

## Audit Report One: Context and Trends



January 18, 2002

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## Introduction

Audit Report One: Context and Trends presents a picture of Edmonton's current situation using key indicators of land use intensification. This report examines benchmarks and measures of progress. In addition to presenting the current context there are sections describing projected trends and the implications these trends may have for managing further growth. Graphs are used to track and project trends in Edmonton and the Census Metropolitan Area. Maps are used to identify areas of existing intensification and areas where the potential exists for further intensification.



Topics covered in this report include:

- A Catalogue of Intensification
- Demographics and Demand
- Land Use
- Economy and Investment
- Edmonton's Regional Context
- Transportation
- Environment
- Socio-Economic Situation

## Intensification Catalogue

A catalogue of recent intensification in Edmonton is presented to give readers an understanding of the range of activities that result in intensification.

### Downtown



**Canterra Centre, Jasper Avenue and 109 Street. 16 unit commercial redevelopment of a former rail terminal.**



**Former CP Rail yard at 111 Street and 102 Avenue. Residential and park redevelopment, 501 new residential units**



**Phillips Lofts, 104 Avenue. 39 unit residential conversion.**



## Inner City Neighbourhoods



**Infrastructure renewal in an inner city neighbourhood.**

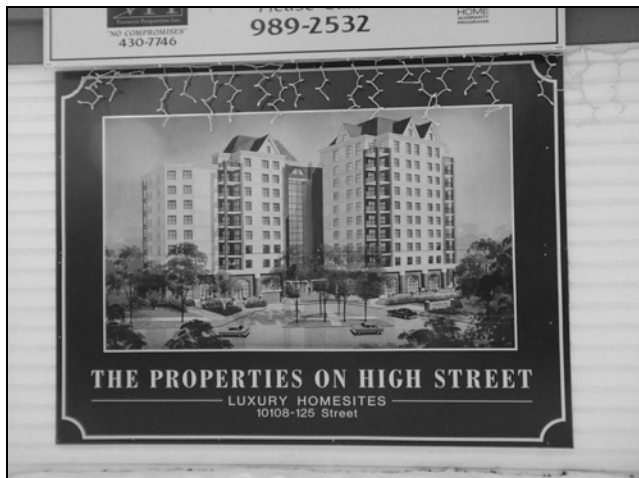


**The Ashby, 150 unit residential and park redevelopment of a former rail yard at 104 Avenue and 117 Street on the Queen Mary Park/Oliver neighbourhood Boundary. A second phase of 150 units underway.**

## Mature Neighbourhoods



**Urban Fare, 142 Street and 96 Avenue. Intensification through infill commercial redevelopment, outcome: more businesses on site.**



**Glenora Properties, 125 Street and Clifton Place. 69 unit infill development in a mature neighbourhood. Experienced considerable community opposition.**



**Creekside on Mill Creek ravine at 80 Avenue and 96 Street. 174 unit residential redevelopment of a former industrial site. Experienced considerable community resistance.**

## New Suburbs



**Garage suites in Terwillegar Towne. Increased housing options and density in new neighbourhoods.**



**Terwillegar Towne square. Town centre, walkable community.**



**Multiple family housing in Terwillegar Towne, may result in higher density development.**



## Institutions



**St Joseph Catholic Senior Secondary  
School 10830 - 109 Street.  
Increased learning space.**



**Telus Centre for Professional  
Development, 87 Avenue and 111  
Street. Infill development on a  
former parking lot and minor building  
site.**



**Grant MacEwan Community College,  
Downtown Campus.  
Redevelopment of a former rail  
yard.**

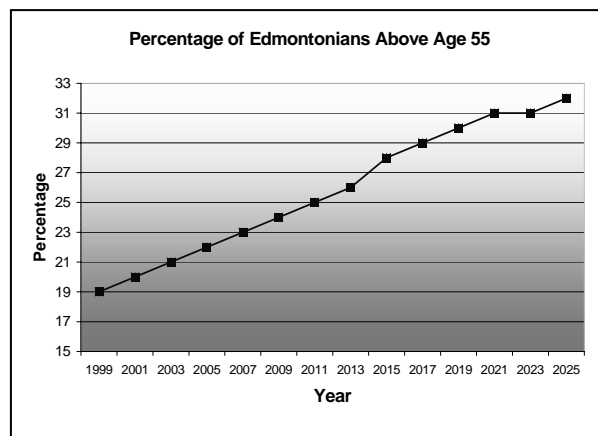


## Demographics and Demand

### Aging Trend

As baby boomers and teenagers age they may seek more compact housing options within easy reach of amenities.

Edmonton's population is aging and this could have considerable impact upon the housing needs of Edmontonians. The current percentage of Edmontonians above age 55 is approximately 20 percent, however by the year 2023 this figure is expected to approach 31 percent, see chart below <sup>1</sup>.



The baby boomers may be ready for smaller, more easily maintained housing close to communities with shorter commuting times and many services within walking distance.

Many of the echo boomer young adults, born between 1980 and 1995,<sup>2</sup> will seek out housing in the central areas of larger cities rather than in the suburbs. For the Edmonton Census Metropolitan Area (CMA), the number of young adults aged 20 to 29 is forecast to increase by nearly 12,000 over the next five years.<sup>3</sup>

A study by Canada Mortgage and Housing Corporation (CMHC) indicates a growing demand for housing in the central areas of Canada's largest cities.<sup>4</sup> The CMHC study found that potential buyers in these cities considered a neighbourhood rather than a particular house to be the most important factor when choosing a home. Six of the nine cities in the study, including Toronto and Montreal, saw increases in the percentage of housing starts in the central area. Edmonton's central area experienced an increase in its share of housing starts. Housing built in the central area of the City increased from 9% of all housing starts in Edmonton to 13% between 1994 and 1998.

The aging trend means that a segment of the population may sell their single-family homes and buy condominiums and other housing options that reduce the amount of upkeep required and that place residents a short distance from the shops and services they desire. The number of people who will age in place and therefore not contribute to intensification is not known. However, it may be harder for people to age in place in suburban locations isolated from shops and services as opposed to those individuals who age in place in more mature or mixed, walkable and more fully serviced neighbourhoods.

With an increase in citizens of retirement age there is a foreseeable demand for housing that is closer to all kinds of services, from physicians to grocery stores to community centres. Driving long distances to reach these services and amenities becomes an increasingly difficult task that many older people will want to avoid. As such increased housing options in existing developed areas and infill projects may become favourable alternatives to suburban dwellings.

## Demographic Change

Household size is declining as grown children move out and the diversity of family forms increases. This creates a growing market for smaller living spaces.

Average household size has declined to 2.49 persons per dwelling.<sup>5</sup> This means that there are fewer people living in each household than in previous decades and this trend is expected to continue due to an aging population, single parent families, single child families, single person households and other types of family arrangements. Household growth rates have been shaped by the baby boom generation maturing into adulthood as well as social factors such as comparatively higher divorce rates and changed family forms.

Over the next five years the number of households in the Edmonton CMA is expected to increase by about 36,000, however the number of people in these households will be lower than in previous decades.<sup>6</sup>

The decline in the number of young people in our population will begin to have an effect on schools and other agencies providing services to children.

During the next five years the 75+ age cohort in Edmonton is expected to increase 20% by 2006.<sup>7</sup> The increase will largely occur in the older, central areas of the City and a high proportion of this age group will be women living alone. The demand for services such as health care, exercise programs, seniors housing and aids to daily living will continue to increase. Isolation may be a problem for some of the elderly. An increased need for home care combined with isolation could give rise to a market

niche for secondary suites to help provide the widowed added income, yard upkeep, and provide a social fabric for this aging demographic.

The Baby Boomers 35 – 54 age group in Edmonton is expected to increase 6% and the 55 – 64 age group is expected to increase 30% by 2006.<sup>8</sup> These changes will put pressure on the health care system, including more frequent trips to health care providers, and growth in the medical services industry.

The Canadian Mortgage and Housing Corporation (CMHC) projects 24% population growth in Alberta over the next 20 years. With the empty nesters becoming a larger segment of the housing market, CMHC projects a doubling in older adult (55-75 yrs) housing demand in Alberta.<sup>9</sup> This will create a larger market for smaller homes, condos, and homes with fewer stairs and assisted living options.

## Household Composition

The populations of suburban neighbourhoods continue to grow. Populations in mature neighbourhoods are falling. At the same time the number of households in mature neighbourhoods rose marginally.

Edmonton's population has grown 1.1% per year between the 1993 census population of 626,999 and the 1999 population of 648,284.<sup>10</sup>

The population of Edmonton's suburban neighbourhoods (built after 1969) increased by nearly 30,000 people between 1993 and 1999, while the number of people living in mature neighbourhoods (see map 15, Mature Neighbourhoods) declined by 8,000 in the same period. Despite the population

loss in the mature neighbourhoods the number of households rose by nearly 1,800 in this area, due to lower average household size of 2.49 persons per unit.<sup>11</sup>

Individual neighbourhoods throughout Edmonton lost population between 1993 and 1999. This can be attributed to adult children leaving the home.

Nearly half of Edmonton residents lived at their address for five or more years, 13% for three to four years, 23% for one to two years and 15% for less than one year.<sup>12</sup> The mature neighbourhoods and the suburbs have very similar percentages for length of residence. The traffic district with the highest percentage of long term residents is Capilano and the Downtown featured the least stationary residents.

Of all households, 57% are owned and the remaining 43% are rented. The most popular form of housing in Edmonton is the single family home accounting for 51% of all households. The next most popular form of dwelling is the under five-story apartment at 22% of all households.<sup>13</sup>

### **Neighbourhood Population Change**

Demographic forecasting shows that most residential areas in Edmonton will grow. Two areas are projected to decline slightly, Mill Woods and Kaskitayo and the adjacent mature area south of Whitemud Drive. The most extensive population growth will occur in new suburban areas on the north, west and south flanks of the City.

Current populations in Edmonton's neighbourhoods are shown on Map 11, Population by Standard Neighbourhood.

Population projections by the Planning and Development Department and the

Transportation and Streets Department for 2000 to 2025 are shown on Map 1, Projected Population Change by Traffic District.

The Downtown, areas surrounding the Downtown, University, Strathcona and areas north of the Yellowhead and west of 97 Street will experience redevelopment growth rates of approximately 2 percent.

The Mature Neighbourhoods (built prior to 1969, see map 15) excluding those south of Whitemud Drive and the areas will sustain stable growth with possible temporary, minimal declines in population.

The areas of the City that will experience the most explosive growth are those areas that are under active development. These include areas bounding the City limits to the north, west and south. These areas represent brand new development serving to expand the housing stock for the City's growing population. Currently, single family housing dominates these markets.

There are two areas that are expected to experience declines in population. These areas are Mill Woods west of 34 Street, Kaskitayo, and the mature neighbourhoods south of Whitemud Drive. Reasons for this decline include the moving away of the now adult children of the "first wave" families in Mill Woods and Kaskitayo. This is a normal trend in the lifecycles of suburban neighbourhoods. The challenge will be to attract buyers for properties that become available in these neighbourhoods as families adjust to their new size by moving to other locations and types of housing.



## Neighbourhood Cycle

As the first residents of a neighbourhood age, adult children move away, and the parents may seek out another place of residence. This population reduction is usually slowed or reversed as the lone adults move out and sell properties to younger families.

As mentioned above there are two groups of neighbourhoods with populations expected to decline. This can be explained by looking at a conceptual model of neighbourhood cycles. (Diagram 1, Conceptual Neighbourhood Cycle.<sup>14</sup>) As a neighbourhood develops it typically fills up with a first wave of younger families or couples preparing to have families. As people in these families age the children of the parents will move away, lowering the population and average household size of the neighbourhood. The trend continues as parents move away to smaller or different housing that is better suited to the needs of their smaller family. However the decline is typically not permanent given good social and economic conditions. Under good conditions a new wave of families will begin to move in to fill the opportunities created by the passing of the first wave of families. Thus the neighbourhood achieves a more mixed demographic and moves towards a "stable growth" scenario as families and individuals move to and from the neighbourhood according to their needs.

## Land Use

### Edmonton's Growth over Time

In 100 years the City of Edmonton has grown from a town of 9 square kilometers to a city of 700.6 square kilometers.

The City of Edmonton has a history of growth that includes not only population growth, but spatial growth as well. The City has grown from a town of 9 square kilometers in 1892 to a City of 700 square kilometers in 1982. The City expanded its geography through a series of annexations over the last century. The single largest annexation occurred in 1982 with the absorption of 91,300 acres of land.<sup>15</sup> Until 1982 the patterns of annexation were basically concentric, expanding along the periphery of the built out areas. The 1982 annexation resulted in Edmonton receiving a larger land area than the City had originally requested. Annexations are shown on Map 2, History of Annexations Map. The seemingly vast amounts of available space suggest that there is room left to grow, however the type and direction of growth should be considered in the context of Edmonton's finances, the availability of infrastructure and the current use of the land for agriculture.

### Mature Neighbourhood and Suburban Population Growth

Mature neighbourhoods are losing population. Encouraging infill development and increased densities may bring life back to these neighbourhoods.

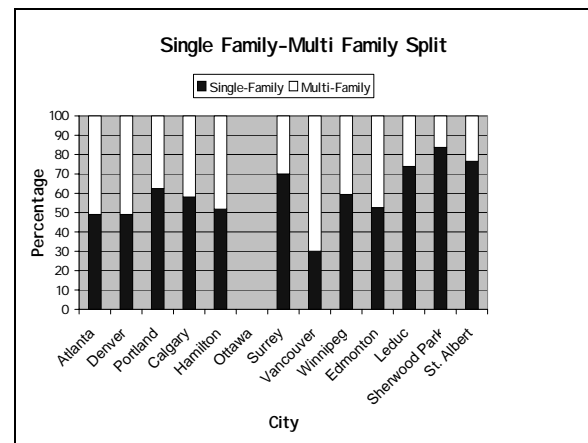
In the past 20 years, Edmonton's mature neighbourhood population has fallen by nearly 75,000 (56,000 between 1986 and 1996). The challenge is to reverse this population loss, helped in part by priorities

established in Plan Edmonton for investment in mature neighbourhoods. The City's population is expected to increase by about 111,000 by 2010 with about 11,000 new residents in the mature neighbourhoods and 100,000 new residents locating in the suburban communities.<sup>16</sup>

### Single Family vs. Multifamily Trends in Edmonton

Edmonton has a well balanced mix of multiple and single family housing stock that provides housing choices for a range of family sizes and incomes.

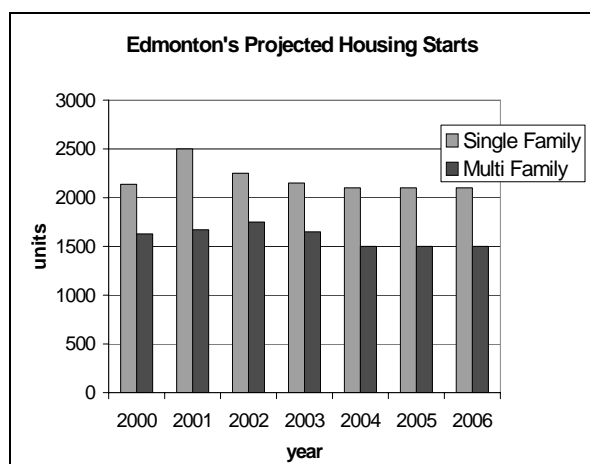
The single family versus multiple family split in Edmonton is a measure of the ratio of single family housing to multiple family housing available to consumers.



By looking at the Single Family – Multi Family Split chart above, showing how Edmonton stacks up in terms of the ratio of multi unit dwellings compared to other cities in North America, it is clear that Edmonton is situated in the middle of the pack.<sup>17</sup> This means that Edmonton has a well balanced mix of multiple and single family housing stock. Edmonton is neither too far behind in terms of providing higher density housing options, nor is it too heavily dominated by single family housing options.

Edmonton's equitable split between the two kinds of housing options ensures that there is choice in the marketplace for consumers and that a range of housing options exist for a range of family sizes and incomes.

Housing start projections to 2006 suggest a stable market with 2,200 to 2,100 single housing starts annually.<sup>18</sup> The multi family housing market also is projected to remain stable despite a small decline in the number of units built annually. The multifamily market is expected to see production of 1,750 units in 2002 declining to 1500 units annually by 2004 through to 2006. (See Projected housing starts graph below)



The ratio of single family housing starts to multi family housing starts is projected to be stable with 60 percent of all new starts being single family and 40 percent of all starts being multi family. This is a good ratio as it ensures a healthy supply of housing types, sizes, options and price ranges while retaining a reasonably dense housing composition.

## Single Family vs. Multi Family Dwellings By Neighbourhood

Single family housing dominates in several mature and suburban neighbourhoods.

Map 3, Single Detached Housing as a Percentage of Total Dwelling Units by Neighbourhood shows the percentage of single family housing by neighbourhood. This map identifies neighbourhoods that have limited options for aging in place and the neighbourhoods that offer the greatest variety of housing options. Maps 3, 4 and 10 show that residential neighbourhoods with low amounts of single family dwellings have higher amounts of multiple family dwellings and higher residential densities. According to Map 3 the highest percentage of multi family dwellings are centered around the Downtown, U of A, Abbottsfield, 170 Street, Calgary Trail and in Mill Woods.

## Residential Density

The density of residential areas in Edmonton varies from a low of less than 50 persons per hectare to a high of 150 persons per hectare (net). Higher densities are a key component to increasing land use intensity and there are several areas of the City that are already succeeding in this respect.

Residential densities in Edmonton vary from 50 to 150 persons per net residential hectare.<sup>19</sup> (Persons per net residential hectare measures the number of people on lands zoned for residential dwelling and excludes lands zoned industrial, commercial, agricultural or park.)

On the high end of the scale there are eight neighbourhoods registering totals of more than 125 persons per net residential hectare. These neighbourhoods are Mill



Woods Town Centre, Abbotsfield, Empire Park, Garneau, Central McDougall, Boyle Street, Downtown and Oliver. There are five neighbourhoods with "Medium High" densities between 100 and 125 persons per net residential hectare, including Callingwood South, Queen Mary Park, McCauley, Cromdale and Strathcona. There are several areas of medium density, usually located near areas of high density. The remainder of the City is developed to "Low Medium" or "Low" density. For a detailed look at residential densities please refer to Map 4, Mean Residential Density by Standard Neighbourhood.

Both old historic neighbourhoods and new ones range in density. Historic neighbourhoods like Strathcona, Garneau and McCauley house large populations, as do newer neighbourhoods such as Abbotsfield and Mill Woods Town Centre. The opposite is also true, low-density neighbourhoods exist in some of the oldest parts of the City such as Glenora and in the newest reaches of the city as in Potter Greens.

Edmonton's two highest density neighbourhoods, Oliver and Garneau, having 92 and 81 people per gross hectare respectively, are comparable in density to the inner city neighbourhoods of Stockholm, Brussels, Amsterdam, Hamburg, Zurich and London<sup>20</sup>.

Edmonton's average population density is 30 pph, close to that of Copenhagen's 28.6 pph. Most of Edmonton's neighbourhoods have densities similar to neighbourhoods in comparable Canadian cities, and suburban neighbourhoods in London, Paris, Copenhagen and Amsterdam. Edmonton, like most Canadian cities, has a denser development pattern than American cities of similar size.

## Location of Residential Intensification

Residential intensification is happening in Edmonton.

In this Audit, projects considered to be intensification are those which bring an increased level of activity to a parcel of land. The most common form of residential intensification in Edmonton is multiple unit residential development. This can be anything from the transition of a vacant site or single family development to a duplex, town house or a multi tower high-rise complex.

The Audit tracked and mapped residential intensification projects in Edmonton over the 1997 to 2000 period. These projects are shown on Map 12, Residential Intensification Projects 1997 – 2000. The general trend shows the bulk of the residential intensification projects have occurred in central areas of the city, including the Downtown, University of Alberta, and Bonnie Doon. Other areas attracting multiple unit residential developments are in the West End, Clareview, Mill Woods and Riverbend with significant concentrations found in the Terra Rosa, Ozerna and Kensington neighbourhoods.

## Potential Dwelling Unit Density by Zoning

Mid-low density neighbourhoods comprise the bulk of residential zoning in the City.

Map 9, Potential Dwelling Unit Density by Zoning shows that if residential lands were developed to approved capacity, dwelling unit densities would be highest in the areas surrounding the central business district and extending north-east along the LRT line. Other areas with high potential dwelling unit densities are found along arterial roadways and are typically located in high activity commercial and social centres such as the Whyte Avenue/University area, Mill Woods Town Centre, Abbotsfield, and Northgate. The lowest potential residential densities are found in the mobile home parks and rural-agricultural areas of the city. Between these two extremes we find mid-low density neighbourhoods comprise the bulk of the residential zoning in the City. Edmonton's newer areas offer more potential for mid to low unit densities. The mature, built out areas that circle the Downtown and University/Whyte Avenue areas are primarily dominated by low unit densities.

Comparing Map 9 with Map 10, Mean Dwelling Unit Density by Standard Neighbourhood, it is apparent that the number of potential dwelling units per hectare generally corresponds to the existing dwelling unit density in a neighbourhood. Although in some cases the actual dwelling unit density is lower than the potential dwelling unit density would indicate.

## Neighbourhood Forecasts

The planned populations of proposed neighbourhoods may not always be achieved.

In the past there have been differences between the expected build out populations for planned communities and the actual buildouts achieved. For example in Castledowns the outline plan population was estimated to be 41,000 persons. The actual population is only 29,840, a difference of 11,200 persons.<sup>21</sup> This means that communities may have been planned for higher population densities than achieved and that expenditures per person for services could be higher than anticipated. Situations like the Castledowns example can come about due to the dynamic nature of demographic and market trends. Market conditions could stall developments and change the ratio of single family and multifamily units built, and changes in demographics such as the number of persons per dwelling unit can throw population estimates off actual figures. Providing population estimates for communities, which may take fifteen years to achieve completion, allows plenty of time for changes in the economy, demographic or market trends to affect total populations.

## Protection of Agricultural Land

The loss of agricultural land has been slowed by policies for the preservation of agricultural land and contiguous development.

From 1997 to 2000<sup>22</sup>, Plan Edmonton's policies for preserving agricultural land were largely adhered to and:

- No major plans or plan amendments were applied for or approved.
- No redistricting applications for non-agricultural uses were approved.
- 113.6 hectares were subdivided out of the 10,200 hectares of agricultural area.



## Economy and Investment

### Economic Forecast - Canada

Minimal economic growth is projected at the national level before 2003 as the Canadian and American economies recover from a recession.

The Canadian economy has followed the U.S. into a recession, which is likely to last until the end of 2001 and into 2002. The substantial monetary and fiscal stimulus already in the pipeline, coupled with a rebound in the U.S. economy later in 2002, is expected to aid the economy on its way to recovery. The Canadian economy is forecast to grow by 1.4% in 2001 and 1.7% in 2002. Economic growth will intensify over the 2003-06 period.<sup>23</sup>

### Economic Forecast - Alberta

Growth in the Alberta economy will slow in 2002 before returning to stronger growth levels in 2003-06.

After a stellar performance in 2000, thanks to the energy sector, the Alberta economy is expected to continue to grow, albeit at a more moderate pace. Lower taxes and interest rates, positive net migration, supported by continuing consumer, government and business spending will result in a 4.5% expansion in 2001, followed by an additional 2.8% in 2002. The economic growth is forecast to average 3.5%-3.7% over the 2003-06 period.<sup>24</sup>

### Economic Forecast - Edmonton

Edmonton can expect strong economic growth of 3.5% after 2002 as the North American and world economies return to their long-term upward trend.

Buoyed by sharply higher energy prices, a strong provincial economy and positive net migration, the Edmonton region's economy is estimated to have grown by 4.5% in 2000.

Economic prosperity is expected to continue in the region in 2001 and 2002. Tax cuts, lower interest rates and continuing healthy energy investment in northern Alberta, will result in the Edmonton region's economy growing by 4.6% in 2001. Lower commodity prices due to sluggish North American and world economies, coupled with the completion of several major projects currently underway, will slow the Edmonton region's economic growth to 2.8% in 2002. With the North American and world economies returning to their respective long-term growth paths by 2003, the Edmonton regional economy will expand at about 3.5% per year over 2003-06.<sup>25</sup>

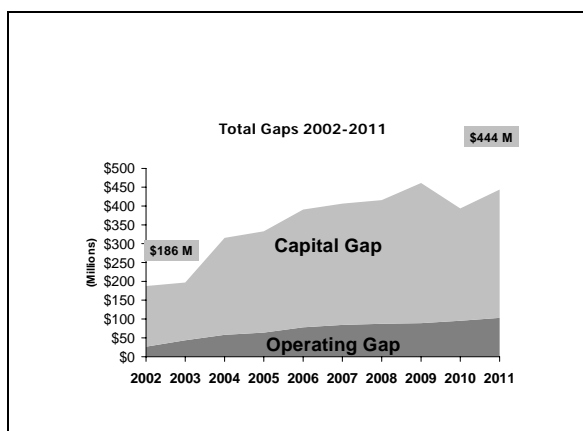
### Financial Strain

Several factors have placed extensive demands on Edmonton's tax revenue.

Demands on Edmonton's tax revenue have been increasing. Historically, major factors have included inflation in the cost of delivering civic services, the Downtown property re-assessment and the loss of provincial grant funding. More recently, as the city has experienced substantial growth there has also been increased pressure to add new services or expand existing services.

Over the 1993 to 2000 period, operating grants to the City declined by \$39 million. Of this amount, \$35 million were grant reductions imposed by the Province in the mid-1990's. Edmonton currently has initiatives underway aimed at seeking a more equitable revenue sharing arrangement with the Province.

The chart below – as contained in the City of Edmonton 2002-04 Corporate Business Plan<sup>26</sup> – shows the total operating and capital gaps expected over the 2002-2011 period. As indicated in the chart below, the total gap grows from \$186 million in 2002 to \$444 million by 2011, even with tax rates rising at the same rate as the Consumer Price Index. The operating gap increases from \$27 million in 2002 to \$103 million in 2011, while the capital gap grows from \$160 million to \$341 million.

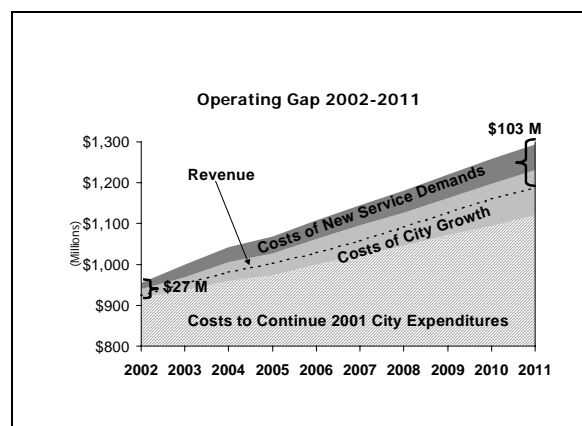


The operating gap shown in the chart below, (next column) is the difference between projected revenues and total costs. Costs are broken down into two components:

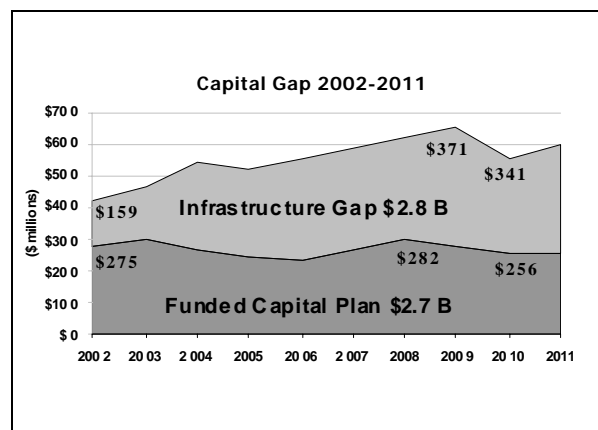
- **Cost Impacts:** The projected cost of continuing to deliver the same service provided in 2001, adjusted for inflation and,

- **Service Needs:** The cost of adding new services or expanding current services beyond 2001 levels to meet growth demands of the City and emerging needs.

It is important to note that the operating gap is expected to consist entirely of service needs. Existing costs, when adjusted for inflation, can be accommodated within the projected revenue streams. This positive result is due to recent strong growth in EPCOR dividends, robust assessment growth and the implementation of operating efficiencies.



The graph below depicts the direction of future capital requirements for the City of Edmonton.



Over the 10-year period, the capital plan totals \$5.5 billion of which \$2.7 billion is funded and \$2.8 billion is unfunded (also referred to as the "Infrastructure Gap").

City Council has initiated the Closing the Gap program as a strategy for dealing with the funding gaps. This program is both a continuation and an expansion of previous efforts to improve the financial health of the City. The program will:

- Ensure that the City of Edmonton has the fiscal capacity to meet its responsibilities.
- Improve the City's financial sustainability over the long term.
- Improve the delivery of services.
- Increase efficiency.
- Clarify accountability.
- Ensure that the Province consults with the City prior to making decisions that impact the City.

The City is also continuing work on the Infrastructure Strategy to specifically deal with capital issues.

## Building Permit Trends

Edmontonians are investing in older neighbourhoods, through renovation and new development, but some older neighbourhoods are not experiencing this trend.

Investment in renovations signals confidence, encourages neighbourhood renewal and retains housing values. Since 1997, many of Edmonton's older neighbourhoods have been experiencing renovation activity. Sixty-two of Edmonton's 113 older neighbourhoods have experienced "approved" private renovation investment ranging from \$250,000 to over \$750,000. This includes the downtown, which has experienced both public and private re-investment. Map 13, Residential Renovation Permits by Standard Neighbourhoods, shows that the strongest re-investment is in the centre of Edmonton. At the same time, adjacent neighbourhoods are not experiencing the same degree of private re-investment.

New development indicates financial commitment and expectations for a strong and stable future in a neighbourhood. Map 14, New Residential Permits by Standard Neighbourhoods, shows the majority of new development is occurring in Edmonton's new neighbourhoods. But it also shows that citizens and developers are re-investing in many of Edmonton's older neighbourhoods with the number of new developments in these neighbourhoods ranging from just a few to over 200. Again, some adjacent older neighbourhoods are not experiencing the same degree of re-investment commitment.





## Edmonton's Regional Context

### Edmonton Census Metropolitan Area

The Edmonton Census Metropolitan Area will be home to over a million people by 2006

The Edmonton Census Metropolitan Area (CMA) is an area of approximately 9,800 square kilometers, encompassing 21 communities with a 1996 population of 860,000 residents. To view all the communities encompassed by the CMA refer to Map 5, Edmonton Census Metropolitan Area. The Edmonton CMA is the sixth largest in Canada behind Calgary and Ottawa-Hull.<sup>27</sup> Statistics Canada predicts that by 2006 the City of Edmonton will have a population of over 700,000 while the CMA will have a population of just over one million. By the year 2025 the City is projected to become home to 827,000 people while the CMA expands to 1.2 million residents.<sup>28</sup>

### Housing Starts

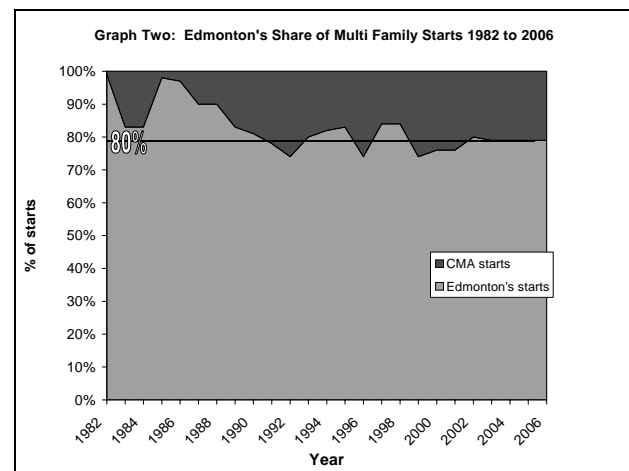
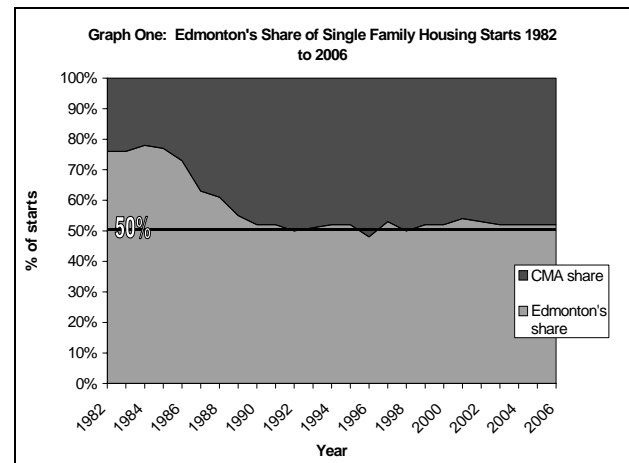
Edmonton's share of Census Metropolitan Area's housing starts has been falling. This would suggest that the population base is spreading outwards from the city, placing greater strains on infrastructure.

The share of housing starts within the City of Edmonton has been falling in relation to the housing starts occurring in the communities surrounding the City.

As shown on Graph One, Edmonton's share of single family housing starts has been falling since 1985 as more housing is being built outside the City.

A downward trend in Edmonton's share of multiple family housing is evident over the last ten years. Edmonton has been losing

its share to other cities and towns in the CMA. At its peak Edmonton held 98 percent of multiple housing starts in 1982, and 1985-84. Since that time Edmonton's share of the multiple housing starts has fallen to the current level of 75 percent as shown on Graph Two.<sup>29</sup>



## Residential Property Taxes

Edmonton's residential property taxes are well below the Canadian average.

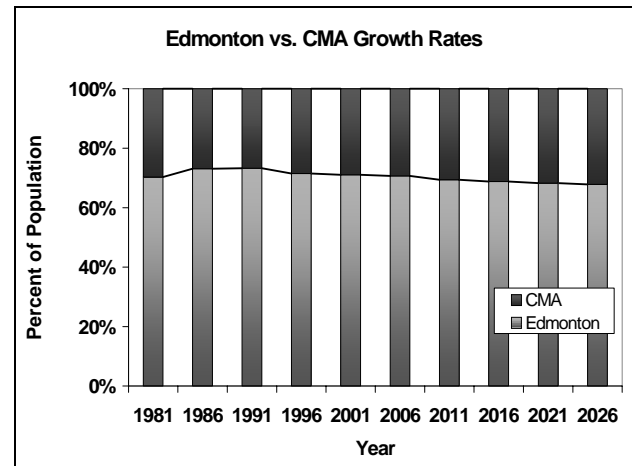
When compared to other municipalities Edmonton represents good value for residential taxes paid. Edmonton's total property taxes for the average single family house was 20 percent lower than the Canadian average and ranked the fifth lowest among the cities. Edmonton's tax was slightly lower than the Region's average and ranked the seventh lowest in the Region. Edmonton's total property tax was 2.3 percent lower than Calgary's tax.<sup>30</sup>

## Edmonton vs. Regional Growth Rates

Edmonton's share of regional growth will decline by 4 percent by 2025.

Edmonton's share of the regional growth rate is an important indicator of population and investment trends in the City. According to projections, Edmonton will retain a growth rate around 1.5% over the next five years.

More than 71 percent of people in the Edmonton CMA live in the City of Edmonton.<sup>31</sup> City of Edmonton projections indicate 68 percent of the population of the Edmonton CMA will be living in the City of Edmonton by 2025. The City will experience a growth rate of approximately 1.5 percent each year over the next quarter century. The chart opposite tracks the growth rates of Edmonton contrasted with that of the CMA.<sup>32</sup>



## Transportation

### Transportation Destinations

The core of the City will no longer account for most commuter trips, destinations will be peripheral and more dispersed.

In Edmonton most automobile trips originate from suburbs around the edges of the City and end in the inner sections of the City.

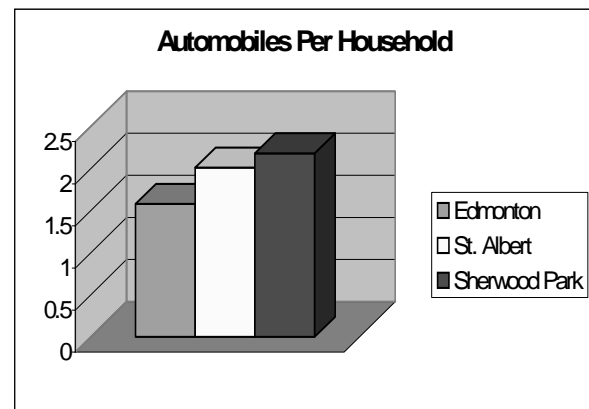
According to the Transportation Master Plan (see Map 6, Major Trip Patterns Map) this trend is expected to shift to a different pattern by 2020. It is expected that the majority of trips will originate in the City's newer suburbs, and that the trips will be to destinations in other peripheral suburbs. This means that the core of the City will no longer be the single most common destination of commuters, the destinations will be more dispersed and decentralized. Major future destinations are indicated on Map 7, Potential Intensification Nodes Map. Connectivity of major destinations will become a challenge in the City as trip generation shifts from the core of the city, to other activity centres.

### Automobiles

The number of automobiles per capita is lower in Edmonton than in its neighbouring municipalities.

The number of personal automobiles in use in Edmonton is increasing. In 1994 there were 386,879 personal automobiles in Edmonton, and by 2000 this number had reached 437,904.<sup>33</sup> This corresponds with an increase in the number of automobiles per household. In 1994 there were 1.58 automobiles per household in Edmonton. By 2000 that number had increased to 1.68

automobiles per household in Edmonton. Edmonton residents own fewer automobiles than their regional counterparts<sup>34</sup>. (See graph below)



### Going the Distance

Travel times in Edmonton average 20 minutes per trip.

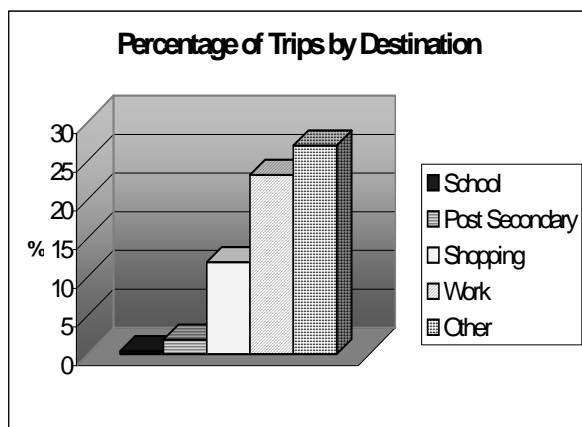
The total distance traveled by drivers who live in the City of Edmonton on an average weekday is estimated to be 9.9 million kilometers. The average trip length for drivers is 8.1 km, with the work trip being the longest commute at an average of 11.3 km and the shortest trip being the shopping trip at an average of 4.8 km. However with the current trend to de-centralization of retail, the length of the shopping commute may lengthen.

The average travel time for drivers in Edmonton is 20 minutes. The work trip average is 24 minutes in duration while the shopping trip averages 15 minutes in duration.<sup>35</sup>

The greatest numbers of automobile trips in Edmonton are made up of trips that are difficult to classify. Such trips include going to the recreation centre to get the kids, trips to drop off a movie rental, trips to clean the car, or pick up someone from the



airport. These trips make up 27 percent of all trips. Work trips are the second most frequent, weighing in at 23 percent of all trips. Shopping trips account for 12 percent of trips made. Trips to post secondary schools account for 2 percent of trips made and trips to school account for less than 1 percent of trips made, see chart below<sup>36</sup>.

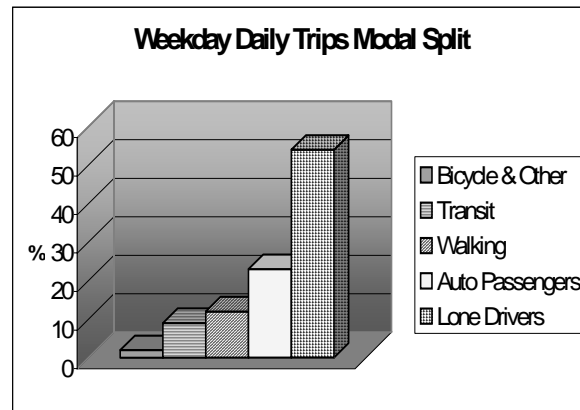


## Multi-modal Transportation

Commuters may choose to leave the car at home, if convenient, safe travel options are available.

Automobiles are the dominant form of transportation in Edmonton. But transportation is an issue that affects everyone from automobile users, to cyclists, transit riders, airport users and pedestrians.

On the average weekday, the majority of trips in Edmonton are made by automobile. However, during rush hours public transit and other modes of transport play a more significant role in getting people to work and post secondary education. The chart<sup>37</sup> below shows the weekday daily person trips by travel mode.



## Transit Routes and Centres

The 5 busiest transit centres each handle 22,000 to 28,000 arrivals and departures daily, and the Economic Activity Centres match up with existing transit system strengths.

Edmonton's busiest transit routes and transit centres are shown on Map 8, Major Transit Routes. These are the highest volume routes, with 1000 to 5000 person trips per day. The 5 busiest transit centres each handle 22,000 to 28,000 arrivals and departures per day, with the remaining transit centres handling between 15,000 and 2,200 arrivals and departures daily<sup>38</sup>.

The economic activity centres identified in Map 7, Potential Intensification Nodes, match up with the existing strengths in transit service patterns. This means considerable infrastructure investment exists in these areas that can be further built upon through intensification in these areas.

## Transportation Choices

In 1996, Edmontonians were willing to tradeoff 50 minutes of driving for the option of living in a single family home.

In 1996 a 1,280 household travel survey, entitled *Core Values Tradeoff Study*<sup>39</sup>, was conducted in Edmonton as background for the Transportation Master Plan. A major finding of the study was that when given the choice between living in a suburban single family home and enduring longer travel times, higher taxes and larger environmental problems, the typical Edmonton household was willing to significantly increase the commuting distance between home and work. Specifically, the study found that the typical Edmonton family was willing to commute 50 minutes to work in order to retain a single-family dwelling. Correspondingly, for a family to choose a duplex over a single family home they would require a time savings of 50 minutes in the commute to work.

According to the 1997 *Key Choices Report*<sup>40</sup>, as travel distances become longer the proportion of trips that are within walking distance will decline. This may be accentuated by the fact that an older population may be less inclined to walk to their destinations. A denser more compact urban form, when combined with other measures can contribute to a reduction of trip lengths, greater incidence of walking as a travel mode and more efficient transit operations. However the survey cautions that intensification on it's own will have marginal effects on reducing travel times and that Edmontonians strongly value the single family home and will resist attempts to shift to denser development.

Among the findings in the *Key Choices Report*:

- If transit improved the majority of respondents would not be significantly affected
- Respondents felt that the City should not reduce spending on transportation services
- Respondents felt that the City should not place restrictions on suburban development
- Drivers cite transit as being unreliable, and taking too long as reasons for not taking transit
- 80% of respondents lived in single family homes and of these only 15% saw themselves in a townhouse ten years later.

## Environment

### Trends in Emissions

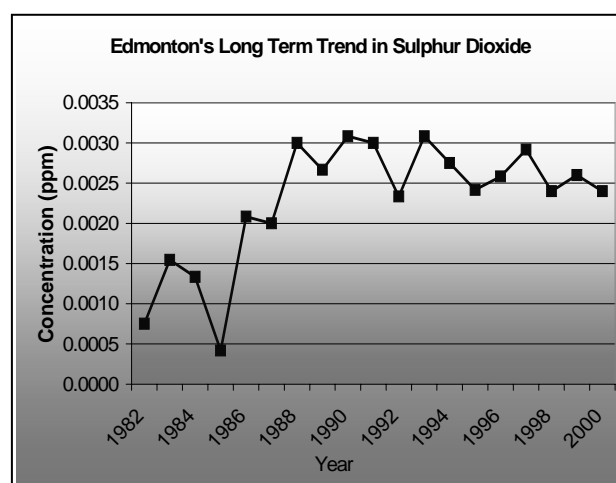
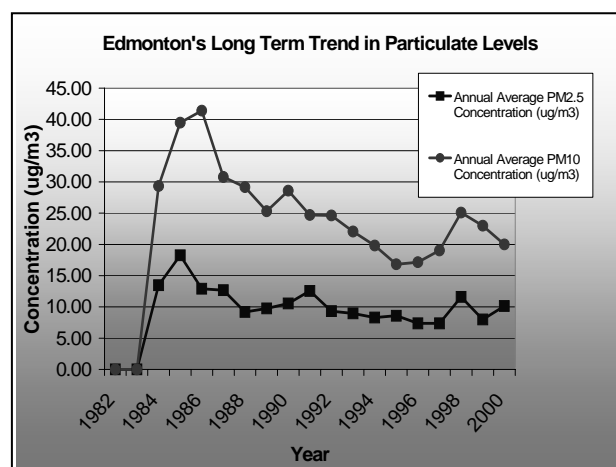
Automobile emissions are the leading source of pollution in Edmonton. Automobile ownership is up 60% since 1982 yet emissions from automobiles are declining.

Over the last ten years most emission indexes for the City of Edmonton have been dropping. This can be attributed to lower emissions from automobiles due to more efficient automobile engines, the removal of lead from gasoline and improved emission control technology on exhaust systems. Alberta Environment reports that carbon monoxide levels are down over 60 percent and that nitrogen dioxide levels are down 30 percent since 1982. These reductions were achieved despite a 60 percent increase in automobile ownership.<sup>41</sup> Despite these reductions in emissions, according to Alberta Environment based on ambient air quality data, motor vehicles are the largest polluters in Edmonton.<sup>42</sup>

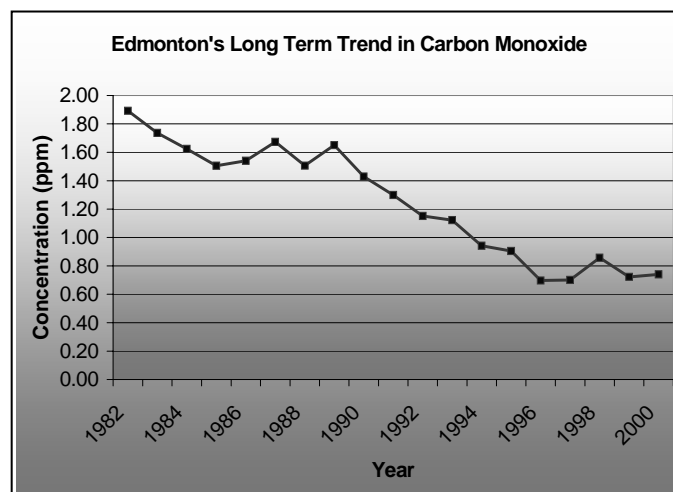
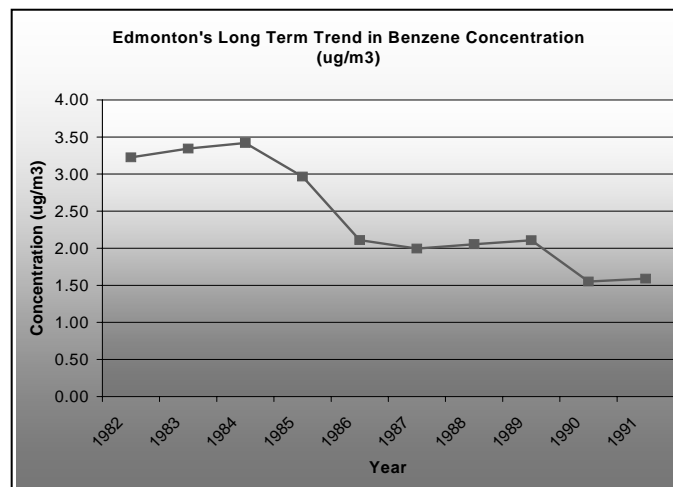
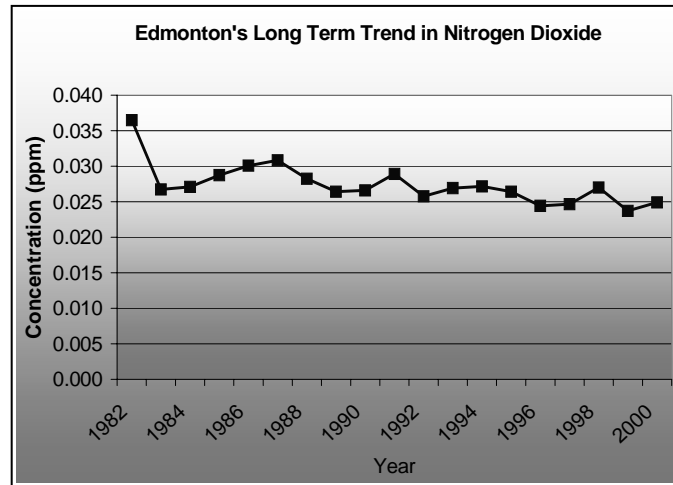
Levels of sulphur dioxide emissions in the Edmonton Capital Region have more than doubled since 1982, and this trend is expected to continue due to an increasing reliance on energy derived from burning fossil fuels. Sulphur dioxide is created primarily through burning fossil fuels such as coal and natural gas<sup>43</sup>, and these are the primary sources of energy in Alberta. Sulphur dioxide is the primary component to acid deposition (commonly referred to as acid rain) and irritates the elderly and other sufferers of heart and respiratory ailments.<sup>44/45</sup> Levels of sulphur dioxide in Edmonton remain well below the hazardous levels despite gains in emissions.<sup>46</sup> Graphs on the following page demonstrate the reduced trends in most emissions. The

exception to this trend is in sulphur dioxide levels.<sup>47</sup> Data displaying the long-term trends in Edmonton emissions levels are courtesy of Alberta Environment.

### Emission Trend Diagrams



## Emission Trend Diagrams



Charts and data  
provided courtesy  
Alberta Environment

## Socio-Economic Situation

### Place of Work

Currently 78 % of Edmonton's labour force lives in the City.

Edmonton is fortunate in that a large proportion of its population is living and working within the boundaries of the City. This is good because it means that money spent during the working day is spent in the City, and that the infrastructure that these people use is being paid for by their taxes. Currently 78% of the labour force in Edmonton lives in the City. The remaining 23% of the work force commutes in from the surrounding member municipalities of the Census Metropolitan Area (CMA)<sup>48</sup>.

It is desirable to have most of the employment remain within the boundaries of the City because it is easier to accommodate the shorter travel distances. Many of the surrounding CMA communities are bedroom communities with less than half of their residents working in these communities. According to 1996 Statistics Canada numbers, only 33% of Leduc residents work in Leduc, and in both Strathcona County and the City of St. Albert less than 24% of residents work in their community<sup>49</sup>.



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<sup>9</sup> Brian Hollohan. Canadian Mortgage and Housing Corporation. Speech. Banff, Alberta, October 28, 2001.

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<sup>26</sup> *City of Edmonton 2002-04 Corporate Business Plan*. City of Edmonton Corporate Services. 2001.

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<sup>29</sup> *Housing Now*. Edmonton edition. January 1981 to September 2001. Canadian Mortgage and Housing Corporation.

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<sup>31</sup> *Census 96 Nation Series Complete Edition*. CDROM, Statistics Canada. Ottawa: Minister of Industry, 1998.

<sup>32</sup> City of Edmonton 1999 Civic Census and Statistics Canada 1996.

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<sup>36</sup> - same as above -

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<sup>38</sup> Transportation and Streets data from Fall 2000 Station Count. Provided via fax on August 21, 2001.

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<sup>47</sup> Alberta Environment. Bob Myrick – Air Quality Analyst. Edmonton, Alberta, November 07 2001.

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