
Longueuil	124.3	129.9	128	5.60	1.97	-1.90	-0.88	3.70	0.74
Total		2923.5							
Target									
Areas	2913		2980.20	10.50	3.69	56.70	26.19	67.20	13.41
CMA	2920.8	3205.5	3422	284.70	100.00	216.50	100.00	501.20	100.00

Source: Canadian Census.

7.3.2 Take advantage of potential intensification opportunities

Montreal was once the industrial powerhouse of Canada. Economic restructuring and decentralization of industrial activity out of traditional industrial areas has left a legacy of vacant buildings on contaminated lands on the Island of Montreal – especially in the core area and the east end where oil refineries are located - and in the older suburbs on the South Shore. The province estimates that 4,200 ha or 60% of vacant developable lands on the island of Montreal are contaminated to some degree, with a further 800 ha off the Island. According to the Ministry of the Environment, it could cost \$1.5 billion to completely decontaminate these lands. This represents an important impediment to redevelopment in the affected areas.

Quebec's 1988 *Brownfields Redevelopment Policy* (Politique de réhabilitation des terrains contaminés) set out three levels of site decontamination, depending on the intended use (industrial, commercial or residential). In practice, the policy required that contaminated soil on lands intended to be used for residential or a mix of commercial and residential uses be removed. The costs associated with removal and disposal of soil was often in excess of the value of the land. This simple fact prevented many brownfield redevelopment projects from proceeding for most of the 1990s. Large sites within mature areas of the Montreal region, and with very high potential for redevelopment, lay fallow. ¹⁹³

Realizing that its brownfields policy was in fact preventing the use of brownfield lands, the province revised its policy in 1998 and moved towards a risk management approach. This model allowed contaminated soil to be left in place under certain conditions without preventing redevelopment. At about the same time, the province introduced a funding program to help developers pay the costs of remediating soil, making Quebec the first (and still only) province in Canada with such a program.

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¹⁹³ André D'Aragon and Martin Durocher. 2003. "La décontamination de sites urbains réhabilitables." *Urbanité*. July, pp. 49-52.

The Urban Contaminated Sites Rehabilitation Program (Revi-sols) was introduced in 1998 to spur revitalization of urban areas through the rehabilitation of contaminated sites with strong potential for residential and other types of development. The program assists property owners and developers in paying for the clean up of sites when such clean up is needed to allow redevelopment to go ahead. For each project, the program contributes 50% of the eligible clean-up costs. Program activities in Montreal are administered by the City of Montreal according to a memorandum of agreement signed by the two parties in July 1998. The province has signed framework agreements with other municipal governments in the Montreal region.

Since 1998, 132 development projects on the Island of Montreal have had their site clean-up costs subsidized through the Revi-sols program covering a total land area of nearly 206 hectares. Of this number, 58 projects have included residential uses for a total of 5,624 dwelling units built, under construction or in the planning pipeline (as of 2003). One of the most notable projects has been the redevelopment of the Angus Shops, a CPR railway yard in the Rosemont area of Montreal that was used until 1992 for maintenance and repair of rolling stock and construction of new railway equipment. Of a total site area of 1,240 acres, 309 acres were contaminated. 800 medium-density dwelling units have been or are being built on the site, along with a supermarket, industrial mall, and a biotechnology centre. ¹⁹⁴

The City of Montreal has also encouraged the reuse of industrial and commercial buildings as a means of revitalizing older neighbourhoods. For example, the conversion of industrial buildings along the Lachine Canal to residential uses has been facilitated by the City since the mid-1980s. Many of these projects have been strongly resisted by local residents concerned about gentrification of low-income areas and loss of employment lands. Another form of intensification that has been encouraged by the City is the adaptive reuse of commercial buildings in older parts of the city, such as in Old Montreal, Griffintown, and the city's fur district. Because of the declining demand for older industrial buildings such as warehouses in the central area, owners have approached the City about converting their buildings to residential use.

A few planning barriers to intensification remain in the City of Montreal. Building code requirements that prevent conversion of commercial or industrial buildings, a long and rule-governed approvals process, green space requirements, and parking requirements may play a role in reducing developer interest in housing construction within the city. Basement apartments are illegal in the city, but this has probably had little impact on housing densities because of the low proportion of single-family homes.

7.3.3 Denser, mixed-use development

As with other regions covered in this study, data on density changes over time in newly developing areas of the Montreal region are scarce. One study, looking at the impact of the 1978 law to protect agricultural lands, revealed that densities in one suburban county, La Prairie, had continued to decline following the adoption of the law: from 42.8 persons per ha in 1976 and 40.3 in 1988. A study update concluded that the tendency towards lower

148

¹⁹⁴ Ray Tomalty. 2004. Residential Intensification in Canada: Municipal Initiatives. Ottawa: CMHC.

densities had continued with densities in the area down to 36.2 in 2000.¹⁹⁵ The study authors speculated that the findings probably applied to other suburban areas in the region. This hypothesis is supported by another study that found that between 1971 and 1991, population growth in the region was 14%, but urbanized land increased by 31%, suggesting settlement at diminishing densities.

A few large scale projects in central areas of the region – such as Bois-Franc in St-Laurent, the Angus Yards, and on Nun's Island – feature a wide range of housing types in a fine grain mix that help achieve higher than typical densities. These projects also have more public space and better pedestrian facilities than do typical suburbs. However, despite their innovations, they perpetuate the segregation of land uses, which enforces car dependency. Only one significant project in the region is known for achieving higher densities and a mix of land uses: the Village de la Gare in St. Hilaire (on the South Shore). This transit-oriented-development on 73 ha of land beside a commuter train station is being privately built in collaboration with the Metropolitan Transport Agency (MTA). It will have higher densities, a range of different housing types (townhouses, duplexes, triplexes, and low-rise apartment buildings), a mix of functional uses within walking distances, lower parking standards and ample pedestrian and cycling facilities. Road right of ways are narrower than typically the case in suburban areas. Development of 1000 housing units and 25,000 sq feet of commercial space will take place on the site over the next ten years.

7.3.4 Increase range of housing types

Table 4-3 shows that detached dwellings rose from an average of 40.9% for the years 1981-85 to 52.6% of all housing starts for the years 1996-2001, while apartments fell from 46.4% to 32.9% over the same time period. Row housing has increased its share of housing starts from 2.9% between 1981 and 1985 to 7.3% between 1996 and 2001. And, as Table 4-4 shows, the portion of detached housing in the total housing stock has increased over the 1981-2001 period, going from less than 26.8% to more than 31.8%. The proportion of apartments also increased, growing from 45.7 to 55.9% of the housing stock during the same time period.

Table 7-3: Housing starts in the Montreal CMA by type, 1981-2001, # and % by five-year aggregates ¹⁹⁶

							1996-	1996-
	1981-85	1981-85	1986-90	1986-90	1991-95	1991-95	2001	2001
	No.	%	No.	%	No.	%	No.	%
Single Detached House	7074	40.9	11900	41.8	6254	49.3	5904	52.7
Semi-Detached and								
Duplex	1693	9.8	1083	3.8	1169	9.2	706	6.3
Row	496	2.9	650	2.3	1205	9.5	726	6.5
Apartment and Other	8022,8	46.4	14860	52.2	4047	31.9	3865	34.5

¹⁹⁵ Shoma Mushid. 2004. "L'urbanisation de l'ancien comté de La Prairie." *Urbanité*. Juin-Juillet. pp. 31-34. ¹⁹⁶ Figures for housing starts and total dwellings were taken from CMHC Housing Statistics. The discrepancy between the two data sets may be due to several factors including the Statistics Canada's changing definitions for multi-unit housing.

Total	17286	100.0	28493	100.0	12675	100.0	11201	100.0
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Source: CMHC Housing Statistics

Table 7-4: Total dwellings, Montreal CMA, 1981-2001

	1981		1986		1991		1996		2001	
	#	%	#	%	#	%	#	%	#	%
Single										
Detached	275208	26.8	312306	28	368245	29.8	415794	31	450675	31.8
Semi										
Detached										
Duplex	122201	11.9	88115	7.9	66729	5.4	65722	4.9	123325	8.7
Row	141711	13.8	27885	2.5	37071	3	44262	3.3	50075	3.6
Apartment										
Other	487775	47.5	687074	61.6	763675	61.8	815492	60.8	793280	55.9
	1026895	100	1115380	100	1235720	100	1341270	100	1417355	100

Source: CMHC Housing Statistics

7.3.5 Increase supply of affordable housing

Compared to most of the other study regions, population growth in Montreal has been slow; the region grew 5.7% between 1996 and 2001. While housing prices and rents have increased, due to slow growth housing costs in Montreal remain relatively affordable compared with other Canadian metropolitan areas. Housing prices increased by 25.5% between 1998 and 2002. Relatively low housing prices have encouraged homeownership in Montreal – ownership grew from 42% in 1981 to 50.2% of households in 2001.

While rental costs have increased – 15% between 1998 and 2003 – this growth is relatively low compared to other study regions such as Vancouver and Toronto, and rents remain low in Montreal compared to other Canadian metropolitan areas. However, higher rents coupled with low vacancy rates in recent years – 0.7 in 2002 and 1% in 2003 – have made finding affordable rental housing increasingly difficult in Montreal. The result is a general decline in affordability for both ownership and rental housing in Montreal. As shown in Table 7-5, 36% of renters and 16% of homeowners spent 30% or more of their household income on housing costs in 2001. Of the renters, 18% paid 50% or more of household income to rent.

Table 7-5: Percentage of households paying 30% of more of household income on shelter costs (owners and renters)

1981*		1986		1991		1996		2001	
Owners	Renters								
17.9	13.5	15.4	36.2	13	12.6	19.3	44.1	16	36.4

^{*}Affordability cut-off for 1981 was defined at 25%

Quebec is one of the few Canadian provinces that continued to fund social housing after the federal government wound down its housing programs in the early 1990s. The former City of Montreal partnered with the provincial government to create several programs to increase the affordable housing stock, One example was the Acquisition, Renovation and Sales

Program, in which the city purchased an average of 1,200 units of rental housing units a year, renovated them, and sold them as housing co-ops. The City also launched programs to rehabilitate dilapidated housing in the private sector. The Central Neighbourhood Revitalization Strategy is a multi-program initiative for the rehabilitation of 10 distressed districts in the City of Montreal. The program involves subsidies to property owners to renovate or demolish and reconstruct residential buildings.

One source of affordable housing in Montreal is the so-called "grow home", designed by architects at McGill University. A grow home is a small two-storey home with a frontage as small as 14 feet and an unfinished interior that can be adapted to changing needs. The small size was primarily motivated by the desire to increase the affordability of housing and to respond to the housing needs of the increasing numbers of people living alone and in single-parent families. The City of Montreal has shown flexibility in its zoning standards by permitting development on very small lots. Several grow home projects have been built in the city, especially in the east end where greenfield development is still taking place. New units sold in a range between \$76,000 and \$85,000.

7.3.6 Increased transportation choice and reduced car usage

The Ministry of Transport in conjunction with the City of Montreal (or the former MUC) has conducted an origin-destination study for the Montreal region every five years since the 1970s. Until 1998, the studies reflected a deepening car dependence and falling transit modal share, as shown in Table 7-6 and Table 7-7. From 1987 to 1193, for example, transit ridership during the morning rush hour fell by 9.7% while car trips increased 14.8% and total trips increased 5.7%. From 1993 to 1998, transit ridership fell a further 5.3% while car trip increased 14.5% and total trips increased 8%. In terms of modal split, transit declined from 24.7% in 1987 to 18.52% in 1998. ¹⁹⁷

This trend appears to have reversed itself since 1998: The 2003 study showed that transit ridership increased 7.8% over the previous five years, while car trips went up only 4.7% and overall trips by only 3.4%. The ridership increase represents a gain of about 1.6% per year, which is 60% above the goal for ridership increase found in the 1997 MTA strategic plan. The modal share of transit rebounded to 19.25% in 2003. The share of cars continued to increase throughout the 1987-2003 period, but at a much slower rate in the final five years (only 0.5%).

Table 7-6: Trips by Mode, Montreal Region

Mode	2003	1998	1993	1987
Auto	1,192,000	1,138,000	993,000	865,000
Transit	364,000	337,000	356,000	395,000
Other motor	145,000	152,000	150,000	132,000
Non motor	190,000	193,000	190,000	205,000
Total	1,891,000	1,820,000	1,689,000	1,597,000

¹⁹⁷ Metropolitan Transportation Agency. 2003. *Enquête Origine-Desination 2003*. Montreal.

151

Table 7-7: Modal Share, Montreal Region

Mode	2003	1998	1993	1987
Auto	63.04%	62.53%	58.79%	54.16%
Transit	19.25%	18.52%	21.08%	24.73%
Other motor	7.67%	8.35%	8.88%	8.27%
Non motor	10.05%	10.60%	11.25%	12.84%
Total	100.00%	100.00%	100.00%	100.00%

If we look at the intra-regional breakdown, we see that between 1998 and 2003 transit ridership increased in all sub-regions, including suburban areas in the North and South Shores. The largest percentage increases were in the off-island suburban areas but most of the absolute increase (15,000 our of a total of 27,000 trips) took place on the Island of Montreal. According to the MTA, this increase reflects an increase investment in transit facilities in the region, including new express routes, commuter train lines, and park and ride lots.

Table 7-8: Transit Trips by Sub-Region, Montreal Region

Sub-Region	2003	1998	1993	1987
Montreal	266,000	251,000	272,000	307,000
Laval	27,000	24,000	23,000	27,000
Longueuil	38,000	37,000	39,000	43,000
South Shore	17,000	13,000	13,000	11,000
North Shore	16,000	12,000	10,000	7000
Total	364,000	337,000	357,000	395,000

Table 7-9: Transit Trips by Sub-Region, Percentage Change, Montreal Region

Sub-Region	1998-2003	1993-1998	1987 - 1993
Montreal	6%	-8%	-11%
Laval	13%	4%	-15%
Longueuil	3%	-5%	-9%
South Shore	31%	0%	18%
North Shore	33%	20%	43%
Total	8%	-6%	-10%

7.3.7 Preserve agricultural land

As mentioned above, Quebec introduced agricultural zoning in 1978 with the passage of the Act to Preserve Agricultural land. Henceforth, land within the agricultural zone could not be subdivided without approval from the Agricultural Commission. Sufficient land for urban growth was left unzoned around each urban centre to allow for an estimated 20-year supply at then current rates of urbanization.

The Act has now been in place for over 25 years although analysts seem to disagree about it effectiveness. A study published in 1986 concluded that the law had helped rationalize urban development and encourage municipalities to fill in vacant areas before expanding onto agricultural land, but this conclusion was based on interviews with municipal officials and was not supported by any objective evidence. The authors noted that developers did not perceive any shortage of land available for development in the region and that land prices had not increased at a rate greater than the general inflation rate, two indications that the policy did not in fact constrain urban development. Other authors note that in the years following the adoption of the 1978 law, residential densities did not increase in suburban areas. The newly created RCMs were required to undertake development plans, but growth projections in many of these plans ignored the boundaries set by the Commission. Some analysts concluded that the agricultural land protection law was not sufficient to manage growth in the region and that some kind of metropolitan planning body was needed to lend a coherence to RMC plans and decisions by the Commission.

In 1985, the newly elected Liberal government amended the legislation to permit a revision of the boundaries of the agricultural zones throughout the province so that they would better accord with municipal growth plans. RCMs and lower-tier municipalities submitted requests for dezoning of agricultural lands and these were routinely granted by the commission. ²⁰¹ In the Montreal region, the revisions to the agricultural zone were completed in 1991, where a total of 32,395 hectares were withdrawn, about 10 percent of the region's farmland. ²⁰² In Laval alone, 4,000 hectares of land were dezoned over this six-year period. As one observer noted, "obviously the Commission did not see itself as the protector of agricultural land in the region."

After the Parti Quebecois resumed office in 1994, the agricultural land protection policy was considerably strengthened. The government realized that there was not much point in protecting agricultural land if it was not going to result in viable farming, so in the mid-1990s it introduced a variety of programs and initiatives to improve the industry and to make it economically attractive. In 1996, the name of the Act was changes to The Act to Protect Agricultural Land and Activities (La loi sur la protection du territoire et des activites agricoles). In 1997, the province again amended the Act to require that the development plans of the RCMs within the green zone must show how agricultural areas would benefit through municipal planning. The amendments also limited the grounds on which decisions of the Commission could be appealed to errors of law and fact, i.e., the Commission's

¹⁹⁸ Jean-Claude Thibodeau, Marcel Gaudreau, Jeannine Bergeron. 1986. *Le zonage agricole, un bilan positif.* Montréal: INRS-Urbanisation.

¹⁹⁹ Jeanne Wolfe and Jane Glenn. 1992. "The Effects of Regional County Plans and Agricultural Zoning in the Region of Montreal." *Plan Canada*. November. Pages 9-13.

²⁰⁰ Brian Fahey. 1992. "Zone agricole et étalement urbain: principaux enjeux." *Plan Canada*. November. Pages 6-8.

²⁰¹ Marie-Odile Trépanier. 1993. "Metropolitan Governance in the Montreal Area." In *Metropolitan Governance: American/Canadian Intergovernmental Perspectives*, edited by D. N. Rothblatt and A. Sancton, 53-110. Berkeley, CA: Institute of Governmental Studies, University of California.

²⁰² The amount of land withdrawn from the agricultural zone prior to the revisions (i.e., from 1978-1991) is not known. The Commission did not compile aggregate statistics for that period.

decisions could not be appealed based on the merit of the case. This had the immediate effect of reducing appeals from 10% to 4% of the Commissions decisions. ²⁰³

In 2001, further amendments to the Act gave the CPTAQ the powers to be proactive. If a developer makes an application to build in the green zone then a search much first be made in the municipality's "white" zone to see if there is a suitable alternative for the activity envisioned. If there is, then negotiations are undertaken with the owner, the developer (which includes not only house builders, but also school boards, industry, utilities providers, and the like), and the municipality in order to determine its suitability. Intrusions into the green zone can only be made if no other alternatives exist.

These changes appear to have had a salubrious effect on the integrity of the agricultural land protection system in the Montreal region. Only 277 hectares of agricultural land were removed from the green zone between 1991 (when the major revisions were made to the green zone boundary) and 2003. In its 2003-2004 annual report, the commission reported that urban sprawl was placing strong pressures on the agricultural zone but that the commission was committed to applying the regulation requiring applicants to show that alternative locations with less impact are not available. Of 20 applications in the Montreal region to exclude lands from the green zone, representing 967 hectares, only 9 were granted, for a total of 186 hectares removed.²⁰⁴ The report noted that failure to meet the alternative location requirement was the main reason given for most of the rejected applications.

7.3.8 Preserve lands essential to maintaining regional ecosystem functions

The region of Montreal has approximately 133 sq km of public green spaces (municipal, regional and provincial parks) or about 3.5% of the region's land surface. The Island of Montreal has the highest share of green space in the region, covering 11% of its surface, while Laval has 3.8% greenspace, the South Shore 3% and the North Shore 2%. Forests cover 606 sq km of the region or about 16% of the region's surface. About 22% of the North Shore is wooded, 17% of the South Shore, and 8.3% of Laval. Only 0.8% of the Island of Montreal is forested. Less than 1% of the region is comprised of wetlands, mostly concentrated in the off-island shores along the St. Lawrence. Approximately 188 sq kms or 4.3% of the region are included in 57 natural areas that are protected by provincial legislation. Thus, a total of 25% of the region is covered by natural areas. A further 15% of the region is covered by rives, lakes and streams.

The significant natural coverage offers residents and tourists a wide variety of recreational opportunities in the region. However, ecosystem health suffers from the lack of continuity and integration among the region's natural areas. The Island of Montreal, for instance, which is well furnished with public parks and still has some forested areas on private lands, has no integrated system of connected natural areas. Likewise the shorelines along the region's major rivers have been largely developed and there are few waterfront trails or other natural corridors that would provide access to water bodies and link the remnant natural areas into a coherent network. Off the Island, the situation is better because the

²⁰⁴ Commission de protection du territoire agricole du Québec. *Rapport annuel de gestion*, 2003-2004. Quebec.

²⁰³ Commission de protection du territoire agricole du Que bec. 2003. Rapport annuel de gestion: 2002-2003.

remaining farmland performs some functions typically carried out by natural areas (e.g., provides a habitat or migration routes for some species, absorbs greenhouse gases, allows infiltration of rain water, etc.). In other ways, however, farmland actually stresses the ecological integrity of the region, especially in the form of toxic run-off from large-scale pig operations.

The natural areas in the region outside of public parks and those areas protected by provincial legislation are vulnerable to development pressures. From 1992 to 2005, 75 hectares of wooded areas on the Island of Montreal were lost to development annually. At this rate, the remaining 1600 hectares of forests outside public parks would disappear in just over 20 years. A similar rate of loss applies to the rest of the Montreal region: a thorough study revealed that losses from 1986 to 1994 totalled 13,324 ha, amounting to 30% of the 1986 wooded areas. Much of the remaining wooded areas are designated for urban development in municipal plans. If the trend continues, wooded areas of the metropolitan region will disappear by 2029. 205

7.3.9 Encourage employment growth in the metropolitan core and designated growth centres

A loose urban structure has emerged in the Montreal region, including the central business district in the core of the region and several sub-centres along roughly east-west and northsouth axes. On the Island of Montreal, sub-centres have evolved in Anjou in the east and Saint-Laurent/Dorval in the west. North of Montreal, Laval city centre and Mirabel have emerged as important economic poles, as has Longueuil on the South Shore.

While there has been a gradual shift in employment away from the CBD to suburban locations within the region, the economic activity centres remain relatively strong. From 1981 to 1996, the six economic poles increased their share of the region's jobs from 32.1% to 33.2% and by 1999 the weight of the poles had risen again to 33.7% of total employment in the region.

Table 7-10: Montreal Economic	Poies.	199n-	1999

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Poles	Jobs 1996	Jobs 1999	% change
			1996-1999
Downtown	243,213	296,720	22.0
Saint-	127,221	142,487	12.0
Laurent/Dorval			
Laval	36,799	50,047	36.0
Anjou	43,707	58,814	34.6
Longueuil	25,368	28,159	11.0
Mirabel	11,319	10,780	-4.8
Total Poles	487,627	587,007	20.4
Total Montreal	1,468,756	1,740,000	18.5

²⁰⁵ Se ne cal, G., P.J. Hamel, R. Haf, C. Poitras and N. Vachon. 2000. L'etude sur la problematique quebecoise concernant l'amenagement du territoire et les changements climatiques. Montreal: INRS Urbanisation,

region			
% Poles of	33.2	33.7	0.5
Montreal Region			

Source: Ministry of Municipal Affairs. 2001. A Shared Vision for Action: Planning Framework and Government Orientations, Montreal Metropolitan Region 2001-2021.

The evidence suggests that the employment poles identified in MUC plans and provincial planning documents appear to be strengthening. However, from a growth management point of view, the main advantages of urban sub-centre concentration are the opportunities they provide for high-quality transit services and the potential for a fine grain mix of uses in a higher density context. It does not appear that Montreal sub-centres meet these objectives.

First, the "centres" are in fact quite sprawling in nature with much employment in single storey buildings – e.g., in Dorval. Secondly, the sub-centres do not tend to have a fine mix of land uses that would encourage walking or biking. At the heart of the Laval and Anjou sub-centres are regional shopping centres surrounded by oceans of parking. Finally, the main factor contributing to the growth of the sub-centres appears to be their proximity to major highways – e.g., Dorval is between highways 20 and 40, Laval Centre is between highways 13 and 14, and so on. Public transit investments have not generally been coordinated with this polynuclear vision; only the downtown and Longueuil have metro stations. From this we can conclude that although the concentration of employment in specific areas of the region provides opportunities to achieve Smart Growth goals, these goals have not been attained in the Montreal region.

7.3.10 Provide infrastructure to reduce ecological impacts of development

The main ecological issue from an infrastructural point of view in the region of Montreal is wastewater treatment. In the early 1990s, less than half the regional population was served by sewage treatment facilities. Raw sewage was being dumped into the region's five main rivers (Ottawa, St. Laurent. La Prairie, Milles Iles, and Richelieu), especially from the municipalities on the North Shore and the former City of Montreal. Water quality was poor (especially in Riviere La Prairie) and every beach in the region had already closed due to fecal coliform contamination.

Since that time, the Quebec government has dedicated billions of dollars to the building of facilities in the region of Montreal. A major sewage treatment plant on the eastern tip of the Montreal Island was constructed in 1995. Since then, water has dramatically improved. Fecal coliform counts, suspended particles, and phosphates have declined in most areas. In 2002, 56% of the monitoring stations around the Island of Montreal showed that water quality met government standards for human activities. Most of the region's beaches are now considered safe for swimming. ²⁰⁶

However, problems still persist. The older sections on the Island of Montreal have combined sewers and in instances of high precipitation or snowmelt, the water treatment plant may be

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²⁰⁶ City of Montreal. 2004. *Plan strategique de developpement durable: Diagnostic environnemental de l'ile de Montreal.* Montreal.

overcharged. This results in an overflow of untreated wastewater directly into the St. Lawrence River and causes water quality problems downstream from Montreal. In addition, certain areas of the region still do not have access to sewage treatment facilities; wastewater still goes directed into rivers untreated.

This situation is expected to be partly addressed in the near future. In 2002, the Quebec government created its National Water Policy, which includes a plan to encourage municipalities to build stormwater retention ponds that will reduce runoff to waste water treatment plants. This measure will reduce overflow incidents at the sewage treatment plants and lessen downstream pollution during storms.

Other than this major accomplishment in sewage treatment, the Montreal region is not recognized as a leader in green infrastructure. The federal government built a "living machine" on St. Helen's Island where Expo '67 was located. The facility cleans the wastewater emitted from an Environment Canada facility on the island by passing it through an artificial wetland.

There are few green roofs in the region (the Chateguay public library on the South Shore is an exception), although the City of Montreal recently announced that it is studying the feasibility of greening the roofs of municipal buildings.

7.3.11 Summary of Smart Growth Policies and Outcomes

Positive

- population loss from the former City of Montreal stemmed during the 1990s
- Montreal's downtown has been successfully revitalized as a living and working environment
- the main poles of economic activity appear to have been strengthened in the region
- transit ridership throughout the region has been rising since 1996
- removals from the agricultural zone have been much smaller in recent years
- housing costs in the Montreal region have risen, but shelter is still affordable relative to other metropolitan regions
- the wastewater infrastructure in the region has been upgraded significantly and impacts on water quality have been dramatically reduced, although some localized problems remain.

Negative

- development in suburban areas outside the zones targeted for concentrated growth continued unabated
- large amounts of farmland have been removed from the agricultural reserve since it was created, especially during the revision of the agricultural zone from 1985-1991
- the loss of forest cover, wetlands and other ecologically valuable features throughout the region has proceeded apace

- there is no evidence, outside isolated exceptions, that greenfield growth is deviating from conventional suburban patterns of segregated land uses, curvilinear street patterns and low densities
- car use has steadily grown although the increase modal share of cars appears to have nearly levelled off in the late 1990s.

7.4 Factors Explaining Results

7.4.1 Weak influence of the provincial growth management vision

The main statement of a provincial growth management vision for the Montreal region was the Preferred Option, first announced in 1978 and afterwards frequently reiterated. However, the vision was not well received by suburban municipalities, who resented the constraints it imposed on growth. The lack of any concrete enforcement mechanisms meant that the vision was not very effective in influencing the decisions of local governments in the area. In theory, RCMs were supposed to adopt plans that reflected the goals of Preferred Option. Studies have shown, however, that the development plans of the suburban regional municipalities violated the regional vision in their growth projections and land designations. ²⁰⁷ Unwilling to dictate planning decisions to municipalities, the government directives to local officials became less and less precise through the years. ²⁰⁸

Another factor that weakened implementation of the Preferred Option was the province's failure to match its own strategic decisions in the region with the requirements of the vision. The Liberal government elected in 1985 lifted the moratorium on highway construction and invested in new highways in the outer suburbs, froze major public transport funding, extended water and wastewater facilities to previously unserviced areas of the region, and adopted policies that weakened the agricultural zoning law. Little tangible effort was made to rehabilitate inner city areas. After that, the Preferred Option came to be seen as a statement of good intentions that had limited impact on the form of growth in the area. The government has occasionally paid lip service to it, but admitted in 2001 that "little follow-up had been done to ensure its implementation."

7.4.2 Weak growth management by RCMs

The RCMs were created by legislation in 1978 in order to improve sub-regional growth management and implement the regional Preferable Option plan. However, RCM plans have had only moderate or little influence on actual development patterns, which are more directly controlled by municipal zoning. The failure of the RCMs to act as effective regional planning agencies can be partially attributed to their institutional mandate and structure. RCMs have no responsibility for providing infrastructure, such as roads and sewage, and therefore have little leverage with local municipalities. Furthermore, RCMs are governed by

²⁰⁷ Louise Quesnel. 1990. "Political Control Over Planning in Québec." *International Journal of Urban and Regional Research* 14 (1): 25-48.

²⁰⁸ François Charbonneau, Pierre Hamel, and Michel Barcelo. 1994. "Urban Sprawl in the Montreal Area: Policies and Trends." In *The Changing Canadian Metropolis: A Public Policy Perspective*, edited by F. Frisken. Berkeley, CA and Toronto: University of California and the Canadian Urban Institute. ²⁰⁹ Ibid.

councils that are indirectly elected. This arrangement gives lower-tier municipalities an effective veto over regional decisions. ²¹⁰

Given these institutional characteristics, it is not surprising that the RCMs have failed to become a political forum of action independent from the local municipalities. Strong provincial guidance might have counteracted this situation and allowed the RCMs to play a more assertive role. It appears, however, that this was not forthcoming. For instance, the province has not provided population targets for the various RCMs that would be in keeping with the need to limit growth in some locations and concentrate it in others. This resulted in highly optimistic growth projections in the RCM plans and far too much land designated for urbanization. An analysis of first generation RCM plans showed that land designated for development would accommodate 1.7 million additional residents and double the area dedicated to industrial development, both of which were well beyond even the most optimistic projections for the region. ²¹²

7.4.3 Weak provincial policies for guiding municipal planning

The province had proposed that RCMs adopt policies on the density of new development, but these were considered to be optional rather than mandatory. The Ministry may have made recommendations about density, but generally would not refuse to endorse plans that ignored them. Thus, the RCM plans tended to have a surfeit of detached dwellings on large lots as these housing forms tended to be favoured by lower-tier municipalities trying to maximize tax receipts and by developers trying to maximize profits. Provincial policies paid little attention to the need for new developments to support transit use. Consequently, they were generally oriented to car use, being located near highways instead of transit routes and characterized by segregated land functions and curvilinear street patterns that discouraged transit provision. In short, without strong provincial policies, the RCMs could not serve as effective instruments of growth management, stem sprawl or favour alternatives to the automobile as travel choices.

Guidelines issued by the Ministry of Transportation in 1994, entitled Transportation Planning and Revising Regional Official Plans (Planification des Transports et révision des Schémas d'aménagement), were designed to address some of these growth management shortcomings by giving RCMs stronger guidance in their second generation plan reviews. "In order to minimize urban sprawl, which affects not only the efficiency of the transport system but also entails significant costs in infrastructure and other services, the RCM may attempt to modify these tendencies" by using the following measures:

- establish an urban boundary that would consolidate the urban tissue
- indicate priority zones for development and redevelopment and densities within these zones
- raise the densities along principal transit routes

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²¹⁰ Quesnel, 1990. See note 207.

²¹¹ Charbonneau, Hamel, Barcelo, 1994. See note 208.

²¹² AMT. 1997. See note 192.

• diversify land use in order to reduce automobile dependency. ²¹³

Since then, the policies have been updated on a number of occasions. Although no study is available of the impact of these reforms, it is debatable whether they will be able to substantially alter the suburban landscape. The guidelines are largely optional in character, and are not accompanied by any quantitative targets (e.g., densities, intensification, housing mixes). Growth management policies are vague and lack definable targets and control mechanisms, and the control of lower-tier municipalities over development is almost completely unchallenged by provincial policies. This may reflect the unwillingness of the provincial government to alienate suburban and rural voters, who enjoy great political influence in Quebec City. It may also reflect the loss of provincial leverage occasioned by the 1990 decision to move toward the fiscal independence of municipalities.

Provincial environmental policies have largely been largely ignored by municipalities in their community planning and approval decisions. A recent study undertaken by the Ministry of the Sustainable Development, Environment and Parks showed that 85% of municipalities in Quebec had not incorporated the province's 1996 ecological protection policies into their community plans. Critiques have pointed out that municipalities do not have the resources to map out ecological features and that the province has few levers with which to enforce its policies on recalcitrant municipalities.²¹⁴

7.4.4 Absence of a metropolitan planning agency

The Montreal region has been characterized by a very low level of cooperation between central city and suburban municipalities. Conflict has been fuelled by historic grievances. The City of Montreal resents the power that rural and suburban municipalities have traditionally wielded in Quebec City, despite their lesser population and economic importance, and the subsidization of off-island development provided by the province in the form of new schools, hospitals and highways. Suburban municipalities claim the City of Montreal is wasteful in its spending on mega-projects (like the Olympic Stadium) and badly managed with a highly paid and unproductive municipal labour force, none of which they are interested in subsidizing through metropolitan institutions. Ethnic and class cleavages also contribute to the conflict. This distrust and conflict hobbled regional land use and transportation planning in the area for decades.

Until recently, the provincial government showed little interest in creating a truly metropolitan planning agency for the region. With more than half the population of Quebec in the Montreal region, the province has clearly been reluctant to create a metropolitan administrative super-structure that would rival its own political influence.²¹⁶ Instead, the

²¹⁶ Trépanier 1993. See note 201.

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²¹³ Quebec Ministry of Transport. 1994. *Planification des Transports et révision des Schémas d'aménagement*. Ouebec.

²¹⁴ Louis-Gilles Framcoeur. March 22, 2005. "La protection des écosystèmes aquatiques est une vraie passoire." *Le Devoir*, p. A3.

²¹⁵ Andrew Sancton. 1985. *Governing the Island of Montreal: Language Differences and Metropolitan Politics*. Berkeley, CA: University of California Press.

provincial government preferred to mediate conflict among local interests and provide direction on the metropolitan scale, no matter how ineffective an arrangement this was.

The result was that the Montreal region had – until recently – no overall planning body responsible for land use planning or infrastructure development. By the early 1990s, growth in the outer suburbs, declining economic and fiscal conditions in Montreal, and the pressure on the provincial government to rationalize expenditures in support of urban development, brought the issue of governance and planning in the Montreal region to a head. Throughout the 1990s, one government commission after another concluded that some from of metropolitan governance structure was urgently needed in order to prevent further economic decline of the region. However, it would take the province ten years to create a metropolitan planning body, in the form of the MMC. Meanwhile sprawl would proceed unabated.

7.4.5 Advent of metropolitan planning

As mentioned above, the MMC was created by the provincial government in 2000. The agency is required to issue a strategic land use plan for the metropolitan and the draft plan is expected to be made public in 2005. In order to guide the formulation of this plan, the provincial government issued its Planning Framework in 2001. These principles link back to the Preferred Option of 1978 and the MUC plan of 1982, including:

- consolidate the existing urban areas and limit urbanization on the periphery of these zones to those areas that are already serviced with municipal infrastructure
- avoid extending infrastructure to nonurbanized areas
- encourage a dynamic centre for the urban region, including revitalized central neighbourhoods
- strengthen the six growth poles to focus employment, and connect them with highquality transit
- link transportation planning to land use planning in order to shift demand to transit and help consolidate already urbanized areas
- build communities with a mix of housing types and an adequate supply of housing affordable to all households
- protect and reclaim a robust agricultural zone
- protect and develop an accessible network of green spaces and waterways.

It is still too early to predict how successful the MMC will be in fulfilling its potential role in bringing the region towards the Smart Growth vision expressed in the provincial framework document. However, several observations can be made in this context.

The MMC does not have executive powers, but is a coordinating agency whose plans must be approved through a majority vote of the MMC and ratified by the Minister of Municipal Affairs. Its power comes from its ability to develop strategies to integrate decision-making across the region and across sectors (land use, waste, housing, environment, transportation, culture) and to channel investments where they are considered most beneficial for the region as a whole.

The MMC's ability to coordinate and integrate major decisions in the region and to stem sprawl may be compromised by the fact that the founding legislation gave it only a vague responsibility for planning public transit. In practice, the management of public transit is still conducted by the MTA (whose directors are appointed by the province) and transportation planning resides with the Quebec MOT. As concluded by other observers of the situation, it would be more efficient if one agency, namely the MMC, were responsible for all these functions.²¹⁷ This would also allow the MMC to play a stronger role in coordinating land use and transportation planning in the region, a role that is central to achieving the Smart Growth vision set out for the region by the province.

Fiscal arrangements is another issue that will affect the ability of the MMC to carry out its Smart Growth mandate. The MMC has no direct taxing power. Its revenue comes from annual contributions from member municipalities (which takes into account each member municipality's growth and property wealth) and provincial grants. In 2004, its operating budget was less than \$75 million, or about \$20 per inhabitant. In comparison, the annual budget for the City of Montreal is nearly \$4 billion. If the MMC absorbs the MTA, it would also gain fiscal stability from the transfer of MTA funding sources. But if the MMC is to play a more important role in metropolitan growth management, it will need to have the resources to finance major infrastructure improvements and provide metropolitan services. New sources of funding may be needed to serve this purpose, such a metropolitan tax.

7.4.6 Municipal fragmentation and fiscal competition

The large number and small size of many municipalities in the Montreal region does not lend itself to effective regional growth management. This situation is aggravated by provincial fiscal reforms over the last 20 years that have increased municipal reliance on property taxes to fund services. This unusual dependence on tax revenue has heightened the competition among municipalities for tax assessment and resulted in overzoning for both employment and residential land uses.

Merging existing municipalities into larger communities is one way of dealing with the fiscal impetus to sprawl. The provincial government has tried to accomplish this by using both carrots and sticks. In 1993, the government announced a plan to encourage cities and towns to merge. The plan was to merge 375 small communities across Quebec into 187 larger municipalities. The program offered grants and technical assistance to municipalities that would agree to merge. Few municipalities took advantage of the program in the Montreal area. This led the provincial government to undertake a more assertive program of forced amalgamations both on the Island of Montreal, where 29 municipalities were coalesced into a single Island-wide city, and off the Island, where the nine municipalities on the South Shore were amalgamated under the name of the largest component, Longueuil.

Unfortunately, municipal amalgamation is also a politically risky undertaking because of the link between local identity and municipal structure, the sense of community engendered by small municipalities, and the presumed greater opportunities for democratic participation they offer. Resistance to the forced amalgamations in Montreal, Quebec and Gatineau

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²¹⁷ OECD. 2004. Territorial Reviews: Montreal. Paris.

regions contributed to the defeat of the Parti Quebecois in the 2003 provincial election. The incoming Liberal government carried out its promise to allow referenda on amalgamation and as a result several municipalities in each new mega-city are now preparing to de-merge. On the Island of Montreal, 15 of the municipalities that were forced into union will resume their status as independent jurisdictions in January 2006.

Even where successfully undertaken, municipal amalgamation can only go so far in addressing sprawl. While it may reduce the incentive for adjacent suburban communities to compete with one another for new low-density residential and non-residential development, it will do little to dampen the competition of suburban municipalities with higher-tax municipalities on the Island of Montreal; for similar houses off the island, property taxes are almost half those on the island. In order to address the latter problem, some form of fundamental fiscal reform will be required. Toward this end, Serge Ménard, Quebec's Minister of State for the Metropolis since 1996, suggested that a uniform tax for non-residential properties be instituted across the Montreal region, but this measure has never been implemented. Instead, the new MMC has moved to institute a form of tax sharing, whereby a small percentage of new assessment is funnelled into a regional development fund. For the moment, the fund is being used primarily to finance projects that will enhance public access to water bodies in the region. The "Blue Fund" will help develop shoreline parks, marine facilities, pedestrian/bike trails, and contribute to the renaturalization of shoreline areas.

7.4.7 Subsidized sprawl

A frequently cited cause of sprawl in the region is the lack of correspondence between the cost of housing on the urban fringe and the true costs associated with low-density fringe growth. Unlike other provinces in Canada, Quebec does not currently have a system of development charges that are applied routinely to all development projects based on a formula related to the size of the project and calculated to cover all off-site infrastructure needs. In Quebec, infrastructure was traditionally paid for and constructed by municipalities, in part because developers and builders were too small to handle such large expenses. In recent years, subdivision agreements with developers have become more common, but they have generally dealt only with on-site hard costs. Major off-site costs associated with growth, such as water treatment plants and new arterial roads, were usually subsidized from general revenues.

As transfers from the province declined after the fiscal reforms of 1990, there was increasing pressure for developers to pay the true costs associated with new development. Since 1994, the Planning Act has permitted municipalities in Quebec to require developers to construct (or pay municipalities to construct) off-site infrastructure or facilities made necessary by their developments. This is a step toward internalizing some of the costs of suburban development. However, these payments are negotiated by the municipality on a project-by-project basis, a process that typically leaves a large share of off-site infrastructure costs on

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²¹⁸ Globe and Mail February 6, 1996, page A2.

²¹⁹ In 1992, only 6.4 percent of capital spending by municipalities was finance by developer contributions.

²²⁰ Enid Slack. 1994. Development Charges in Canadian Municipalities: An Analysis. Toronto: ICURR.

the shoulders of the municipality. Moreover, these charges do not cover soft infrastructure, such as schools, police stations, fire stations, libraries, and so on. The end result is that much of the infrastructure necessitated by new development in Quebec is still paid for through general taxation, an arrangement that works to subsidize and encourage sprawl.²²¹

7.4.8 Fragmented delivery of transit

Although the gradual and long-term decline of transit ridership characterizes many metropolitan areas, decline in Montreal was undoubtedly abetted by the lack of a body (until the mid-1990s) that could coordinate transit delivery in the region.

The creation of the MUC in 1970 led to the take-over of transit services on the island of Montreal by a single operator, but it excluded the rapidly growing suburban municipalities. By 1986, a further 20 transit authorities had formed in the Montreal region, with some serving several municipalities through intermunicipal transit agreements.

The problems with this arrangement were obvious. First, the MUC was subsidizing transportation services that were being heavily used by suburban residents in their daily commutes onto the Island. Meanwhile suburban municipalities refused to help pay for the services – the MUC Transit Commission operated and funded not only the subway and bus systems on the Island, but also the commuter trains serving the off-island suburbs. Secondly, the lack of coordination among the large number of transit authorities resulted in an inefficient and inconvenient system with poor linkages and multiple fares for trips that crossed service boundaries. This was doing nothing to promote transit use as the region grew and travel behaviour adapted to include cross-regional trips.

In an attempt to resolve these issues, the province brokered an agreement in 1989 between the MUCTC and the Laval and South Shore transit agencies. The aim was to set up a regional transit coordinating agency (CMTC) to arrive at a more equitable distribution of costs and benefits in the region, and to get consensus on new projects such as subways or bus lanes on bridges. The province agreed to subsidize the costs of operating the CMTC in order to reduce conflict among its members, and to pay the full capital costs associated with subway and commuter rail expansion. While the new agency excluded the 20 small transit operators in the outer reaches of the region, it was at least a step in the right direction.

In 1990, however, fiscal reforms introduced by the province entailed a major cut in transfers to municipalities for transit operations. Then, in 1995, the province announced that it would stop two major transit subsidies in Montreal: one for suburban trains and one for the CMTC. Furthermore, arguments among members of the CMTC prevented them from arriving at a workable regional plan. The council was widely considered to be a failure and was abolished in 1995.

164

²²¹ Government of Quebec. 1999. Pacte 2000: Rapport de la commission nationale sur les finances et la fiscalite locales. Quebec.

7.4.9 Improvement in transit services

As noted above, transit ridership has rebounded across the metropolitan area, up an average of 1.7% annually after 1996. The current strategic plan for the MTA projects that this increase will continue and perhaps attain an average of 2.7% over the next 10 years. This may in part reflect the turnaround in population loss on the Island of Montreal, where transit use is most intensive, but a more important factor is undoubtedly the improvements in transit services that have resulted from the Ministry of Transportation's decision to set up a new metropolitan transportation planning agency in 1996.

The Metropolitan Transportation Agency (MTA) administers the metropolitan system of transit, including the subway system, suburban trains, and the intermunicipal bus lanes. It plans and establishes fares for the sub-regional transit agencies, and redistributes revenues to reflect the geographic distribution of users throughout the metropolitan region. The MTA ensures that the various sub-regional systems are coordinated in terms of routes and schedules in order to facilitate cross-regional transport. Finally, the commission plans and oversees the investment of new funds in the regional transportation system. In this matter, it takes direction from the regional transportation plan that the Quebec government drew up in 1996 in conjunction with local stakeholders.

The MTA's impact on transit ridership in the region flows largely from the significant improvement in the region's transit services. Since its creation in 1996, the agency has added three new suburban train lines to the two existing lines, improved service quality and quantity on all lines, enhanced connections among different modes of transport (e.g., bus and train, train and metro, car and train), and integrated transit fares and services across the metropolitan region.

The agency has been more successful than its predecessor for several reasons. First, its geographical area of coverage embraces the entire commutershed of the Montreal region, not just the municipalities at the centre of the region. Secondly, the MTA has independent and stable sources of funding in the form of gas and parking taxes and a small share of property taxes from municipalities in the region. Thirdly, instead of allowing the agency to be neutralized by disputes among political representative of the constituent municipalities, the government decided that it would be directed by provincially-appointed administrators, who have provided strong leadership to the agency.

Positive as this transit turnaround is, it must be kept in perspective. Although now increasing, the transit modal share is still lower than it was even ten years ago, and much lower than it was 20 or 30 years ago. Furthermore, transit ridership is not increasing at the expense of car trips – both are going up simultaneously at the expense largely of non-motorized trips. Finally, the number of trips by auto is increasing at a faster rate than the overall regional population growth.

These facts suggest that the form of development in the region is still moving away from one that promotes walking and biking and towards one that favours the car as the primary travel choice. Most of the development in the region over the time transit ridership has turned around has occurred in suburban locations with more or less conventional suburban

designs, a form that strongly favours car usage. Another factor that may be important here is that measures to attract more transit riders have not been matched by measures to discourage automobile usage, namely a reduction in parking spaces, increased parking rates, road or bridge tolls, added gas taxes, and so on.

7.4.10 Revitalization of the city centre

As mentioned above, population decline in the old City of Montreal slowed down in the 1980s and underwent a slight reversal in the 1990s. This can be attributed to a number of factors, including demographic changes (burgeoning student population, immigration), congestion on the region's bridges leading to off-Island municipalities and policy choices of the City of Montreal.²²² Here we are primarily interested in the latter factor.

The City's efforts to rejuvenate and repopulate the downtown area of Montreal have been quite successful. At the end of 1980s, the downtown area was characterized by large vacant lots, deteriorated and underused buildings, depopulation, rising crime and boarded-up shops on main streets. As happened in other major metropolitan areas of North America around this time, city officials became aware of the potential of the downtown as a living and working environment and efforts were made to attract new residents and employment. A study undertaken by the City in 1992 suggested that there was enough vacant land to accommodate nearly 60,000 housing units, 10,000 of which could be located in the downtown area. Residential development was stimulated by the City-initiated Nouveau Montreal project, a strategy calling for the building of 10,000 new housing units in the downtown area.

The City also offered financial incentives to attract new residents (the Credit-proprio program offered new home buyers \$2,000 in tax rebates anywhere in the city and \$10,000 in the downtown area over a three year period). Major public investments were made in the downtown area, including the rehabilitation of the Old Port area and Old Montreal, enhancing public spaces, and establishing museums and other attractions. Outside the immediate downtown, the City helped facilitate the redevelopment of major brownfield sites. Its housing rehabilitation programs also helped revitalize inner city neighbourhoods. These measures, combined with the City's social marketing campaign called "Retourne à la ville", helped make city living attractive to middle-class families, including some formerly located in suburban areas. The result has been a noticeable turn-around in the downtown area, with residential populations rising over the 1990s. However, it is important to keep this phenomenon in perspective: the great majority of new housing development in the region continues to take place off the Island of Montreal.

7.4.11 Improving links between agricultural land preservation and land use planning

As mentioned above, the 1978 regime set up under the Agricultural Land Protection Act appears not to have been particularly effective in stemming sprawl in the region. One of the

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²²² Rapheël Fishler. May 2002. *Forme urbaine, développement metropolitain et mobilité des personnes*. Submitted to the Commission de consultation sur l'amélioration de la mobilité entre Montréal et la Rive-Sud. Montreal. Montreal.

key reasons for this was the absence of any link between the agricultural zoning decisions of the commission and land use planning goals. Dezoning of protected land would typically occur as follows. A developer would buy agricultural land near the urbanized area and apply to the commission for a dezoning. Because they did not want to take responsibility for disappointing the speculative aspirations of the developer, local officials would approve the dezoning request, irrespective of whether the request complied with or violated municipal planning policies. The dezoning application would therefore be sent to the commission along with a municipal recommendation to accept it. The request might be refused on the grounds that the land was good for farming. The developer would then allow the land to go fallow and wait a year or two before reapplying for a dezoning. The commission would then decide that as the land was not being farmed and was situated near the urban area, it would be better to use it for urban development than to allow it to remain unproductive. The development would proceed.

This scenario was played out in the Montreal region countless times in the years following the setting up of the agricultural land protection system. 223 Essentially, it was allowed to continue because there was no effective framework for making decisions about individual parcels of land in terms of the value they held either as a parts of a permanent agricultural reserve or parts of an urban system. The commission did not have the jurisdiction to evaluate the need for land development: its jurisdiction was limited to whether or not the removal of a land parcel would have an impact on the viability of the surrounding agricultural land base. The commission could not raise questions about the desirability of the proposal from a metropolitan perspective or recommend that the development take place in another part of the region. In other words, in the absence of a metropolitan planning authority, the Commission for the Protection of Agricultural Land Protection was not able to effectively carry out its mandate to preserve a permanent agricultural land base in a region experiencing strong development pressures.

With the creation of the MMC in 2000, an opportunity has arisen to at least partially address this situation. In 2004, the MMC adopted a regulation requiring that the owner of any land excluded from the green zone by virtue of a decision of the commission would need approval from the MMC before development could be undertaken. The regulation is currently before the Ministry of Municipal Affairs for approval and if approved could bring an important regional perspective to the outcome of dezoning applications. A firm hand applied by the MMC could ultimately discourage the type of speculation that has in the past led to a creeping and unplanned sprawl.

7.4.12 Absence of natural area protection policies

The statistics presented above reveal that although about a quarter of the land surface in the region is comprised of natural areas, green spaces are being rapidly eroded throughout the Montreal region. This trend reflects the fact that greenspace protection has been historically weak in the region. No regional environmental plan has ever been put in place, RCMs have not been well known for strong conservation policies, and even on the Island of Montreal – where planning and land management activities are more intensive – no major policy effort

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²²³ William Marsde. 1989. "Developers have field day with farmland." *The Gazette*. June 17, page B1.

has ever been made to limit development in natural areas. Provincial planning policies requiring municipalities to protect wetlands, avoid development in flood plains, buffer shorelines, and preserve woodlots and other significant ecological features have not been effectively enforced over the years.

Recent events have begun to address this reality. The provincial Planning Framework for the Montreal region – elaborated in 2001 to guide the development of a regional plan by the MMC – calls for a the creation of a network of green spaces based on the conservation of existing natural areas and reclamation of connecting areas. The Framework directs the MMC to specify measures in the upcoming regional plan that would create wooded corridors for animal movements, designate existing and new wildlife habitats, and identify fragile ecosystems for protection. While the regional land use plan is being prepared, the MMC has already attempted to protect 31 wooded areas covering 200 sq km by adopting an interim control order that would prevent the cutting of trees in the designated areas. The regulation was rejected by the Minister of Municipal Affairs, and a second version is now being prepared by MMC.

On the Island of Montreal, the municipal government has just adopted a new Policy to Protect and Enhance Natural Spaces (La politique de protection et de mise en valeur des milieux naturels). The policy aims to protect and expand the Island's ten "eco-territories" (natural areas of over 15 ha) and to link natural areas where feasible. However, some of these areas are in private hands and the City has ruled out direct purchase for budgetary reasons. Realizing the policy goals will depend on the use of a number of other regulatory and financial arrangements such as ecological donations, land swaps, partnerships with other levels of government, and private/public partnerships. Reliance on these "soft" measures has led environmental groups to question whether the policy can be properly implemented.

8 The Halifax Region

8.1 Introduction

8.1.1 Description of the region

The Halifax CMA is characterized by a wide-variety of landscapes, from high-density urbanity to extensive low-density suburban areas, rural estate development, ribbon development along rural roads, and forested wilderness. At the centre of the region is the old City of Halifax, with its heart on the Halifax Peninsula and suburban extensions on the Mainland. Across the Halifax Harbour is the former City of Dartmouth, with its large industrial area, Burnside Park. At the top of the Harbour is Bedford, a suburban centre. To the east lies the former County of Halifax, a very large area with scattered suburban nodes (Sackville being the largest) and unserviced rural development along roads emanating out of the core. About half the region is publicly owned open space, mostly forested. The coast is dotted with outports oriented to the inshore fishery.

There is a little farming in the former County, as the land has very thin topsoil and is generally unsuited for agriculture. Much of the region is still forested and there are a number of lakes dotting the landscape.

Of the 359,183 people who lived in the region in 2001, 119,292 (or 33%) lived in the former City of Halifax and, of those, about half (60,000) lived on the Peninsula where the downtown is located. Dartmouth accounted for almost 66,000 people (18%) and Bedford 16,000 (4.5%). The rest (44%) of the CMA population (158,000) lives in the former Halifax County area.

The average density in the CMA is 65 people per sq km, very low compared to the other regions in the study, with only Saskatoon being lower. However, if only urbanized land is considered, Halifax's density – at 1,307 people/sq km – is lower than Saskatoon's.

Population densities reach just over 1,500 people/sq km in the former City of Halifax, with higher densities on the Peninsula (where the downtown is located). Densities fall to 1,100 people/sq km in Dartmouth. Otherwise, the population is settled in low-density suburbs built mainly since WWII or in very low-density rural areas. Bedford has an average density of about 400 people per sq km. The area making up the former County of Halifax has an average density of less than 150 people per sq km.

A density map of the region appears in Figure 8-1. One striking feature shown in the map is the disconnected areas of urban density strung out in all directions: Lake Echo to the east, Brookside and Terence Bay to the south, Hammonds Plains and Tantallon to the west and

Fall River to Wellington in the north. The "urban shadow" is essentially everywhere except in several large wedges of privately-owned (pulp company) or Crown land.

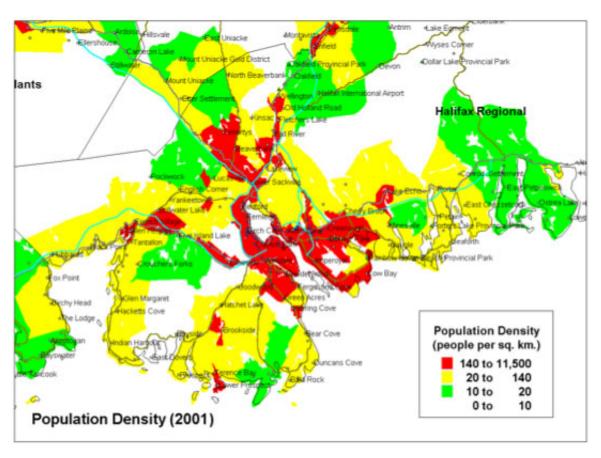


Figure 8-1: Population density in the Halifax region. Source: HRM Planning Services.

The road system in the region was historically undeveloped due to a thin population density, difficult terrain, the use of water bodies for transportation, and scant farming or resource activity in the interior. Major roads have been created in tandem with suburban development outside the regional core. The province has funded a series of divided and undivided highways linking the region to Truro in the north and to other communities along the coast. Within the Halifax CMA, highways provide access to city and regional shopping malls and industrial parks. A bridge commission representing the province and the municipality owns and operates the two bridges across Halifax Harbour. The regional bus and ferry systems are planned and operated by Metro Transit without subsidies from the province since they were discontinued in the late 1990s. Although there are some scattered stretches of bike paths, there is currently no bikeway system in the region.

There were 144,435 dwelling units in the Halifax region in 2001. The majority of this housing is located in the urban core (35%) and suburban areas (41%) with 24% considered to be rural. ²²⁴ Just over half (53%) of all dwellings in HRM are single-family homes, while

170

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²²⁴ Based on CMHC Zone designations. Urban: Halifax Peninsula North and South and Dartmouth North and South; Suburban: Mainland North and South and Dartmouth East and Rural: other areas.

34% are apartment building units. Semi-detached and row houses constitute 11% of the total housing stock, and mobile homes comprise just over 2% of all units.

8.1.2 Regional growth patterns

The Halifax region experienced a population growth of 29% from 1976-2001 – moderate compared to the metropolitan regions studied in this report, but much stronger than other major cities in Atlantic Canada. This growth was very unevenly distributed, however. The former cities of Halifax and Dartmouth stayed at almost the same population throughout this period (with some years of population loss), while Bedford more than tripled its size and Halifax County grew by 75%. As a result, the weight of the central city (Halifax) in the metropolitan region has been falling steadily, from 42.3% of the population in 1976 to 33.2% in 2001.

Table 8-1: Population Distribution of the Halifax CMA, 1971-2001*

Territory	1976		1981	1981		1991		2001	
	Pop.	%		%		%		%	
Halifax	117,882	42.3	114,594	39.8	114,455	34.6	119,292	33.2	
Dartmouth	65,341	23.5	62,333	21.6	67,798	20.5	65,741	18.3	
Bedford	4,977	1.8	6,777	2.4	11,618	3.5	16,102	4.5	
Halifax County	90,298	32.4	104,392	36.2	136,882	41.4	157,961	44.0	
HRM TOTAL	278,531	100	288,126	100	330,846	100	359,096	100	

Source: Statistics Canada

A consulting report for HRM recently estimated that population would increase 84,000 from 2001 to 2026 associated with 38,000 new jobs. This would represent an annual increase of .9%, down from the average 1.1% increase over the last 25 years. With lower job growth, population increase may be limited to just 52,000 over the 25-year period. With stronger job growth, population may increase by as much as 125,000. Thus, the 2026 population is expected to range anywhere from 411,000 to 484,000.

8.1.3 Growth-related issues in the region

Residential growth in outlying areas combined with the shift of jobs to auto-based business parks, increasing car use, the elimination of provincial financial support for transit and declining provincial funds for roadway improvements has resulted in increasing road congestion. Bottlenecks are especially severe around bridgeheads in the core area, due to the daily flux of suburban commuters. While many members of the public still favour more investment in roads as a solution to traffic congestion, there has been a recent groundswell of support for transit investment throughout the region, especially in the urban core.

Another issue associated with sprawl in the Halifax region is the uncoordinated spread of the regional population into areas that lack municipal services. Many of the people settling in exurban areas come from the city and are demanding urban-level services, which

²²⁵ Clayton Research. 2004. Employment, Population and Housing Projections (Revised). Prepared for HRM.

^{*2001} constant HRM boundaries are used.

governments cannot afford to provide. Poor soil conditions in the region have led to the failure of numerous septic systems, raising health concerns related to exurban development, and leading to request for expensive retrofitting of areas for sewer and water services.

Even serviced suburban residential development in the Halifax region has put a strain on local surface water quality, with increasing volumes of stormwater runoff laced with garden fertilizers, pet excrement and other pollutants. This water is increasing pollution loads on lakes, threatening aquatic life, and curtailing recreational uses. Water quantity is also an issue in the region as the water table is drawn down through well-based development in rural areas. Wells are approved on a site-by site-basis and no cumulative impact analysis is performed.

The fiscal issues associated with sprawl in the Halifax region have also been very serious. Municipal governments (before amalgamation) were increasingly burdened by the need to expand service boundaries in order to stem health and environmental impacts associated with septic-based development in fringe areas. The costs involved in expanding the road network into very low-density areas, road maintenance, and transit operations were also onerous. A 1999 study for HRM estimated that \$150 million would need to be spent over a 25-year period to accommodate the extra traffic due to exurban growth if current development patterns continue. 226

Competition among the formerly separate municipalities for industrial development led to the erosion of employment in the former city of Halifax and the creation of industrial parks in areas with cheap land but poor transit service. Sprawl onto farmland is not an issue as there is little good quality foodland in the region.

The affordability of housing in the region is also being raised as an important issue related to current development patterns. The predominantly hard rock environment presents severe difficulties for the extension of sewer and water lines, and has thus constrained the growth of serviced residential subdivisions. Resistance to higher density both in the core and along ocean front communities has restricted the supply of new housing within established areas, again contributing to higher prices.

With amalgamation, these issues of regional growth are increasingly coming to the fore as politicians and municipal officials grapple with the desired direction for future growth at the same time as they are struggling with downloading of responsibilities from the provincial government and reductions in provincial subsidies and transfers for municipal services.

8.1.4 Municipal organization and regional governance

Until 1996, there were four municipal units in the Halifax region: the former cities of Halifax and Dartmouth, the Town of Bedford and Halifax County. No former regional government with elected officials and taxation powers existed in the region until the Halifax Regional Municipality (HRM) was formed on April 1, 1996 through the amalgamation of

172

²²⁶ Harbour Engineering, in conjunction with CBCL and Porter Dillon. July 27, 1999. *Integrated Servicing Study, Final Report*. Prepared for HRM Regional Operations.

the already existing municipal units. In terms of population, the HRM corresponds roughly to the Halifax CMA: the HRM population (359,100) was slightly larger than the CMA (359,183) at the time of amalgamation. However, there is some mismatch in geographical terms between the two with about 10% of the CMA population being outside HRM boundaries and about 5% of the HRM population living outside the CMA.

Although no formal regional government existed prior to HRM, there was a regional coordinating body. The Halifax-Dartmouth Metropolitan Authority (HDMA) was established by the former municipalities in the region in 1962. The HDMA covered a territory roughly equivalent to the current CMA and had responsibility for transit, waste management and other service planning. It had virtually no role in regional planning. Metro Transit was part of the Halifax-Dartmouth Metropolitan Authority but was integrated into the new regional municipality after amalgamation. The HDMA was abolished when the HRM was established in 1996.

8.2 <u>Smart Growth Policy and Objectives</u>

8.2.1 Provincial and Regional

8.2.1.1 Land use planning

Proposals for a regional approach to development planning in Halifax were made by Thomas Adams as early as 1918, but were not translated into reality. The first detailed and influential attempt at regional land-use planning was the Halifax Region Housing Survey (RHS), conducted between 1960 and 1963 and funded jointly by federal, provincial, and municipal governments. The report recommended that development be encouraged only in areas where bedrock is overlain by sufficient soil to avoid the need for expensive blasting (for grading, utility lines, and house foundations). Only two large areas were outlined as meeting this condition – the Sackville area in the north, and Cole Harbour in the east – which the report recommended be planned as satellite communities.

The RHS was advisory in nature and did not constitute a formal plan. In the years following, the explosion of suburban growth outside the old City of Halifax, escalating infrastructure costs due to sprawl (especially the prospect of having to build another bridge across Halifax Harbour), and the availability of federal and provincial funding programs for social housing, roads and other infrastructure made the creation of a regional plan all the more urgent as a way of guiding public investments. In 1969, the province established the Metropolitan Area Planning Committee and began drafting the Halifax-Dartmouth Regional Development Plan (RDP). After more than five years of study, the plan was adopted in 1975 under the provincial planning act, which required that all local plans abide by the regional plan.

The progressive nature of the plan was expressed in its often quoted passage: "If the trends in development and population distribution are allowed to continue and the privately owned motor car continues to be the principal mode for moving people, the costs of urban transportation will constitute a staggering drain on the funds of all levels of government within the Region. This drain... would, of necessity, act to the detriment of the social and economic programs. In addition, the physical environment would be adversely affected,

large amount of land would be used for roadways and parking, and the quality of the air would be decreased."

There were three overall goals to the planning process: minimize infrastructure costs for transport (especially bridges), sewage, and water supply; locate development in areas that would avoiding as much as possible the need for expensive blasting and excavating on site, and; preserve the quality of the physical environment.

As for infrastructure costs, the plan authors noted that "the region is both a beneficiary and victim of its geography. Its natural setting around Halifax Harbour, the Basin and the North West Arm is one of the most beautiful in the world. On the other hand, these bodies of water make conventional North American transportation systems costly to construct." In order to minimize projected expenditures on the transportation system, the authors considered 14 different urban form scenarios and analyzed them from the point of view of infrastructure requirements. The urban form scenarios that were most economical from this perspective were those that saw growth in the Bedford-Sackville area. Residents from these centres could access employment by car or transit on either side of the harbour, obviating the need for a new bridge across the southern part of Halifax Harbour. The plan also modelled various levels of modal share and found that the cheapest scenario was one based on a substantial improvement in the region's transit system.

Furthermore, the plan proposed that the urban core (Peninsular Halifax and the old Town of Dartmouth) maintain its dominant position as an employment centre within the region but that job growth be shared with designated industrial parks outside the core (Burnside, Woodside, and Lakeside). Furthermore, in order to balance residential growth with job growth, the plan foresaw the creation of 20,000 jobs in the Bedford-Sackville area.

With regard to the second goal, the key concern was to minimize erosion and sedimentation and thus prevent damage to the region's many water-bodies. These impacts were predicted to be at a minimum in flatter, well-treed areas lying outside floodplains. Finally, the study team examined the suitability of various parts of the region for development from a site preparation point of view, i.e., to minimize blasting and excavation costs. The detailed ratings map showed almost no lands meeting these criteria on the Halifax side of the harbour, but extensive "option areas" in the Sackville area and in Cole Harbour.

The preferred scenario that emerged placed major growth in satellite communities in Bedford-Sackville and Dartmouth, and secondary growth in Spryfield-Herring Cove. In essence, the outcome echoed that of the RHS published 13 years before. The plan was based on the (very optimistic) assumption that the population of the region would increase by 200,000 to reach 435,000 by 1991. Settlement in new areas would be at about 50 people per gross hectare (a level high enough to support transit use), To accommodate this growth, 4,000 hectares of land would need to be developed, doubling the current residential land base.

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 $^{{\}it ^{227}}\ Halifax-Dartmouth\ Regional\ Development\ Plan,\ 1975,\ p.13.$

The plan acknowledged that "the prognosis is not good" but undertook to control sprawl and promote transit-based development. Controlling sprawl meant achieving orderly development largely with major growth directed towards the communities identified through the process described above. The plan put in place an urban development boundary within which only serviced development was allowed, and strong development controls (e.g., limits on the rate of subdivision) were imposed outside the boundary. Recognizing "that continued expansion and improvement of roadways into the region from rural areas encourages sprawl," municipalities were directed to implement development controls along major roads in rural areas in order to control ribbon development.

Although the plan did not set any quantitative targets for transit, it set out to increase transit modal share by developing "an effective transit system which will provide a viable alternative to the use of the private automobile." It committed the province to fund the expansion and improvement of the transit system in the region and recommended the installation of extensive transit facilities (e.g., park and ride facilities, express and new ferry routes, bus lanes at congestion points and transit bays) to be installed as the road system expanded. However, the plan also foresaw major highway investment, including many four-and even six-lane highways.

The plan also called for the development of a core area that would serve as a focal point for the region and the province: to ensure that the central business districts of the Halifax and Dartmouth were developed with a pedestrian orientation and with a functional mixture of residential, commercial, business and entertainment uses. Cars were to be discouraged from entering the CBD by careful control over parking, with parkades at the fringe and the development of transit within the CBD. Residential intensification in the CBD was put forward as a way of strengthening the retail market and adding vitality to the downtown. The waterfront area was encouraged to develop as a mixed-use and transportation node. The urban core was to remain as a major employment area.

From an environmental point of view, the plan aimed to eliminate water pollution in the region due to industrial and domestic sewage, including in Halifax Harbour. Municipalities in the region were required to adopt development plans with policies to establish conservation zones that would protect wetlands, floodplains, forests, ecologically sensitive areas, and wildlife sanctuaries. The plan included a map showing a regional park system within which permitted land uses were narrowly defined.

Implementation of the regional plan was administered by an office within the Ministry of Municipal Affairs. The office reviewed development applications and issued development permits throughout the territory. The former municipalities gradually put in place their own Municipal Planning Strategies (MPSs), which had to be reviewed and approved by the provincial regional planning office and had to abide by the precepts of the RDP. After an area was covered by an MDS, a regional development permit was no longer needed. The entire Halifax region was covered by MPSs by 1989. Thus, the number of regional development permits issued by the province declined gradually – from about 3000 per year immediately following the adoption of the RDP in 1975 to 300 per year in 1983 and, in the final year of permit issuance, only 40.

The 1975 plan was reviewed in the mid-1980s but this review did not result in any major amendments to the plan. The plan continued in effect until 2000. Although HRM is now involved in a regional planning exercise, there is, at the moment, no effective regional level plan. Until a new regional plan is approved, planning in the amalgamated municipality is governed by the 18 distinct land use plans developed by the former municipal units. While the plan is being prepared, HRM has imposed interim growth control measures in the rural areas in order to prevent a rush to develop private lands.

8.2.1.2 Transportation planning

A new Metropolitan Area Transportation Plan (the "Go Plan") was prepared in stages between 1994 and 1996, jointly funded by the province and the Halifax-Dartmouth Metropolitan Authority. The plan was occasioned by the impending amalgamation and the shifting economic realities being faced by municipalities in the region: the declining provincial money for funding highway improvements, the impending cessation of provincial transit funding, the winding down of provincial cost sharing of road projects, and the high levels of municipal debt that were gradually accumulating. The plan covered most of the CMA and was intended to have a special emphasis on improvements to the transit system, i.e., upgrading and extending public transport.

Studies conducted for the Go Plan looked at the potential for urban growth management to limit increases in travel demand. It proceeded by modelling expected growth using three urban form scenarios: compact, mid-range, and dispersed. Each scenario was assessed for its impact on urban travel demand and transportation infrastructure investment requirements. The final document recommended a compact urban form, with 80 percent of population growth to 2016 being within centrally-serviced areas (i.e., essentially within the 1975 development boundary).

Despite the original intention to focus on transit and the decision to promote a compact urban form, the Go Plan ended up identifying a wish list of 39 transportation improvements proposed for the region, all of which were roadway projects. The key ones were the completion of Highway 107 from Preston through to Sackville (forming a Dartmouth outer ring), new routes around Sackville, a Cole Harbour-Eastern Passage ring road, a Mainland South ring road skirting Spryfield, and a Northwest Arm crossing (bridge or tunnel).

The proposed projects were assessed on various dimensions, including time and money savings to motorists, potential to improve traffic flows and impacts on air emissions (HC, CO, NOx). No assessment was done of the impacts the road projects might have on urban development patterns in the region (i.e., induced sprawl). The Go Plan did not prioritize the various proposals, in part because it was not tied to a complementary land use plan; hard decisions have thus been deferred to a future round of regional planning.

GoPlan was never formally approved by HRM, but it has nonetheless influenced subsequent transportation planning efforts. This includes the Integrated Servicing Study, which also downplayed the role transit could play in reducing car use, and an Interim Transportation

Plan which drew heavily on the GoPlan.²²⁸ The interim plan was also shelved in 2000 due to the fact that it threatened to prejudice the growth management decisions that were to be made under the impending regional plan. The regional municipality has thus been without an official transportation plan since its creation.

8.2.2 Municipal

8.2.2.1 Land use planning

At the time of amalgamation, 18 development plans were in place in the geographic area that would make up HRM. As for the other case studies in this report, this section will focus on planning initiatives in the central area of the region, in this case the former City of Halifax. An official development plan had been in place for the former City of Halifax since 1978. In the absence of a new plan for HRM, the Halifax plan continued in force after amalgamation and is still the active plan for the area covered by the former city.

Of the 18 plans in place at amalgamation, only the City of Halifax plan had a strong transit theme. The plan contained policies to encourage small-scale infill development within existing neighbourhoods that would be consistent with the existing scale and character of development. A major suburban growth area (Mainland North/Clayton Park) was designated in the plan and compact development was encouraged as a way of promoting transit use. The plan contained statements that would favour transit over automobile use in the design and upgrading of city streets. It also committed the city to the development of bike and pedestrian pathways.

The plan did not adopt a nodal urban structure (centre and sub-centres linked by high-quality transit) and no firm growth boundary was identified. Only the downtown area was designated as a centre targeted for major commercial and institutional uses and for residential infill development, with a clear focus on encouraging pedestrian activity and transit access to the area. For instance parking lots and other parking garages in the CBD were to be discouraged and parking requirements were waived for the downtown area. The importance of the downtown area in the regional context was reinforced in 1994 by a downtown revitalization strategy that was developed through the leadership of the Downtown Halifax Business Commission in partnership with the City of Halifax.

Currently, HRM is developing a formal housing strategy in connection with its new regional plan. In the meantime, HRM housing policies are limited to those statements found in the housing sections of the planning strategies covering the 18 planning districts that make up the regional municipality. For example, Section II of the former City of Halifax's Municipal Planning Strategy (MPS) provides the following policy statements:

• Residential Environments. Objective: The provision and maintenance of diverse and high quality housing in adequate amounts, in safe residential environments, at prices which residents can afford.

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²²⁸ The Interim Transportation Plan recommended \$224.5 million in roadway improvements to 2026.

- On the Peninsula, residential development should be encouraged through retention, rehabilitation and infill compatible with existing neighbourhoods.
- The City shall foster the provision of housing for people with different income levels in all neighbourhoods, in ways that are compatible with these neighbourhoods.

In Nova Scotia, municipalities are largely delegated the responsibility for protecting natural features through policies contained in their Municipal Planning Strategies (MPSs). A review of the 20 MPSs that have been in effect in HRM over the last decade reveals a significant concern in communities across HRM over the impacts of urban growth and local developments on environmental quality, including on watercourse protection (from siltation or septic malfunctions), water supply and dinking water quality, infilling of wetlands, stormwater management, and on preservation of the rural character of communities.

8.2.2.2 Transportation planning

The Halifax municipal plan did not identify future roadway network requirements for the former City of Halifax. This task was given to a study team in 1991, which came forward with a municipal transportation plan in 1994. The plan put forward a number of growth management and transportation demand management proposals. Growth management recommendations included stemming sprawl, encouraging a mix of housing types, higher residential densities along main streets and higher densities overall, and locating residential and employment uses within walking distance of each other. Transit recommendations included improved service, bus lanes, and reduced bus fare during peak hours. Bike-related recommendations included installation of bike parking facilities downtown and other selected locations, a bike lane on bridges, separate bike paths and on-street provision for the safe use of bikes.

Other TDM measures included increased parking rates in city owned lots downtown and on the waterfront, reduced parking standards in transit-friendly developments, reduced parking rates for car pooled vehicles, bridge and road tolls during peak hours, and investment in park and ride facilities. The plan authors estimated that a 15% reduction in car travel demand could be achieved through the various land use and TDM measures recommended in the plan. Interestingly, however, the plan did not take this potential reduction into account in its recommendations for roadway improvements. In fact, the authors went on to detail 19 major improvements to the roadway system that would need to be implemented over the subsequent 10 years. The total bill for the projects was estimated at almost \$100 million (in 1994 dollars). Most of the projects were incorporated into the regional GoPlan and subsequent transportation planning initiatives.

8.3 Smart Growth Outcomes

We have found that outcomes from these planning exercises are difficult to quantify. There has never been a formal assessment of the impact of the 1975 RDP undertaken by the province, the Metropolitan Authority, or HRM. Historical statistics at the regional level are

²²⁹ City of Halifax. August 1994. *Halifax Transportation Study: Final Report*. Prepared by UMA Engineering Limited. Halifax.

sparse – even basic data such as modal splits are not available unless they are pieced together from a number of studies or plans using different geographic boundaries and measurement parameters. This may reflect that fact the Metropolitan Authority did not carry on with a strong planning role after the release of the 1975 plan and the historical discontinuity represented by the municipal reorganization that resulted in the creation of HRM in 1996. Where available, statistical data will be presented in the outcome sections below; otherwise anecdotal information will be provided.

8.3.1 Intensification of growth rather than expansion of development into greenfield areas

The 1975 RDP did not propose that growth be directed primarily to existing areas. Rather it proposed that residential growth be accommodated in well-planned new settlements instead of in a scattered fashion or in the old City of Halifax. In assessing the impact of the plan, therefore, we will need to look at the degree to which population growth was captured in the target areas and the degree of exurban growth outside the development boundary.

The development of the large satellite communities of Sackville, Bedford and Cole Harbour is seen as the greatest achievement of the RDP. These suburban areas were fully built out more or less according to the RDP by the end of the 1990s. For example between 1976 and 2001, Bedford increased in population from less than 5,000 to over 16,000. In total, suburban areas within the RDP development boundary increased in population by almost 74,00 between 1971 and 1996, going from 43.3% of the HRM population in 1971 to 67.3% in 1996. This growth, although nowhere near the level of 200,000 expected in the RDP, was in locations foreseen by the 1975 plan and on full municipal services.

Meeting the urban core and rural development targets has been less successful. The 1975 RDP and the City of Halifax plan foresaw a demographically strong core area with a stable or growing population. In 1971, the core had 113,797 people but this had declined to 87,720 by 1996. In essence, the core lost almost a quarter of its population over that 25 year period and diminished in weight from 44.9% of the HRM population total to only 25.6%.

The 1975 plan strictly limited rural development beyond the centrally-serviced areas. In fact, however, residential development has spread throughout rural fringe areas, attracted by scenic landscapes and cheap land, constrained only by the number of paved roads and lack of community services. This commuter-induced exurban development takes a variety of forms, ranging from isolated homes on large parcels of land (rural estates, or "acreages"), to extensive large-lot unserviced subdivisions, to densely-packed mobile-home parks. Thus, the rural fringe has more than doubled its population, going from 27,656 in 1971 to 57,660 in 1996. As a proportion of the HRM total, the fringe has increased from 10.9% to 16.8% over that time period.

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²³⁰ Hugh Millward. 2002. "Peri-urban residential development in the Halifax region 1960-2000: Magnets, constraints, and planning policies." *Canadian Geographer*. Vol. 46, No. 1, pps. 33-47.

Beyond the rural fringe, in the eastern reaches of the region that are poorly serviced by paved roads and have longer commute times to the core area, growth has been light. From 1976 to 1996, only 650 people were added to these areas.

The result of these growth trends is that the rural-urban fringe grew three times as rapidly in the 1971-1996 period as the overall municipality (108.5% versus 35.2%), while suburban areas grew twice as rapidly (67.3%). In absolute terms, however, the suburbs still dominate housing construction, adding almost 74,000 people compared with 30,000 in the fringe, and a loss of 26,000 in the urban core.²³¹ These growth trends are shown in Table 8-2.

Table 8-2: HRM Population by Sub-Areas 1971-1996

	1971		199	96	1971-96 change		
	#	%	#	%	#	%	
Core	113,797	44.9	87,720	25.6	-26,077	-22.9	
Suburbs	109,749	43.3	183,621	53.5	73,872	67.3	
Fringe	27,656	10.9	57,660	16.8	30,004	108.5	
Rural	13,219	5.2	13,869	4.0	650	4.9	
Total	253,577	100.0	342,897	100.0	89,320	35.2	

Source: HRM Planning Services. 2000. HRM Population and Employment Growth 1971-1996. Halifax.

The trends just reported hold until 1996. Since then there appears to have been a shift towards greater development in the urban core. Although comparisons with pre-1996 data are difficult due to changing geographic destinations, the Table 8-3 shows that between 1996 and 2001 the population decline of the core area was stemmed and that the area registered a population increase of 1,500 or 1.6%.

Table 8-3: HRM Population by Sub-Areas 1996-2001

	19	96	200)1	1996-2001 change		
	#	%	#	%	#	%	
Core	95,100	27.7	96,600	26.9	1,500	1.6	
Suburbs	168,300	49.1	176,500	49.2	8,200	4.9	
Fringe	69,700	20.3	76,300	21.2	6,600	9.5	
Rural	9,900	2.9	9,700	2.7	-200	-2.0	
Total	343,000	100.0	359,100	100.0	16,100	4.7	

Source: HRM Regional Planning. January 2004. *Baseline Report - Population, Housing, Employment, Journey-to-Work.* Halifax.

8.3.2 Take advantage of potential intensification opportunities

It has long been recognized that the Peninsula, as a central area, provides the potential for residential intensification. Prior to the introduction of the Halifax Municipal Development Plan in 1978, large areas of the Peninsula were zoned for R-3 – multiple family development. This zoning allowed both large-scale redevelopment with apartment buildings as well as smaller conversion and addition projects to create more dwelling units in

²³¹ HRM Planning Services. 2000. *Halifax Regional Municipality: Population and Employment Growth 1971-1996*. Halifax.

neighbourhoods close to the downtown. Some of these R-3 areas were developed to higher densities while many remained at lower densities.

The MPSs of 1978, and the subsequent Secondary Planning Strategies which have been adopted since that date, have tended to change the focus from redevelopment to neighbourhood preservation. This redirects housing activity into infill and conversion rather than demolition and major construction. One form of infill development that became prominent after the adoption of the 1978 plan was the addition to the rear of existing buildings of up to 14 units. These projects tended to create neighbourhood eyesores and fuelled resistance to further intensification. Tightening requirements for additions and conversions have reduced opportunities for intensification in existing neighbourhoods. Even minor changes in these areas have been fiercely resisted by existing residents. For these reasons, the contribution of small-scale projects to the housing stock of the Peninsula has been modest. For example, between 1986-91, only 19% of additional units were achieved through additions or conversions to existing dwellings.

The major housing intensification opportunities on the Peninsula have been through new construction – either through smaller infill projects or larger apartment buildings. For example, a number of gas stations have closed and been redeveloped as apartment buildings. Other vacant sites on main streets, such as parking lots, have also been redeveloped to medium or high-rise apartments. Some brownfield sites have also been redeveloped, such as the 3.3-ha Petro Canada Lands on Barrington St., which was formerly used for oil storage, and which is now used for medium density housing. Although other brownfield sites exist on the peninsula, there have been few major redevelopments due to the expense and uncertainty involved in site decontamination.

As foreseen in the 1975 RDP and the 1978 Halifax Development Plan, the Halifax waterfront has been transformed into an office, entertainment and residential district. By the time of the RDP, the downtown waterfront was in steep decline as a port. Derelict docks and abandoned warehouses multiplied along the waterfront. Aware of the critical potential of the waterfront to the recreational and economic life of the city, the Province set up the Waterfront Development Corporation Limited (WDCL) in 1976 with a mandate to help bring the waterfront back to life. Over the last 30 years the WDCL has assembled land, built infrastructure and cooperated with private developers to create a vibrant, mixed-use setting. Over 800 residential units have been added to the Bedford, Dartmouth and Halifax waterfronts, including the award-winning Bishop's Landing, a mixed-used development on the site of a former fish plant and parking lot. This 206-unit residential, commercial and mixed-use development is located directly on the Halifax waterfront and incorporates open and park space that increases and protects public access to the waterfront.

These intensification activities have raised the number of housing units on the Peninsula but until recently this trends has been outweighed by a declining household size to produce falling population numbers. Indeed, the population of the Peninsula has declined dramatically over the years since the RDP. In, 1971 there were about 79,000 people living there but by 1996 there were fewer than 60,000. This number is now on the rise as intensification opportunities on the Peninsula are being more fully exploited.

8.3.3 Denser, mixed-use development

According to the 1975 RDP plan, settlement in new areas would be at about 50 people per gross hectare (a level high enough to support transit use). More compact urban development was also seen as a prerequisite for improving transit performance in the 1996 Go Plan. In fact, however, development densities have not begun to approach these levels.

Table 8-4: HRM population density by sub-area, 1996

Area	Density	Density
	(people/sq km)	(people/hectare)
Halifax Peninsula	3,137	31.37
Dartmouth	1,071	10.71
Sackville	993	9.93
Halifax Mainland	860	8.60
Cole Harbour –	610	6.10
Westfall		
Bedford	361	3.61
Timberly-Lakeside-	165	1.65
Beechville		

Source: HRM Planning and Development Services.

Table 8-4 shows the population density of some urban and suburban areas of HRM in 1996. These densities are calculated on the basis of planning areas and include some undeveloped land. Consequently, the densities of the urbanized areas are higher than those shown. In the case of Sackville, for example, about 65% of the planning area is urbanized, rendering a gross urban density of about 1500 people per sq km. About half the Bedford planning area is undeveloped, so the gross urban density there would be about 700 people per sq km. These densities are obviously far below those aimed for in the 1975 RDP and do not approach transit-supportive levels.

Only one suburban area developed since the 1975 RDP reaches the range of densities foreseen in the plan: Clayton Park. Just outside the core, in the inner suburbs, planners point to the Clayton Park area as an example of reasonably transit-oriented design, achieving a gross density of 66 units per hectare with many apartment buildings and townhouses. Here transit use exceeds that found in the downtown area (about 25% of peak hour trips from Clayton Park to the downtown are by bus). The street system, however, has more in common with a typical suburban format, with broad arterials and looping side streets, than a walking-friendly grid or modified grid with more street connectivity.

Outside Clayton Park, there has been little emphasis on transit-supportive urban design in the region. Suburban development has continued in the conventional low-density and cardependent mode with few design innovations. There are no New Urbanist type communities in HRM.

There has, however, been some limited experimentation with lot sizes. HRM's planning standards are found in the various land use bylaws that cover the former municipalities making up the amalgamated municipality. Given the proliferation of such bylaws and their origins in separate municipal jurisdictions, it is not surprising that planning standards tend to vary greatly across the municipality. As a general rule, however, the standard detached dwelling lot size in the urban core (e.g., Halifax Peninsula) is 40 feet, 50 feet in mature suburban areas (e.g., Dartmouth), while in the growing suburban areas it is 60 feet (e.g., Bedford).

The only area where small lot developments are permitted as of right in HRM is in the business zone of downtown Dartmouth, where the recently adopted Downtown Dartmouth Secondary Planning Strategy and zoning allow single and duplex lots as small as 25 feet and townhouse lots as small as 18 feet in some zone. Elsewhere, some MPSs allow small lot proposals to be negotiated through the development agreement process. Through this process, the developer may agree to provide significant areas of common open space or developed parkland in exchange for the right to develop on smaller lots.

Between 1990 and 1997, 16 small lot developments were approved within HRM for a total number of 2540 lots, ranging from 29 to 45 feet. Some of these developments, such as Heritage Hills in Eastern Passage (326 small lots of 40 and 35 feet) and Beechville Estates just west of Clayton Park (173 small lots of 32 feet), were intended for an affordable market of first-time homebuyers. These developments have seen a mixed success in terms of the quality of community design with some lacking sufficient open space and being otherwise poorly planned. This has dampened enthusiasm for further development along these lines.

From time to time, development standards in HRM have been varied in order to allow for higher densities on awkward sites. For example, the Starr Lane condominium development in Downtown Dartmouth, where parcel size and shape would have prohibited development using the conventional standards, narrower streets were permitted. In this case, however, HRM engineers would only approve the project if the streets were privately owned by the condominium corporation, despite the fact that the Downtown Dartmouth MPS specifically permits the use of "reduced standard laneways" on these sites. There is also some discussion about the creation of an alternative set of development standards for certain areas of the Halifax and Dartmouth CBDs in order to encourage redevelopment that fits within the context of the old city.

The new master plans for Bedford South and Wentworth Estates make explicit the provision for the relaxation of engineering standards. Policy MS-8 in the plan states: "Variations to municipal service system standards may be considered where such variations conform with the principles set forth in the Transportation Association of Canada's 'A New Vision for Urban Transportation' or any other guidelines or policies acceptable to the Municipality." However, no specific alternative standards are laid out in the plans. Thus, engineering standards are occasionally varied on a particular project but there is no set of alternative standards routinely available for application on projects across the region.

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²³² HRM Community Services. 1997. *Traditional Neighbourhood Design: A New Approach for Small Lots*. Halifax.

8.3.4 Wider range of housing types

The 1975 RDP called for a wide range of housing types to meet the needs of the region and proposed that municipalities create municipal development plans (MDPs) that would encourage innovative residential designs. Furthermore, it is clear that to achieve the density target alluded to in the plan, the region would have to move towards a higher proportion of townhomes and apartments in the new housing mix.

Table 8-5 shows that the proportion of single-detached houses has been stable across the 1981-2001 period, hovering around 50% of the housing stock. The proportion of semi-detached and duplex housing has doubled over the period while row housing has dropped. Apartments have been more or less constant. Since, 2001, however, anecdotal evidence suggests that the proportion of non-detached housing may be increasing, especially condos, apartments and townhouses.²³³

Table 8-5: Housing types in Halifax CMA, 1981-2001²³⁴

	198	31	1986	5	199	1	1990	5	200	1
Housing Type	#	%	#	%	#	%	#	%	#	%
Single Detached	47,170	50.2	53,680	51.7	57,800	48.9	63,485	49.8	76,155	52.7
Semi-Detached										
and Duplex	5,074	5.4	11,525	11.1	14,310	12.1	9,816	7.7	15,680	10.9
Row	8,363	8.9	4,049	3.9	4,570	3.9	5,099	4	5,280	3.7
Apartment										
/Other	33,358	35.5	34,575	33.3	41,640	35.1	49,080	38.5	47,320	32.7
Total	93,965	100	103,829	100	118,320	100	127,480	100	144,435	100

Source: CMHC Housing Statistics

Table 0-6 shows that single detached dwellings decreased in the share of housing starts between 1981 to 1985 (53% of all housing starts) and 1991 to 1995 (39%), to increase substantially in 1996-2001 (61% of all housing starts). Apartments substantially increased in proportion, accounting from 51% of all housing starts between 1991 and 1995. Other multi-unit housing however, represent a consistently low proportion of all housing starts.

Table 8-6: Housing Starts by type in Halifax CMA. Five year aggregates, 1981-2001

	81-85	81-85	86-90	86-90	91-95	91-95		96-01
Housing Type	#	%	#	%	#	%	#	%
Single Detached	1,232	53.4	1,310	42.7	986	39.3	1,416	60.5
Semi-Detached and								
Duplex	285	12.3	512	16.7	197	7.8	145	6.2
Row	124	5.4	132	4.3	53	2.1	23	1
Apartment/Other	669	29.0	1,115	36.3	1274	50.8	758	32.3
Total	2,310	100.0	3,069	100	2510	100	2,342	100

²³³ Personal communication, Marcus Garnet, HRM Planning Services.

²³⁴ Figures for housing starts and total dwellings were taken from CMHC Housing Statistics. The discrepancy between the two data sets may be due to several factors including the Statistics Canada's changing definitions for multi-unit housing.

8.3.5 Increase supply of affordable housing

Housing affordability was one of the implicit goals of the 1975 plan in that great pains were taken in the planning process in order to minimize development, infrastructure, and land assembly costs. The 1978 City of Halifax plan also promoted housing affordability as a policy goal.

In 2001, housing costs in Halifax were relatively affordable compared to other Canadian metropolitan areas – Halifax had the second lowest ownership housing costs of the six study regions. However, housing prices in the region have significantly increased in recent years, i.e., by 43.5% between 1998 and 2002.

While rental costs have increased -14% between 1998 and 2003 – this growth is relatively low compared to other study regions such as Vancouver and Toronto. With an average rent of \$720 per month, rents in Halifax are in the mid price range compared to other Canadian metropolitan areas. However, higher rents coupled with decreasing vacancy rates in recent years -2.3% in 2003 – have made finding affordable rental housing increasingly difficult in Halifax.

The result of these trends has been a general decline in affordability for both ownership and rental housing. In 2001, 43.7% of renters – one of the highest rates in the country – and 13% of homeowners spent 30% or more of their household income on housing costs, or a total of 21.1%. Of the renters, 22% paid 50% or more of household income to rent. This situation is particularly grave in the core area.

Table 8-7: Percentage of households in the Halifax CMA spending 30%* or more of household income on shelter costs

1981		1986		1991		1996		2001	
Owners	Renters								
17.2	17.1	14.9	36.8	13.1	10.1	13.9	45.7	13	43.7

^{*}Affordability cut-off for 1981 is 25%

The Metro Housing Authority (MHA) manages in excess of 4,500 social housing units within HRM. Although much of this housing is concentrated in a few major developments, this policy of large development projects was abandoned in the 1970s, and subsequent development efforts focused on smaller buildings that were dispersed throughout the community. As in most other Canadian provinces, social housing programs were wound down in the mid-1990s and little in the way of assisted housing has been build in HRM since that time.

8.3.6 Increase transportation choice and reduced car usage

The morning commute modal splits for place of residence from all HRM origins to all HRM work destinations appear in Table 8-8. The figures show that in 2001, 68% of workers living

in Halifax drove to work, up from 67% in 1996. About 9.6% of employed people living in Halifax rode as passengers with someone else driving, down from 10.4% in 1996. Just under 10% of employed people living in Halifax used public transportation to get to work, down from 11% in 1996. The proportion of Halifax workers who walked to work on a regular basis increased by half a percentage point in 2001 to 10.3% up from 9.8% in 1996. There was little change for the bike modal shares for HRM overall.

Table 8-8: Halifax CMA, trips by mode, morning commute.

Mode	1	996		2001
	#	%	#	%
Vehicle as				
driver	102,310	66.6	115,830	68.0
Vehicle as				
passenger	16,005	10.4	16,270	9.6
Public transit	16,785	10.9	16,905	9.9
Walk	15,180	9.9	17,520	10.3
Bicycle	1590	1.0	1560	0.9
Other method	1835	1.2	2,130	1.3
	153,705	100.0	170,215	100.0

Source: Census, 1996 and 2001

The morning commute modal splits for place of residence by sub-area to all HRM work destinations are shown in Table 8-9. Of particular note is the high walk mode split for Urban Core residents (30%), an increase from 26% in 1996, and public transit mode split at 15%. As mentioned above, urban design to encourage transit, walking and biking has been a main theme of downtown planning for over 20 years in Halifax. The result (as mentioned above) is a high level of transit use, biking and walking to work in core areas. As in other regions transit, walking and biking is low in suburban areas and negligible in rural areas of HRM. The erosion of the overall transit modal share for HRM reflects the gradual shift of population shares in the region out of the higher density core areas to suburban and rural precincts.

Changes in modal share data from 1996 to 2001 generally indicate that the driver share has increased for the Rural Commutershed areas, while it has decreased for the Urban Core. Only one change in mode share occurred in the Suburban area, this included the bike share, which decreased from 2% to 0%.

Table 8-9: Modal share, morning commute by sub-area. 2001, HRM

Place of Residence	Driver	Passenger	Public	Walked	Bicycle	Other
(Origin)			Transit			
Urban Core	44	7	15	30	3	1
Suburban	73	11	11	4	0	0
Rural Commutershed	86	11	1	1	0	1
West						
Rural Commutershed	86	10	2	2	0	0

²³⁵ This may have been due in part to a transit strike in 2001.

East						
Rural	81	11	0	5	0	1
HRM	68	10	10	11	1	0

Source: Statistics Canada, 2001 Journey-to-Work Data, and HRM Planning Services.

Commuting patterns are relatively dispersed compared to other Canadian cities, with 10.6% of commutes being greater than 15 km. The median commute distance of 6.3 km is greater than Winnipeg's (6 km) despite being a city with half Winnipeg's population. The median commute distance has not changed since 1996.

Table 8-10: Commuting distances in Halifax CMA, 1996 and 2001

Year	Commuters	Less than 5	5 to 14.9	15 to 24.9	25 km or	Median
		(%)	km (%)	km (%)	more (%)	distance
2001	154,445	41.3	39.1	13.6	6.0	6.3
1996	141,765	41.4	38.3	14	6.3	6.3
Change	12,680	0.1	0.8	-0.4	-0.3	0

Source: Statistics Canada, 2001 and 1996 Journey-to-Work Data

8.3.7 Preserve agricultural land

Due to the nature of the soil, there is little farmland in the region – only 133 sq km or 2.4% of the total land area, located entirely in the easterly part of the region formally known as Halifax County. This agricultural land is outside the commuting distance from the regional core and is not experiencing rapid growth. It is part of the central Nova Scotia agricultural zone.

At the time of the 1975 RDP, there were some limited agricultural areas in the central part of the region (Sackville, Bedford), but these were targeted for suburban development through the land suitability analysis conducted as part of the 1975 regional planning process. This land has accommodated major suburban development and is not completely urbanized.

Table 8-11: Total amount of farms (hectares)

	1981	1991	2001
Farm area	20,324	16,149	13,298

8.3.8 Preserve lands essential to maintaining regional ecosystem functions

The 1975 RDP plan proposed a series of regional parks, most of which have been realized, and which now constrain future housing development. The key parks are McNabs and Lawlor Islands, at the harbour mouth, Cole Harbour, the Dartmouth Lakes (west sides of Micmac and Charles), and the Long Lake provincial park reserve. A large park proposed for Sandy Lake and the Sackville River has not materialized, but Sackville residents have successfully pressed the provincial government to declare holdings reserved for housing around Second Lake as a park reserve. It should be noted that there are also extensive areas

'frozen' in a natural state northeast of Dartmouth (the Lake Major water supply area, and the Waverley game sanctuary).

So while this major policy objective of the 1975 RDP has more or less been implemented as foreseen in the plan, other environmental policies appear to have been less successful. Although no quantitative data is available on land cover changes since the 1975 plan, anecdotal evidence suggests that many natural features were lost to development and that rivers and creeks were often negatively affected by stormwater flooding, erosion and siltation. For example, the Sackville River was badly degraded by flash floods and droughts that resulted from destruction of wetlands and forests in its basin during the wave of development that followed the adoption of the 1975 RDP. Rural development was allowed to proceed in the former Halifax County with very little planning oversight, resulting in the local fragmentation and loss of forest coverage. Poor soil conditions in the region have led to the failure of numerous septic systems and associated ground water contamination.

8.3.9 Encourage employment growth in the metropolitan core and designated growth centres

The 1975 plan was based on the assumption that the urban core would maintain its dominance as an employment pole and that industrial parks areas would emerge to capture the bulk of the job growth in the region. The plan designated specific industrial parks, namely Burnside, Woodside, and Lakeside, and indicated that the municipal development strategy covering Sackville should designate lands for 20,000 jobs in that area.

When the 1975 RDP was created, the bulk of employment in the metropolitan region was in the urban core. As shown in Table 8-12, 78% of the urban-suburban²³⁶ labour force worked in the urban core in 1981, a number that had declined to 62.3 by 1996. In contrast, suburban employment increased from 22% of combined urban-suburban employment in 1981 to 37.7% in 1996. More recent information suggests that these trends have continued to 2001.²³⁷ This data makes it clear that although the core area continues to grow its employment base, the balance of employment is gradually shifting to suburban areas.

Table 8-12: Employment of Urban/Rural Areas 1976-1996

	1981		1996		1971-96 change	
	#	%	#	%	#	%
Core	80,620	78.0	93,645	62.3	13,025	16.2
Suburbs	22,785	22.0	56,595	37.7	33,810	148.4
Total	103,405	100.0	150,240	100.0	46,835	45.3

Source: HRM Planning Services. 2000. HRM Population and Employment Growth 1971-1996.

The 1975 plan foresaw the bulk of suburban employment occurring in a few large business parks. All four of the former municipalities making up the HRM had business parks where major tax incentives were offered in order to attract new businesses. Thus, a large number of municipally-operated industrial parks grew up in locations scattered throughout the region, a

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²³⁶ Data not available for suburban-rural fringe and rural areas.

²³⁷ HRM Regional Planning. January 2004. *Baseline Report - Population, Housing, Employment, Journey-to-Work*. Halifax.

pattern of development that was only possible with the simultaneous expansion of the major roadway network. By 1989, the region had more than 1000 ha of serviced or planned industrial park land, enough supply to take up 30 years worth of employment growth at then current rates. Suburban employment has also occurred outside industrial parks, i.e., along major arteries, near the international airport, and at regional shopping centres. Many of these jobs are in car-dependent locations.

Of the many business parks in HRM, Burnside Industrial Park (Dartmouth) has been the most successful in attracting growth. By 1988, Burnside had 1,370 companies employing 21,350 people, a level of employment similar to that of the Halifax CBD in 1967, but spread over a much larger area. Other business parks designated in the 1975 plan (especially Woodside) did less well as they competed with a proliferation of other parks.

The 1975 RDP had foreseen the creation of 20,000 jobs in Sackville as a way of balancing population growth in the area and reducing travel to the CBD. Although the population of the area had grown to over 30,000 by 2001, only 6,000 jobs had materialized.

8.3.10 Provide infrastructure to reduce ecological impacts of development

Following the publication of the Regional Housing Survey in 1963, the provincial government encouraged Halifax County municipality to develop sewage treatment plants to service the two recommended growth areas: one at Mill Cove in Bedford to serve Bedford and Sackville, and one at Eastern Passage to serve Cole Harbour and Eastern Passage. By the time of the 1975 RDP, these new facilities were in place. The development boundary delineated in the RDP represented areas with existing gravity sewage drainage to the harbour, plus extensions in Bedford– specifically, Sackville and Lakeside. Areas within the development boundary could also be readily serviced with trunk water supply, from either the Dartmouth system or the planned Pockwock system, which was brought online in 1977.

Thus, the suburbanization that took place in the Halifax region in the 1970s and beyond was properly serviced from a sewage and water treatment point of view. However, the 1975 RDP policy recommending that wastewater flowing to the harbour be treated was not implemented. Consequently, as the regional population grew the harbour developed water quality problems.

8.3.11 Summary of Smart Growth Outcomes

Positive

- suburban development located largely within the RDP urban development boundary
- some intensification opportunities exploited on the Peninsula, Dartmouth and the waterfront around Halifax Harbour

²³⁸ Hugh Millward and Shelly Dickey. 1994. "Industrial Decentralization and the Planned Industrial Park." In *The Changing Canadian Metropolis: A Public Policy Perspective*, edited by Frances Frisken.Berkeley: University of California and the Canadian Urban Institute. pp. 751-776.

- localized examples of higher-density, mixed-use development that would be transitsupportive, especially Clayton Park
- some experimentation with small-lot housing and with alternative development standards
- very high modal share for walking to work in the region, due to maintenance of job base, residential areas, and good urban design of the Peninsula
- substantial share of employment growth in the Burnside Industrial Park, as foreseen by the RDP
- new water infrastructure put in place to support planned suburban development.

Negative

- dispersed unserviced rural development outside the urban growth boundary designated in the RDP
- in most areas, the density of suburban development doesn't approach levels anticipated by the RDP, i.e., are not transit-supportive. Clayton Park is an exception to this rule
- very little mixed-use development or use of alternative development standards
- small-lot development not seen as that successful from a design point of view
- little change in the range of housing types available in the region
- housing prices rising, especially rental housing in the urban core
- transit modal split is low and fell between 1996 and 2001
- proliferation of industrial parks and dispersed employment contributing to car dependency.

8.4 Factors Explaining Results

8.4.1 Provincial and federal actions to implement the 1975 Regional Development Plan

There is no doubt that the 1963 Regional Housing Strategy and the 1975 Halifax-Dartmouth Regional Development Plan played a major role in shaping regional growth. This was largely the result of the province's willingness to harness its spending power to support the plan. Most important was spending on sewer and water infrastructure, land assemblies for housing, and transit investment.

With provincial assistance, the former Halifax County was encouraged to develop sewage treatment plants to service the two target areas: one to serve Bedford and Sackville, and one to serve Cole Harbour and Eastern Passage. This investment established urban services necessary to allow major new development in the location foreseen by the RDP.

Because it was felt that the private sector was too weak to respond to the growth projections of the report, the provincial government stepped in as the main developer in the two satellite communities. The Nova Scotia Housing Commission acquired large land-banks for the first two satellite communities, Sackville Lakes, and Forest Hills in Cole Harbour, each designed to furnish affordable housing for 20,000 people. They were largely complete by 1990, accounting for about one third of the total addition to the housing stock over that period.

This contributed to the fulfilment of the spatial parameters of the RDP and keeping housing prices low.

Federal and provincial transit funding helped implement some key transit provisions of the plan, including a new ferry route connecting downtown Halifax to Woodside in Dartmouth, park and ride facilities, transit nodes, short cuts and express routes. Finally, the province has played a major role in the redevelopment of the Halifax waterfront, through the land assembly, infrastructure and development activities of the Waterfront Development Corporation.

8.4.2 Transportation planning and investment

As mentioned above, the Halifax-Dartmouth Regional Development Plan had many of the elements currently associated with Smart Growth and aimed to increase transit modal share in the region by managing growth and encouraging investment in transit system development. We do not have sufficient and consistent historical data to draw firm conclusions but it would seem that at 11% in 1996 and 10% in 2001, the position of transit in the region is not as strong as envisioned in the RDP.

One reason for this can be found in the RDP itself. Despite its obvious concern with car dependency, the plan went on to designate major new roadway projects, including many four- and even six-lane highways. This included improvements to existing roads (the Dartmouth to Bedford link and the circumferential highway in Dartmouth) and new routes (Bedford bypass, the 107 running from Cole Harbour to Sackville). All of these projects have been completed, with the exception of the Sackville Expressway.

The 1994 City of Halifax transportation plan showed a similar ambiguity between policy support for transit versus road expansion. The many transit-supportive recommendations made the transportation plan appear progressive from a Smart Growth point of view. However, the plan authors went on to detail 19 major improvements to the roadway system that would need to be implemented over the subsequent 10 years in order to deal with the most pressing roadway problems. The total bill for the projects was estimated at almost \$100 million (in 1994 dollars). As one land use planning official stated, "Fortunately, few of these proposed improvements were implemented. If they had been, we'd be way worse off then we are." Some projects were stalled due to public opposition and others because of lack of funds. But most of the projects were incorporated into the regional GoPlan and subsequent transportation planning initiatives. Once the new regional planning exercise is completed, some of the proposed projects may become active again.

The automobile orientation of transportation officials at both the provincial and regional levels is reflected in the GoPlan. Overall, the GoPlan exercise was a disappointment to those who were advocating a more transit-friendly approach to transportation and land use planning in the region. Although originally started to help the transit system plan for the future, the main outcome of the plan was to identify a large number of future road and highway corridors in suburban and ex-urban locations. The plan created a public backlash from environmentalists and local residents who feared increased sprawl and traffic as a

result of the projected road improvements. Nor was the plan strongly backed by land use planners in the municipality as they had little involvement in it and resented the heavy roads-oriented approach that it reflected. As a result, the plan, which was submitted to the new municipal council in the days immediately following amalgamation, was never formally approved by council. The region still does not have an approved transportation plan.

Another reason for the low and declining transit share is undoubtedly the lack of provincial funding for transit improvement in contrast to the level of spending on road expansion. Although specific figures are not available, anecdotal evidence suggests that provincial spending on highways since the 1975 RDP has been very high compared to investments in the region's transit system. In the late 1990s, the province all but discontinued its capital and operating assistance to transit providers in the province (i.e., Halifax and Sydney). Yet, the Transportation Department continues to fund highway improvements at a level of about \$60 million per year (a considerably lower rate than in past decades).

The result is that some key transit improvements foreseen in the 1975 plan were never implemented: few park and ride facilities were ever built, the number of express buses was always limited, and few bus lanes at congestion points materialized. After the provincial decision to eliminate financial support for transit altogether, serious service cuts were made to Metro Transit, which compromised ridership. For its part, HRM has avoided making many large-scale transportation investments until the regional plan is adopted. It did, however, decide to spend \$11 million on an automobile parkade in the downtown area, which raised questions as to HRM's commitment to public transit.

The underfunding of transit in the region will be partially addressed by a new \$13-million plan to run express buses to downtown Halifax from two suburban locations. Metro Transit is buying 18 buses for the project and will build three new terminal structures along routes from the Sackville area and Cole Harbour. Five existing terminals will be upgraded. Express buses are to arrive every 15 minutes. The rapid-transit system won't use bus-only lanes but will instead be integrated with other traffic. But buses will be able to send electronic signals to traffic lights, to change them to green, and will have racks accommodating two bikes. HRM is paying for most of the express bus program – about \$8 million – while Ottawa is contributing about \$4.4 million through the Urban Transportation Showcase Program. The express bus service should be fully implemented by 2006 and longer-term plans include high-speed ferries crossing Halifax Harbour, and possibly the Northwest Arm.

8.4.3 Lack of integration between transportation and land use planning

There has a disconnect between transportation (especially transit) and land use planning in the region since the 1975 RDP. For example, the 1995 Go Plan was carried out without the benefit of an update to the 1975 RDP land use plan and therefore was at a loss to prioritize transportation projects within the context of a desirable urban form. Transportation planning in HRM has been hindered by the lack of a regional plan. While an aborted effort was began shortly after amalgamation, the current regional planning exercise began in 2002 and is targeted for completion at the end of 2005.

Another reason for the disconnect is that there appear to be incompatible visions concerning planning and growth in the region. On the one hand, transportation planners are responding to past trends with limited resources (given the fiscal crisis of the city and lack of provincial subsidies for road and transit development) and proposing the best solutions under these conditions. They appear to have little hope that major changes can be made in promoting compact growth, transit or other alternatives to the car. Transportation planning exercises and design activities take place largely in a land use vacuum and give short shrift to transit considerations. On the other hand, land use planners have evolved a more growthmanagement oriented perspective, apparently motivated by quality of life and environmental concerns. To a large extent, however, they have not been successful in translating this vision into effective policies on the ground.

At the provincial level, the transportation department reacts to the transportation demands generated by the development patterns on the ground. As one official said, "we cringe when developers propose projects that will require highway improvements, but we can't do anything about it." However, the department does not appear to be sensitive to the impacts in the other direction, i.e., that its highway building activities might have on land use patterns. In other words, no consideration is given to induced, unplanned development caused by the province's transportation projects. In the view of one official, "the issue hasn't come up. In most cases, municipalities are so happy for any type of development they are not in a position to pick and choose – including HRM – even if it's not the right development." This is so, despite the evidence that highway development has had a major impact on settlement patterns in the region. ²³⁹ Recently, for instance, the province announced that it will twin the highway leading to the Annapolis Valley. The project is proceeding despite the concerns of HRM planners that it will cause leap-frog development outside the HRM boundary and lead to more long-distance commuting into the city centre.

With the primary highway system now complete in the province, most work is focused on upgrading the existing system (e.g., twinning two lane stretches of highway). Decisions to undertake a highway project are based on considerations of user benefits (e.g., time saving) and financial costs. Highways projects are analyzed according to a large number of "constraints" (such as sound impacts in urban areas) and the department consults with municipalities and other stakeholders on how to reduce local impacts. Projects configurations are not modelled to reduce such environmental impacts although minor consideration is give to energy-efficiency issues such as the steepness of grades. However, there is no consideration of the long-term environmental impacts of highway induced sprawl and no consultation on alternatives to highway development (e.g., TDM or transit improvements) and

At the neighbourhood level, transit planning is not well integrated with site design. Metro Transit is consulted by transportation and land use planners when new projects are being proposed in areas already served by transit. However, there are no guidelines in place to ensure that development applications attend to transit needs, such as maximum walking

²³⁹ Angela Cuthbert. 2002. Urban land development and road development in Halifax-Dartmouth: A spatial analysis using parcel-level data. Master's Thesis. McMaster University: Hamilton.

times and pedestrian access to transit stops, or even that developers plan the location of transit stops within subdivisions. Transit planners have no say at all in where development will occur and their influence on street configuration is limited. Furthermore, while developers are required to pay for or contribute to upgrades to the local road system, they are not required to contribute to improved transit facilities or services to an area (except bus bays, which improve traffic flow but slow down buses). Thus, transit-related costs must be borne by the municipality, which is reluctant to promise route and service improvements it may not be able to afford. Developers have historically shown little interest in alternative development standards or New Urbanist designs. ²⁴⁰

The transportation department plays a much more active role in the review of development applications. Their primary goal is ensure that the road network is adequate to accommodate the traffic expected to flow from the new development. They sometimes push for connectivity between subdivisions in order to ease access for cars, buses and pedestrians, but otherwise do little that would facilitate the use of transit. In the design of road improvements, the transportation department consults Metro Transit in order to take into consideration the needs of bus users.

Traffic impact studies are carried out for larger developments that require rezonings. Because proponents are required to pay for road but not transit infrastructure, they tend to propose improved transit facilities (e.g., transit loops, frequent bus stops) and favour an increased role for transit in their traffic analyses. The transportation department routinely questions such analyses and asks for detailed proof that higher transit use is likely in order to avoid risking the congestion that would result if hoped-for trends in transit use do not materialize. But, because the region lacks experience with transit-supportive development, such proof is not available. The result is that developers end up adopting designs that assume car-based travel based on historic trends. Thus, despite the fact that planning documents have repeatedly called for a modal shift in the region, current modal share values are used in traffic impact studies.

However, new approaches appear to be emerging in the region. The Downtown Dartmouth Secondary Plan, a recent planning initiative, has removed zoning restraints on intensification in residential neighbourhoods (e.g., allows accessory apartments and high density housing as of right, identifies future opportunities for brownfield residential development). It also allows smaller lot sizes, narrower set backs and side yards, and reduced road widths to encourage infill of difficult lots or on brownfield sites where the conventional template won't work.

In greenfield areas, the city is exploring the feasibility of adopting more transit-supportive urban designs. The municipality is currently considering the extension of the servicing boundary in a number of areas. A study has been conducted comparing the costs associated with development in each of those areas under two different scenarios – conventional and one with higher density and higher transit modal split. Master plans for these areas will

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²⁴⁰ This is beginning to change as developers are being asked to help pay for capital costs associated with their development projects. Thus, questions are being raised about development standards and this may lead to increased support for alternatives standards such as narrower roadways.

likely reflect somewhat higher densities and more transit-conducive development. And in a master plan being developed for the Bedford Estates area, transit-oriented developments is being encouraged, with a commercial node in each neighbourhood, on-street parking, and a requirement that no house be more than a five-minute walk from a transit stop. Although promising, the new approach is not fully supported by transportation planners in the municipality who prefer to maintain current road and parking standards.

8.4.4 Metropolitan planning

Development in the region has seen a few well-planned satellite communities with transit links to Halifax, but much of the region has developed in a sprawling, semi-rural pattern with a circuitous and discontinuous road system (e.g., winding roads off highways) that is difficult and costly to serve with transit and other municipal services. One reason behind this outcome is that the growth management provisions of the 1975 RDP plan were weakened during the 1980s. Specifically, in 1983, the primacy of regional planning over municipal planning was withdrawn by the provincial government in its new Planning Act and in 1986, the RDP limits on the permitted rate of subdivision growth were repealed for rural areas. These events, in combination with the highway building program and the very cheap land available in fringe areas, opened the way for the development of rural unserviced lots and speculative subdivisions far from any transit services. Subdivisions grew up around highway access points outside the regional growth boundary (such as in St. Margaret's Bay along Highway 103 on the western side of the region and along highway 101 to the east).

Moreover, the 1975 plan failed to evolve with circumstances as time passed. Although at least one aborted effort was made in the mid-1980s to review the 1975 regional plan, it was never successfully updated. With the winding down of housing and transit investment by senior governments in the 1990s, the fiscal tools that had supported implementation of the plan evaporated. By the time it was formally repealed in 1998, following amalgamation of the region, the regional plan was largely considered irrelevant.

Another factor undermining sound growth management in the Halifax region was the competition among the former municipalities (Halifax, Dartmouth, Bedford and Halifax County). While some degree of cooperation was achieved through the Halifax Dartmouth Metropolitan Authority in matters relating to waste management and transit planning, rivalry among municipalities led to zoning decisions that tended to undermine regional vision in the RDP. For example, the competition to attract new residents led to lax approvals for rural development in the former Halifax County. Because the province paid for most of the services associated with rural growth – including the paving of roads and the provision of schools, health and social services – the County was strongly motivated to attract growth as a way to expand its tax base without the usual disincentive of added service costs. This led to unplanned growth in the rural fringe area of the region, contributing to car dependency, ground water problems and demands for the further extension of provincial and municipalities services to rural areas.

Municipal competition to attract jobs also led to the over-designation of industrial parks in all municipalities, which in turn contributed to car dependency. The 1975 plan attempted to

control the location of industrial development by concentrating it in new industrial parks, with province taking a leading role in their development through the provision of infrastructure and subsidies. The provincial goal was to foster industrial development that balanced environmental and infrastructural considerations with the locational requirements of industry. The regional plan, however, was perceived by some municipalities as unfairly favouring Dartmouth (where Burnside and Woodside were located) and the County of Halifax (where Lakeside was located) in terms of the property tax benefits from employment growth. It was strongly opposed by the former City of Halifax, in particular, because of its decentralizing intention. In the end, the province retreated from the regional plan and ceded more control of industrial zoning to municipalities, who proceeded to set up new parks and offer tax incentives to attract industry. The result was a proliferation of competing industrial parks and huge municipal subsidies to develop a wasteful supply of industrial land.²⁴¹

The 1996 amalgamation of the region has eliminated intermunicipal competition and afforded a new opportunity to undertake a regional plan with greater implementation "teeth". Initiated in October 2001, the regional planning process is expected to result in an approved 25-year plan by the end of 2005. The plan is supposed to provide "an integrated, project-based approach to growth management, transportation, infrastructure, safety, open space, environmental and community development planning." The theme of the plan is "Healthy Growth" and among the key priorities of council is the need to stem sprawl, protect the environment, and for HRM's transportation system to support the desired pattern of development and alternative forms of transportation. Most participants seem to agree that stemming sprawl and minimizing the need for major infrastructure investments are important goals of the plan.

8.4.5 Lack of provincial policies to guide municipal growth management

This issue may be in part addressed by the provincial policies governing municipal planning that were adopted in 1999. The policies take the form of Statements of Provincial Interest adopted by the provincial government under the powers of the Municipal Government Act (MGA). Statements of Provincial Interest are adopted by the Province to identify the provincial interest in the use and development of land. There are five Statements in effect. They deal with drinking water supplies, flood risk areas, agricultural land, infrastructure, and housing.

The MGA requires that municipal planning documents must be "reasonably consistent" with these Statements. Reasonably consistent means that municipalities must take reasonable steps to apply the relevant statements to the local situation when preparing or amending planning documents. The Statements do not provide rigid standards, but instead set the direction and provide a framework for dealing with the issue. Overall, no Statement is intended to take precedence over any other. Instead local circumstances and informed, thoughtful decision making will dictate how the Statements should be applied and hence the form of development or resource use which should take precedence.

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²⁴¹ Hugh Millward and Shelly Dickey. 1994. "Industrial Decentralization and the Planned Industrial Park." In *The Changing Canadian Metropolis: A Public Policy Perspective*, edited by Frances Frisken. Berkeley: University of California and the Canadian Urban Institute. pp. 751-776.

From a Smart Growth perspective, the statements of greatest interest are the agriculture, infrastructure and housing. The agriculture statement requires that municipalities identify agricultural lands in planning documents and make efforts to protect them from incompatible uses. However, it also recognizes that "existing land-use patterns, economic conditions and the location and size of agricultural holdings means not all areas can be protected for food production, e.g., when agricultural land is located within an urban area. In these cases, planning documents must address the reasons why agriculture lands cannot be protected for agricultural use." In other words, the statement provides little protection of farmland from urban sprawl.

The infrastructure policy requires that municipal planning documents promote the efficient use of existing infrastructure and reduce the need for new municipal infrastructure. The statement suggests that municipalities implement this policy by encouraging all forms of intensification within the existing urban envelope, increasing allowable densities and removing height limits, preventing leap-frog development, and by considering the use of alternative water and waste water technologies.

The housing statement includes policies to encourage intensification, infill, development of small lots, a range of housing types, and affordable housing. It also suggests the wider use of more flexible residential land development standards. The statements of provincial interest do not cover issues such as urban structure or transit-friendly urban design.

Since the provincial policies were adopted in 1999, the only new plan that has been devised in HRM has been the Downtown Dartmouth Secondary Strategy. This has so far limited the impact of the policies on planning choices in the region. However, it is assumed that the new HRM regional plan, currently under way, will reflect the provincial policy statements. The degree of influence the policies will have, however, is unknown. Their impact may be weakened by the fact that the Municipal Act gives municipalities the major responsibility for managing growth in the region. As one planner said, "the policies are motherhood statements that don't require us to do anything in particular." Finally, the province's own actions often undermine the intent of the policy statements, such as the funding or improvements of highways and situating of new schools without municipal consultation.

8.4.6 Barriers to higher density development and intensification

We noted above that housing affordability problems are centred on the availability of rental housing in the core area of the region. Although there are many market-related factors that contribute to this situation (e.g., high land prices, migration of empty nesters to the core, the concentration of employment in the Halifax Peninsula), there are a number of municipal regulations and policies that tend to discourage the supply of affordable housing through intensification in the core areas of the region. Policies found in urban planning strategies appear to favour low-density, more expensive housing by encouraging the preservation of existing neighbourhoods and housing stock, even where pressures exist to increase density. For instance, in the former City of Halifax plan, policies require that infill housing be compatible with the existing neighbourhood, provide for generous amounts of open space,

and place onerous conditions on the proposals to increase the number of units in each building. Very strict height limits in the downtown area (in order to protect vistas of the water from the top of The Citadel) prevent high-rise development in key areas.

Many areas in HRM are zoned for relatively expensive, large-lot, single-family housing, which effectively limits the supply of multi-family housing, townhouses, duplexes, or small-lot detached housing. Smaller lots have been permitted in certain circumstances but problems with urban design of these developments has made it more difficult in recent years to propose such developments. As housing prices rise in HRM, there may be an increased demand for small lot housing. The new regional plan could contain policy guidance on the appropriate planning and design of subdivisions that include small lot housing.

The limited amount of vacant land currently zoned for higher-density infill development in urban areas also acts as a barrier. Typically, attempts to change zoning to higher density uses usually results in community opposition to the project (i.e., NIMBYism).

Development standards across the region also tend to discourage higher density development. For example, parking requirements in dense urban areas of HRM well-served by transit are the same as they are for lower-density areas, adding unnecessarily to the cost of residential development. HRM's Public Works and Transportation Services department has harmonized many engineering standards since amalgamation by adopting the most rigorous specification from each of the former municipalities. While the new standards will reduce HRM's maintenance costs in the future, they have also substantially increased the cost of development, and therefore housing, in the short term.

These observations point to the need for a regional policy and regulatory framework that will encourage higher-density development and intensification. The regional planning process currently underway promises to address this.

8.4.7 Brownfield redevelopment

HRM has a number of brownfield sites with high development potential, especially around the harbour. A 2002 HRM study identified almost 800 hectares of brownfield land (including the former Shearwater military base which encompasses 560 hectares) that were available for redevelopment. This was sufficient land to accommodate as much population as 3560 hectares of greenfield land, given the study's assumptions about density and urban form in the two settings.²⁴³

However, there seems to be little in the way of tangible efforts by the municipality (or the four former municipalities) to encourage the redevelopment of these sites. On a planning level, only the City of Halifax plan deals specifically with former industrial lands. It says: "The development of vacant land, or of land no longer used for industrial or institutional

²⁴³ HRM Planning and Development Department. 2002. *Brownfield Sites: An Options Paper for the Halifax Regional Municipality*. Halifax.

²⁴² HRM. February, 2003. *Municipal Standards Options*. Report prepared for the regional planning process. Halifax.

purposes within existing residential neighbourhoods shall be at a scale and for uses compatible with these neighbourhoods." Beyond this provision (which seems more like a restriction than an encouragement), there are no specific policies for guiding the redevelopment of brownfield sites within HRM's 18 MPSs.

Provincial environmental legislation may also present inadvertent barriers to redevelopment of contaminated sites. At the present time, Part VIII of the *NS Environment Act* provides the only available option to manage contaminated sites in Nova Scotia. However, this legislation is only applicable to sites that have been designated by the Minister of the Environment. Because the Minister has not designated any contaminated sites in Nova Scotia since the Act was adopted in 1995, it has been relatively ineffective.

In the absence of any designated sites, the Department of the Environment has applied a set of Guidelines to manage (i.e., identify, assess, remediate or otherwise act on) land that has potential for unacceptable impacts or risks associated with the presence of contaminants. The 1997 Guidelines for Management of Contaminated Sites in Nova Scotia describe the process to be followed by owners and governments in Nova Scotia in managing contaminated sites. The guidelines have hindered brownfield redevelopment by requiring expensive decontamination studies and procedures for even mildly contaminated sites and by not providing a final "sign off" of responsibility for contamination to the various stakeholders involved in redeveloping a site (financial backers, developer, etc.). Recognizing these issues, the Department of Environment has communicated its intention to develop a comprehensive strategy for the management of contaminated sites.

Quite apart from the absence of a supportive regulatory framework, there are no provincial or municipal financial incentives in place designed to trigger brownfield redevelopment. The lack of incentives means that the financial burden of clean up falls on the developers, which discourages redevelopment.

8.4.8 Subsidized sprawl

In the past, municipal governments (with some federal and provincial assistance) in the Halifax region (and elsewhere in NS) have subsidized suburban development by paying for the municipal infrastructure needed to support growth, including oversized water and wastewater systems, treatment facilities, major new roads and transit facilities. Servicing boundaries were extended on a piecemeal basis as money became available. This system was essentially a direct subsidy to suburban sprawl with little planning constraint.

This situation has become untenable in HRM. Not only has the provincial government reduced its subsidies for municipal infrastructure, but the municipality is facing pressures from developers and residents outside current servicing boundaries to expand services to reach their lands. At the same time, several major infrastructure components are reaching their design limits and important new investments will be needed. One engineering estimate of the costs of the regional infrastructure needed to support growth projections to 2026 was

\$467 million.²⁴⁴ This would represent an enormous burden to the municipality. Although the municipality's financial position has improved gradually, it is still far short of the revenue needed to manage this type of expenditure. In short, HRM cannot (and should not) continue to subsidize sprawl.²⁴⁵

In response, HRM is moving to a development charge system for major new suburban developments. Charging for infrastructure has been permitted since the provincial government enacted changes to the MGA in 1999. The amendment allowed municipalities to exact fees from developers as contributions to the infrastructure needed to support the subdivision of land. In 2001, HRM introduced a new Capital Cost Contribution Policy (CCC), which allows the municipality to allocate a portion of the off-site infrastructure costs to the new housing lots being developed. Initially, this policy will only be applied in suburban areas located in Dartmouth, Bedford and Halifax. The charges will not be applied to where there is no need for over-sizing of infrastructure, such as small rural subdivisions and inner-city infill parcels.

So far, the CCC policy has been applied to only one area, the Wentworth/Bedford South master plan area, where the charges added \$10,000 per acre to the cost of developing raw land. This equals a charge of \$2,500 per single-family unit. It appears clear that the new CCC policy will increase the cost of new housing in master-planned suburban communities. There is no provision in the policy for reducing or exempting affordable or higher density housing developments (in fact, higher density parcels within a master planned area will pay higher charges). Another issue is the potential impact of the CCC policy on the distribution of growth within HRM: because it does not apply throughout the jurisdiction it may increase development in rural areas where the charges do not apply.

8.4.9 Environmental protection policies

Environmental protection policies in these areas have not been strongly enforced in the Halifax region. As mentioned above, environmental protection falls mainly to municipal government acting. Unfortunately, the RDP environmental policies were very vague in character and provided little guidance to municipalities creating their own MPSs except on the matter of public open space and regional parks. Protection of wetlands and floodplains, watercourse protection from siltation, septic malfunction, stormwater management and other environmental issues were left largely to the individual competence of the former municipalities. In fact, few resources were dedicated to this purpose. Likewise, provincial planning policies under the 1983 *Planning Act* and the 1999 *Municipal Government Act* have not been strongly enforced by the province, as there is little taste at the provincial level for "meddling" in disputes over specific development applications.

200

²⁴⁴ Harbour Engineering. 1999. *Halifax Regional Municipality Regional Operations Integrated Servicing Study*. Final Draft Report. Halifax.

Linda Tam. 2003. Ecosystem Planning and Governance: A case study of the Regional Planning process in HRM. Master's Thesis. Dalhousie University, Halifax.
 Ibid.

Much growth has taken place outside serviced areas but within the commutershed, where developers can create large-lot residential subdivisions that are competitively priced. Approvals for development in rural areas outside the urban services area take place on a lot-by-lot basis without overall assessment of the assimilative capacity of the environment to absorb the impact of potentially hundreds of septic systems in a relatively small area. Moreover, there are no monitoring or maintenance requirements for property owners with well and septic systems Thus, cumulative impacts of septic system failures on ground and surface water are common. To address such failures, the municipality has often had to provide costly central water and/or sewer retrofits, usually in partnership with affected property owners and senior levels of government.

The province, which is responsible for setting standards to avoid water quality problems in rural areas, has responded to this situation by increasing the minimum lot size required for development. Although CMHC market analysts think that most HRM home buyers really only want 20,000 square foot lots, the minimum lot sizes have been increased from 20,000 sq ft. to 40,000 square feet in good quality soil conditions, to as much as 80,000 or 100,000 square feet in poor soil. This change may help limit damage but will also contribute to low-density ribbon development along road fronts, a settlement pattern that is difficult and expensive to service and that lends itself to car dependency. It also undermines what is potentially a better solution: smaller-lot clustered development on communal services.

From a Smart Growth perspective, rural development would better be concentrated into smaller discrete clusters with housing on smaller lots (i.e., half acre) and within walking distance of retail and service uses. This would reduce the municipality's capital and operating costs (especially for roads), and lessen the travel needs (and expenses) of residents. Such clusters lend themselves to innovative servicing technologies such as communal septic systems. For property owners, these systems would be less expensive to build and operate than individual septic systems.

In the context of the new regional plan, HRM is currently undertaking a study of the potential for introducing these innovative settlement forms and servicing arrangements. One of the major limiting factors is the quality of soils for sewage disposal and the availability of a potable ground source. HRM has also conducted some GIS-based suitability analysis to identify areas of the municipality where good quality soils will support this approach.

9 Conclusions

In this section, we present some conclusions, including lessons learned from the six case studies and an assessment of their relevance to the current challenges facing the Smart Growth movement in Canada.

Our comments are organized under the ten indicators of Smart Growth (indicators four and five are discussed together) used in the case studies. For each indicator some general observations are offered on the issues and trends raised in the case studies, noting regional differences where appropriate. The correspondence between planning policies/goals and outcomes is the main theme of this analysis. Based on these observations, some lessons are drawn that could help close the gap between policy and performance on the ground. In many instances, the recommended actions are drawn from the case studies themselves, i.e., where specific approaches proved useful *in situ* and could plausibly be extended to other urban regions. The recommendations are largely directed to governments, especially provincial and municipal, but they also have implications for the federal government, developers, business, residents and other stakeholders in the urban development process. Please note that throughout the conclusions the study regions are referred to by the name of its principal city (e.g., "Toronto" refers to the Toronto region).

9.1 Intensify the existing fabric rather than expand into greenfield areas

9.1.1 Issues and trends

Limited intensification is occurring in most jurisdictions. Most study regions have seen the populations of their central cities increase significantly after periods of decline in the 1970s and '80s. Vancouver has been particularly successful at accepting new growth in older urbanized areas – for instance, doubling its downtown population to 80,000 people in fifteen years – and, in the process, becoming the densest metropolitan core in Canada. However, despite this relative success, the GVRD as a whole has not been able to meet its target for the amount of growth to be accommodated within the Growth Concentration Area. In Toronto, the target for intensifying the former Metro Toronto, now the City of Toronto, has been surpassed, although it should be mentioned that the target was much lower than in Vancouver.

In other areas, success at meeting the goal of increasing populations in already serviced areas is being undermined by declining household sizes. For example, Calgary set a goal of accommodating 10% of its population growth through intensification and, indeed, 16% of new housing has been located in the already established areas, but population levels are stagnant. Until recently, the story was much the same on the Halifax Peninsula, where populations declined despite intensification activity. Many inner cities are serviced to accommodate much larger populations and therefore existing infrastructure is not being put to optimal use.

Market factors are largely driving intensification. In older city centres, a limited "back to the city" movement has occurred based on the desire of many households, especially young singles and empty-nesters, to be located close to services and culturally vibrant areas. Municipal governments are abetting market forces in some cases by adopting pro-active policies such as financial incentives for developers (e.g., Saskatoon) or home buyers (e.g., Montreal) who locate in downtown areas. In other cases, downtown intensification is being encouraged through planning policies that permit higher density development (e.g., Halifax and Toronto). In Vancouver, which has seen the most intensification of any of the study regions, the Agricultural Land Reserve appears to be helping to deflect development energy into already urbanized areas.

However, little intensification is evident in most suburban areas outside central cities, where the great majority of urban growth is found. Only those suburban municipalities that are themselves fully built out, like Mississauga in the GTA or New Westminster in the GVRD, are experiencing significant intensification. Otherwise, most development is still occurring through greenfield growth rather than through the intensification of the existing urban fabric. The one exception is the GVRD where suburban municipalities – such as Port Moody, Coquitlam, Surrey, and especially Richmond – are seeing considerable intensification in addition to greenfield development. In general though, sprawl continues to characterize the growth patterns of most study regions, despite planning policies to the contrary.

Intensification is challenging for a wide variety of reasons, including the orientation of the planning and development system to greenfield development, the cultural bias towards single family housing in low-density settings, the resistance of residents to changes in their neighbourhoods, and the absence of strong provincial policy frameworks or regional growth boundaries. Municipalities within urban regions rarely achieve consensus on regional problems and often work at cross purposes (e.g., competing to attract growth in order to broaden their tax bases) in ways that undermine intensification efforts. Greenfield development is also encouraged by major investments in highway development with little attention being paid to the impacts on land use, the acceptance of the automobile as a desirable part of daily life, and the general failure to incorporate the full cost of suburban development into the price system (home prices, taxes, development charges). In most regions, the protection of rural and natural areas from urban sprawl is weak. The spread of employment uses to office parks in car-dependent fringe areas and the trend towards power centres near highway intersections is also strengthening the trend towards population decentralization.

9.1.2 Lessons

Reducing the proportion of urban growth that occurs through extending the urban fabric rather than intensifying it will require major changes in the planning and development system that governs urban development. One of the prerequisites for stemming sprawl is the existence of a regional governing institution with powers to make the necessary strategic decisions to divert development energy away from fringe locations and into the already urbanized areas. In the Halifax case, amalgamation in 1996 essentially replaced competing municipal jurisdictions with a single region-wide local government, a change that has

resulted (after some delay) in a moratorium on growth outside the urban boundary and the creation of a Smart Growth oriented regional plan.

However, most of the study regions (Calgary, Saskatoon, Toronto, Montreal) had no such institutions for most or part of the study period. In these cases, competition and the lack of coordination among urban, suburban and rural municipalities within the same region undoubtedly helped to abet the forces of sprawl, especially in the larger, more fragmented urban regions. Where (and when) regional authorities did exist, they were often structurally unable to handle growth-related decisions. In the most egregious cases (such as with the Greater Toronto Services Board) little could be accomplished because the regional institution lacked the formal mandate or informal legitimacy for comprehensive growth management. But even in the case where a regional institution (the GVRD) with a clear mandate and legitimacy existed, we found that it was weakened by a lack of enforcement capability, which in turn reflected the fact that it is composed of municipal representatives who may not share a regional perspective.

Regional growth management is most effective when a directly elected government with broad powers to control land use, transportation, taxation and environmental issues covers an entire urban region. The Halifax solution (amalgamation across a whole urban region) is proving fruitful from a Smart Growth point of view in that particular setting, but is not feasible in larger metropolitan areas in Canada. An alternative model is provided by Metro, which plans for 1.3 million residents in three counties and 25 cities in the Portland, Oregon region. Metro is often held up as the most successful experiment in growth management on the continent. Indeed, it has managed to increase urban densities, improve transit ridership, limit the growth in car use, and preserve agricultural land on its fringe. This model should be considered for application in a Canadian context.

Another factor driving sprawl on a regional level is the tendency for municipalities to compete for development. Municipalities have had to rely more and more heavily on property taxes and user fees as provincial transfers have been reduced, while responsibilities have been downloaded in a wide range of areas. The increasing dependency on property taxes can provide strong incentives to approve new development as the only means of expanding revenues without increasing property taxes. One way of short-circuiting this tendency is through tax sharing whereby municipalities within a given region agree (or are forced by provincial legislation) to render part of the tax base increase to a common fund which can then be used for regional purposes, such as a commuter train lines or a regional greenway system. Of our six study regions, only Montreal has so far entered into such an arrangement. Other urban regions in Canada should consider whether this arrangement would suit their own conditions and help reduce the impetus for sprawl.

Provincial governments could help encourage intensification by setting out clear and enforceable policies to guide municipal planning decisions on growth-related issues. In Nova Scotia, Ontario, Quebec, Manitoba and Alberta, the provincial governments have

204

²⁴⁷ Peter Dreier, John Mollenkopf, and Todd Swanstrom. 2004. *Place Matters: Metropolitics for the Twenty-First Century*. Lawrence: University Press of Kansas. ²⁴⁸ Ibid.

promulgated statements of provincial interests under their planning or municipal acts. These policy statements lay out the provincial interest with respect to issues such as the preservation of agricultural land, protection of ecological features (wetlands, woodlots, floodplains), housing (e.g., intensification, infill, development, a range of housing types), and the efficient provision and use of infrastructure.

These policy frameworks have the potential to reduce sprawl within individual municipalities or to influence regional development patterns. To be effective, however, they would have to be vigorously enforced in relation to often recalcitrant municipalities that usually zealously guard their independence in planning matters. In most provinces, however, there are few mechanisms to impose the provincial interest in more compact forms of development and provincial policies are weakly enforced. For example, few provinces fully exploit their power to approve municipal plans or plan amendments, which would otherwise be a prime opportunity for ensuring provincial policies are respected. Horeover, provincial policies are often vaguely worded and appear crafted to afford the maximum latitude to municipal decision makers. Finally, provinces rarely link infrastructure funding or other transfers to municipal compliance with provincial policies. Addressing these matters would substantially strengthen the capacity of provincial government to guide growth and minimize social and environmental costs.

9.2 <u>Take advantage of intensification opportunities</u>

9.2.1 Issues and trends

The conversion of industrial lands in older urbanized areas is a major source of intensification opportunity in most of the study regions, i.e., Vancouver, Toronto, Montreal and Halifax. Brownfield sites have proved themselves as excellent opportunities for mixed-use higher density development in older areas of the city already serviced with urban infrastructure. This type of intensification appears less important in Calgary and Saskatoon, which lack an extensive industrial past. Regulations governing brownfield decontamination have been updated in some provinces/urban regions to promote brownfield redevelopment and some cities are concentrating planning resources (e.g., conducting inventories of brownfield sites) to encourage the redevelopment of these urban lands to their maximum potential. The cost of decontaminating sites is the major impediment to this type of intensification. Montreal is the only urban region studied that has access to a funding program to help with decontamination costs.

Although less significant than brownfield redevelopment, intensification along arterial streets is also happening to some extent in Vancouver, Toronto and Halifax. This helps create the conditions for a more successful transit system and provides a ready supply of cheaper, small-unit housing in areas with good retail services, contributing to pedestrian traffic and overall livability. This trend is being promoted by rezonings and municipally encouraged demonstration projects in some cities (e.g., Toronto). In some cases, progress

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²⁴⁹ Ontario is a good example of a province that has gradually withdrawn from planning approval, although it still retains the right to review and approve some official plans and plan amendments, e.g., for regional municipalities.

has been slowed by concerns over parking, fragmented property ownership, heritage and building code issues, and local resistance to change.

Other forms of intensification in the study regions include the redevelopment of public lands, including defunct hospital sites, military bases and schools. The public nature of these sites offers more public control over design and, in many cases, these major redevelopments are taking the form of innovative, mixed-use developments.

Infill development is also occurring in all of the study regions. Some municipalities (Calgary, Saskatoon, Halifax) have changed zoning regulations to allow small-lot infill in some areas, especially older areas of town where lots of this size have stood vacant due to zoning impediments. Infill development is also taking place on disused parking lots, gas stations, and other small parcels of urban land. Infill development that threatens to significantly alter neighbourhood character (i.e., through density increases) is strongly resisted by local residents.

Intensification around transit stations was successfully carried out in the early development of the Toronto subway system and is proceeding apace around SkyTrain stations in Vancouver. In these cases, municipal governments and transit authorities have used transfer of development rights, area planning, and rezonings to encourage densification. In Calgary, the introduction of light rail has not triggered densification around transit stations and newer stations in Toronto have been less successful in this respect. The metro system in Montreal has not served to spur higher density development in the vicinity of most stations. Fragmented land ownership, resistance from local residents and poor political choices (such as approving low-density commercial development) have impeded progress in these areas.

Intensification can contribute to the emergence or strengthening of a distinct urban structure. Much intensification activity is in and around downtown cores where it contributes to the strength of the metropolitan core as a population and economic centre. Outside the downtown, however, it seems that only in Vancouver and to a lesser extent in Toronto is intensification activity contributing to the strengthening of a system of urban nodes. In other regions, there is no evidence that intensification activities are being directed to specific locations where they can contribute to a planned urban structure.

9.2.2 Lessons

Increasing public awareness of issues related to urban growth and its environmental, social and economic consequences is essential to building strong support for growth management policies. Mechanisms should be found for providing citizens with information on the impacts of different growth management options. Residents sometimes desire incompatible development objectives: for example they may not want to see expansion of the settlement onto rural lands but may also reject intensification of existing areas. Experience in other jurisdictions suggests that when planners present citizens with a realistic choice between intensification and its alternatives, resistance to intensification softens. For example, when confronted with the choices between more residential growth in their neighbourhood and

increasing traffic congestion from commuters beyond the neighbourhood, citizens in Vancouver chose the former.

Public resistance to intensification can also be minimized by tying it to improvements in neighbourhood quality. For example, funding for neighbourhood amenities such as parks, daycares and libraries in neighbourhoods could be linked to an acceptance of increased densities. Such linkages are being considered in the Vancouver region and should be considered in other urban regions.

Greater public involvement in urban design issues can also increase support for higher-density redevelopment (as has occurred in the case of Southeast False Creek in Vancouver). In Calgary controversy over specific intensification projects is being mediated by professional mediators working for the City. ²⁵⁰ In Vancouver, projects being designed through charrettes involving developers, planners and residents have multiplied. At the end of the day, though, good design is the most effective tool with which to address NIMBY. As researchers in the US have noted, good design enables density levels to increase 25 to 33 percent without detectable change to the character of the community. ²⁵¹

Another way to address the ubiquitous resistance to intensification would be to strengthen groups dedicated to increasing public understanding of growth management issues. The most promising development in this respect is the advent of Smart Growth coalitions, networked groups of stakeholders who share an interest in informing the public about growth management. As mentioned in the Introduction to this report, such organizations have grown up in BC, Ontario, and Quebec, while a Canada-wide network is also developing. These networks help build public support for Smart Growth through education, community empowerment and professional development. Government funding for research, communication and public education activities is needed to reinforce these groups.

In order to encourage brownfield redevelopment, all levels of government need to cooperate to create financial incentives for developers and effective liability protection for all stakeholders. ²⁵² In the meantime, municipal governments can act, for instance, developing a local brownfield redevelopment strategy that includes actions such as:

- undertaking a high-profile brownfield redevelopment pilot project in conjunction with the private sector;
- developing a GIS data base of all suspected brownfield sites in the city/region and prioritizing those sites in terms of their redevelopment potential;
- exploring options for implementing municipal incentive programs (tax rebates, waiving municipal fees and development charges, tax increment financing²⁵³);

²⁵¹ Robert W. Burchell, and David Listokin. 2001. *Linking Vision with Capital: Challenges and Opportunities in Financing Smart Growth.* Washington, D.C.: Research Institute for Housing America.

²⁵² National Round Table on the Environment and the Economy. 2003. *Cleaning up the Past, Building the Future: A National Brownfield Redevelopment Strategy for Canada*. Ottawa: Renouf.

²⁵⁰ Ray Tomalty. 2003. Residential Intensification: Municipal Policies. Ottawa: CMHC.

²⁵³ Tax increment financing ("TIF") has been effective in financing revitalisation of brownfields all over the United States. In brief, TIF involves borrowing against projected increases in property tax revenue in a given area to finance site remediation and redevelopment. TIF schemes could also be used to create structured

 revising community plans to incorporate strategies to encourage brownfield redevelopment.

Promoting intensification in transit hubs and other nodes is another major challenge that needs to be addressed. Local governments can wield considerable influence over the type and character of land development that occurs around transit stations. Potential tools include investment in transit system upgrades and public improvements, like sidewalks, landscaping, and undergrounding of utilities. Government grants can be used to upgrade infrastructure, improve connections between stations and surrounding neighbourhoods, and generally spruce up the immediate area around a transit facility. Municipalities can also reduce approval times for development projects within a transit node and provide development incentives such as density bonuses, transfer of development rights, and tax breaks or other financial incentives to stimulate development.

The most common regulatory initiative used to encourage transit-oriented development is mixed-use zoning. With such zoning, higher-density residential uses, employment uses (offices), shops, health and other community services, as well as parks and green spaces, can all be found within a single area. Such zoning is designed to achieve all the needed services for people and businesses in the vicinity, help minimize the need to travel out of the area, and to encourage the site as a transit destination. Local councils need to resist the temptation to rezone lands (as has been done in Calgary) to allow incompatible uses such as car dealerships and big box development.

Nodal developments are usually the subject of area plans and site design guidelines setting forth detailed specifications for how a particular area will develop, and providing an opportunity for local governments to control parcel-level land uses and design. Plans are easier to implement if municipalities assist in the assembly of larger land parcels from what is often a patchwork of ownership. They also work best when combined with transportation demand management strategies designed to improve transit service city-wide and encourage non-car travel. Finally, node-building can be facilitated through strategic public investment on the part of all levels of government, e.g., locating public buildings and cultural and civic centres in target areas.

Parking requirements are one of the key impediments to intensifying urban areas, especially at key Smart Growth locations such as transit hubs and along main arteries, where a compact, walkable and transit-supportive urban form is desired. The large areas devoted to surface parking for office and high-density residential buildings result in low effective net densities and preclude the establishment of a compact, walkable, transit-supportive environment. Along main streets, parking requirements may render even small infill projects or residential additions over shops economically unfeasible.

As shown in the case of Calgary, municipal zoning bylaws can reduce parking requirements in transit-oriented locations, for example by imposing parking maximum instead of minimum requirements. The reduced parking saves developers money, resources which the

parking, landscaping and other improvements in a narrowly defined area destined to become a node or corridor area.

municipality can then require the developers use in order to improve transit access, bicycle facilities, and pedestrian amenities in their projects. Innovations such as shared parking (i.e., allowing the same space to be used for commercial parking by day and residential by night) spaces could be implemented in compact, less car-dependent areas of municipalities or in new developments.

9.3 Denser, mixed-use development in greenfield areas

9.3.1 Issues and trends

Of all the indicators used in this study, density and mixed-use are among the most important from a Smart Growth perspective. In fact, other Smart Growth goals depend heavily on achieving higher overall densities and land mixes in urban regions. These factors, in a chain of synergistic outcomes, reduce the per capita consumption of land, lower the cost of per unit infrastructure, could reduce trip lengths, make transit more viable, increase walkability and may help preserve natural assets.

Until recently, greenfield development occurred at ever decreasing densities, resulting in a thinning out of the urban fabric. There is some evidence, however, that the density of greenfield development has been increasing moderately in some regions (Vancouver, Toronto, Montreal, and Calgary) over the last decade or so. This reflects the tendency towards reduced average lot sizes in new subdivisions. However, some of the potential density boost is being countered by an increasing amount of land being put aside for public purposes (such as storm water management) and by declining household sizes. Although municipal planners may be applying some pressure on developers to achieve higher overall densities, the case studies suggest that falling lot size is driven more by increasing land values than by specific planning policies. In some cases though (Vancouver, Montreal, Halifax), small-lot zoning is helping to encourage smaller lots in specific locations.

There is little data on trends in the mixing of land uses in new development in any of the study regions. Anecdotal information from interviewees and other sources suggest that little in the way of mixed use development is occurring in greenfield areas. Developers do not appear interested in mixing land uses in greenfield projects due to the conviction that they will not be commercially successful and that home buyers will want to avoid being adjacent to non-residential uses.

Several municipalities in our study regions (Halifax, Calgary, Toronto, Saskatoon) are equipped with design guidelines to encourage greenfield development that would be more supportive of transit and of other Smart Growth objectives. Implementation of these urban design policies has been poor. Most greenfield growth continues in the post-war pattern of homogenous lower-density residential areas on circuitous streets that are difficult to navigate by transit (or by walking). Key barriers to change include local regulations that prevent innovative forms of development, by either requiring lengthy approval processes, or by prohibiting non-conforming uses, mixed densities, housing forms, or green infrastructure. Less costly, more land efficient and environmentally-friendly municipal infrastructure solutions are frequently not permitted by municipalities and other regulatory agencies. Development charges are also sometimes blamed for encouraging lower density growth by

virtue of the fact that they are not weighted towards more land-efficient development. For a variety of reasons (value, control, privacy, ambiance, etc.), consumers have shown a persistent preference for single detached houses and, where land prices allow, large lots. Developers respond to the demand.

Our case studies revealed specific exceptions to this rule in most regions (Halifax, Montreal, Toronto, Calgary, Vancouver), where individual neighbourhoods could be found that were designed using New Urbanist principles or alternative development standards. Unfortunately, there is no evidence at the moment that travel behaviour is much different in these settings than in conventional suburban development.

9.3.2 Lessons

Despite "motherhood" statements on the value of higher density and mixed-use development often found in community plans and other planning policy documents, we have found that little of this type of development is delivered on the ground. To address this will require changes in the planning system, fiscal arrangements, and in consumer demand.

One factor that has been linked to poor implementation of this feature of Smart Growth is the regulatory framework governing municipal development charges. These fees are imposed on developers to pay for the municipal capital infrastructure needed to support growth and can amount to a substantial percentage of the cost of new housing (e.g., \$20,000). Many critics have pointed out that the way the charges are structured in some jurisdictions, such as when it is calculated on the basis of the number of units rather than on the amount of space and infrastructure used, encourages developers to create a smaller number of larger units and to favour greenfield locations for new development. This incentive to sprawl needs to be addressed through changes to the provincial legislation governing these charges and through changes to development charge bylaws at the municipal level.

Another factor that contributes to the lack of implementation of community planning policies favouring higher-density mixed-use development is the absence of formal mechanisms to enforce planning policies. Some municipalities in North America have employed targets, checklists, guidelines and other implementation tools to ensure that policy statements are given weight in the day-to-day decisions of local planners and developers. These instruments provide methods for assessing incoming development proposals against planning policy goals, and can be used to guide development towards Smart Growth solutions. A few jurisdictions have taken this a step further by linking performance on a development checklist with a reduction in development charges and other municipal fees. 255

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²⁵⁴ Ray Tomalty. 2001. The Effects of Development Charges on Urban Form. Ottawa: CMHC.

Austin Texas implemented a Smart Growth matrix in 1995 to encourage specific types of growth in its target development zones. The matrix measured how well a development project meets the City's Smart Growth goals such as: the location of development; proximity to mass transit; urban design characteristics; compliance with nearby neighborhood plans; increases in tax base, and other policy priorities. If a development project, as measured by the matrix, significantly advanced the City's goals, financial incentives were made available, including a waiver of development fees, building permit fees and planning application fees. The

Another decision-support tool that could be used to close the gap between policy and performance would be a set of Smart Growth indicators and targets incorporated into community plans. These could provide a macro framework within which individual planning decisions could take place. For example, a proposal to re-designate land to lower-density status might only be considered if the municipality were on track to achieve an overall density target or if there is a transfer of densities from one area to another area within the municipality. A provincially-endorsed set of targets would be most useful as it could also serve as a framework for leveraging provincial infrastructure funding to municipalities.

Consumer demand is often cited as an important reason for the persistence of lower-density homogenous residential development. Others claim that these patterns are maintained not through consumer demand, but through government policies, developers' aversion to the financial risk involved in doing things differently, and other rigidities.²⁵⁶

The research on consumer preference reveals that on non-visual statistical surveys where neighbourhood characteristics are described verbally, consumers show a preference for lower-density housing over a compact, mixed-use model that offers access to open space, recreation, services and a range of housing types. In fact, respondents typically prefer detached single-family house by 3 to1 margins. Results of visual surveys tell a different story. On these surveys, higher-density, mixed-use housing rated higher than conventional suburban development features. The quality of design was an essential component of respondents' stated preferences. The researchers conclude that the term "density" carried a negative connotation with most respondents. The higher prices commanded by New Urbanist neighbourhoods in the US confirm these experimental findings.²⁵⁷ This research suggest that appropriate marketing of compact communities, combined with good design, could help lead consumers in greater numbers to demand more innovation from the planning and development system.

9.4 <u>Improve range of housing types and increase supply of new affordable housing</u>

9.4.1 Issues and trends

The development and maintenance of a wider range of housing types and more affordable forms of housing in appropriate locations can support the development of healthy communities, increase personal health and safety, reduce the need for commuting, attract a qualified workforce and capital investment, and make efficient use of land and existing infrastructure. Thus, housing choice and affordability are central elements of a Smart Growth agenda.

Smart Growth Matrix Program was discontinued in June 2003. Information about the program is achieved at http://www.ci.austin.tx.us/smartgrowth/matrix.htm.

²⁵⁶ Robert Litman. 2003 Evaluating Criticism of Smart Growth. Victoria: Victoria Transport Policy Institute. ²⁵⁷ Patrick Cass Moan. 2002. On the Ground: Removing Barriers to Smart Growth Development at the Local Level. Master's thesis. Rural and Urban Planning, Dalhousie University. Halifax.

Planning frameworks in all six regions contain policies endorsing the creation of a wider range of housing types and more affordable housing. However, few have made major progress towards these goals, either through the private housing market or through public investment. In most cases, market prices and rents have been increasing while the social housing supply has been stagnant in most regions since federal government subsidies for new social housing were eliminated in the early 1990s. In two cases where provincial subsidies for new non-profit housing have been at least partially maintained (Vancouver and Montreal) the demand for assisted housing has nonetheless far outstripped the supply. Saskatoon is the only study region that has not witnessed a long-term significant decline in housing affordability. In terms of the range of housing types, of the six case study regions, only Vancouver saw a significant reduction in the weight of single-detached housing in its housing stock but, even there, prices and rents rose dramatically.

The range of housing types, prices and rents are of course influenced by many factors, some of which are beyond the power of municipal or regional governments to affect. However, local government has an important role to play through its influence over urban form, planning and engineering standards, parking requirements, municipal charges and taxes, the liquidation of public lands, property taxes, the project approval process, and handling citizen opposition to affordable housing through public consultation. Specific municipal actions that can add to the cost of housing include the lack of land zoned for multi-family and small-lot housing, zoning restrictions on manufactured and mobile housing, group homes, secondary suites and rooming houses, planning policies that prevent change towards higher density urban forms, and inadequate funding for non-profit housing.

Many of these impediments are the side-effects of other policies adopted for reasons completely unrelated to affordable housing (e.g., health and safety concerns, engineering considerations). This situation reflects the fact that housing affordability concerns are not fully integrated into the range of municipal responsibilities. In short, housing affordability is not generally a "lens" through which the municipal government sees planning and policy issues, and other policy processes are sometimes carried on with little attention paid to the implications for housing affordability within the municipality. ²⁵⁸

9.4.2 Lessons

The Smart Growth movement has been criticized for advocating land management policies that lead to higher housing costs, putatively by restricting the supply of greenfield locations for new development. An alternative view is that Smart Growth policies can actually enhance the supply of affordable housing by creating intensification opportunities and carefully managing the land base to maximize housing yields and minimize development costs. By placing the housing affordability issue in a Smart Growth context, we can more easily see the links among housing goals, social inclusion, the quality of the life, and environmental sustainability.

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²⁵⁸ Ray Tomalty, Anna Hercz and Peter Spurr. 2001. *Municipal Planning for Affordable Housing*. Ottawa: CMHC.

The case studies revealed a number of approaches to promote the production of a wider range of housing types and affordable housing that will not only meet social needs but also achieve other growth management objectives. These initiatives include:

- Affordable Housing Facilitator This is an internal champion who works with developers and communities to facilitate the production of affordable housing and who brings an affordability perspective to other municipal policies (Calgary, Saskatoon).
- Regulatory changes This would involve reducing restrictions on secondary apartments, encouraging and maintaining single room occupancies and rooming houses, facilitating lot-splitting, small lot development, smaller setbacks, and alternative development standards. All six study regions have explored one or more aspects of regulatory change.
- Density bonusing Allows the private sector to produce more affordable housing, at little or no cost to the municipality. This measure has been applied in Vancouver and Toronto but could be considered in other urban cores and nodal areas where developers may desire higher densities than currently allowed.
- O Inclusionary development policy Some cities (Vancouver and Toronto) have inclusionary development policies that require a specific portion of major new developments to be affordable to households of a defined income range.
- O Affordable housing incentives to developers Municipalities in Canada (Toronto, Saskatoon) are increasingly experimenting with financial incentives (tax rebates, discounted public land sales, waiving development charges and planning fees) to non-profit housing providers and to private developers in order to encourage affordable housing production. In provinces where municipal assistance to the private sector is restricted, legislative changes would be required to exploit the full range of incentives available.²⁵⁹
- O Housing Reserve Fund A housing reserve fund is a municipally-administered fund with a dedicated source of revenue committed to the production and preservation of housing affordable to lower-income households. These funds typically provide grants, forgivable loans and long-term loans to non-profit housing providers (although for-profit developers may be involved as partners) to cover such items as purchase and renovation costs, pre-development costs, outstanding real estate taxes and marketing costs (Saskatoon, Vancouver, Montreal).

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²⁵⁹ Alexandra Jozsa and Ray Tomalty. 2004. *The Potential for Partnerships in Community Reinvestment and Affordable Housing in HRM.* Halifax Regional Municipality.

9.5 <u>Increase transportation choice and reduce car usage</u>

9.5.1 Trends and issues

Every region studied had adopted a transportation plan based on the need to move away from car dependency and to create a more balanced transportation system. Despite this planning effort, four (Calgary, Saskatoon, Toronto, Halifax) of the six study regions saw an increase in the car's modal share and a decline in that of transit. Where gains in transit modal share were made they were relatively small (a 0.6% increase in Vancouver from 1994 to 2004 and a 0.73% increase in Montreal from 1998 to 2003 after a long period of decline), and certainly insignificant with respect to reducing greenhouse gases (for instance, in relation to the federal government's One Tonne Challenge) or air pollution. Where subregional data was available, we saw that transit modal share was higher for downtown trips but extremely low for trips in suburban locations. This suggests that the decentralizing of employment, in combination with suburban residential growth, will further erode transit share unless dramatic measures are taken to counteract or counterbalance these trends.

Reducing car use and its impact on the environment (greenhouse gases, run-off pollution), health (noxious gases, noise and obesity) and cities (the predominance of asphalt and long trips) is a cornerstone of the Smart Growth movement. Failure to turn around the drift towards car dependency calls for serious reflection on the ability of urban regions to address a central Smart Growth issue.

9.5.2 Lessons

Car dependency is a complex phenomenon arising from an array of interrelated factors. Changes in transportation technology provided the initial catalyst for widespread car ownership and use and increased mobility. Convergent factors such as federal mortgage policies, immigration, the baby boom and changing lifestyle preferences increased demands to open up new tracts of land to accommodate population increases. The availability of the automobile afforded planners the opportunity to accommodate much more dispersed settlement patterns than previously possible. Low-density suburbs proliferated.

Manufacturing and retail activities were able to free themselves from the locational constraints of rail and streetcar lines. While roads make these low-density development patterns possible, they also make automobiles a necessity as transit services are unable to support themselves. Car dependency is therefore self-reinforcing, making the phenomenon seem intractable.

Our case studies showed how the transportation and land use planning systems at all levels contribute to car dependency and suggest some potential avenues for intervention. Empirical research has suggested that densities (metropolitan, outer area and inner area), parking supply, and transit supply versus road supply are among the most important variables in the

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²⁶⁰ Lewis Mumford. 1953. *The Highway and the City*. New York: Harcourt Brace Jovanovich; Peter Newman and Jeffrey Kenworthy, 1999. *Sustainability and Cities: Overcoming Automobile Dependence*. Washington, DC: Island Press.

degree of car dependency experienced by any given region in Canada.²⁶¹ As we have already dealt with the first two factors above, here we will briefly consider the latter one.

Provincial transportation agencies consider road transport as a provincial responsibility, while public transit is often seen largely as a local responsibility. In many jurisdictions, provincial transportation agencies fund the maintenance and expansion of the urban highway networks and much of the regional road system, but provide fewer and in some cases no funds for transit development and operations. Lack of provincial investment in public transportation limits the ability of municipal officials to strengthen the transit system as a viable alternative to car use. To redress this problem, provincial transportation agencies should balance funding for road projects with funding for urban transit facilities, as has been done in Alberta through the gas tax sharing with Calgary and Edmonton.

The federal infrastructure funding for transit that has materialized in the last few years, and the new gas tax sharing agreement with the provinces and municipalities, will extend this principle further. However, the federal government should strive to leverage its transportation-related transfers by requiring cities or urban regions to implement sustainable transportation and land use plans as a condition for its backing of major transportation projects.

The National Round Table on Environment and Economy has provided some detailed Recommendations on this matter. They suggest that applicants for federal transportation funding be required to:

- show how the proposed transit investment fits into a comprehensive, longer-term plan to increase the share of trips taken by urban transit;
- document a comprehensive approach to achieving land use patterns that will support transit ridership;
- create a transportation demand management plan;
- document the environmental and economic benefits of the investment:
- monitor the results (e.g., actual net number of new transit riders, development in identified transit nodes and corridors). 262

We found that transportation ministries are often oriented to highway development and see transit and other transportation alternatives as external to their main focus. This needs to be addressed by redefining the role of such ministries as managers of transportation demand and suppliers of a more balanced range of transportation solutions, including alternatives to highway projects such as improvements to transit facilities, expansion of existing arterials, etc.

Provincial transportation agencies have been driven largely by economic considerations to expand highways in the study regions in order to relieve congestion and facilitate freight transport. Expansion programs are founded solely on a "meet the anticipated demand" basis.

215

²⁶¹ Tamim Raad. 1998. *The Car In Canada: A Study Of Factors Influencing Automobile Dependence In Canada's Seven Largest Cities, 1961-1991*. Master's Thesis. School of Community Planning. UBC. ²⁶² National Round Table on Environment and Economy. 2003. *State of the Debate: Environmental Quality in Canadian Cities*. Ottawa: NRTEE.

Little attention is paid to the long-term impacts that such projects have on regional development patterns and travel demand. These deficiencies could be addressed if environmental assessments were required to explore the likely impact of new highways on inducing urban sprawl and further car dependency.

Environmental assessment practices typically require clear demonstration of the need and justification for a project, and include consideration of alternatives. This assessment could include consideration of the impact of the proposed facility on land use patterns and on subsequent travel patterns, and air quality, energy use, and GHG emissions in a region. Environmental assessments could also include full-cost accounting practices that factor in the environmental and social costs associated with highway development. Consideration could be given to applying environmental assessments to major land development proposals.

Overcoming car dependency will require more coordination of transportation and land use planning at the local level too. Despite the clear connection between land use and transportation and the fact that municipal policies generally recognize the need to better integrate these two activities, land use and transportation planning continue to be carried out in "silos" that are physically and administratively separated. Municipal land use and transportation agencies could be re-organized so that land use and transportation (including transit, pedestrian and bike) planning would be under a single administrative structure as it is in Calgary. Such a reorganization reduces conflict between land use planners and transportation engineers and increases the opportunity for linking land use and transportation planning.

Even in cases where planning policies favour transit-supportive urban design, most suburban developments continue to be built in a car-oriented fashion. This seems to be a direct result of powerful market and bureaucratic tendencies that reinforce conventional designs. To counteract these tendencies, it is important that transit considerations be strengthened in the development approval process by:

- providing transit agencies with the resources and mandate to be a full partner in the review of development applications;
- creating transit-supportive guidelines endorsed by Council, and then using these criteria as a basis for negotiation in the approval process, and
- introducing transit services early in the build-out of new developments.

9.6 Preserve agricultural lands

9.6.1 Trends and issues

Many Canadian cities have grown up in fertile plains near watercourses, a historical fact that has created the conditions for conflict between land-consumptive urbanization patterns and the desire to preserve agricultural land. From a Smart Growth perspective, preserving agricultural land on the edge of urban areas is important as a way of stemming the spread of urbanization and deflecting growth energy back into the city.

Trends on this indicator varied over the six study regions. In one case, Halifax, loss of agricultural land to urbanization is not a major concern because of the paucity of good

farmland close to population centres. In two others, Saskatoon and Calgary, conversion of agricultural land to urban purposes is of little concern because of the immensity of the resource at hand and the relative absence of unique, high-quality soils. In the other three cases, where the land has a higher production value – Vancouver, Montreal and Toronto – there is a constant tug of war between farmland preservation and urbanization. In these areas, urban development occurs at the expense of limited, high-quality soils. Our discussion here will therefore focus on these three urban regions.

Two of the three regions – Vancouver and Montreal – are equipped with systems of provincially-sponsored agricultural preservation while Toronto is not. The Montreal and Vancouver systems work more or less the same: the province designated specific lands in each jurisdiction as part of the agricultural zone and municipalities or developers who want to remove land from that zone (by using it for a non-agricultural purpose) must apply to the independent commission that oversees the zone for permission. Local governments have a say in what happens to those applications, but the final decisions are made by the commissions. Historically, the BC commission has been more zealous in protecting the land base than its Quebec counterpart.

Not surprisingly, the rate of farmland loss appears much lower in Vancouver and Montreal than Toronto. In Vancouver, there was a net loss of farmland of 225 hectares from 1996 to 2004, whereas Toronto lost 445 sq km of farmland to urbanization between 1986 and 2001. In Montreal, withdrawals from the reserve since 1991 have been very small – 463 hectares in total.

9.6.2 Lessons

The numbers above seem to suggest that the agricultural reserve systems in Vancouver and Montreal have been effective in stemming the loss of farmland to urbanization. However, the situation may be more complicated than this. The figure for Toronto captures the total farmland lost to other uses while the Vancouver and Montreal numbers reflect only those lands being alienated from their respective agricultural zones. In fact, both regions have or had at least some agricultural land not included in their green zones that has been lost to development. For example, when the Quebec system was set up in 1978, enough land (including an unknown amount of farmland) to support 20 years of development was not included in the zone. As this land was urbanized, pressures built up to release more land from the green zone and by 1991, major revisions to the green zone boundaries had resulted in the exclusion of 323 sq km of farmland, which is now being developed. In Vancouver, almost 300 sq km of "vacant urban" lands (included, undoubtedly, some farmland) were left outside the Green Zone and were available for urban development. This amounted to about half the size of the already urbanized portion of the region.

To assess the effectiveness of the agricultural reserve systems, we would need to have data comparing the performance of the three urban regions in terms of total agricultural land loss (including both those within the reserves and those outside the reserves) since the 1970s.

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²⁶³ In the past, in B.C. cabinet occasionally interfered in these decisions, but this practice ended in 1992.

Unfortunately, no such data exists.²⁶⁴ However, a 1989 study conducted by Environment Canada indicated that from 1981 to 1986, the Toronto urban region converted 10,047 hectares of prime agricultural land, Montreal converted 2,665 hectares, and Vancouver only 498 hectares.²⁶⁵ Given that Montreal saw only about one third the growth experienced by Toronto over those years, the loss of farmland in the two regions appears about equivalent. Vancouver also added about one third the number of people to its population over those years as did Toronto, but lost only one-twentieth of the agricultural land. This suggests that the agricultural reserve system in Vancouver was quite effective in reducing the rate of farmland loss.

However, the ultimate test of effectiveness of Vancouver's agricultural reserve will only be known once land available for development outside the reserve is exhausted. If, as has happened in Montreal, land is removed en masse in order to provide fresh supplies to support greenfield development, the system will obviously have less ability to deflect development energies into the already urbanized areas. As mentioned in the GVRD case study, recent changes to the rules governing the Agricultural Land Commission in BC have Smart Growth advocates worried that land will be more easily taken out of the reserve in the future. For instance, 178.5 hectares was recently removed in Abbotsford just outside the GVRD, but supporters of the move claim that most of the land was not in production. Nonetheless, there is plenty of evidence that a number of land-hungry municipalities would be happy to sacrifice farmland in favour of development, and Smart Growth and agricultural advocacy groups need to monitor the decisions taken by local panels very closely.

As for the Toronto region, it is clear that the policy framework – which didn't include a reserve system – has not worked effectively to limit the amount of farmland being converted to urban uses. There, weak provincial policy statements combined with a lack of regional integration has led to situations where municipalities approve development on agricultural lands without taking into account the availability of non-agricultural or less ecologically important lands in other municipalities. This problem has been particularly acute in the GTA, where there are strong divisions and competition between the City of Toronto and the suburban municipalities outside the City of Toronto for provincial infrastructure funds, and for private sector residential, business and commercial development and the property tax revenues that will flow from such development.

However, the situation in Toronto is being addressed through the creation of a massive greenbelt around and beyond the GTA. The belt provides permanent protection to agriculturally and ecologically important lands throughout the region. The new legislation allows lands currently zoned for urban development to be urbanized, but puts agriculturally

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²⁶⁴ Statistics Canada conducted research on agricultural land loss in urban regions across the country in 2003, but has elected not to publish the results broken down by metropolitan area, apparently out of a concern for the reliability of the data. See Nancy Hofmann, Giuseppe Filoso and Mike Schofield. January 2005. *The loss of dependable agricultural land in Canada*. Rural and Small Town Canada Analysis Bulletin, Statistics Canada,

²⁶⁵ C.L. Warren, A. Kerr, and A.M. Turner. 1989. *Urbanization of Rural Land in Canada*, 1981-86. Ottawa: Environment Canada, State of the Environment Reporting.

²⁶⁶ Pat Bell [provincial minister of agriculture]. August 12, 2005. "ALC works successfully to preserve farmland" [op ed]. *Vancouver Sun.* p. A15.

zoned land off limits to development. Some have questioned whether this belt will cause leap-frog development beyond the protected zone, suggesting that it will be most effective if intensification opportunities are identified and exploited within the urbanized areas.²⁶⁷ This is one of the principal goals of the province's new plan for the GTA and surrounding areas (the "Greater Golden Horseshoe"), another major step in the right direction.

As with Vancouver, the main challenge in Montreal will be to resist the temptation to dezone lands as development pressures rise. The new metropolitan plan put forward by the Montreal Metropolitan Community offers a regional framework in which any such decision must be made, a condition that did not exist in the early 1990s when the major dezoning occurred in the region. The wording of the new MMC plan makes it clear that changes to the agricultural zone will be discouraged, except in "destructured" areas, i.e., those districts where previous dezoning decisions have fragmented farmland and rendered it unsuitable for agriculture. The new MMC regulation requiring that land owners of any land dezoned from the agricultural reserve obtain development permit from the regional body will strengthen its hand in enforcing its preservation policies and provide a much needed metropolitan perspective to changes in the reserve boundaries.

9.7 Preserve lands essential to maintaining regional ecosystem functions

9.7.1 Trends and issues

All six cases report loss of natural assets to varying degrees. In the absence of any cross-regional studies surveying actual changes in land cover or water quality, we cannot say much here in terms of relative levels of damage. Each region has its unique challenges and accomplishments. In Toronto, for example, wetland destruction appears to have come to a halt in the 1990s (although by then most of the original wetland areas in the region had been lost) and threatened species' habitat is now well protected. On the other hand, woodlands and other types of habitat areas are not well protected and continue to succumb to urbanization.

By contrast, in Calgary, wetlands and ravines have not been well protected and the spread of the city has resulted in most of these being filled in, with resulting water quality problems. The park system in Calgary, however, provides an interconnected system of semi-natural areas. In Montreal, the park system is fragmented and shorelines are largely developed in the heavily urbanized areas. In Saskatoon, shorelines have been protected. Halifax has a system of regional parks but water quality has been affected by sedimentation and erosion due to flooding, both related to urbanization in the affected drainage basins.

With its Green Zone, the Vancouver region appears to have had the most comprehensive system of ecological protection, but lacking has been a consideration of how well the protected lands function as a system for preserving and enhancing biodiversity and how this

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²⁶⁷ Rodney Northey. July 2005. "Ontario's Greenbelt Act." . *Municipal World*. pp. 13-14, 16; Shari Elliott and Marshall Green. July 2005. "Greenbelt Act signals further erosion of local decision-making." *Municipal World*. pp. 13-14, 16.

can be optimized through future management. This issue is beginning to be addressed. In other urban regions, provincial policy statements encourage municipalities to take steps to protect natural features but, as we have seen, the results are uneven.

9.7.2 Lessons

The strongest protection of environmental assets seems to occur when "special purpose" bodies exist – such as the Niagara Escarpment Commission, the Meewasin Valley Commission, or the Conservation Authorities in Ontario. To be most effective, such bodies need authority and sufficient resources to do a proper job. 268 Another option is when land with ecological value, such as Ontario's green belt, is set aside and is largely made off-limits to development.²⁶⁹ The key to the effectiveness of such set-asides is their permanence and their attention to scale. Ontario's recent Greenbelt Act, will protect approximately 730,000 hectares of land within the Greater Golden Horseshoe, within which Greater Toronto is a part, much of this land possessing significant ecological value.²⁷⁰ In addition to promising to protect the belt in perpetuity, which may not be possible given the shifting vagaries of political life, attention has also been given to protecting key river corridors on an appropriate ecological scale.²⁷¹

Another key strategy is outright purchase. In BC during the 1990s, important ecological areas were acquired by the provincial government and turned into parks through its Lower Mainland Nature Legacy program. These included Indian Arm, Pinecone-Burke Mountain, Burnaby Mountain, and the Colony Farm property in Coquitlam. Also, more recently, in a collaborative move between four levels of government, Burns Bog, one of the most significant ecological features in the region, was acquired and was put under the management of the GVRD. The newly unified Montreal also has initiated a new Green and Blue Fund to acquire sites of ecological and recreational value. The efforts of government are also being supplemented by those of private conservation groups such as Ducks Unlimited and the Canadian Wildlife Federation. Clearly, outright purchase, or the insertion of irrevocable conservation easements on title, are an effective way of ensuring long-term preservation. However, these require financial resources that are usually only available from senior governments, and this is one area where they need to take greater responsibility.

In some cases, the transfer of development rights may also have application, whereby development rights are effectively stripped from one site which is important to preserve and transferred to another site where development is desirable. In some cases, this does not mean acquiring a new parcel but adding to the density allowed on a parcel already owned by a developer. This could be an important tool in cases where privately held land is downzoned in the interests of ecological preservation. In such cases the property owner can sell his or her development rights to the owner of another property who wishes to develop at a density higher than that allowed in the applicable zoning bylaw. The benefit of this arrangement, in

²⁶⁸ Gerald Hodge and Ira M. Robinson. 2001. *Planning Canadian Regions*. Vancouver: UBC Press.

²⁷¹ Ibid.

²⁶⁹ For a more detailed analysis of the greenbelt and the Act that created it, see Northey 2005.

²⁷⁰ Rodney Northey. 1uly 2005. "Ontario's Greenbelt Act." Municipal World. pp. 13-14, 16.

addition to directing development to where it will have the least detrimental impact, is that it can provide benefits for the property owner whose development rights are purchased.

9.8 Encourage employment growth to strengthen the core and designated subcentres

9.8.1 Trends and issues

A central element of the Smart Growth program is the need to direct employment growth into specific centres within the urbanized portion of the region. A network of such nodes is required in order to create major destinations that can be well served by good quality transit. For such centres to be successful, they have to attract high-intensity employment uses (such as office buildings) closely linked to transit services in a walkable, diverse, and visually attractive milieu.

The case studies revealed that all six urban regions had policies to promote a nodal employment structure. In Vancouver, town centre development was a key part of the Livable Region Strategy Plan while, in Calgary, the Transportation Plan emphasized the need for new sub-centres in suburban areas that would be well-served by transit. Saskatoon's planning framework proposed a hierarchy of designated centres and arterials with higher density development and a mix of land uses. The many regional land use and transportation plans put forward by various bodies in Toronto are all strongly oriented towards a system of nodes connected by good quality transit. In Montreal, provincial plans for the region and the MUC plan for the island of Montreal aimed to strengthen on and off-island employment poles. In Halifax, the regional plan was based on the assumption that the urban core would remain a strong employment centre but that much of the growth would go into large industrial parks flanking the metropolitan core.

Outcomes have been disappointing. In Vancouver, only 16.6% of employment growth is going into town centres, while in Calgary the centres that were anticipated in suburban areas and around transit stations have failed to substantially materialize. Saskatoon has seen little in the way of suburban sub-centres described in the City's development plan. Toronto's successful sub-centres are limited to those found in the City of Toronto (especially North York) and Mississauga. In Montreal, the employment poles are barely holding their own in terms of their share of regional employment growth, but they are gradually strengthening. In Halifax, much of the employment growth has gone into business parks scattered throughout the region, competing against each other for further growth.

Compounding this lack of performance in terms of employment concentration are the design issues that plague many sub-centres. Instead of the high-density, mixed-use activity nodes portrayed in planning documents, many nodes, especially suburban ones, are bleak areas with vast tracts of parking and monotonous commercial architecture, flanked by highway infrastructure. Few of them are served with good-quality transit.

9.8.2 Lessons

One of the key reasons for the failure of strong employment sub-centres to materialize in most of the study regions is that they are competing for employment investment against suburban business parks near highway interchanges. Not only do business parks draw off employment growth that might have gone to a designated node, they are almost always poorly served by transit and therefore contribute to the region's car dependency. The further development of such parks should be discouraged in community plans, but the best way to approach this issue may be to boost the attractiveness of the designated sub-centres as employment hubs. We have discussed how municipalities can contribute to the physical attractiveness and functionality of these areas as residential districts and many of these recommendations would also work for employment uses.

Nodal areas could also better compete for employment investment by offering financial incentives to developers. Many provinces have constraints on what municipalities can legally offer to private developers by way of financial assistance. In Ontario, changes to the *Municipal Act* in 2002 expanded the range of possible mechanisms in that province.²⁷² Municipalities can now enter into "municipal capital facility" agreements with private developers in order to provide incentives including:

- property tax exemptions
- loans (at favourable rates)
- grants
- giving, selling or leasing land at less than market value
- guaranteed borrowing
- donated services of municipal employees, and
- full or partial exemption from municipal development charges.

This mechanism is being used to attract employment investment in nodal areas in Toronto and to encourage private investors to help pay for the public facilities needed to make a nodal area work, such as an overpass, parking garage, or elevated walkway to connect an office building to a transit station. Other provinces should consider adopting similar legislative provisions.

Another way to encourage private employment investment in nodal areas is to lead the way with public investment in the social and physical infrastructure needed to support growth (schools, courthouses, hospitals, police stations, cultural facilities). In Vancouver, the provincial government has located crown corporations in regional town centres to help support the planning concept. As a general rule, however, investments in major public facilities have not been directed to strategic Smart Growth locations as a first priority. Public spending at the federal, provincial and municipal levels needs to be much more closely aligned with Smart Growth objectives. Government buildings can act as catalysts and contribute to creating a critical mass of activity in these locations.

Another factor that has constrained the development of employment centres is the reluctance of transit agencies to provide high-quality services to an area where employment is only

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²⁷² Alexandra Jozsa and Ray Tomalty. 2004. *The Potential for Partnerships in Community Reinvestment and Affordable Housing in HRM.* Halifax Regional Municipality.

beginning to concentrate. Obviously, this chicken-and-egg issue primarily affects newly emerging nodes, such as those foreseen in Calgary's suburban areas or in Toronto's 905 region. One way to address this issue would be to phase in transit services, starting from regular bus service to dedicated lanes and finally rapid transit as the employment nodes materialize over the years. This is the basis of York Region's Centres and Corridors Strategy. Obviously, this type of long-term capital planning and investment can only be done with considerable provincial and federal assistance.

The type of low-density employment development that has appeared in some suburban nodes, such as car dealerships and big box retail, may represent a "pioneer" form of development that could eventually be replaced by higher density office employment. In order to allow this "succession" from low- to high-density employment to take place, flexibility must be built into the planning framework. For example, this might involve planning sites such that surface parking areas are designed up front to be future building sites, with planning frameworks allowing future development of these areas as-of-right.

Another factor that undermines the development of employment nodes is land ownership patterns. In established parts of the urban region where nodes are designated, land ownership can be badly fragmented. This can be an important obstacle to comprehensive development or redevelopment of strategic locations. Municipalities can help address this by facilitating the assembly of land from a variety of owners and then reselling the larger parcel to a single developer. This approach is especially suitable to locations where the municipality already owns a substantial portion of the land to be assembled, i.e., public parking lots.

Given the poor performance on employment nodes, we might ask if a contributing factor may be the sheer number of nodes being designated in each urban region. Too large a number of designated nodes can dilute the impact of public investments in infrastructure and spread out limited employment growth. This is certainly the case in Toronto, where over 40 nodal areas were specified in one regional planning document and where municipalities compete for employment growth by multiplying nodal designations in their official plans. Recognizing the futility of over-designating nodes, the province's new regional plan for the Greater Golden Horseshoe specifies only 15 nodal areas.

9.9 Provide infrastructure to reduce ecological impacts of development.

9.9.1 Trends and issues

Urban growth in all six study regions long ago overwhelmed the carrying capacity of local ecosystems. Only through the installation of engineered systems can human populations continue to grow in these regions without suffocating from lack of life sustaining supplies or drowning in their own wastes.

All six urban regions are well served with drinking water, although there is some concern with contamination in Calgary, Toronto and Montreal, mostly from septic failure or sewage system loadings in surface water bodies serving as sources of potable water. Sewage systems are continuously being upgraded in all six regions, with Vancouver, Montreal and Saskatoon adding advanced sewage treatment facilities only within the last few years.

Halifax is only now planning to install advanced treatment systems in order to address water quality issues in the Halifax Harbour.

In addition to improving conventional water and sewer systems, municipalities and regions are beginning to experiment with innovative stormwater management at the site and district, with green buildings, and with district energy systems.

9.9.2 Lessons

Infrastructure extensions and upgrades go hand in hand with urbanization, sometimes leading and sometimes following. In cases where infrastructure leads, it is essential that infrastructure planners be working in the context of a regional development plan. This was the case in Halifax as water treatment and sewage systems were used to define urban boundaries and control the pace of suburban development. In contrast, the Toronto case study suggested that in that region infrastructure investments were made that violated regional development plans (especially the Toronto-Centered Region Plan) and ultimately undermined them. The province claims that its new growth vision for the Greater Golden Horseshoe will be supported by provincial infrastructure investment decisions. This should be closely monitored by Smart Growth advocates in the region.

This raises another important issue about infrastructure spending in metropolitan regions. We have noted in our case studies that there is often a tension between metropolitan interests in land use decisions and the growth vision of individual municipalities within those regions. Typically, municipalities are competing to attract as high a portion of the regional growth as possible while regional authorities are trying to distribute growth "rationally" to minimize infrastructure needs, among other negative consequences of unstructured growth. Because they have control over zoning and development control decisions, municipalities sometimes circumvent regional growth plans and approve development that violates metropolitan interests.

Metropolitan (or provincial) control over major infrastructure spending provides a potential tool to enforce regional growth vision on recalcitrant municipalities. Among our case studies, the GVRD provides the best laboratory to witness how this plays out in practice. The district has control over infrastructure investments (such as major sewer, water works and transportation improvements) that are preconditions for growth in any given area of the region. These services and investments are supposed to be consistent with the growth management goals expressed in the Livable Region Strategic Plan. In theory, if municipalities are deviating substantially from those objectives in their zoning and development approval decisions, the district might refuse to service this growth or provide for growth-supportive facilities. This, however, is not the practice.

In practice, when municipal growth patterns do not match those aimed for in the Livable Region Strategic Plan, regional investments are not withdrawn. Instead, the infrastructure needed to support that growth and avoid any health or safety consequences is usually provided. Planners at the GVRD point out that the board's mandate requires the district to provide services to member municipalities as they are needed and that, as a federation of municipalities, the GVRD board is unlikely to enforce its planning objectives by selective

provision of services. This contrasts with the situation in several US states (Oregon, Washington, Maryland) where state funding for urban infrastructure in those jurisdictions is tied to participation in an agreed and approved regional plan. This approach should be carefully studied in the context of major metropolitan areas in Canada as well.

A final issue relates to the financing of urban infrastructure and the impact this has on growth patterns. Development charges are the fees charged to developers to help cover municipal infrastructure expenditures. The charges are governed by provincial legislation and the system of calculating the charges varies from province to province. In most provinces, it would be possible to vary the charges on specific development proposals in order to encourage growth that minimizes the need for new infrastructure spending, i.e., infill growth, higher-density development, or green buildings that put a lighter load on municipal infrastructure.

A review of 15 municipalities in BC revealed that most municipalities – even those with strong Smart Growth visions – do not vary the charge by residential density or location within the municipalities. None of them takes high performance building design into account in setting development charge rates.²⁷³ Similar conclusions have been reached by other researchers examining development charges across Canada.²⁷⁴ In other words, there is complete disjuncture between the fiscal goals of the municipality and its planning goals. This is a situation that urgently needs to be addressed through changes to provincial legislation requiring that the charge calculations be tied to the municipality's growth management vision.

9.10 Final Remarks

Throughout this report we have considered the relationship between the stated intentions of urban regions and municipalities with regard to Smart Growth and their actual performance. While major shifts have occurred in terms of language and policy goals, performance is lagging behind considerably. While there are hopeful signs and initiatives, too much of what is occurring in the growth and development of these regions and communities is akin to what has occurred in the past. This is not only a result of a lack of political will, it also reflects real constraints, such as a lack of provincial support and direction (not to mention resources) and the lack of a sea change in popular consciousness.

This credibility and performance gap reflects problems common to all major processes of social change; it is not unique to growth management or land use planning. The fact that the federal government is beginning to take a more activist role, through the Green Municipal Fund and other initiatives, may and seemingly is helping to catalyze change. But what is clearly needed, in addition to federal actions, are more effective alliances and coalitions for Smart Growth – at all jurisdictional levels. The role of these alliances – whose effectiveness is optimized when they represent a broad spectrum of interests: environmentalists,

225

²⁷³ Coriolis Consulting Corp. September 2003. *Do Development Cost Charges Encourage Smart Growth and High Performance Building Design? An Evaluation Of Development Cost Charge Practices In British Columbia*. Vancouver: West Coast Environmental Law.

²⁷⁴ Ray Tomalty. 2001. The Effects of Development Charges on Urban Form. Ottawa: CMHC.

developers, the financial community, and affordable housing groups – is to bully and cajole all levels of government into "doing the right thing." This is clearly easier to do when the governments in question are more receptive, as they currently are at the federal level and in some provincial jurisdictions, such as Ontario.

Smart Growth BC presents one quite effective example. Established in 2000, it not only advocates and critiques, it provides information on alternatives and works with municipalities to achieve Smart Growth programs "on the ground." Other such organizations are being established in other provinces, and attempts are being made to strengthen an embryonic national Smart Growth network (www.smartgrowth.ca).

In the end, there is no magic bullet. Monitoring the performance of communities and regions and holding them to account, as well as lauding positive efforts when these occur, is the path that must be taken. Sharing best practice experiences and helping to popularize them, and conducting educational campaigns directed at a variety of stakeholders to show the multiple and cross-cutting benefits of Smart Growth practices, is also essential. In the end, persistence will pay off, as attention is directed at all relevant stakeholders: local and regional governments, senior governments, the development and financial communities, planners and other land use specialists, NGOs, and the general public that must be won over to considering new lifestyle choices and their associated benefits. The rising cost of oil may also help as people begin to consider whether they can afford multiple automobiles and long commutes. We hope that this report will contribute further to the rising Smart Growth trend.