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Growth Pressures and Social Infrastructure in the Capital Region: Issues, Gaps and Conclusions

DISCUSSION PAPER

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by



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EXECUTIVE SUMMARY

CAPITAL REGION GROWTH MANAGEMENT PLAN

The Government of Alberta and the municipalities in the Capital Region are working toward the development of a framework for an integrated management plan to support the anticipated economic and population growth of the Capital Region over the next 20 to 50 years. Particular attention is being paid to the economic, social and environmental impacts on all residents of the region.

This discussion document presents the results of the social infrastructure and services study. It examines how population and workforce changes will impact social infrastructure elements within Alberta's Capital Region to 2016. Social infrastructure refers to a range of factors, all of which affect the attractiveness of the Capital Region as a place to move to and stay relative to other jurisdictions offering good employment and earnings opportunities. The nine social infrastructure areas reviewed in this document are Housing, Health Care, Policing, Emergency Services, Social Services, Child Care, Public and Post Secondary Education, and Recreation.

As the project developed, a number of important linkages and themes emerged. The most important is in regards to housing -- the availability and affordability of housing is a key issue that impacts all areas of social infrastructure.

Social infrastructure contributes to social cohesion and a higher quality of life for all. Addressing social infrastructure issues to ensure that growth does not compromise the quality of life of any group of residents, such as those living in particularly fast-growing parts of the region, those with lower incomes, and newcomers to the region, increasingly requires a shared vision and collaborative efforts on the part of municipalities.

METHODOLOGY

This document presents estimates of the capital and operating costs required to address future social infrastructure needs. Financial summaries for each social infrastructure element are provided in Table ES-1, with costs identified in 2007 dollars.

The identified costs are broad indicators of where social infrastructure and service pressures will likely be felt in the future. Costs are based on selected metrics only, as time limitations did not allow for analysis of all aspects of social infrastructure.

The analysis is based on population and employment forecasts developed by Applications Management Consulting Ltd. for ISL Engineering and Land Services. Regional population forecasts are approximately 10 percent lower than the aggregate of municipal growth aspirations. The report identifies where its forecasts differ from those used by provincial ministries. Further

analysis and research on the impact of population growth on social infrastructure and services is anticipated.

The scope and complexity of the assignment, along with the time frame and data limitations under which it was undertaken, mean this work provides order of magnitude estimates only. Where the data required for analysis were not available or provided to the study team, assumptions were made to develop the preliminary estimates presented. In many cases, population was used to project future social infrastructure needs. Other factors will impact future requirements. For example, innovations in service delivery and infrastructure development will reduce future needs. Changes in service standards could have a similar impact. It is important to note that projections in the report are based on maintaining existing standards and service levels unless indicated otherwise.

While the report identifies a number of cases where ministries, municipalities and boards have implemented initiatives to address the demand for social infrastructure and services, the scope of the analysis did not allow for a full identification and analysis of all of these initiatives.

POPULATION AND WORKFORCE

Between 2003 and 2007, Alberta's population grew by almost 312,600. The pace of population growth quickened significantly in 2005 and continues to the present. Of the over 1 million people living in the Capital Region, over 85 percent live in the three largest urban centres in the Region (Edmonton, Sherwood Park, and St. Albert), with the remainder distributed throughout the smaller communities and rural areas in the region.

Population projections indicate higher growth in the 2006 - 2011 period than the 2012 - 2016 period; higher growth in parts of the region outside the City of Edmonton; and uneven growth throughout the region. The North and East portions of the Capital Region are forecast to have the strongest growth in the first five years, with the South part of the region growing more quickly in the latter part of the forecast period.

In planning for social infrastructure, the socio-economic composition of the population is as important as the actual population numbers. In the Capital Region, almost one-fifth of households are low-income, and approximately 2,600 people are homeless, with many in that group facing multiple barriers to employment, housing and access to health care. The region is experiencing a net in-migration of Aboriginal people, who currently make up almost 4.5 per cent of the overall population. Current social issues already facing First Nations, Métis and Inuit will require increased support through enhanced social infrastructure. The Capital Region also has a diverse population with almost 22 percent of individuals born in other countries and some of them potentially requiring supports for acquiring English language skills and/or employment. A further demographic attribute of the regional population, in line with the rest of Alberta, Canada and most of the developed world, is that the population is aging.

Development in the Alberta Industrial Heartland (AIH) presents a key workforce challenge. The AIH currently has two upgraders and one refinery conversion under construction, with plans for an additional seven upgraders. As currently planned and scheduled, the upgrader projects, with their need for a specialized industrial workforce, will require more workers than the Capital Region will be able to supply. The Region will likely see an influx of a mobile workforce of 8,000 to 9,000 people over the next six to ten years. These mobile workers will potentially have an impact on housing, policing and health care.

HOUSING

There are numerous and significant issues around housing in the Capital Region:

- Housing prices have doubled and rental rates have increased by 50 percent in the past five years. Affordability has moved beyond a concern of those needing social support, to becoming an issue applying to a much larger cross-section of the population;
- The average sale price of single-detached homes in August this year reached just over \$400,000. The majority of houses in the region are no longer affordable for purchase by average earning households, even in light of wage rate increases in the province;
- The rental vacancy rate of 0.7 per cent is at a historic low, which in turn is driving up rental rates. This places additional strain on low or fixed income households who cannot accommodate higher rent payments in their budgets;
- New rental projects are not financially attractive for developers and the existing stock is being eroded by condominium conversions; and
- For social (non-market) housing, demand exceeds available supply across all categories.

Projected demand for housing to meet the growth in core needs households is estimated to total 16,000 units by 2016. Of this demand, 5,700 units are associated with social housing demand, while 10,300 households will need to find coverage in the private market. Current plans identify 4,000 affordable housing units coming forward in this period, resulting in an unplanned gap of 12,000 units.

The capital cost associated with the total projected core housing needs between 2008 and 2016 is \$901 million. Of that, \$701 million (78 percent) represents an unplanned gap, while \$200 million (22 percent) represents the cost of planned units. Annual operating costs associated with meeting the total core housing needs are estimated at \$51 million for the year 2011. The average annual operating cost to 2016 is estimated at \$114 million.

Conclusions from the analysis indicate that:

- A shortage of social (non-market) housing exists presently, and this shortfall will worsen as the region grows. More investment is needed in social housing;
- Private market housing is no longer affordable to a broad section of society, and the market is not expected to self-correct this wide gap in light of projected high growth for the region. This could deter individuals and families from relocating to the region for employment opportunities, perpetuating the current challenges faced in staff recruitment and retention;
- Consideration needs to be given to a number of options available to address the housing gap, including a creative mix involving public and market-based initiatives;
- Coordination in the region, through initiatives such as the development of standardized definitions and monitoring systems, as well as the pooling of resources to deliver housing supports suited to each community's needs, should be encouraged. Consideration should be given to possible cooperative systems to facilitate this type of coordination;
- Per capita funding to individual municipalities might not be appropriate as housing needs vary across the region and small allocations to individual municipalities make it difficult to respond in any material way; and
- Roles of federal, provincial and municipal governments in housing, as well as the not-for-profit and for-profit housing sectors as they relate to social and affordable private market housing, need to be clarified.

HEALTH

The Capital Health Authority provides service to the entire Capital Region, except for Lamont County and Bruderheim, where public health services are delivered by East Central.

Issues identified in the analysis of health care service delivery in the Capital Region include:

- The Capital Health Authority provides specialized services for a larger referral area than the Capital Region. More than one in five in-patients is from outside the region.
- Wait times for various health services remain a concern in the region. Following strategic directions set by Alberta Health and Wellness, Capital Health has developed plans and implemented several initiatives in an attempt to reduce wait times, including emergency room wait times, in the region.

- The greatest issue currently facing Capital Health is a shortage of workers, both health professionals and support staff. Without adequate staffing, the health region will be unable to provide the services needed to meet the health needs of the Capital Region population.
- Housing was identified by Capital Health as a major impediment to the attraction and retention of health professionals and support staff to the region.
- Alberta Health and Wellness has developed a provincial workforce plan to address this issue, including the expansion of post-secondary spaces in health-related programs at Alberta's publicly-funded post-secondary institutions. Capital Health has also developed a long-term strategy to renew and expand their health workforce and system capacity.
- The aging of the population will have a significant impact on the delivery of health services. The prevalence of age-related diseases and disabilities and demand for age-related health services such as home and long-term care will increase.
- There is currently significant expansion of health-related public infrastructure underway in the region to address both existing backlogs and future demand. At the same time, capital costs are increasing because of higher labour and material costs.
- Population growth in the region, including the likely emergence of a mobile workforce, and increased industrial activity will lead to specific growth-related pressure on certain health services including emergency departments, primary health care, public health programs, mental health services, and environmental health programs.
- Population projections for the Capital Region developed by Alberta Health and Wellness are below the projections used for the analysis presented in this report.

Based on the population projections used for this project, over the 2008 - 2016 period there is a need for an additional 310 - 380 acute care beds and 1,560 - 1,930 long-term care beds, beyond the 592 acute-care and 108 long-term care beds already planned. Total capital investment required, for both planned and unplanned acute-care and long-term care beds, is approximately \$1.75 billion to \$1.93 billion.¹

¹ It should be noted that estimates of additional bed requirements refer only to those beds needed to service the regional population. Capital Health, however, does provide certain health services to a much larger geographic area. Future beds needed to service this population are not included in the analysis.

Annual operating costs to serve the regional population in 2011 and 2016 are estimated to be in the order of \$395 million higher in 2011 and \$595 million higher in 2016 than they are currently. These estimates were derived from regional population projections and do not take into consideration the impact on operating costs of changes in socio-economic conditions, technological changes, or improved service delivery models. Funding increases required to serve patients from outside the region have also not been taken into consideration.

Conclusions include the need for:

- Continued emphasis on innovation as a means of maximizing resources, including new service delivery models and technologies.
- Continued focus on programs and services aimed at improving health outcomes among the population and reducing the need to access health services.
- Addressing health workforce shortages through a variety of actions, including:
 - Recruiting health professionals from outside the region;
 - Making work more attractive (e.g. improved working conditions);
 - Increasing opportunities for professional development; and
 - Expanding health training programs to allow more Albertans to be trained and become health providers.
- Reviewing the population projections used by Capital Health and Alberta Health and Wellness for planning purposes to ensure they reflect the most up-to-date information about potential population growth in the region.

It is important to note that the delivery of health care services in the Capital Region is an example of a positive regional model. Municipalities in the Capital Region have opportunities to work with Capital Health through the joint Capital Health/Municipal Government Advisory Council and at the operational level, engaging in cooperative efforts to promote health and prevent illness and injury in areas such as emergency services, traffic safety, disaster response and population health. Community members also have an opportunity to provide direct input to Capital Health through various Community Health Councils in the Capital Region.

POLICING

The Capital Region receives policing services from the Edmonton Police Service (EPS) and Royal Canadian Mounted Police (RCMP). These forces face the following issues:

- Existing inequities in financing of police services, with larger municipalities absorbing a larger burden of policing costs than smaller municipalities.

- No regional strategic plan for policing in the region. While regional coordination and integration between police services occurs at an operational level, integration is more difficult at a strategic or planning level. Regional planning and coordination would improve the efficiency and effectiveness of service delivery throughout the region.
- Difficulties in attracting and retaining staff. Police officials in several municipalities indicate that social infrastructure in the Capital Region plays an important role in EPS and RCMP efforts to attract and retain staff. Access to affordable housing and community services, day care in particular, are critical for new EPS and RCMP staff.
- Increased demand for services in response to demographic, societal and economic changes, including increased levels of drug trafficking, gang activity, and youth crime.

Growth will result in the need for additional EPS and RCMP officers and new or expanded police stations across the Capital Region. Overall, this analysis projects a need for over 400 new officers in the region, including the needs of both the EPS and RCMP. This suggests a requirement to hire approximately 45 new officers annually over the period 2007 to 2016. At \$110,000 per officer, the current rate of operating costs per officer, costs of hiring new officers will increase by \$5.0 million every year in each of the next nine years.

An estimated \$220 to \$225 million of capital spending will be required over the next ten years.

Conclusions point to the need for:

- Hiring of additional police officers.
- Building some new and expanding some existing police stations, detachments and support facilities.
- Developing and implementing a regional planning model.
- Examining the issue of financial inequities regarding the municipal portion of policing costs.

EMERGENCY SERVICES

Emergency services in the Capital Region, defined here as fire and ambulance services, are provided by all municipalities in the Capital Region. Delivery models vary across the region in terms of the level of integration between fire and ambulance services; the level of coordination with other municipalities in the region; and reliance on volunteers. The volunteer nature of some fire and ambulance services is a distinguishing feature of emergency services within the Capital Region.

Issues facing emergency service providers include:

- Lack of clarity over responsibility for ambulance services. Alberta Health and Wellness had at one time considered taking over responsibility for these services; however, this plan was withdrawn prior to its proposed April 2005 implementation date, leaving a situation of uncertainty around investments in this service.
- Difficulties retaining trained staff, especially volunteers. Municipalities with volunteers are having to consider the use of professional (paid) fire fighters.
- Patient transfer times at Emergency Departments. Ambulance staff is required to stay with their patients until they turn over patient responsibility to the hospital. In 2006, wait times for this type of turnover increased by 36 per cent.
- An aging population, increasing the demand on ambulance services.
- Revenue issues - rates are insufficient for cost recovery.
- Fire hazards associated with current building codes that allow a large number of homes with flammable exterior materials to be built close together in the interests of economy.
- Increased industrial growth, exacerbating the need for regional disaster planning.

A synergy noted during the review is that municipalities situated close to industrial development projects such as the upgraders have opportunities for attracting highly trained volunteers and increased opportunities for sharing resources with industry.

Growth will result in the need for additional infrastructure in fire and ambulance services. Further operating costs will need to be incurred in order to operate these new facilities. While some savings are possible in regards to better routing of ambulances to hospitals without backlogs, those savings will be largely offset by the additional costs associated with an aging population and the higher utilization of ambulances by seniors.

Over the period 2007-2016, an additional ten to 15 fire stations will be required in the Capital Region at a cost of \$38 to \$75 million. Over the same time period, an additional eight to nine ambulance stations are estimated to be required for the Capital Region at a cost of \$16 to \$18 million.

Additional annual operating costs required to operate the new facilities in 2011 are estimated at \$9.5 million for ambulances and \$10 to \$15 million for fire stations. The average annual operating cost for new infrastructure will reach \$19 million annually for ambulances and \$20 to \$30 million annually for fire stations by 2016.

Conclusions from this analysis are:

- Additional fire and ambulance stations and equipment will be needed.
- Better routing and emergency room protocols are needed. Changes in these protocols are already saving on wait times and further changes will result in some cost-savings. However, these will be largely offset by increased utilization related to an aging population.
- It might become necessary for more municipalities to recruit professional, paid staff as it is becoming increasingly difficult to recruit volunteers.
- A regional disaster plan should be developed.
- Provincial plans for ambulance service need to be clarified, and the financial pressures being felt by ambulance service providers reviewed and addressed.

SOCIAL SERVICES

Social services in the Capital Region span a broad range of services funded and delivered by a vast number of organizations, including all three levels of government, community organizations, faith communities, and others. The analysis included a review of Family and Community Support Services (FCSS), Parent Link Centres, services for immigrants and temporary foreign workers, addictions services, emergency shelters, and The Support Network.

Key issues were identified as:

- Increases are expected in the overall demand for services, with increased housing costs a key factor.
- Acute staffing issues. The increase in demand for social supports and services is occurring at the same time as the organizations providing these services are facing serious staffing problems and rising costs. Many workers in the social services field are moving to less stressful and higher paying positions in other sectors.
- Access to public and specialized transportation. Some low-income households in the region cannot afford public transportation, especially with a larger share of their incomes going to meet their rising housing costs. Those moving to areas or communities with lower housing costs are often adding to their difficulties in accessing needed social and health services. There is unmet demand for specialized transportation in the region, especially in rural areas.

Additional issues in the region include the growing concern about youth involvement with drugs and alcohol, the lack of services for temporary foreign workers, high rates of family violence, and substance abuse and gambling.

Family and Community Support Services (FCSS) funding will need to increase by about \$3.4 million over current levels by 2011 and by \$5.8 million by 2016 in order to accommodate the anticipated growth in demand for services resulting from population increases.

Conclusions include:

- FCSS funding will need to increase.
- Public and specialized transportation are critical and access needs to be increased.
- Low wages and stressful working conditions are leading to critical staff shortages. Housing issues contribute to staffing problems.
- Services need to be increased, including access to women's shelters, related outreach programs, drug and alcohol abuse services, and services for at-risk youth.
- There is a need to identify the service needs of temporary foreign workers.
- Efforts to increase volunteerism need to continue.

CHILD CARE

Child care is typically considered by municipalities to be a responsibility of the provincial government and the private sector. In the Capital Region, there is a great degree of diversity in terms of municipal involvement in child care. Municipalities provide support through regulatory changes (zoning and building codes), financial support, municipality-run programs, and other supports in terms of attracting licensed child care providers to their community, assisting community child care groups, running babysitting training or informal child care registries.

Issues identified as a result of this analysis include:

- Demand for licensed child care spaces exceeds supply.
- Staff shortages contribute to space shortages, and are thought to be caused by competitive wages in other sectors.
- Costs of child care are increasing.
- No provincial subsidy for out-of-school care for children in grades 1 to 6.

This analysis discusses the current shortfall in child care in relative terms, using a child:space ratio, i.e., the total number of children under the age of 13 per licensed space in the Capital Region. The future need for licensed care provision, staff, and subsidies is estimated using the regional population projections adopted for the purposes of this research and assuming current service levels are maintained in the future.

Estimates indicate that by 2016 about 5,800 additional child care spaces will be needed for children under the age of six, and approximately 200 spaces will be required for children 7 to 12. This suggests an increase in the number of spaces of 23 percent and 12 percent respectively which is commensurate with the projected growth in the number of children of child care age. The additional licensed spaces will require approximately 950 new child care staff.

Assuming the current level of reach extends over the next nine years, the Alberta Government will need to increase annual subsidies over current levels by \$3.6 million between 2008 and 2011 and by \$7.4 million over current levels between 2012 and 2016 to respond to population growth in the Capital Region. These results are based on the assumption that current service levels are maintained in the future. However, qualitative assessments of child care services suggest that the outstanding need in the Capital Region is likely higher than the level of service currently provided.

Conclusions from the analysis of child care are:

- Shortages of child care spaces are expected to intensify in the future.
- The need for child care subsidies to address affordability issues are expected to increase.
- Recruitment and retention challenges can be expected to continue.
- Additional staff training is needed for care of children with different cultural backgrounds and at-risk children.
- Demand for child care outside of regular working hours is expected to increase.

PUBLIC EDUCATION

Issues identified in the analysis of the K-12 education in the Capital Region include:

- A low three-year high school completion rate, averaging about 70 percent across the region.
- The location of schools relative to students. The shortage of schools in newer neighbourhoods experiencing rapid growth in the region is requiring an increasing number of students to be transported to schools outside their neighbourhoods either by bus or their parents.

- Some school jurisdictions are experiencing difficulty recruiting and retaining staff for certain positions, including Instructional and Special Needs Teaching Assistants, administrative and custodial staff, and bus drivers.

Analysis in this section focuses on the public education services available in the Capital Region and the implications of the projected changes in the region's school aged population over the next eight years for school facilities and services. Results of the analysis indicate a need for new and expanded school facilities in the region beyond those already approved for funding. Total new school requirements include 18 elementary/junior high schools and two high schools at an estimated total cost of \$510 million. By 2016, it is estimated that 665 additional teachers and about 380 non-teaching staff will be required. Additional annual operating costs associated with growth are estimated at \$34 million in 2011 increasing to \$104 million annually by 2016.

Conclusions from this analysis indicate:

- There is a potential need for 20 new schools in the Capital Region by 2016.
- The Capital Region's strong K-12 system is an asset to drawing families to the region.
- High school completion is increasingly important for accessing job opportunities and achieving a better quality of life.
- Schools will need to respond to increasing cultural diversity.
- Balancing demands for neighbourhood schools with existing schools in mature neighbourhoods will be an ongoing challenge. Modular classrooms will help.

POST-SECONDARY EDUCATION

The review of Alberta's advanced education system noted the following issues:

- Accessibility remains a key issue. Currently, Alberta's post-secondary system is unable to accommodate all qualified Alberta applicants. According to Alberta Advanced Education and Technology (AET), there were over 5,300 qualified Alberta applicants who were turned away in 2005/06 from publicly-funded post-secondary institutions in the province. Applicant turn-aways from publicly-funded post-secondary institutions in the Capital Region in 2005/06 can be estimated at between 2,100 - 2,600.
- The most recent survey of graduates conducted for Alberta Advanced Education and Technology found high levels of satisfaction among graduates of post-secondary institutions in the Capital Region with their overall educational experience (91.2 percent as compared to 90.3 percent provincially).

- Alberta has among the lowest post-secondary participation rates in the country, with the exception of apprenticeship training. Participation rates are particularly low among certain population groups including Aboriginal peoples, persons with disabilities, individuals with low income and education levels, and immigrants.
- Through their business and strategic plans, several post-secondary institutions have highlighted concerns with workforce shortages across skill levels, from faculty to support staff. The Alberta government has taken steps, including increasing operational funding, to assist post-secondary institutions in addressing these workforce issues.
- Applied and basic research is playing an increasingly important role at universities and technical institutions. Supporting Alberta's future economic growth, including the expansion of value added sectors, will require increasing research capacity at Alberta's post-secondary institutions, including increasing the number of graduate students and supporting the attraction and retention of scientific personnel at public research institutions.

The analysis takes into consideration existing growth plans as well as forecasted enrolment, expressed as full-load equivalents (FLEs),² at publicly-funded post-secondary institutions in the Capital Region prepared by Alberta Advanced Education and Technology. The analysis also relies upon a forecast of enrolment demand derived from population projections adopted for this research in order to identify future infrastructure and service delivery requirements.

The analysis indicates that a gap exists between FLE enrolment being planned for and enrolment demand forecasts adopted for this research. Increases in enrolment demand, under the forecasts adopted for this research, are primarily the result of anticipated strong population growth among 18-34 year olds. While much of this growth is the result of in-migration related to employment opportunities, it is expected that some of this growth will also result in increased demands for post-secondary learning opportunities.

In terms of infrastructure, the Government of Alberta plans to add an additional 5,480 FLEs by 2011 to publicly-funded post-secondary institutions in the Capital Region. This only partially covers the infrastructure requirements to meet forecasted enrolment demand in 2016. Over the 2008-2016 year period, annual enrolment demand is expected to increase by approximately 12,485 FLEs. Therefore, infrastructure capacity for a further 7,005 FLEs will be required. Based on existing average capital costs per FLE, capital expenditures of approximately \$1.1 billion are required to address both existing unmet student demand and forecasted enrolment demand. This

² A full-load equivalent is calculated by determining how many courses a student took over a full fiscal year and then dividing this number by a "normal full load" for a full year of student in a given program.

includes approximately \$482 million in capital funding already provided for in approved capital projects.³

The provincial government's share of operational expenditures associated with the additional FLEs required to meet the enrolment demand forecasted for the purposes of this research are estimated to be \$115 million in 2011 and \$150 million in 2016. Both estimates are in 2007 constant dollars and are based on current per FLE operating costs provided by AET. Any future changes in the provincial government's portion of per FLE operating costs would affect these estimates.

Conclusions following the analysis of the advanced education system are:

- Strong economic and population growth is expected to keep enrolment demand high for the foreseeable future. Demand is expected to be particularly high in program areas such as health sciences and trades and technology.
- The public post-secondary system is a provincial system, not a regional one. Increasing capacity at the regional level must be part of a larger provincial plan for increasing enrolment capacity across the provincial system.
- Population growth will impact demand for specific post-secondary programming and services including workforce training, language training, and foreign qualifications assessment, and student financial assistance.

RECREATION

Municipalities are responsible for the delivery of public recreation services.⁴ Significant financial contributions from the private sector, community/non-profit organizations and the provincial and federal governments fund recreational programs and facilities. This multi-tier system helps to provide Albertans with a variety of recreation opportunities.

Municipalities are facing a number of challenges with respect to recreation infrastructure and programming, including:

- Funding challenges - municipalities are shouldering a greater financial burden due to aging infrastructure and cost escalations. The Major Community Facilities Program (MCFP) will end in 2008-09.

³ As outlined in Table 10-5, there are already over \$800 million in approved post-secondary infrastructure projects in the Capital Region. However, not all of these expenditures will serve to expand FLE capacity. Capital expenditures per FLE estimates provided by Alberta Advanced Education and Technology were used to estimate the portion of currently approved post-secondary infrastructure projects that will serve to increase FLE capacity.

⁴ For purposes of this analysis, library facilities and services are included in recreation.

- Changing social trends, which require retrofitting of current facilities to meet changing demands.
- Increased demand for recreation facilities and services with increased population growth.
- The need for more recreational facilities and programming for teens, particularly in smaller municipalities.
- Good regional coordination is seen as opportunity for recreation capital planning and cost-sharing of facilities construction and operation.
- Staff shortages and increased competition for volunteers.

Recreation infrastructure requires substantial financial investment, often more than one municipality can afford on its own. Inter-municipal financing arrangements are common across the Capital Region, particularly among urban communities and their surrounding rural municipalities.

Assuming current service levels for the next ten years, the projected population growth in the Capital Region is expected to increase the demand for indoor pools, arenas and multi-purpose facilities. By 2016, municipalities will have to explore the feasibility of at least construction of two to four new multi-purpose facilities in the region, in addition to three to seven new indoor pools and 14 to 17 new indoor artificial sheets of ice.

Conclusions from this analysis are:

- Residents of the Capital Region have access to a broad range of recreational facilities and programs. However, demand for recreation facilities will increase as the population grows.
- The greatest challenge for municipalities relate to balancing the increased demand for additional facilities and programming with limited capital and operating funding available to municipalities to support recreation. Provincial funding is short-term with no certainty of renewal.
- Substantial investment is associated with the implementation of City of Edmonton recreation plan: \$405 million in capital expenditures and \$230 million in total operating expenditures between 2008 and 2016 that will be partially recoverable from user fees.
- The rest of the Capital Region is also anticipated to require substantial investment in additional recreation facilities to respond to future population growth: \$130 to \$190 million in capital expenditures and \$8 to \$13 million in annual operating expenditures for planned and unplanned facility requirements.

- It is estimated that annual library operating costs will increase over time with the addition of new branches. Annual operating costs are projected to need to increase by \$5.4 million over current levels by 2011 and by \$9.1 million over current levels by 2016.
- Municipalities in the Capital Region have shown commitment in the development of the region's natural resources with a minimal ecological impact. Plans are in place for the development and preservation of regional parks, trails, open space, and outdoor recreation facilities in excess of \$680,000. The bulk of the funding is identified for the development of the North Saskatchewan River Valley into an integrated park.
- While many municipalities in the region invest in arts and culture, it has been recognized that the Capital Region and Alberta as a whole will need to increase investment of cultural activities.
- The following challenges can be expected to intensify with the projected population and economic growth in the Capital Region:
 - Capital cost escalation;
 - Shortages of paid staff and volunteers;
 - Increased need for programming for vulnerable groups, particularly teens; and,
 - Potential shifting in demand for recreational facilities and programs to cater to the expectations of a more culturally diverse population.
- Improved public transportation would enhance access to recreational facilities.
- A structured, regional approach will be required to address challenges related to recreation infrastructure and programming. Municipalities working together to plan, finance and operate recreation facilities have the potential to develop major facilities in areas where it would be financially impossible in the absence of cooperation.

CONCLUDING OBSERVATIONS

The Capital Region is in the midst of a period of rapid growth – growth that is anticipated to continue to be strong for an extended period of time. In reviewing the pressure this growth can be expected to place on the region's social infrastructure, a number of themes emerge.

The first is the centrality of housing to meeting social needs in region. Housing is a key issue that impacts all aspects of the region's social infrastructure. Affordable housing is necessary not only to address homelessness and overcrowding, but to attract the workers needed to support the

region's continued strong economic growth. It is estimated that there is a need for almost \$1.2 billion of investment in housing to address the shortfall to 2016.

Another area that was mentioned by a range of service providers and municipalities involved public and specialized transportation that would link communities in the region and provide increased access to the services only available in the larger communities in the region. Improved public and specialized transportation links would improve access to needed social and health services, recreational opportunities, post secondary education; and a broader range of jobs.

A third theme is the planning challenges associated with the current provincial government capital budgeting process. The current process is not conducive to the needed development of longer-term plans for service delivery in the Capital Region.

An additional theme is the variance in responsibilities for social infrastructure, with the City of Edmonton carrying a high proportion of the burden for social infrastructure vis-à-vis other municipalities in the region. For example, Edmonton supports a greater number of police officers per capita than other municipalities in the region and it has considerably more social housing per capita than other municipalities in the region.

Finally, inter-municipal cooperation is currently occurring among many municipalities. Fire, ambulance and recreation – three key areas of municipally delivered social infrastructure – all demonstrate positive and significant collaboration for service delivery. This cooperation at an operational level suggests the potential for further municipal cooperation in the delivery of services on a regional basis.

Table ES-1 Summary of Infrastructure Costs**CAPITAL**

Infrastructure Element	Total New Requirements by 2016	Units of Infrastructure	\$ 2007 (millions)
Housing			
Social (Non-Market) Housing	5,700	housing units	} \$901
Affordable Private Market Housing	10,300	housing units	
Health			
Acute-Care	902 to 972	beds	} \$1,750 to \$1,930
Long-Term Care	1,668 to 2,038	beds	
Police			
Police Stations	various	various	\$220 to \$225
Emergency Services			
Fire Service	10 to 15	stations	\$38 to \$75
Ambulances Service	8 to 9	stations	\$16 to \$18
Social Services			
FCSS			(in operating costs)
Child Care			(in operating costs)
Public Education (k-12)			
Elementary/Jr High	18	schools	\$448
High School	2	schools	\$62
Post Secondary	12,485	FLEs	\$1,098
Recreation			
	23	library branches	(in operating costs)
	8 to 11	pools	\$10 to \$50
	18 to 21	ice sheets	\$80 to \$100
	9	multi-purpose	<u>\$449</u>

TOTAL CAPITAL COSTS**\$5,072 to \$5,356****OPERATING**

Infrastructure Element	Total New Requirements by 2016		Estimated Operating Costs (\$2007 million)	
			2011	2016
Housing				
Social (Non-Market) Housing	5,700	housing units	} \$51	\$114
Affordable Private Market Housing	10,300	housing units		
Health				
Population assumptions used in planning processes			\$395	\$595
Police				
Staffing levels	406	officers	\$27	\$45
Emergency Services				
Fire Service	10 to 15	stations	\$10 to \$15	\$20 to \$30
Ambulances Service	17	ambulances	\$9.5	\$19
Social Services				
FCSS	population growth		\$3.4	\$5.8
Women's Shelters	population growth		\$2.0	\$2.4
Child Care				
Children 6 and under	5,800	licensed spaces	} \$3.6	\$7.4
Children 7 to 12	200	licensed spaces		
Public Education (k-12)				
All schools	1,044	staff	\$34	\$104
Post Secondary	12,485	FLEs	\$115	\$150
Recreation				
	23	library branches	\$5.4	\$9.1
	8 to 11	pools	\$1 to \$4	\$1 to \$5
	18 to 21	ice sheets	\$2 to \$3	\$3 to \$4
	9	multi-purpose	\$24.0	\$35.0

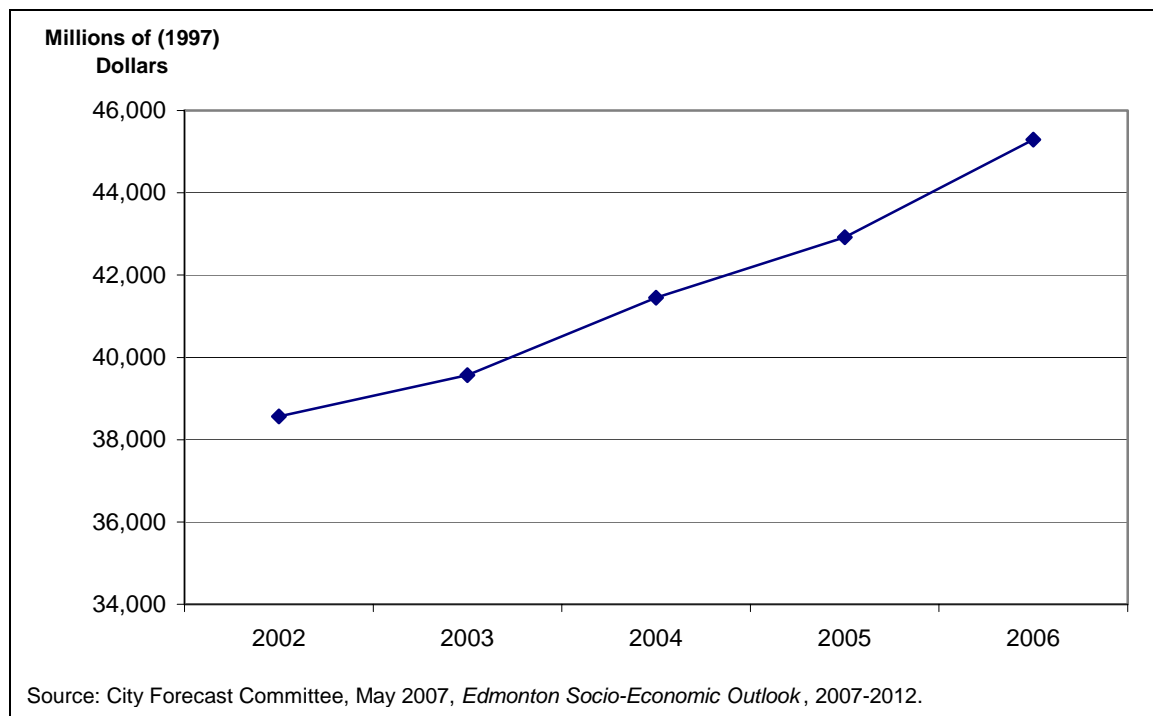
TOTAL OPERATING COSTS IN SELECTED YEARS**\$683 to \$692****\$1,111 to \$1,126**

1. ALBERTA'S CAPITAL REGION

1.1 INTRODUCTION: MANAGING GROWTH PRESSURES

Alberta's Capital Region has been experiencing strong economic growth since the late 1990s, driven by exploration and development activity in Alberta's oil and gas sector and the rapid development of the oil sands in northeast Alberta. The region, located at the north end of the Calgary-Edmonton Corridor currently has one of the fastest growing economies in the world and is identified as an area having enormous growth potential. GDP within the Census Metropolitan Area (CMA) in 2006 exceeded \$45 billion (Figure 1-1) and is forecasted to reach \$59.4 billion by 2012. The Capital Region is expected to continue to grow over the next several years as the area becomes a world hub for the oil, gas and petrochemical industries, while retaining its important role as a major commercial, industrial, institutional and government centre in the province.

Figure 1-1 Real GDP, Edmonton CMA



On June 12, 2007, the Premier of Alberta announced the terms of reference for a Capital Region Integrated Growth Management Plan (CRIGMP) -- a long-term plan to manage the pressures related to the anticipated growth in the Capital Region. The plan will guide future decision-making in regard to land use, core infrastructure and social infrastructure in the region. A management structure is also being developed to implement the CRIGMP.

The work presented in this report focuses on the social infrastructure component of the CRIGMP. Whereas the focus of land use planning and core infrastructure extends to 2041, the social infrastructure work looks ahead to 2016. Unlike core infrastructure, social infrastructure can -- and should -- be adjusted as local and regional circumstances and needs change.

The development and subsequent implementation of the CRIGMP will help to ensure that the region has the capacity to accommodate future economic and population growth, and the region offers a high quality of life for all.

Principles guiding the development of the plan are:

- Ensuring community identities are supported; and
- All residents in the Capital Region benefit from anticipated economic growth.

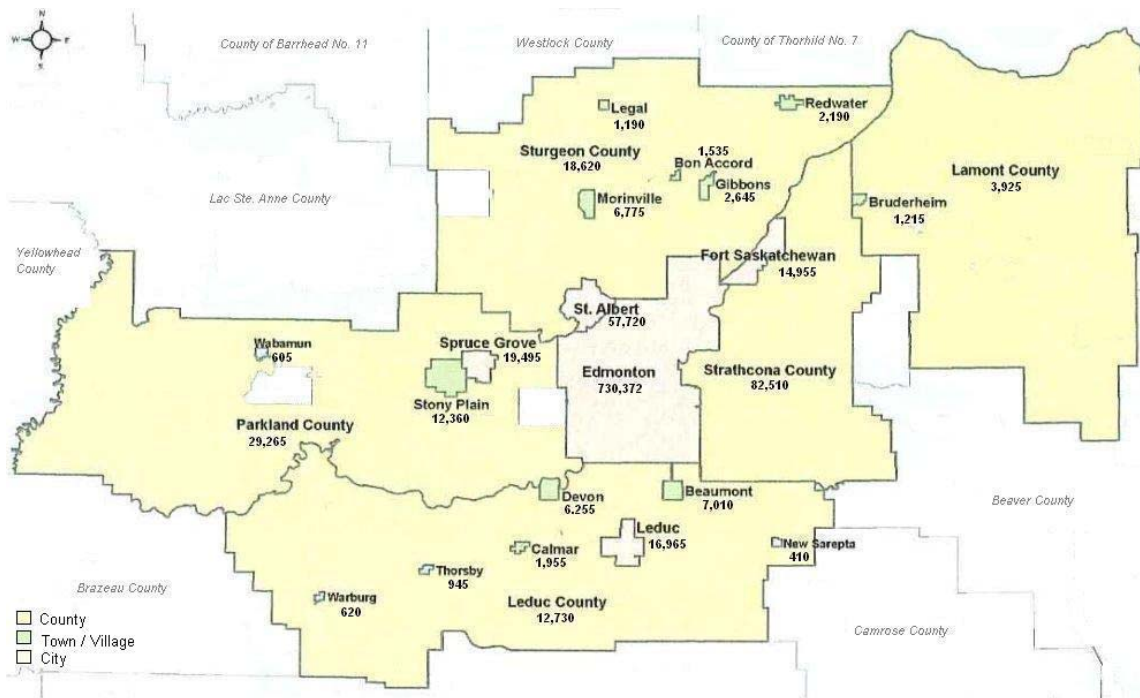
Capital Region Boundaries

The Capital Region is comprised of 24⁵ municipalities with a combined population of just over 1 million. The region extends from the northern boundary of Sturgeon County in the north to the southern border of Strathcona and Leduc Counties in the south, and from the western limits of Parkland County to the eastern border of Lamont County.

The region includes both rural and urban municipalities that range considerably in geographic size and population. Approximately 70 percent⁶ of the region's population lives in the City of Edmonton. Figure 1-2 presents a map of the Capital Region and identifies the population of each of the municipalities.

⁵ The Town of Lamont was interviewed for this component of the work on the Capital Region Integrated Growth Management Plan, however, the Town has not been included in the analysis in this paper.

⁶ Statistics Canada, 2006 Census

Figure 1-2 Municipal Populations in the Capital Region (2006)

1.1.1 Lessons Learned from the Past

Some parts of Alberta, such as the Regional Municipality of Wood Buffalo (RMWB), have experienced considerable challenges in dealing with growth in the past. Although the Capital Region is better positioned than the RMWB has been to deal with rapid economic and population growth, the anticipated growth of the Capital Region is significant and warrants a full understanding of the potential impacts on the region. With sufficient lead time and planning, the potential negative impacts of rapid economic and population growth can be mitigated or avoided completely.

Previous studies have concluded that more coordinated planning will be needed for optimal economic and community growth and sustainable environmental management in the Capital Region. For example, in his 2000 report, *The Alberta Capital Region Governance Review*, Lou Hyndman put forward a strong case for supporting a regional approach to growth management, noting that:

- Globalization is creating a more competitive environment -- one that requires greater strength than one municipality can offer.
- The cost of delivering municipal services and infrastructure is rising. Citizens are looking for more and better quality services at a reasonable cost.
- Rapid growth is creating issues such as traffic congestion, pressure on utilities, and pollution that go beyond the boundary of any one municipality.

- Information technologies are increasing the information available to both governments and citizens, and creating expectations for regional cooperation.
- Citizens expect their leaders to think about, and plan for, growth and quality of life for both the present and the future.

Similarly, the Hemson study, *Creating a Stronger Edmonton Region*, discusses the need to maintain the competitiveness of the region and calls for a strong regional approach to planning as being important to maintaining competitiveness and allowing the region to achieve its full economic potential. *"Simply put, the pace and location of development in the region now demands that planning be conducted at a speed and with a clarity of vision that is not possible under the current governance structure."*⁷

1.1.2 Growth Places Pressures on Social Infrastructure

Economic and population growth places pressures on social infrastructure in a number of ways, including:

- An increase in the demand for services. It can be difficult for service providers to meet these increased demands because of staffing challenges (e.g. difficulties retaining staff because of the availability of higher paying jobs in other sectors and difficulty recruiting staff because of high housing costs), inadequate budget responsiveness, and funding constraints;
- Newcomers to a region often leave behind their family and social support networks, increasing their need to turn to agencies for services or supports (e.g. for child care; housing);
- Economic growth attracts both qualified and unqualified workers seeking employment. Those unable to secure jobs add to the number of people requiring certain supports, such as social housing;
- When population growth outpaces growth in a region's housing stock, housing costs rise. This is already occurring in the Capital Region. High housing costs increase financial pressures on new home owners and renters, and lead to longer work hours and less time for family and recreation. In some instances, this can contribute to physical and mental health issues, social development issues in children, and additional pressures on the child care and education systems;
- With economic prosperity comes the potential for more addiction issues and criminal activity related to drugs; and

⁷ Hemson Consulting Ltd., *Creating a Stronger Edmonton Region, Executive Summary*, February 2007, p. 3.

- Increased demands for facilities and services in areas experiencing the fastest population growth (e.g. school and recreation facilities).

Overall, the economic and population growth in the Capital Region will experience will be of benefit to the region. Employment opportunities will continue to grow, and many in the region can be expected to see their incomes and wealth increase.

However, it will be important that investment in the region's social infrastructure keeps pace with regional population growth to ensure that growth does not compromise the quality of life of any groups of residents, such as those living in particularly fast-growing parts of the region, those with lower income, and newcomers to the region.

Much can be learned from the RMWB's experience with rapid population growth. Challenges faced by the RMWB include a shortage of housing and extremely high housing costs; increased demand for child care; reduced access to health services; and strained municipal recreational and social programming.

The Capital Region is better positioned to deal with growth and avoid the challenges that have been experienced in the RMWB for the following reasons:

- The Capital Region already has a large population and much of the needed social infrastructure is already in place;
- The breadth of social infrastructure in the region provides some flexibility in responding to surges in service demand (e.g., emergency patients can be re-directed to other hospitals in the region);
- The Capital Region's projected population growth rate, although significant, will not be of the same magnitude as the growth the RMWB has experienced. An annual growth rate of 3 percent or less is anticipated in the Capital Region, whereas the RMWB has experienced growth at a rate of 7-8 percent per annum. Nevertheless, some communities in the region are projected to experience growth at a similar rate as that experienced in the RMWB, with a significant number of mobile workers;
- Newcomers to the Capital Region over the next 15 years will comprise only a small percentage of the region's overall population, while in the RMWB, newcomers make up a much higher percentage of the total population. Nevertheless, it is expected that there will be higher concentrations of newcomers in some parts of the Capital Region; and
- The land in the Edmonton region is already privately held and therefore more readily available for development than was the case in the RMWB.

1.1.3 The Importance of Social Infrastructure

Social infrastructure services enhance quality of life, not only for those who receive the service directly, but for other members of society as well. Child care services, for example, are of benefit not only to the families whose children are receiving care, but also to employers. The benefit extends further to society as a whole to the extent that child care allows more families to be financially self-sufficient and more children to receive quality child care in their important formative years.

Social infrastructure also builds social cohesion. For example, community schools and neighbourhood recreational facilities can play an important role in bringing communities together. A heightened sense of belonging reduces social isolation, contributes to individual and family well-being, and increases commitment to communities and the desire of citizens to volunteer to make their communities better. In short, socially cohesive communities offer a higher quality of life for all.

Social infrastructure will play a central role in the Capital Region's sustained economic prosperity. The safety of communities, the availability of affordable housing, and access to quality health, education, child care, social supports, and recreation, all affect the attractiveness of the Capital Region to those who are considering investing in the region or moving here.

1.2 SOCIAL INFRASTRUCTURE IN THE CAPITAL REGION

1.2.1 Areas of Social Infrastructure

This discussion paper is intended to support the development of the social infrastructure components of the CRIGMP. Social infrastructure is the facilities and services in a community that support the functioning of the community, sustain the well-being of its residents, and build social cohesion.

Each of the municipalities in the Capital Region were asked about the level of importance of ten⁸ aspects of social infrastructure in the light of the population and workforce changes that are anticipated over the next decade or so. These ten areas are presented in the table below, along with the percentage of municipalities that consider the area to be either a pressing or very pressing issue in the Capital Region.

⁸ In subsequent chapters of this report Ambulance and Fire services are combined under Emergency Services.

Table 1-1 Social Infrastructure Issues and Their Level of Importance

Social Infrastructure Issues	Percentage of Municipalities Considering Regional Issues to be Pressing or Very Pressing
Housing	91%
Health care	82%
Policing	76%
Social Services	67%
Child Care	67%
Ambulance	41%
Fire	19%
Recreation	19%
Post-Secondary Education	15%
Education (K-12)	12%

Based on interviews with municipalities, with 22 out of 24 responding to the question.

1.2.2 Approach to Measuring Social Infrastructure Needs

This paper examines social infrastructure issues within the Capital Region. Section 2 discusses the context in which growth in the Capital Region is anticipated to occur; provides background information on anticipated changes in the region's population, and discusses the composition of the workforce and where the industrial construction workforce is likely to come from.

The subsequent sections address each of the ten areas of social infrastructure. Each of these sections:

- Presents information to provide an understanding of the definition and context of the social infrastructure component;
- Discusses issues that need to be considered in decisions about how services will be delivered in the Capital Region in the future;
- Estimates the needs for facilities and services to 2016 that can be anticipated based on an assumed scenario of population growth;
- Identifies, where possible, plans that have already been developed that will assist in meeting the social infrastructure needs caused -- or intensified -- by growth;
- Endeavours to quantify the gap between the needed social infrastructure and the social infrastructure that will be in place in the future assuming that all planned social infrastructure development is undertaken;
- Identifies areas where current processes and plans need to be adjusted in order to ensure that the region has adequate social infrastructure over the next eight years;

- Identifies issues that should be considered in developing new plans to ensure that the Province, municipalities within the region, and other authorities with responsibilities related to social infrastructure have the long-term ability to respond to social infrastructure needs in a timely manner -- both from a capital and a programming standpoint; and
- Quantifies the need for infrastructure capital and operating costs for selected components of social infrastructure.

Whereas the planning for the region's core infrastructure will extend out 35 years, the timeframe of the social infrastructure component of the CRIGMP is to 2016.

1.2.2.1 Definition and Quantification of Social Infrastructure Costs

A planning gap was defined as the difference between what the analysis forecasted as social infrastructure needs and what is currently included in approved social infrastructure plans of the provincial government's most current listing of capital projects or ministry business plans, and municipalities.

Forecasted needs were based on maintaining existing service levels.

Identification of approved social infrastructure plans was problematic in that plans may or may not have both administrative and political approvals. In many sectors and communities, it was found that plans do not exist or do not extend to 2016.

Operational and capital costs are presented in this report:

- Two different capital costs are presented in this report. The first is the capital costs required to close the "gap" between what is needed and what is planned to 2016.
- **The second capital cost estimate refers to total capital costs required to 2016 to address community needs irrespective of whether or not these needs have been included in a plan.**
- **Operating costs are estimated for two distinct years -- 2011 and 2016. These represent the additional operating costs associated with growth in the Capital Region.**

All costs are presented in 2007 constant dollar terms.

1.2.2.2 The Review Process

This review of social infrastructure in the Capital Region is based on input from numerous sources including:

- Discussions with senior officials in each municipality in the Capital Region about social infrastructure issues -- locally and regionally -- and specific aspects of the services that their municipality provides to their ratepayers;
- Review of municipal development plans of municipalities and other plans the study team was informed about;
- Review of plans developed by provincial Ministries to address future social infrastructure needs;
- Review of demographic and operational trends of relevance to each social infrastructure area;
- Review of relevant performance measures and standards;
- Specific data pertaining to historical service delivery and projected future services;
- Population projections for the Capital Region developed by Applications Management Consulting Ltd.; and,
- Collection and analysis of historical spending by municipalities and recorded in the Alberta Municipal Financial Information System (AMFIS).

1.2.2.3 Limitations of this Review

This paper presents preliminary, order of magnitude estimates of the social infrastructure needs of a rapidly growing and evolving region encompassing 24 unique municipalities. The broad scope of the assignment, the short time frame for its completion, data limitations to support the analysis, and limited involvement of stakeholders in providing input on the analysis all need to be recognized.

Work on this assignment began July 23, 2007. While every effort has been made to identify plans, it is acknowledged that there might be some that have not been fully captured in the analysis. Where the data required for analysis were not available or provided to the study team, assumptions have needed to be made to develop the preliminary estimates presented. These assumptions are documented throughout the report.

2. POPULATION AND WORKFORCE

2.1 ALBERTA CONTEXT

Job Creation and Employment Growth

Economic growth leads to the creation of jobs. The upswing in investment in Alberta's oil sands and conventional oil and gas industry has triggered an expansion of job opportunities, not only in the energy and industrial construction sectors, but in other sectors as well. For example, job opportunities are expanding in:

- The retail sector, in response to the increased consumer spending associated with rising incomes and a growing population; and,
- The residential construction sector, as more houses are built to accommodate the large number of people moving into the province for work opportunities and Albertans enjoying higher incomes purchase new homes.

More recently, investment in infrastructure by governments is also contributing to job growth in the province, with municipalities investing in the expansion and maintenance of road, water, wastewater and solid waste infrastructure. Provincial spending on highways, health, and education facilities has also increased in recent years.

From 2002 to 2006, the number of people employed in Alberta grew by almost 200,000, with the largest year-to-year increase -- 86,240 -- occurring between 2005 and 2006.⁹

Population Growth

There has been an influx of people to Alberta as workers and their families move here from elsewhere in Canada and to a lesser extent from other countries to take up the jobs that are being created. Between 2003 and 2007, Alberta's population grew by almost 312,600. The pace of population growth quickened significantly in 2005 and continues to the present, as shown in Figure 2-1.

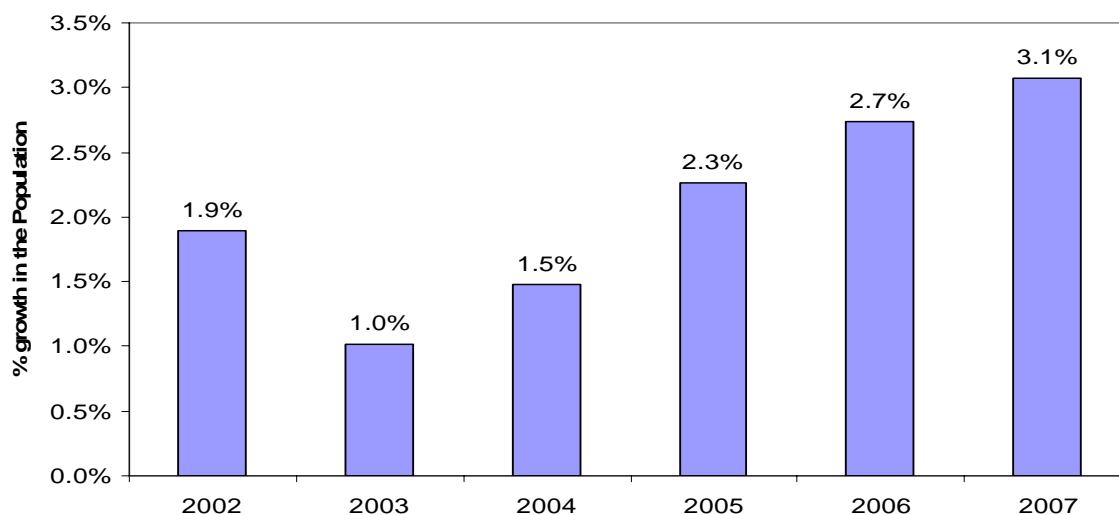
Alberta remains the province with the highest net in-migration in Canada. In the first six months of 2007, the net in-migration into the province is estimated at 22,700 people, two-thirds from other provinces and one-third from other countries.¹⁰

⁹ Alberta Employment, Immigration and Industry 2007. *2006 Annual Alberta Labour Market Review* and Alberta Finance 2007. *Budget 2007, Managing Our Growth, Economic Outlook 2007-2010*.

¹⁰ Alberta Finance 2007. *Alberta Population Report, Second Quarter 2007*.

Inter-provincial migration is expected to continue to remain high but below the peak levels experienced during the later part of 2005 and the first half of 2006. Recent increases in Alberta housing costs are likely to contribute to a marginal slowing in population growth.¹¹

Figure 2-1 Population Growth Rates, Alberta



Sources: Statistics Canada and Alberta Finance

Note: Based on July estimates

2.2 CAPITAL REGION

Of the over 1 million people living in the Capital Region, over 85 percent live in the three largest urban centres in the region (Edmonton, Strathcona County, and St. Albert), with the remainder distributed throughout the smaller communities and rural areas in the region.

Historical Population Growth

The economic, job, and population growth in the Capital Region reflect that of the province. As the major supply centre for the north-eastern part of the province, the growth in the Capital Region has been particularly influenced by the expansion phase of the oil sands industry, centred around Fort McMurray. Table 2-1 compares the average annual growth rate of the region to that of the province, based on historical population numbers. Growth in the Capital Region increased from 1.7 percent for the 1996 to 2001 period to 2.0 percent for the 2001 to 2006 period. The corresponding increases for the province are 2.0 percent for both the 1996 to 2001 and 2001 to 2006 periods.

¹¹ Alberta Finance 2007. *Budget 2007, Managing Our Growth, Economic Outlook 2007-2010*.

Table 2-1 Average Annual Growth Rate by 5-year Period

	Capital Region	Alberta
1996-2001	1.7%	2.0%
2001-2006	2.0%	2.0%

Note: Capital Region is defined as the Edmonton CMA, plus the western part of the County of Lamont.

Source: Statistics Canada, Census 1996, 2001, 2006

Regional Population Forecast

This research follows the same regional growth assumptions used for the core infrastructure assessment of the Capital Region Integrated Growth Management Plan (CRIGMP).¹² Generally, the forecast sees the Capital Region's population increase from 1,042,000 in 2006 to 1,186,000 in 2011 and 1,286,000 in 2016. This forecast implies average annual growth rates of:

- 2.6 percent for the 2006 to 2011 period, which is higher than the 2.0 percent growth rate for the 2001 to 2006 period; and
- 1.6 percent for the 2012 to 2016 period, which is lower than the historic and expected growth rates in the 2001 to 2011 period and in line with growth rates seen in the 1996 to 2001 period.

Observations regarding the population forecast used for the CRIGMP include the following:

- It is based on ongoing work by the City of Edmonton and Alberta Infrastructure and Transportation for use in the Edmonton Regional Transportation Model;
- It reflects the high growth scenario derived through analysis and consultation conducted in early 2007; and
- Adaptations were made to incorporate additional information on the upgrader development in the Alberta Industrial Heartland (AIH), potential development in the Land Bank area in Northeast Edmonton, and the Port Alberta initiative at the Edmonton International Airport.

Table 2-2 shows the population impact of the adjustments for the AIH projects, the potential development in the Land Bank area in Northeast Edmonton, and Port Alberta. As can be seen, these adjustments add an additional 32,785 persons by 2011 and a further 31,416 persons by 2016.

¹² The population forecast used for this research is the same as that used in *ISL's Capital Region Integrated Growth Management Plan Interim Report on Land Use*, except that it excludes the eastern part of the County of Lamont and the population on First Nations Reserves on the basis that the social infrastructure on reserves falls under federal -- not provincial -- jurisdiction.

Table 2-2 Employment and Population Adjustments

	2011		2016	
	Employment	Population	Employment	Population
Industrial Heartland	28,000	29,785	19,000	26,416
NE Edmonton	1,900	3,000	2,900	5,000
Port Alberta	7,500	0	12,000	0
Total	37,400	32,785	33,900	31,416

Source: ISL 2007. Capital Region Integrated Growth Management Plan Interim Report on Land Use, Appendix A

Using a high forecast is appropriate for the overall CRIGMP. For core infrastructure, using a high forecast reduces the risk of long-life infrastructure being undersized. For social infrastructure, a high forecast can advance the timing of expansion. However, social infrastructure is more amenable than core infrastructure to adjustment. Ongoing monitoring will be important to ensure that the region's social infrastructure investments respond to changes in growth patterns and population characteristics over time.

Tables 2-3 and 2-4 provide the detailed forecasts used for the analyses of social infrastructure requirements presented in this paper.

The information in the tables shows:

- Higher growth in the first five-years of the forecast as compared to the second five years;
- Higher growth in the portion of the region outside Edmonton than in the City of Edmonton;
- Varied growth patterns within the region, with generally:
 - the North and the East Capital Region outside Edmonton growing faster than the South and West in the first five years;
 - the South Capital Region growing the fastest in the second five year period.
- Varied growth within Edmonton, with generally:
 - the suburban areas growing, especially in the Northeast; and
 - overall, the inner city population declining. However, some neighbourhoods in the inner city are projected to see an increase in population as a result of redevelopment (e.g., the Central Business District, Calder, the Downtown Fringe, and Bonnie Doon).

Table 2-3 Population Forecast, Capital Region, Excluding Edmonton

Municipalities Excluding the City of Edmonton	2006	2011	2016	% change 2006 to 2011	% change 2006 to 2016	Average Annual Growth Rate 2006-2011	Average Annual Growth Rate 2011-2016
Bon Accord	1,535	2,043	2,191	33%	43%	5.9%	1.4%
Gibbons	2,642	4,800	5,115	82%	94%	12.7%	1.3%
Legal	1,193	1,635	1,718	37%	44%	6.5%	1.0%
Morinville	6,775	9,327	10,138	38%	50%	6.6%	1.7%
Redwater	2,192	3,089	3,281	41%	50%	7.1%	1.2%
S t. Albert	57,787	72,995	79,085	26%	37%	4.8%	1.6%
Sturgeon County	<u>18,664</u>	<u>20,543</u>	<u>22,055</u>	<u>10%</u>	<u>18%</u>	<u>1.9%</u>	<u>1.4%</u>
Subtotal North Capital Region	90,788	114,432	123,582	26%	36%	4.7%	1.6%
Bruderheim	1,215	2,600	2,778	114%	129%	16.4%	1.3%
Fort Saskatchewan	15,089	29,408	30,657	95%	103%	14.3%	0.8%
Lamont County	630	674	713	7%	13%	1.4%	1.1%
Strathcona County	<u>82,705</u>	<u>99,538</u>	<u>108,482</u>	<u>20%</u>	<u>31%</u>	<u>3.8%</u>	<u>1.7%</u>
Subtotal East Capital Region	99,639	132,220	142,630	33%	43%	5.8%	1.5%
Beaumont	8,961	11,421	13,257	27%	48%	5.0%	3.0%
Calmar	1,959	2,225	2,461	14%	26%	2.6%	2.0%
Devon	6,256	7,106	7,858	14%	26%	2.6%	2.0%
City of Leduc	17,021	19,613	22,062	15%	30%	2.9%	2.4%
Leduc County	12,734	14,254	15,530	12%	22%	2.3%	1.7%
New Sarepta	410	452	486	10%	19%	2.0%	1.5%
Thorsby	945	1,058	1,153	12%	22%	2.3%	1.7%
Warburg	<u>621</u>	<u>685</u>	<u>735</u>	<u>10%</u>	<u>18%</u>	<u>2.0%</u>	<u>1.4%</u>
Subtotal South Capital Region	48,906	56,814	63,542	16%	30%	3.0%	2.3%
Parkland County	29,740	33,247	35,664	12%	20%	2.3%	1.4%
Spruce Grove	19,496	22,144	24,489	14%	26%	2.6%	2.0%
Stony Plain	12,518	14,050	15,529	12%	24%	2.3%	2.0%
Wabamun	<u>601</u>	<u>653</u>	<u>691</u>	<u>9%</u>	<u>15%</u>	<u>1.7%</u>	<u>1.1%</u>
Subtotal West Capital Region	62,354	70,093	76,372	12%	22%	2.4%	1.7%
Capital Region Outside Edmonton	301,686	373,560	406,126	24%	35%	4.4%	1.7%

Population projections prepared by Applications Management Consulting Ltd. 2006 data.

Table 2-4 Population Forecast, Edmonton

	2006	2011	2016	% change 2006 to 2011	% change 2006 to 2016	Average Annual Growth Rate 2006- 2011	Average Annual Growth Rate 2011- 2016
Central Business District	11,126	12,024	13,395	8%	20%	1.6%	2.2%
University	23,884	23,825	23,620	0%	-1%	0.0%	-0.2%
Southgate	30,369	30,309	30,100	0%	-1%	0.0%	-0.1%
Jasper Place	54,962	52,700	52,632	-4%	-4%	-0.8%	0.0%
North Central	37,722	36,812	36,806	-2%	-2%	-0.5%	0.0%
Caldar	21,168	20,990	21,868	-1%	3%	-0.2%	0.8%
Londonderry	49,250	48,753	48,943	-1%	-1%	-0.2%	0.1%
Beverly	25,376	23,742	21,280	-6%	-16%	-1.3%	-2.2%
Capilano	29,722	29,894	30,336	1%	2%	0.1%	0.3%
Bonnie Doon	19,888	19,888	20,001	0%	1%	0.0%	0.1%
Downtown Fringe	<u>46,947</u>	<u>47,236</u>	<u>47,774</u>	<u>1%</u>	<u>2%</u>	<u>0.1%</u>	<u>0.2%</u>
Subtotal Inner City	350,411	346,173	346,753	-1%	-1%	-0.2%	0.0%
West Jasper Place	56,989	57,081	56,650	0%	-1%	0.0%	-0.2%
Northwest Industrial	1,253	1,189	1,166	-5%	-7%	-1.0%	-0.4%
Mistatim	148	143	138	-3%	-7%	-0.7%	-0.7%
Castle Downs/Palisades	47,635	52,887	58,669	11%	23%	2.1%	2.1%
West Edmonton	12,499	23,678	34,805	89%	178%	13.6%	8.0%
Winterburn	<u>2,645</u>	<u>2,992</u>	<u>3,608</u>	<u>13%</u>	<u>36%</u>	<u>2.5%</u>	<u>3.8%</u>
Subtotal West North West	121,170	137,971	155,037	14%	28%	2.6%	2.4%
Clareview	32,151	33,978	34,857	6%	8%	1.1%	0.5%
Lake District/Pilot Sound	33,372	43,960	49,986	32%	50%	5.7%	2.6%
Landbank	482	488	502	1%	4%	0.2%	0.6%
Northeast Edmonton	2,527	13,243	21,096	424%	735%	39.3%	9.8%
Clover Bar	<u>20</u>	<u>19</u>	<u>18</u>	<u>-3%</u>	<u>-9%</u>	<u>-0.7%</u>	<u>-1.2%</u>
Subtotal North East	68,553	91,688	106,458	34%	55%	6.0%	3.0%
Mill Woods	81,357	78,974	78,071	-3%	-4%	-0.6%	-0.2%
South Industrial	10	10	10	-2%	-5%	-0.4%	-0.6%
Southeast Industrial	1,790	1,958	2,122	9%	19%	1.8%	1.6%
Meadows	15,657	22,509	28,169	44%	80%	7.5%	4.6%
Ellerslie	<u>6,921</u>	<u>16,377</u>	<u>26,626</u>	<u>137%</u>	<u>285%</u>	<u>18.8%</u>	<u>10.2%</u>
Subtotal South East	105,735	119,827	134,998	13%	28%	2.5%	2.4%
Riverbend/Terwillegar	36,470	45,468	51,520	25%	41%	4.5%	2.5%
Kaskitayo	46,256	46,042	46,737	0%	1%	-0.1%	0.3%
Heritage Valley	11,061	20,837	29,597	88%	168%	13.5%	7.3%
Windermere	<u>385</u>	<u>4,106</u>	<u>9,044</u>	<u>968%</u>	<u>2252%</u>	<u>60.6%</u>	<u>17.1%</u>
Subtotal South West	94,172	116,453	136,898	24%	45%	4.3%	3.3%
Total City of Edmonton	740,041	812,112	880,144	10%	19%	1.9%	1.6%

Population projections prepared by Applications Management Consulting Ltd. 2006 data.

Selected Population Characteristics and Implications for Social Infrastructure

The population forecast is closely linked to the expansion of the provincial and regional economies and the implied employment creation. Most of the population growth will be through in-migration. That said, although jobs will be the main reason why people and families are expected to move to the region, not all newcomers will integrate smoothly into communities and the job market. In addition, the socio-economic make-up of the region's population will also need to be considered in determining what social infrastructure will be needed. For example:

- Many households in the region are low-income.¹³ Almost one in five households has an income below the Low-Income Cut Off (LICO), including almost 10 percent of two-parent families, and 30 percent of lone-parent families.
- The region, and especially Edmonton, has a population of roughly 2,600 homeless people, many of whom face multiple barriers to employment, housing, and access to health care.¹⁴
- The region, and especially Edmonton, is experiencing net in-migration of Aboriginal persons who currently make up almost 4.5 percent of the region's overall population. This population group has a number of attributes that need to be considered in planning social infrastructure, including:¹⁵
 - A young population, with 32.6 percent in the 0 to 14 age group as compared to 19.5 percent for the non-Aboriginal population;
 - Lower school attendance, with 50.7 percent of the 15 to 24 age group attending school as compared to 59.7 percent for the non-Aboriginal population;
 - Lower overall income, employment income, and higher dependence on government transfers. On average, the employment income of Aboriginal persons in the region is about one-third the level of non-Aboriginal persons. The Aboriginal population also has a higher dependence on government transfers with, on average, 17 percent of income derived from government transfers, as compared to 10 percent on average for the non-Aboriginal population;

¹³ Edmonton Social Planning Council 2007. *Tracking the Trends*.

¹⁴ *Out In The cold: A count of Homeless Persons in Edmonton*, Edmonton Joint Planning Committee on Housing, October 2006.

¹⁵ Signer and Costa 2005. *Aboriginal Conditions in Census Metropolitan Areas, 1981-2001*. Ottawa.

- Single parent households make up 22.5 percent of all households in the Aboriginal population as compared to about 10 percent in the non-Aboriginal population.
- The Capital Region, and especially Edmonton, has a diverse population, with immigrants accounting for almost 22 percent of the population. The population of new immigrants, estimated at 23,500 in the 2001 to 2005 period, has a number of attributes that have an impact on current and future social infrastructure, including:¹⁶
 - limited English language skills among a subset of recent immigrants, which constrains access to employment and education opportunities;
 - unemployment among recent immigrants is estimated at 5.9 percent, as compared to 4.1 percent for other residents.
- The regional population, in line with the rest of Alberta, Canada, and most of the developed world, is aging. For example, the number of seniors in the region is estimated at 112,188 in 2006, an increase of 15.8 percent over 2001. The number of people over 80 years of age increased by 30.8 percent in that same period.¹⁷

2.3 EMPLOYMENT

Employment growth is linked to population and economic growth in a complex and multidirectional manner. For example, economic growth increases the demand for labour and the size of the labour force required to sustain the level of economic output. Increased employment brings people into the region through in-migration, which, in turn, leads to population growth and further economic and employment growth.

Spatial Aspect of Employment and Employment Growth

Current and anticipated growth in employment is unevenly distributed throughout the region. The location of jobs varies by industry. Examples of current and future spatial aspects of employment and employment growth in the region include:

- Retail jobs distributed throughout the region with selected centres, such as South Edmonton Common, at and around West Edmonton Mall, and downtown Edmonton;
- Business services are distributed broadly with downtown Edmonton as a specific centre;

¹⁶ City Forecast Committee 2007. *Edmonton Socio-Economic Outlook 2007-2011*.

¹⁷ Statistics Canada, *Census 2006*.

- Residential construction jobs are mobile and located in the suburbs of Edmonton and the communities outside of the City of Edmonton where most of the residential construction takes place;
- Industrial construction jobs are concentrated in the east and northeast parts of the region, where most heavy industry is located and where most planned activities are slated to take place;
- Manufacturing jobs, especially those focused on servicing the oil and gas industry, are located mainly in the south-eastern part of the region with Nisku as its centre; and
- Employment in transportation and logistics is found mostly in the big warehouses in northwest Edmonton and anticipated around the Edmonton International Airport (Port Alberta).

Tight Labour Market

Alberta and the Capital Region are experiencing tight labour markets. Unemployment rates in August 2007 are estimated at 3.5 percent and 4.1 percent for Alberta and the Edmonton CMA, respectively. These unemployment rates are below the level that can be considered a balanced labour market.¹⁸ A key question facing employers and policy makers is *where will the required workers come from?*

Government policy has responded to the current and anticipated tight labour market, as evidenced by the development of the province's 10-year labour force strategy, *Building and Educating Tomorrow's Workforce*. This workforce development strategy and the associated sector-specific action plans that are being developed and implemented emphasize:

- Informing Albertans and employers about labour market trends and training and education opportunities;
- Attracting job seekers to Alberta;
- Developing the knowledge and skills of Albertans, and developing innovative workplaces; and
- Retaining workers in Alberta's labour market.

Building and Educating Tomorrow's Workforce recognizes that Alberta needs to focus both on increasing the size of its labour force and on making that labour force more productive through appropriate education and training, capital investment, and the introduction of innovative

¹⁸ Alberta Employment, Immigration and Industry, 2007. *Alberta Labour Force Statistics August 2007*.

processes. The strategy also recognizes the need to attract workers to the province. Specific initiatives in this area include the expansion of the Provincial Nominee Program and the recently signed Agreement on Canada-Alberta Cooperation on Immigration.

Special Issue: Industrial Construction Employment

The development in the AIH, consisting of two upgraders and one refinery conversion under construction and a further seven upgraders planned, is one of the drivers behind the CRIGMP. Although the region has seen similar large industrial construction projects in the past, the intensity and sheer size of the planned development in the AIH are new features in the regional economy and warrant special attention.

Constructing large industrial facilities requires special skills that might not be sufficiently resident in the Alberta construction workforce which is estimated at over 207,400¹⁹. Large industrial facilities tend to be heavily oriented towards steel construction, as compared to residential and commercial construction, which is oriented towards wood and concrete-based construction methods. The one-off nature of large industrial projects means that they are often built using a combination of resident and mobile workers.

No definitive estimate is available of the size of the industrial workforce in the province or the Capital Region and no such estimate is possible because of:

- A tradition of “working mobile” among those workers who specialize in heavy industrial construction;
- An ability for some skilled construction workers to work both commercial/institutional and heavy construction (e.g. concrete workers, structural steel workers, some carpenters).

That said, the heavy industrial workforce in the Capital Region is 9,000 to 10,000 workers, estimated as follows:

- A May 2007 survey of construction workers in the Wood Buffalo Region indicates that 29 percent (or 5,200) of an estimated 18,000 camp workers in that region are from the Capital Region;²⁰
- At that same time, three oil sands projects were ongoing in the Capital Region (Petro Canada Refinery Conversion, BA Energy Heartland Upgrader, and Shell Scotford Upgrader Expansion) employing an estimated 4,900 workers, most of whom are from the local area.

¹⁹ Alberta Employment, Immigration and Industry, 2007. *Alberta Labour Force Statistics July 2007*.

²⁰ Nichols Applied Management 2007. *Mobile Workers in the Wood Buffalo Region*. Edmonton.

This estimate suggests that the heavy industrial workforce in the Capital Region accounts for some 13 percent to 15 percent of the total construction workforce in the Capital Region.

Mobile Construction Workers

The availability of Capital Region-based industrial workers for employment with the anticipated upgrader projects will be influenced by:

- Competition for skilled workers elsewhere, especially in the Wood Buffalo Region;
- The movement of skilled workers in and out of the heavy industrial sector as other sectors of the construction industry demand and are willing to pay more for skilled workers; and
- The rate at which skilled workers relocate to the region from elsewhere.

Union and other labour officials emphasize that the upgrader projects will require more workers than the Capital Region will be able to supply, even assuming that many Capital Region-based workers who are now employed in the Wood Buffalo Region return home. Given the estimated cumulative peak on-site workforce requirement of over 18,000 workers (assuming currently planned upgrader projects proceed in their currently anticipated timeframe), the region is likely to see an influx of a mobile workforce of 8,000 to 9,000 over the next six to ten years.

This aspect of the employment growth in the Capital Region brings along a number of issues that can be expected to affect social infrastructure. These include:

- The challenge of housing out-of-region workers, which may entail:
 - fixed roof accommodation to the point where other activities that require hotel accommodation are displaced;
 - rental housing, which will increase the pressure on the regional rental housing market, especially in the smaller communities near the upgrader sites and in northeast Edmonton; and,
 - work camps, although municipalities in the region are reluctant to host camps because of the perceived negative social impacts.
- The impacts of mobile workers on emergency department visits as mobile workers tend to use these facilities instead of family physicians.
- The challenges associated with mobile workers not “putting roots down” in the communities they work in (i.e., most do not bring their families along and many choose not to participate in community activities).

Attracting Mobile Construction Workers to the Region

The region's population growth will be affected by whether or not the extended period of heavy industrial facility construction attracts construction workers to settle in the region permanently with their families. Anecdotal evidence suggests that the region has seen an influx of skilled construction workers attracted by long-term construction employment in the region. Some also choose the Capital Region as a base from which to work mobile in northern Alberta, especially in the Wood Buffalo Region. This migration flow has likely slowed, however, as house prices in the Capital Region have increased relative to other areas of Canada.

Evidence from the Wood Buffalo Region suggests that:

- Few mobile workers have considered relocating there, despite a long duration oil sands facility building phase; and
- House prices are the main reason for not considering relocation.

The population forecast used for the CRIGMP includes the industrial workforce that will be required for the upgrader projects in the AIH. Recognizing that some of these workers will settle in the region, while others may remain living in their home communities and “work mobile” in the Capital Region, it assumes that these workers will have relatively few dependents and thus will have a potential muted impact on the overall regional population forecast.

3. HOUSING

3.1 INTRODUCTION

This section addresses housing in the Capital Region, across all ranges of the housing spectrum -- from market-based to social housing -- and the issue of homelessness. Housing is a critical foundation of social infrastructure, and its supply in terms of availability, affordability, accessibility and suitability, influences a host of other social indicators.

Currently, the overwhelming proportion of housing in the region (and throughout the Province and country) is free-market based. Approximately 95 percent of housing in the Capital Region is market-based, while 5 percent falls into the category of 'social housing', which in the context of this study infers receiving some kind of public support. Market-based housing is available throughout the region. However, social housing tends to be concentrated in the larger centres, particularly the City of Edmonton, although many communities have some subsidized living units, often associated with elder care lodges.

Traditionally, responsibility for overseeing social housing has been largely shared between the provincial and federal government, with varying involvement of the not-for-profit sector. Municipal involvement in housing in the region has been more uneven. Whereas some municipalities consider social housing to be part of their mandate, others are only now weighing their potential involvement in this sector. Before the announcement of new funding initiatives in 2007, the existing housing program funded by the Government of Alberta (including Federal contributions) was approximately \$150 million per year over the last five years.

In addressing housing needs within the larger picture of growth pressures on the social infrastructure in the Capital Region, the focus of this high-level analysis is twofold:

- To identify the key issues associated with growth in the region that are expected to impact housing supply and affordability; and
- To determine the number of housing units, both publicly-funded and private-market based, needed to satisfy the projected population growth in the Capital Region in the upcoming eight years (2008 to 2016).

As indicated in Section 1, housing is considered by 91 percent of municipalities in the Capital Region to be either a pressing or a very pressing issue.

3.1.1 Methodology

The framework of analysis for this key component of the region's social infrastructure is based on two key concepts:

- The provision of social (non-market) housing takes place along a continuum, ranging from significant public sector intervention (shelters) down to minimal support (subsidized rents); and
- The characteristics of the private housing market in the region have an important impact on the social housing continuum, as it represents the 'exit point' (or possible bottleneck) for people moving along the continuum towards self-sufficiency.

In order to quantify the housing needs in the region, the analysis seeks to establish how recent changes in the housing market, coupled with forecasts of projected demand and supply, will affect the market's ability to satisfy the upcoming demands for available, suitable and affordable housing.

The analysis focuses on the projected supply versus demand of both social and market-based housing, and is based on the following indicators to estimate current and future requirements:

- Market-based housing indicators, including available stock and trends in supply, demand and prices, both for owned as well as rental inventory;
- An estimate of 15 percent of households being in core housing need as defined below, noting:
 - The estimate of CMHC that 14 percent of Canadian households are in core housing need (based on 2001 Census); and
 - Discussions with key respondents in the housing sector that indicate Edmonton's core housing need is estimated to have increased from 11 percent of households in 2001 to 15 percent in 2007.

In order to quantify income levels associated with the 15 percent estimate of core housing need, an analysis of the most recent tax filer dataset (2005) was conducted, which indicated that the lowest earning 15 percent of all households in Edmonton is made up of couple and lone-parent households earning less than \$25,000 per year and single-person households earning between \$20,000 and \$25,000 per year. When this level of income is compared against current house purchase and rental prices, the resultant picture is one where the lowest-earning households are spending well in excess of 30 percent of their pre-tax income on shelter. For the purpose of this analysis therefore, core housing need signifies low-earning households that spend more than 30 percent of their household budget on shelter.

This section is based on input from a number of sources including:

- A review of market trends that are impacting availability and affordability of both market-based and social housing;

- Discussions with senior officials in each municipality about overall issues of relevance to housing and problems with homelessness;
- Review of municipal plans, including municipal development plans and in the case of certain communities, social housing plans, to the extent that they exist;
- Discussions with, and a review of materials produced by, housing market observers as well as social housing providers and planners in the region; and
- A review of measures and standards relevant to 'affordable' housing.

Analysis of the costs associated with infrastructure needs is based on the difference between identified future needs and the plans in place to respond to those needs. As a consequence, the identification of plans is an important component of this research. While there is a high level of certainty regarding current Provincial government response to this issue (i.e. the newly announced Municipal Sustainable Housing Program -- MSHP -- funding), there is to date less certainty regarding the responses of municipalities, recognizing the fact that the availability (and associated responsibility) of this funding is a relatively new development.

This section takes into consideration current funding plans on the basis that the funding has been approved in principle by the provincial government, and is not dependent on municipal plans being finalized. It is assumed that the money allocated to the region will be taken up by municipalities, even if the exact allocation is not yet known.

The general aging trend of the population has not been explicitly factored into this analysis. As the population ages, the need for seniors subsidized housing will increase.

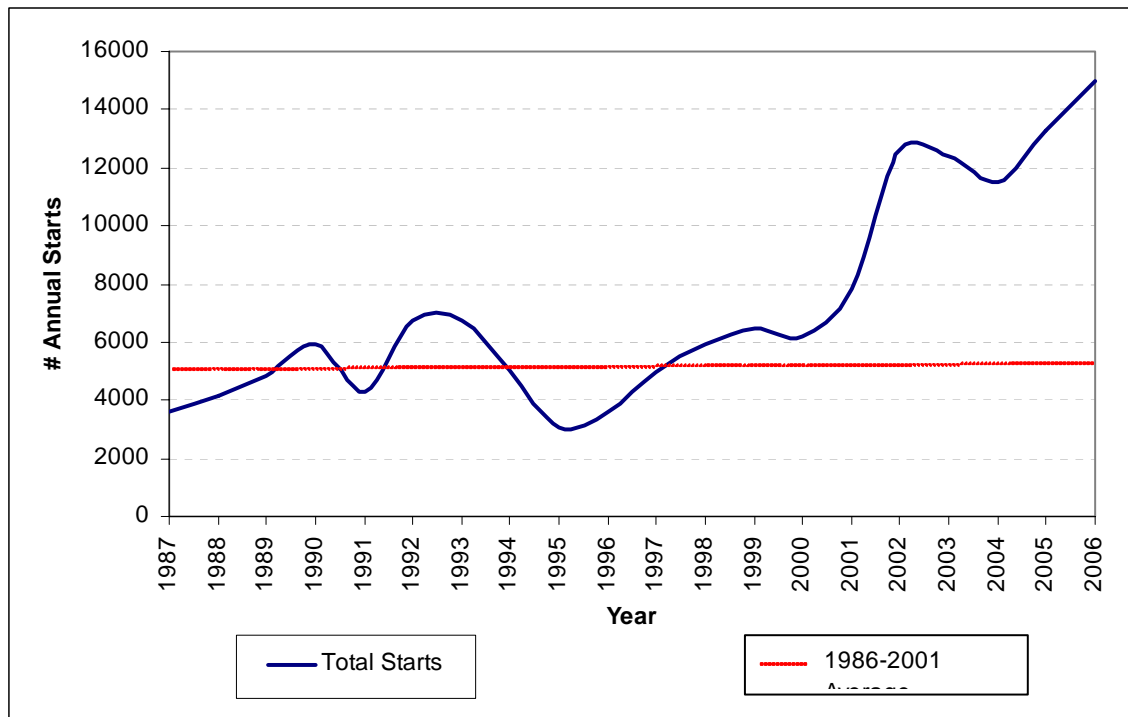
3.2 CURRENT SITUATION

3.2.1 Existing Infrastructure – Market-Based Housing

Overall Inventory

The Edmonton CMA has a large and vibrant housing market, roughly estimated at over 405,000 occupied dwellings in 2006. The stock of housing in the region increased by approximately 49,000 units, or 14 percent, in the past five years.

The total inventory of housing stock has been increasing for the past two decades, driven primarily by construction of new detached single-family dwellings. Figure 3-1 shows the historical trend in annual total housing starts in the Edmonton CMA.

Figure 3-1 Edmonton CMA 20-Year Historical Housing Starts

Source: Canada Mortgage and Housing Corporation (CMHC)

The housing construction market has shown its ability to respond to recent growth pressures in the Capital Region, posting housing start levels above historical averages. As an example, housing starts in the Edmonton CMA in the past five years (2002-06) have averaged nearly 13,000 units, and building reached a record level of nearly 15,000 units in 2006. In comparison, the region averaged 5,100 starts annually in the period of 1987-2001. CMHC estimates 2007 starts to approximately equal the level reached in 2006. The statistics indicate that the Capital Region housing development market, as opposed to that in Fort McMurray, has been capable of quickly increasing its output of new housing in response to significant growth demands.

Housing Types and Tenure

Table 3-1 shows the stock of housing by category in the Edmonton CMA in 2001 and 2006.

Table 3-1 Housing Stock by Type, Five Year Comparison

Type	2001	2006
Single-detached	60%	59%
Semi-detached and Duplex	4%	6%
Row	8%	8%
Apartment and Others	28%	27%
Total	100%	100%

Source: Statistics Canada

Table 3-1 shows a minor shift in the proportion of housing by category in the region between 2001 and 2006, with slight decreases seen in single-detached houses and apartments, matched by an increase in semi-detached houses and duplexes. These data indicate an increase in the inventory of higher-density stock of owned housing, namely semi-detached, duplex and row units.

In terms of tenure, 66 percent of housing in the Edmonton CMA was owner-occupied in 2001, while 34 percent was rented accommodation. The ownership picture altered slightly in 2006, with ownership having increased to 69 percent, while rented accommodation decreased to 31 percent.

Table 3-2 presents a picture of the past two years of housing starts, as per intended market.

Table 3-2 Annual Housing Starts by Intended Market (Tenure)

Intended Market	2005	2006	Change (2005-06)	As Percentage of All Types (2006)
Freehold	8,297	10,157	22%	68%
Condominium	4,256	4,540	7%	30%
Rental	741	273	-63%	2%
Total	13,294	14,970	13%	100%

Source: CMHC

The proportion of new housing constructed in 2006 compared to 2005 has increased in the freehold and condominium housing sectors. Together, these categories represented 98 percent of new starts in 2006. The rental market sector, representing 2 percent of new housing construction in 2006, experienced a significant decrease (63 percent) in start activity compared to 2005, and is far below the historical level. This provides an indication of a shift in the new construction market away from constructing rental housing.

The region has a large rental apartment market, with over 65,500 units in 2006, which is 60 percent larger than the apartment inventory in Calgary (estimated to be 40,000 last year). The supply of apartments in the Capital Region has been shrinking in the past few years, driven by conversion projects, which typically involve upgrading rental units and selling them as condominiums. According to CMHC, this trend in condominium conversions has reduced the apartment stock in the region by 1,350 units, or by 1 percent, between January 2005 and April of 2007.

The dual trends of fewer new apartment starts and conversions of existing rental stock into condominiums, is resulting in a net decrease in the number of rental units available in the region. While a certain percentage of condominiums return back to the market in the form of rental units, they typically command higher rent levels than apartments.

Distribution of Stock within the Region

Of housing starts in the region over the past five years, approximately 70 percent have been in the City of Edmonton, while the remaining 30 percent have been in other communities. This

relative proportion of construction in the past five years matches closely the current population distribution in the region. The allocation of construction in the region over the past two decades has not always matched the population distribution, particularly in the 1980s when surrounding communities went through a period of strong growth relative to the City of Edmonton.

Most of the rental properties in the region are in the City of Edmonton. According to 2006 statistics, 93 percent (61,000 units) of the rental apartments in the region were in Edmonton.

3.2.2 Issues – Market-Based Housing

Supply / Demand Imbalances (Availability)

In spite of record construction levels, the housing market in the Capital Region has been in the midst of a supply/demand imbalance for the past few years. The demand for owned accommodation has increased, driven by:

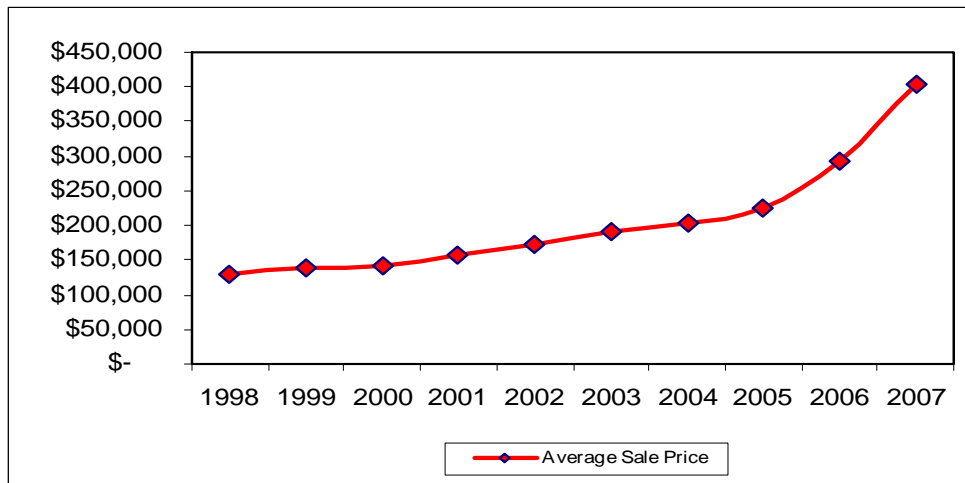
- strong in-migration;
- long-term, as well as speculative property investment; and
- a favourable lending environment.

This increase in demand has outstripped the existing supply of housing and pressured the housing construction industry to respond with increasing levels of new inventory.

Similarly, rental supply has decreased, due to reductions in new apartment starts and loss of stock through condominium conversions. Vacancy rates are at historic lows, with the latest estimates for the region at 0.7 percent, which basically represents a market at full capacity. This low level of rental availability has made it difficult for newcomers arriving in the region to find adequate housing, as rental units typically represent the first entry step into the housing market.

Impact on Affordability

Prices have reacted to the supply imbalance, showing sharp increases in property values and rental rates over the past five years. Price increases have been compounded by increases in construction and maintenance-related costs, driven by increases in energy, land servicing, and labour input costs. Figure 3-2 presents a picture of house price trends in the region.

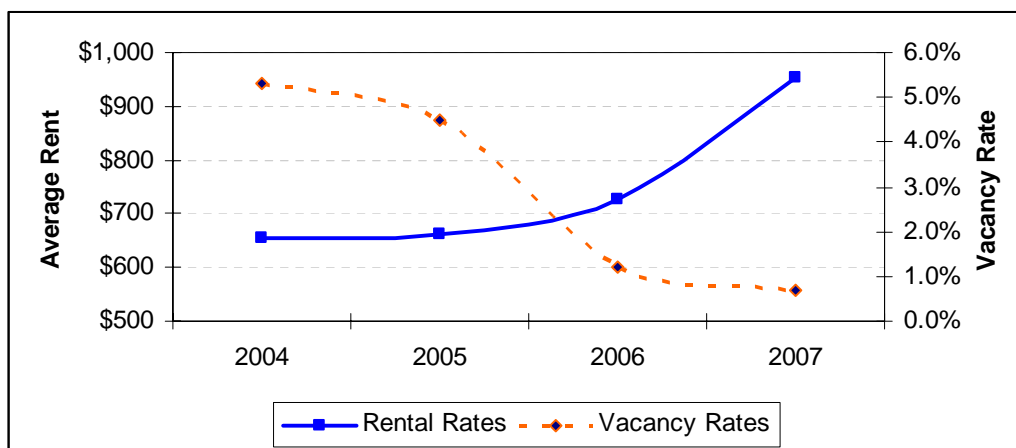
Figure 3-2 Average Price, Single Detached Homes - Edmonton (1998-2007)

2007 Price Based on average sale price in August 2007

Source: Edmonton Real Estate Board / MLS

As depicted in Figure 3-2, house prices experienced a gradual but steady increase from 1998 to 2005. From 2005 to 2007, the rate of price increases grew substantially, with the average sale price of single-detached homes in August 2007 reaching just over \$400,000. Within this high-cost construction environment, single family homes / condominiums are more attractive to developers than rental projects.

Apartment rental rates have followed a similar path as house prices, seeing a rapid increase in the past 2 years. Figure 3-3 presents a picture of the trends in vacancy rental rates for all apartment types in the Edmonton CMA.

Figure 3-3 Regional Rental Cost and Vacancy Rate Trends (2004-07)

CMHC Annual Rental Market Survey (October data annually).

2007 data are estimates to October, based on CMHC 2nd Quarter Outlook report

Driven by a lack of availability, as indicated by the rapid decrease in the vacancy rate, average rent costs have spiked considerably this year, rising by an estimated 20 percent over last year.

With housing prices doubling and rental rates increasing by 50 percent in the past five years, affordability has moved beyond a concern of those needing social support, to becoming an issue applying to a much larger cross-section of society. There is no consensus on the definition of 'affordable housing' in the region -- the concept has different meanings for different communities. However, there is a general consensus in the region that affordable housing is an important and growing issue.

To attempt to measure the concept of affordability, one can use an index, such as the Housing Affordability Index produced annually by the economics research division of the RBC Financial Group. According to this index, the Capital Region has moved rapidly from being an affordable housing market, which recorded an affordability ranking of 30.5 in 2006, to a less-affordable market, with a 38.5 ranking in 2007²¹. Based on the region's traditional score of 30 on this index, the majority of houses in the region have become markedly less affordable.

Throughout the Capital Region, a prime concern is that purchasing a home is beyond the reach of most young families and those on lower or fixed incomes. First-time homebuyers are finding it difficult to enter the market, because of:

- The high level of down payment required;
- The difficulty in securing a mortgage, necessitating longer terms extending up to 35 years; which translate to:
- High monthly carrying costs.

Table 3-3 presents two scenarios of home ownership costs currently faced by prospective home buyers in the Capital Region. It addresses the question of affordability of a single-detached home for both a couple and lone parent-headed households.

²¹ According to the RBC Index, the higher the measure, the more difficult it is to afford a house. As a general rule of thumb, a ranking of 30 represents an 'affordable market'.

Table 3-3 Affordability of Home Purchasing in the Capital Region (2007)

Cost of Home Ownership	Scenario of Purchasing an Average Home	
Purchase Price ¹	\$402,046	
Less Down Payment ²	\$40,205	
Mortgaged Amount	\$361,841	
Total Monthly Housing Costs ³	\$2,994	
Household Income	Couple	Lone Parent
Median Annual Income ⁴	\$82,840	\$35,456
Monthly Income	\$ 6,903	\$2,955
Total Monthly Housing Cost as Percentage of Monthly Income	43%	101%

1 Average Detached Single Home Sales Price July 2007 (MLS)

2 Assumed 10 percent

3 Based on mortgage costs (fixed rate of 6.5 percent, 25 year term, monthly payments), taxes and average utilities

4 Based on 2005 Edmonton Tax filer data, increased by annual average earnings increases in 2006 and 2007 (Statistics Canada)

The data presented in Table 3-3 show that for the average couple-based household in the region, the monthly home ownership costs associated with purchasing a home in today's market represents 43 percent of household gross income. In other words, a household with an annual income of \$82,000 cannot meet the affordability standard of 30 percent. For a single-parent household, the picture is far worse, with the total monthly cost of housing representing their entire income. This analysis does not include maintenance and upkeep costs associated with home ownership. Clearly, the current situation presents an affordability challenge for many households wishing to enter the housing market in the Capital Region.

While more options are now available to new homebuyers in terms of facilitating ownership, such as smaller down payments and longer repayment terms, these measures do not lend much assistance. Using the home purchase scenario presented above, reducing the down payment to 5 percent and increasing the mortgage term to 35 years would only lower the monthly cost to income ratio by approximately 2 percent, while the total amount of interest paid during the lifetime of the mortgage would increase by over \$200,000.

For the families that are able to purchase a home, the monthly carrying costs place a significant burden on the household, as many income earners are required to work longer hours or possibly two jobs to pay for housing. This can have negative social effects, such as reducing the amount of time parents have with their children and for leisure and volunteer pursuits. Social services providers are reporting incidences of low income households being forced to move in search of affordable rents. All of these factors reduce social cohesion in communities.

The affordability issue is not limited to home ownership, but applies as well to the rental market, which is typically comprised of those with lower average earnings in comparison to the home ownership market. Table 3-4 presents an analysis of the affordability of average rental rates in the region today.

Table 3-4 Affordability of Rental Accommodation in the Capital Region (2007)

Household Income	Couple	Lone Parent	Low-Income
Median Annual Income ¹	\$82,840	\$35,456	\$25,000
Monthly Income	\$6,903	\$2,955	\$2,083
Average Rent as Percentage of Monthly Income ²	14%	32%	46%

1 Based on 2005 Edmonton Tax filer data, increased by annual average earnings increases in 2006 and 2007 (Statistics Canada)

2 Based on an average monthly rent of \$954

As shown in Table 3-4, an average rental rate of approximately \$950 is affordable for the average couple-based household in the region, representing 14 percent of the monthly income. For single-parent headed households the current rental rate represents 32 percent of gross monthly income, which is still in the range of affordability. For households earning less than \$35,000 annually, the current rental market is proving to be less affordable, and is prohibitive to low-income households, whereupon it represents 46 percent of gross household income.

A lack of supply and prohibitive prices can act as a deterrent to in-migration and constrain employee attraction and retention across sectors, particularly in the service sector, and among small business and not-for-profit organizations. A large portion of the expected population growth in the region will be filling positions in those sectors, and will require housing that is affordable at those wage levels. Many of the people considering relocating to the region will take into consideration the prospects of home ownership, while the rest will consider the affordability of rent. As depicted in the above tables, income levels required for owning or affordably renting will present a challenge to those seeking -- or only qualified for -- many service sector jobs.

Related Considerations

While not issues per se, a number of considerations present themselves when attempting to assess the degree of impact as well as the appropriate response to challenges of housing affordability. These include:

- The debate regarding the valuation of the region's housing market -- does the current level reflect undue speculation, or has it historically been under-valued, and is now closer to being 'rightly valued' when placed in a national and international context?
- The degree that market behaviour can affect affordability -- for example, when sale prices in Edmonton recently hit a record high, the number of listings increased by 63 percent, with the effect of reducing the average price by 3 percent between July and August 2007 -- reflecting the nimble nature of the housing market.

- Attitudes and accepted standards towards neighbourhood and housing design options -- for example, the resistance of certain communities to different initiatives, such as higher-density housing or the City of Edmonton's school-lands released for first-time home buyers.
- The concept of affordability is not only related to numbers. Affordability is influenced by people's economic means, choices and tastes, for example willingness to settle for less in terms of housing in order to be in a location of choice. Illustrating this point is the fact that British Columbia has not, according to the RBC Index, been affordable for years. Its 2007 index score is 62.3, yet the province remains a growing market.

These points should be taken into consideration by governments when formulating strategies in response to issues affected by behaviour of the private housing market.

3.2.3 Existing Infrastructure – Social Housing

Social housing is loosely defined as housing operated, funded or created at least in part with government funding. It is also often referred to as non-market housing. Social housing is comprised of a number of categories based on the associated services included and the level of public funding received. The social housing continuum adopted for this study uses the categories of emergency shelter, transitional housing, supportive housing and independent social/subsidized rental housing. Table 3-5 provides a summary of definitions for the various categories of social housing as adopted for the purpose of this study.

Table 3-5 Categories of Social (Non-Market) Housing

Category	Definition
Emergency Shelter	Safe, temporary shelter for those with immediate need
Transitional Housing	Housing accompanied with significant support services to assist in meeting basic needs
Supportive Housing	Housing with supports aimed at facilitating semi-independent living in a community setting
Independent Social / Subsidized Rental Housing	Housing with minimal support programs, primarily rent-geared-to income subsidies

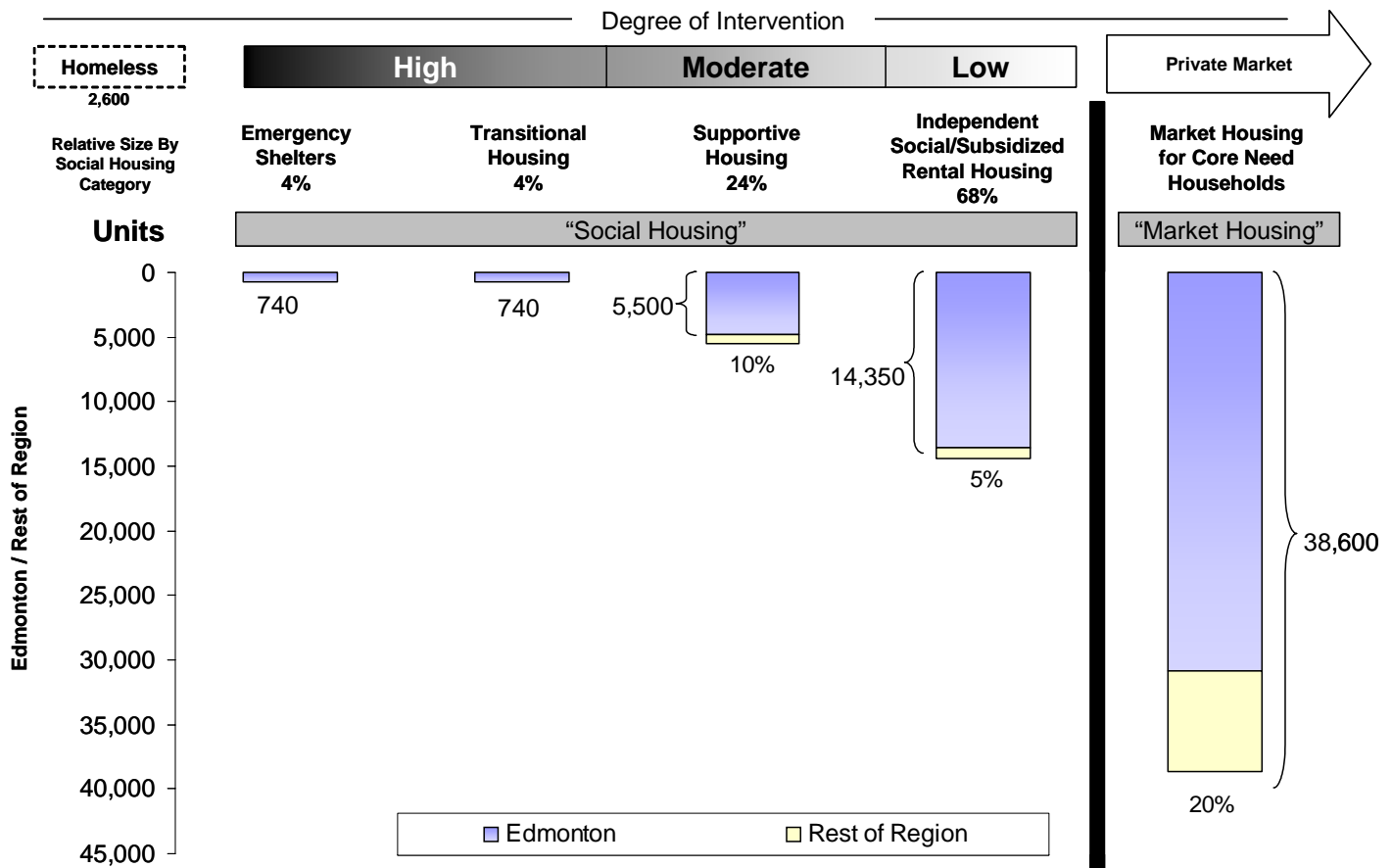
Sources: Edmonton Joint Planning Committee on Housing (EJPCH), Alberta Affordable Housing Task Force (AAHTF)

The current estimate of social housing infrastructure in the region is approximately 21,400 units. The majority of social housing, 93 percent, is in the City of Edmonton, while all other communities combined have the remaining 7 percent. This distribution differs significantly from the overall population distribution, which in 2006 was 72 percent in the City of Edmonton and 28 percent in the rest of the region.

Within the categories of the social housing continuum, the mid-range categories of supportive and independent social housing currently have the largest amount of supply. These two categories, which include a large percentage of subsidized seniors housing, represent the two categories

most frequently found in all communities, both within Edmonton and in the rest of the region. As for the social housing categories at the extreme ends of the continuum, Edmonton is the community in which virtually all of the supply is located. Figure 3-4 provides a picture of the current supply of social housing in the Capital Region, along with the relative proportion of supply by category and location.

Figure 3-4 Current Supply of Housing for Households in Core Need - Capital Region



Source: Housing Branch, City of Edmonton (Estimates) and Nichols Applied Management

Of the core need households currently being housed in the private market, 80 percent are estimated to be in the City of Edmonton, while 20 percent are located in other communities in the region. This estimate is based on income and household tenure status (owning versus renting) differentials across the region, taking into account that a higher propensity of renters are in core housing need.

3.2.4 Issues – Social Housing

Supply Shortage

Demand for social housing exceeds the available supply across all categories in the Capital Region. Establishing the level of demand for social housing is difficult because:

- Waiting lists are not always predictive, as people can either elect to not submit their name (e.g. not bother due to long lists) or submit their name to multiple lists (of different categories, or within the same category but in different communities); and
- For emergency shelters, demand can be sporadic, depending on weather and other factors; and
- There is a large sector of low-income households that are in core housing need²², but due to limited supply, are not able to access the social housing system.

The Alberta Affordable Housing Task Force (AAHTF) states in its spring 2007 report that the estimated waiting list for all forms of affordable housing in the province is approximately 9,000 units. Using the current population distribution as a proxy, this would infer a current shortage of approximately 3,000 units in the Capital Region. This estimate is based on waiting lists, which as pointed out above, can be an unreliable source of information in gauging the true level of demand.

A more detailed, but dated, source of social housing demand is the 2005 study by the Edmonton Joint Planning Committee on Housing (EJPCH). The committee reports shortages across the continuum. Table 3-6 presents the Committee's estimates by category of social housing.

Table 3-6 Supply / Demand Gap in Social Housing - Capital Region

Category of Housing	Demand Expressed as a Percentage of Supply
Emergency Shelter	200%
Transitional Housing	164%
Supportive Housing	440%
Independent Social / Subsidized Rental Housing	131%

EJPCH 2005

These estimates were based on 2001 Federal Census data. All categories would likely see wider gaps if updated to the market conditions of today. As well, social housing observers note that a

²² Based on the Core Need Housing Definition – see Section 3.1.1 Methodology.

relative shift in demand, from the middle of the continuum to the independent social/subsidized rental end, has taken place. An update of the 2005 study will be done next year once all housing data from the latest Federal Census become available.

The latest version (2006) of the biannually-conducted homeless count in the City of Edmonton reported a total population of 2,618 homeless. This count, overseen by the EJPCH, reflects a 19 percent increase in the number of homeless people since 2004. In this same timeframe, the supply of shelter spaces in the city increased by 83, while the number of shelter users increased by 104.

Summary of Current Needs

In an effort to calculate the current level of demand for affordable housing in the region, the number of households in core housing need has been taken as a measurable indicator, using 15 percent as a proxy. According to CMHC, in 2001 Edmonton had a core incidence rate of 10.9 percent, as compared to the national average of 13.7 percent. Current estimates by those in the social housing field place Edmonton above the national average, and likely to be 15 percent or higher. Analysis of incomes of the lowest 15 percent of households in Edmonton represents an average income of \$25,000, which in today's housing market indicates core housing need.

Table 3-7 provides a summary of the core need housing situation in the region.

Table 3-7 Housing for Core Need Households in the Region - 2007

Coverage of Social Housing	Number of Households
Total Number of Households ¹	405,000
Number in Core Housing Need (15%) ²	60,000
Of Which:	
Households Currently in Social Housing (36%)	21,400
Households in Market Housing (64%)	38,600

¹ Statistics Canada 2006

² Households earning less than \$25,000 and estimated to be spending more than 30 percent on shelter.

Note: Numbers have been rounded

Of the estimated 60,000 households currently in core housing need, 21,400 receive some public social housing support, ranging from transitional shelters to government housing to rent subsidies. The remaining 64 percent, or 38,600 households, secure their shelter in the private market.

While all of the 38,600 households are defined as being in core housing need, they are unable to access social housing due to a shortage of supply of housing units and/or associated support services. These households are accommodated in the private housing market, but are living in situations that are 'unaffordable', where covering the cost of shelter means making other sacrifices, such as reducing expenditures on food and clothing, living in crowded conditions, or facing a longer commute.

Reinvesting in Social Housing

Both the federal and provincial governments reduced investment in housing initiatives over the past two decades, with limited funding particularly in the 1990s. This has resulted in a cumulative deficit in social housing that has persisted to today.

Provincial and federal government support for social housing has increased recently, beginning in 2002 with the announcement of the Canada/Alberta Affordable Housing Program (CAAHP), which resulted in \$64.5 million in committed funds for affordable housing initiatives in the Capital Region between 2002 and 2007. In response to the findings of the Alberta Affordable Housing Task Force 2007 report, the Government of Alberta announced additional block funding through the Province's Municipal Sustainability Housing Program amounting to \$211 million in 2007 to 2008. When combined with federal funding programs, it is estimated the government will invest \$285 million in new funding for affordable/social housing initiatives over the next year province-wide.²³

Bottlenecks in the Continuum

According to housing market observers, while all categories of social housing need more supply, the lack of affordable private market housing is an area of particular concern. The characteristics of the private housing market, which has seen a reduction in affordable market-based rental and owned housing, effectively acts as a bottleneck to the last step in the social housing continuum. Affordable (rental) housing clients are prevented from graduating to the private market, which is the ultimate goal along the continuum. This lack of 'graduation' is evidenced by data from the Capital Region Housing Corporation, which indicates a significant decrease in the turnover rate of independent social housing units, as compared to the traditional rate of 25 percent per annum.

The lack of movement along the continuum has a backwards spill-over effect, whereby clients in each category find it more difficult to move upwards. The lack of access, coupled with higher operating costs, can result in people actually regressing along the continuum. For example, an increase in the shortfall of transitional housing can act as a significant barrier to sheltered homeless people or others living in emergency shelters to move beyond that state, and leading to more people being turned away from shelters.

Related Impacts

As mentioned previously, housing is a foundation for the healthy functioning of society. The impacts of shortfalls in affordable housing spill over to other sectors, such as health care, policing, and social services. Studies have shown that investments bolstering self-reliant social housing are cheaper than the operating costs of emergency shelters, prisons and spaces occupied in the medical system.

²³ See Section 3.3.2 for details for the Capital Region.

3.3 EXISTING PLANS IN THE CAPITAL REGION

3.3.1 Housing Market Forecast

Expected behaviour of the private housing market in terms of increasing housing stock in the region is discussed in Sections 3.4.1 and 3.5.1.

3.3.2 Social Housing Plans

Based on existing and announced provincial funding for affordable housing, and assuming that the majority of municipalities respond to the grant opportunities and contribute a percentage of funds as well, the amount of funding currently 'committed' is roughly \$200 million. This is based on the following estimates, as summarized in Table 3-8.

Table 3-8 Current Funding Commitments

Community	Grant Funding 2007 Constant \$ Million
Edmonton	\$45.2
Strathcona County	5.1
St. Albert	2.3
Spruce Grove	1.2
Fort Saskatchewan	0.9
Leduc City	0.6
Beaumont	0.5
Stony Plain	0.4
Devon	0.4
Total (1 year)	\$56.6
Assumed Over 3 Years	170.0
Plus other Contributions ¹	30.0
Total Estimate for Region	\$200.0

¹ Includes contributions from municipalities, as well as other Federal/Provincial programs

The majority of funding comes from the MSHP Grant program, which is expected to allocate approximately \$45 million to Edmonton and \$11 million to surrounding communities in 2007 to 2008, and is assumed to carry on for two more years. The City of Edmonton is committing \$25 million over five years to be used in conjunction with these funds. Some communities, such as Strathcona County and St. Albert, are advanced in developing affordable housing strategies, plans and projects, while other communities are investigating the issue and formulating appropriate responses.

While the majority of this funding is yet to be officially approved, this analysis is based on the assumption that funding in this range will be taken up by communities and spent in the region over the next eight years.

Social housing can take a variety of forms, from government-built and run housing units to private market incentives such as reserving affordable units within private developments, secondary suite

developments, rent supplement programs, etc. Calculating the cost of social housing responses can therefore vary greatly, depending on the strategies implemented. Estimating costs is further complicated by the realities of constructing and operating facilities in the region's current market, which has seen significant cost inflation in recent years. Table 3-9 provides a rough estimate of costs by degree of intervention.

Table 3-9 Range of Costs for Core Housing Need Infrastructure

Type of Response	Capital Cost Contribution (\$/unit)	Operating (On-Going) Contribution (\$/year)
Rent Subsidies/Incentives ¹	-	6,000
Mixed Private/Public Response ²	50,000	3,000
Capital Cost New Housing ³	200,000	15,000

1 Assumes a monthly subsidy of \$500.

2 Assumes a mix of capital investment and incentive initiatives, ranging from secondary suite developments, rental subsidies, builder incentives and new housing units.

3 Assumes a capital investment to construct new housing units (either directly by government or through private initiatives).

Based on the \$200 million in committed funding, and taking into account the wide variation in possible response costs on a per unit basis, the estimated supply of social housing coming forward for the Capital Region in the next ten years could be in the 1,000 – 5,000 unit range. For the purpose of this analysis, the estimate of 4,000 units is used, assuming a public/private mix of responses. This represents slightly more than one-third of the announced new units planned to be developed by the province in the current funding announcement.

3.4 PROJECTED NEEDS

3.4.1 Market-Based Housing

Based on population projections, the Capital Region will increase by 245,000 people, or approximately 99,000 households. The total number of households in the region is estimated to reach 504,000 by 2016. Table 3-10 provides a summary of household growth.

Table 3-10 Projected Growth of the Region (2006-2016)

Region	2006	2016	New Households
Number of Households	405,000	504,000	99,000

Assuming that the current estimated core housing need ratio of 15 percent holds true in 2016, 85 percent of the new growth will be handled by the private housing market. This represents a demand of 83,000 units. As well, based on the experience to-date, of the 15 percent of the market that falls under core housing need:

- 36 percent of that population is covered in social housing; and
- 64 percent find shelter in the private market (at likely 'unaffordable rates').

Therefore, the core housing need portion of growth that will likely require market housing is estimated at 10,300 households. Table 3-11 provides a summary of the estimated private market demand in 2016.

Table 3-11 Forecast of Private Market Demand in 2016

Description	# of Households
Total number of new households in 2016	99,000
Households Entering into Private Market (85% of total)	83,000
Households in Core Housing Need (15% of total)	16,000
Portion in Social Housing (36%)	5,700
Portion in Private Market Housing (64%)	10,300
Total Growth in Private Market Demand (83,000 + 10,300)	93,300

Note: Numbers have been rounded.

As Table 3-11 indicates, approximately 93,300 housing units are required in the private housing market to meet the expected growth by 2016. Taking the current ownership versus rental allocation as a proxy, 69 percent of households new to the region will desire owned accommodation. This implies a demand of approximately 64,700 housing units. Correspondingly, a 31 percent rate of renting implies a future demand for approximately 28,500 rental units by 2016.

3.4.2 Social Housing

As shown in Table 3-11, the number of new households in the region that are expected to be able to access social housing is 5,700. This is based on the following assumptions:

- In 2016, 15 percent of the Capital Region population will fall into the core housing need category; and
- The proportion of households in core housing need that is able to access social housing remains at the 2006 rate of 36 percent.

It should be noted that this assumption does not capture the entire picture of 'affordable housing need', as the majority of the 10,300 units that will turn to the private market are in core housing need, and are not expected to find housing that is affordable based on their incomes. This group will remain in core housing need, without public relief (as is the situation currently with a segment of core need households).

3.5 INFRASTRUCTURE GAPS AND INCONSISTENCIES

3.5.1 Market-Based Housing

As mentioned in 3.4.1, the projected demand for owned housing is estimated at approximately 64,700 units by 2016.

A brief examination of the current housing market indicates:

- A home-building industry capable of constructing 15,000 units per year; and
- An ability to produce 150,000 units in a ten-year period, assuming a continuation of current output.

The market is expected to be able to meet the future growth demands for private market housing, in terms of physical units. However, its response to demand from specific sectors -- such as starter homes -- is less certain. For example, affordable entry-level (starter) homes are currently in short supply because of high land development costs, which are encouraging builders to target sectors with higher margins, such as 'trade-ups' and high-end housing.

Average house prices in the Capital Region are not expected to fall. Short-term speculation will be smoothed out, as was already witnessed in mid-2007, but the long-term trend is expected to show slow, steady growth of prices, in the range of 4-5 percent per annum.

With other ownership options becoming more prevalent, namely the higher density options of condominiums, row housing and duplexes, it is likely that the market will bring forward options targeting the new home ownership market. The changes introduced by CMHC relaxing first-time purchasing insurance requirements combined with longer-term mortgages becoming available, will also provide some limited assistance to first-time buyers entering the market.

It is possible that the Capital Region's housing affordability will not return to levels experienced previously. Assuming continued strong growth, the region is expected to follow the global trend of major centres, where prices are 'sticky downwards' -- in other words, increase on average. Barring a prolonged recession or major unforeseen shock, prices do not trend downwards.

Regarding the rental market, projected demand of 28,500 additional rental units cannot be expected to be met by the housing development sector because the rental market sector is currently undesirable for developers.

- The cost of construction and ongoing operating costs have climbed significantly, with limited margins afforded by market rent levels; and
- Options of building-for-sale, such as condominiums, offer more lucrative margins and a quick investment exit.

The unattractiveness of the rental market has resulted in decreased construction as well as a decrease in total stock, due to condominium conversions.

Regarding rental trends, the City of Edmonton's latest socio-economic forecast predicts continued low vacancy rates in the region through to 2012. A lack of supply in the rental sector presents a significant gap in terms of housing the population growth forecasted for the region. A large percentage of new arrivals will seek accommodation in the rental sector, particularly those who are filling lower-paying positions, such as those in the service sector.

Apartments are the most common source of rental accommodation, followed by rental houses and condominiums. Currently, apartments make up 53 percent of the rental stock in the region, where the balance is found in condominiums, houses and row houses that are rented out.

Based on the current Edmonton CMA population-to-apartment ratio of 16:1, projected population growth infers a need for an additional 15,380 units to maintain this current ratio. Table 3-12 presents this analysis.

Table 3-12 Rental Market Infrastructure Gap in 2016

Apartments in 2006	65,500
Population/Apartment Ratio	16:1
Forecasted Increase in Regional Population	245,000
Additional Apartments Required ¹	15,380

¹ Maintaining current population: apartment ratio

In order to address a projected need of 15,380 units, the market would need to bring on 1,500 units per year for the next ten years. Rental starts in the Capital Region numbered 273 in 2006, and totalled 741 the previous year. This trend, combined with continued high construction costs expected in a growing economy, is a strong indication that the market will leave a gap in terms of available rental units.

Averaging the number of starts in 2005 and 2006 and using that as a proxy for current market growth in rental units, an additional 500 units annually could be built in the region, resulting in 5,000 units in the forecast period. This would leave a gap of approximately 10,000 units, based on projected demand as shown in Table 3-12.

This presents a disturbing scenario, as a shortfall in apartments is likely to directly affect the core housing need group that is forced to turn to the private market for shelter needs, due to a shortage of social housing. As was shown in Table 3-11, an estimated new 10,300 households will be in this position in 2016. The majority of this group will not be able to find affordable accommodation and will face a variety of challenges as a result.

In summary, the behaviour of the private housing market suggests that it cannot be counted on to ensure that adequate, affordable housing is available, particularly in the rental market.

All orders of government will need to decide how to respond, particularly to the rental market crunch. Potential response options include provincial and municipal incentives to rental developers, rental subsidy programs, secondary suite incentives, and other initiatives.

3.5.2 Social Housing

The number of households in core need is expected to increase by approximately 16,000, from 60,000 to 76,000 households by 2016. Based on estimates of planned response, the number of new social housing units coming on-stream ranges from 1,000 to 5,000. For the purpose of this analysis, 4,000 units has been selected, reflecting a private-public mix of solutions that balance new facility construction with programs that take advantage of existing stock, such as suite conversions and rental subsidies. Table 3-13 summarizes the forecasted core housing need infrastructure gap in 2016.

Table 3-13 Summary of Core Housing Need Infrastructure Gap in 2016

Category	Current Supply (2007)	Planned Increase Supply (2008-16)	Forecasted Demand (2008-16)	Unplanned Units (Gap) (2008-16)
Social Housing	21,400	4,000	27,100	1,700
Market Housing	38,600	-	48,900	10,300
Total	60,000	4,000	76,000	12,000

Note: Numbers have been rounded.

The following are key points of consideration related to Table 3-13:

- The gap analysis is based on the lowest earning 15 percent of total households in the region, which have household incomes less than \$25,000 in today's dollars. This is the segment that is deemed to be in core housing need and that will be required to spend above 30 percent of their household income on shelter needs;
- Many in this segment could be expected to seek social housing were it available, but due to a lack of supply, are in the private housing market, and are likely making sacrifices in terms of quality of housing indicators, such as density (crowding), distance (longer commuting) and suitability (poor quality structures). It is estimated that 38,600 households are currently in this situation in the Capital Region;
- There is no pure division between the core need population requiring support in social and market housing, as:
 - Social housing includes responses ranging from government-owned and operated housing units to private market subsidies;
 - Market housing includes households with needs ranging across the social housing continuum, but which cannot access appropriate services;

- The future gap in core housing need infrastructure is arrived at by:
 - Projecting the future demand in social housing units, assuming maintained levels of coverage as compared to today;
 - Determining the gap in social housing, which is calculated by the excess of estimated demand of social housing versus projected new supply; and
 - Determining the remaining gap -- the balance of new households in the region that are in core housing need, and find shelter in private market housing.

It is assumed that many of the core need households in private market housing will be at the low-needs end of the social housing continuum. That is, not requiring services associated with 'traditional' social housing, but simply finding themselves challenged by a lack of affordability in the private marketplace.

Tables 3-14 and 3-15 present cost estimates to address the projected core need housing requirements in the Capital Region.

Table 3-14 Capital Cost Estimates For Total Core Housing Needs

Response	Planned (2008-16) (# units)	Unplanned (Gap) (2008-16) (# units)	Required (2008-16) (# units)	Investment Required to Meet Need (2008-16)	
				Unplanned (Gap) <i>2007 Constant \$ Million</i>	Total
Social Housing					
New Constructed ¹		1,360	1,360	\$272	\$272
Private Market Mix ²	4,000	340	4,340	\$17	\$217
Total Social Housing	4,000	1,700	5,700	\$289	\$489
Market Housing					
New Constructed ³	-	2,060	2,060	\$412	\$412
Private Market Mix ⁴	-	-	-	-	-
Total Market Housing	-	2,060	2,060	\$412	\$412
Total Capital Cost					
Social / Market Housing	4,000	3,760	7,760	\$701	\$901

1 Assumes 80 percent of need met by newly constructed units, at an estimated capital cost of \$200,000 per unit.

2 Assumes 20 percent of need met by a variety of responses, primarily based on capital contributions and to a limited extent, on incentives/subsidies. Assumed average cost of \$50,000 per unit.

3 Assumes 20 percent of need met by newly constructed units, at an estimated capital cost of \$200,000 per unit.

4 Assumes 80 percent of need met by subsidy, with no associated capital cost.

Table 3-15 Operating Cost Estimates For Total Core Housing Needs

Response	Total Needs (2008-16) (# units)	Estimated Annual Operating Costs	
		2011 <i>2007 Constant \$ Million</i>	2016
Social Housing			
New Constructed ¹	1,360	\$9	\$20
Private Market Mix ²	4,340	\$6	\$13
Total Social Housing	5,700	\$15	\$33
Market Housing			
New Constructed ³	2,060	\$14	\$31
Private Market Mix ⁴	8,240	\$22	\$49
Total Market Housing	10,300	\$36	\$80
Total Operating Cost			
Social / Market Housing	16,000	\$51	\$114

1 Assumes 80 percent of need met by newly constructed units, with an annual estimated operating cost of \$15,000 per unit.

2 Assumes 20 percent of need met by a variety of responses, primarily based on capital contributions and to a limited extent, on incentives/subsidies. Assumed average operating cost of \$3,000 per unit.

3 Assumes 20 percent of need met by newly constructed units, with an annual estimated operating cost of \$15,000 per unit.

4 Assumes 80 percent of need met by subsidy, at an estimated cost of \$6,000 per unit.

Tables 3-14 and 3-15 present one possible scenario for addressing the affordable housing challenge brought on by strong growth in the region. Recognizing that a number of potential responses exist, this scenario is intended to be illustrative in terms of identifying key distinctions between issues and associated responses, as well as attempting to identify a cost value associated with responding to the challenge.

The following are key assumptions related to Tables 3-14 and 3-15:

- Response to the social housing need (planned and unplanned) will cover a range of actions, including:
 - Capital investment related to construction of new and retrofitted housing units (both government-managed as well as private market developments); and
 - Support programs, such as rent subsidies and incentives;
- Funding of social housing programs is distinguished by:
 - Responses targeted across the social housing continuum, including emergency shelters, transitional and supportive housing as well as independent social / subsidized rental housing requiring minimal support;

- More weighting allocated to the creation of new units (80 percent), versus a mix of capital and subsidy responses (20 percent), recognizing the current shortage of physical social housing units in the region; and
 - Costs per unit in the range of \$50,000 to \$200,000, reflecting higher cost levels associated with responding to the needs of the social housing segment.
- Funding of the core need segment that is in private market housing is characterized by:
 - An assumption that this segment is predominantly challenged by affordability in the region, and requires less in the way of support programs associated with social housing;
 - More weighting allocated to incentives and subsidies to private market options (80 percent) than capital-intensive investments (20 percent); and
 - Costs per unit ranging from \$200,000 for construction of new housing units to \$6,000 per year of subsidies and/or incentives (based on a \$500/month estimate).

The capital investment cost associated with the total projected core housing needs between 2008 and 2016 is \$901 million. Of that, \$701 million (78 percent) represents an unplanned gap, while \$200 million represents the cost of planned units. Annual operating costs associated with meeting the total core housing needs are estimated at \$114 million for the year 2016. The average annual operating cost over the period between today and 2016 is estimated at \$51 million.

Including total operating costs incurred over the 2008 to 2016 period, the total investment in social (non-market) housing represents roughly 45 percent of total investment, while addressing the core housing need faced in private market housing represents approximately 55 percent of the total estimate.

New Response

A portion of the funding needs identified in Tables 3-14 and 3-15 reflects what would be a new response from the provincial and municipal levels of government. Of the unplanned units identified, 1,700 units of social housing fall within the existing scope of government assistance; while 10,300 units of core need households in the private market housing represents a gap that government has not traditionally addressed.

This segment of 10,300 units consists of households that are unable to access social housing, including for example rent subsidies for market housing, due to a lack of supply. As well, this group includes households that are able to fare in the private housing market, but face challenges

in accessing affordable market-based housing. The majority of these households will be on the lower end of the earnings spectrum.

Population growth projections could result in an additional 12,000 households in this position by 2016, representing 15 percent of all new households in the region. This presents implications for policy makers to consider:

- Housing is a key factor in how the region's social infrastructure can absorb pressures associated with growth, in that:
 - As the population grows in absolute terms, demand for social housing grows accordingly;
 - The monthly cost of shelter typically represents the largest portion of a household's budget, and therefore housing cost increases can have a large impact on households' budgets and well-being;
 - Affordable, accessible and suitable housing is a key foundation to social well-being, both within households as well as that of broader society.
- The behaviour of the private market strongly influences the issues, by:
 - Exerting an influence on the social housing continuum in terms of costs of building new units and decreasing the availability of affordable market-based units;
 - Following a trend of responding to ownership demands, rather than those of the rental market, as dictated by potential returns on investment and exit options; and
 - Decreasing the projected number of rental units available, exacerbating the affordability challenges.

A private housing market that is unaffordable to a broad section of society will act as a deterrent to households considering relocating to the Capital Region to pursue employment opportunities. In order to address this issue and those listed above, government(s) need to consider the core need housing gap associated with growth, both in terms of the shortfall in social housing, as well as the affordability of private market housing.

The identified gap of 10,300 units of private market housing for core need households reflects an expansion of the definition of affordable housing coverage, beyond the 'traditional' social housing coverage to include lower earning households in the region that are in core housing need.

Governments have a variety of options in terms of responding to this identified gap, for example focussing on those households in the lowest income categories, where current market housing costs represent 50-100 percent of monthly budgets. The Homeless and Eviction Fund, created this year, represents an example of the province responding to this challenge.

It is envisioned that the provincial and federal governments provide the majority of funding identified with the total social housing need of \$489 million (see Table 3-14) and associated operating costs. In regards to the \$492 million market housing need (see Table 3-14, 3-15), these levels of government would also be expected to contribute to this cost, with contributions also coming forward from interested municipalities, the private housing industry and other partners, such as not-for-profit organizations.

The majority of new social housing is expected to be developed in the City of Edmonton. Some supportive and independent social housing units will be developed in other communities in the region, particularly those targeted to elder care. Regarding affordable private market housing initiatives, a significant portion of new projects are expected to be developed in the City of Edmonton. This assumption is based on the current level of need, current municipal plans, and a recognition that a larger funding allocation allows for more momentum in terms of addressing needs. Affordable housing will be addressed by a number of other communities in the region, varying from large-scale responses including municipal funds, to projects of smaller scope, primarily comprised of allocated provincial funding.

3.6 CONCLUSIONS

The review of the housing situation and plans in the Capital Region lead to the following conclusions:

- Capital cost requirements to meet growth related core housing needs total \$489 million for social housing and \$412 million for market housing;
- Additional annual operating and subsidy costs associated with the investment are estimated in 2011 to be roughly \$15 million for social housing and \$36 million for market housing. The average annual operating cost will reach \$33 million annually for social housing and \$80 million annually for market housing by 2016;
- There is a shortage of affordable housing in the Capital Region. This situation can be expected to extend to the year 2016 unless further action is taken. In addition to a shortage of social (non-market) housing, it is likely that there will continue to be a shortage of affordable private market rental and ownership housing. This gap will affect a large proportion of first-time home buyers, single parents and households on low, fixed incomes;
- The shortage of affordable market housing -- both rental and for purchase -- could deter individuals and families from moving to the region to take up the new jobs that will be created. A consequence will be continued staff recruitment challenges in the region, particularly for jobs that do not pay high wages;

- Attention needs to be given to reducing “bottlenecks” along the social and affordable market housing continuum. For example, transitional housing is needed to relieve pressure on emergency shelters, and affordable private market housing is needed to allow households to become independent in the housing market. The shortage of affordable private market housing is particularly acute;
- The associated needs that accompany social housing clients should not be neglected, such as social and health services;
- More and better information is needed to support monitoring of the housing situation in the Capital Region and the development of appropriate policy responses to housing issues;
- Coordination in the region, through initiatives such as using common criteria for defining supply and demand of social and affordable private market housing, and pooled resources to develop shared responses depending on individual community needs, should be encouraged. Consideration should be given to possible cooperative systems to facilitate this type of coordination;
- Per capita funding for social housing initiatives may not be appropriate, as housing needs vary across the region. As well, small allocations make responding difficult in any material sense;
- There is a need for further clarification of roles and responsibilities of the federal, provincial, and municipal governments and the not-for-profit and for-profit housing sectors as they relate to social and affordable private market housing; and
- There are many options available to respond to the challenges presented. A creative mix involving public and market-based initiatives will likely be required.

4. HEALTH

4.1 INTRODUCTION

To ensure a healthy society, citizens need access to quality health services throughout their lives. Alberta's publicly-funded health system plays a vital role in improving our health status by providing:

- Primary health services such as:
 - The treatment of common diseases and injuries;
 - Assistance in managing chronic diseases; and
 - Health promotion and disease prevention services.
- Secondary health services such as specialized care at a hospital, long-term care facility or in the community.

As reported earlier, 82 percent of municipalities contributing to this research indicated that they considered health to be either a pressing or very pressing issue for the region overall.

4.1.1 Alberta's Health System

4.1.1.1 Federal Government Role

The federal government, through Health Canada, provides national leadership to provinces and territories by:

- Setting and administering national principles for Canada's public health system through the *Canada Health Act*; and
- Providing financial support to provinces and territories for the delivery of health services.

The federal government is also involved in direct delivery of primary and supplementary services to certain groups of people (e.g. First Nations people living on reserves, members of the Canadian Forces); operating and funding certain public health programs (e.g. disease prevention, health promotion); and providing funding for health research and health information activities.

4.1.1.2 Provincial Government Role

Primary responsibility for the organization and delivery of health infrastructure and services falls to the provinces and territories. The role of provincial and territorial governments includes:

- Administering provincial health insurance plans; and

- Planning, paying for and evaluating many health services including hospital care, physician and allied health services, and public health.

In Alberta, the Ministry of Health and Wellness has primary responsibility for providing strategic direction and leadership to Alberta's health system by:

- Developing the overall vision of the health system;
- Defining provincial goals, objectives, standards and policies;
- Encouraging innovation; and
- Setting priorities and allocating resources.

Many health services are publicly funded. Through the Alberta Health Care Insurance Plan (AHCIP), the province provides medically necessary services such as hospital, physician, and specific services provided by oral surgeons and other dental professionals. Alberta also provides full or partial coverage for health services not required by the *Canada Health Act*, including home care, long-term care, and mental health services. Alberta Health and Wellness also contracts with Alberta Blue Cross to offer publicly-funded prescription drug plans to Albertans.

Provincial government health spending in Alberta is the largest single expenditure of the provincial government, accounting for 36.7 percent of its \$33.1 billion in expenditures.

4.1.1.3 Regional Health Authorities

In Alberta, most publicly-funded health services are delivered through a regionalized health-care system involving nine regional health authorities (RHAs).

Provincial funding for Regional Health Authorities is based on the total Health Authority Global Funding available and then allocated to individual RHAs based on the relative health needs of the population served. *Population-based funding* – aimed at leveling the playing field between regions – is based on the following measures:

- The total population base of each region;
- The age and gender of the population base;
- The socio-economic composition of the population base; and
- Services provided by the RHA to residents of other regions.

Province-Wide Services Funding is targeted to the Capital (Edmonton) and Calgary Regional Health Authorities, for the provision of high-cost, specialized services such as cardiac surgery, organ transplant and renal dialysis. Funds are allocated to each authority on the basis of actual costs incurred.

4.1.1.4 Private Sector Involvement

There has always been a measure of private sector involvement in both the funding and delivery of health services. On the delivery side, most of Alberta's physicians and allied health practitioners (such as chiropractors and optometrists) are private entrepreneurs. Many diagnostic and laboratory facilities are also privately operated. As well, the non-profit sector, particularly religious-based organizations, has long played a role in providing health services, including the operation of some health facilities (e.g. hospitals, long-term care facilities).

While insured services, primarily those that are medically necessary, are paid for by the publicly-funded Alberta Health Care Insurance Plan, non-insured services are typically paid for by patients or their insurance carriers. Non-insured services include such things as enhanced non-medical and medical goods and services in a publicly owned hospital; some home care, nursing home and long-term care services; cosmetic surgery; and extended health benefits such as prescription drugs, dental care and eye care.

4.1.2 Delivery of Health Services in the Capital Region

4.1.2.1 Regional Health Authorities

There are two health authorities responsible for delivering public health services in the Capital Region:

- **Capital Health (Region 6):** Capital Health is one of the largest integrated health regions in Canada, providing health services for one million residents in the Capital Region. With an annual budget of approximately \$2.3 billion, Capital Health provides emergency and acute care services, home care, continuing care, public health, outreach programs, and numerous rehabilitation and prevention programs.
- **East Central (Region 5):** Health services for some communities in the eastern portion of the Capital Region are provided by East Central Health. East Central serves over 110,000 residents in 84 communities and operates 13 health centres / hospitals and nine community mental health clinics.

Capital Health covers the entire Capital Region, except for Lamont County, and Bruderheim where health services are delivered by East Central. Because such a small portion of the Capital Region, less than 1 percent of the total regional population, is served by East Central, this analysis will focus on Capital Health.

4.1.2.2 Municipalities in the Capital Region

Municipalities in the Capital Region have an opportunity to dialogue with Capital Health through the joint Capital Health/Municipal Government Advisory Council. This Council provides a venue for the sharing of information between the RHA and municipalities in the region regarding health

and health service matters. Capital Health also has a relationship with many municipal departments at the operational level, in an effort to promote health and prevent illness and injury in areas such as emergency services, traffic safety, disaster response and population health.

Community members also have an opportunity to provide direct input to Capital Health through various Community Health Councils (CHCs) in the Capital Region. Members of the CHCs provide local community input regarding certain health issues and planning of health services, including input on Capital Health's 3-Year Health Plan.

Municipalities also play an important role in encouraging a healthy lifestyle and building healthy communities through their own programs and services, including:

- Encouraging clean and healthy environments (e.g. recycling programs, do-not-litter campaigns);
- Providing safe drinking water and effective waste management;
- Operating and maintaining municipal parks and public green spaces;
- Offering and supporting recreational programs; and
- Operating and funding many preventative and early intervention social services.

4.1.3 Scope of Study

This section addresses the health system in the Capital Region. As a means of addressing future infrastructure gaps, this section will provide:

- A background of existing health infrastructure and services in the Capital Region;
- An overview of existing health service delivery issues;
- A synopsis of existing growth plans for health infrastructure and services in the region;
- A projection of selected health infrastructure needed to serve the estimated future population of the Capital Region; and
- An identification of potential future infrastructure gaps and service delivery issues.

4.2 CURRENT SITUATION

4.2.1 Infrastructure

4.2.1.1 Infrastructure and Services

The Capital Region is home to an extensive network of health services offered across a large geographic area. There are approximately 15 hospitals and primary care facilities, and 24 public health centres in the region. As well, there are approximately 2,687 acute care beds and 5,788 long term care beds and designated assisted living spaces. Table 4-1 provides a breakdown of public health facilities and beds by municipality.

Table 4-1 Public Health Facilities and Beds by Municipality

Municipality	Hospitals and Primary Care Facilities	Public Health Centres	Acute Care Beds	Long Term Care Beds and Designated Assisted Living Spaces	Total Beds/Spaces¹
Beaumont		1			
Devon	1	1	9	10	19
Edmonton	8	14	2,440	4,902	7,342
Fort Saskatchewan	1	1	32	85	117
Gibbons		1			
Leduc	1	1	52	181	233
Morinville		1			
Redwater	1		13	6	19
St. Albert	1	1	123	273	396
Stony Plain	1	1	18	120	138
Strathcona County	1	1		211	211
Thorsby		1			
Total	15	24	2,687	5,788	8,475

Source: Alberta Health and Wellness, Capital Health

Notes:

- 1 Includes acute care beds, long-term care beds, and designated assisted living spaces staffed and in operation, reported by Capital Health as operating as of March 31, 2007. This listing is subject to change as the number of beds open and operating does vary from month to month.

Along with hospital, primary care and long-term care services, a complete range of other health services are available to residents of the Capital Region, including:

- Home and community care services focused on providing care and support in the home on a short or long-term basis for the elderly or individuals with a

chronic disease, disability, or terminal illness. Capital Health provides over three-million hours of home care service a year.

- Public health programs which include health promotion and disease and injury prevention programs, environmental health services, emergency preparedness and communicable disease control.
- Mental health services including information, counselling, and treatment. A number of these services are provided via mental health clinics located throughout the region (e.g. Edmonton, Fort Saskatchewan, Leduc). Edmonton is also home to the Alberta Hospital Edmonton, a fully accredited 410-bed psychiatric hospital.
- Addiction services such as outpatient counselling services, intensive day treatment programs, detoxification and short-term treatment services provided by the Alberta Alcohol and Drug Abuse Commission (AADAC) through its offices and centres located in Edmonton. There are also satellite offices offering education and prevention programs and outpatient services in Leduc, Sherwood Park, Stony Plain, and St. Albert.
- Other services are also available including rehabilitation services, speciality clinics, and outreach programs.

These wide-ranging services are provided not just by the health region, but also by a diverse group of private health professionals (e.g. physicians, allied health professionals), private profit and non-profit agencies (e.g. Caritas, Good Samaritan Society), as well as other public bodies (e.g. Alberta Alcohol and Drug Abuse Commission, Alberta Cancer Board). Capital Health also funds a number of voluntary and private providers of health services and programs such as The Caritas Health Group which operates the Grey Nuns Community Hospital, the Misericordia Community Hospital, and the Edmonton General Hospital site (Continuing Care).²⁴

4.2.1.2 Out-of-Region Patients

Health services in the Capital Region are not utilized solely by residents of the region. Capital Health acts as a referral centre for 1.6 million people from across central and northern Alberta and northern and western Canada. In 2005-06 more than one in five inpatients in Capital Health facilities came from outside the region. Capital Health is recognized as a leading transplant centre in western Canada, as well as being the children's heart surgery centre for the prairies.

Capital Health, along with the Calgary Health Region, is also responsible for providing Province-Wide Services, a group of specialized medical services, to all Albertans. These are services

²⁴ Acute care beds, long-term care beds and designated assisted living spaces operating at these facilities as of March 31, 2007 are included in Table 4-1.

which require specialization and can only be effectively and efficiently delivered at one or two sites. Province-Wide Services includes select groups of inpatient, clinic and home services, high-cost drugs and high-cost medical devices. Organ transplants and major heart surgery are two examples.

4.2.2 Issues

4.2.2.1 Access

While residents of the Capital Region are generally satisfied with the quality of service provided by the health system in the region (see Table 4-6), access to those services remains a concern. Reducing wait times and improving access not only to emergency and acute care services, but also to diagnostic, mental health, and long-term care services remains a priority for both the Government of Alberta and the Capital Health region.

Bed Capacity

Table 4-2 provides an overview of local acute care beds per 1,000 population for each Regional Health Authority.

Table 4-2 Local Acute Care Beds Per 1,000 Population

Regional Health Authority	Local Acute Care Beds Per 1,000 RHA Population					
	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003	2001-2002
Chinook Regional Health Authority	2.31	2.14	2.16	2.19	2.36	2.61
Palliser Health Region	2.54	2.38	2.50	2.52	2.53	2.49
Calgary Health Region	1.86	1.84	1.88	1.84	1.83	1.69
David Thompson Regional Health Authority	2.38	2.27	2.21	2.25	2.28	2.28
East Central Health	2.71	2.61	2.69	2.70	2.22	2.09
Capital Health Region	2.08	2.02	1.87	1.95	2.00	1.91
Aspen Regional Health Authority	2.03	1.91	1.94	1.99	1.88	1.94
Peace Country Health	2.29	2.11	2.16	2.19	2.21	2.26
Northern Lights Health Region	1.70	1.65	1.66	1.60	1.73	1.78
PROVINCIAL AVERAGE:	2.06	2.00	1.97	1.99	2.00	1.93

Source: Alberta Health and Wellness

Notes:

- 1) Acute Care beds per 1,000 were calculated using population data from the AHCIP registry file, beds from RHA bed survey and the import/export adjustment from the morbidity file.
- 2) The above calculations include Acute Care and Sub-Acute Care beds.
- 3) The above calculations exclude the psychiatric facilities: Alberta Hospital Edmonton, Alberta Hospital Ponoka, Claresholm Care Centre and the Raymond Care Centre.
- 4) It is generally accepted that calculating Acute Care beds per RHA population ratios requires an Import/Export adjustment to calculate the Local Acute Care beds per RHA population. This ratio calculates the local Acute Care beds available for residents of the RHA.
- 5) The Import/Export adjustment is the number of days stay for residents of the RHA divided by total days stay provided by the RHA.

However, Capital Health's population is older and poorer and therefore needs more beds per 1,000 to serve the same number of residents as other regions. To reflect this, Table 4-3 shows

population-adjusted local acute care bed ratios, provided by Capital Health, relative to the 2006-2007 actual local acute care beds per 1,000 RHA population (as shown in Table 4-2). According to Capital Health, the population-adjusted acute care bed ratio is what each region's bed ratio should be to meet the provincial average, based on acute inpatient days of stay in each demographic category (broken into age, gender, and socioeconomic categories). Based on this information, Capital Health has fewer local acute care beds per 1,000 relative to the population-adjusted ratio (-0.04).

Table 4-3 2006/2007 Population-Adjusted Local Acute Care Bed Ratios

Regional Health Authority	Population-Adjusted Target Acute Care Bed Ratios	Actual Acute Care Bed Ratios	Difference
Chinook Regional Health Authority	2.48	2.31	- 0.17
Palliser Health Region	2.24	2.54	+ 0.30
Calgary Health Region	1.91	1.86	- 0.05
David Thompson Regional Health Authority	2.20	2.38	+ 0.18
East Central Health	2.52	2.71	+ 0.19
Capital Health Region	2.12	2.08	- 0.04
Aspen Regional Health Authority	2.14	2.03	- 0.11
Peace Country Health	1.90	2.29	+ 0.39
Northern Lights Health Region	1.42	1.70	+ 0.28
PROVINCIAL TOTAL:	2.06	2.06	-

Source: Alberta Health and Wellness for Actual Ratios. Capital Health region for Population-Adjusted Target Bed Ratios.

Notes:

- 1) Acute Care beds per 1,000 were calculated using population data from the AHCIP registry file, beds from RHA bed survey and the import/export adjustment from the morbidity file.
- 2) The above calculations include Acute Care and Sub-Acute Care beds.
- 3) The above calculations exclude the psychiatric facilities: Alberta Hospital Edmonton, Alberta Hospital Ponoka, Claresholm Care Centre and the Raymond Care Centre.
- 4) It is generally accepted that calculating Acute Care beds per RHA population ratios requires an Import/Export adjustment to calculate the Local Acute Care beds per RHA population. This ratio calculates the local Acute Care beds available for residents of the RHA.
- 5) The Population-Adjusted Bed Ratio Targets are set relative to the 2006-2007 provincial beds per 1000 RHA population. This is what each region's ratio should be based acute inpatient days of stay in each demographic category (broken into age, gender, and socioeconomic categories)

Over the past several years Capital Health has embarked on a plan of adding a number of new beds through reclamation of existing hospital space as well as the construction of new facilities. This has been necessary in order to accommodate the growing population in the region and high service demands.

As the population ages, increasing attention has also been paid to the issue of health services, primarily for the elderly. Table 4-4 provides an overview of long-term care beds per RHA population 65 years and over. While the information shows that long-term care beds per RHA population 65+ in the Capital Health Region is close to the provincial average, it is important to note that on average there are close to 315 patients per month waiting in an acute care bed or in the community for a continuing care bed or supportive living space. In addition, at the end of October 2007 there were 68 continuing care beds that could not open due to staffing shortages.

Table 4-4 Long Term Care Beds per 1,000 Population 65+

RHA Name	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003	2001-2002
Chinook Regional Health Authority	34.45	40.16	42.04	42.96	41.61	43.44
Palliser Health Region	40.80	41.93	42.54	43.59	43.61	49.51
Calgary Health Region	39.64	39.58	40.67	41.54	42.52	44.92
David Thompson Regional Health Authority	37.89	40.11	41.84	41.69	42.70	40.21
East Central Health	51.23	53.21	53.79	55.92	55.04	56.46
Capital Health Region	40.53	41.09	41.95	41.93	42.17	42.65
Aspen Regional Health Authority	42.88	43.78	44.95	48.00	48.97	48.12
Peace Country Health	38.54	37.81	39.14	41.03	42.34	44.51
Northern Lights Health Region	34.78	36.08	36.87	35.03	35.02	37.57
PROVINCIAL AVERAGE:	40.15	41.07	42.18	42.88	43.38	44.50

Source: Alberta Health and Wellness

Notes:

- 1) Long Term Care (LTC) beds per 1,000 population => 65 yrs ratios were calculated using data from AHCIP registry file and beds from the RHA bed survey.
- 2) LTC beds include auxiliary hospitals and nursing home beds only.
- 3) Does not include 100 beds at Rosehaven Care Centre.

While beds in service per RHA population is one indicator of inpatient services available, this information must be considered in context. For example, northern rural RHAs may have higher ratios because they have to provide geographic access to services for the residents in the region. These calculations also do not consider the differences in the health needs of the residents in each RHA. This is a particularly important point when examining the Capital Region because the Capital Region has an older and poorer population, and hence residents have greater health needs, than, for example, Calgary. It is important to note that even within the Capital Region socio-economic conditions vary from community to community.

Also, the required number of acute care beds per capita is not a static benchmark over time. As innovations in health technology and service delivery occur, the number of acute care beds required to service a population is likely to drop as the average length of time people stay in hospitals decreases and more people are discharged into alternative care facilities and situations.

Wait Times

Wait times are an important benchmark for determining access to health services including surgical, diagnostic, and emergency services.

Table 4-5 provides an overview of 90th percentile²⁵ wait times for non-emergency surgeries and MRI/CT scans. While efforts continue to improve wait times in Capital Health, the wait time for selected procedures is higher than the national and provincial target for patients and for some procedures the wait time is longer than desired. In addition, for hip and knee replacement

²⁵ The time (in weeks) within which 90 percent of persons served had their procedure or test performed.

surgery on average there are 260 patients per month referred for surgery. This number is greater than the capacity available resulting in growing numbers of patients waiting for surgery.

In terms of MRI/CT scans, wait times over the past two years have been comparable to both the provincial average and to the Calgary Health Region. The number of referrals and patients waiting however continues to exceed the capacity resulting in growing numbers of patients waiting and wait times.

Table 4-5 Selected Procedures 90th Percentile¹ Wait Times² (weeks)

Service	Regional Health Authority	2006/07	2005/06	2004/05
Cardiac Surgery - Inpatient	Capital Health	19.9 - 23.5	12.6 - 18.1	12.1 - 18.0
	Calgary Health	13.6 - 16.3	10.2 - 20.7	5.0 - 15.0
Orthopaedic Surgery – Inpatient (Provincial Target is 20 weeks)	Capital Health	38.5 - 47.9	47.7 - 54.0	45.9 - 54.1
	Calgary Health	33.0 - 40.9	39.7 - 55.4	38.6 - 55.8
MRI	Capital Health	18.0 - 21.7	14.4 - 18.7	20.1 - 31.1
	Calgary Health	16.9 - 26.6	16.1 - 21.3	20.0 - 31.0
CT	Capital Health	2.6 - 7.0	7.1 - 9.9	8.6 - 15.7
	Calgary Health	4.7 - 8.7	8.4 - 13.9	12.7 - 14.9

Source: Capital Health

Note:

- 1) The time (in weeks) within which 90 percent of persons served had their procedure or test performed.
- 2) Range over 12 months.
- 3) Surgeries are defined as non-emergency surgeries and non-follow-up surgeries performed in surgical suites that submit to the Alberta Waitlist Registry.
- 4) MRI and CT scans are defined as non-inpatient procedures performed in facilities that submit to the Alberta Waitlist Registry.

Access to, and length of stay in, emergency departments, like in many other jurisdictions, is a concern in the Capital Region. For 2005-2006, all patients spent an average of 4.7 hours in emergency departments in the Capital Health Region. However, the average for those requiring admission was over 17 hours.

Similar demographic and socio-economic factors among the serviced population that impact bed utilization rates will also impact demands on emergency department (ED) services. To the degree that Capital Health serves an older and poorer population, with a higher number of special needs groups and Aboriginals, increased demands will be made on emergency departments in the region. Emergency departments located in urban areas also tend to have larger volumes of emergency department visits and see more severe cases. It should also be noted that Capital Health is a centre providing health services not only to Capital Region residents, but to residents of other regions including northern Alberta.

Capital Health has implemented several initiatives in an attempt to reduce wait times in the region, including:

- Implementing a new approach to managing hip and knee replacement surgery.
- Implementing a system-wide, multi-pronged approach to improve the situation in emergency departments, including:
 - Conversion of office space into new treatment areas;
 - Addition of triage liaison doctors to various emergency departments; and
 - Implementation of the full capacity protocol aimed at moving admitted patients out of emergency and into wards more quickly.
- Applying a new chronic disease management model to diabetes services that offers a single point of contact and quick access to education sessions and clinic appointments.
- Continuing with streamlining and re-engineering current waitlist management systems.

Even with these initiatives, wait times will likely remain a concern for the foreseeable future in the Capital Region as a result of:

- Increasing public expectations of the health system;
- Scarce resources (e.g. limited number of health professionals);
- Anticipated population growth, including among Aboriginal and special needs groups;
- The likely emergence of a sizeable group of mobile workers in the region utilizing health services, particularly emergency services; and
- Aging of the population, leading to greater demand for diagnostic imaging, specialist assessments, and treatments for both acute and chronic conditions.

Satisfaction

As users of the system, people's individual experiences and perceptions of the health system are important as a means of identifying priority issues and informing those responsible for health delivery on the issues most important to users. Table 4-6 provides an overview of selected satisfaction levels, based on a survey of nearly 5,000 Albertans conducted by Ipsos-Reid on behalf of the Health Quality Council of Alberta.

Table 4-6 Selected Satisfaction Levels (percentages)

	Alberta Average	Chinook	Palliser	Calgary	David Thompson	East Central	Capital	Aspen	Peace	Northern Lights
Overall Quality	72	75	74	72	80	75	73	68	66	61
Easy Access	46	50	50	44	52	49	48	40	43	38
Overall Satisfaction	57	60	59	55	65	62	57	55	53	38
ED Services	53	51	46	55	64	58	44	60	62	43
Ease of Family Doctor Access	74	74	76	75	74	65	76	60	72	60*
Specialists										
Access	55	56	54	53	51	63	58	51	51	51
Satisfied	80	74	81	81	74	78	83	72	72	80

Source: Health Quality Council of Alberta, 2006

On nearly all indicators, Capital Health is close to, or slightly above, the provincial average. The one exception is access to emergency services where satisfaction levels among users of the system is among the lowest in the province, comparable to the Northern Lights Health Region. As mentioned in the previous section, Capital Health has already taken several initiatives to improve emergency department services and decrease wait times.

It should also be noted that satisfaction with the health system is dependent not only on the level of service provided, but also on increasing public expectations of the system. While improvements in health service delivery might and do occur, public expectations of both the timeliness and breadth of services available have increased, and will likely continue to increase.

4.2.2.2 Workforce Issues

While a great deal of attention has been focused on the need to create innovation within the health system (e.g. improved service delivery models, new technology) the ability of the system to innovate is dependent upon addressing challenges in attracting and retaining the necessary workforce. Government of Alberta projections indicate that Alberta will be short more than 15,000 health providers in 2016.²⁶ Table 4-7 provides a breakdown of this projection by profession.

Shortages of health providers in the Capital Region in 2016 are estimated to be at least one-third of the provincial projections, or 5,000 – 5,400 health providers.

²⁶ Government of Alberta, *Health Workforce Action Plan (2007-2016): Addressing Alberta's Health Workforce Shortages*. http://www.health.gov.ab.ca/key/Workforce_report07.pdf

Table 4-7 Projected Provincial Health Workforce Shortage in 2016

Profession	Projected Shortage in 2016 (number of workers)
Physicians	1,800
Nurses	6,200
Speech Language Pathologists	100
Medical Technologists (e.g. MLTs, MRTs, etc.)	600
Health Care Aides	5,000
Physical Therapists	1,100
Pharmacists	1,000
Total	15,800

Source: Alberta Health and Wellness

An important factor behind this projected shortage is Capital Health's considerable need for health professionals over the coming years. Capital Health is projecting a need for somewhere in the vicinity of 32,000 new health professionals in the next ten years to maintain and grow health services. This estimate includes nurses, allied health professionals, health care aides, lab technologists, and management-exempt administration. As well, Capital Health estimates it will need a further 2,600 doctors during the same timeframe.

The recruitment and retention of workers in the health field is a critical issue for several reasons, including:

- An aging workforce with large numbers of health professionals reaching retirement age;
- Labour shortages in Alberta creating a tight labour market which is drawing some workers away from the health system;
- Both physically and mentally challenging working conditions;
- Insufficient supply of new graduates in several health-related occupations;
- Challenges faced by foreign trained professionals in receiving accreditation; and
- Intense competition for health professionals at both the provincial, national, and even international level.

In the Capital Region, concern over the high cost of housing and the lack of affordable accommodations has been a barrier in trying to attract health professionals and other support workers from outside the region. In response, Capital Health has begun to look at providing

temporary residences for new workers (e.g. out-of-country, out-of-province, or even from within Alberta), allowing them time to find affordable accommodation in the region.

In recent years, Capital Health has been experiencing some success in attracting and retaining health professionals. Capital Health's nursing vacancy rate has been dropping as the nursing workforce bucks the national trend by getting younger instead of older. In 2005-2006, Capital Health achieved a regional nursing vacancy rate of 4.36 percent and an average regional professional and technical occupations vacancy rate of 3.84 percent, both within the target range of 4-5 percent. However, Capital Health anticipates increasing difficulty in maintaining vacancy rates at this level due to many of the reasons outlined above. In fact, recent vacancy rates show a marked increase. As of September 30, 2007 there was a vacancy rate of 5.37 percent in nursing and 6.28 percent in allied health professionals.

As Table 4-8 shows, Capital Health has also been successful recently in attracting more general practitioners (GPs) per capita to the region. GPs per capita is a particularly important measure of access to primary care services, a systemic concern resulting from a national shortage of family physicians. While the number of doctors and general practitioners per capita for the Capital Health Region are below the provincial average, they are above those for the Calgary Health Region, a comparable urban health authority. It should also be noted that the data presented in Table 4-8 only includes doctors that bill fee-for-service, and not those physicians remunerated in another manner, otherwise known as alternate relationship plans (ARPs) (e.g. capitation, sessional, contractual). The increase in the number of physicians per capita may in fact be larger than shown in Table 4-8, to the degree that doctors are increasingly being remunerated by ARPs. It is also important to note that there are likely to be a larger number of physicians remunerated by ARPs in urban areas, such as Calgary and Edmonton, than in rural areas.

While the number of specialists per capita has been dropping in the Capital Health Region, Capital Health continues to have a higher number of specialists per capita than both the Calgary Health Region and the provincial average.

Table 4-8 Physician Numbers for the Capital Region

Fiscal Year	Alberta			Capital Health Region			Calgary Health Region		
	Doctors per 100,000	GPs per 100,000	Specialists per 10,000	Doctors per 100,000	GPs per 100,000	Specialists per 10,000	Doctors per 100,000	GPs per 100,000	Specialists per 10,000
05-06	230.07	142.31	8.78	210.84	119.84	9.10	201.77	116.70	8.51
04-05	227.29	138.22	8.91	208.31	115.00	9.33	203.93	113.00	9.09
03-04	226.40	138.54	8.79	211.40	115.34	9.61	198.00	110.98	8.70

Source: Alberta Health and Wellness

Notes:

- 1) All data based on covered population as of March 31 for each fiscal year and only doctors that bill fee-for-service for each fiscal year.
- 2) No data for 2002-2003 as region boundaries changed in April 2003, therefore data for this fiscal year would not be comparable with the rest of the numbers provided.

Capital Health's ability to attract health professionals, both specialists and non-specialists, is enhanced by its position as the country's largest academic health region. Capital Health is the province's largest provider of clinical training placements for a variety of health professionals including physicians, nurses, pharmacists, technologists, and other professionals.

Along with competition between regions for health professionals, there is competition within the region between the major metropolitan area that offers a full array of health services, and urban fringe and rural areas. During interviews with municipal staff, several smaller municipalities in the Capital Region indicated that the retention of health professionals in their community was an ongoing concern.

4.2.2.3 Infrastructure Costs

Increasing capital and operational expenditures as a result of higher costs for labour and materials is an emerging concern for any public body currently undertaking major infrastructure projects in the province. This is particularly an issue for Capital Health which has embarked on a growth plan which includes over \$1.5 billion in approved major infrastructure projects. An illustrative example of the impact of rising costs is the construction of the Edmonton Clinic. The Edmonton Clinic, a health sciences facility at the University of Alberta that will house diagnostic services and day clinics, has seen its construction cost estimates nearly double over the past three years to over \$900 million.

4.2.2.4 Capital Planning with Municipalities

Capital Health works with municipal planning departments in the region when planning and constructing new health infrastructure projects (e.g. Edmonton Clinic, Eastwood Primary Care Clinic, Sherwood Park Hospital, etc.). As part of the planning process, Capital Health must receive from the municipality:

- Appropriate zoning approvals;
- Development permits; and
- Water and sewer hook-ups.

In discussions with Capital Health, the RHA noted that approaches vary among municipalities. They also indicated that while Capital Health is moving towards greater integration in the delivery of health services with other types of services (e.g. social, education, library), municipal planning rules can oftentimes be an impediment to allowing for multi-functional facilities.

4.2.2.5 Aging Population

The aging of the population will have a significant impact on the delivery of health services in a number of ways, including:

- Increasing prevalence of age-related diseases and disabilities requiring an increase in associated health services to manage and treat the diseases and disabilities;
- Increasing demand for age-related health services such as home and long-term care;
- Changes in the skill sets required of health providers to respond to the needs of the elderly; and
- Increasing numbers of informal caregivers (e.g. friends and family) requiring supports to provide care to the elderly in a community setting (e.g. in the home).

Although Alberta's population is young relative to the rest of Canada, Alberta's population will also experience significant aging in the decades to come. In the Capital Region specifically, there were over 112,000 individuals over the age of 65 in 2006, accounting for nearly 11 percent of the regional population. Over the next ten years, based on population projections adopted for this research, that number is expected to grow by nearly 51,000 people, an increase of over 45 percent, and will account for nearly 13 percent of the total regional population.

4.3 PLANS

4.3.1 Provincial Plans

Delivery of health infrastructure and services is ultimately a provincial responsibility. Provincial plans will direct the work of Regional Health Authorities in meeting future service delivery needs. At the provincial level, the Government of Alberta has introduced the following plans:

- **Alberta Health and Wellness Business Plan (2007-2010):** The ministry's business plan provides a framework for the development of business and health plans by the various Regional Health Authorities. For the 2007-2010 period, the business plan outlines the following strategic priorities:
 - Implement health care productivity reforms and sustainability initiatives;
 - Implement a new pharmaceutical strategy;
 - Strengthen public health services that promote wellness, prevent injury and disease and provide preparedness for public health emergencies; and
 - Comprehensive workforce strategy to secure and retain health professionals.
- **Getting on With Better Health Care: Health Policy Framework (2006):** In an effort to provide clear and consistent direction for future health policy decisions, this framework identifies three priority areas:

- Managing the Health System Better – ensuring the health system is fiscally sustainable and accountable, that it is flexible to allow for change and that all Albertans have equitable access to quality care;
 - Promoting Lifelong Health – moving away from an acute care treatment model and towards a community-based prevention and wellness model; and
 - Encouraging Innovation – encouraging new research, introducing new service delivery models and moving toward patient and evidence-based care.
- **Health Workforce Action Plan (2007-2016):** This action plan outlines nineteen key initiatives that the provincial government will undertake over the next few years. Among those initiatives are:
 - Expanding health training programs and increasing clinical training capacity;
 - Attracting health professionals working abroad;
 - Changing the way health services are delivered; and
 - Developing a rural health workforce strategy.

4.3.2 Capital Health Authority Plans

Following the strategic direction set by Alberta Health and Wellness, Capital Health has developed its own three-year health plan which highlights some of the following actions to meet critical challenges and improve access:

- Continue to expand physical and human infrastructures, with special emphasis on ambulatory care services, primary care and continuing care;
- Continue to implement the Primary Health Care Strategy;
- Implement the “Growing in Place” Capital Plan to expand the number of hospital and long-term care beds in the region;
- Designing, constructing and commissioning the Edmonton Clinic to support “one-stop” patient care services in a multi-disciplinary setting;
- Re-engineering waitlist management, patient assessment and service delivery;
- Working with Government to set waitlist time targets for certain tests and procedures and implement strategies to achieve those targets;

- Pursue opportunities to provide better integration of services across the spectrum of care to meet the needs of individuals with chronic diseases; and
- Implementing a system-wide, multi-pronged approach to improve the situation in Emergency Departments.

There is also a major expansion of health infrastructure in the region with several infrastructure projects currently planned or underway. Table 4-9 provides an overview of approved major health infrastructure projects in the Capital Region receiving provincial funding.

Table 4-9 Approved Major Health Infrastructure Projects¹

Location	Project	Total Project Costs (2007 Constant \$ Million)
EDMONTON	Grey Nuns Hospital Bed Reclamation (Phase 3)	10.5
	Misericordia Hospital Bed Reclamation (Phase 3)	5.9
	Mazankowski Alberta Heart Institute -Walter C. Mackenzie Health Sciences Centre	219.8
	Royal Alexandra Hospital Redevelopment (Phase 2) - New Robbins Pavilion	190.3
	University of Alberta Hospital, New Edmonton Clinic ²	484
	Eastwood Primary Health Care Centre - Replacement	29
	Stollery Children's Hospital - Pediatric Surgical Suite Renovations	27.6
	Walter C. Mackenzie Health Sciences Centre, Provincial Laboratory - Upgrade Bio-Safety and Security Systems	4.5
	Walter C. Mackenzie Health Sciences Centre - Bed Reclamation (Phase 4)	92.6
	Royal Alexandra Hospital - New Orthopedic Surgical Facility	60.2
	Royal Alexandra Hospital - Active Treatment Centre – Women's Centre Upgrade	103.4
	Misericordia Community Hospital - Bed Reclamation (Phase 4)	100.1
	Grey Nuns Community Hospital - Bed Reclamation (Phase 4)	43.4
	Long-Term Care Facility Partnerships, Regeneration and Expansion	30
FORT SASKATCHEWAN	Fort Saskatchewan Health Centre, Replacement	48
SHERWOOD PARK	Strathcona County Hospital and Health Centre - New Facility	88
ST. ALBERT	Sturgeon Hospital - Bed Reclamation (Phase 3)	9.2
	Sturgeon Community Hospital - Emergency Department Expansion	23.6
	TOTAL	1,570.1

Source: Capital Health

Notes:

- 1) Project costs as of September 2007
- 2) "Edmonton Clinic" Total Project Cost exceeds \$900 million and is split between Alberta Health and Wellness and Alberta Advanced Education and Technology. Only the Alberta Health and Wellness portion is provided here.

Total project costs for the approved major health infrastructure projects listed above is over \$1.5 billion.

Along with upgrading existing infrastructure, capital projects in the Capital Region are expected to add a further 592 acute-care beds by 2013 through reclamation of existing hospital space and construction of new facilities. A further 108 long-term care beds are also expected to be added in the coming years. Table 4-10 provides an overview of anticipated incremental bed increases in the Capital Region by project and estimated completion date.

Table 4-10 Approved Capital Projects Incremental Beds for Capital Health

Project Description	Location	Estimated Completion Date ²	Incremental Beds		
			Acute Care	LTC ^{1,3}	Total
Extendicare Eaux Claire Village	Edmonton	2008	0	28	28
Mazankowski Alberta Heart Institute	Edmonton		35	0	35
Royal Alexandra Hospital Robbins Pavilion	Edmonton		178	0	178
Caritas Long Term Care Facility	Edmonton	2009	0	56	56
Royal Alexandra Surgical Centre	Edmonton		56	0	56
University Hospital Bed Reclamation (Phase 1)	Edmonton		89	0	89
Fort Saskatchewan Health Centre Replacement	Fort Saskatchewan		6	0	6
Capital Care Strathcona Expansion	Sherwood Park		0	24	24
Strathcona County Hospital	Sherwood Park	2010	72	0	72
Misericordia Hospital Redevelopment	Edmonton	2011	16	0	16
University Hospital Bed Reclamation (Phase 2)	Edmonton	2013	140	0	140
Capital Health Region Sub-Total:			592	108	700

Source: Alberta Health and Wellness, Capital Health

Note:

- 1) LTC: Long-Term Care
- 2) Estimated completion date does not guarantee that beds will become operational that year.
- 3) LTC beds include Auxiliary and Nursing Home beds only. It does not include Designated Assisted Living or other Supportive Living beds.

Capital Health is also monitoring its bed capacity in relation to population and is proceeding with the implementation of its "Growing in Place" plan which has three key elements:

- Reclaim all possible inpatient beds to make maximum use of existing hospital space;
- Replace older hospital facilities and expand existing facilities as needed; and
- Plan and construct new facilities.

The position of Capital Health is that the region does not yet have the beds necessary to meet the needs of a growing and aging population. While an emphasis on health promotion and disease

prevention can assist in reducing demand for health services, the number of beds will still be required to increase to meet demand.

As highlighted earlier, plans for innovation and expansion in health service delivery are reliant on there being an adequate number of health professionals. Along with provincial plans already developed by Alberta Health and Wellness, Capital Health has also developed a long-term strategy to renew and expand their health workforce and system capacity. To attract and retain more health professionals, Capital Health plans to:

- Attract more health professionals from other parts of Canada as well as the United Kingdom, the Philippines, Australia and New Zealand;
- Undertake a variety of strategies to delay retirement of health professionals, which may include offering flexible work arrangements and creating opportunities for employees who are eligible for retirement to mentor staff;
- Encourage health professionals to work to their full scope of practice and offer a variety of leadership and educational opportunities; and
- Work with post-secondary institutions to increase the number of students trained locally (Capital Health anticipates hiring about 75 percent of all students trained locally).

4.4 PROJECTED SERVICE NEEDS AND GAPS IN THE CAPITAL REGION

4.4.1 Population Projections

Alberta Health and Wellness has a sophisticated model for developing population projections for each health region in the province. These projections, as contained in the report *Population Projections for Alberta and its Health Regions 2006-2035*, assist in planning for future health infrastructure and service requirements.

A comparison of Alberta Health and Wellness population projections for the Capital Health Region to population projections adopted for the purposes of the Capital Region Integrated Growth Management Plan (CRIGMP) highlights a divergence between the two projections. Table 4-11 provides an overview of both population projections for the 2008-2011 period and 2016.

Table 4-11 Population Projections for the Capital Health Region

Year	Alberta Health & Wellness Projections¹	CRIGMP Projections	% Difference
2008	1,054,461	1,084,781	2.9
2009	1,072,632	1,113,157	3.8
2010	1,090,066	1,143,390	4.9
2011	1,106,768	1,175,671	6.2
2016	1,180,500	1,275,660	8.1

Sources: Alberta Health and Wellness, Applications Management Consulting Ltd.

Notes:

- 1) Adjustments have been made to the Alberta Health and Wellness population projections to more closely align the geographic boundaries with the Capital Region boundaries adopted for the purposes of the CRIGMP.
- 2) CRIGMP population projections presented above are the same as those for the Capital Region, excluding Bruderheim and Lamont County which are not serviced by Capital Health.

As Table 4-11 shows, population projections adopted for this research are consistently higher than those from Alberta Health and Wellness for the periods in question.

This could highlight a potential gap in current planning for health infrastructure and services in the Capital Region.

4.4.2 Forecasting Health Care Needs

In determining health infrastructure and service needs, demographics (e.g. population growth, changes in age cohorts) are only one factor to consider. Other factors include:

- Program changes including new initiatives, program terminations or changes in program parameters.
- Technological changes including advances in medical or diagnostic equipment or building systems obsolescence.
- Financial pressures based on current and projected revenue and costs trends.
- Environmental factors including the impact of changes in consumer expectations or service standards.
- Social changes including trends that could affect social delivery needs.

For the purposes of developing first draft order of magnitude operational and capital expenditure estimates, a more simplified approach has been adopted. Further work is required to refine these estimates. The analysis focuses on the forecasted population impact on:

- Acute care beds;
- Long-term care beds; and
- Operational funding.

4.4.3 Acute Care Beds

For the purposes of estimating future acute care bed needs, the analysis is divided into two time periods:

- 2008-2011; and
- 2011-2016.

Future acute care bed estimates were based on a ratio of day stays by residents in acute care beds in the region to active population in the region. This ratio was derived from existing day stays by residents in acute care beds in the region. As well, an assumed preferred occupancy rate of 85 percent was also factored into the analysis.²⁷

4.4.3.1 2008-2011 Period

During the 2008-2011 period, Capital Health already has plans for a significant expansion of acute care beds in the region, as outlined in Section 4.3.2. These additional 452 acute care beds are needed to help address the current gap in acute care beds in the region, as well as service the existing population during this period. However, based on the methodology for determining future acute care bed needs adopted for this research, these additional beds will not be adequate to meet the needs of the projected regional population in 2011.

CRIGMP population projections for 2011 indicate that there will be approximately 1,175,671 people in the Capital Health Region. In addition to the 452 acute care beds already planned, serving this projected population would require additional acute care beds in the range of 230-280. This is based on the derived ratio of day stays by residents in acute care beds to active population, along with an assumed preferred occupancy rate of 85 percent.

4.4.3.2 2011-2016 Period

Population projections adopted for this research indicate an additional 100,000 people will be in the Capital Health Region in 2016, in comparison to projections for 2011 (see Table 4-11). There are already plans to add 140 acute care beds to the Capital Health Region in 2013. Using the derived ratio of day stays by residents in acute care beds to active population, and an assumed preferred occupancy rate of 85 percent, an additional 80-100 acute care beds will be required to serve the regional population in 2016.

Again, caution should be employed when interpreting these numbers. The analysis does not take into account changes in the health needs of the residents over this period (e.g. changes in socio-economic indicators). Nor does it take into account changes in service delivery models that may result in changes to the ratio of day stays by residents in acute care beds.

²⁷ This occupancy rate does not necessarily reflect actual occupancy rates. It is an attempt to capture ideal practice and service delivery.

As well, this estimate refers only to those beds needed to serve the regional population. As noted earlier, Capital Health provides health services to a much larger geographical area with one in five patients admitted to Capital Health facilities coming from out of region. Future beds needed to service this population are not included in the analysis. As planning for health services and infrastructure proceeds, Capital Health will also need to take into consideration future growth within their referral areas.

Table 4-12 Estimates for Additional Acute Care Beds

Time Period	Planned Acute Care Beds	Additional Acute Care Beds Required (Range $\pm 10\%$)
2008-2011	452	230-280
2011-2016	<u>140</u>	<u>80-100</u>
Total	592	310 - 380

4.4.4 Long-Term Care Beds

For the purposes of developing an order of magnitude estimate of future long-term care bed needs, a benchmark of long-term care beds per 1,000 population 65+ has been used. This benchmark is based on the current average of approximately 40 long-term care beds per 1,000 population 65+ among urban RHAs (e.g. Capital and Calgary). A small decline factor in this benchmark over time was also used as a means of modelling changes in service delivery and the move away from facility based service delivery towards more assisted living and home care options.

Table 4-13 provides an overview of estimated long-term care bed needs to 2016 based on population projections adopted for this research. Total long-term care bed requirements, minus already planned additional long-term care beds, could be in the range of 1,560-1,930 beds.

Table 4-13 Estimates for Additional Long Term Care Beds

Time Period	Planned Long Term Care Beds	Additional Long Term Care Beds Required (Range $\pm 10\%$)
2008-2011	108	570 - 720
2011-2016		990 - 1,210
Total	108	1,560 - 1,930

As was the case with the estimate of acute care bed needs, this number should be interpreted with caution. While the analysis above does attempt to take into consideration moves towards greater home care and assisted living options, it is not clear that the analysis has captured the full impact this may have on reducing the need for long-term care beds. As well, the analysis does not take into account the changing health needs of individuals over the age of 65. Focuses on

public health programs and healthy aging may serve to delay long-term care needs until later in life or reduce the overall time spent by individual patients in a long-term care setting.

4.4.5 Operational Funding

While a sophisticated population funding formula is utilized by Alberta Health and Wellness to determine a significant portion of RHA global funding (approximately 82 percent), it is simply a tool for allocating the available Health Authority Global Funding, as set by the Government of Alberta. To the degree that population projections are utilized as an input in determining total available Health Authority Global Funding, operational funding would need to be adjusted to accommodate the increased population forecasts being utilized for the CRIGMP.

Global funding for Capital Health in 2007-08 was approximately \$2.3 billion, including over \$300 million in funding earmarked to deliver province-wide services. Currently, annual increases are typically required by health regions to cover increasing input costs (e.g. wages and materials) in order to maintain existing levels of service to the current population. The required increase varies annually, depending on cost pressures facing the health region. Annual increases could also be provided to raise existing service delivery levels or undertake new initiatives aimed at improving services to the current population. A further increase is also usually required in order to serve the additional population resulting from increased birth rates and in-migration. The Government of Alberta is responsible for determining the level of these operational funding increases through its existing budgeting process. Without commenting specifically on this process, the analysis indicates that a further increase in operational funding would be necessary to reflect the higher population forecasts being utilized for the CRIGMP and the additional health infrastructure and services required to serve this population.

Estimates for increases in annual operating costs to serve the regional population in 2011 and 2016 were determined based on the difference between the existing population and Capital region projections adopted for this research. Using existing funding levels as a base, along with an adjustment for estimated existing acute-care bed gaps in the region, Capital Health's forecasted annual operating costs:

- In 2011 are estimated to be in the range of \$395 million higher (in 2007 constant dollars) than they are currently; and
- In 2016 are estimated to be in the range of \$595 million higher (in 2007 constant dollars) than they are currently.

It should be noted that these operational cost estimates do not represent the total operational cost increases that the Capital Health Region might incur by 2011 and 2016. These estimates do not take into consideration the impact on operating costs from changes in socio-economic conditions, technological changes, or improved service delivery models. It also does not take into consideration funding increases required to serve patients from outside the Capital Region.

4.4.6 Summary of Capital Needs and Gaps

In the case of capital expenditures for acute care and long-term care beds, the analysis indicates a gap during the 2008 - 2011 period. Existing capital projects and planned incremental bed increases are not sufficient to address estimated need during this period. Along with the 452 acute care beds and 108 long-term care beds already planned, there is a need for an additional 230 - 280 acute care beds and 570 - 720 long-term care beds, which will require an additional capital investment of approximately \$405-500 million (in 2007 constant dollars).

During the 2011-2016 period, in addition to the 140 acute care beds already planned, a further 80 - 100 acute care beds and 990 - 1,210 long-term care beds will be required. These beds will require a capital investment of approximately \$345 - 430 million (in 2007 constant dollars).

Capital Health's existing capital plan attempts to reclaim as much existing space as possible for inpatient beds in order to make maximum use of existing urban, suburban, and rural hospitals. Assuming that this plan indeed does result in the reclamation of all possible existing space, additional acute care and long term care beds will most likely need to be accommodated with new infrastructure, either as additions to existing facilities or as new standalone facilities.

Table 4-14 presents a summary of capital costs to meet forecasted need over the 2008-2016 period. The table provides cost estimates for both planned acute care and long term-care beds, as well as estimated additional, or unplanned, beds required.

Of the over \$1.5 billion in approved major health infrastructure projects listed in Table 4-9, nearly \$500 million has already been provided by the provincial government. The provincial government has committed to provide the remaining \$1 billion. Table 4-14 takes into account these remaining capital costs in association with the 592 acute-care beds and 108 long-term care beds already planned. However, it should be noted that these capital costs include other health infrastructure beyond that which is associated with the planned acute-care and long-term care beds.

Capital cost estimates for additional, currently unplanned, acute care and long term care beds are based on an average capital expenditure of approximately \$1,115,000 per acute care bed and \$260,000 per long-term care bed. It should also be noted that acute care services in Edmonton health facilities vary from general medical/surgical to tertiary care such as advanced cardiac care and transplants. As such, capital costs vary greatly, making it extremely difficult to determine an average capital cost for the purposes of producing accurate capital cost forecasts.

Table 4-14 Capital Cost Summary

	Associated Costs <i>2007 Constant \$ Million</i>		
	2008-2011	2011-2016	Total
Infrastructure			
Planned Acute Care and Long Term Care Beds	1,000		1,000
Additional Acute Care Beds	255 - 315	90 - 115	345 - 430
Additional Long Term Care Beds	150 - 185	255 - 315	<u>405 - 500</u>
Total			1,750 - 1,930

4.4.7 Parameters of Analysis

This analysis has been limited to forecasting the impact of population growth on:

- Acute care beds;
- Long term care beds; and
- Operational funding.

From a capital planning perspective, the analysis does not take into consideration:

- Facility renewal or replacement of older buildings;
- Capital needs to service residents of Capital Health's larger catchment area (e.g. northern and central Alberta, etc.);
- Changes to existing infrastructure to accommodate new technologies and reengineered business processes; and
- Other capital needs to service the local population, including:
 - Mental health and addiction treatment beds;
 - Diagnostic services;
 - Primary care centres; and
 - Other support services.

4.4.8 Addressing Gaps/Needs

While the analysis has attempted to quantify the health infrastructure and services needed in order to service the forecasted population, it is important to note that forecasting needs within the current health system is extremely difficult because there does not exist a linear relationship between population growth and health infrastructure and services. The challenge with health care

resources is primarily one of appropriately allocating and maximizing scarce resources to best meet health needs.

4.4.8.1 Innovation in Health Service Delivery

Faced with limited financial and non-financial (e.g. labour) resources, responsible public agencies across Canada have turned towards innovation within the existing health system as a means of maximizing resources. Encouraging innovation is one of three priority areas identified in the Government of Alberta health policy framework, *Getting on With Better Health Care*.

Capital Health, in particular, is recognized as a leader in health research and innovation in Canada. It has recently shifted its vision towards “*building Canada’s health capital*”. Among the initiatives being taken in the Capital Region are:

- Reviewing and restructuring the roles and responsibilities of different health professionals to maximize existing skill sets (e.g. expanding the role of nurse practitioners);
- Development and implementation of new care protocols (e.g. introduction of triage liaison doctors at various emergency departments);
- Primary care reform and the implementation of new service delivery models (e.g. implementation of eight Primary Care Networks (PCNs) in the Capital Health region);
- Increasing health research to develop best practices and seek new treatments and cures (e.g. partnerships with the University of Alberta and other post-secondary institutions in the region, opening of the iCARE health outcomes research centre);
- Ongoing support of new technologies (e.g. digital imaging, digital surgical suite, and wireless communications);
- Implementation of electronic health record systems (e.g. development of netCARE, the country’s first major regional electronic health record system); and
- Utilization and expansion of other telehealth services (e.g. Capital Health Link, use of telehealth in rural and remote communities).

4.4.8.2 Additional Workforce Requirements

As discussed in Section 4.2.2.2, workforce projections indicate that Capital Health could be short approximately 5,000 - 5,400 health providers by 2016. They are already short providers today. In discussions with Capital Health, addressing workforce shortages was highlighted as the single biggest issue facing the region. While more operational and capital funding is required to address

health infrastructure and service needs, an adequate number of health professionals and support staff are required in order to operate new beds and programs.

To achieve this requires a multi-pronged approach involving:

- The recruitment of health professionals from outside the region;
- Making work more attractive (e.g. improved working conditions);
- Increased opportunities for professional development (e.g. professional development bursaries); and
- An expansion of health training programs to allow more Albertans to be trained and become health providers.

Appropriate utilization of the workforce will also require innovation as a means of providing health workers with new tools and service delivery models that will maximize their skills and increase their productivity.

Work on increasing and improving the health workforce has already begun as a result of the Alberta Government's Health Workforce Action Plan and Capital Health's own workforce strategy. Along with these strategies, improving access to affordable housing will be integral to attracting workers from outside the region.

4.4.8.3 Health Promotion and Disease Prevention Programs

Along with providing primary and tertiary care services, the health system has been moving towards offering more of a focus on programs and services aimed at improving health outcomes among the population, providing for a better quality of life and reducing the need for individuals to access health services in the first place. In the Capital Region, several initiatives, at the provincial, regional, and municipal levels, are already underway to promote healthy lifestyle choices (e.g. Weight Wise, Heart Safe, anti-tobacco initiatives, etc.). Capital Health is implementing strategies to support the health of the population in areas such as active living, healthy eating, tobacco, alcohol and drug use prevention, injury prevention, and others. Continued population growth in the region will require an increasing emphasis on these programs and services as a means of mitigating future demand for health services.

4.4.9 Impact of Population Growth on Specific Health Services

Increasing population growth is likely to place increased pressure on services and infrastructure across the health system, including:

- The need for more public health programs as a result of increasing birth rates and in-migration (e.g. immunization programs, immigrant services);

- Increased emphasis on environmental health hazards (e.g. air quality concerns) as a result of increased industrial activity in the region;
- Development of response protocols for major industrial accidents at the emerging heavy industrial area in Sturgeon County;
- Growth-related housing price inflation making recruitment and retention of health professionals more difficult;
- An increased number of traffic collisions and injuries resulting from increased traffic and road congestion; and
- Increased pressure on preventative and mental health services resulting from:
 - An increase in social stressors related to growth (e.g. competing family and work demands); and
 - Population growth fuelled by new in-migrants who have fewer social and family networks.

As noted in section 4.2.2.2, access to primary care is a systemic health care concern. While Capital Health is taking steps to maximize existing resources in order to increase access (e.g. establishment of eight primary care networks), population growth will lead to further demand for primary health services, particularly access to family physicians. In its most recent capital plan, Capital Health is proposing the construction and operation of two new primary care centres in the region, one each in the southeast and southwest quadrants of Edmonton, to address increasing population growth. As well, improving access to primary care will largely depend upon the success of both the provincial government and Capital Health in attracting and retaining the needed health workforce.

The likely emergence of a sizeable group of mobile workers in the region will also have implications for health service delivery (especially emergency services) and how the health region will be compensated for these services. This could be an issue for smaller communities near where mobile workers live and work, noting, however, that new hospital facilities are under construction in Fort Saskatchewan and Strathcona County. It should also be noted that many proponents of future heavy industrial projects in the northeast quadrant of the region (i.e. Alberta Industrial Heartland), have, or are planning to have, onsite medical services available, including trained medical personnel (e.g. nurses).

Population growth in the region is also expected to have some positive impacts on the health system, including:

- A marginally younger population as compared to the situation without in-migration; and

- An increase in overall income level in the region, noting that income is an important determinant of health.

4.5 CONCLUSIONS

In reviewing the delivery of public health services in the Capital Region in relation to projected growth over the next ten years, we note that additional acute care and long-term care beds, beyond those already planned, would be required over the 2008-2016 period.

- Capital costs associated with both planned and unplanned acute care and long-term care beds required to meet the health needs of the Capital Region population between now and 2016 are estimated at \$1.75 billion to \$1.83 billion.
- Operating costs are expected to be in the range of \$395 million higher in 2011 and \$595 million higher in 2016 than they are currently. These estimates are derived from regional population projections and do not take into consideration the impact on operating costs from changes in socio-economic conditions, technological changes, or improved service delivery models. It also does not take into consideration funding increases required to serve patients from outside the region.
- Capital Health, the primary Regional Health Authority responsible for the delivery of health services in the Capital Region, is currently undertaking a significant expansion of infrastructure in order to address both existing backlogs and future demand.
- The greatest issue currently facing Capital Health is a shortage of workers, both health professionals and support staff. Without adequate staffing, the health region will be unable to operate the requisite health infrastructure and services to meet the health needs of the Capital Region population.
- Housing was identified by Capital Health as a major impediment to the attraction of health professionals and support staff to the region.
- Alberta Health and Wellness has developed a provincial health workforce plan to address this issue, including the expansion of post-secondary spaces in health-related programs at Alberta's publicly funded post-secondary institutions. Capital Health has also developed a long-term strategy to renew and expand their health workforce and system capacity.
- There are a variety of ways that Capital Health can address the need for additional acute care and long term care beds including, but not limited to:
 - Adding more acute care and long-term care beds;

- Implementing new service delivery models and care protocols;
 - Adopting new technology and new processes;
 - Restructuring the roles and responsibilities of different health professionals to maximize existing skill sets; and
 - Placing increased emphasis on public health and disease prevention programs.
- RHA population projections for the Capital Region developed by Alberta Health and Wellness are below the projections adopted for the purposes of this research. Population projections used by Capital Health and Alberta Health and Wellness for planning purposes should be reviewed to ensure they are as consistent and up-to-date as possible.
 - Population growth in the region, including the likely emergence of a mobile workforce, and increased industrial activity will lead to specific growth-related pressure on certain health services including emergency departments, primary health care, public health programs, mental health, and environmental health programs.
 - The delivery of health services in the Capital Region provides a positive model for the delivery of services at the regional level. Services are delivered through a regional body, the Capital Health Region, but there are decision-making structures in place that provide for the inclusion of local concerns and viewpoints, including:
 - Municipal representation on the Capital Health Board;
 - A joint Capital Health/Municipal Government Advisory Council to promote communications and the sharing of information between Capital Health and municipalities in the region regarding health and health service matters;
 - Nine Community Health Councils (CHCs), comprised of residents from across the Capital Health Region, that provide community perspectives that support health planning in the region; and
 - Operational relationships between Capital Health and various municipal departments in the areas of emergency services, traffic safety, disaster response, and population health.

5. POLICING

5.1 INTRODUCTION

Policing plays a critical role in maintaining safe and secure communities. Police services are established to:

- Protect life and property;
- Prevent and detect crime;
- Keep the peace; and
- Enforce laws within their jurisdictions.

Police services fulfil these duties through law enforcement and a variety of community services, including crime prevention, public education, assisting in locating missing persons, dealing with lost property, traffic control, victim assistance and accident investigation. In addition to uniformed members of various police services, municipal police services and the Royal Canadian Mounted Police (RCMP) also have resources dedicated specifically to serious crime, drug enforcement, intelligence gathering, organized crime, and forensic work.

5.1.1 Policing Systems

Under the Canadian Constitution, provinces are responsible for the administration of justice. The *Alberta Police Act* reiterates that the Government of Alberta is responsible for ensuring that an adequate and effective level of policing is maintained throughout the province. The *Act* requires urban municipalities²⁸ with populations over 5,000 to provide or contract for their own police services and permits the Lieutenant Governor in Council to enter into an agreement with the federal government for the RCMP to provide a provincial police service for rural areas. Rural areas include all municipal districts and counties plus Métis settlements, regardless of the population, as well as towns, villages and summer villages with a population of 5,000 or less.

5.1.1.1 Federal Policing

The federal government, through the RCMP, is responsible for the enforcement of federal statutes in each province and territory, and for providing services such as forensic laboratories, identification services, the Canadian Police Information Centre (CPIC), and the Canadian Police College. The RCMP also provides contracted municipal, provincial and territorial policing.

²⁸ Urban municipalities in Alberta include cities, towns, villages and summer villages. Currently no villages or summer villages have populations over 5,000.

5.1.1.2 Provincial Policing

Provincial policing involves enforcement of the *Criminal Code* and Provincial statutes within areas of a province not serviced by a municipal police service (i.e., rural areas and small towns).

Although all provinces are authorized under the Canadian Constitution to operate provincial police services, only Ontario, Quebec and Newfoundland and Labrador do so. Alberta contracts with Canada for provincial policing by the RCMP.

Alberta Solicitor General and Public Security plays an important role in Alberta law enforcement. Sheriffs provide courtroom security; transportation of inmates between correctional centres and the courts; highway patrol and other complimentary functions supporting policing.

5.1.1.3 Municipal Policing

Municipal policing consists of enforcement of the *Criminal Code*, provincial statutes, and municipal by-laws within the boundaries of a municipality. Municipalities have several options as to how to provide policing. They may:

- Establish an independent police service, governed by a police commission appointed by the municipal council;
- Establish a regional police service; or
- Enter into an agreement for service by an existing police service (e.g., RCMP). Most municipalities in Alberta are policed in this manner.

5.1.1.4 Public Security Peace Officer Program

The Public Security Peace Officer Program is a key component of policing in Alberta. It came into force in 2007 with the proclamation of the Alberta *Peace Officer Act*. The program enables the provincial government, municipalities and police services to employ peace officers to enhance public safety and provide specialized law enforcement.²⁹ The enforcement carried out by peace officers is recognized as complementary to, and not a replacement for, police services. There are currently about 3,000 peace officers employed in Alberta.

Alberta Solicitor General and Public Security employs Alberta Peace Officers as sheriffs. Sheriffs are responsible for:

- Courtroom security in communities across the province;
- Transportation of inmates between correctional centres and the courts;

²⁹ Employers must be authorized by Alberta Solicitor General and Public Security to employ peace officers. Employers include municipal governments, police services (including the RCMP), provincial government departments, health authorities, post-secondary institutions, the SPCA and First Nations.

- Legislature security;
- Executive security services;
- Warrant apprehension services;
- Patrol services on highways across the province;
- Surveillance services to assist law enforcement agencies in Alberta with ongoing investigations; and
- Threat assessments and the development of counter-terrorism security information.

There are currently approximately 600 sheriffs in the province. The provision of these services by sheriffs allows police services to assign police officers to other duties within their respective communities.

Several other provincial government departments also have the authority to employ Alberta Peace Officers. For example, Alberta Sustainable Resource Development employs fish and wildlife officers to monitor the activities of hunters and anglers and enforce federal and provincial laws relating to fish and wildlife resources. Alberta Employment, Immigration and Industry employs fraud investigators to investigate complaints of the abuse of government programs.

Many municipalities employ Community Peace Officers to augment or assist police services. These types of peace officers will undertake a wide range of duties defined by their municipality (and authorized by Alberta Solicitor General and Public Security), including:

- Traffic enforcement and road safety;
- Parking enforcement;
- Protection of road infrastructure (weights);
- Transit security;
- Bylaw enforcement; and
- Animal control.

These officers contribute significantly to community safety and the continuum of policing activities. They provide important community services and provide police services with the opportunity to assign police officers to key community policing priorities.

5.1.1.5 First Nations Policing

First Nations communities may have their own self-administered police services, contract with Canada and the Province for service by the RCMP, or receive policing from the contracted provincial police service. The structure and governance of First Nations Police Services is defined through tripartite policing agreements between the First Nation, the province and the federal government.

5.1.1.6 Private Sector Involvement

While having limited law enforcement authority, the private security industry plays a role in preserving public safety and order in many municipalities. The industry is governed by the *Private Investigators and Security Guards Act*.

5.1.2 Delivery of Policing Services in the Capital Region

Of the 24 municipalities in the Capital Region, only the City of Edmonton has formed its own police service. The remaining 23 are serviced by the RCMP, nine through municipal contracts with the RCMP and 14 through the Provincial Police Service Agreement (PPSA)³⁰.

The Capital Region is well served from a policing perspective. Both the EPS and the RCMP Provincial Capital District are recognized in Canada as leading police organizations.

Municipal policing arrangements for the Capital Region are delineated in Table 5-1.

Table 5-1 Policing Arrangements in Place in the Capital Region

Type of Service	Municipalities Participating
Municipal police service	Edmonton
Contract between a municipality and the RCMP	Beaumont, Devon, Fort Saskatchewan, Leduc, Morinville, Spruce Grove, St. Albert, Stony Plain, Strathcona County
Provincial Police Service Agreement (PPSA)	Bon Accord, Bruderheim, Calmar, Gibbons, Lamont County, Leduc County, Legal, New Sarepta, Parkland County, Redwater, Sturgeon County, Thorsby, Wabamun, Warburg

³⁰ The Provincial government contracts with the federal government to have the RCMP provide policing for the province through what is called the Provincial Police Service Agreement (PPSA). The latest agreement is a 20-year contract due to expire in 2012.

5.1.3 Scope of Study

This section addresses municipal policing services in the Capital Region. As a means of addressing future infrastructure gaps, this section will provide:

- A background of existing policing infrastructure and services in the Capital Region;
- An overview of existing policing service delivery issues;
- A synopsis of existing growth plans for policing infrastructure and services in the region;
- A projection of police officers and stations needed to serve the estimated future population of the Capital Region; and
- An identification of potential future infrastructure gaps and service delivery issues.

5.2 CURRENT SITUATION

Citizens of the Capital Region receive municipal policing services from the:

- Edmonton Police Service (EPS), one of the largest municipal police services in the country, and
- Provincial Capital District, one of five geographically defined districts of K Division of the RCMP³¹.

5.2.1 Infrastructure

5.2.1.1 Edmonton Police Service

The EPS provides policing services within the City of Edmonton through five division stations and 10 community stations. This delivery model was implemented over the past year following comprehensive workload analyses. Table 5-2 provides a breakdown of EPS division and community stations.

³¹ K Division RCMP provides federal, provincial, municipal and First Nations policing services across Alberta through 107 detachments with more than 2200 regular (sworn) and civilian members, 150 public service employees and about 400 municipal employees.

Table 5-2 Police Stations in the City of Edmonton

Areas of Edmonton	Division Stations	Community Stations
Downtown	Downtown Division Station	Eastwood Community Station McDougall Community Station
North	North Division Station	Beverly Community Station Calder Community Station Namao Community Station
West	West Division Station	Summerlea Community Station Westmount Community Station
Southeast	Southeast Division Station	Ottewell Community Station
Southwest	Southwest Division Station ¹	Fairway Community Station Old Strathcona Community Station
Total	5	10

1. Existing station to be replaced by a new division station approved by Edmonton City Council

5.2.1.2 RCMP in the Capital Region

Front-line municipal policing services within the Provincial Capital District are provided through 10 detachments³² located in:

- Beaumont;
- Devon;
- Fort Saskatchewan;
- Leduc;
- Morinville;
- Spruce Grove;
- Strathcona County;
- St. Albert;
- Stony Plain; and
- Thorsby.

³² The District also has a detachment located at the Edmonton International Airport. This detachment is responsible for federal policing at the airport and is not typically available for municipal policing.

The RCMP detachment in Redwater reports to the Eastern Alberta District of K Division RCMP.

These 11 detachments provide RCMP services to municipalities within the Capital Region. Areas of Lamont, Parkland and Sturgeon counties are served by detachments from both the Provincial Capital District and the Eastern Alberta District.

There are also satellite detachments located in Gibbons and within the Enoch and Paul Band First Nations communities. Store-front operations are located at Cooking Lake, Ardrossan and Alberta Beach.

5.2.2 Police Officers

5.2.2.1 Edmonton Police Service

Statistics Canada undertakes annual studies of police resources in Canada. Their 2006 report identifies a total of 1,356 police officers in the City of Edmonton, approximately 189 police officers per 100,000 population. Table 5-3 compares the officer to population ratios in several major Canadian cities. It is clear that Edmonton's officer to population ratio is comparable to most major cities in the country.

Table 5-3 Police Officers per 100,000 Population, 2006

Community	Officers per 100,000 Population
Montreal	232
Vancouver	223
Winnipeg	194
Edmonton	189
Regina	187
Saskatoon	185
Calgary	165
Ottawa	137

Source: Statistics Canada, *Police Resources in Canada, 2006*

5.2.2.2 RCMP in the Capital Region

As noted above, there are 11 RCMP detachments located within the Capital Region.

The ratio of police officers to population in the Capital Region is in the middle of the range when compared to other large city-regions across the country. Table 5-4 compares the officer to population ratios in census metropolitan areas across the country.

A comparison of officers per 100,000 people in large urban centres and their respective CMAs illustrates that most large cities have significantly more policing resources than the areas around them. The differential does not speak to an issue of "over policing" within major cities. It does

recognize the need to provide higher levels of policing to address a range of inner-city social issues. It also suggests that most large urban police services (including the EPS) have developed very specialized services such as tactical and canine units. These specialized units are often made available to assist smaller police services that surround urban centres.

Table 5-4 Police Officers per 100,000 Population, 2006

Census Metropolitan Area	Officers per 100,000 Population
Winnipeg CMA	185
Montreal CMA	184
Regina CMA	180
Saskatoon CMA	167
Edmonton CMA	162
Calgary CMA	159
Vancouver CMA	148
Ottawa CMA	138

Source: Statistics Canada, *Police Resources in Canada, 2006*

5.2.3 Issues

In the social infrastructure consultation process, over half of the municipalities (15 of 24) indicated that policing is a pressing or very pressing issue in the Capital Region.

5.2.3.1 Inequities in Financing

Currently, the financing of municipal policing in Alberta is split between the Federal and Provincial governments and municipalities. Table 5-5 illustrates that this split is applied differently across municipalities within the Capital Region.

Table 5-5 Current Policing Cost-sharing Arrangements

Service Delivery Model	Capital Region Municipality	Share of Costs		
		Federal	Provincial*	Municipal
Municipal Police Service	Edmonton	0%	0%	100%
Municipal Contract for the RCMP Cost sharing based on population: < 15,000 pop. = 30% Federal > 15,000 pop. = 10% Federal	Beaumont	30%	0%	70%
	Devon	30%	0%	70%
	Fort Saskatchewan	30%	0%	70%
	Morinville	30%	0%	70%
	Stony Plain	30%	0%	70%
	Leduc	10%	0%	90%
	Spruce Grove	10%	0%	90%
	St. Albert	10%	0%	90%
	Strathcona County	10%	0%	90%
Provincial Contract for the RCMP (PPSA)	Bon Accord Bruderheim Calmar Gibbons Lamont County Leduc County Legal New Sarepta Parkland County Redwater Sturgeon County Thorsby Wabamun Warburg	30%	70%	0%

Municipalities operating under the PPSA are not responsible for the direct costs of RCMP policing within their jurisdictions. This means that in urban municipalities with populations of 5,000 or less and all rural municipalities³³ the policing costs are the responsibility of the province. As a result, 14 of the municipalities in the Capital Region³⁴ do not pay for policing services within their

³³ Strathcona County is a specialized municipality. Sherwood Park is treated as an urban municipality for purposes of police funding.

³⁴ The towns of Bon Accord, Bruderheim, Calmar, Gibbons, Legal and Redwater; the villages of New Sarepta, Thorsby, Wabamun and Warburg, and Lamont, Leduc, Parkland and Sturgeon counties

jurisdictions. The Provincial government contracts with Canada for the RCMP to act as Alberta's provincial police service, with a cost-share ratio of 70:30.

The other ten municipalities in the Capital Region are responsible for funding their police services. The City of Edmonton is responsible for 100 percent of the costs of the Edmonton Police Service, while nine municipalities contract directly with Canada for municipal policing services by the RCMP through a cost sharing agreement with the federal government. The population of the municipality determines the amount of cost sharing. For communities under 15,000 people, the federal government covers 30 percent of the cost while the municipality picks up 70 percent. For communities with over 15,000 people, the federal government covers 10 percent while the municipality picks up 90 percent of the cost.

The province also provides a Municipal Policing Assistance Grant to subsidize the cost of policing in urban municipalities with populations over 5,000. The grant is based on population.

- The cities of Fort Saskatchewan, Leduc and Spruce Grove and the towns of Beaumont, Devon, Morinville and Stony Plain receive a base grant of \$200,000 and an additional \$8 per capita.
- The City of St. Albert and the urban service area of Sherwood Park receive a base grant of \$100,000 and \$14 per capita.
- The City of Edmonton receives \$16 per capita, or approximately 5 percent of EPS expenditures.

Some concern has been expressed with the use of a per capita formula for policing grants. A funding formula that recognized the requirement for more intensive policing within the inner-city of large urban municipalities may be more appropriate than a straight per capita formula.

Fine revenues are an important source of financing for police services in Alberta. Municipalities of more than 5,000 people that either have their own police services or have contracted with the federal government for the RCMP to provide municipal policing services receive fine revenues. Any municipality that has an enhanced policing service contract with the province or has employed peace officers will receive fine revenues generated by those officers. Approximately \$35 million in fine revenue was returned to municipalities in the Capital Region in 2006.

The financing of police services is a concern for many municipalities. They argue that it is inherently unfair that some municipalities have to absorb the costs of policing within their jurisdictions when others do not. A good example of this issue exists within the tri-municipal area in the western part of the Capital Region. The City of Spruce Grove pays for 90 percent of policing costs, the Town of Stony Plain pays 70 percent, and Parkland County's policing is funded by the province.

5.2.3.2 Regional Coordination

The municipalities in the Capital Region emphasize that there are good working relationships between the EPS, the Provincial Capital District of K Division RCMP, and each of the detachments in the Capital Region. Several RCMP detachments currently serve a number of municipalities and provide back-up services for other detachments. Joint EPS and RCMP initiatives like the Metro Edmonton Gang Unit³⁵, the Internet Child Exploitation Team and the EPS/RCMP marijuana investigative team (Project Green Team) are proving to be effective approaches to dealing with major issues in the Capital Region. Air-1, the EPS helicopter, responds to calls from any EPS or RCMP officer. In summary, mutual aid agreements are in place, some information and data are being shared, and joint training is taking place.

While regional coordination and integration between police services is prevalent at an operational level, municipal and police officials noted that integration is more difficult at a strategic or planning level. While many of the municipalities in the Capital Region have worked with their respective policing authorities to develop community policing plans, a regional policing plan is not in place and there are no formal means or immediate financial incentives to establish a regional plan. This will be a challenge in the future, as there will be ongoing pressures to increase efficiencies and make better use of resources.

5.2.3.3 Attraction and Retention of Officers

Both the EPS and the RCMP are experiencing difficulties in attracting and retaining staff. Both services³⁶ indicated that they would need to implement aggressive recruitment initiatives over the next decade. The EPS emphasizes that while current recruitment initiatives will address attrition rates over the next two years, expansion of the service will be difficult to accomplish before 2009. The RCMP is currently involved in a national human relations planning initiative that is designed to ensure sufficient numbers of recruits are available over the next few years.

The policing sector is subject to the same human resource challenges facing other industry sectors, including an aging workforce, high attrition rates, and a complex work environment.

The increasing use of technology, the implementation of new service delivery models, and increasingly complex criminality are making effective policing more complex and time and resource intensive. As a result, recruiting and retaining police officers will be more difficult in the future.

The EPS and the RCMP are competing for the same staff in an increasingly tight labour market.

³⁵ The Metro Edmonton Gang Unit was piloted in 2005 and made official in 2006 with partial funding from Alberta Solicitor General and Public Security.

³⁶ The Canadian Association of Chiefs of Police, Canadian Police Association and Human Resource Development Council have undertaken baseline research on human resource demands in the policing sector. The research indicates that recruitment of new staff is one of the critical factors facing police services across the country.

Police officials in several municipalities indicated that social infrastructure in the Capital Region plays an important role in EPS and RCMP efforts to attract and retain staff. Access to affordable housing and community services, day care in particular, are critical for new EPS and RCMP staff.

5.2.3.4 Varying Levels of Service within the Region

Many municipalities are concerned with the varying levels of police service across the region. While there is an appreciation that it isn't necessary or appropriate to have uniform service levels across the region, concerns were expressed that some areas (e.g. villages, hamlets and country residential subdivisions) in the Capital Region may be under served from a policing perspective.

5.2.3.5 Increasing Demands for Service

Most of the municipalities in the Capital Region emphasized that their police authorities are coming under increasing pressure to respond to new issues and types of crime. Several of the smaller urban municipalities in the region report that they are beginning to deal with issues associated with drug trafficking, gang activity and serious youth crime, things that may have previously been concentrated solely in Edmonton. Many municipalities in the Capital Region have also indicated that property crimes like break and enters, theft from vehicles and vandalism are also increasing.

The need for police services in the Capital Region will grow in response to demographic, societal and economic changes. Population and job growth will result in increased demands for police service. International in-migration will present new challenges to the EPS and RCMP as both services are committed to providing culturally sensitive services.

Traffic enforcement is a core responsibility of both the EPS and the RCMP, supported by Alberta Sheriffs. Municipalities are reporting that their police authorities are expending considerable resources in this area as volumes of commuter and commercial traffic increase across the region.

These demands have:

- Forced police authorities to reallocate resources and restructure their operations to focus on priority services; and
- Placed significant pressures on Provincial and Municipal budgets; and raised public concerns with community safety.

5.2.3.6 Pressure on Municipal Budgets

Community surveys³⁷ consistently rank policing as one of the highest priority of citizens. Municipal councils respond to this reality and allocate significant resources to policing. Municipal

³⁷ Many of the municipalities in the Capital Region undertake citizen satisfaction surveys and community needs assessments to gauge public satisfaction with municipal services.

budgets often reallocate resources from other municipal service areas to ensure that police services are adequately funded.

A number of municipalities in the Capital Region are allocating increasingly higher levels of funding to employ bylaw and peace officers to complement existing policing resources.

Examples of how six Capital Region municipalities are augmenting policing services through peace officers and bylaw officers are provided below.

St. Albert

The City's Municipal Enforcement Service responds to public complaints and enforces municipal bylaws and specific provincial statutes. The officers in the unit are employees of the City, appointed as bylaw enforcement officers under the authority of the *Municipal Government Act*. Most officers are also appointed as peace officers under the authority of the *Peace Officer Act*. The unit maintains a strong relationship with the RCMP and works out of the St. Albert RCMP detachment. They enforce sections of the *Traffic Safety Act* (e.g., speeding and seatbelt infractions); conduct commercial vehicle inspections; enforce parking bylaws, and undertake dog control.

Spruce Grove

The Enforcement Officers are Alberta peace officers. They enforce several pieces of legislation within the City of Spruce Grove:

- The Bylaws of the City;
- *Traffic Safety Act*;
- *Weed Control Act*;
- *Gaming and Liquor Control Act*; and
- *Provincial Offences Procedures Act*.

Parkland County

The County works with the RCMP and Alberta Solicitor General and Public Security to enforce the *Traffic Safety Act* as well as municipal bylaws. Peace officers strive to enhance safe and healthy communities through the enforcement of provincial statutes (i.e., *Traffic Safety Act*, *Gaming and Liquor Act*, etc.) and municipal bylaws (i.e., Noise and Off Highway Vehicle Bylaws).

Additional services provided by peace officers in Parkland County include:

- Working with Alberta Transportation to target unsafe commercial vehicles;

- Protecting local infrastructure through overweight enforcement (commercial vehicles);
- Monitoring traffic safety in school zones;
- Patrolling residential areas in an effort to prevent break and enters and vandalism of property;
- Off highway vehicle enforcement; and
- Patrolling industrial areas and municipal parks.

Leduc County

Leduc County peace officers provide a level of traffic safety on County roads through the enforcement of provisions of the *Motor Transport Act*. Peace officers provide public education on weights and dimension regulations and are involved in traffic safety programs and public education initiatives.

They also assist other law enforcement agencies in the region with investigations, issues, and other concerns that may arise. Peace officers maintain an effective liaison with other agencies, and establish formal and informal partnerships to respond to issues of mutual concern.

Peace officers assist Parks and Recreation staff in maintaining peace and public order in County parks and campgrounds. This includes enforcing the Parks Bylaw, and other legislation.

They also enforce the provisions of the *Off Highway Vehicle Act* and Off Highway Vehicle Bylaw, and educate the public on issues relating to this legislation. Peace officers assist the RCMP with snowmobile patrols in the County.

Beaumont

Peace officers provide law enforcement services within the community, in conjunction with RCMP constables, and provide enforcement of federal and provincial laws, as well as town bylaws.

Bylaw enforcement officers ensure that sign regulations are adhered to. They also enforce bylaws respecting fires, smoking in public places, garbage, traffic, snow removal, noise abatement, animal control and parks.

Edmonton

The City's Municipal Enforcement Officers and Animal Control Officers protect the health, safety and welfare of citizens by promoting compliance to community standards and animal control bylaws. They investigate bylaw complaints received from citizens about animal matters, zoning regulations, public and private property infractions and parking. Officers educate residents and business owners about responsible citizenship.

5.3 PLANS

The responsibility for long-term planning of policing services within the Capital Region is shared by the provincial government, the RCMP and individual municipalities.

5.3.1 Provincial Plans

The Government of Alberta 2007-10 Strategic Business Plan identifies “providing safe and secure communities” as one of five government priorities. To this end, the government has:

- Established a policing and safe communities task force;
- Developed the Alberta Traffic Safety Plan; and
- Announced additional help for victims of family violence and bullying.

The Ministry of Solicitor General and Public Security has identified a number of strategic priorities in its 2007-10 Business Plan:

- Establish an Integrated & Coordinated Services Network to ensure effective coordination of federal, provincial and municipal enforcement and public security agencies through implementation of initiatives such as the integrated information and communications technology strategy.
- Renew the Provincial Police Service Agreement (PPSA) with the RCMP to ensure the ongoing provision of policing services for the citizens of Alberta. This would include the development of a law enforcement framework to better coordinate agents such as sheriffs, special constables and private security providers.
- Support the Crime Reduction and Safe Communities Task Force.
- Implement an Integrated Crime Reduction Strategy.

There are currently no formal provincial plans in place to address the specific policing needs of the Capital Region. Alberta Solicitor General and Public Security has begun work on developing a new framework for policing across the province.

5.3.2 RCMP Plans

The RCMP introduced a new service delivery model for the Capital Region in late 2003. Through the establishment of the Provincial Capital District, the RCMP is better positioned to integrate service delivery to communities in the Capital Region. The District includes the member municipalities of the Alberta Capital Region Alliance.

The Provincial Capital District is divided into four quadrants based on county boundaries. The St. Albert detachment is included in the Sturgeon County quadrant. With the exception of the St. Albert, Beaumont, and Devon detachments which provide a purely municipal service, all of the RCMP detachments in the area are comprised of a mixture of provincial and municipal police resources. Each quadrant has a RCMP Commissioned Officer In Charge.

The primary objectives of the new regional delivery model are to improve front-line services, eliminate duplication and reduce overheads. The regional model is designed to better integrate services from different detachments and to provide back-up support in emergencies. Better integration will enable RCMP officers across the region to exchange criminal intelligence and to conduct targeted investigations of major crimes that extend beyond municipal or detachment boundaries. Opportunities to share resources (e.g., mobile command centres and intelligence gathering tools) have also been created.

The implementation of the regional service delivery model is still underway. The Provincial Capital District is evaluating the implementation of the new delivery model and will work with individual detachments and municipalities in the Capital Region to consider future requirements for officers and new or expanded detachments. While the Provincial Capital District and its detachments prepare short-term plans which address resource demands, formal long-term plans are not currently in place within the District.

5.3.3 Municipal Plans

Municipal planning for policing services varies across the Capital Region. Rural and small urban (less than 5,000 population) municipalities that are not responsible for delivering or financing police services typically do not have formal long-term policing plans in place. They will work directly with the RCMP detachments and the provincial government to address concerns with the level of policing services within their communities. The focus of these discussions are on immediate needs and issues. There is interest within many Capital Region municipalities to implement longer-term budget planning processes which would assist in identifying future policing resources at the community level.

There is a greater onus on municipalities that are responsible for delivering police services to ensure that long-term plans are in place. The EPS works closely with the Edmonton Police Commission and Edmonton City Council to ensure that future service and infrastructure requirements are identified. Most of the other larger urban municipalities within the Capital Region work closely with their RCMP detachments to ensure that policing plans are in place.

5.3.3.1 City of Edmonton

The City of Edmonton launched a new delivery model for providing front-line police services to the citizens of Edmonton in 2007³⁸. Described as the most significant change made to policing in Edmonton in 20 years, the model was designed to:

- Address inconsistency in response times across the city;
- Address mismatches between patrol deployment and workloads; and
- Allocate additional time to proactive or specific problem-solving activities.

The new model divides the city into five divisions, each with four districts. Staffing is based on three performance goals:

- Seven-minute response time, on average, to emergency calls;
- 25 percent of patrol time for directed proactive work; and
- One patrol unit free in each division at any given time.

This model will define the future delivery of policing services in the City of Edmonton. It defines the need for station infrastructure and police officers. The new model (and the computer software that supports it) provides the EPS with a tool to forecast future staffing and budget needs. The EPS anticipates it will be ready to initiate a long-range staffing plan starting in 2008.

The EPS has identified a number of infrastructure projects within the City of Edmonton's 2007-11 Capital Priorities Plan and its Long Range Financial Plan (10 years). The City recently completed the construction of the Southeast Division Station and has approved over \$20 million for the construction over the next three years of a new Southwest Division Station. Annual funding over the next five years has also been approved for the rehabilitation of existing police facilities.

The EPS has also identified the following major facility projects over the next ten years:

- expansion of the Headquarters Building / Downtown Division Station (\$85 million);
- construction of a Northwest Division Station (\$22 million) to accommodate the move to a six-division model to accommodate population growth in the city;
- enhancement of the Officer Safety Training Centre (\$14 million); and

³⁸ Edmonton Police Service, *Delivering Service. Achieving Results. A New Patrol Service Delivery Model*, 2007.

- construction of an Arrest Processing Facility to replace the current facility within the Headquarters Building (\$14 million).

5.3.3.2 Municipalities with RCMP Contracts

The nine municipalities³⁹ that have entered contracts with the RCMP to provide municipal policing services work closely with their respective RCMP detachments to ensure that service and infrastructure needs are properly defined. While some of these municipalities have specific policing plans in place (e.g., Devon Police Business Plan, St. Albert Policing Services Long Term Department Plan, Strathcona County 10-year Resource Plan), most address policing plans through their respective corporate business or strategic planning processes. These types of plans typically do not provide budget approval for policing services.

Decisions with respect to service levels (including number of police officers) and infrastructure are made through annual budget processes. As such, long-term financial commitments to policing are not in place in these municipalities.

5.4 PROJECTED SERVICE AND INFRASTRUCTURE NEEDS AND GAPS IN THE CAPITAL REGION

While there is not necessarily a direct relationship between population growth and the size of a police service, a logical argument can be made for increasing the number of police officers and stations within a community as its population increases.

Other influencing factors include:

- Service delivery changes, including new policing delivery models and specific initiatives (e.g., drug units);
- Changes in crime rates;
- Personnel policies regarding deployment of officers and back-up;
- Labour code amendments respecting the number of officers required to respond to specific calls;
- Technological changes including advanced communications equipment;
- Changes in public expectations; and
- Social trends (e.g., changes in age cohorts) that could affect service demands.

³⁹ Beaumont, Devon, Fort Saskatchewan, Leduc, Morinville, Spruce Grove, St. Albert, Stony Plain, Strathcona County (urban area)

For the purposes of developing first draft order of magnitude staffing and infrastructure estimates for this project, a more simplified approach has been adopted. Further work is required to refine these estimates.

The analysis focuses on the forecasted population impact on the number of police officers and police stations in the Capital Region. For the purposes of forecasting the number of new police officers required, the analysis is divided into two 5-year periods:

- 2006-2011; and
- 2011-2016.

Future estimates were based on maintaining existing ratios of police officers and stations to population in the Capital Region.

5.4.1 Police Officers

For the purposes of understanding the future requirement for police officers in the Capital Region some important factors must be considered. The ratio of police officers to population is but one component in a complex formula that should consider crime rates, the types of crime being committed, demographics, community expectations and other factors. The number of police officers in a jurisdiction is determined by the police service and the local government. The EPS and RCMP use different methodologies for determining this. In addition, the EPS is a self-contained service, whereas the RCMP detachments in the Capital Region receive administrative support and specialized operational support from the provincial police service and K Division. Finally, the successful and favourable re-negotiation of the agreement with Canada for the services of the RCMP will directly impact policing services in the Capital Region.

5.4.1.1 City of Edmonton

Statistics Canada reports that in 2006 the City of Edmonton had 189 officers for every 100,000 people, or 1,356 officers for its population of 718,788. As presented in Table 5-6, in order to maintain the existing ratio of 189 officers per 100,000 population, the EPS would need to increase its complement of police officers to 1,535 by 2011. This would represent an increase of 179 officers over the next five years, or about 36 officers per year.

An additional 128 officers would have to be added to the EPS over the five year time period between 2011 and 2016, or approximately 25 officers per year. In total, it is estimated that 307 police officers will need to be added to the EPS to maintain a 189 officer to 100,000 population ratio.

In addition to attracting and training 307 officers to accommodate the growth of the city over nine years, the EPS will need to replace officers who retire over the same time period. As noted earlier, this is a significant issue for most police services across the country.

5.4.1.2 Capital Region Outside of Edmonton

Statistics Canada reports that the Edmonton census metropolitan area had 1,659 police officers in 2006, or 162 officers for every 100,000 people. Extracting the EPS estimates, there were an estimated 303 police officers (RCMP) serving a population of 306,158, or 99 police officers for every 100,000 people⁴⁰.

Table 5-6 Projection of Police Officers Required in the City of Edmonton

Year	Population	Police Officers	Increase over 2006	Officers per 100,000 Population
2006	718,788	1,356		189
2011	812,112	1,535	179	189
2016	880,144	1,663	307	189

Sources: Population projections from Applications Management Consulting Ltd.; 2006 data from Statistics Canada.

Table 5-7 illustrates that in order to maintain the existing ratio of 99 officers per 100,000 people, the RCMP complement in the Capital Region would need to increase to 370 by 2011. This would require hiring an additional 67 officers over the next five years, or just over 13 officers per year.

An additional 32 officers would have to be added to the RCMP complement over the five year time period between 2011 and 2016, or approximately six officers per year. In total, about 99 police officers would need to be hired by the RCMP to maintain a 99 officer to 100,000 population ratio in the Capital Region.

The majority of the new officers would be required within the detachments that provide services to areas where the population is forecasted to increase significantly over the ten year time period. While every detachment will likely require additional staff to accommodate growth, analysis of data at the detachment level indicates that the Fort Saskatchewan, Morinville, Redwater and Beaumont detachments will likely require relatively larger increases.

5.4.2 Police Stations

5.4.2.1 City of Edmonton

The EPS currently provides policing services out of five division and ten community stations. This implies ratios of:

- One division station for every (approximately) 148,000 people; and

⁴⁰ Statistics Canada data indicates that the officer per 100,000 population ratio varies between 79 and 130 at the detachment level across the Capital Region.

- One community station for every (approximately) 74,000 people residing in Edmonton.

Population forecasts provided by Applications Management Consulting Ltd. indicate that the number of people living in Edmonton will increase by over 140,000 by 2016. This would indicate that the EPS would likely require another, its sixth, division station and two more community stations.

The EPS recently opened its Southeast Division Station and will be constructing a new Southwest Division Station over the next three years. It has identified the need for a Northwest Division Station before 2011 and a major expansion of Police Headquarters before 2016.

Table 5-7 Projection of Police Officers in Capital Region Outside Edmonton

Year	Population	Police Officers	Increase over 2006	Officers per 100,000 Population
2006	306,158	303		99
2011	373,559	370	67	99
2016	406,124	402	99	99

Sources: Population projections from Applications Management Consulting Ltd.; 2006 data from Statistics Canada.

As the EPS typically uses leased space to accommodate community police stations, it does not include these types of facilities in its long-range capital plans.

The EPS has identified the need for a number of new facilities over the next 10 years:

- Officer Safety Training Centre;
- Arrest Processing Centre;
- Integrated Operational/Storage Facility;
- Amalgamated Traffic, Tactical and Flight Operations Facility;
- DNA lab;
- Communications Centre; and
- Back-up Communications Centre.

5.4.2.2 Capital Region outside of Edmonton

There are eleven RCMP detachment buildings⁴¹ located across the Capital Region. With the exception of the St. Albert, Devon and Beaumont detachments, each of these detachments provide both municipal (urban) and provincial (rural and small urban) policing services.

As a whole, the eleven detachments currently provide policing services to just over 300,000 people. This would imply that a detachment is required for every 30,000 people. However, this ratio does not account for the fact that the size of detachments across the region vary considerably. Large detachments like those located in Strathcona County and St. Albert serve over 50,000 people while smaller detachments like those located in Beaumont and Devon serve less than 10,000 people.

It is unlikely that three new detachments will be required to serve the ten-year forecasted increase of over 100,000 people in the Capital Region outside of Edmonton. It is more likely that several existing detachments will need to be expanded or relocated to larger facilities within their respective municipalities. It is also likely that larger urban municipalities will develop and implement RCMP community police stations. This has already taken place in St. Albert with the co-location of a community station within the new Servus Place complex and in Strathcona County where a satellite office has been located in Heartland Hall.

Analysis of forecasted population increases in municipalities across the Capital Region suggests that most detachments will be required to accommodate additional officers. The magnitude of changes at existing detachment buildings will depend on their respective capacities to absorb new staff members.

In addition to modest expansions at many detachments, it is likely that:

- The existing satellite RCMP detachment in Gibbons⁴² will need to be upgraded to a fully operational detachment;
- Fort Saskatchewan will require a much larger facility to accommodate significant growth in both Fort Saskatchewan and Bruderheim;
- A new rural detachment will be required in Lamont County to relieve pressure on the Fort Saskatchewan detachment; and
- Stony Plain will require a new facility to house its detachment.

⁴¹ The detachment located at the Edmonton International Airport does not routinely provide municipal policing services and is therefore excluded from this analysis.

⁴² Gibbons will exceed the 5,000 population threshold over the next ten years and will therefore become responsible for funding municipal policing services.

The requirement for new or expanded facilities in the northeast quadrant of the Capital Region is strengthened by the fact that the workforce for the construction of upgraders in the area will be accommodated, by a disproportionate number of males in their 20s and early 30s, a population that is sometimes more likely to be drawn in to activities necessitating police involvement.

5.4.3 Summary of Service and Infrastructure Gaps

There will be a requirement to hire approximately 45 new additional police officers in the Capital Region every year for the next nine years (2008 to 2016). The annual increase in the number of officers required will be slightly higher between 2008 and 2011 than in the five-year period after 2011. A standard full-cost estimate of \$110,000 per officer (the current rate of operating costs per officer) suggests an annual incremental cost of \$5.0 million will be required to hire new officers for the EPS and the RCMP.

It is projected that by 2011, the EPS will have hired an additional 179 officers to accommodate growth in the City of Edmonton. As highlighted in Table 5-8, it will cost approximately \$20 million in 2011 to pay these officers. By 2016, it is projected that the EPS will require 307 officers to accommodate growth. It will cost approximately \$29 million to pay for these officers in 2016.

It is projected that by 2011, the Provincial Capital District of K Division RCMP will have hired an additional 67 officers to accommodate growth in the Capital Region outside of Edmonton. As highlighted in Table 5-8, it will cost approximately \$7 million in 2011 to pay these officers. By 2016, it is projected that the RCMP will require 99 officers to accommodate growth. It will cost approximately \$11 million to pay for these officers in 2016.

Table 5-8 Summary of Police Service Gaps – Operational Costs

Estimated Number of New Officers	Average Annual Increase	Estimated Operating Cost of New Officers in 2011	Estimated Operating Cost of New Officers in 2016
		<i>2007 Constant \$ million</i>	
City of Edmonton	36	\$20	\$34
Other Municipalities in the Capital Region	11	\$7	\$11
Capital Region	47	\$27	\$45

Table 5-9 lists the major facilities that the EPS has identified in its 2007 Approved Budget and 2007-2011 Capital Plan. While funding is in place to construct a new division in the City's southwest, the construction of a Northwest Division Station is currently unfunded. Table 5-9 also presents other major EPS facility requirements over the next ten years. The costs for new community division stations are not identified here as the EPS traditionally uses operating funds to lease these types of facilities. Capital infrastructure requirements for the EPS over the next ten years will exceed \$190 million.

Table 5-9 Summary of Police Infrastructure Needs - EPS

Identified in Long-term Plans	Capital Cost Requirement 2007 Constant \$ Million
Southwest Division Station	\$24
Northwest Division Station	\$22
Police Headquarters Expansion	\$86
Officer Safety Training Centre	\$19
Arrest Processing Facility	\$14
Communications Centre	\$4
Back-up Communications Centre	\$2
Downtown Division Renovations	\$3
DNA Laboratory	\$3
Integrated Operational/Storage Facility	\$9
Amalgamated Traffic, Tactical and Flight Operations Centre	\$4
Kennel Expansion	\$1
Total	\$191

Note:

The EPS 2007 - 2011 Capital Plan identifies that only \$30 million of financing has been committed to these projects (\$21 million to the Southwest Division Station). While the remaining projects are included in the plan, they are currently listed as "unfunded".

Table 5-10 Summary of Police Infrastructure Needs - RCMP

Projected RCMP Detachment Buildings	Capital Cost Requirement 2007 Constant \$ Million
Expansions at existing detachments	\$10
Expansion or replacement of Fort Saskatchewan Detachment ⁴³	\$5 - \$10
Development of a new Gibbons Detachment	\$3
Development of a new Lamont County Detachment	\$5
Expansion or replacement of Stony Plain Detachment	\$7
Total	\$30 - \$35

Table 5-10 presents a summary of the capital requirements to accommodate RCMP expansion throughout the Capital Region. Total costs are estimated at between \$30 and \$35 million, including:

- \$5-\$10 million to fund a new Fort Saskatchewan detachment to accommodate significant growth in both Fort Saskatchewan and Bruderheim;

⁴³ The cost of a new facility for Fort Saskatchewan is dependent upon whether it is located in a new building or at its current location.

- \$10 million to fund minor to modest expansions of RCMP detachments across the Capital Region;
- \$3 million to upgrade the existing satellite RCMP detachment in Gibbons to a fully operational detachment;
- \$5 million to develop a new rural detachment to serve Lamont County; and
- \$7 million to develop a new facility to house the Stony Plain RCMP detachment.

5.5 CONCLUSIONS

In reviewing policing services as delivered within the Capital Region we note that:

- Growth will result in the need for additional EPS and RCMP officers and new or expanded police stations across the Capital Region. Capital cost requirements to new or expanded police buildings and facilities to accommodate growth related needs total \$220 to \$225.
- Additional annual operating costs required to pay new police officers in the Capital Region in 2011 are estimated at \$27 million. The annual operating cost for new officers to handle growth in the region will reach \$45 million by 2016.
- Planning by the provincial and federal governments, the RCMP, municipalities, and the EPS is typically undertaken over a relatively short -- one to three year -- time period. Both the EPS and the Provincial Capital District of K Division RCMP have recently implemented new deployment models and anticipate that these models will improve resource forecasting in the future.
- Recruitment and training of new police officers will be difficult over the next ten years. Both the EPS and the RCMP, like most police services across the country, already face challenges in attracting and retaining police officers. Both services are experiencing significant retirement rates.
- While police services across the Capital Region are well coordinated at the operational level, regional planning and coordination at a strategic level is lacking. The EPS and K Division's Provincial Capital District could work together at a senior level to explore options for policing the Capital Region over the next ten years. Specific attention could be given to:
 - How their respective new service delivery models support each other;
 - How to address projected population and employment growth in the Capital Region; and

- The potential impact on policing in the region as the current PPSA comes to an end in 2012.
- The Public Security Peace Officer Program has emerged as a viable complementary program for police services, with 3,000 peace officers and 600 sheriffs employed in Alberta. The use of peace officers and sheriffs is having an impact on meeting local community needs for public safety; however, further analysis will be needed to understand the full impact.
- Municipalities in the Capital Region will continue to raise concerns with perceived inequities in the way policing services are financed.

6. EMERGENCY SERVICES

6.1 INTRODUCTION

In this section both fire and ambulance services within the Capital Region are discussed. These services are provided by all municipalities in the Capital Region. For the most part, fire services are funded by municipalities from their tax base. Ambulance services, on the other hand, are under municipal jurisdiction but municipalities receive some funding from Alberta Health and Wellness. The amount available to each community was established in 2005 and totalled \$55 million for all municipalities in the Province with the exception of those in Palliser and Peace Health Regions. That amount has been capped for each municipality and is conditional on it being spent on ground ambulance service. For the Capital Region, the ground ambulance grants to municipalities total \$19 million. In addition to fire suppression, fire departments provide rescue services (particularly regarding motor-vehicle accidents) and hazardous materials incidents and often coordinate disaster planning for a municipality or an industrial area. For the purposes of this research, the definition of emergency services has been limited to fire departments and ambulance services.

Throughout this analysis the focus is on the number of ambulance stations and the number of fire stations that will be required to provide emergency services coverage for the anticipated growth in the Capital Region over the next ten years.

In terms of the perceived importance of emergency services, as indicated in the first section of this report, ambulance and fire services are considered to be pressing or very pressing issues in the Capital Region by 41 percent and 19 percent of municipalities respectively.

6.2 CURRENT SITUATION

6.2.1 Infrastructure

A total of 62 fire stations (including those jointly occupied by ambulance services) are located throughout the Capital Region. Figures 6-1 and 6-2 show the location of those fire stations, with Figure 6-1 locating the 38 stations in the region outside the City of Edmonton and Figure 6-2 identifying the location of the 24 fire stations within the City of Edmonton.

In addition to the municipal fire services available in the region, there is a fire service located at the Edmonton International Airport, which is the first responder to incidents at the airport. This service draws on Leduc County for backup services. A review of emergency services in the Leduc/Nisku/Airport region is currently examining ways Leduc County, the City of Leduc and Edmonton Airports can provide more efficient and cost-effective services.

Other fire services in the region include a number of industrial fire stations attached to major industry. There are seven such services in Strathcona County, for example, and more anticipated to accompany upgrader developments in the Industrial Heartland.

The analysis identified 35 ambulances (exclusive of backup units) operating out of 21 ambulance stations in the region surrounding Edmonton and 32 ambulances operating out of 13 stations in the City of Edmonton. In addition, Edmonton utilizes four roaming paramedic response units.

Figure 6-1 Map 1 - Fire Stations Outside the City of Edmonton

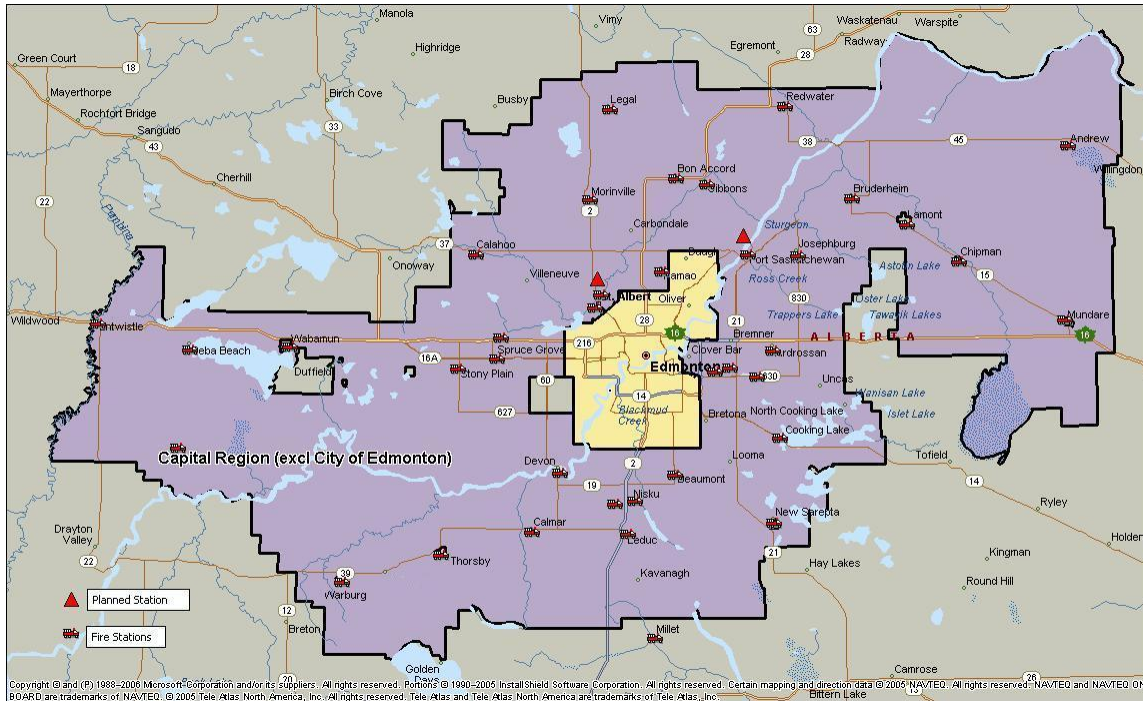
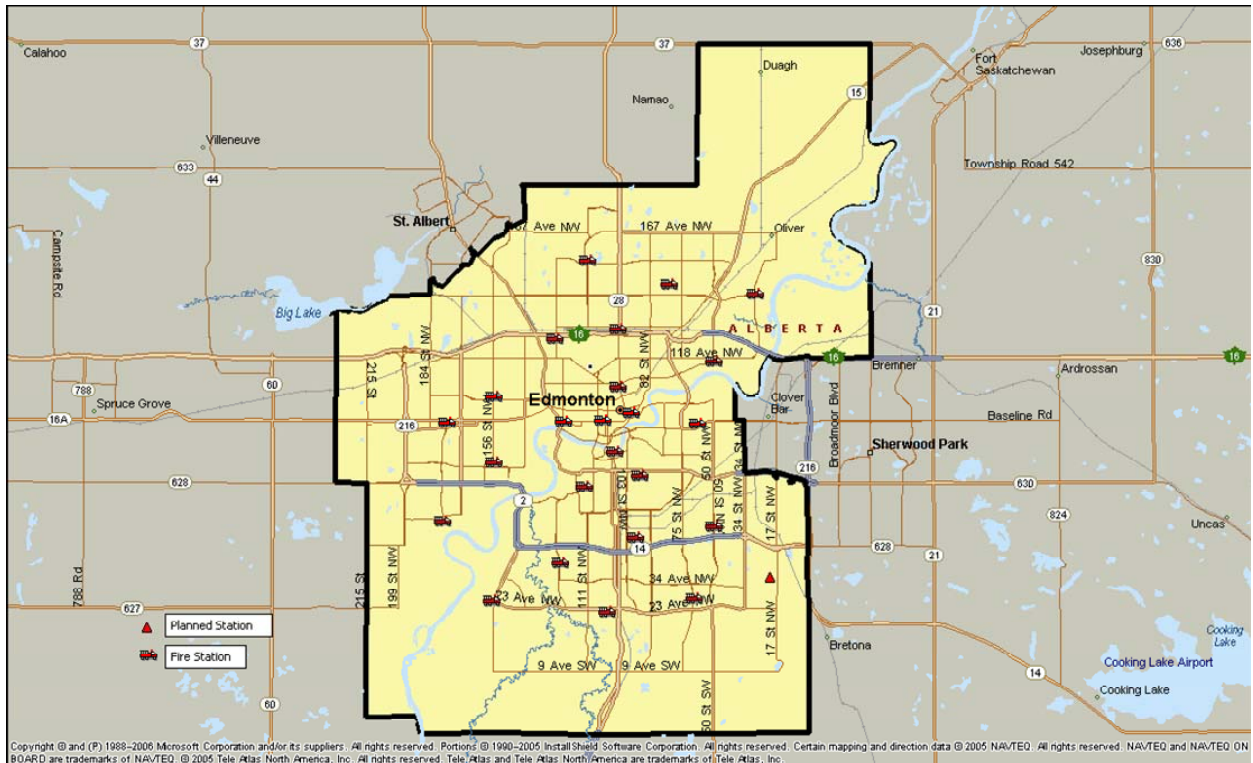


Figure 6-2 Map 2 - Fire Stations Within the City of Edmonton

These units cannot transport patients, but can provide a rapid medical response in newer areas of the city where ambulance stations are not currently available.

The ambulance stations in the Capital Region range in terms of amenities and costs from a garage and a basement of a home for crews to await calls, to co-location in fire stations, to stand-alone facilities with kitchens and crew recreational facilities. Figures 6-3 and 6-4 present these locations.

6.2.2 Issues

6.2.2.1 Issues Related to Fire and Ambulance Services

Municipalities have significant flexibility in terms of how they deliver emergency services. Delivery models vary across the Capital Region in terms of:

- the level of integration between fire and ambulance services;
- the level of coordination with other municipalities in the region; and
- reliance on volunteers.

In terms of the level of integration, some municipalities operate fully integrated and fully cross-trained emergency services departments with each member capable of providing both ambulance

service and fire suppression (e.g. Strathcona County and the City of Spruce Grove). Other municipalities have varying levels of integration and others have distinctly separate fire and ambulance services.

Coordination of service delivery with other municipalities also varies from municipality to municipality. Some municipalities have service agreements with neighbouring municipalities to provide fee-based services to portions or all of their municipality. Various other arrangements are in place throughout the Capital Region to share in capital costs, equipment purchases, equipment backup provisions (when key pieces of equipment require servicing and are not available to respond), and training. There are also mutual aid agreements and backup agreements in place that identify alternative fire and ambulance services to lend assistance to first responders in the event that their assistance is requested.

The volunteer nature of some fire and ambulance services is another distinguishing feature of emergency services within the Capital Region. Several of the municipalities operate with a volunteer fire fighting service. Others employ career fire fighters. There is one ambulance service in the region that is operated by volunteers. Discussions with municipalities suggest that there are pressures to move toward replacing volunteers with paid staff. Volunteers are difficult to recruit and require training. Some municipalities are finding that their volunteers are not staying involved as long as they did in the past and some report losing trained volunteers for career positions in the larger urban centres. Reliance on volunteers also causes concerns about the adequacy of coverage in the daytime when some volunteers are unable to leave their jobs or work outside the region.

Figure 6-3 Map 3 - Ambulance Stations Outside the City of Edmonton

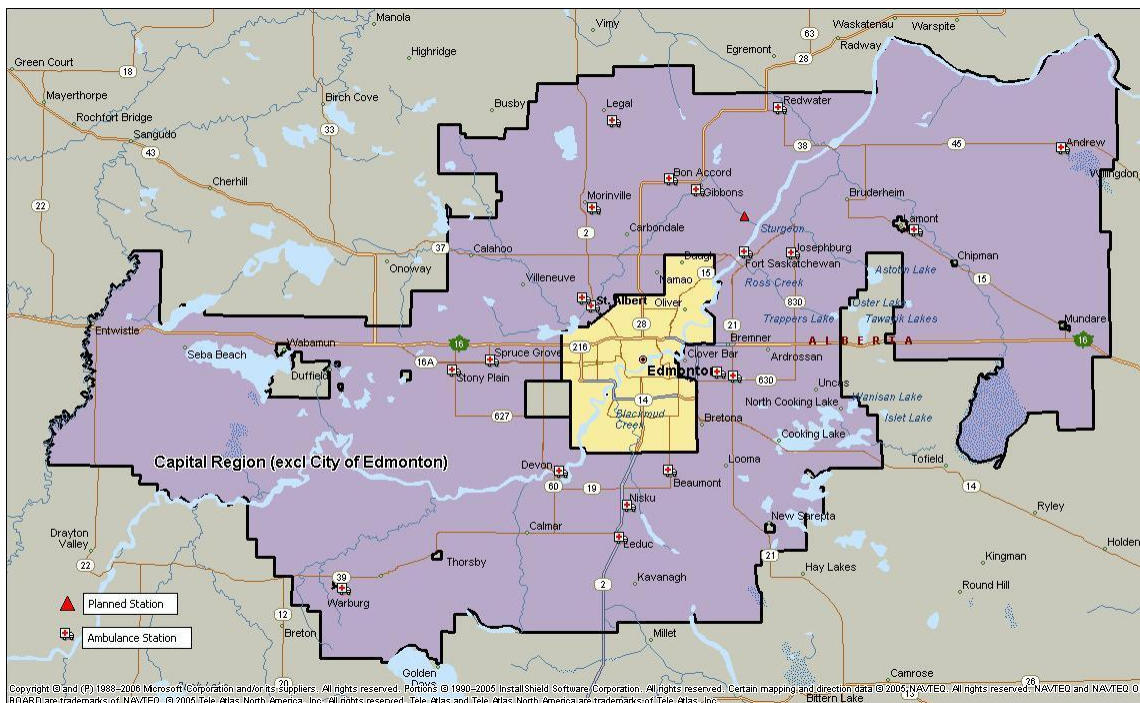
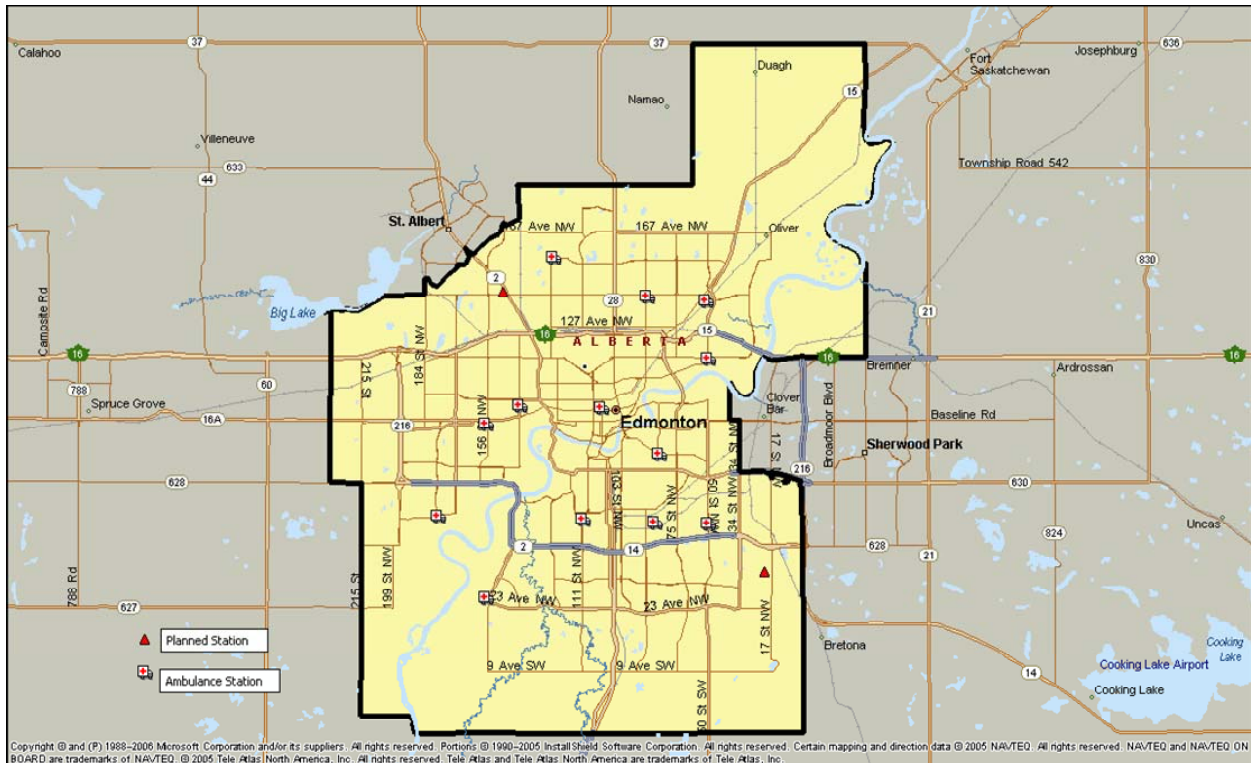


Figure 6-4 Map 4 - Ambulance Stations Within the City of Edmonton

All fire services in the region are provided directly by municipalities, either independently or collaboratively. However, ambulance services are different. In some instances, the service is provided by the municipality, in other cases it is provided by a consortium of municipalities that have come together to form an ambulance authority. For example, the Parkland Ambulance Authority is a partnership of six municipalities that provides services not only to residents of the member municipalities, but also to other municipalities on a contract basis. Another delivery approach in the region is the contracting out of ambulance services to not-for-profit or for-profit businesses that charge municipalities fees for their services.

6.2.2.2 Issues Related to Fire Services

Growth will push a number of municipalities past the point where they can provide effective fire services with volunteers. Hectic employment schedules and expectations, long commutes and efforts to lead an urban lifestyle in a more rural setting are impinging on people's time and making it more challenging to find volunteers for the fire department and for other public services.

High turnover was also identified as an issue resulting from people being under increased pressure to work more and finding that they are unable to commit the volunteer time required to serve in a volunteer firefighting capacity. This high turnover rate means that more efforts are required to recruit and train a full complement of firefighters. Costs for recruiting and training are consequently higher.

Other issues expressed by municipalities in regard to fire services included:

- The fire hazard associated with current building codes which allow a large number of homes to be built close together in the interests of economy and with flammable exterior materials. This situation increases the potential for larger fires should one occur in these types of subdivisions.
- Disparities exist in terms of the current capitalization of fire services. Some municipalities consider their fire service to be under-equipped for the services that might be asked of them while in other municipalities there is a feeling that their fire service is well equipped and prepared to respond as required.
- Some of the municipalities served by volunteer departments have concerns with daytime fire response capabilities. This is a result of many volunteers working outside of the community and the unwillingness of some employers to allow their employees to be on call to the fire department while at work.
- Municipalities in areas close to where new upgraders are being built see the potential to be able to tap into a new resource for their volunteer force -- the highly trained emergency response workers who work for industry on-site within the region.
- Depending on the degree of self-sufficiency resident in the plants; the industrial growth in the northeast; the complexities of the plants, and the potential volatility and environmental risks associated with their products might advance the need for a career fire service in the Industrial Heartland. To the extent that growth in the Industrial Heartland increases the potential for disasters, there will be a requirement for a coordinated regional disaster plan that embraces issues pertaining to air quality, water quality, as well as wildlife and property damage protection.
- Development of upgraders in the Industrial Heartland could perhaps result in the deployment of "corporate" ambulances by the oil companies involved. Depending on the mutual aid agreements that might be put in place, these ambulances could be available to deal with acute-need situations in the region including backup at other upgrader sites and perhaps for non-industrial needs as well.

6.2.2.3 Issues Related to Ambulance Services

A few years ago, Alberta Health and Wellness considered taking over responsibility for ambulance services through the Regional Health Authorities. However, this plan was withdrawn prior to its proposed April 2005 implementation date.

This has left many municipalities in the province, including many of those in the Capital Region, questioning whether or not it is only a matter of time before this will be proposed again. Some suspect that it will. However, Alberta Health and Wellness will not confirm if it might reintroduce

the proposal. As a result, there is reluctance on the part of many municipalities to invest further in their ambulance services, as they might not be providing this service in the years ahead.

There is some disagreement among municipalities in the Capital Region about the preferred future for ambulance services. Some would like to see Alberta Health and Wellness take over responsibility for ambulance services. However, there is concern about whether their municipalities would have the same coverage and response times their residents have come to expect.

Ambulance operators point to a number of issues as having a potential impact on their future operations. The first relates to the time required to drop off patients at hospitals. Ambulance attendants are required to stay with their patients until they can turn over responsibility for patients to hospital staff. In recent years, these wait times have grown considerably, particularly at hospitals in the City of Edmonton. The average time spent in hospitals delivering patients increased to 52 minutes per incident in 2006 -- an increase of 36 percent in one year alone.⁴⁴ This contributed to the 2,157 System Alerts in 2006, triggered when there are three or fewer ambulances available to respond to calls throughout the City of Edmonton. This measure is up 120 percent over 2005.⁴⁵

Municipalities recognize that the aging of the population over time will increase future demand for ambulance services. Seniors are reportedly three times more likely to use an ambulance than non-seniors.⁴⁶

Other issues expressed by municipalities include the following:

- Ambulance services struggle to maintain a full complement of trained staff. There are reports of losing employees to industry due to industry's ability to pay higher levels of remuneration.
- Fees charged for extending ambulance services to other jurisdictions are often not sufficient for cost recovery.
- Costs borne by municipal tax payers for ambulance services are escalating rapidly as costs increase while provincial funding has been frozen.
- There has been an increase over an extended period of time in the number of rural subdivisions throughout the Capital Region. More people living further from the large population centres implies that there are more longer-distance ambulance trips. As the population continues to move to rural environments, the number of longer trips will increase.

⁴⁴ City of Edmonton Forecast Committee, *Edmonton Socio Economic Outlook 2007 to 2012*, May 2007, p. 38.

⁴⁵ Ibid.

⁴⁶ Edmonton Socio-Economic Outlook, 2007 - 2012, May 2007, p. 38.

6.3 PLANS

In the northeast portion of the region, Sturgeon County is building an \$8 to \$10 million fire and ambulance station to provide services in the surrounding area. The location of this new station has been selected in order to ensure prompt responses to the upgraders during their construction. Other plans for new fire stations include those of:

- St. Albert, where they expect to open a new fire hall in 2008.
- The City of Edmonton, which has started construction of a new fire station/ambulance station in the Meadows district in the southeast and is considering the development of a number of other fire stations. In addition an ambulance station is planned for the 137 Avenue/St. Albert Trail area.

6.4 PROJECTED INFRASTRUCTURE NEEDS AND GAPS

6.4.1 Fire Services

Currently the City of Edmonton has one fire station for every 30,000 people. Outside of the City of Edmonton in the Capital Region there are 8,000 to 10,000 people per fire station including both rural and urban services.⁴⁷ For the purposes of this analysis, we assume that City of Edmonton fire stations can handle a population in the order of 30,000 and fire stations outside of the City of Edmonton can effectively serve a population of about 10,000 on average.

Forecasts suggest that growth within the boundaries of the City of Edmonton will be in the order of 140,000 between 2006 and 2016. This implies the need for four or five new fire stations. We would expect new stations to be located in areas of highest growth and where there are no fire stations located currently. A review of the neighbourhoods that are anticipated to experience the highest growth in terms of the number of people over the time period are presented earlier in Table 2-4.

Given the need for an estimated four to five fire stations, the typical coverage population of about 30,000 people and the anticipated growth by community indicated in Table 2-4, it is likely that:

- two fire stations could be required in the southwest quadrant of Edmonton;
- two stations could be required in the northeast quadrant of the City; and
- one station could be required in the southeast. (Perhaps this need will be met by the one already under construction in the Meadows District.)

⁴⁷ Density of population is a key determinate of service areas. In the most rural of settings fire station coverage could be much fewer than 8,000 to 10,000 people and in the larger urban centres outside of the City of Edmonton coverage would be much greater.

With four to five fire stations required and one already planned and approved, there is a current planning gap of three to four stations. At an estimated \$5 million per station, the costs of the gap are estimated at \$15 to \$20 million. The total capital costs required to meet the growing demand for four to five stations is estimated at \$20 to \$25 million within the City of Edmonton.

Growth in the municipalities of the Capital Region that surround the City of Edmonton of 104,000 people could imply upwards of ten new fire stations. However, because much of this growth is expected to be in built up areas where distances are not as great (and therefore where fire stations could serve more people) we estimate the need for additional stations to range from six to ten, including any additional services that might be required in the northeast to address the needs of the upgrader construction sites.

As discussed earlier, there are two new fire stations that are known to be approved for development including one in Sturgeon County and one in St. Albert.

Fort Saskatchewan and Strathcona in the eastern part of the region as well as communities in the western part of the region are the most likely locations for new fire stations. As well, a new station is likely in or near the City of Leduc. It is also possible that some of the growth could be accommodated by expanding the capacity of some of the existing stations to the extent that areas of residential growth are in reasonable proximity to existing fire stations.

With the potential for six to ten new stations including any additional coverage that might be required in the northeast to address the needs of the upgrader construction sites and two already planned, there is an anticipated need for the planning of four to eight new stations to meet the demands of the Capital Region outside of the City of Edmonton. The capital costs of these four to eight unplanned fire stations are estimated at \$12 to \$40 million. The total costs of all fire stations required to serve the anticipated growth is \$18 to \$50 million.

Our analysis of data available from the Alberta Municipal Finance Information System (AMFIS) shows that, over the period from 2001 to 2005 and adjusted for inflation, the City of Edmonton spent between \$3.5 and \$4 million operating each of its fire stations. The annual operating costs in 2016 for the four to five new fire stations are estimated at \$14 to \$20 million. The average annual operating costs over the period will be approximately \$7 to \$10 million.

Other municipalities in the Capital Region spent approximately \$0.5 million⁴⁸ operating each of the stations in those municipalities. It is important to note that this category contains both career fire fighters and volunteers. Recognizing that new fire stations are more likely to involve career fire fighters, cost projections for new fire stations in the Capital Region outside of the City of Edmonton are based on double the annual operating cost estimates, or \$1 million. Based on this assumption, it is estimated that the annual operating costs in 2016 will be \$6 to \$10 million.

⁴⁸ From 2001 to 2005 and stated in 2005 dollars.

Average annual operating cost increases associated with the new stations will be \$3 million to \$5 million.

To summarize, infrastructure requirements related to fire service in the Capital Region under assumptions of a continuation of the current service delivery methods include:

- Four or five new fire stations within the City of Edmonton. At \$5 million per station to build and equip -- a 2007 estimate -- the costs of these stations will total \$20 to \$25 million in current dollars. Escalating construction costs will likely cause the final costs of these stations to increase;
- Six to ten fire stations located in municipalities surrounding the City of Edmonton could cost \$3 million to \$5 million each to build and equip depending on size, equipment and amenities. Capital costs of this new capacity in current dollars could run from \$18 million to \$50 million; and
- Annual operating costs in 2011 are estimated at \$10 to \$15 million for new fire stations and will increase to \$20 to \$30 million by 2016.

As noted earlier, there are pressures on municipalities to consider moving from volunteer to career fire services. One municipality suggested that the threshold population level for converting to a career fire service would be about 25,000 people. Both the City of Leduc and the City of Fort Saskatchewan have volunteer fire departments and are anticipated to reach that population threshold during the years covered by this analysis.

If we assume that the new fire stations were to be staffed by career fire fighters⁴⁹ and that the operating costs of the career services outside of the City of Edmonton are representative of the costs that would be incurred in new career fire services, we see the potential for the operating costs to more than double for the regional fire stations, pushing average annual operating costs for the entire region between 2008 and 2016 to \$18 to \$50 million. These costs are summarized in Table 6-1.

Note that these cost estimates are based on “average” fire stations and will differ to the extent that the stations that are built deviate from an “average” configuration.

⁴⁹ Given that the new services are likely to be located in Cities and other built up areas of the Capital Region where volunteerism is waning, it is possible that these new stations, staffing issues notwithstanding, would be staffed by professional fire fighters.

Table 6-1 Summary of Fire Station Infrastructure Gaps and Needs

	Fire Stations			Unplanned Facilities (Gaps)	Total Requirements
Capital Costs	Planned	Unplanned	Required	<i>2007 Constant \$ Million</i>	
City of Edmonton	1	3-4	4 to 5	\$15 to 20	\$20 to 25
Other Municipalities in the Capital Region	2	4-8	6 to 10	<u>\$12 to 40</u>	<u>\$18 to 50</u>
Total				\$27 to 60	\$38 to 75

Operating Costs (Current Delivery Methods)	Required by 2016	Estimated Operating Costs in 2011 of New Infrastructure	Estimated Operating Costs in 2016 of New Infrastructure
		<i>2007 Constant \$ Million</i>	<i>2007 Constant \$ Million</i>
City of Edmonton	4 to 5	\$7 to \$10	\$14 to \$20
Other Municipalities in the Capital Region	6 to 10	<u>\$3 to \$5</u>	<u>\$6 to \$10</u>
Total		\$10 to \$15	\$20 to \$30
Operating Costs (Career Firefighters)	Required by 2016	Estimated Operating Costs in 2011 of New Infrastructure	Estimated Operating Costs in 2016 of New Infrastructure
		<i>2007 Constant \$ Million</i>	<i>2007 Constant \$ Million</i>
City of Edmonton	4 to 5	\$7 to \$10	\$14 to \$20
Other Municipalities in the Capital Region	6 to 10	<u>\$10 to \$40</u>	<u>\$21 to \$80</u>
Total		\$17 to \$50	\$35 to \$100

As well, there have been no economies assumed in terms of those that could potentially result from joint ventures, service agreements and similar arrangements that could be used to reduce the need for additional fire stations.

6.4.2 Ambulance Services

The 21 ambulance stations in the region surrounding Edmonton and the 13 stations in the City of Edmonton service populations of approximately 300,000 and 740,000 respectively. This suggests that, at current service levels, an ambulance station can meet the needs of about 15,000 people in a regional environment where distances are greater, and can serve over 55,000 people in the urban environment of the City of Edmonton.

Population growth of 104,000 in the region outside of Edmonton and 140,000 within the City of Edmonton implies the need for up to seven new ambulance stations in the Capital Region surrounding Edmonton and three new ambulance stations in the City of Edmonton. Given that regional growth will serve to increase density and increase the size of the population that can be served by an ambulance station, perhaps a more realistic need for ambulance stations could be five or six.

Given the need for three additional ambulance stations to meet the needs of anticipated growth (see Table 2-4 presented earlier), it could be anticipated that one station could be required in each of the following sectors of the City of Edmonton:

- North/northwest;
- Northeast; and
- Southeast.

The ambulance station (adjacent to a Fire Station) in the Meadows District that is under construction could potentially address the needs of southeast Edmonton and the one in northwest Edmonton that is approved but for which a location has not been finalized might meet the needs of the north/northwest part of the City. This suggests the further need for one new ambulance station that might be required as a result of growth for which plans are not currently in place.

Plans for ambulance stations in the municipalities surrounding Edmonton include a joint facility with the fire services in Sturgeon County.

Costs for building ambulance stations can vary greatly depending on the amenities that are included. Recent experience in Edmonton suggests that the larger “start” stations - which is where staff report to work - can cost in the order of \$4 million per station. The smaller “post” stations -- the locations to which many ambulance crews are deployed after they report to work -- cost in the order of \$1 million to build. Currently 30 percent of the stations are “start” stations, suggesting that the average cost of an ambulance station should be in the order of \$1.9 to \$2 million in \$ 2007. Inflation will push the nominal costs of these stations higher.

For the purposes of this analysis the assumed cost is \$2 million per ambulance station. On this basis, the capital costs in current dollars for:

- the gap between planned and required ambulance stations within the City of Edmonton is \$2 million (one station);
- the ambulance station needs of the City of Edmonton will be about \$6 million.

Ambulance station requirements to address:

- gaps in planned stations are estimated at \$8 to \$10 million (four to five stations)
- overall need driven by regional growth at \$10 to \$12 million (five to six stations)

Operating costs for ambulance services are largely determined on the basis of the number of ambulances that are deployed. An estimate prepared by the City of Edmonton suggests that a fully staffed ambulance (24/7) complete with costs for staffing, depreciation, equipment and materials usage and other variable costs are in the order of \$1.1 million per ambulance in current dollar terms.

The incremental ambulance needs of the City of Edmonton are estimated at six in order to respond to the City's projected population growth⁵⁰ while the incremental need for ambulances elsewhere in the region is 11.⁵¹

If it is assumed that these incremental ambulances are added, by 2011 operating costs will have increased by \$3.5 million for the City of Edmonton and \$6 million in the other municipalities in the region. By 2016 annual operating costs are projected to increase further to \$7 million for the City of Edmonton and \$12 million for all other municipalities in the Capital Region. These estimates are summarized in Table 6-2.

As indicated earlier, discussions with municipalities and ambulance service operators identified three key issues that have the potential to contribute to future operating costs, namely:

- The time involved in delivering patients at hospitals. Busy emergency departments are contributing to delays in discharging patients at hospitals. Factors that influence the time required to discharge patients at hospitals will ultimately influence the requirements for deployed ambulances;
- The aging of the population. It is known that people over the age of 65 are more likely to use an ambulance than those under this age; and
- Longer ambulance trips as more of the population becomes spread out around the region.

With regard to the off-load delays at city hospitals, Capital Health and Edmonton's Emergency Medical Services (EMS) department are collaborating on the design and implementation of an Emergency Services and System Capacity (ESSC) system that will be triggered by a defined level of utilization of EMS stretcher capacity. Early indicators are that the approach is providing some relief to EMS. Based on an assumption that this initiative will reduce wait times by 10 percent to 20 percent, the system can be shown to save between \$0.7 and \$1.4 million currently in the City of Edmonton. This savings will grow with the rate of population growth to between \$0.9 and \$1.7 million in 2016.

While the program will have some impacts on ambulance off-load delays for ambulance services outside of the City of Edmonton to the extent that they off-load patients in Edmonton hospitals, no cost savings have been estimated.

⁵⁰ Currently the number of ambulances deployed varies from 32 in the busy times to 21 in the slowest times. For the purposes of estimating an average number of vehicles on the road, we have assumed that they are approaching peak capacity 2/3 of the time and are at their least active levels 1/3 of the time. This rounds to 28 ambulances on average or one for every 25,000 residents. Growth of 140,000 suggests the need to add six ambulances on average.

⁵¹ Currently there is one ambulance for every 9,000 people in the Capital Region excluding Edmonton. An increase in population of 104,000 will cause the need for 11 new ambulances.

Aging of the population will increase the demand for ambulances. Population estimates show that the percentage of the population that is over the age of 65 will grow from 11 percent currently to about 14 percent by 2016. Given that those over the age of 65 are three times more likely to need ambulance services, we can anticipate an impact on call volumes of about 4 percent which will equate to \$1.3 million per year in operating costs by 2016.

Table 6-2 Summary of Ambulance Infrastructure Gaps and Needs

Estimated Number of New Ambulance Stations (2008 to 2016)	Ambulance Stations			Unplanned Facilities (Gaps)	Total Requirements
	Planned	Unplanned	Required	<i>2007 Constant \$ Million</i>	
City of Edmonton	2	1	3	\$2	\$6
Other Municipalities in the Capital Region	1	4 to 5	5 to 6	\$8 to \$10	\$10 to \$12

Estimated Number of New Ambulances Deployed	Required	Estimated Operating Costs in 2011 of New Ambulances	Estimated Operating Costs in 2016 of New Ambulances
		<i>2007 Constant \$ Million</i>	
City of Edmonton	6	\$3.5	\$7
Other Municipalities in the Capital Region	11	\$6	\$12
Incremental Operating Savings Associated with ESSC program		n/a	\$0.9 to \$1.7
Incremental Operating Costs Related to the Aging of the Population		n/a	\$1.3

6.5 CONCLUSIONS

In reviewing emergency services as delivered within the Capital Region we note that:

- Capital cost requirements to meet growth related needs total \$16 to \$18 million for ambulances and \$38 to \$75 million for fire stations.
- Additional annual operating costs required to operate the new facilities in 2011 are estimated at \$9.5 million for ambulances and \$10 to \$15 million for fire stations. The average annual operating cost will reach \$19 million annually for ambulances and \$20 to \$30 million annually for fire stations by 2016.
- Growth will result in the need for additional infrastructure in fire and ambulance services beyond what is anticipated in current plans. Further operating costs will need to be incurred in order to operate these new facilities.
- While some savings are possible in regards to better routing of ambulances to hospitals without backlogs, those savings will be largely offset by the additional costs associated with an aging population and the higher utilization of ambulances by seniors.

- The fire and ambulance services throughout the region demonstrate an ability to work together in various fashions to endeavour to deliver services more efficiently. They are flexible in that they adopt a variety of models for joint/shared service delivery.
- It is possible that growth in some areas -- the northeast in particular -- could suggest an optimal fire station location that would serve parts of two or perhaps three municipalities. Service models might need to be adjusted to allow for service delivery to take place across municipal borders.
- The reliance on volunteers for fire services is likely to need to change in areas of growing urbanization. While the small towns might be able to continue to provide services using volunteers, we anticipate that daytime coverage issues, need for coverage of industrial sites, and the general challenge of finding, training and retaining volunteers in more urban areas will force the more urbanized areas of the Capital Region still using volunteers to need to re-staff as a career service. A move toward a career service will help to reduce turnover in volunteer services.
- No one emergency service provider would be able to meet the needs of a catastrophic event associated with the upgraders in the northeast. Coordinated disaster planning involving emergency response organizations would help to ensure an appropriate response to a major incident.
- There is a need to clarify provincial plans in regards to ambulance service delivery. While there is a level of disagreement as to what the most appropriate model for service delivery and funding should be, there is near unanimous consent that the current situation of uncertainty is limiting investments and further development of ambulance services in the Capital Region.
- Financial pressures are being felt by ambulance service providers. Fees schedules, staff turnover, fixed provincial grant funding, and extended time requirements to drop patients at hospitals are all contributing to these financial pressures. In the longer term, financial issues like these will need to be addressed in order to ensure that high levels of service are available to residents of the Capital Region.

7. SOCIAL SERVICES

7.1 INTRODUCTION

Preventive social supports and social services are important to the quality life in the Capital Region. They are particularly important to the quality of life and social inclusion of individuals and families that are financially vulnerable, under stress, or at risk of social isolation, such as many low-income households, newcomers to the region, seniors, Aboriginal people, and persons with disabilities. These supports and services also contribute to overall community health and well-being, engagement and connectiveness, and to a well-functioning workforce.

Social supports and services in the Capital Region span a broad range of programs and services funded and delivered by a vast number of organizations, including the provincial government (e.g. income support, child protection and family enhancement services provided by Child and Family Services Authorities, and the services provided by Seniors and Community Supports for seniors and persons with disabilities), community organizations (e.g. Salvation Army, agencies receiving United Way funding, etc.), faith communities, and others.

Roles and responsibilities as they relate to the provision of social supports and services are not always clear, and the role of municipalities in addressing social issues is evolving. All orders of government have some involvement in decisions that can affect the quality of life and social inclusion of individuals and families and the well-being of communities, and there is interplay among the decisions of the different orders of government. For example, the provincial government's income support, housing, health, and education policies influence the involvement of municipalities in providing services to protect and enhance individual, family and community well-being.

This section discusses the involvement of municipalities in the Capital Region in providing services for their residents through their Family and Community Support Services (FCSS) programs. It also presents information on the services provided by Child and Family Services Authorities (including Parent Link Centres), emergency shelters for women and youth, services for immigrants and temporary foreign workers, and addictions services. The services provided by the Support Network are also included.

In discussing social services in the Capital Region, it is useful to keep in mind the incidence and distribution of individuals and families potentially needing these services throughout the region. Currently:

- The City of Edmonton is more diverse than the other communities in the region and has the greatest number of residents requiring social supports and services, including many low income families, Aboriginal people, recent

immigrants, people with mental and physical disabilities, people with severe substance abuse problems and the homeless.

- Almost 95 percent of immigrants moving to the region settle in Edmonton⁵² and the increasing numbers of Aboriginal people moving to the region, either temporarily or for longer periods, tend to locate in Edmonton.
- While poverty in the region has decreased over the past decade, the depth of poverty is increasing, particularly among young people, women, visible minorities, and Aboriginal people.⁵³
- Homelessness is most visible in Edmonton within the Capital Region. This is in part related to the availability of other supports in the community, such as shelters, food banks, clothing banks, and specialized medical services.
- High rental costs in Edmonton are leading some households with low incomes to move within Edmonton or from Edmonton to smaller communities in the region where housing can sometimes be more affordable. However, the concentration of social housing in the City of Edmonton means that households requiring social housing – many of which also require other social supports and services – tend to be more highly concentrated in Edmonton.
- The number of single-parent families in the Capital Region is increasing.
- Edmonton is home to the majority – 75 percent – of the population aged 65 and over in the Capital Region although Edmonton comprises only 71 percent of the total population of the Capital Region.⁵⁴

Looking to the future, it can be expected that a high proportion of the new residents moving to take up jobs in the region will be young individuals and families without local extended family supports or an established network of friends in the region. It can also be expected that the region's population will continue to diversify. The Province is taking steps to attract more immigrants, with a goal of receiving at least 10 percent of immigrants to Canada – almost 30,000 per year by 2010.⁵⁵ It is estimated that at least 30 percent of immigrants arriving in the province directly from another country (i.e., at least 10,000 per year) will come to the Capital Region. In addition, the number of temporary foreign workers in the province is increasing rapidly, possibly rising to 40,000 next year. Again, it can be expected that a large proportion of these workers will be destined for jobs in the Capital Region.

⁵² Edmonton and Area Child and Family Services Authority, *2007-2010 Business Plan*.

⁵³ Alberta Children's Services, August 31, 2007.

⁵⁴ Population projections prepared by Applications Management Consulting Ltd. 2006 data.

⁵⁵ Applications Management Consulting Ltd., *Budgetary Requirements for Immigrant Clients in Alberta* (Draft Final Report, August 2007).

7.2 CURRENT SITUATION

7.2.1 Programs and Services

7.2.1.1 Family and Community Support Services

The Family and Community Support Services (FCSS) program is a voluntary program cost-shared between the province and participating municipalities and Métis Settlements. The province contributes up to 80 percent of the cost of local FCSS programs, with municipalities or Métis Settlements covering at least 20 percent - and in many instances substantially more - of the costs.

The focus of FCSS programs is on the development and delivery of preventive social services that promote and enhance the well-being of individuals, families and communities. FCSS programs, services and events help to build social cohesion. One of the key principles of the FCSS program is local responsibility in priority-setting and resource allocation.

The only municipality in the Capital Region without an FCSS program is the Village of Wabamun, which is considering establishing a program.

The range of FCSS services in the Capital Region is extremely broad. Examples of programs or services that municipalities in the Capital Region offer through their FCSS programs include:

- Services to assist in identifying community social needs and potential responses to those needs;
- Services to support and promote community volunteer work;
- Services to raise awareness of available services, such as information and referral services;
- Services to promote the social development of children and their families (e.g. parenting and family life education programs, programs for children of divorce, parent-child development activities, youth development services, and self awareness and personal growth opportunities);
- Services to improve family interactions and strengthen relationships; and
- Services that enhance the quality of life of seniors, such as home support services, and outreach and coordination services.

Table 7-1 provides a summary overview some of the key areas of FCSS programming coverage in the region. It needs to be recognized that this is not intended to be an exhaustive portrayal of FCSS program and services in the region. Further, this table reflects the consulting team's interpretation of FCSS program names and that the programs or services indicated by a checkmark (✓) could range from ongoing programs to which the municipalities allocate a

significant proportion of their FCSS funding every year to short, one-time events, such as workshops.

Table 7-1 FCSS Programs in the Capital Region

	Pre-School	Out-of-School Care	Youth	Counselling	Seniors	Crisis / distress / help lines
Beaumont	✓	✓	✓	✓	✓	
Bon Accord	✓	✓	✓		✓	
Bruderheim	✓		✓	✓	✓	
Calmar	✓		✓	✓	✓	
Devon	✓		✓	✓	✓	
Edmonton	✓	✓	✓	✓	✓	✓
Fort Saskatchewan			✓	✓	✓	
Gibbons			✓		✓	
Lamont County	✓		✓	✓	✓	
City of Leduc	✓		✓	✓	✓	
Leduc County	✓		✓	✓	✓	
Legal	✓					
Morinville	✓		✓	✓		
New Sarepta	✓		✓	✓	✓	
Parkland County	✓		✓	✓	✓	
Redwater	✓		✓	✓	✓	
Spruce Grove	✓		✓	✓	✓	
St. Albert	✓	✓	✓	✓	✓	✓
Stony Plain	✓		✓	✓	✓	
Strathcona County	✓		✓	✓	✓	
Sturgeon County	✓		✓	✓	✓	
Thorsby	✓		✓	✓	✓	
Wabamun	<i>Currently does not have an FCSS program</i>					
Warburg	✓		✓	✓	✓	

FCSS programs and services are often provided in partnership with other community groups or agencies.

Some municipalities in the Capital Region collaborate to provide FCSS services. For example:

- Leduc County, Town of Devon, Town of Calmar, Village of New Sarepta, Village of Thorsby, and Village of Warburg have a multi-municipal FCSS. These municipalities pool their FCSS funding and work together in determining programs and services.
- Parkland County transfers its FCSS grant funding to other neighbouring municipalities, including Spruce Grove, Stony Plain, and Leduc County and two municipalities outside the Capital Region (i.e., Yellowhead County and Drayton Valley). Parkland County residents are able to access FCSS services in these other municipalities.

- The Sunflower Community Resource Program is a “one-stop” information and referral service offered through a partnership between Sturgeon County and the Towns of Bon Accord, Gibbons, Legal, Morinville, Redwater and the Sturgeon School Division.

In 2006, total provincial funding for FCSS programs delivered by municipalities in the Capital Region was approximately \$19.6 million, with the municipalities contributing at least a further additional \$4.9 million (i.e. at least 20 percent, however, many municipalities contribute more than the minimum required 20 percent of the cost of their FCSS programs).⁵⁶

FCSS spending accounted for approximately 1.8 percent of total municipal spending among municipalities in the Capital Region in 2005.⁵⁷

In May 2007, the Provincial government announced that it will increase FCSS spending by \$3 million in 2007-08 to \$71 million, about 4.4 percent over the previous year.

7.2.1.2 Child and Family Services Authorities

There are two Child and Family Services Authorities (CFSAs) providing services in the Capital Region: Edmonton and Area (Region 6, which spans most of the Capital Region) and East Central (Region 5, which includes a portion of the eastern part of the Capital Region, including Lamont County and the Town of Bruderheim). The CFSAs are governed by boards appointed by the Minister of Children’s Services and funded primarily by Alberta Children’s Services.

CFSAs deliver programs in the following areas:

- *Promoting the development and well-being of children, youth and families*
 - Child care (child care is addressed separately in Section 10 of this report)
 - Family support for children with disabilities
 - Early Intervention
 - Prevention of family violence
 - Parenting resources initiatives (including Parent Link Centres, discussed below)
 - Fetal Alcohol Spectrum Disorder initiatives
- *Keeping children, youth and families safe and protected*
 - Child intervention services (Child protection and family enhancement)
 - Foster care supports

⁵⁶ Alberta Children’s Services

⁵⁷ Alberta Municipal Financial Information System (AMFIS).

- Protecting children from sexual exploitation
- Child and youth support
- *Promoting healthy communities for children, youth and families*
 - Community initiatives

CFSA Region 6's budget for 2007-08 is roughly \$270 million, an increase of almost 5 percent from 2006-07. Child intervention services and foster care support account for the largest share – approximately 70 percent – of the authority's budget.⁵⁸

Parent Link Centres

Parent Link Centres serve parents of children aged 0-6 and their children. They provide information, programs and services to all residents to foster children's learning, development and health. Parent Link Centres offer:

- Parent education programs;
- Programs for young children to learn to play;
- Family support services; and
- Information and referrals to other programs of benefit to families.

These centres are funded by Alberta Children's Services. There are currently nine Parent Link Centres in the Capital Region.

Table 7-2 Parent Link Centres in the Capital Region

Community	Parent Link Centre
Edmonton	Bent Arrow Traditional Healing Society (Aboriginal Parent Link Centre)
Edmonton	Jasper Place Child and Family Resource Centre
Edmonton	KARA Family
Edmonton	Mill Woods Family Resource Centre Society
Stony Plain	Parkland Parent Link Centre
Fort Saskatchewan	Families First Fort Saskatchewan/Sturgeon Parent Link Centre
Leduc County, City of Leduc, Beaumont, Calmar, Devon, New Sarepta, Thorsby, Warburg	Leduc Regional Parent Link Centre
Stony Plain-Wildwood-Wabamun	Aboriginal Parent Centre
Strathcona County	Strathcona County Parent Link

⁵⁸ Edmonton and Area Child and Family Services Authority, *2007-2010 Business Plan*.

Many of the other communities in the Capital Region receive outreach services, such as parent education and early childhood development programs and information and referral services, from main Parent Link Centre sites.

7.2.1.3 Women's Emergency Shelters and Transitional Housing

There are three women's shelters and two transitional residences for women and children needing safe accommodation in the Capital Region. The only shelter outside Edmonton is in Sherwood Park.

Women's shelters respond to crisis calls and provide women and children seeking protection from abuse with emergency and transitional shelter and support.

In 2006, Alberta Children's Services provided \$3.84 million to support the operation of four of these shelters: Edmonton Women's Shelter, Lurana Shelter, A Safe Place and Wings of Providence. La Salle Residence is not provincially funded. The shelters also raise money through donations.

Table 7-3 Women's Emergency Shelters and Transitional Housing in the Capital Region

Shelter	Location	Number of Beds or Apartments
Edmonton Women's Shelter (WIN House)	Edmonton (2 houses)	60 beds
Lurana Shelter	Edmonton	32 beds
A Safe Place	Sherwood Park	32 beds
Wings of Providence (Second Stage)	Edmonton	20 apartments
La Salle Residence (Second Stage)	Edmonton	9 apartments

Source: Alberta Council of Women's Shelters Web Site

7.2.1.4 Youth Emergency Shelters

There are two youth emergency shelters in the Capital Region: The Youth Emergency Shelter Society and the Inner City Youth Housing Project. The Youth Emergency Shelter has 28 beds, of which 12 are funded by the province. The Youth Housing Project has 29 beds, of which 27 are funded by the province.

7.2.1.5 Immigrant Services

The five immigrant serving agencies in the Capital Region are located in Edmonton. These are:

- Assist Community Service Centre;
- Catholic Social Services, Immigration and Settlement Services;
- Changing Together – A Centre for Women;
- Edmonton Immigrant Services Association; and

- Edmonton Mennonite Centre for Newcomers.

These agencies receive funding from the provincial government to provide services such as general settlement assistance, interpretation/translation, and referrals to help immigrants make the transition to life in Alberta. Catholic Social Services also provides language assessment and referral services, where immigrants can have their English language skills assessed and get information about available ESL programs and classes.

7.2.1.6 Alcohol and Drug Abuse Services and Coalitions

The Alberta Alcohol and Drug Abuse Commission (AADAC) is a Crown agency of the provincial government that provides addiction information, prevention and treatment services in Alberta.

Table 7-4 provides an overview of AADAC and AADAC-funded services in the Capital Region. There are AADAC offices in Edmonton, Leduc, Sherwood Park, St. Albert and Stony Plain, and treatment centres in Edmonton and St. Albert. AADAC also has mobile teams and provides crisis counselling and referrals through its toll-free help line. In the past two years, four detoxification and eight treatment beds for youth have been added in the Capital Region.

Addressing issues relating to addiction among youth is a priority of AADAC. AADAC provides a continuum of services in the Capital Region for youth and their families that includes prevention, outpatient treatment, intensive day program, residential detoxification, residential treatment and mandatory residential detoxification and assessment. Five new mandatory detoxification and assessment beds were added in the Capital Region after the *Protection of Children Abusing Drugs Act* came into effect last year.

There are several community coalitions that have been formed in the Capital Region to address local drug issues. These include:

- Beaumont – Drug Awareness Network (DAWN)
- Devon – Devon and Area Citizens Against Substance Abuse (DACASA)
- Edmonton – Edmonton Community Drug Strategy and Edmonton Community Street Works Council
- Fort Saskatchewan – Fort Saskatchewan Drug Awareness Committee
- Leduc – Leduc Community Drug Action Committee
- St. Albert, Morinville and Legal Drug Coalition – CORE
- Stony Plain, Spruce Grove, and Parkland County – Tri-Municipal Drug Strategy Team (DST)
- Strathcona County – Strathcona County Community Drug and Alcohol Strategy

AADAC provides support to these coalitions through materials and funding. In 2006-07, AADAC provided grants of up to \$3,000 to support the following community drug coalition initiatives in the Capital Region:

- Edmonton Community Drug Strategy. Development and distribution of awareness material (toolkit) on drugs and alcohol for hard-to-reach parents.
- Fort Saskatchewan Drug Awareness Committee. Raising awareness of alcohol and drug issues among parents, youth, and community members.
- Leduc Community Drug Action Committee. Raising community awareness of methamphetamine and grow ops. (The Leduc Community Drug Action Committee also received a \$3,000 grant in 2007-08.)
- St. Albert, Morinville and Legal Drug Coalition. Develop a youth facility and mentorship program in collaboration with Big Brothers and Big Sisters.
- Stony Plain, Spruce Grove, and Parkland County Tri-Municipal Drug Strategy Team. Support in conducting a community needs assessment. (The Tri-Municipal Drug Strategy Team also received a \$3,000 grant in 2007-08.)

7.2.1.7 The Support Network and 211

The Support Network provides a free, 24/7 telephone counselling, crisis intervention and suicide prevention line. The agency also offers walk-in counselling services and in-person suicide, bereavement and caregiver support, and offers training in these areas. The Support Network has a broad funding base, including Alberta Children's Services, foundations, corporate and private donors, the United Way of the Capital Region, and the City of Edmonton.⁵⁹

In addition, the Support Network operates a new 211 information and referral service through which callers can get information about human services, community programs and volunteer opportunities in the City of Edmonton and some of the other municipalities in the Capital Region, including Parkland County, Stony Plain and Spruce Grove. Strathcona County is also considering establishing a 211 service.⁶⁰

7.2.2 Other Collaborative Initiatives

In addition to the drug coalitions mentioned in 7.2.1.6 above and partnering among municipalities to deliver FCSS programs and services, there are a number of other examples of collaboration within and among community groups and agencies and municipalities in the Capital Region for social services planning and service delivery. These include:

⁵⁹ In 2007, the City of Edmonton provided approximately \$370,000 under its FCSS program to the Support Network.
⁶⁰ Strathcona County, *Social Sustainability Framework*, 2007.

- **The Community Enhancement Partnership Forum.** This forum provides opportunities for FCSS and CFSA staff to come together to identify systematic barriers to meeting the needs of individuals, families and communities and work together to alleviate barriers.
- **The Capital Region Services to Children Linkages Committee** was established in 2006 to provide a regional forum for governing bodies providing services to children and families to:
 - Share information, adopt strategic directions, and facilitate collaboration that will reduce fiscal, attitudinal and organizational barriers; and
 - Promote the regional delivery of family centred, child focused, comprehensive care and reduce the fiscal, attitudinal and organizational barriers to achieving these goals.

Members of this committee currently include representatives of several municipalities in the Capital Region (City of Edmonton, City of Leduc, City of St. Albert, Strathcona County, Town of Calmar, Town of Beaumont, Village of New Sarepta, Village of Warburg, Village of Thorsby); school jurisdictions in the region (Black Gold Regional Division, Greater North Central Francophone Education Region, Edmonton Public Schools, Edmonton Catholic Schools, Elk Island Public Schools, Elk Island Catholic Schools, St. Albert Protestant Schools, Greater St. Albert Catholic Schools, St. Thomas Aquinas School District); AADAC; Alberta Mental Health Board; Capital Health Authority; Alberta Municipal Affairs; Alberta Solicitor General; Edmonton Police Commission; Capital Region CFSA; Treaty Six First Nations; Treaty Eight First Nations; and, the Métis Nation of Alberta – Zone 4 Regional Council.⁶¹

- **Tri-Partite Student Health Initiative Partnership (SHIP)** in Strathcona County and Fort Saskatchewan is a team of special education representatives from school jurisdictions and service managers from Capital Health, Edmonton and Area Child and Family Services and the County of Strathcona Family Community Services that coordinates and integrates services to children with special health needs who are registered in school programs (from 2.5 years to 20 years of age).
- **Edmonton Evergreen**, a committee of FCSS staff throughout the region which meets quarterly to share information and develop joint responses as required.

⁶¹ The Committee operates as a federation of autonomous decision-making bodies. Members report back through their respective Boards. Decision-making is through a consensus process with each organization having one voice from its two delegates.

7.2.3 Issues⁶²

Of the 22 municipalities offering an assessment of the social services in their communities and the Capital Region, ten feel they have pressing social services needs locally and 15 feel that the region's social services issues are pressing. Many municipalities commented on the unique social pressures facing the City of Edmonton, from, for example, people coming to look for work without having secured housing first, the tendency of Aboriginal peoples and immigrants moving to the region to head to Edmonton, and Edmonton having a comparatively older population.

7.2.3.1 Increasing Demand for Services

Demand for social services is increasing with the population growth in the Capital Region, the increasing complexity of client needs (e.g. in-migrants lacking family supports, families with a parent who works away from home for sometimes extended periods), increasing work-life balance issues for many families, the shortage of affordable housing in the region, and the increasing depth of poverty.

The sharp rise in housing costs in the region has led to a shortage of housing that is affordable for many individuals and families in the region. The tight affordable housing market is increasing the challenges service providers face in helping their clients. Housing is a core need and many service providers are reportedly frustrated because they are simply unable to help their clients find safe, affordable housing. The region's critical affordable housing issue is believed to be pushing some families over the "tipping point", increasing the risk of child abuse and neglect.⁶³

7.2.3.2 Staff and Volunteer Recruitment and Retention

Some have referred to the staffing situation in the social services sector in the Capital Region as being "acute and desperate".⁶⁴

Social services agencies are finding it difficult to retain staff in the region's strong job market. Workers are being enticed to better paying jobs in other sectors, in some cases, because they need to cover their rising rental costs. Stress from the increased client service demand is also a factor in the high staff turnover in this sector.

It is becoming increasingly difficult for agencies to recruit qualified people for job openings in the social services field, which is placing further stress on those workers staying in the sector.

In addition to these staffing issues, many human service agencies are having difficulties recruiting and retaining volunteers to support their service delivery. The decline in volunteerism is of

⁶² Some of the content in this section draws upon previous research undertaken by Nichols Applied Management this year, including a review of the social impacts of Alberta's strong economic growth and research on the support needs of workers in low-income households in Alberta.

⁶³ Alberta Children's Services, August 31, 2007.

⁶⁴ Edmonton Journal, August 20, 2007.

broader concern because volunteer engagement plays an important role in building and sustaining community cohesion and well-being.

The Government of Alberta recently announced that it will provide an additional \$26.1 million to help agencies that support children and youth, adults with developmental disabilities and other vulnerable Albertans to recruit and retain staff.⁶⁵

7.2.3.3 Public and Specialized Transportation

Simply put, transportation is an issue in regard to the social services infrastructure in the Capital Region. Public transportation is limited or entirely lacking in many parts of the region, making it difficult for residents who do not have their own transportation or who are uncomfortable driving in Edmonton to access needed social supports and services.

Some low-income households in the region cannot afford public transportation, especially with a larger share of their incomes going to meet rising housing costs. And, households moving to other areas or communities in search of lower housing costs often add to their difficulties in accessing social and health services because of their reduced access to public transportation.

Access to specialized transportation services for seniors and persons with disabilities is also an issue in the Capital Region. Available specialized transportation services in the region tend to be in urban centres. Rural residents have less – or no – access to these services.

⁶⁵

Alberta Government News Release, \$26-million investment helps contracted agencies hire and keep staff

Table 7-4 AADAC Services in the Capital Region

AADAC and AADAC Funded Services Directory 2007/2008	Adult Outpatient	Detoxification	Day Treatment	Residential Intensive Treatment	Residential Treatment (long-term)	Problem Gambling Services	Shelter	Youth Outpatient	Youth Detoxification	Youth Residential Treatment	Transitional Residential Services	Prevention/ Education	Notes
Edmonton:													
AADAC Opioid Dependency Program	x												
AADAC Recovery Centre		42 bed AD											24 hr, includes gambling stabilization
AADAC Youth Detoxification and Residential Services									x S	x			
AADAC Youth Services			x			x		x	x S	x		x	8 residential beds, 2 crisis stabilization beds
Adult Counselling & Prevention Services	x		x			x						x	
ASSIST Community Services Centre*						x						x	youth
George Spady Centre*		20 bed AD					80 mats AD						adult 24 hour
Henwood Treatment Centre				72 beds		x							adults, gender specific, 2 problem gambling stabilization beds
Jellinek House*					15 beds AD								men 18+
McDougall House					14 beds	x							women 18+, 2 stabilization beds for pregnant women
Our House*					32 beds AD						10 beds		men 18+
Oxford House*					30 beds	x							adults
Problem Gambling Resources Network (Alberta)*						x						x G	adults and youth
Recovery Acres Edmonton*					34 beds AD						15 beds		men 18+
Leduc:													
AADAC Leduc Office	x					x		x				x	
Sherwood Park:													
AADAC Sherwood Park Office	x					x		x				x	
St. Albert:													
AADAC St. Albert Office	x					x		x				x	
Nechi Training, Research & Health Promotions Institute*												x	Counselor & administrator training. Aboriginal-based**
Poundmaker's Lodge Treatment Centres*				47 beds	8 beds	x						x	Aboriginal-based** Long term residential treatment
Stony Plain:													
AADAC Stony Plain Office	x					x		x				x	

All AADAC offices and AADAC Funded Services provide alcohol, other drug and gambling services unless otherwise indicated.

A Alcohol services provided

G Gambling services provided

* A service funded by AADAC

D Drug services provided

S Safe House

** These funded services also take non-Aboriginal referrals

Existing providers of specialized transportation services are often unable to meet demand during their current operating hours and are seeing an increase in demand for service outside their current hours of operation.⁶⁶

Issues around transportation services to allow residents in rural areas of the province access needed social and health services have been long-standing. The 2006 FCSS Program Review recommended that the Government of Alberta take a cross-ministry approach to address transportation issues.

7.2.3.4 Youth Programs and Services

In discussions with the project team, many municipal representatives commented on the importance of addressing the needs of youth and dealing with issues related to youth alcohol and drug abuse and crime in their communities. Several fund youth programs and services through their FCSS programs. There was a suggestion that centres akin to Parent Link Centres for pre-teens and teenagers and their parents would be valuable.

7.2.3.5 Substance Abuse and Gambling

Substance abuse and gambling problems can have immediate and long-lasting negative impacts not only on individuals, but also on families, social relationships, work performance, public safety, and communities. The estimated cost of alcohol, tobacco and illicit drug use in Alberta was \$4.4 billion in 2002. The majority of costs associated with substance abuse relate to productivity losses, health care costs and law enforcement costs.⁶⁷

Tobacco

Tobacco use is the leading cause of preventable disease, disability and death in Canada. Smoking causes cancer, lung disease, heart disease and other health problems. The dangers of smoking are not limited to smokers – second-hand smoke can also cause health problems for others. The smoking rate among Albertans 15 years and older is 21 percent, which is slightly higher than the national rate.⁶⁸

Alcohol

Problems with alcohol and other drug abuse exist across the province and can affect individuals and families of all income levels, ethnicities and ages. Alcohol and other drug problems tend not to exist in isolation. They are tied to the determinants of population health – income and social

⁶⁶ A 2005 report on specialized transportation services in the province estimated that over one half million Alberta residents do not have access to specialized transportation services and found that 40 percent of providers reported being unable to meet current demand for their services. BIM Larsson & Associates, *Analysis of Results of Transportation for Seniors and Persons with Disabilities in Alberta*, prepared on behalf of Alberta Infrastructure and Transportation.

⁶⁷ AADAC, *Alcohol, Other Drug and Gambling Problems in Alberta: Services and Perspectives*, September 2007, p. 4.

⁶⁸ AADAC, *Alberta Profile: Social and Health Indicators of Addiction*, 2006, p. 75.

status, physical and social environment, biology/genetics, education, employment and working conditions, social support networks, personal health practices and coping skills, gender, culture, healthy child development and health services.⁶⁹ Many of those with substance use problems also have mental health problems, and those with concurrent disorders tend to have multiple medical and social problems.⁷⁰ A wide range of physical and mental health and social problems are linked to alcohol use.

Alcohol consumption and heavy drinking have become more prevalent in Alberta since the mid 1990s.⁷¹ On average, Albertans drink almost 13 percent more per capita and are more likely to report heavy alcohol consumption, hazardous drinking and alcohol dependence than Canadians overall.⁷² Males are much more likely to be heavy drinkers than females.⁷³

Alcohol use among Alberta youth and young adults is of particular concern, with 63 percent of students in grades 7 to 12 reporting that they consume alcohol and 33 percent drinking at hazardous or harmful levels.⁷⁴ Of Albertans aged 15 to 29 in 2005, 31 percent were regular heavy drinkers.⁷⁵

More than one in three Albertans (38 percent) report that they have experienced harm because of someone else's drinking, including verbal and physical abuse, and marital and family problems.⁷⁶ And, Alberta continues to have one of the highest rates of impaired driving offences in Canada.⁷⁷

Last year, 60 percent of AADAC's clients identified alcohol as one of their reasons for coming to AADAC. Of the AADAC clients receiving treatment for alcohol use, almost 70 percent were male, 52 percent were single, and the most common occupations were construction (22 percent) and sales/service (19 percent).⁷⁸

There are currently only a few beds in the Capital Region for individuals with concurrent mental health and addiction issues.

Illegal Drugs

Alberta also has a high rate of illegal drug use. Drug use by youth and young adults, including the use of multiple substances, has been increasing since the 1990s.⁷⁹ About 15 percent of Albertans

⁶⁹ AADAC, *Stronger Together: A Provincial Framework for Action on Alcohol and Other Drug Use*, 2005, p. 1.

⁷⁰ Ibid. p. 7.

⁷¹ AADAC, *Alcohol, Other Drug and Gambling Problems in Alberta: Services and Perspectives*, September 2007, p. 2.

⁷² AADAC, *Stronger Together: A Provincial Framework for Action on Alcohol and Other Drug Use*, 2005, p. 2,3.

⁷³ AADAC, *Alberta Profile: Social and Health Indicators of Addiction*, 2006, p. 7.

⁷⁴ AADAC, *Alcohol, Other Drug and Gambling Problems in Alberta: Services and Perspectives*, September 2007, p. 2.

⁷⁵ AADAC *Annual Report: 2006-2007*, p. 27.

⁷⁶ AADAC, *Stronger Together: A Provincial Framework for Action on Alcohol and Other Drug Use*, 2005, p. 3.

⁷⁷ AADAC, *Stronger Together: A Provincial Framework for Action and Other Drug Use*, 2005, p.3.

⁷⁸ AADAC, *Profile: AADAC Clients Who Received Treatment for Their Use of Alcohol: April to March 2007*.

⁷⁹ Ibid.

aged 15 and older report using cannabis (marijuana or hashish); 3 percent or less report using illegal drugs (e.g., cocaine, speed or heroin).⁸⁰

In 2006-07, 64 percent of AADAC's clients identified drugs other than alcohol and tobacco as one of their reasons for coming to AADAC. Males and singles accounted for 66 percent and 63 percent respectively of the AADAC clients receiving treatment for drug use. The most common occupations for this AADAC client group were construction (22 percent) and sales/service (20 percent).⁸¹

Prescription Drugs

Prescription drug abuse, including the sale of prescription drugs in the black market, is also a concern in Alberta.

Gambling

Gambling opportunities have increased in Alberta and currently over 80 percent of adults in Alberta gamble. Albertans aged 18 and over spend more per capita on gambling than do residents of any other Canadian province or territory.⁸² While the majority of Albertans gamble without experiencing any negative consequences, approximately 5 percent gamble to excess and do experience problems as a result of their gambling.⁸³ Problem gambling can lead to depression and anxiety, substance abuse, lost time from work or loss of employment, financial instability and criminal involvement.⁸⁴ The activities most closely associated with problem gambling, in order, are Video Lottery Terminals (VLTs), slot machines, Sport Select, sport pools, horse racing and games at casinos. Young single males and Aboriginal people are more at risk than other groups of becoming problem gamblers.⁸⁵

Growth-Related Concerns

There is concern about the Capital Region's anticipated prosperity and growth adding to pre-existing alcohol and drug abuse and problem gambling issues and placing further strain on the region's addiction treatment system. Much of the population growth will come from young workers, a group that has a higher likelihood of drinking heavily and using illegal drugs. Some of the growth will also come from workers moving here from other countries and Aboriginal people moving to the region from elsewhere in the province. As the number of people in the region without established support networks increases, the region's population becomes more diverse, and the region continues to have a shortage of affordable housing, the challenges related to substance use and problem gambling can be expected to increase.

⁸⁰ Ibid.

⁸¹ AADAC, *Profile: AADAC Clients Who Received Treatment for Their Use of Drugs: April to March 2007*.

⁸² AADAC, *Alberta Profile: Social and Health Indicators of Addiction*, 2006, p. 61.

⁸³ Ibid, p.4.

⁸⁴ AADAC, *Alcohol, Other Drug and Gambling Problems in Alberta: Services and Perspectives*, September 2007, p. 4.

⁸⁵ AADAC, *Profile, Adult Gambling and Problem Gambling in Alberta*, 2003, p. 2.

The Alberta Profile: Social and Health Indicators of Addiction provides information on selected indicators of alcohol, other drug use and gambling across Alberta by regional health authority. Table 7-5 compares selected indicators for Capital Health Region to other regional health authorities and the province overall. As can be seen, the Capital Health Region compares favourably on most of these indicators. The exception is the rate of prescriptions monitored under the Triplicate Prescription Program, which is higher in the Capital Region than in four other health regions, including Calgary, and in the province overall.

Although the Capital Health Region ranks lower than other health regions on most social and health indicators of addiction, the region still has significant issues relating to tobacco, alcohol, and drug use and gambling.

Table 7-5 Social and Health Indicators of Addiction

Regional Health Authority	Rate per 1,000 population aged 15 years and older					Net sales per person aged 18 years and older	AADAC Admissions Rate per 1,000 population	
	Impaired Driving	Alcohol-Related Hospital Separation	Drug-Related Hospital Separation	Triplicate Prescriptions	Tobacco a Major Risk Factor in Hospital Separation	VLTs	Adults	Youth
Chinook Regional Health Authority	7.24	2.03	2.30	227.73	17.68	\$318	10.90	4.64
Palliser Regional Health Authority	5.55	2.32	2.55	175.19	21.72	\$522	11.23	5.32
Calgary Health Authority	3.60	1.08	1.49	131.28	9.03	\$288	8.94	4.96
David Thompson Regional Health Authority	6.28	2.09	3.01	183.92	18.38	\$377	11.83	5.79
East Central Health	4.91	1.98	2.02	145.67	22.62	\$503	6.53	4.43
Capital Health	3.11	0.99	1.42	166.41	10.43	\$313	9.81	4.33
Aspen Regional Health	10.99	2.39	3.19	153.92	16.02	\$549	14.65	8.29

Regional Health Authority	Rate per 1,000 population aged 15 years and older					Net sales per person aged 18 years and older	AADAC Admissions Rate per 1,000 population	
	Impaired Driving	Alcohol-Related Hospital Separation	Drug-Related Hospital Separation	Triplicate Prescriptions	Tobacco a Major Risk Factor in Hospital Separation	VLTs	Adults	Youth
Authority								
Peace Country Health	14.53	2.85	3.17	164.92	17.19	\$493	19.33	5.81
Northern Lights Health Region	9.36	3.09	2.40	105.69	8.87	\$211	14.23	7.72
PROVINCE	4.92	1.44	1.88	159.09	12.36	\$341	10.37	5.16

Source: AADAC, Alberta Profile: Social and Health Indicators of Addiction, 2006

Notes:

- 1) Impaired driving rates are for 2004.
- 2) Hospital separation rates are for 2004-05. Alcohol and drug-related separation rates relate to either primary or secondary diagnoses for persons admitted as inpatients to active or psychiatric care hospitals. Tobacco-related rates are hospital separation rates for diseases where tobacco was a major risk factor.
- 3) The Triplicate Prescription Program is intended to help prevent the diversion of certain types of medications to the street. These include opioids, stimulants, barbiturates, and anabolic steroids. The data presented are for 2005.
- 4) AADAC admission rates represent client admissions for concerns about their own use of alcohol, other drugs and/or gambling. This includes admissions for detoxification, outpatient counselling, day programs, short-term residential treatment and youth services. AADAC funded agencies are not included. Adult clients are aged 18 years and older; youth clients are aged 17 years or younger. Data are for 2005-06.

7.2.3.6 Ineligibility of Temporary Foreign Workers for Services

With the number of temporary foreign workers on the rise to meet the strong demand for workers in the region, the support needs of this group of workers warrant attention. Currently, temporary foreign workers are ineligible for settlement services and English language training programs.

7.2.3.7 Shortage of Women's Shelter Spaces and Second Stage Housing

Alberta has the highest rate of family violence in Canada.

Shelters provide women and children escaping abusive situations with safe accommodation, counselling, and other services. There is growing concern about the number of women and children being turned away from shelters in the Capital Region because they are full. In 2004-05,

1,558 women and 1,878 children seeking refuge at a women's emergency shelter in the region could not be accommodated.⁸⁶ With the limited supply of affordable rental accommodation in the region, some women and children are reportedly returning to abusive relationships.

Children's Services has recently provided a 3.5 percent increase in funding for women's shelters.

7.3 PLANS

The following initiatives are being pursued to enhance some of the social supports and services in the Capital Region. It is recognized that there are likely a large number of other initiatives being pursued by, not only provincial government ministries, but also municipalities and community organizations in this broad area of social infrastructure.

- The Alberta Drug Strategy: *Stronger Together* (2005). This strategy emphasizes collaborative action in preventing substance use, treatment, alcohol and other drug-related harm reduction, and policing and enforcement. Actions being taken at the provincial level under this strategy fall into the following categories:
 - Enhancing support for community action;
 - Responding to the use and production of methamphetamine;
 - Expanding youth treatment;
 - Intervening with Drug-Endangered Children;
 - Addressing alcohol use and abuse; and
 - Increasing knowledge for decision-making
- AADAC is implementing a youth framework to guide its youth prevention and treatment services. Youth and their families will be supported through enhanced programming through AADAC's School Strategy and increased access to AADAC services.⁸⁷ Other actions being taken by AADAC include:⁸⁸
 - Expanding support for employers in developing work-based initiatives focused on preventing and reducing the impact of substance use and problem gambling;
 - Collaborating with AADAC Funded Agencies, regional health authorities and other service providers to strengthen the delivery of addiction treatment services;

⁸⁶ Alberta Council of Women's Shelters.

⁸⁷ AADAC Corporate Business Plan: 2007/2008 – 2009/2010, p. 5.

⁸⁸ Ibid, p. 7, 8.

- Expanding youth treatment and detoxification services⁸⁹; and
 - Implementing partnership activities to respond to concurrent disorders in addiction and mental health.
- AADAC, in collaboration with Capital Health Region Mental Health, has submitted proposals for the development of inpatient treatment beds for individuals suffering from concurrent addictions and mental health disorders;
 - Region 6 Child and Family Services is working with key community stakeholders to assess and identify service delivery resources for ethno-cultural services, services for Aboriginal people, FCSS services, among others;
 - Alberta Children's Services is investing in family violence awareness and prevention initiatives;
 - The five-year implementation plan for Parent Link Centres identifies increasing the number of Parent Link Centres in the Capital Region from nine to fifteen, with St. Albert and Southwest Edmonton being priorities;
 - Bon Accord and Redwater have been identified as future outreach sites for the Fort Saskatchewan Parent Link Centre; and
 - Strathcona County adopted a new Social Sustainability Framework earlier this year. Under this framework, the County will address social sustainability as an integral component of its business planning and budgeting processes and consider social impacts in assessing municipal development proposals.

7.4 PROJECTED SOCIAL SERVICES NEEDS AND GAPS

Although some of the shifts in the demographic profile of the Capital Region over the next ten years can be anticipated, the timing and scope of this review did not allow for a comprehensive, in-depth analysis of projected social service needs and gaps.

Parent Link Centres

The region's population of children aged 0 to 6 is projected to increase by over 19,000 by 2016, suggesting a possible need for additional capacity for Parent Link Centre programming in those parts of the region with younger families. An attempt has not been made to quantify the cost of this additional needed capacity.

⁸⁹ Planning is underway by AADAC to better address the needs of youth with concurrent disorders, youth affected by homelessness and young adults.

AADAC Services

The region's population of 15 to 29 year olds is also projected to see a large increase by 2016. This age group is projected to grow by almost 28,000, with over one-half of this increase being outside Edmonton. As alcohol and drug use is high in this population group, it is possible that additional AADAC services will be needed in the region.

Specialized Transportation

The expected growth in the senior population in the Capital Region can also be expected to increase the need for expanded specialized transportation services in the region.

Women's Shelters

To carry out a preliminary assessment of the supply of women's shelter spaces in the Capital Region, the ratio of 17 beds per 100,000 population was used.⁹⁰ With a population of 1,041,728 in 2006, the Capital Region should have in the order of 177 women's emergency shelter beds, 50 over the current number. With the projected increase in the regional population, it is estimated that a further 42 women's emergency shelter beds will be required by 2016, bringing the total number needed by then to 92. Applying an estimated operating cost of \$26,000 per bed per year for women's emergency shelter accommodation and associated services, and assuming that the first 75 beds will be added by 2011, we estimate operating costs of \$2.0 million in 2011 and \$2.4 million by 2016. The related capital costs would be included in the capital costs shown as being needed to respond to regional social housing gaps in Section 3: Housing.

FCSS

Additional FCSS programming can also be expected to be needed with the projected growth in the Capital Region's population by 2016. Applying the current average per capita FCSS spending in the region (\$23.57) to the projected increase in the regional population to 2011 and 2016 suggests a need for additional FCSS spending in the order of at least \$3.4 million in 2011, rising to at least \$5.8 million in 2016. If the current FCSS funding formula remains in place, municipalities will be responsible for at least 20 percent of these additional costs.

Table 7-6 Summary of Selected Social Infrastructure Gaps and Needs¹

				Estimated Additional Operating Costs in 2011	Estimated Additional Operating Costs in 2016
	Planned	Unplanned	Required	<i>2007 Constant \$ Million</i>	
FCSS Spending				\$3.4	\$5.8
Women's Emergency Shelter Beds	0	92	92	\$2.0	\$2.4

1. Note: Capital costs of shelter beds are reflected in the housing estimates provided in Section 3 of this report.

⁹⁰ Stephan Coleman, Ph.D., *An Evaluation of Minnesota's Shelter Program for Battered Women: A Report to the Minnesota Legislature*, prepared for the Minnesota Center Against Violence and Abuse, 2001, p. 6.

7.5 CONCLUSIONS

- While the region's expected prosperity over the next nine years will likely cushion many individuals and families from needing social supports and services, there will remain a segment of the region's population that will have these needs. The City of Edmonton can be expected to continue to have a larger share of the high needs population in the region, including low income families, Aboriginal people, recent immigrants, people with mental and physical disabilities, people with severe substance abuse problems and the homeless.
- It can be anticipated that demand for social supports and services in the Capital Region will increase between 2008 and 2016. The increased demand will be driven not only by population growth, but also by the increased reliance on social support agencies by young workers and families, mobile workers, and immigrants without established social support networks and by individuals and families challenged by the shortage of social and affordable market housing in the region.
- As use of alcohol and other drugs tends to be high among youth and young adults, the projected growth in this demographic to 2016 can be expected to increase alcohol and drug problems in the region. It will be important that AADAC continue to regularly assess the need to expand or adjust its services for this population.
- Substance abuse problems do not exist - and cannot be resolved - in isolation. Responding to alcohol and drug abuse problems in the Capital Region will require attention to other related social issues, including the shortage of affordable housing, transportation, weak or non-existent family and social support networks, and isolation due to language and cultural barriers.
- Public and specialized transportation services are critically important to allow residents in the region without cars to access needed health and social services and to prevent social isolation, particularly among vulnerable groups such as seniors, low-income residents, Aboriginal people, recent immigrants, and persons with disabilities. Collaboration among municipalities and service providers will be required to resolve public and specialized transportation issues.
- The staff recruitment and retention challenges in the social services field in the Capital Region are tied in part to housing issues in the region. Increasing the supply of affordable housing in the region could be expected to alleviate some of the staffing pressures in this sector.

- There will be a need for regular monitoring of the capacity of immigrant-serving agencies in the region to meet the needs of the region's growing immigrant population.
- Temporary foreign workers are currently ineligible for settlement services and English language training. There is a need to identify the service needs of this growing segment of the region's population.
- Investments in preventive social programs and supports can build the resiliency of individuals, families and communities to address problems or prevent problems altogether. Provincial and municipal FCSS funding will need to increase as the region's population grows and reliance on social support agencies increases.
- There is insufficient women's emergency shelter capacity in the Capital Region and these services are only available in two communities in the region (Edmonton and Sherwood Park).
- Efforts to increase volunteerism in the Capital Region need to continue. Volunteers play a large role in supporting social agencies in meeting client needs. Volunteerism also builds valuable connections among residents and improves the quality of life for all within neighbourhoods, communities, and the region as a whole.

8. CHILD CARE

8.1 INTRODUCTION

Child care plays an important role in early childhood development and builds a solid base for subsequent learning and social development. Social science research is increasingly placing greater importance on early childhood experiences because of the powerful and long-lasting effect on subsequent health, well-being and competence.⁹¹ Public investment during the critical early years has been shown to produce the most benefits (in comparison to public investment during school and after school years).⁹²

For the purposes of this analysis, child care is defined as parental and non-parental care provided to children under 13 years old outside of the school system.

Parental care

Parents have the primary responsibility for child care and early childhood development. A majority of children under the age of 6 in Alberta are in parental care. In comparison, only one-third of children in Quebec were in parental care -- the lowest in Canada.⁹³ Research suggests that the differences between the two provinces can be attributed to parental preferences and the level of government support for the creation of affordable licensed child care.⁹⁴ While non-parental care has increased dramatically in other provinces, the proportion of children in parental care in Alberta has showed little change from 1994/95 levels.⁹⁵

Non-parental care

Non-parental care includes: regulated care (licensed day care centres, drop-in centres, day care homes, out-of-school care, and nursery schools) and informal care (care by a relative other than a parent or non-relative such as a babysitter or au pair). Licensed care, encouraged through public funding, can provide early childhood development opportunities that some children might not have access to through parental or informal care.

⁹¹ Hertzman, C., *The Case for Early Childhood Development Strategy*, ISUMA, Volume 1, #2, Autumn 2000

⁹² Heckman, J and Camerio, P, OECD, *Starting Strong II: Early Childhood Education and Care*, 2006

⁹³ 2002-03 estimates, Statistics Canada, *Child Care in Canada*, 2006

⁹⁴ In 1996, the Alberta government refocused its support from operating grants to day care centres and to subsidies to high risk children and their families. In 1999, Quebec introduced a \$5/day (later revised to \$7/day) child care program that aims to provide universal access to licensed care in the province.

⁹⁵ Statistics Canada, *Child Care in Canada*, 2006

8.1.1 Child Care Regulation and Provision

8.1.1.1 Provincial Government Role

Alberta Children's Services (ACS) leads the development and implementation of provincial government policy, services and programs for children and families. The Ministry supports families and communities, enabling them to provide nurturing, safe environments for their children. Through its 10 Child and Family Services Authorities (CFSAs), which represent and serve all regions of the province, ACS provides child care subsidies to eligible parents and licenses and monitors day care centres, nursery schools, drop-in centres, out-of-school programs, and approves family day homes -- an authority given by the *Child Care Licensing Act* and Regulation. Child care in the Capital Region is governed by CFSA 6 -- Edmonton and Area. Lamont County and Bruderheim belong to CFSA 5 -- East Central Alberta.

In 2006-07, Edmonton and Area CFSA (Region 6) spent an estimated \$42.9 million on child care⁹⁶ or \$520 per child under 13 years of age in the region. This does not include funding directed towards child care in Bruderheim and Lamont County.⁹⁷

8.1.1.2 Federal Government Role

In 2005, the Agreement-in-Principle between Alberta and the federal government to support new early learning and child care investments was terminated. In 2006, the federal government introduced the Universal Child Care Plan, which includes the Universal Child Care Benefits Program, funding transfers to provinces and territories, and a new investment tax credit for businesses for the creation of child care spaces. The Benefits Program provides universal support to families with children under the age of 6 of \$1,200 per year regardless of their circumstances and preferences. This support provides parents with resources to apply to their choice of child care. Other federal government support for child care includes maternal and paternal leave, the Canada Child Tax Benefit, the National Child Benefit Supplement, and the Child Care Expense Deduction.

8.1.1.3 Role of Municipalities

Child care is by and large seen by municipalities as a responsibility of the provincial government and the private sector. In the Capital Region, there is a great degree of diversity in terms of municipal involvement in child care. Municipalities can play the following roles:

- Regulatory: Through zoning and building codes;
- Financial support: Currently, 45 municipalities within 196 Family and Community Support Services (FCSS) programs in the province offer support to

⁹⁶ CFSA Region 6: Edmonton and Area, *2007-2010 Business Plan*, March 2007.

⁹⁷ Total child care funding for Region 5 was estimated at \$2.2 million in 2006-07. CFSA Region 5: East Central Alberta, *2006-2009 Business Plan*, May 2006.

out-of-school child care. Of the 45 municipalities, 11⁹⁸, including Edmonton, Beaumont, St. Albert and Bon Accord, provide subsidies for low-income families. In 2005, the City of Edmonton's child care operational expenditures were \$733,000.

- Child care provision: Beaumont is the only municipality in the Capital Region that has a municipally-run program for children under the age of 6. In 2005, their child care operational expenditures, which include support for a day care centre, out-of-school care, and family day homes, were approximately \$711,000;
- Other support: Many municipalities assist community child care groups, run babysitting training or informal child care registries, and some actively attract child care operators to their communities.

8.1.2 Methodology

Central to the analysis of supply is the influence Alberta government policy has on the availability of licensed child care in the region. The analysis focuses on the factors influencing the supply of and demand for licensed child care. It aims to quantify the current gap in service delivery and the projected need over the next 10 years. At the current time, there is a significant research gap in this area, which is recognized and being acted upon by Alberta Children's Services. Limited information is available on the existing need for licensed care and the tendency to substitute licensed care for informal or parental care. This impedes quantification of the demand for each child care segment (i.e., licensed, informal, and parental care), and hence, the shortfall that exists today.

Therefore, the analysis of the current shortfall is discussed in relative terms, using a child:space ratio, i.e., the total number of children under the age of 13 per licensed space in the Capital Region. The future need for licensed care provision, staff, and subsidies was estimated using the regional population projections adopted for the purposes of this research and assuming current service levels will be maintained in the future.

8.2 CURRENT SITUATION

8.2.1 Regulated Child Care in the Capital Region

Licensed child care programs in the Capital Region include:

- Day care centres (DCC);
- Family day home providers (FDH);

⁹⁸ Impact of Child Care Regulations on Out-of-school Care, City Council meeting, City of Edmonton, August 20, 2007

- Drop-in centres (DIC);
- Nursery schools (NS); and
- Out-of-school care (OSC).⁹⁹

Table 8-1 summarizes the availability of licensed child care spaces by municipality in the Capital Region:

Table 8-1 Licensed Child Care Spaces in the Capital Region

Sub-Region	Number of Licensed Spaces (2006) ¹⁰⁰					Total Licensed Spaces	Number of Spaces Added Since 2003 ¹⁰¹					Total Added Spaces
	DCC	FDC	NS	DIC	OSC		DCC	FDC	NS	DIC	OSC	
North Capital Region	654	-	451	-	601	1,706	4	-	9	-	63	76
City of Edmonton	9,019	2,462	2,638	97	6,556	20,772	(328)	(43)	(118)	-	315	(174)
East Capital Region	722	555	337	-	828	2,442	11	90	(41)	-	127	187
South Capital Region	291	80	265	-	256	892	-	80	7	-	155	242
West Capital Region	326	250	354	-	125	1,055	(6)	40	70	-	(14)	90
Capital Region Total	11,012	3,347	4,045	97	8,366	26,867	(319)	167	(73)	-	646	421

Source: Alberta Children's Services

It is important to note that the total number of licensed spaces does not represent the total number of children receiving care in licensed programs. For example, many child care programs do not offer all licensed spaces for enrolment because of a management decision or inability to recruit staff. This results in lower utilization rate for the facilities.¹⁰² On the other hand, one licensed space can be filled by two or more part-time children (in a day care centre or a nursery school), thereby increasing the utilization rate.

The total number of licensed spaces in the Capital Region represents approximately 40 percent of the total licensed capacity in the province.¹⁰³ It showed a modest increase of 1.6 percent since 2003 primarily due to an increase in licensed family day home and out-of-school spaces, 5.3 percent and 8.4 percent respectively. South Capital Region showed the highest increase of more than 37 percent, while the City of Edmonton's spaces declined by just under 1 percent.¹⁰⁴

⁹⁹ As of September 2006. Alberta Children's Services

¹⁰⁰ Ibid.

¹⁰¹ Comparison between September 2003 and September 2006. Alberta Children's Service

¹⁰² For Alberta, occupancy rates range from 67 percent for family day homes to 92 percent for day care centres. Source: *What We Heard: Alberta's Consultation for the Creation of Child Care Spaces*, Alberta Children's Services, September 2006, p. 15

¹⁰³ Alberta Children's Services data, *What We Heard: Alberta's Consultation for the Creation of Child Care Spaces*, September 2006

¹⁰⁴ Comparison between September 2003 and September 2006; Alberta Children's Services data

8.2.2 Current Needs

Limited information is available on the existing need for licensed care and the tendency to substitute licensed care for informal or parental care. This precludes adequate estimation of the demand for licensed child care, and hence, the shortfall that exists today. Therefore, the analysis of the current shortfall is discussed in relative terms, using child:space ratio -- the total number of children under the age of 13 per licensed space in the Capital Region.

The overall child:space ratio for the Capital Region is 5.5:1, which is lower than the provincial average of 7.9:1. This is partially attributed to the higher need for non-parental care in urbanized areas.

The analysis presented in Table 8-2 and Table 8-3 reveals pressures on sub-regional level for pre-school and school-age children.

Table 8-2 Current Need for Licensed Child Care Spaces in the Capital Region -- Children under 7

Region	Total Licensed Spaces ¹⁰⁵	Number of Children	Child:space ratio
North Capital Region	1,641	7,407	4.5
City of Edmonton	19,544	55,972	2.9
East Capital Region	2,239	8,851	4.0
South Capital Region	813	4,407	5.4
West Capital Region	1,045	5,429	5.2
Capital Region Total	25,282	82,067	3.2

Source: Alberta Children's Services -- September 2006 data and population projections adopted for this research.

Table 8-2 indicates that there are fewer children (0-6) per space in the City of Edmonton relative to the rest of the region. This is partially attributed to the higher urbanization rate of Edmonton and to the fact that child care programs in the City also provide services to residents in surrounding communities. Smaller communities have fewer licensed programs as their population base is often insufficient to support the operation of a child care program. Some families that live outside of Edmonton enrol their children in programs in Edmonton because of their daily commuting habits (for work or school) or because the preferred care is unavailable in their community.

The analysis also reveals that communities in the South and West Capital Region have a higher number of children per space, which can suggest a greater need for more licensed spaces in comparison to other parts of the region. (This is assuming that all parents in the Capital Region have similar preferences for child care.)

¹⁰⁵ Includes spaces in day care centres, family day homes, drop-in-centres, nursery schools and out-of-school care -- group 2 -- kindergarten. Alberta Children's Services

Table 8-3 Current Need for Licensed Child Care Spaces in the Capital Region -- Children between 7 and 12

Region	Total Licensed Spaces ¹⁰⁶	Population 7-12	Child:space ratio
North Capital Region	65	7,933	122.0
City of Edmonton	1,228	42,723	34.8
East Capital Region	203	8,118	40.0
South Capital Region	79	4,186	53.0
West Capital Region	10	3,951	395.1
Capital Region Total	1,585	66,911	42.2

Source: Alberta Children's Services -- September 2006 data and population projections adopted for this research.

The child:space ratio for school aged children is understandably higher due to the part-time nature of out-of-school care and the lower overall demand in comparison to pre-school care, particularly for children between the ages of 10 and 12. The lower overall demand for child care for this age group is in part related to the participation of 6 to 13 year olds in other adult supervised extracurricular activities, such as arts and sports, or to receive parental or informal care after school. Another factor is the increasing number of families in which children are home alone after school until their parents return home from work (i.e., "latch key kids"). Additional research is required to understand whether this trend reflects changing social values or the inability of families to access or pay for care.

Similar to pre-school children, there are more licensed spaces per child in the City of Edmonton, which tends to serve children from all parts of the Capital Region. Communities in West and North Capital Region have a higher number of children per space, which can suggest a greater need for more licensed spaces in comparison to other parts of the region.

8.2.3 Issues

Over half (54 percent) of the municipalities in the Capital Region identified child care as a pressing or very pressing issue in the region. In addition to the need for more child care spaces highlighted in the previous section, other child care issues in the region relate primarily to child care affordability, quality and research.

8.2.3.1 Availability

The conclusions of the analysis of the current need for licensed child care space are also supported by testimonials from communities in Alberta and the Capital Region. Alberta government public consultations in 2006 found that demand for licensed child care spaces is exceeding the supply, with particular shortages of spaces for infants, toddlers, and children with special needs. In addition, many child care centres, including out-of-school care programs,

¹⁰⁶ Includes spaces as of September 2006 in out-of-school care, group 1 – grade 1 to 6. Alberta Children's Services

reported waiting lists.¹⁰⁷ In the Capital Region, many communities are also experiencing pressures. Although issues vary across the region, the need for more centre-based care and out-of-school care was often singled out.

The availability of child care spaces is a function of the licensed capacity of child care facilities (based on physical space) and the number of staff available to ensure the staff:children ratios required under the Alberta Child Care Licensing Regulation.

Staff Shortages

Child care staff is reportedly leaving the field because of the low wages and the availability of higher paying jobs in other industries. Many child care operators are running at less than full licensed capacity or do not offer extended, specialized, or part-time care because they are unable to recruit and retain qualified staff. Some operators are concerned that they might need to close because their revenue and cost structures do not allow them to offer the competitive wages required to retain staff. In conditions of staff shortages, part-time programs, such as out-of-school care, often lose staff to programs that can offer their employees better hours.

Population growth in the Capital Region will require a corresponding increase in child care delivery staff in both the private (for-profit and non-profit enterprises delivering child care services) and the public sector (staff at Child and Family Service Authorities - CFSAs). As the Capital Region's economy continues to create high paying jobs in other sectors, the staffing issues currently being felt are expected to continue, because of the challenges faced by child care providers in matching the wages offered by other industries.

Licensed Capacity

In addition to staffing challenges, limited financial resources due to years of austerity, high property prices and low availability of suitable space for rent or purchase have been identified as barriers to the opening of new or the expansion of existing child care programs to respond to the growing demand in the Capital Region. Some communities have addressed this issue by housing out-of-school programs in elementary schools. Resistance to allowing for-profit entities to operate in school facilities is constraining greater integration between child care and public education.

Future population growth in the Capital Region will require corresponding increases in child care services. The changing demographics of the region due to higher in-migration and ethnic diversity are expected to increase demand particularly for licensed care because many newcomers (in-migrants, immigrants, and foreign workers) will lack other child care options (e.g. grandparents, friends, or other informal care channels, etc.).

¹⁰⁷ Alberta Children's Services, *What We Heard: Consultation on the Creation of Child Care Spaces*, September 2006

8.2.3.2 Affordability

Child Care Subsidies

Good quality child care is expensive because it involves direct interaction between staff and children. The average child care fee has increased by 11 percent from 2005, in comparison to 3 percent increase of total cost-of-living in Edmonton.¹⁰⁸ Rising wages and other operating costs have been passed on to parents in the form of higher fees.¹⁰⁹ Child care is becoming unaffordable for many families, particularly for low-income families.

In 2006, approximately 8 percent of children under the age of 7 in the Capital Region received a full or partial subsidy for child care. However, population growth and increased immigration will likely increase the number of families who qualify for provincial government child care subsidies. In addition, inflationary pressures due to high economic growth may lead to higher child care fees. This may lower the number of Alberta families being able to afford child care for their children, which in turn may put pressure on government to increase funding.

Out-of-School Care Subsidies

Provincial child care funding is geared towards pre-school children. Municipalities have the ability to address the issue of subsidies for school age children from their respective FCSS resources if they identify this need as a priority in their communities. As mentioned previously, a number of municipalities are providing out-of-school care. For example, in 2006, the City of Edmonton provided \$6.5 million in subsidies to 2,079 children or approximately 5 percent of Edmonton children between the ages of 7 and 12.¹¹⁰

The lack of provincial subsidies for children attending grades 1 to 6 requiring out-of-school care is a factor in the large number of “latch-key kids” in the Capital Region. Reports have highlighted the importance of supervision in this critical age group when children are highly susceptible to peer pressure and bullying. In light of these concerns, the FCSS Program Review Report recommended the government engage stakeholders to develop programs and funding options to support the delivery of school-age child care in Alberta.¹¹¹ This is the only report recommendation that is still under review. The other 15 recommendations were accepted by the government. Alberta Children's Services is tasked to engage in consultations to analyze the program and funding options and to make recommendations about school-age child care funding.

¹⁰⁸ Consumer Price Index for Edmonton increased 3 percent between 2005 and 2006.

¹⁰⁹ Between July 2005 and February 2007, average hourly staff wages in the child care field in the Edmonton and Area CFSA increased from \$11.50 to \$17 in accredited programs for level 3 child care workers. These numbers include child care wage top-off from provincial government funding. Alberta Children Services, 2007

¹¹⁰ City of Edmonton

¹¹¹ Alberta Children's Services, *Alberta Government Response to the FCSS Program Report Review*, May 2007

8.2.3.3 Quality

Staff Training

Quality child care is linked to well-trained caregivers and consistent and stable care giving. High staff turnover and the increased need for continuous training of less experienced staff have raised concerns about the quality of care provided.

Changing demographics and increasing social pressures associated with high economic growth are increasing the requirements for staff qualifications. The child care industry in the Capital Region is expected to be called upon to respond to the increased ethnic diversity in the region over the next ten years.¹¹² It will be important for some child care providers to have staff able to speak and relate to children and families from different countries.

Furthermore, the social stresses associated with high economic growth expected to continue in the future will likely increase the need for child care staff trained to provide care to at-risk children, i.e., children in single-parent or low-income families, victims of family violence, or children receiving less parental care due to long commutes to work.

Informal Care

Accreditation standards have been established to ensure the quality of licensed child care in Alberta. While the provincial government has invested in accreditation of day care centres and family day homes, the shortage of licensed spaces has increased reliance on unlicensed child care arrangements which may not provide the same level of quality assurance.

8.2.3.4 Child Care Research

Limited availability of child care data, particularly on the demand for licensed and informal care and the supply of out-of-school care, is obstructing the understanding of the real need that exists in the Capital Region and the province. Greater investment in research is particularly important at this time of change in government policy, to enable the provincial government to measure the potential effectiveness of alternatives.

In addition, the next several years are expected to be marked by changes in the demographics and social characteristics of the population in the Capital Region which in turn will influence the demand for child care. It will be important that the potential impacts of these changes be understood to identify appropriate policy responses.

¹¹² Ethnic diversity in Edmonton increased by approximately 19 percent in 2005. Alberta Children's Services

8.3 PLANS

Recognizing the need for quality affordable child care options in Alberta, the provincial government introduced the Alberta's Five-Point Child Care Investment Plan in October 2005. The Plan sets out the following Provincial government priorities for child care:

- Assist low- and middle-income families access affordable child care;
- Provide new supports to stay-at-home parents;
- Help families who have children with disabilities access specialized child care;
- Improve the quality of child care and increase wages and training opportunities for child care professionals; and
- Provide parents with more information, resources and early intervention opportunities.

Further changes are underway in the Alberta regulatory environment. After extensive consultation, a new *Child Care Licensing Regulation* is under development and is expected to be proclaimed in 2008. This legislation will establish a new child care licensing model that will shift the emphasis from licensing facilities to one of licensing programs, recognizing that it is programs that offer the most benefit to children and families -- not a facility. The new legislation aims to ensure children and families continue to have access to a broad range of programming and that Alberta Children's Services has the enforcement mechanisms in place to protect children and keep them safe.

The Provincial government recently introduced increased funding to assist child care providers invest in staff and spaces. In 2007-08, \$134 million¹¹³ provincial government dollars were earmarked for:

- Additional increases in child care subsidies for low- and middle-income families and to help child care programs with the administration of these subsidies;
- Child care subsidies for families with children with special needs;
- A new Space Creation Innovation Fund to help cover the start-up costs of creating more child care spaces; and
- Staff attraction incentive to encourage people to re-enter the child care workforce;

¹¹³ Alberta Budget 2007 – Alberta Children's Service

- Child care staff wage top-ups to improve staff retention and increase the capacity of licensed programs;
- Child Care Bursary designed to off-set the costs of child care workers;
- Kin Child Care Funding program;
- Accreditation of child care programs;
- Subsidy for extended hours care; and
- Licensing and administration.

The new *Child Care Licensing Act* and the recently established funding programs are expected to have a positive influence on child care space availability and quality. As these provincial government initiatives have only begun to take effect in the last six months, it is too early to determine whether the actions will be sufficient to satisfy new demand for child care brought on by growth in the Capital Region.

8.4 PROJECTED SERVICE NEEDS AND GAPS IN THE CAPITAL REGION

The future need for licensed care provision, staff, and subsidies is estimated using regional population projections and assuming that 2006 service levels and current parental preferences for licensed, parental, and informal care will remain unchanged in the future. In the absence of research that quantifies the unmet demand for licensed child care spaces, the analysis takes a conservative stance by assuming that current service levels will be maintained in the future. Additional qualitative information presented in Section 8.2.3 Issues suggests that the outstanding need in the Capital Region is likely greater than outlined below.

8.4.1 Projected Licensed Child Care Needs

In the next ten years, the demand for licensed child care for children under the age of seven in the province is going to be driven by the second baby-boom echo. In the Capital Region, this trend is expected to be compounded by higher population growth spurred by higher economic activity. Assuming 2006 service levels (see Table 8-2), the Capital Region will require approximately 2,800 additional licensed spaces by 2011 for children under age 7. The analysis reveals that by 2016 the Capital Region will require an additional 3,000 spaces (or 5,800 incremental to 2006 licensed capacity) in day-care centres, nursery schools, family day homes, drop-in centres and out-of-school care for kindergarten students. As shown in Table 8-4, the majority of those spaces are expected to be needed in the City of Edmonton programs.

Table 8-4 Projected Need for Licensed Child Care Spaces in the Capital Region

Region	Licensed Space Requirements (0-6)			Licensed Space Requirements (7-12)		
	Total required by 2016	To be added 2007-2011	To be added 2012-2016	Total required by 2016	To be added 2007-2011	To be added 2012-2016
North Capital Region	2,259	347	271	70	-	5
City of Edmonton	23,238	1,568	2,126	1,328	21	79
East Capital Region	2,903	374	290	241	15	22
South Capital Region	1,096	162	121	94	5	9
West Capital Region	1,316	162	109	15	4	1
Capital Region Total	31,116	2,852	2,983	1,780	73	123
<i>Required % Increase from 2006:</i>		11%	23%		5%	12%

Note: Licensed spaces for ages children under the age of 7 include spaces in licensed day care centres, family day homes, drop-in centres, nursery schools and out-of-school care for children over the age of 4.5 years attending kindergarten. Licensed spaces for children between the ages of 7 and 12 include spaces in licensed out-of-school programs for children attending grades 1 to 6.

The table shows that the demand for out-of-school spaces for 7 to 12 year old students needing care is going to grow at a slower pace, which is consistent with the projected population growth for this age group. Assuming 2006 service levels (see Table 8-3), by 2011, the region is expected to require 73 more spaces (incremental to 2006 licensed capacity), partly because this age group is projected to grow at a slower rate. By 2016, when children from the second baby-boom echo reach school age, a further 123 spaces will be required.

To maintain current service levels by 2016, the Capital Region will require approximately 200 additional spaces in licensed out-of-school programs for children attending grades 1 to 6. While this number is low in absolute terms, it reflects a 12 percent increase from 2006 levels, which is consistent with the forecast population growth for this age group to 2016. Taking into account reports of latch-key children, lack of subsidy, waiting lists, and shortages of staff in the child care sector, the outstanding need is likely greater than presented.

8.4.2 Projected Child Care Subsidy Needs

In 2005, the provincial government distributed approximately \$23.7 million in child care subsidies in the Capital Region. This amount rose by 35 percent to \$32 million in 2006.¹¹⁴ That year, the provincial government provided subsidies to approximately 8 percent of children under the age of 13 in the Capital Region in the amount of about \$4,800 per year, on average per child.

Assuming the current level of reach extends over the next nine years, the analysis shows that the Alberta Government will need to increase annual subsidies over current levels by \$3.6 million between 2008 and 2011, and by \$7.4 million between 2012 and 2016. Assuming 2006 subsidy

¹¹⁴ Estimates based on Alberta Children's Services Data.

levels are maintained over the next nine years, approximately \$51 million (2007 constant \$) in total additional funding will be required.

8.4.3 Projected Child Care Staff Needs

In 2006, the provincial government provided staff support to more than 4,200 child care workers in family day homes and day care centres. Assuming the Capital Region requires additional 3,000 licensed spaces by 2011 and another 3,000 by 2016 and that current child:staff ratios are maintained, child care operators will need to recruit approximately 460 new staff by 2011 and another 490 staff by 2016.

Table 8-5 summarizes the estimated future need for licensed care provision, staff, and subsidies using regional population projections and assuming that 2006 service levels in the Capital Region.

Table 8-5 Summary of Future Requirements for Child Care Provision in the Capital Region

	Gap	Percent Increase from 2006 Levels
<i>Estimated Number of Licensed Spaces To Be Added between 2007 and 2016</i>		
Licensed Spaces for Children under the Age of 7		
City of Edmonton	3,700	19%
Other Municipalities in the Capital Region	2,100	37%
Total Capital Region	5,800	23%
Licensed Spaces for Children between the Ages of 7 and 12		
City of Edmonton	100	8%
Other Municipalities in the Capital Region	100	27%
Total Capital Region	200	12%
Total Licensed Spaces for Children under the Age of 13		
City of Edmonton	3,800	18%
Other Municipalities in the Capital Region	2,200	36%
Total Capital Region	6,000	22%
<i>Estimated Number of Additional Child Care Staff - Total Capital Region</i>		
Number of Additional Child Care Workers 2007-2016	950	22%

Table 8-6 Summary of Incremental Subsidy Requirements for Child Care Provision in the Capital Region

Estimated Child Care Subsidy Levels - Total Capital Region

	2011 Constant 2007 \$ Millions	Percent Increase from 2006 Levels	2016 Constant 2007 \$ Millions	Percent Increase from 2006 Levels
Additional/Incremental Subsidy	\$3.6	11%	\$7.4	23%

8.5 CONCLUSIONS

In reviewing the delivery of child care in the Capital Region in relation to projected population growth over the next ten years, we note that:

- Shortages of child care spaces are expected to intensify in the future due to high population growth and natural population patterns that will see an increase in the number of children in child care age. In addition, issues related to child care quality and affordability as well as staffing and training of child care workers, are expected to intensify with high economic growth.
- The ability of municipalities in the Capital Region to respond to future demand for child care precipitated by population growth is a function of availability of well-trained child care staff, additional licensed spaces, and provincial government funding. Assuming current service levels are maintained in the future, the region will require approximately 6,000 additional licensed spaces, 950 child care workers, and annual provincial government subsidies for child care of \$7.4 million by 2016. Additional qualitative analysis suggests that the need in the Capital Region is likely greater.
- Initiatives that work to increase the supply of child care workers in the Capital Region are important in ensuring licensed spaces are available for enrolment. In addition to advertising campaigns, wage top-ups and staff bursaries currently employed by the provincial government, the need for streamlined recognition of foreign and out-of province credentials and engaging of mature workers, such as retired teachers, in child care provision were also highlighted as important steps in increasing the supply of workers.
- Licensed capacity in the Capital Region has shown little change in recent years. Therefore, more innovative approaches to encouraging the creation of new child care spaces are needed. Given the linkage between staff recruitment and retention in all sectors of the economy with the availability of child care services, there may be opportunities to foster partnerships between employers and child care providers.
- Increasing operating costs are putting upward pressure on child care fees. Access to care of low-income families and families with children with disabilities is conditional on adequate subsidies that grow commensurate with population growth and child care fee increases.
- Municipal consultations and research showed that affordability is also an issue for families with children in grades 1 to 6 attending out-of-school care. There appears to be support for the creation of provincial government out-of-school subsidy for school aged children to complement existing municipal support.

- The next ten years will be marked by changes in the demographics and social characteristics of the population in the Capital Region and Alberta as a whole. These changes are expected to influence the demand for child care. It is important for the Alberta government to invest in research to better understand the demand for child care and in turn to be able to better respond to the changes in the demand with adequate government policies. Greater investment in research is particularly important at this time of change in government policy, to enable the provincial government to measure the effectiveness of the actions taken.

9. PUBLIC EDUCATION

9.1 INTRODUCTION

Schools are an integral component of a community's social infrastructure.

Neighbourhood schools, especially at the elementary level, play an important role in fostering a sense of community among families. In diverse communities, public schools can help to build understanding and acceptance among students and families from a range of ethnic and socio-economic backgrounds.

Education enhances the quality of life of individuals and communities. For individuals, education opens up work, further learning, and often as well, earnings opportunities. A region's education system supports building the workforce it will need in the years to come. Investments in helping residents achieve higher education levels can affect community well-being in other respects as well. For example, there is a positive link between education and community involvement, health, reduced reliance on social supports, and reduced involvement in criminal activity.

Alberta is recognized as having one of the best Kindergarten to Grade 12 education systems in the world.¹¹⁵

Responsibility for the delivery of public education services in Alberta rests with elected school authorities. Alberta Education provides capital and operating funding to school authorities, establishes the provincial curriculum and sets program standards, certifies teachers, and provides assessment services and implementation support to school authorities.

This analysis focuses on the public education services available in the Capital Region and the implications of the projected changes in the region's school aged population to 2016 for school facilities and services.

Many of the municipalities interviewed for this paper did not feel that they were in a position to comment on whether or not there are pressing K-12 issues in their communities.

9.1.1 Methodology

The preliminary assessment of school infrastructure needs, gaps and costs presented in this paper relies on the most recent population projections being used for the Capital Region Integrated Growth Management planning process. As these projections do not provide population breakdowns by age cohorts, the distribution of the projected population in the elementary/junior

¹¹⁵ In international tests, Alberta students rank alongside the best in the world. In the OECD's 2003 Programme for International Student Assessment (PISA), 15 year old students in Alberta scored among the top four of 40 countries in mathematics, reading and science. Source: *The Economist*, September 21, 2006.

high and high school age cohorts has been calculated by applying age proportions obtained from a previous run of the population forecasting model.

For the purposes of identifying potential gaps and planning inconsistencies, the Government of Alberta's approved capital projects list has been taken to be the existing approved plan for school capacity expansion. Costs associated with needed refurbishment or modernization of existing school facilities in the region have not been included in our analysis, as these costs are not directly related to population growth.

It is assumed that all of the incremental growth in school aged population in the Capital Region to 2016 will be accommodated by the public and separate school jurisdictions in the region (i.e., our analysis does not allocate students to charter or private schools in the region).

9.2 CURRENT SITUATION

9.2.1 Infrastructure

9.2.1.1 Schools

There are six public, five separate, and one Francophone school jurisdictions operating schools in the Capital Region. Table 9-1 shows the number of public schools in the region by municipality and school jurisdiction.¹¹⁶ The number of schools in each municipality has been extracted from Alberta Education's September 17, 2007 listing of school authorities and schools, which includes outreach and continuing education schools that may operate out of other community facilities.

In addition, there are five charter schools in Edmonton. These are non-profit public schools offering innovative or special programs or teaching/learning approaches. The region also has 43 private schools.

¹¹⁶ The boundaries of the following school jurisdictions extend beyond the Capital Region: Elk Island Public Schools, Elk Island Catholic Separate Schools, Evergreen Catholic Separate Regional Division, St. Thomas Aquinas Roman Catholic Separate Regional Division, and Greater North Central Francophone Education Region.

Table 9-1 Public Schools in the Capital Region

Municipality	School Jurisdictions	Number of Schools
Town of Beaumont	Black Gold Regional Division	5
Town of Bon Accord	Sturgeon School Division	3 (includes Oak Hills Boys Ranch, a residential treatment facility)
Town of Bruderheim	Elk Island Public Schools	1
Town of Calmar	Black Gold Regional Division	2
Town of Devon	Black Gold Regional Division	3
	Evergreen Catholic Separate Regional Division	1
City of Edmonton	Edmonton Public School Schools	197
	Edmonton Catholic Schools	84
	Greater North Central Francophone Education Region	6
	Charter schools -- Aurora, Boyle Street Education Centre, Suzuki	3
City of Fort Saskatchewan	Elk Island Public Schools	9
	Elk Island Catholic Schools	3
Town of Gibbons	Sturgeon School Division	3 (includes Sturgeon Learning Centre)
Lamont County	Communities with schools within the County boundaries include the Town of Lamont, Bruderheim, Andrew, and Mundare. The schools in Fort Saskatchewan also serve students living in Lamont County.	
City of Leduc	Black Gold Regional Division	10 (includes Storefront School)
	St. Thomas Aquinas Roman Catholic School District	4 (includes Outreach School)
Leduc County	Black Gold Regional Division operates New Humble School south of Calmar	1
	Communities with schools within the County boundaries include: City of Leduc, Calmar, Devon, Thorsby, Warburg, New Sarepta, and Beaumont.	
Town of Legal	Greater North Central Francophone Education Region	1
	Greater St. Albert Catholic Schools	1
Town of Morinville	Greater St. Albert Catholic Schools	4
Village of New Sarepta	Black Gold Regional Division	2
Parkland County	Parkland School Division operates some schools in smaller communities within the County, including Duffield (2 schools), Wabamun, Seba Beach, Tomahawk, and Riviere Qui Barre. The schools in Spruce Grove and Stony Plain also serve students living in Parkland County	

Municipality	School Jurisdictions	Number of Schools
Town of Redwater	Sturgeon School Division	3 (includes the Redwater Learning Centre)
City of Spruce Grove	Parkland School Division	9 (includes the Outreach school)
	Evergreen Catholic Separate Regional Division	3
City of St. Albert	St. Albert Protestant Schools	17 (includes Outreach school, continuing education, and home education)
	Greater St. Albert Catholic Schools	13 (includes Storefront school)
Town of Stony Plain	Parkland School Division	10 (includes Outreach school)
	Evergreen Catholic Separate Regional Division	1
Strathcona County	Elk Island Public Schools	25 (18 in Sherwood Park and 7 rural)
	Elk Island Catholic Schools	9 (7 in Sherwood Park and 2 rural)
	Charter school - New Horizons (for academically gifted students)	1
Sturgeon County	Communities within the County boundaries with schools include Namao, Lancaster Park, Gibbons, Redwater, Morinville, and Legal. Students living in Sturgeon County also attend schools in St. Albert, Edmonton and Fort Saskatchewan.	
Village of Thorsby	Black Gold Regional Division	2
Village of Wabamun	Parkland School Division	1
	Charter school -- Mother Earth's Children's Charter School (focus is traditional Aboriginal approach to education and personal development)	1
Village of Warburg	Black Gold Regional Division	1
TOTAL		439

9.2.1.2 Programs

One of the hallmarks of K-12 education in the Capital Region is student choice. Students are not restricted to attending schools in their neighbourhoods or even in their communities. Many students living in the region choose to attend schools offering a broader range of programs or opportunities, or offering programs that appeal to their specific interests or learning styles. For example, there are over 3,000 students attending Edmonton Public Schools that do not live in the district.

The larger school jurisdictions in the region offer a wide range of alternative programs, ranging from Aboriginal education programs, academic programs (e.g. academic challenge, International Baccalaureate, Advanced Placement), arts, sports, science and technology programs, Christian education, a wide range of immersion and second language programs, special programs for girls,

outreach programs for students that are not achieving success in traditional school environments, and programs for pregnant and parenting teens.

Some of the school jurisdictions in the region also provide supports for families choosing to educate their children at home. For example, LearnNet is an Edmonton Public Schools service that provides students in grades 9 to 12 with online instruction supported by district teachers.

Overall, there is a relatively high level of satisfaction among teachers, parents and students with opportunities for students to receive a broad program of studies -- including fine arts, career and technology studies, health and physical education -- in the region.¹¹⁷ Nine of the twelve school jurisdictions in the Capital Region had satisfaction survey results for this measure at or above the province-wide result (78.5 percent) for 2006-2007. The three jurisdictions falling slightly below the provincial result operate schools that are comparatively smaller than many of other schools in the region, and therefore might not be in a position to offer as broad a range of programs.¹¹⁸

9.2.2 Issues

Four of the municipalities offering an assessment of K-12 education services in the region during interviews -- Edmonton, Parkland County, Fort Saskatchewan and Beaumont -- indicated they feel there are pressing education issues that need to be addressed in the Capital Region. These issues appear to relate mostly to the need for new school facilities in communities or parts of communities currently experiencing -- or expected to experience in the near term -- significant population growth.

9.2.2.1 Misalignment Between Location of Schools and Where Students Live

Table 9-2 shows the current school utilization rates of the school jurisdictions in the region.¹¹⁹

Overall, there appears to be capacity within existing school facilities in the Capital Region to accommodate current K-12 enrolment. However, some of the existing capacity is in areas with low or declining school-age populations. At the same time, some schools in the region are overcrowded and many growing neighbourhoods do not have schools.¹²⁰

¹¹⁷ Alberta Education. *Accountability Pillar Overall Summary*, September 18, 2007.

¹¹⁸ <http://education.alberta.ca/apps/accountability/schoolauthorities.asp?type=byname>

¹¹⁹ These results pertain to the entire school jurisdictions, not only to the portion of the school jurisdictions within the Capital Region.

¹²⁰ It is recognized that some of the available school facility capacity of jurisdictions whose boundaries extend beyond the Capital Region could be in communities outside the region.

¹²⁰ Edmonton Public Schools estimates that approximately 25 percent of elementary students in the City of Edmonton live in neighbourhoods without a school.

Table 9-2 Current School Facility Utilization by School Jurisdiction

Jurisdiction	Registered Students 2006-07	School Facility Utilization 2006-07	Estimated Total Capacity 2006-07
Public			
Black Gold Regional Division No. 18	8,547	73.7%	11,597
Edmonton Public School District No. 7	80,756	65.5%	123,292
Elk Island Public Schools Regional Division No. 14	16,191	80.5%	20,113
Greater St. Albert Catholic Regional Division No. 29	7,083	81.8%	8,659
Parkland School Division No. 70	9,554	79.3%	12,048
Sturgeon School Division No. 24	4,546	79.8%	5,697
Separate			
Edmonton Catholic Separate School District No. 7	32,335	65.9%	49,067
Elk Island Catholic Separate Schools Division No. 41	5,903	80.6%	7,324
Evergreen Catholic Separate Regional Division No. 2	3,295	79.8%	4,129
St. Albert Protestant Separate School District No. 6	6,596	82.0%	8,044
St. Thomas Aquinas Roman Catholic Separate Regional Division No. 38	2,504	74.6%	3,357
Francophone			
Greater North Central Francophone	2,318	61.9%	3,745

Source: Alberta Education registered student counts for the 2006-2007 school year as of July 27, 2007 and jurisdiction facility utilization statistics provided by Alberta Education.

Note: Jurisdiction registered student counts include students attending schools outside the Capital Region for the following jurisdictions: Elk Island Public and Catholic Separate Divisions, Evergreen Catholic Separate Regional Division, St. Thomas Aquinas Roman Catholic Separate Regional Division, and Greater North Central Francophone. School facility utilization rates for these jurisdictions also include some schools outside the Capital Region.

The general provincial guideline for the approval of capital funding for new schools in jurisdictions has been that existing schools be at least 85 percent utilized. In the larger school jurisdictions in the region (i.e., Edmonton Public and Catholic Schools) this has led to the concentration of students in fewer facilities, many of which are older and require significant renovations.

Balancing the growing demand for new school facilities with the upgrading and maintenance needs of existing facilities and the desires of mature neighbourhoods to retain their schools is a major challenge for these school jurisdictions.

The expectation that school facilities be 85 percent utilized before jurisdictions are considered for capital funding for new schools could lead to the situation where rapid student population growth quickly results in overcrowding in existing schools.

9.2.2.2 Responsiveness of Operating Funding

The framework for the operating funding school jurisdictions and charter schools receive from the provincial government each year provides a combination of base funding, which is determined

primarily by enrolment¹²¹, additional funding for differential cost factors¹²² and targeted provincial priorities, transportation, and plant operations and maintenance.

For the 2007-08 school year, school jurisdiction funding rates were increased by 3 percent, below the region's inflation rate of about 5.5 percent.

Some of the school jurisdictions in the Capital Region identify concerns with the current Funding Framework in their three-year education plans. For example, St. Albert Protestant Schools notes a concern with the Credit Enrolment Unit (CEU) model for high school funding. The jurisdiction is concerned that the model does not provide stable or predictable funding and the monitoring process is burdensome.

Some of the education plans of the school jurisdictions in the region mention challenges in meeting the needs of certain student populations, including their growing ESL and Aboriginal student populations. Both the Edmonton Public and Catholic School boards are increasing the programming and supports they provide for these students.

Schools play an important role in providing English language instruction and other needed supports for students whose families have recently immigrated to Canada and settled in the Capital Region. In its three-year education plan, Edmonton Catholic Schools identified the following as some of the challenges they face in serving immigrant students:

- Educators needing a better understanding of effective programming for second language learners;
- The significant turnover in ESL teachers and need to sometimes assign teachers who lack ESL training; and
- The lack of resources to provide appropriate professional interventions that address the social, psychological and mental health issues of students who have experienced trauma and have severe development delays.

Starting this school year, Alberta Education has extended funding support for ESL from five to seven years and is providing new funding support for children as young as 3 1/2 years old in Early Childhood Services (ECS).¹²³

¹²¹ The exception is base funding for Outreach services, which is at a set level per approved Outreach site.

¹²² Differential cost factors include: students with disabilities; gifted and talented students; ESL students; First Nations, Métis and Inuit students; socio-economic status; small schools; intra-jurisdictional distance; enrolment growth/decline; small board administration; northern allowance; relative cost of purchasing goods and services; Francisation; enhanced ESL/Francisation and support services for immigrant students; and daily physical activity.

¹²³ Other ESL policy changes introduced this year include providing ESL funding to both Canadian and foreign-born students that qualify, and additional funding to support programs for ESL students.

9.2.2.3 High School Completion Rates

As the Capital Region's economy becomes more knowledge-based and technology focused, sustained success in the workforce will require higher education and skill levels. Increasingly, high school completion is required to open up job opportunities that support achieving a good quality of life. With housing costs rising in the region, the ability of youth to get the educational qualifications needed for good paying jobs is increasing in importance.

The strong job market in the Capital Region is believed to be a factor contributing to some high school students leaving school early. With the pressing shortage of workers in some sectors, such as the retail and tourism and hospitality sectors, some high school students are being encouraged by their employers to work longer hours at part-time jobs, which can interfere with school performance. Some students in lower income households are also likely working longer hours to help their families meet rising costs, especially rental housing costs. Of course, there are many other factors that can influence an individual student's decision to leave school.

Although 3-year high school completion rates have increased both provincially and in the Capital Region in recent years, further improvement continues to be a priority of Alberta Education and the school jurisdictions in the Capital Region. A number of outreach programs have been established to give students at-risk of dropping out of school opportunities to finish high school in non-traditional learning environments and be linked to other supports they might need to be successful in school. Some of the school jurisdictions in the region, including Edmonton Public and Catholic Schools, are also stepping up their programming and supports to help Aboriginal students achieve success in school.

The province-wide 3-year high school completion rate currently stands at just above 70 percent. (The 5-year rate, however, is 78.6 percent)

Table 9-3 below shows the 3-year high school completion rates for school jurisdictions in the Capital Region. As can be seen, a number of jurisdictions comfortably exceed the provincial average (e.g. Black Gold Regional Division, Elk Island Public and Separate Schools, and St. Albert Protestant and Catholic).

Table 9-3 Three-Year High School Completion Rates in the Capital Region

Jurisdiction	High School Completion Rate (2005-06)
Public	
Black Gold Regional Division No. 18	75.5%
Edmonton Public School District No. 7	63.5%
Elk Island Public Schools Regional Division No. 14	76.9%
Greater St. Albert Catholic Regional Division No. 29	79.8%
Parkland School Division No. 70	68.8%
Sturgeon School Division No. 24	70.8%
Separate	
Edmonton Catholic Separate School District No. 7	70.5%
Elk Island Catholic Separate Schools Division No. 41	77.5%
Evergreen Catholic Separate Regional Division No. 2	82.0%
St. Albert Protestant Separate School District No. 6	80.2%
St. Thomas Aquinas Roman Catholic Separate Regional Division No. 38	56.2%
Francophone	
Greater North Central Francophone	70.4%

Source: Alberta Education: High School Completion Rates for Alberta School Jurisdictions.

9.2.2.4 Student Transportation

Student transportation issues in the Capital Region are closely related to school facility issues.

The shortage of schools in newer neighbourhoods experiencing rapid growth in the region is requiring an increasing number of students to be transported to schools outside their neighbourhoods either by bus or their parents. There is concern about the length of time many students spend being transported to and from schools and the burden this is placing on school jurisdictions and families. Attracting and retaining bus drivers in the region's strong labour market is proving difficult for many school boards.

Another factor contributing to student transportation issues in the Capital Region is the lack of public transportation in many parts of the region.

9.2.2.5 Staff Shortages

Some of the school jurisdictions in the Capital Region are experiencing difficulty recruiting and retaining staff for certain positions, including Instructional and Special Needs Teaching Assistants, administrative and custodial staff, and as mentioned above, bus drivers.

The overall availability of professional teaching staff is not considered to be a pressing issue in the region at this time, however there are concerns about the availability of certain subject area teachers.

9.3 PLANS

The provincial government recognizes the challenge of the misalignment between the location of many of the existing schools in the Capital Region and where children live, particularly in Edmonton.

Alberta Education is in the process of developing a regional planning framework to facilitate community partners working together on regional capital plans and is continuing to audit every school within a five-year cycle under its School Facility Audit Plan.

In June of this year, the Minister of Education announced the Public-Private Partnership (P3) pilot project, which will result in the design-build of 18 new schools in the province by September 2010. Nine of these schools will be in Edmonton. The P3 schools will be built using a standard core design and allow for steel-framed modular classrooms to be added or removed as required to respond to changes in school enrolment. As is the case with other school facilities, they will be owned and operated by school boards. This approach to new school design and construction will shorten the time for new schools to be built.

These new facilities will expand the capacity of Edmonton Public Schools and Edmonton Catholic Schools by up to 6,600 in high growth areas of the city. If over time it is realized that less capacity is needed in certain areas, the modular design of these facilities will allow for the relocation of classrooms. The most recent estimate of the cost of these nine schools is \$250 million.¹²⁴

In addition to these approved P3 elementary and junior high schools in Edmonton, a new public high school is being built in southwest Edmonton at an estimated cost of \$30.6 million. This school will accommodate up to 1,000 students.

Table 9-4 shows the approved school facility projects in the Capital Region that will expand capacity in the region. School boards have identified additional capital priorities in their three-year capital plans. However, as these have not yet received approval from the provincial government, they are not included in this table.

The P3 schools are shaded below.

¹²⁴ Estimate provided by Strategic Capital Planning Branch, Alberta Treasury Board, November 21, 2007.

Table 9-4 Approved School Facility Projects that Will Expand Capacity in the Capital Region: 2008-2016

	Added Elementary and Junior High Capacity (P3 Schools)	Added High School Capacity
Schools in the City of Edmonton		
Northeast		
Lake District (Belle Rive) (Edmonton Public)	850	
Pilot Sound K-9 (Edmonton Public)	850	
Southeast		
Meadows K-9 (Edmonton Public)	850	
Southwest		
Terwillegar Heights K-9 (Edmonton Public)	850	
Heritage Valley K-9 (Edmonton Public)	850	
Windermere K-9 (Edmonton Catholic)	500	
Heritage Valley K-6 (Edmonton Catholic)	500	
Riverbend/Terwillegar 10-12 (Edmonton Public)		1,000
West		
Palisades K-9 (Edmonton Public)	850	
Lewis Farms K-9 (Edmonton Catholic)	500	
Edmonton Sub-Total	6,600	1,000
Schools Outside Edmonton		
North Capital Region		
Vincent J. Maloney Junior High -- St. Albert	240 (<i>estimate</i>)	
East Capital Region	0	
South Capital Region	0	
West Capital Region		
Memorial Composite High -- Stony Plain	0	225
Balance of Region Sub-Total	<u>240</u>	<u>225</u>
CAPITAL REGION TOTAL	6,840	1,225

9.4 PROJECTED SCHOOL INFRASTRUCTURE NEEDS AND GAPS**9.4.1 Recent Enrolment Trends**

In assessing school infrastructure needs in the Capital Region to the year 2016, it is useful to first look at student enrolment trends in recent years. Table 9-5 presents student enrolment information over the past five years. As can be seen, while overall enrolment has been relatively flat, some jurisdictions have experienced enrolment decreases and others have seen enrolment increases. Those experiencing the greatest enrolment increases have been Evergreen Catholic Separate Regional Division, St. Thomas Aquinas Roman Catholic Separate Regional Division, and Greater North Central Francophone Education Region.

Table 9-5 School Enrolment in the Capital Region: 2002-03 to 2006-07

Jurisdiction	2002-03	2006-07	Change in Enrolment 2002-2007	% Change in Enrolment 2002-2007
Public				
Black Gold Regional Division No. 18	8,612	8,547	(65)	-1%
Edmonton Public School District No. 7	82,497	80,631	(1,866)	-2%
Elk Island Public Schools Regional Division No. 14 <i>Adjusted</i>	15,452	15,356	(96)	-1%
Greater St. Albert Catholic Regional Division No. 29	7,482	6,946	(536)	-7%
Parkland School Division No. 70	9,390	9,547	157	2%
Sturgeon School Division No. 24	<u>4,801</u>	<u>4,549</u>	<u>(252)</u>	<u>-5%</u>
Total Public	128,234	125,576	(2,658)	-2%
Separate				
Edmonton Catholic Separate School District No. 7	30,823	32,344	1,521	5%
Elk Island Catholic Separate Schools Division No. 41 <i>Adjusted</i>	5,006	5,036	30	1%
Evergreen Catholic Separate Regional Division No. 2 <i>Adjusted</i>	1,863	2,441	578	31%
St. Albert Protestant Separate School District No. 6	6,592	6,628	36	1%
St. Thomas Aquinas <i>Adjusted</i>	<u>850</u>	<u>1,024</u>	<u>174</u>	<u>20%</u>
Total Separate	45,134	47,473	2,339	5%
Francophone				
Greater North Central Francophone <i>Adjusted</i>	1,496	1,993	497	33%
TOTAL (all Jurisdictions)	174,864	175,042	178	0.1%

Sources: Alberta Education, *Student Population by Grade, School and Authority: 2002-2003 School Year and 2006-2007 School Year (preliminary)*.

Notes:

1. The jurisdiction enrolment data presented above have been adjusted to remove schools outside the Capital Region. The specific adjustments that have been made are as follows: Elk Island Public Schools exclude schools in Vegreville; Elk Island Catholic Separate Schools exclude schools in Vegreville and Camrose; Evergreen Catholic Separate Schools exclude schools in Hinton and Westlock; St. Thomas Aquinas Roman Catholic Separate Schools exclude schools in Lacombe, Drayton Valley, Wetaskiwin, and Ponoka; and, Greater North Central Francophone Education Region excludes schools in Ft. McMurray, Jasper, Red Deer, and Wainwright.
2. The 2006-2007 enrolment data shown in this table differ from the registered students in Table 9-2 because of the above-noted adjustments and differences in the timing of the extraction of student registration information. This table presents student registration information as of January 26, 2007. Table 9-2 presents student registration information as of July 27, 2007.

9.4.2 Elementary and Junior High

Table 9-6 shows the projected enrolment in the elementary and junior high school aged population in the Capital Region to 2011 and 2016, based on the population modelling that has been done by Applications Management Consulting Ltd. for this project.

Table 9-6 Projected School Populations - Capital Region: 2011 and 2016 - Elementary and Junior High School

	2006	2011	2016	Growth 2006 to 2016
Edmonton				
Inner City	21,886	24,077	27,365	5,479
Northeast Total	16,565	16,521	16,777	212
Southeast Total	15,785	15,215	15,277	-508
Southwest Total	12,552	12,595	13,700	1,148
West Total	19,237	18,477	18,895	-342
Edmonton Sub-Total	86,025	86,885	92,015	5,989
Outside Edmonton				
North Capital Region	13,222	13,171	14,223	1,001
East Capital Region	13,529	14,560	16,049	2,520
South Capital Region	6,976	7,462	8,269	1,292
West Capital Region	8,586	8,987	9,700	1,114
Outside Edmonton Sub-Total	42,313	44,180	48,241	5,927
Total	128,338	131,065	140,256	11,916

Edmonton Inner City

Central Business District, Bonnie Doon, Capilano, Southgate, Downtown Fringe, Beverly, North Central, Jasper Place, University

Edmonton Northeast

Northeast Edmonton, Lake District/Pilot Sound, Landbank, Clover Bar, Clareview, Londonderry

Edmonton Southeast

Ellerslie, Meadows, Southeast Industrial, South Industrial, Mill Woods

Edmonton Southwest

Heritage Valley, Windermere, Riverbend/Terwillegar, Kaskitayo

Edmonton West

West Edmonton, Castle Downs/Palisades, Winterburn, Calder, Mistatim, Northwest Industrial, West Jasper Place

North Capital Region

Bon Accord, Gibbons, Legal, Morinville, Redwater, St. Albert, Sturgeon County

East Capital Region

Bruderheim, Fort Saskatchewan, Lamont County, Strathcona

South Capital Region

Beaumont, Calmar, Devon, City of Leduc, Leduc County, New Sarepta, Thorsby, Warburg

West Capital Region

County of Parkland, Spruce Grove, Stony Plain, Wabamun

These projections indicate:

- An overall increase of approximately 11,900 in the elementary and junior high school aged population by 2016, with the increase almost equally distributed between Edmonton and the rest of the Capital Region;
- The pace of growth in the elementary and junior high age cohort is greater in the 2012 to 2016 period. Approximately 77 percent of the projected increase in this age group will occur between 2012 and 2016;

- The areas that are expected to see the greatest increases in elementary and junior high aged population are the Edmonton inner city, Southwest Edmonton, and all of the quadrants outside of Edmonton.

The significant projected growth in this age group in the Edmonton inner city is worthy of comment. Current development plans for this area of the city contemplate high rise condominium development in the western portion of the inner city and low rise redevelopment in the eastern portion. Should single family housing become more affordable in the region, it is possible that the projected concentration of young families living in condominiums in the Edmonton inner city will not materialize.

An analysis of existing school jurisdiction facility utilization rates in the region and the elementary and junior high age population projections suggest that there will be a need for additional schools at the elementary and junior high level over and above the P3 schools shown in Table 9-4 already approved by the province for funding. Specifically, in the North Capital Region (projected increase of about 1,000 students, suggesting a need for one additional school); East Capital Region (projected increase of about 2,500 students, suggesting a need for four additional schools); South Capital Region (projected increase of about 1,300 students, suggesting a need for two additional schools); and the West Capital Region (projected increase of about 1,100 additional students, suggesting a need for two additional schools).

The projected large growth in the elementary and junior high school population in the Edmonton inner city suggests a need for school jurisdictions to begin assessing the implications of this growth in terms of either renovations/modernizations of existing schools or new schools.

A preliminary order of magnitude estimate of the capital cost of the additional needed capacity at the elementary and junior high level in the Capital Region is \$198 million.¹²⁵

9.4.3 High School

Table 9-7 shows the projected change in the high school aged population in the Capital Region to 2011 and 2016.

¹²⁵ This estimate assumes: 1) three of the needed new schools will have a capacity of 600 students and cost \$20.8 million each; 2) six of the needed new schools will have a capacity of 900 students and cost \$31.3 million each.

Table 9-7 Projected School Populations - Capital Region: 2011 and 2016 - High School

	2006	2011	2016	Growth 2006 to 2016
Edmonton				
Inner City	8,102	6,332	6,199	-1,903
Northeast Total	4,330	4,856	4,757	427
Southeast Total	4,107	4,433	4,342	235
Southwest Total	3,428	4,043	3,967	539
West Total	5,179	5,515	5,362	183
Edmonton Sub-Total	25,147	25,180	24,626	-520
Outside Edmonton				
North Capital Region	3,714	4,154	3,965	251
East Capital Region	3,633	4,552	4,511	879
South Capital Region	1,871	1,899	1,922	51
West Capital Region	2,346	2,334	2,322	-23
Outside Edmonton Sub-Total	11,564	12,939	12,720	1,158
Total	36,711	38,119	37,346	638

Edmonton Inner City

Central Business District, Bonnie Doon, Capilano, Southgate, Downtown Fringe, Beverly, North Central, Jasper Place, University

Edmonton Northeast

Northeast Edmonton, Lake District/Pilot Sound, Landbank, Clover Bar, Clareview, Londonderry

Edmonton Southeast

Ellerslie, Meadows, Southeast Industrial, South Industrial, Mill Woods

Edmonton Southwest

Heritage Valley, Windermere, Riverbend/Terwillegar, Kaskitayo

Edmonton West

West Edmonton, Castle Downs/Palisades, Winterburn, Calder, Mistatim, Northwest Industrial, West Jasper Place

North Capital Region

Bon Accord, Gibbons, Legal, Morinville, Redwater, St. Albert, Sturgeon County

East Capital Region

Bruderheim, Fort Saskatchewan, Lamont County, Strathcona

South Capital Region

Beaumont, Calmar, Devon, City of Leduc, Leduc County, New Sarepta, Thorsby, Warburg

West Capital Region

County of Parkland, Spruce Grove, Stony Plain, Wabamun

The projections indicate:

- The overall high school aged population in the region will increase by approximately 1,400 by 2011, with almost all of this increase being outside Edmonton;
- The overall high school population in the region will decline (by almost 800 students) between 2012 and 2016;
- Edmonton will see its overall high school aged population decline by about 500 students by 2016. The decline in the inner city high school aged population will

be offset somewhat by projected increases in this cohort in other parts of the city, particularly the southwest (which is expected to see an increase in its high school aged population of over 500) and the northeast (which is expected to see an increase of over 400);

- The area that is expected to see the largest growth in its high school aged population over the planning period is the East Capital Region, with an increase of about 880.

An analysis of existing school jurisdiction facility utilization rates in the region and the regional projections of the high school aged population to 2016 suggest that there will be a need for an additional high school in the East Capital Region (projected increase of 880 in the high school aged population).

While the population projections suggest that further additional high school capacity might not be required in the Capital Region by 2016 (e.g. the proposed new high schools in Leduc, southwest Edmonton, and near Spruce Grove), it is recognized that there are other factors that need to be taken into consideration in planning for school facilities, such as responding to demand for schools closer to where students live. Another consideration, of course, is the large projected increase in the elementary and junior high aged population before 2016 that will need to be accommodated at the high school level after 2016.

A preliminary estimate of the cost of the additional needed capacity at the high school level in the Capital Region by 2016 is \$31.3 million.

Table 9-8 Summary of School Infrastructure Gaps and Needs

Estimated Number of New Schools (2008 to 2016)	Schools			Unplanned Facilities (Gaps)	Total Requirements
	Planned	Unplanned	Required	<i>2007 Constant \$ Million</i>	
Elementary/Junior High					
City of Edmonton	9	-	9		\$250
Other Municipalities in the Capital Region	-	9	9	\$198	\$198
Sub-total	9	9	18	\$198	\$448
High School					
City of Edmonton	1	-	1		\$31
Other Municipalities in the Capital Region	-	1	1	\$31	\$31
Sub-total	1	1	2	\$31	\$62
TOTAL	10	10	20	\$229	\$510

NOTES:

- 1) The planned elementary/junior high schools in the City of Edmonton are the nine P3 schools shaded in Table 9-4.
- 2) The planned high school in the City of Edmonton is the new school being built in Riverbend/Terwillegar.

Estimated additional staff requirements are:

- 2011: 219 teaching staff and 125 non-teaching staff
- 2016: 665 teaching staff and 379 non-teaching staff

Table 9-9 Preliminary Estimates of Additional Operating Funding Requirements for Schools: 2011 and 2016

Estimated Incremental Operating Costs in 2011	Estimated Incremental Operating Costs in 2016
<i>2007 Constant \$ Million</i>	
\$34	\$104

9.5 CONCLUSIONS

The following conclusions are drawn from this analysis of the K-12 facilities and programs in the Capital Region in relation to projected growth to 2016:

- Capital cost requirements to meet growth related needs total \$510 million.
- Additional annual operating costs required to operate the new facilities in 2011 are estimated at \$34 million. By 2016, incremental annual operating costs will reach \$104 million in 2007 dollars.
- The region has a strong K-12 system, offering a broad range of choice. This can be expected to help attract families to the region.
- The next nine years will see an increase in the diversity of students attending schools in the region, particularly in Edmonton. It will be important that schools are prepared to respond to the needs of their changing student demographics.
- High school completion will be increasingly important in the Capital Region for residents to be able to secure work that allows them to meet their housing and other living costs. Continued investment in programs and supports to help students at-risk of not completing school is needed.
- Special initiatives might be required to ensure that staff shortages in certain occupations in the education sector, including administrative staff, instructional aides, special needs teaching assistants, custodial staff and bus drivers do not compromise the ability of schools in the region to offer quality educational services.
- The school jurisdictions in the region can be expected to continue to face the challenge of balancing the desires of mature neighbourhoods to retain their schools and new neighbourhoods to get schools.

- There will be a need for additional school facilities in the region -- possibly ten new schools over and above those already approved for funding by the province. The province's new P3 approach to building schools, with standard modular classrooms that can be added as needed to respond to enrolment growth, should help in ensuring there are schools where students live in the region.
- Edmonton school jurisdictions should begin to assess the implications of the projected growth in the elementary and junior high population in the city's core.
- Continued adherence to the guideline that school facilities be 85 percent utilized before jurisdictions are considered for capital funding for new schools could result in overcrowding in existing schools in those areas of the region expected to experience a rapid growth in the school-aged population.

10. POST-SECONDARY EDUCATION

10.1 INTRODUCTION

Post-secondary education provides benefits to both the individual receiving the education and to society as a whole. For an individual, a post-secondary education can mean economic benefits such as improved employment opportunities and higher earnings potential. It can also mean social benefits such as increased environmental awareness and improved political and community participation. For society, post-secondary education supports increased global economic competitiveness and social responsibility.

10.1.1 Alberta's Advanced Education System

10.1.1.1 Service Providers

Alberta's advanced education system is comprised of:

- **Public, board-governed institutions:** These institutions operate under the authority of the *Post-Secondary Learning Act* and include four universities, 14 colleges, two technical institutes and the Banff Centre for Continuing Education. The universities offer a broad range of undergraduate and graduate degrees, as well as carrying out research in a broad range of disciplines, including health, agriculture, and engineering. Colleges and technical institutes are primarily focused on offering certificates, diplomas, and applied degrees programs. However, some colleges also offer university transfer programs, providing their students an opportunity to begin their university studies at a college and then transfer, typically after two years, to a university. Most public institutions also offer a range of non-credit courses.
- **Community consortia:** These consortia are responsible for coordinating the delivery of credit learning opportunities to learners in communities not directly served by a post-secondary institution.
- **Private providers:** These include both for-profit and non-profit institutions. Private providers can be distinguished based on their program offerings:
 - Authorized degree programs - Currently there are seven private providers -- six not-for-profit (private university colleges) and one for-profit (DeVry) -- authorized to offer degree programs in select disciplines such as arts, science and education. The six private university colleges receive operating grants from Alberta Advanced Education and Technology.

- Non-regulated (non-credit programs) - These providers do not receive operating grants from Alberta Advanced Education and Technology.
- Licensed vocational training - there are approximately 140 private institutions offering licensed vocational programs under the *Private Vocational Schools Act*. They do not receive operating grants from Alberta Advanced Education and Technology.
- **Community-based organizations:** These are non-profit organizations providing part-time, non-credit learning opportunities with an emphasis on adults with barriers to accessing learning. Programs offered include adult literacy, professional development, and English as a Second Language (ESL).

10.1.1.2 Funding

Alberta's publicly funded post-secondary institutions receive grants from Alberta Advanced Education and Technology to support the delivery of their credit programs. Other provincial government departments also provide funding to support infrastructure development and renewal, specific research projects and select program delivery (such as preparatory and basic upgrading). In addition to these public funds, these institutions also obtain revenues through tuition and other student fees; ancillary activities, such as food and parking services; and donations. They can also receive funding from the federal government and private organizations for sponsored research.

Non-credit courses and programs at both public and private institutions do not receive operating grants from Alberta Advanced Education and Technology. These courses and programs are primarily funded through student fees.

Students enrolled in credit programs may be eligible for financial assistance, such as loans, grants and scholarships, depending on their situation.

10.1.2 Study Scope

This section addresses the post-secondary system in the Capital Region. It will focus primarily on publicly funded post-secondary institutions (i.e. public, board governed institutions and private university colleges). As a means of addressing future service delivery gaps, this section will provide:

- A background of existing post-secondary services and system capacity in the Capital Region;
- An overview of post-secondary issues in the Capital Region;
- A synopsis of existing growth plans for post-secondary institutions in the region;
- A projection of post-secondary students in the Capital Region; and

- An identification of potential future infrastructure gaps and service delivery issues.

10.2 CURRENT SITUATION

10.2.1 Infrastructure and Services

10.2.1.1 Publicly Funded Post-Secondary Institutions in the Capital Region

The Capital Region is home to a well-established, comprehensive system of post-secondary education institutions. Publicly funded post-secondary institutions in the region include:

- University of Alberta
- Grant MacEwan
- Norquest College
- Concordia University College
- Taylor University College
- King's University College; and
- Northern Alberta Institute of Technology (NAIT).

Enrolment

Enrolment in Capital Region post-secondary institutions accounted for over 44 percent of total post-secondary enrolment in the province in 2005-06. Table 10-1 provides an overview of enrolment by institution and by credential type in the Capital Region. Just over half of the full-load equivalent (FLE)¹²⁶ enrolment at publicly funded post-secondary institutions in the Capital Region is at the University of Alberta. Colleges accounted for approximately 28 percent while NAIT accounted for approximately 19%. In terms of credentials, over 44 percent of FLEs are in bachelor programs.

¹²⁶ Full Load Equivalent (FLE) Enrolment is an annualized measure which combines the enrolment of full-time and part-time students by totalling the official credits taken in the program (including failure credit). The credits total earned by students in each year of study is divided by the normal load for the year. This enrolment measure is stipulated by the Province of Alberta and is a province-wide standard used in association with government funding and accountability requirements.

Table 10-1 Full Load Equivalents (FLEs) Enrolment in the Capital Region (2005-06)

Institution	Certificate	Certificate - Journeyman	University Transfer	No credential/ not applicable	Applied Degree	Bachelor	Masters/ Doctoral	Diploma	Total	Percentage of Total (%)
University of Alberta	877			546		24,532	5,153	115	31,222	52.3%
Grant MacEwan	518		3,611	1,971	387			3,859	10,347	17.3%
NAIT	2,103	2,767		607	305			5,840	11,621	19.5%
Concordia University College				245		1,261	6	13	1,526	2.6%
King's University College						519			519	0.9%
Norquest College	1,144			2,690				362	4,197	7.0%
Taylor University College				39		175			214	0.4%
Total	4,642	2,767	3,611	6,098	692	26,487	5,159	10,189	59,645	100%

Source: Alberta Advanced Education and Technology

Out of Region Students

Publicly funded post-secondary institutions in the Capital Region are part of a larger, provincially-based post-secondary system. They draw students not only from the Capital Region, but from elsewhere in Alberta, across Canada, and from around the world. Table 10-2 shows the geographic origin of students at publicly funded institutions in the Capital Region. The majority -- over 64,000 or 71 percent -- of students attending publicly funded post-secondary institutions in the Capital Region in 2005-06 were from the region. However, students also came from elsewhere in Alberta (about 19 percent of enrolment) and Canada (about 7 percent of enrolment), and from outside Canada (about 3 percent of enrolment).

Table 10-2 Geographic Origin of Students at Publicly Funded Post-Secondary Institutions in the Capital Region: 2005-06

Region/Geographic Source	Total Enrolment	Percentage of Total (%)
Capital Region ¹	64,088	71%
Other Alberta	16,857	19%
Other Canada	6,349	7%
Outside Canada	3,012	3%
Unknown Location	350	0%
Total	90,656	100%

Source: Alberta Advanced Education and Technology

Notes:

1. The Capital Region has been defined as Statistics Canada Census Divisions 11 and 14.

Graduates

In 2005-06, there were approximately 18,400 graduates from publicly funded post-secondary institutions in the Capital Region, representing 44 percent of total Alberta graduates from publicly funded post-secondary institutions. The most common fields of study¹²⁷ among graduates in 2005-06 were:

- Health Professions and Related Clinical Sciences (19 percent)
- Business, Management, and Marketing (13 percent)
- Education (9 percent)
- Construction Trades (6 percent)

Campus Locations

In the Capital Region, all main campuses for publicly funded post-secondary institutions are located in the City of Edmonton. NAIT also operates a satellite campus in St. Albert. Other Alberta public post-secondary institutions operating satellite campuses/learning centres in the region include:

- Athabasca University in Edmonton and St. Albert;
- University of Lethbridge in Edmonton; and
- Lakeland College in Sherwood Park.

Lakeland College recently decided that it will close its learning centre in Sherwood Park at the end of the 2007-08 academic year. The College has indicated, though, that it will explore whether any post-secondary institutions in the Capital Region are interested in utilizing the space for future post-secondary learning. As well, the City of Leduc is currently in discussions with Olds College regarding the possibility of opening a satellite campus in the city. The town of Beaumont has also considered trying to attract a satellite campus from an Alberta post-secondary institution and is currently involved in discussions with Leduc regarding the potential Olds College campus to ensure regional efforts are not duplicated.

10.2.1.2 Private institutions

Along with the private university colleges mentioned above, the Capital Region is also home to a number of other private institutions and training providers. There are over 60 private institutions located in the Capital Region that are capable of offering a total of 314 vocational training programs licensed under the *Private Vocational Schools Act*. These private institutions are

¹²⁷ Based on the Classification of Instructional Programs 2000 Edition (CIP 2000).

located in Edmonton, Leduc, Sherwood Park, St. Albert and Spruce Grove. It is difficult to ascertain an accurate estimate of enrolment in these private institutions because:

- While programs are licensed, it does not mean the institution is currently offering the program; and
- These institutions are not required to report current enrolment figures to Alberta Advanced Education and Technology.

There are also private institutions in the Capital Region offering academic upgrading, English as a Second Language and/or basic skills training programs approved by Alberta Employment, Immigration, and Industry (AEII). AEII also contracts with certain training providers to deliver specific training programs such as self-employment training, occupational training in high demand, structured workplace-based training opportunities, and training for specific groups such as immigrants, youth, and Aboriginal Albertans.

10.2.2 Issues

Most municipalities interviewed for this review did not identify post-secondary education as a pressing issue -- only 15 percent considered it to be a pressing or very pressing issue regionally. However, there are issues the post-secondary system is currently facing that will impact the ability of institutions in the Capital Region to meet the post-secondary needs of students and industry.

10.2.2.1 Responding to Employer and Labour Market Needs

Employers rely on the post-secondary system to supply a large portion of the needed workforce with the appropriate skills to sustain Alberta's economic growth and prosperity. To assess the post-secondary system's ability to meet the needs of employers, Alberta Advanced Education and Technology commissions a bi-annual survey of employers in the province to assess their satisfaction with students and student skill levels emerging from Alberta's learning system. The latest survey results, conducted in December 2006, indicate that employers are generally satisfied with the skills and quality of work from Alberta's post-secondary graduates. Among the survey's findings are the following:

- The vast majority of employers (94 percent) reported being satisfied with recent post-secondary graduates' skills and quality of work. There were no significant differences reported across regions.
- While most employers reported being satisfied that post-secondary graduates are entering the workforce with an appropriate combination of skills and knowledge, satisfaction levels had declined between 2003 (77 percent to 81 percent) and 2005 (74 percent to 77 percent).

- Approximately 75 percent of employers agree that Alberta's learning system provides an adequate supply of graduates of all types, with the exception of apprenticeship graduates (58 percent). The location of employers appears to impact the type of recent graduate employers are looking for, with employers in Edmonton more likely to hire certificate graduates.

Along with surveying employers, Alberta Advanced Education and Technology also does bi-annual surveys of recent post-secondary graduates. Among the topics covered in the survey is the relatedness of employed graduates' jobs to the program area from which they graduated. The most recent survey (graduating class of 2003-04) would appear to indicate that a large majority of graduates are able to find employment that is related to the program from which they graduated. In particular, nearly 80 percent of employed graduates found work that was either very (50.8 percent) or somewhat (28.6 percent) related to the program. For graduates of publicly funded institutions in the Capital Region, the results are slightly higher with just over 84 percent of employed graduates finding work that was either very or somewhat related to the program from which they graduated. It's also important to note that the unemployment rate for graduates two years out of post-secondary is 3.1 percent for Alberta graduates and 3.2 percent for graduates of publicly funded post-secondary institutions in the Capital Region.

The demand for post-secondary graduates in the Capital Region can be expected to increase as a result of several factors, including:

- Increasing employment opportunities as a result of anticipated strong economic growth in Alberta.
- Increasing number of baby-boomers reducing their engagement in or leaving the workforce as they reach retirement age.
- Expectation that skill shortages in select occupations will continue in Alberta. Among occupations with the fastest growing occupational shortages from 2006 to 2016 are physicians, engineers, technical occupations in computer and information systems, and certain management positions.
- Large demand for trades people in the province. The supply of apprenticeship students continues to be an issue. In the Capital Region there is particular concern about the capacity of post-secondary institutions to accommodate apprenticeship technical training demand.
- Technological innovation, commercialization of new technologies, and new innovations leading to increasing knowledge and skill requirements for jobs, including the need for retraining opportunities and ongoing professional development.

- Increasing competition for workers from other jurisdictions (e.g. inter-provincial and international) means that increased emphasis will be placed on post-secondary graduates as a source of new labour supply.

10.2.2.2 Access

Public Satisfaction and Location of Institutions

Along with surveying employers and recent graduates, Alberta Advanced Education and Technology also does public surveys as a means of measuring satisfaction with the post-secondary system, including satisfaction with accessibility. Results from the most recent public satisfaction surveys indicate the following:

- Albertans are generally satisfied with access to adult education and training (79 percent); and
- A strong majority (77 percent) of those surveyed agree that programs, classes or courses are offered in locations (including online) that are easily accessible.

One issue regarding access to post-secondary education highlighted by smaller municipalities in the Capital Region was the lack of adequate public transportation to and from post-secondary institutions located in the City of Edmonton. Without adequate public transportation many post-secondary students are having to either make the long commute by private vehicle, contributing to further traffic congestion in the area, or relocate to the City of Edmonton, which is becoming increasingly more expensive. It has been suggested through municipal feedback that any regional transit planning should serve to improve transit service between all areas of the region and major educational institutions.

Unmet Student Demand

Currently, Alberta's post-secondary system is unable to accommodate all qualified Alberta applicants. According to Advanced Education and Technology, there were over 5,300 qualified Alberta applicants who were turned away in 2005-06 from publicly funded post-secondary institutions in the province. Table 10-3 provides an overview of those turned-away applicants by program area. The majority of applicant turn-aways occurred in programs with high demand such as the physical, natural and applied science programs, and health sciences.

Table 10-3 Applicant Turn-Aways¹ by Program

Program(s)	Applicant Turn-Aways
Physical, Natural and Applied Science	1,630
Health Sciences	1,365
Business	608
Other	516
Arts	460
Education	288
Law	238
Social Work	122
Fine Arts	102
Graduate Studies	<u>20</u>
Total	5,349

Source: Alberta Advanced Education and Technology

Notes:

- 1.) "Applicant turn-aways" refers to qualified Alberta applicants who were not accommodated at a publicly funded post-secondary institution in the province.

While applicant turn-aways from publicly-funded post-secondary institutions in the Capital Region can be estimated at between 2,100 – 2,600, addressing this unmet student demand cannot be done solely at a regional level. Because applicants to Capital Region post-secondary institutions come from across the province, and Capital Region residents also apply to institutions elsewhere in the province, the response to this unmet demand must be system-wide.

Affordability

Concerns regarding accessibility are oftentimes also related to the affordability of a post-secondary education. According to Statistics Canada, between 1997/98 and 2004/05, Alberta's average undergraduate tuition fees increased by nearly 50 percent. In response, the Provincial government introduced a new tuition fee policy in 2006 which sets tuition fees at 2004 levels and then limits annual tuition increases to inflation. To make up for lower tuition revenue, the government will provide institutions with extra revenue over the next few years.

When reviewing affordability, it's important to also consider factors other than tuition fees, such as living costs, opportunity costs, available financial support, and potential earnings after graduation. Recent cost of living increases in Alberta are a concern to post-secondary students, particularly those on fixed income. To assist post-secondary students, along with the new tuition fee policy, the provincial government has also introduced new scholarship and grant programs, as well as changes to the student assistance program as a means of improving access.

10.2.2.3 Quality

Through the bi-annual survey of post-secondary graduates, Alberta Advanced Education and Technology asks respondents to indicate their level of satisfaction with the overall quality of their educational experience. In the most recent survey, more than nine in ten, or 90.3 percent of graduates of Alberta post-secondary institutions surveyed were fully or somewhat satisfied with

the overall quality of their educational experience. Graduates of post-secondary institutions in the Capital Region showed slightly higher levels of satisfaction with 91.2 percent of graduates fully or somewhat satisfied with their overall educational experience.

10.2.2.4 Low Participation Rates

While Alberta has the highest workforce participation rates in the country, it also has among the lowest post-secondary participation rates, with the exception of apprenticeship training. While Canadians aged 18-34 are increasing their participation in post-secondary education, participation of 18-34 year olds in Alberta has declined since 2002. Participation rates are particularly low among certain population groups including Aboriginal peoples, persons with disabilities, individuals with low income and education levels, and immigrants.

Potential reasons for these low participation rates include:

- The strong job market is influencing some youth to delay or interrupt their post-secondary education to work.
- Some youth in low-income households need to work because of escalating costs, pulling them away from their studies.
- Many Albertans lack the foundational skills, such as literacy and numeracy, required for success in advanced learning.
- Strong in-migration of young people from other provinces seeking to take advantage of employment opportunities.

It should also be noted that high school to post-secondary transition rates for Alberta high school students has been steadily increasing over the four years leading up to 2005/06, the last year for which data is available.

10.2.2.5 Workforce Shortages

Through their business and strategic plans, several post-secondary institutions have highlighted concerns with workforce shortages across skill levels, from faculty to support staff. Tight labour market conditions and shortages in select occupations are leading to increasing competition for staff. Rising wages in other sectors are helping to attract support staff away while competition for faculty staff intensifies not only among post-secondary institutions in Alberta, but across Canada and even internationally.

Along with increasing competition for staff, a number of post-secondary institutions have identified workforce aging as a serious concern as significant numbers of faculty staff reach retirement age over the next few years.

The Alberta government has taken steps to assist post-secondary institutions in attracting and retaining faculty and support staff. For example, the provincial government has provided

institutions with increased operational funding as well as providing cost-of-living differentials for institutions in certain regions of the province.

10.2.2.6 Rising Institution Costs

Despite recent increases in provincial funding for the post-secondary system, institutions continue to face rising cost pressures as a result of:

- increasing costs for utilities,
- increasing wages as a means of attracting and retaining staff in a competitive labour market;
- increasing capital costs (e.g. materials, labour) for both maintenance and expansion projects; and
- increasing demand to invest in technology infrastructure in order to keep pace with technological change.

10.2.2.7 Role of Applied and Basic Research

Applied and basic research is playing an increasingly important role at universities and technical institutions. To support Alberta's future economic growth, the Government of Alberta has placed emphasis on developing, adopting and commercializing advanced technology and increasing the capacity of value added sectors in the economy. This will require increasing research capacity and innovation at Alberta's post-secondary institutions, including increasing the number of graduate students and supporting the attraction and retention of scientific personnel at public research institutions.

In the Capital Region, research plays an important role in the post-secondary system. The University of Alberta is one of Canada's largest research and teaching universities, attracting over \$415 million in sponsored research in 2004/05. As well, the University participates in all of the Networks of Centres of Excellence coordinated by the federal government and is home to the new National Institute for Nanotechnology, opened in 2006. There are also several research centres and initiatives that have been undertaken at NAIT including, the Duncan McNeill Centre for Innovation, which supports business incubation, and the Fuel Cell Applied Research Project which investigates and demonstrates ways of using the electricity and heat produced by fuel cells. NAIT also has an Office of Industrial Research & Innovation, which provides support for applied research. Other public post-secondary institutions in the region, such as Grant MacEwan and NorQuest are also involved in supporting applied research in various areas (e.g. health care, family and youth issues).

10.3 CURRENT PLANS

10.3.1 System-Wide

The Alberta Government has undertaken several initiatives in recent years aimed at improving the accessibility, affordability and quality of the post-secondary system. Among the initiatives taken are:

- Implementation of an overall advanced education learning policy framework arising out of the *A Learning Alberta* review.
- Increases in base operating grants to publicly-funded post-secondary institutions as well as additional funds to address reduced tuition revenue resulting from the government's new tuition fee policy.
- Increases in funding and changes to student assistance programs, loans and grants.
- Establishment of the Access to the Future Fund which provides funds for collaborative post-secondary projects and matching grants for donations to universities, college, technical institutes and other post-secondary providers to improve access, affordability, and quality.
- Expansion of post-secondary seats including a 26 percent increase in apprenticeship training and 2,400 new certificate, diploma, undergraduate and graduate spaces in 2006-07.
- Implementation of a new tuition fee policy that limits annual tuition increases to the annual change in the Alberta Consumer Price Index.

As Alberta Advanced Education and Technology moves forward, they, along with public post-secondary institutions in the province, continue to move towards greater collaboration and integration of the post-secondary system across the province. Existing initiatives to that effect include:

- initiating the development of a roles and mandate framework for the publicly-funded post-secondary system;
- implementation of the Campus Alberta policy framework aimed at increasing access and reducing barriers to learner movement within the learning system;
- working towards a common application process and system for applicants to public post-secondary institutions; and

- support for eCampusAlberta, a collaborative online learning initiative involving a consortium of fifteen colleges and technical institutes aimed at providing online learning to all Albertans.

10.3.2 Capital Region Post-Secondary Institutions

A review of the business and strategic plans of Alberta Advanced Education and Technology and public post-secondary institutions in the Capital Region highlight ongoing expansion plans over the next 4-5 years.

10.3.2.1 Planned Additional Capacity

The Government of Alberta has plans to add infrastructure capacity for an additional 5,480 FLEs at publicly funded post-secondary institutions in the Capital Region over the 2007-08 to 2010-11 period. Table 10-4 provides a breakdown by year and by project for these additional spaces. This is based on currently approved capital projects included in the 2007-10 Government of Alberta Capital Plan.

Table 10-4 Additional FLE Capacity 2007-08 to 2010-11 by Institution

Approved Capital Region Projects	Health Sciences	Physical, Natural & Applied Sciences	Trades & Technologists	Additional Capacity in FLEs
2007-08				
Grant MacEwan - Robbins Health Learning Center	1,600			1,600
NAIT - Centre for Apprenticeship Technologies			550	550
U of A - Health Research Innovation Facility	650			650
sub-total	2,250	0	550	2,800
2009-10				
U of A - Centennial Centre for Interdisciplinary Science		2,000		2,000
sub-total	0	2,000	0	2,000
2010-11				
U of A - Edmonton Clinic	680			680
sub-total	680	0	0	680
Total	2,930	2,000	550	5,480¹

Source: Alberta Advanced Education and Technology

Notes:

- 1) Does not include additional infrastructure capacity for 400 FLEs planned for the University of Alberta's Augustana Campus.

It's important to note that while infrastructure capacity to accommodate 5,480 FLEs by 2010-11 is planned, operational dollars are also required. At this time, operational funding for these potential spaces has not been secured.

As well, each post-secondary institution develops its own strategic directions and program offerings. Based on a review of strategic and business plans from public post-secondary institutions in the Capital Region, the following trends in future enrolment growth can also be highlighted:

- **Development and delivery of undergraduate degree programs.** Grant MacEwan is developing undergraduate degree offerings and NAIT has recently been approved to offer a 4-year Bachelor of Technology degree.
- **Demand for more health and allied health programs.** All four public post-secondary institutions are planning significant expansions of their health services programs to respond to labour market demand.
- **Encouraging increased post-secondary participation among under-represented groups** such as Aboriginal peoples and immigrants. NAIT is marketing to these prospective student groups, along with attempting to attract international students. NorQuest is expanding its programming aimed at immigrants (e.g. workplace language and intercultural education programming) and Aboriginal peoples (e.g. academic and occupational programming with an Aboriginal focus).
- **Expansion of apprenticeship training** to meet labour market demand. NAIT provides 50 percent of all apprenticeship FLEs in the province annually.

10.3.2.2 Infrastructure Expansion

Table 10-5 provides an overview of approved post-secondary infrastructure projects in the Capital Region receiving provincial funding. There is over \$800 million in provincial funding committed to post-secondary infrastructure projects in the Capital Region. All projects are within the City of Edmonton.

Table 10-5 Approved Major Post-Secondary Infrastructure Projects

Project	Construction Costs¹ (2007-2017) (\$ 000's)	Construction Timing
U of A - Health Research Innovation Facility	91,400	Teaching portion opened Sept 2007
Robbins Health Learning Centre -Grant MacEwan College - City Centre Campus	23,200	Opened Sept 2007
NAIT- Centre for Apprenticeship Technologies (Souch Campus and Main Campus)	4,800	Opened Sept 2007
Edmonton Clinic (U of A Portion)	418,000	
U of A - Centennial Center For Interdisciplinary Science	<u>265,000</u>	
TOTAL	802,400	

Source: Alberta Treasury Board

Notes:

1.) Construction Costs as of July 2007.

Several post-secondary institutions indicated a need to expand infrastructure capacity in the coming years as a means of accommodating increased enrolment. To address their infrastructure challenges each public post-secondary institution has developed its own capital/infrastructure plan. These plans provide an overview of infrastructure needs, as identified by individual institutions, but do not represent approved projects by the Government of Alberta.

- **University of Alberta:** The University's 2007-2011 Capital Plan identifies the need for an additional \$332 million in funding support from the Alberta Government within the first year of the four-year plan to support preservation of existing facilities, new/replacement projects, and expansion projects. As of September 2007, the provincial government has provided approximately \$100 million of the total requested.

Other items highlighted in the Capital Plan include:

- Additional space needed to accommodate increased enrolment and research activity. In response, the University has developed the Space Management Policy and will pursue implementation of this policy over the next few years in order to maximize space.
 - Deferred maintenance deficit has risen to approximately \$650 million and threatens to hinder the integrity of the University infrastructure and therefore its support of students, faculty, and staff.
 - Planning studies are being undertaken on the development of a university campus on the south side.
- **Grant MacEwan:** The main facilities challenge confronting Grant MacEwan over the next five years is capacity at the City Centre Campus. While the Robbins Health Learning Centre will add capacity, this could be exhausted within the next few years. Along with the relocation of the new Centre for the Arts at the City Centre Campus, Grant MacEwan is also proposing the development of a Central Services facility to house administrative and support functions as a potential solution. As well, a preferred site for the new South Campus has been identified and negotiations on land acquisition and development are currently ongoing with the Government of Alberta. A South Campus development strategy and master plan are being developed.
 - **NAIT:** NAIT's ten-year Campus Development Plan is comprised of several projects, including phase one of development of the 151-acre NAIT Ralph Klein Campus in south Edmonton. In total, the Development Plan contains approximately \$1 billion in infrastructure projects, of which \$750 million is being requested from the Government of Alberta with the remaining \$250 million to be raised through other sources.

- **NorQuest:** The College has developed a facilities development strategy to address expansion and restoration demands over the next 10 years. The College is proposing the development of a Learning Centre at its Downtown Campus to accommodate in excess of 1,500 new students to the year 2015. This project has been brought forward to the provincial government for approval. The College indicates that space availability will constrain growth until the Learning Centre facility comes on stream.

While post-secondary institutions have developed long-range capital plans to address infrastructure pressures, there are concerns whether the projects will make it through the necessary planning stages and secure the needed funding in time to address enrolment growth.

Post-secondary institutions are also under pressure from the increasing pace of technological change. As technology progresses, there is an increased need for institutions to acquire new equipment and computer software to support program delivery. There is also an increasing demand for technologically-enhanced program delivery methods such as e-learning. These trends can be expected to put added financial pressures on post-secondary institutions.

10.4 PROJECTED INFRASTRUCTURE NEEDS AND GAPS IN THE CAPITAL REGION

10.4.1 Forecasting Post-Secondary Enrolment Demand

Post-secondary enrolment demand forecasts adopted for this research were derived from population projections supplied by Applications Management Consulting Ltd. for the purposes of this project.

To derive enrolment demand forecasts, the analysis focused on the 18-34 age cohort. Table 10-6 provides an overview of growth among the 18-34 age cohort over the 2006-2016 period. As the table shows, the majority of growth in the 18-34 year-old population is expected to occur between 2006 and 2011.

Table 10-6 Population Projections of 18 - 34 Year Olds in the Capital Region

Year	18-34 yr olds in Capital Region	Change from 2006 (%)
2006	266,470	
2011	315,015	18.2%
2016	327,510	22.9%

Source: Applications Management Consulting Ltd.

In determining enrolment demand at post-secondary institutions, our analysis assumed a constant post-secondary participation rate among existing residents aged 18-34 based on the provincial post-secondary participation rate for this age group as of 2006. A slightly lower

participation rate was applied to those aged 18-34 who are migrating to Alberta between the 2008-2016 year period. This is based on the assumption that the majority of in-migration of 18-34 year olds will be related to employment opportunities and that their participation in post-secondary learning opportunities will therefore be comparatively less.

It is important to note that these participation rates have been adopted for this research in order to develop first draft forecasts of future enrolment demand. Post secondary participation rates will likely change over time depending on several factors including individual background characteristics, academic achievement, available employment opportunities, and the affordability of and accessibility to post-secondary learning opportunities.

To develop future enrolment demand forecasts, it is important to understand that enrolment at post-secondary institutions is typically measured, not by the total number students, but rather by the total full-load equivalents (FLEs). A full-load equivalent is calculated by determining how many courses a student took over a full fiscal year and then dividing this number by a “normal full load” for a full year of studies in a given program.

Student projections do not necessarily equate to an equal number of FLEs. This is because, while a student may be considered full-time, that does not mean they are taking the “normal full load” for a full year. Conversely, a student may be taking more than a “normal full load”. As well, full-time student projections completely ignore part-time students which are factored into FLE counts by post-secondary institutions.

For the purposes of developing first draft order of magnitude estimates, our analysis will assume a relatively constant ratio of students to FLEs based on the existing ratio at publicly funded post-secondary institutions in the Capital Region. However, this might very well not be the case as the level of part-time and full-time students is likely to change over time as a result of changes in program offerings as well as changes in the mode of delivery of those programs (e.g. increased e-learning options is conducive to encouraging more part-time studies).

Table 10-7 provides a forecast of annual enrolment demand at publicly funded post-secondary institutions in the Capital Region from 2006 to 2016. This forecast takes into consideration the new annual enrolment demand, as derived from population projections adopted for this research, as well as the unmet student demand referred to in section 10.2.2.7.

Table 10-7 Forecasted Annual Enrolment Demand at Publicly Funded Post-Secondary Institutions in the Capital Region

Year	Annual Enrolment Demand (FLEs)	Annual Difference	Annual Difference (%)
2006	61,858		
2007	63,303	1,445	2.3%
2008	64,849	1,546	2.4%
2009	66,508	1,659	2.6%
2010	68,296	1,788	2.7%
2011	70,229	1,933	2.8%
2012	70,802	573	0.8%
2013	71,379	577	0.8%
2014	71,961	582	0.8%
2015	72,549	587	0.8%
2016	73,141	592	0.8%

Notes:

- 1) Based on actual FLE enrolment numbers (last year of available data) as well as existing unmet student demand.

These enrolment demand forecasts also assume that the ratio of students from outside the region to students from inside the region remains constant. However, this also might not be the case since an aging population in many jurisdictions is reducing the ratio of 18-34 year olds to the total population. As this age group is the one most likely to engage in post-secondary studies, this means there might be more competition from other institutions in recruiting post-secondary students. Post-secondary institutions in the region are increasingly marketing their programs to students from other parts of Alberta, Canada and even from around the world.

10.4.2 Comparison to AET Enrolment Projections

Alberta Advanced Education and Technology also develops post-secondary enrolment forecasts for the purposes of planning. For this project, AET provided enrolment forecasts based on moderate growth assumptions and the assumption of constant participation rates. Table 10-8 provides a comparison of these AET enrolment forecasts to the enrolment projections developed for the purposes of this project.

Table 10-8 FLE Enrolment Forecasts Comparison

Year	CRIGMP ¹ Enrolment Demand Forecasts (FLEs)	AET Enrolment Forecasts (FLEs) ^{2,3}	Difference
2006	61,858	59,558	2,300
2007	63,303	60,656	2,647
2008	64,849	61,774	3,075
2009	66,508	62,912	3,596
2010	68,296	64,072	4,224
2011	70,229	65,253	4,976
2012	70,802	66,559	4,243
2013	71,379	67,891	3,488
2014	71,961	69,249	2,712
2015	72,549	70,635	1,913
2016	73,141	72,049	1,092
Average Annual FLE shortfall (2008 – 2016)			3,258

Notes:

- 1) CRIGMP: Capital Region Integrated Growth Management Plan.
- 2) AET provided enrolment forecasts for 2006, 2011 and 2016. Enrolment Forecasts for the intervening years (2007, 2008, 2009, 2010, 2012, 2013, 2014 and 2015) were based on derived annual growth rates in enrolment during the 2006-2011 period and the 2011-2016 period.
- 3) Enrolment forecasts supplied by AET were adjusted to include King's University College and Taylor University College.

Our analysis indicates a difference between FLE enrolment projections from AET and enrolment demand forecasts developed for the purposes of this project. The gap, on an annual basis, reaches a peak in 2011 at 4,976 FLEs, and then decreases to 1,092 FLEs in 2016. Over the entire 2008 to 2016 period, the average annual FLE shortfall is approximately 3,258.

10.4.3 Forecasted Additional Operating Costs

The provincial government's share of operating costs associated with the additional FLEs required to meet enrolment demand forecasted for the purposes of this project is estimated to be \$115 million in 2011 and \$150 million in 2016. Both estimates are in 2007 constant dollars and are based on current per FLE operating costs provided by AET. Future changes in the provincial government's portion of per FLE operating costs would affect these estimates.

10.4.4 Infrastructure Needs and Gap

As noted in section 10.3.2.1, the Government of Alberta already has plans to add infrastructure capacity for an additional 5,480 FLEs by 2010-11. This only partially covers the infrastructure requirements to meet forecasted enrolment demand. Over the 2008-2016 year period, annual enrolment demand is expected to increase by approximately 12,485 FLEs. Therefore, infrastructure capacity for a further 7,005 FLEs will be required. Based on existing average capital costs per FLE, this would require an additional capital expenditure of approximately \$616 million

(in 2007 constant dollars). Based on enrolment demand forecasts adopted for the purposes of this project, some of this expenditure will need to be allocated in the near term as forecasted enrolment demand is expected to be particularly strong over the 2008-2011 period.

It should be noted that this forecast is for additional infrastructure necessary to address the enrolment demand forecasted over the 2008 to 2016 period. It does not take into account:

- Facility renewal or replacement of older buildings; or
- Changes to existing infrastructure to accommodate new technologies.

Table 10-9 provides a summary of estimated costs for infrastructure in the post-secondary system in the Capital Region over the 2008-2016 period for both planned and unplanned FLE spaces needed to meet estimated student demand. Capital expenditures of approximately \$1.1 billion are required to address both existing unmet demand and forecasted enrolment demand. This includes approximately \$482 million in capital funding already provided for in approved capital projects.¹²⁸

Table 10-9 Infrastructure Gaps and Needs: 2008-2016

	FLE Requirements	Costs <i>2007 Constant \$ Million</i>
Total FLE Requirements	12,485	\$1,098
Planned FLEs	5,480	\$482
Unplanned FLEs (Gap)	7,005	\$616

Based on current infrastructure plans, as well as workforce projections and anticipated student demand, most of these FLEs can be expected to be added in high demand program areas such as:

- Health sciences;
- Physical natural and applied sciences;
- Languages, social sciences, arts and humanities;
- Business; and
- Trades and technology.

¹²⁸ As outlined in Table 10-5, there are already over \$800 million in approved post-secondary infrastructure projects in the Capital Region. However, not all of these expenditures will serve to expand FLE capacity. Capital expenditures per FLE estimates provided by Alberta Advanced Education and Technology were used to estimate the portion of currently approved post-secondary infrastructure projects that will serve to increase FLE capacity.

While this analysis proposes to quantify potential demand for spaces at publicly funded post-secondary institutions, these results should be interpreted with caution. In particular, the post-secondary system is not a regional system, but rather a provincial one, which accepts students from across the province, Canada, and even from around the world. As such, addressing future demand will require not just a regional response, a provincial response. Should plans for expansion of capacity at public post-secondary institutions in the Capital Region proceed in isolation of larger plans for expansion of capacity elsewhere in the public post-secondary system, the forecasts of future enrolment demand presented here will likely not hold true.

As well, our forecasts of future post-secondary enrolment demand assumes that meeting this demand will be done through the publicly funded post-secondary institutions with their main institution in the Capital Region. However, it's also important to note that:

- Other publicly funded postsecondary institutions, not based in the Capital Region, may play a role in addressing forecasted post-secondary enrolment demand in the region, either by way of satellite campuses in the region (e.g. University of Lethbridge) or by residents of the region choosing to leave to attend post-secondary school elsewhere in the province.
- Private institutions also play an important role in meeting the post-secondary needs of students in the region. Forecasted population and economic growth in the region is likely to create demand for other types of training, such as vocational and ESL training, offered by private institutions.

Our analysis also assumes that all projected enrolment demand must be accommodated by a physical space at a publicly-funded post-secondary institution. However, increasing demand for technologically-enhanced program delivery methods, such as e-learning, mean that many spaces could be accommodated by alternative delivery methods, with the potential for reduced capital costs associated with those spaces.

10.4.5 Impact of Population Growth on Post-Secondary Programming and Services

Increasing population and economic growth in the region will place increased pressure on enrolment, as outlined in the preceding section. The nature of that growth will also drive some more specific growth-related pressures on the post-secondary system in the Capital Region, including:

- Increased focus on workforce training issues, especially at the technical and apprenticeship level;
- Increased demand for language and bridge training as a result of increased immigration;
- Increased demand for foreign qualifications assessment;

- The potential that training will focus on the development of knowledge and skills needed in the short-term to support economic activity in the oil and gas and construction sectors, and not on education and training in fields needed to transition Alberta to a knowledge-based economy; and
- Increased demand for student financial assistance in the form of grants, loans, bursaries, and scholarships.

10.5 CONCLUSIONS

In reviewing the delivery of post-secondary services in the Capital Region in relation to projected population growth to 2016, we note that:

- Capital costs associated with both planned and unplanned FLEs required to meet estimated student demand at publicly funded post-secondary institutions in the Capital Region between now and 2016 are estimated at \$1.1 billion.
- The provincial government's share of operational expenditures associated with the additional FLEs required to meet the enrolment demand forecasted for the purposes of this research are estimated to be \$115 million in 2011 and \$150 million in 2016. It's important to note that this only refers to the provincial government's portion of operating expenditures to publicly-funded post-secondary institutions in the Capital Region.
- Publicly funded post-secondary institutions in the Capital Region service a much larger student base than just the Capital Region, with nearly 30 percent of all students coming from outside the region.
- Public post-secondary institutions in the Capital Region are a part of a much larger provincial system with movements towards greater integration and collaboration.
- Recent graduates of publicly funded post-secondary institutions in the Capital Region have strong employment outcomes and indicate high levels of satisfaction with the quality of their education.
- Publicly funded post-secondary institutions in the Capital Region have highlighted concerns with workforce shortages across skill levels, from faculty to support staff. The Alberta government has taken steps, including increasing operational funding, to assist post-secondary institutions in addressing these workforce issues.
- Issues of accessibility continue to be a concern with an estimated 2,100 to 2,600 applicant turn-aways from publicly funded post-secondary institutions in the Capital Region in 2005-06.

- Strong economic and population growth is expected to keep enrolment demand high for the foreseeable future.
- Additional operating and capital expenditures, beyond what is being planned for, are required to address existing unmet demand and additional enrolment demand forecasted, for the purposes of this project, over the 2008 – 2016 period.
- The public post-secondary system is a provincial system, not a regional one. Increasing capacity at the regional level must be part of a larger provincial plan for increasing enrolment capacity across the provincial system.
- Population growth will impact demand for specific post-secondary programming and services including workforce training, language training, and foreign qualifications assessment, and student financial assistance.

11. RECREATION

11.1 INTRODUCTION

Recreation includes all activities in which an individual chooses to participate in his or her leisure time. It involves sports and physical activities as well as artistic, creative, cultural, social and intellectual activities.¹²⁹

The Interprovincial Sport and Recreation Council recognizes that recreation is essential for the psychological, social and physical well-being of individuals.¹³⁰ Recreation also benefits communities by fostering social interaction, connectedness, and volunteerism.

Libraries, which for the purposes of this paper are included in the definition of recreation infrastructure, not only enhance recreational opportunities in a region, but also support a region's education system and expand the array of lifelong learning and literacy opportunities available to residents.

As a key contributor to the quality of life a region has to offer residents, recreation can be an important factor in the decisions of individuals and families considering moving to a region.

The analysis presented in this section does not span the entire breadth of recreation. It focuses on four major types of recreation infrastructure:

- Indoor swimming pools;
- Artificial ice arenas;
- Multi-purpose recreational facilities; and
- Public libraries.

While other aspects of the Capital Region's recreational infrastructure are touched upon in this section, requirements, planning gaps and issues relating to these have not been analyzed as part of this project.

Approximately one-third of the municipalities in the Capital Region identified recreation issues as pressing or very pressing in their communities.

¹²⁹ Interprovincial Sport and Recreation Council, *National Recreation Statement*, September 1987, Quebec

¹³⁰ Ibid.

11.2 CURRENT SITUATION

11.2.1 Infrastructure

11.2.1.1 Roles and Funding

All three orders of government¹³¹ as well as the private and non-profit sectors and individuals play important roles in supporting recreation in the Capital Region.

Federal Government

The federal government:

- Supports national and interprovincial initiatives on sports and recreation. As part of this mandate, it leads policy development and coordination of interprovincial initiatives and provides funding for regional sports and recreation projects.
- Manages Canada's national parks system to preserve our natural heritage and provide recreational opportunities for Canadians and visitors. As part of its mandate, the federal government manages Elk Island National Park, which borders the Capital Region;
- Develops policy and provides funding for a wide range of arts and cultural activities, including the promotion of multiculturalism and national identity;
- Manages the National Library of Canada and the National Archives of Canada; and,
- Provides capital funding for projects meeting criteria under various infrastructure funding programs. For example, some communities in the Capital Region have received funding under the Infrastructure Canada Program (ICP) for the construction, expansion or rehabilitation of library facilities.

Provincial Government

The provincial government supports the development of community recreation and cultural infrastructure under various grant programs, including:

- The Major Community Facilities Program (MCFP), which assists communities to plan, upgrade and develop large community-use facilities and places in order to enhance community life and citizen well-being. This is a one-time funding

¹³¹ The National Recreation Statement defines the roles of the federal, provincial, territorial and municipal governments in recreation.

program with a budget of \$280 million over two years, ending in the 2008-09 fiscal year. The City of Edmonton's annual allocation under this program is approximately \$35 million.¹³²

- The Community Facility Enhancement Program (CFEP), which provides financial assistance to build, repair, renovate or otherwise improve Alberta's extensive network of community-use facilities. This ongoing program provides matching grants to community groups and municipalities. The City of Edmonton's share of the funding is approximately \$7.5 million per year.¹³³
- The Community Initiatives Program (CIP), which supports project-based initiatives in areas such as community services, seniors' services, libraries, arts and culture, sports, education, health and recreation. CIP funding is approved on a matching grant basis to a maximum of \$75,000 per project per year. If a group can demonstrate significant difficulty in raising matching funds, up to \$10,000 will be considered on a non-matching basis. Province-wide CIP funding for 2007-08 is \$30 million.
- The Alberta Municipal Infrastructure Program, which is a \$3 billion program that assist municipalities primarily with core infrastructure projects, but capital projects for recreation also qualify.

The provincial government also manages the provincial parks system. There are three provincial parks in the Capital Region, which together, span over 200 square kilometres: Wabamun Lake Provincial Park, Pembina River Provincial Park, and Lois Hole Centennial Provincial Park.

Since 2000, the provincial government investment in municipally-owned and operated infrastructure has increased. For example, under the Alberta Centennial Legacy Grant Program, between 2000 and 2005, the Alberta government invested in excess of \$25 million in facilities in the Capital Region.¹³⁴ This represented approximately 22 percent of total Centennial Legacy funding.

The 2007-10 Business Plan of Alberta Tourism, Parks, Recreation and Culture includes approximately \$23 million in capital investment for parks, recreation and sport, culture and heritage projects and a further almost \$737 million in operational spending to support parks, recreation and sport, tourism, culture, community lottery grants and heritage this fiscal year.¹³⁵

¹³² Alberta Treasury Board, *List of Approved Capital Projects*, July 31, 2007.

¹³³ Alberta Treasury Board, *List of Approved Capital Projects*, July 31, 2007.

¹³⁴ Interview with Alberta Tourism, Parks and Recreation, 2007

¹³⁵ Alberta Budget 2007, *Alberta Tourism Parks, Recreation and Culture 2007-10 Business Plan*.

In regard to public libraries in the province, Alberta Municipal Affairs and Housing:

- Administers the *Alberta Libraries Act* and Regulation, which set out the governance structure and overall operational requirements for public libraries in the province;
- Provides operating grants to municipal and community library boards and library system boards. (Current library operating grant levels are a maximum of \$4.29 per capita based on a local appropriation of at least \$2.72; and, a maximum of \$3.22 per capita based on an additional minimum local appropriation to a library system board of \$1.53).¹³⁶
- Funds the Alberta Public Library Electronic Network (APLEN), the province wide network that supports the electronic sharing of information and library resources, and,
- Provides support to municipal and community libraries for SuperNet connectivity and utilization. The SuperNet provides libraries and their patrons with access to high speed Internet.

Although Alberta Municipal Affairs and Housing does not provide capital funding support for municipal and community libraries, the ministry does provide funding for library system headquarters facilities.

Municipal Governments

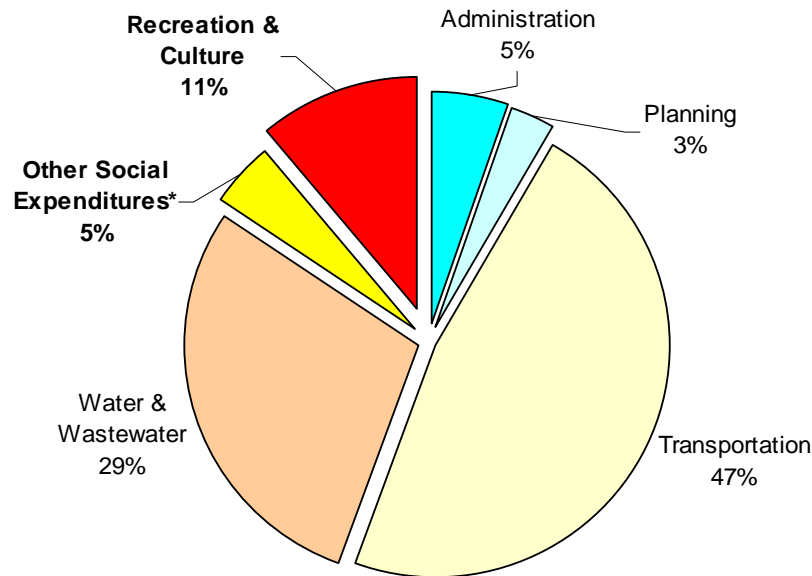
The availability of recreation and library facilities and services for residents is important to the municipalities in the Capital Region. Public libraries are valued as accessible public spaces that can be used for bringing people together for meetings, other gatherings and public discussions.

As shown in Figure 11-1, spending on recreation and culture accounted for 11 percent of total capital spending of municipalities in the region in 2005.

Between 1988 and 2005, the City of Edmonton invested over \$305 million in the construction and upgrade of recreation and cultural facilities. Strathcona County and the City of St. Albert - the second highest investors in the Capital Region - provided approximately \$70 and \$61 million, respectively.¹³⁷

¹³⁶ Alberta Municipal Affairs and Housing, *Funding for Public Library Service*.

¹³⁷ Real dollars, 1988-2005, Alberta Municipal Financial Information System (AMFIS). Note: data may include expenditures for cultural projects.

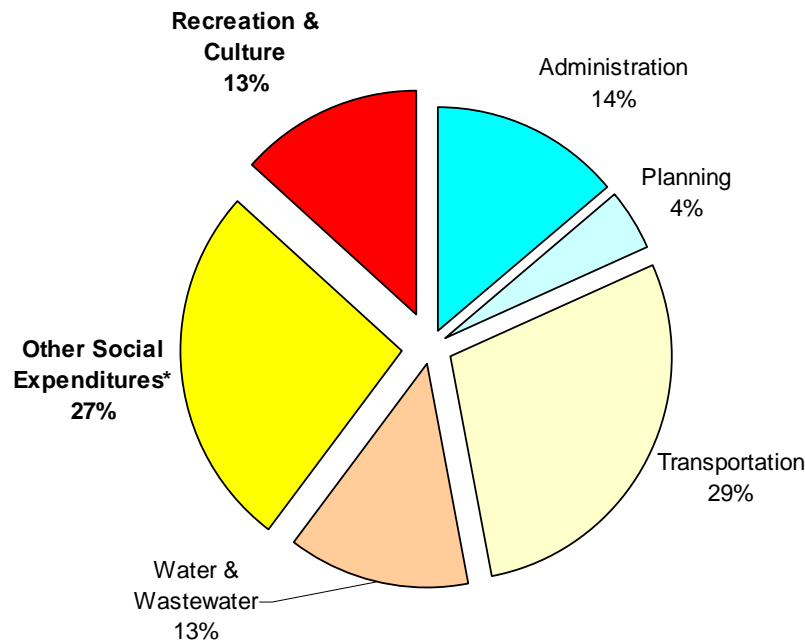
Figure 11-1 Capital Region -- 2005 Municipal Capital Expenditures

Source: Alberta Municipal Financial Information System data.

Note: Other Social Expenditures includes other municipal capital expenditures for social infrastructure as defined in this report (i.e., public housing, policing, emergency services, day care, Family and Community Support Services).

Municipalities and library boards rely heavily on other sources of funding, including provincial and federal government grants, and donations from community organizations, individuals, and businesses to finance the construction or refurbishment of recreation and library facilities. Some also raise money for facilities through issuing municipal debentures.

Operational spending by municipalities in the Capital Region for recreation and culture grew on average by 9 percent annually between 2000 and 2005. Total expenditures in this area were \$173 million and accounted for approximately 13 percent of the combined operating expenditures of municipalities in the region in 2005.

Figure 11-2 Capital Region -- 2005 Municipal Operational Expenditures

Source: Alberta Municipal Financial Information System data.

Note: Other Social Expenditures includes other municipal capital expenditures for social infrastructure as defined in this report (i.e., public housing, policing, emergency services, day care, Family and Community Support Services).

Municipalities cover the bulk of their costs of operating recreation and library facilities and delivering these services from municipal tax revenues, user fees, and, to a lesser extent, corporate and community support.¹³⁸

Municipalities provide the largest share of the funding for library services in Alberta. In 2005, municipal contributions for library services accounted for 69 percent of total library revenue. In comparison, provincial grants accounted for 14 percent of total library revenue.¹³⁹

11.2.1.2 Collaborative Initiatives

Several municipalities the Capital Region collaborate in planning for and providing their residents with recreation and/or library services. Examples include:

- The TransAlta Tri-Leisure Centre, which was built and is operated jointly by the municipalities of Spruce Grove, Stony Plain, and Parkland County;

¹³⁸ Recovery on the operation of facilities in the province is on average 85 percent for indoor ice arenas and 49 percent for indoor swimming pools. However, several of the newer multi-purpose facilities in the Capital Region, recover 80 to 90 percent of their operating costs through user fees.

¹³⁹ Municipal Affairs and Housing, *Public Library Statistics*, 2005.

- The rural and urban municipalities within the boundaries of Leduc County and Sturgeon County, which engage in joint planning and funding of recreation and cultural facilities;
- The River Valley Alliance, a collaborative partnership of the Town of Devon, Parkland County, Leduc County, City of Edmonton, Strathcona County, City of Fort Saskatchewan and Sturgeon County;
- Yellowhead Regional Library¹⁴⁰, which is headquartered in Spruce Grove. Member library boards include Calmar, Devon, Leduc, New Sarepta, Spruce Grove, Stony Plain, Thorsby, Wabamun, and Warburg;
- Northern Lights Library System. Member library boards include Bon Accord, Sturgeon County, Gibbons, Bruderheim, Morinville, and Redwater).¹⁴¹
- Informal collaboration among the library boards in Edmonton, Strathcona County, St. Albert and Fort Saskatchewan for the delivery of library services.

In addition, several municipalities have cost-sharing agreements in place. These are common between mid-sized municipalities and neighbouring rural municipalities. Many municipalities also have joint use agreements with schools.

Furthermore, municipalities in the Capital Region often pool resources – both financial and volunteer – to organize world class events such as the World Masters Games in 2005, the 2007 Western Canada Summer Games in Strathcona County, the 2007 Alberta Senior Games in Fort Saskatchewan, and the upcoming Alberta Winter Games that will take place in Leduc in February 2008.

11.2.1.3 Indoor Recreation Facilities

Residents of the Capital Region have access to a broad array of indoor recreation facilities, ranging from stand-alone community halls, exhibition halls, indoor athletic fields and courts, fitness centres, arenas, and pools to large multi-purpose recreation centres. These facilities represent a significant municipal investment in infrastructure, second only to investment in core infrastructure such as roads and water/wastewater facilities. For example, the replacement value of the City of Edmonton's recreation infrastructure is estimated at well-over \$0.5 billion.¹⁴²

¹⁴⁰ Library system boards provide leadership in supporting and enhancing library services of member boards, facilitate resource sharing among members, and provide services such as acquisitions, cataloguing and processing of library materials, rotating collections, technology supports, network services, staff and trustee training, electronic subscription services, reference services, and consultation on library service issues.

¹⁴¹ Membership in the Yellowhead Regional Library System and the Northern Lights Library System includes several other library boards outside the Capital Region. The Yellowhead Regional Library Board is a consortium of 48 municipalities and the Northern Lights Library Board is a consortium of 50 municipalities.

¹⁴² 2004 dollars. Alberta Tourism, Parks, Recreation and Culture.

Municipal representatives commented on the value of indoor swimming pools, ice arenas, and multi-purpose facilities to residents in the Capital Region. Multi-purpose facilities are a key trend in recreation infrastructure design and are quickly becoming the standard because they offer economies of scale, present opportunities for cross-programming, and can respond to the recreation demands of residents spanning all age groups and a wide range of abilities and interests.

Table 11-1 represents a summary of the existing indoor public swimming pools, sheets of artificial ice, and multi-purpose recreation facilities in the Capital Region. The locations of the large multi-purpose facilities are shown in Figure 11-3.

Table 11-1 Inventory of Selected Municipal Recreational Facilities in the Capital Region

Capital Region	Indoor Swimming Pools		Indoor Arenas (ice sheets)		Multi-purpose Facilities	
	Facility #	Service Ratio	Facility #	Service Ratio	Facility #	Service Ratio
North Capital Region	3	0.33	11	1.21	1	0.11
City of Edmonton	16	0.22	25	0.34	16	0.22
East Capital Region	5	0.50	13	1.30	2	0.20
South Capital Region	1	0.20	8	1.64	1	0.20
West Capital Region	2	0.32	6	0.96	1	0.16
Capital Region Total	27	0.26	63	0.60	20	0.20

Notes:

- 1) The table excludes privately-owned ice arenas and swimming pools as well as recreation facilities on First Nations Reserves and army bases.
- 2) The inventory of artificial ice excludes leisure and curling ice sheets.
- 3) Multi-purpose facilities are defined as large recreation facilities containing a mix of components such as aquatic, fitness, gymnasium, and indoor rink components, as well as flexible multi-purpose spaces for a variety of activities and other support services.

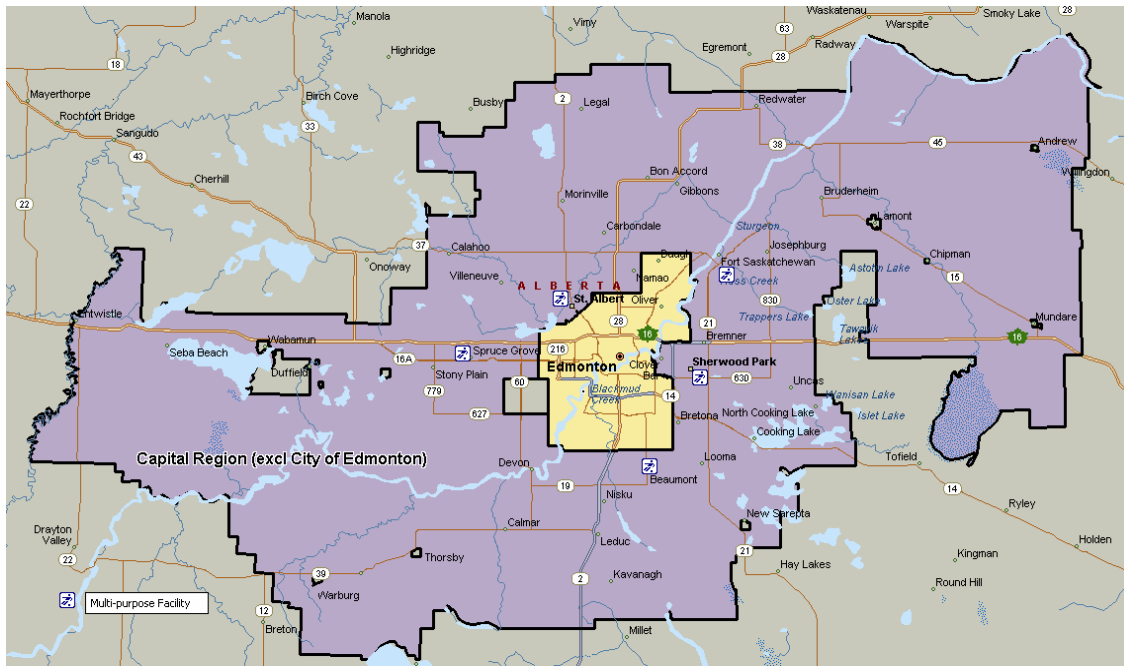
Figure 11-3 Map of Multi-purpose Facilities in the Capital Region

Table 11-1 also summarizes the service ratios - the number of facilities per 10,000 residents – by sub-region in the Capital Region. Caution is needed in interpreting these ratios. The City of Edmonton has identified that it would like to increase its service ratios in the future to 0.25 and 0.41, respectively, for indoor swimming pools and ice arenas.¹⁴³

The service ratios for the other parts of the Capital Region indicate that:

- The West and North Capital Region have the lowest multi-purpose facility service ratios.
- The South Capital Region has relatively fewer indoor swimming pools. In fact, there is only one indoor pool for the population of almost 50,000 in this part of the Capital Region. The ratio will increase in the future, however, with the planned expansion of the Black Gold Recreation Centre in the City of Leduc and the potential construction of an aquatic and fitness centre in the Town of Beaumont.
- The City of Edmonton and the West Capital Region have fewer municipally-owned sheets of artificial ice in comparison to other parts of the Capital Region.

¹⁴³ City of Edmonton, *Recreation Facility Master Plan – 2005-2015*, approved by City Council on August 31, 2004.

- The City of Edmonton's indoor arena service ratio is three to five times lower than the ratios of the sub-regions outside the City. This is leading to Edmontonians reportedly travelling, often in excess of 45 min, outside of the City for ice time in neighbouring communities in the Capital Region. Utilization rates of Edmonton indoor ice arenas ranged from 87 percent to 116 percent in 2005.¹⁴⁴ In the North and East sub-regions, where some communities have already begun to build in anticipation of projected population growth, utilization rates are lower.¹⁴⁵

11.2.1.4 Parks

Parks and other recreational lands include facilities such as tennis courts, urban parks, playgrounds, ball fields and golf courses and also less-developed areas within parks, such as meadows and woodlands. These lands are often integrated with a trail system for hiking, walking, cycling, or skiing. Recognizing the importance of recreation and the preservation of ecological reserves and natural heritage, municipalities in the Capital Region have invested substantially in parks, open spaces, outdoor recreation facilities and trails. For example, the replacement value of current stock of parkland in the City of Edmonton (i.e., horticulture, trails, hard surfaces, playgrounds, sports fields, parks and park infrastructure) is approximately \$1.5 billion.¹⁴⁶

11.2.1.5 Libraries

All of the municipalities in the Capital Region except the Town of Legal provide local library service through a municipal library board or, in the case of Sturgeon County, through a system library board. In total, there are 45 public library service points in the region.

Table 11-2 presents information on the public libraries in the Capital Region and shows the number of branches per 10,000 residents in different parts of the region. Comparative ratios for the Calgary Region and the province as a whole are also presented.

Table 11-2 Public Library Branches in the Capital Region

	Public Libraries	Libraries per 10,000 Population
North Capital Region	6	0.65
City of Edmonton	16	0.22
East Capital Region	9	0.91
South Capital Region	7	1.43
West Capital Region	7	1.08
Capital Region Total	45	0.43
Calgary Region	22	0.20
PROVINCE	310	0.96

¹⁴⁴ Ice utilization of beyond 100 percent reflects fewer floods than the standard (1/60 min) were required. City of Edmonton, *10-year Arena Development Strategy (2009-2019)*, approved by Council on July 17, 2007

¹⁴⁵ Social infrastructure consultations with municipal stakeholders, 2007

¹⁴⁶ 2004 dollars. Alberta Tourism, Parks, Recreation and Culture.

As noted above in the discussion of indoor recreation facilities, care must be taken in interpreting the ratios in the above table. A lower branch/population ratio cannot be interpreted as a lower service level. Larger centres might have fewer branches, but have larger holdings of library resources and provide a wider range of services. There are variations in the staffing, salaries and budget levels among libraries in the region, especially among boards not belonging to library systems.¹⁴⁷

11.2.1.6 Cultural Venues and Events

The Capital Region is also home to several other cultural venues and events. These include the Winspear Centre, Northern Alberta Jubilee Auditorium, Royal Alberta Museum (which is poised for a \$200 million refurbishment and expansion), the Art Gallery of Alberta (which is scheduled to move into a new, world-class facility in 2009), the Muttart Conservatory, Telus World of Science Museum, Citadel Theatre, Arden Theatre (St. Albert), Festival Place (Sherwood Park), Maclab Centre for the Performing Arts (Leduc), Devonian Botanic Garden (Leduc County), Dow Centennial Centre (Fort Saskatchewan), Horizon Stage Performing Arts Centre (Spruce Grove), Fort Edmonton Park and the Ukrainian Cultural Heritage Village.

With its numerous festivals and arts activities, Edmonton had the honour of being designated a Cultural Capital of Canada this year. Internationally recognized events to which Edmonton is host include: the International Fringe Theatre Festival, the Heritage Festival, the International Street Performers Festival, the Folk Festival, the Works Art & Design Festival, and the Edmonton International Film Festival.

Many other communities in the Capital Region also make significant contributions to the cultural fabric of the region. The St. Albert's Children's Festival, for example, attracts over 40,000 visitors each year. Legal is recognized as the French Mural Capital of Canada. Music and dance festivals across the Capital Region, such as the Kiwanis Festival, the Sherwood Park Music Festival and the Blueberry Bluegrass & Country Music Festival in Stony Plain, are also important cultural events.

11.2.2 Issues

Municipalities are facing a number of challenges with respect to their recreation infrastructure.

11.2.2.1 Increasing and Changing Demand

A number of trends are increasing – and in some cases changing – the demand for indoor and outdoor recreational facilities and programming in the Capital Region, including:

- Increased focus on healthy lifestyles and the integration of health and recreation activities;

¹⁴⁷ Members of library systems agree to some shared policies and service delivery mechanisms.

- Emergence of new popular sports;
- Rising population of preschool children;
- Aging population;
- Greater involvement of women and girls in organized sports;
- Greater participation in sports clubs in the region, which has increased competition for facilities, funds, and volunteers;
- Increased demand for unstructured or spontaneous recreational activities and for low-impact recreation options such as walking, hiking and recreational cycling. This trend is contributing to the growing interest in expanding access to and protection of parkland, open spaces and multi-use trails; and
- Increased use of all terrain vehicles (ATVs) and growing concerns about conflicting trail uses and ATVs being used in non-designated areas.

In many communities in the Capital Region, recreational programming tends to cater to younger children. Fewer options are available for seniors, teens and adults, particularly in smaller municipalities. The need for more recreational facilities and programming for teens, especially those vulnerable to social pressures, was mentioned frequently in discussions with municipalities.

As a substantial share of the future population growth is expected to come from immigration and in-migration, the population profile of many communities is expected to become more culturally diverse.

These trends are contributing to demand for new or retrofitted recreation facilities in the Capital Region.

Key trends in relation to libraries include:

- The role of libraries is changing with the increasing amount of information and resources available on the Internet. Libraries are often no longer the initial source of information for many patrons. However, they can play an increasingly important role in helping to guide patrons to credible sources of information on the Internet and assist with in-depth searching.
- Libraries are converting more of their holdings to a searchable online format, which has implications in terms of needed hardware, software and technical expertise. At the same time, however, this also increases opportunities for library resources to be shared among users in a region and throughout the province.

- Increasing patron demand for wireless connectivity.
- Libraries are serving an increasingly diverse clientele, including people with disabilities; Aboriginal peoples, and immigrants seeking resources to help improve their English language reading and speaking skills as well as resources in their first languages;

11.2.2.2 Staff and Volunteer Recruitment and Retention

As is the case with many of the other social infrastructure areas reviewed as part of this project, recreation service providers are faced with the challenge of recruiting and retaining qualified staff and volunteers to support their recreation programs. Many municipalities have observed a reduction in volunteerism among young adults in their communities. This is contributing to burnout among those who already volunteer in their communities, and is forcing municipalities to have to pay people to run more of their recreation programs.

Many smaller municipalities cannot keep up with the desires of their residents for expanded or different recreation opportunities. Some communities recognize that they lack the population base to support new facilities and see public transportation as a potential solution to provide greater access to recreational opportunities for their residents. An integrated approach to addressing this issue in the Capital Region holds potential.

11.2.2.3 Access to Outdoor Recreation Opportunities

Residents of the Capital Region have less access to provincial and national parks within two hours driving distance than residents in many other parts of the province, including Calgary. Many campgrounds in the Capital Region operate at full capacity during the summer weekends. Pressures on campgrounds in the region have increased in recent years with the tightening in the region's housing market and increased use of campgrounds for housing, rather than recreational purposes.

The North Saskatchewan River valley is considered to be a significant outdoor recreational asset of the Capital Region. Many municipalities would like to see this natural resource enhanced for recreational purposes through the expansion of the trail system to connect the municipalities along the river. At the same time, there is recognition of the importance of protecting and preserving the natural ecosystem of the river valley.

11.2.2.4 Increasing Need for Capital and Operational Funding

To build recreational facilities, municipalities have historically relied, although not exclusively, on provincial funding. Following substantial infrastructure investment in the 1970s and 1980s,

provincial government funding decreased in the 1990s to the point where Alberta municipalities spend roughly 2.5 times as much as the Government of Alberta on recreation and culture.¹⁴⁸

Many municipalities feel that recreation is not a high funding priority when competing with projects that address core municipal infrastructure deficiencies. After the cancellation of the Urban Parks Program in 1995, the provincial government has not had a program of this scale exclusively dedicated to funding capital recreation projects. The Major Community Facilities Program (MCFP) was an attempt to fill this gap; however, the program is scheduled to end in the 2008-09 fiscal year. Many municipalities feel that existing provincial and federal government funding mechanisms do not meet their needs. Both the Alberta Urban Municipalities Association and the Alberta Recreation and Parks Association have actively lobbied for the re-establishment of the Urban Parks Program.¹⁴⁹

Cost escalations of close to 2 percent per month or up to 25 percent per year in development costs¹⁵⁰ for the construction and maintenance of recreational facilities are seen as a significant issue in the region's strong economy. Escalations and potential cost overruns are of particular concern to those municipalities that have received project approval, but not yet begun work.

Provincial grants to support library operations are also a concern of municipalities. Between 2000 and 2005, provincial government support for public libraries increased by about 26%. Over the same period, local support for public libraries in the province increased by 45%.¹⁵¹

11.2.2.5 Rising Cost to Use Recreation Facilities

User fees for many recreation facilities increased 90 percent between 1988 and 1999 -- and more since then. As a result, affordability is becoming a significant recreation issue.¹⁵²

11.2.2.6 Aging Infrastructure

Many indoor recreation facilities were built largely with provincial funding in the 1970s and the 1980s. The average age of recreational facilities in Alberta is now 37 years.¹⁵³ Many facilities in the region need renovations or a retrofit to address energy efficiency needs or to meet demands for emerging recreational activities. This has led to substantial increase in capital maintenance expenditures.

¹⁴⁸ Provincial funding for recreation and culture declined in absolute dollars between 1989 and 2000 while real per capita funding levels, adjusted for inflation, declined by more than 40 percent. Provincial funding has also been markedly variable. Source: Alberta Recreation and Parks Association, *Investing in Healthy People and Communities through Recreation and Parks Infrastructure: ARPA Position Paper*, 2006

¹⁴⁹ Alberta Recreation and Parks Association, *Proposal for Re-established Urban Parks Program*, 2002 and Alberta Urban Municipalities, *RESN 2006.C.ii. 15: Urban Parks Program Re-establishment*, adopted at the 2006 AUMA Convention

¹⁵⁰ City of Leduc, *Choice and Direction*, July 2007

¹⁵¹ Alberta Municipal Affairs and Housing, *Public Library Statistics*, 2005.

¹⁵² Alberta Recreation and Parks Association, *Investing in Healthy People and Communities through Recreation and Parks Infrastructure: ARPA Position Paper*, 2006

¹⁵³ Alberta Recreation and Parks Association, *Community Recreation Infrastructure in Alberta: 2006 Updated Facilities Assessment Report – May 2006 Draft*

The infrastructure renewal is identified as a strategic priority of Alberta Tourism, Parks and Recreation in its current Business Plan.

11.2.2.7 Cost-Sharing Arrangements

Recreation facilities, which are often heavily subsidized with municipal dollars, tend to serve residents of neighbouring communities. There are issues with the cost-sharing agreements between municipalities in the Capital Region. Some municipalities have expressed the need to address the issue of equitable cost-sharing by instituting an impartial board with municipal representation.

11.3 PLANS

Municipalities undertake recreational needs assessments and prepare recreation plans to ensure that they are responding to needs in their communities. Library boards also conduct needs assessments to ensure that their services are appropriate for their users.

Municipal planning for recreation takes many different forms. Municipalities may prepare recreation plans as part of larger capital or infrastructure planning processes. They may also prepare a plan for a specific facility (multi-purpose centre) or type of facility (arenas). The planning process for recreation facilities is typically undertaken in phases. After plans have received endorsement or an approval in principle by municipal councils, feasibility studies are prepared. The proposed infrastructure projects are then submitted for council approval (and sometimes community vote) and become a part of the municipal budget.

The quantitative analysis included in this report is based on population projections for the region and qualitative information about community needs obtained during discussions with municipal stakeholders. It excludes municipal plans that have only received approval in principle or are not currently in the public domain. The intent of this analysis is to present order of magnitude estimates of future requirements for recreation facilities in the Capital Region and not to replicate the municipal planning process.

11.3.1 Plans for Indoor Recreation Facilities

The municipalities in the Capital Region have given approval for the construction of four new multi-purpose facilities and the redevelopment of five existing recreation facilities into multi-purpose centres. The additional multi-purpose facilities will increase the regional stock of indoor public swimming pools by seven and artificial ice sheets by nine. The facilities are estimated to cost approximately \$450 million.¹⁵⁴

¹⁵⁴ City of Edmonton, *Medium Term Recreational Facility and Sports Filed Plan to 2015*, July 2007 and City of Leduc, *A Strategic Approach to Meeting Short-term and Long-term Indoor Leisure Facility Demand*, July 2007

In support of municipal plans, the provincial government has approved approximately \$185 million for the construction of recreation infrastructure in the Capital Region in the next 10 years. This includes investments in Northlands, Commonwealth Stadium, Rexall Place, and funding under the Community Facility Enhancement Program and the Major Community Facilities Program.

11.3.2 Plans for Library Facilities

Strathcona County is planning for a new library facility as part of its Centre in the Park initiative and Edmonton is currently building the Lois Hole Branch Library.

11.3.3 Plans for Outdoor Facilities

To leverage limited funding, municipalities have engaged in joint planning and development of parks and trails in the area. The total value of parks and recreation trails development projects endorsed by municipal councils in the Capital Region in the next 10 to 15 years is estimated at close to \$682 million (see Table 11-3). Most of these initiatives are proposed by the River Valley Alliance.

The River Valley Alliance is a not for profit organization whose shareholders are the seven municipalities holding lands in the North Saskatchewan River valley -- the Town of Devon, County of Parkland, Leduc County, City of Edmonton, Strathcona County, City of Fort Saskatchewan, and Sturgeon County. The goal of the Alliance is to protect and enhance the Capital Region's river valley and to further its development into one linked and accessible single regional park over a connected distance of 88 kilometres, encompassing 18,000 acres of land. The implementation costs of the plan have been estimated at \$605 million¹⁵⁵ -- \$549 million in capital costs and \$56 in operating cost.

The North Saskatchewan River Valley is an important natural resource and has high recreational value. With annual visits in excess of 10 million, the river valley is the second most visited site in Alberta next to West Edmonton Mall. Over the past 60 years, more than \$500 million has been invested in the river valley and the River Valley Alliance plan aims to further enhance this natural resource. The overall economic benefits of implementing the plan are estimated at \$179 million per year or \$1.6 billion in cumulative effects by 2016.¹⁵⁶

¹⁵⁵ River Valley Alliance, *Capital Region River Valley Park Plan of Action*, January 2007

¹⁵⁶ Ibid

Table 11-3 Preliminary Plans for Outdoor Recreation Infrastructure

Region/Regional Group	Budget
	<i>Constant 2007 \$ Million</i>
North Capital Region	\$ 25
City of Edmonton	\$ 9
East Capital Region	\$ 10
South Capital Region	\$ 13
West Capital Region	\$ 20
River Valley Alliance	\$605
Capital Region Total	\$682

Sources: River Valley Alliance, *Capital Region River Valley Park Plan of Action*, January 2007; Town of Devon, *Facility Development Plan*, October 2006; Strathcona County, *Draft Open Space and Recreation Facilities Strategy*, November 2007; City of Edmonton, *Medium Term Recreational Facility and Sports Field Plan to 2015*, July 2007; City of Leduc, *A Strategic Approach to Meeting Short-term and Long-term Indoor Leisure Facility Demand*, July 2007; Leduc County, *Parks and Open Spaces Master Plan*, March 2006; Town of Morinville, *Recreation, Parks and Open Spaces Master Plan 2005-2015*, February 2005; City of St. Albert website; Village of Wabamun website; Town of Stony Plain website; City of Spruce Grove website; consultations with municipalities.

The province reportedly also intends to fund further development of Lois Hole Centennial Provincial Park, which would enhance the Capital Region's park resources.¹⁵⁷ Other provincial government plans relate to the development of parks in Northern Alberta, which will also cater to residents in the Capital Region.

11.4 INFRASTRUCTURE NEEDS AND GAPS

11.4.1 Recreation Infrastructure Requirements

Assuming current service levels (see Table 11-1) for the next ten years, the projected population growth in the Capital Region is expected to increase the demand for indoor pools, arenas and multi-purpose facilities. By 2016, municipalities will have to explore the feasibility of at least construction of two to four new multi-purpose facilities in the region, in addition to three to seven new indoor pools and 14 to 17 new indoor artificial sheets of ice. Table 11-4 summarizes the projected need for additional indoor facilities by sub-region.

¹⁵⁷ Interviews with Alberta Tourism, Parks, Recreation and Culture

Table 11-4 Projected Need for Additional Municipal Indoor Facilities in the Capital Region

Capital Region	Incremental Number of Facilities -- to 2011			Incremental Number of Facilities -- 2012 to 2016		
	Indoor Pools	Indoor Arenas	Multi-purpose Facilities	Indoor Pools	Indoor Arenas	Multi-purpose Facilities
North Capital Region	0 to 1	2 to 3	0	0	1	0
City of Edmonton	1 to 2	2	1 to 2	1	2	1
East Capital Region	1 to 2	4	0 to 1	0 to 1	1	0
South Capital Region	0	1	0	0	1	0
West Capital Region	0	0 to 1	0	0	0 to 1	0
Capital Region Total	2 to 5	9 to 11	1 to 3	1 to 2	5 to 6	1

Table 11-5 shows the planned and unplanned requirements for indoor recreation facilities in the Capital Region. The City of Edmonton has approved plans to respond to future recreation needs that will arise from the anticipated population growth. The City is planning to build four new multi-purpose facilities and to retrofit an additional four facilities to accommodate multi-purpose recreational needs. The capital costs associated with the implementation of this recreation plan are estimated at \$405 million¹⁵⁸ in capital expenditures and \$230 million¹⁵⁹ in total operating expenditures between 2008 and 2016 that would be partially recoverable from user fees. Funding for the full implementation of the plan is yet to be secured.

A comparison between tables 11-4 and 11-5 suggests that the City of Edmonton's plans exceed the projected requirements. This is due to several reasons:

- The quantitative analysis takes the conservative stance of assuming current service levels will be maintained in the future, while the City of Edmonton aims to achieve higher service standards;
- The City of Edmonton plans take into account prevailing demand trends in terms of facility characteristics (e.g., multi-purpose facilities); and
- The City of Edmonton is a regional centre and as such includes plans for highly specialized facilities that serve residents beyond its borders – in the Capital Region and, in certain circumstances, in Northern Alberta.

¹⁵⁸ 2007 dollars. City of Edmonton, *Medium Term Recreational Facility and Sports Filed Plan to 2015*, July 2007

¹⁵⁹ Estimates based on Alberta Recreation and Parks Association Infrastructure Committee, Operations Survey, January 2006; Alberta Recreation and Parks Association, *Community Recreation Infrastructure in Alberta*, May 2006; and interviews with representatives of Alberta Recreation and Parks Association, City of Edmonton, Strathcona County, City of Leduc, and other key informants.

Table 11-5 Summary of Capital Funding Requirements to Address Planned and Unplanned Municipal Recreation Facility Needs (2008-2016)

Capital Region	Additional Facility Needs			Capital Cost for Unplanned Facilities	Total Capital Cost Requirements
	Planned	Unplanned (Gap)	Total Required		
Estimated Number of New Indoor Public Swimming Pools (2008-2016)	-- number of facilities --			2007 Constant \$ Million	
City of Edmonton	7	-	7	-	¹
Other Capital Region	-	1 to 4	1 to 4	\$10 to \$50	\$10 to \$50
Total Capital Region	7	1 to 4	8 to 11	\$10 to \$50	\$10 to \$50
Estimated Number of New Indoor Arenas (ice sheets) (2008-2016)					
City of Edmonton	8	-	8	-	¹
Other Capital Region	1	9 to 12	10 to 13	\$80 to \$100	\$80 to \$100
Total Capital Region	9	9 to 12	18 to 21	\$80 to \$100	\$80 to \$100
Estimated Number of New Large Multi-purpose Facilities (2008-2016)					
City of Edmonton	8	-	8	-	\$405
Other Capital Region	1	-	1	-	\$44
Total Capital Region	9	-	9	-	\$449
Total Capital Costs for Incremental Facilities					\$540 to \$600

Notes:

1. City of Edmonton plans for indoor swimming pools and ice arenas are treated as integral part of plans for multi-purpose facilities and as such their capital budget is presented under multi-purpose facilities.
2. Replacement facilities, draft plans, and plans approved in principle are not taken into account.
3. It is important to note that in estimating the unplanned facility gap, current service levels of one multi-purpose facility per sub-region outside the City of Edmonton are assumed, with the exception of the East Capital Region where two multi-purpose facilities were taken into account, even though the DOW Centennial Centre does not have an aquatic component. Taking into account emerging trends that favour multi-purpose facilities, the future demand requirements for these facilities will likely be higher than those presented in Table 11-5.
4. Capital cost estimates for unplanned facilities are based on costs included in the Alberta Recreation and Parks Association, *Community Recreation Infrastructure in Alberta*, May 2006 and interviews with representatives of Alberta Recreation and Parks Association, City of Edmonton, Strathcona County, City of Leduc, and other key informants.

Table 11-5 shows that the rest of the Capital Region is also anticipated to require substantial investment in additional recreation facilities to respond to future population growth. The City of Leduc is planning to upgrade the Black Gold Recreation Centre to a multi-purpose facility, the capital and operating costs of which are estimated at \$43.5 and \$3.3 million (annual operating expenditures will be partially recovered from user fees). In addition to existing plans, assuming current service levels, the Capital Region excluding the City of Edmonton will require 10 to 13 new indoor ice arenas and one to four indoor swimming pools.

The costs associated with the construction of these additional facilities are estimated to range between \$10 and \$50 million for indoor swimming pools and \$80 to \$100 for indoor arenas. The total costs required to operate these new facilities between 2008 and 2016 are estimated to range between \$1 to \$5 million for pools and \$3 to \$4 million for sheets of artificial ice. These expenses will be partially recoverable from user fees.

Other municipalities have begun planning to address some of the outstanding needs for recreation facilities in the Capital Region. However, those plans were not included in this analysis,

as they are still in a draft form or have only been approved in principle by their councils. For example, Strathcona County has a draft plan to invest in expansion and redevelopment of its indoor facilities in the amount of \$175 million over the next 10 years.¹⁶⁰ The Town of Devon's Council has approved in principle a plan for the construction of an indoor swimming pool and other indoor recreation facilities with an estimated capital cost budget of \$25 million.¹⁶¹ The Town of Beaumont is exploring the feasibility of an aquatic and fitness centre in their community.

Table 11-6 summarizes the operating expenditures needed to address the recreation infrastructure requirements in the Capital Region.

Table 11-6 Summary of Operating Cost Requirements to Address Planned and Unplanned Municipal Recreation Facility Needs (2008-2016)

Capital Region	Planned and Unplanned Facility Requirements		Incremental Operating Cost Requirements	
	2008-2011	2012-2016	2011	2016
Estimated Number of New Indoor Public Swimming Pools	-- number of facilities --		-- 2007 constant \$ million --	
City of Edmonton		7	1	1
Other Capital Region	1 to 3	0 to 1	\$1 to \$4	\$1 to \$5
Total Capital Region	1 to 3	7 to 8	\$1 to \$4	\$1 to \$5
Estimated Number of New Indoor Arenas (ice sheets)				
City of Edmonton	4	4	1	1
Other Capital Region	7 to 9	3 to 4	\$2 to \$3	\$3 to \$4
Total Capital Region	11 to 13	7 to 8	\$2 to \$3	\$3 to \$4
Estimated Number of New Large Multi-purpose Facilities				
City of Edmonton	5	3	\$20	\$31
Other Capital Region	1	-	\$4	\$4
Total Capital Region	6	3	\$24	\$35
Total Incremental Operating Costs for Recreation Facilities			\$27 to \$31	\$39 to \$44

Notes:

1. City of Edmonton plans for indoor swimming pools and ice arenas are treated as part of their plans for multi-purpose facilities and as such their operating budget is presented under multi-purpose facilities.
2. Operating cost estimates for unplanned facilities are based on costs included in the Alberta Recreation and Parks Association Infrastructure Committee, Operations Survey, January 2006 and interviews with representatives of Alberta Recreation and Parks Association, City of Edmonton, Strathcona County, City of Leduc, and other key informants.

Growth in the Capital Region's population can be expected to increase demands for expanded or new parks, playgrounds, cultural centres, performing arts facilities, and other recreation infrastructure. Future analysis of recreation infrastructure needs and gaps by both the province and municipalities should include these types of facilities.

¹⁶⁰ Strathcona County, *Draft Open Space and Recreation Facilities Strategy*, November 2007

¹⁶¹ Town of Devon, *Facility Development Plan*, October 2006

11.4.2 Library Infrastructure Requirements

There are currently 0.22 library branches per 10,000 of population within the City of Edmonton and 0.95 per 10,000 of population in the balance of the Capital Region. Based on population projections and an assumed interest in maintaining the current ratios of branches to population, an estimated 15 additional branches will be required by 2011 and a further eight will be required by 2016. For the purposes of costing this additional infrastructure, we have assumed that these will be accommodated in leased space and the costs contained in annual operating costs.

It is estimated that annual library operating costs will increase over time with the addition of new branches. Annual operating costs are projected to need to increase by \$5.4 million over current levels by 2011 and by \$9.1 million over current levels by 2016.

11.5 CONCLUSIONS

In reviewing recreation infrastructure in the Capital Region in relation to projected population growth over the next ten years, we note that:

- The City of Edmonton has plans in place to address future demand for indoor recreation facilities. Substantial investment is associated with the implementation of this recreation plan: \$405 million in capital expenditures and \$20 million of additional costs in 2011, rising to \$31 million of additional annual operating costs.
- The rest of the Capital Region is also anticipated to require substantial investment in additional recreation facilities to respond to future population growth: approximately \$130 to \$190 million in capital expenditures and \$8 to \$13 million in additional annual operating costs by 2016.
- Annual library operating costs will increase. By 2011, annual operating costs are projected to increase by \$5.4 million over current levels, rising to \$9.1 million by 2016.
- Residents of the Capital Region have access to a broad range of recreational facilities and programs. However, the analysis of the current inventory revealed shortfalls in terms of indoor facilities in some parts of the region.
- Municipalities are facing a number of challenges in addressing the recreation needs of their residents. The greatest challenge relates to balancing the increased demand for additional facilities and programming with limited capital and operating funding available to them to support recreation. There is need for a provincial government funding program dedicated exclusively to recreation.
- Municipalities in the Capital Region have shown commitment in the development of the region's natural resources with a minimal ecological impact.

Several municipalities and municipal groups have put plans in place for the development and preservation of regional parks, trails, open spaces, and outdoor recreation facilities. The funding needs required for the implementation of these plans are estimated at approximately \$682 million.

- Lack of public transportation constrains participation in recreation and cultural activities in the region. Improved public transportation would enhance access to recreational opportunities.
- The following challenges can be expected to intensify with the projected population and economic growth in the Capital Region:
 - Capital cost escalation;
 - Shortages of paid staff and volunteers;
 - Increased need for programming for vulnerable groups, particularly teens; and,
 - Potential shifting in demand for recreational facilities and programs to cater to the expectations of a more culturally diverse population.
- A structured, regional approach would help in addressing these challenges. Municipalities working together to plan, finance and operate recreation facilities have the potential to allow world-class facilities in areas where it would be financially impossible in the absence of cooperation.

12. CONCLUDING OBSERVATIONS

The Capital Region is in the midst of a period of profound growth -- growth that is anticipated to continue at a rapid pace for an extended period of time. This growth puts pressure on core infrastructure -- transportation systems, water systems etc. -- but it also puts pressure on social infrastructure.

This report raises a number of social infrastructure issues across a wide spectrum of services. Some of these services are provided by municipalities (e.g. fire, ambulance and police), others by the Province (health and education), and still others are provided largely by the private market with varying levels of involvement from government (e.g. housing, child care and some social services).

In spite of the diversity of services, there is one common theme that resonates throughout the research and that relates to the importance of address housing issues. It is clear from discussions with the groups consulted in the review of social infrastructure that housing is a key issue that impacts all areas of social services.

Housing

The impacts of the housing issue are many:

- **House affordability is a key economic development issue.** Attracting a work force to the region to undertake the major industrial developments and the support services in the service sector all require housing that is affordable, with affordability determined giving consideration to the incomes that new workers will be earning. Economic development will be negatively impacted if affordable housing is not available to the work force. Those who are attracted to the region for the employment opportunities are expected to be in the 18 to 30 age cohort -- an age cohort where individuals are more likely to be renters or first-time buyers. If affordable housing is not available, these individuals will not come in the same numbers and economic development will be compromised;
- **Housing availability is crucial to the delivery of social services.** Many social service providers across the Capital Region emphasized that it is become increasingly difficult to attract and retain staff. The high costs of available housing were often mentioned as a deterrent to attracting people from outside the region and to retaining recently qualified graduates within the region.
- **Adequate housing is important to maintaining the social fabric of communities.** Many young families are struggling to pay for housing. This

impacts these households in fundamental ways. Some will work longer hours and spend more time away from their families. Others will feel stressed about their financial obligations and it could impact their mental health. Still others will feel a need to pull-back on community and volunteer activities in order to work more hours. All of these situations reduce quality of life and potentially contribute to additional costs in areas of social infrastructure.

- **High housing costs are particularly harsh on the most vulnerable members of society.** Those with low incomes, receiving subsidies, or on pensions will continue to find it more difficult to find suitable accommodations that they can afford. Some will end up in shelters, living with friends (couch surfing), or spending some or all of their time living on the street. Our interviews suggest that inadequate housing and over-crowding lead to other serious social issues. Health and mental health conditions can develop or be amplified by inadequate housing. Children in overcrowded and impoverished situations will have significant challenges in reaching their full potential. The availability of suitable social housing can be seen as a preventative measure that reduces the current and future demand for other social services.

Some would argue that, in the absence of clear direction to address the housing issue, other initiatives to deal with social infrastructure are moot. Without adequate housing, the region won't experience the growth that is anticipated to pinch the other areas of social infrastructure.

Currently there is insufficient social housing to accommodate those who qualify for it. Those who qualify but don't have social housing are most often living in accommodations obtained through the private market and paying more rent than the guideline amount of 30 percent of income. Programs to encourage the development of adequate social housing could assist those households in need, stabilize their household and reduce their potential utilization of other social services, and at the same time, help to free up space in some affordable market housing for those with average incomes.

Public Transportation

Another area that was mentioned by a range of service providers and municipalities involved public transportation that would link other communities in the Capital Region with Edmonton and other larger centres within the region. Public transportation links can provide access to:

- Recreational opportunities;
- Health (access to doctors, specialists, tertiary care hospitals);
- Post secondary education; and
- A broader range of jobs.

Better public transportation links within the region would allow people in the regional municipalities to access a broader range of social services, would improve access to higher paying industrial jobs (often located in the urban fringe area), and would broaden the scope of housing opportunities for people without access to cars.

Capital Budgeting

A number of the discussions with various providers of social services mentioned the planning challenges associated with the current capital budgeting process as it relates to the provincial government. These concerns were expressed by those with responsibilities for education (K to 12), and post secondary education. Capital budgeting requests are forwarded to Alberta Treasury Board, which uses those requests as the basis for developing a three-year moving capital budget reflective of provincial priorities for capital spending.

While projects that are on stream to be funded are listed, those that are high priority but not yet approved are not. This leads to planning difficulties as it isn't always clear what capital additions should be planned for over the coming years.

The rapid growth rate anticipated for the Capital Region could lead to a shortening of the time frame between identifying a need and requiring the capital asset to be in place. The time and uncertainty involved in the current system concerns some groups as they try to develop long-term plans for service delivery in the Capital Region.

Lags associated with capital funding also have implications to project costs. In a time of high demand for construction, costs escalate for both the public and private sector. Cost estimates associated with projects can increase significantly as they await the necessary approvals.

Inter-municipal Cooperation

While it was seldom stated directly, it was clear in discussions with many municipalities that they are receptive to service delivery approaches that involve working with other municipalities in some areas. Fire, ambulance, recreation -- three key areas of municipally delivered social infrastructure -- all demonstrated positive and significant cooperative ventures for service delivery. This cooperation at an operational level suggests the potential for further municipal cooperation in the delivery of services on a regional basis. Police and housing are two such services that could benefit from regional planning. It is unclear as to whether or not police could benefit from regional service delivery because of the cost advantage afforded by Federal involvement in paying for policing.

However, housing is an area that might be a candidate for delivery at a regional level. Regional housing responsibility could allow for an allocation of social housing that is more in keeping with the needs of those who require the housing and with the interests of the individual municipalities.

Unequal Responsibilities

A review of social housing and policing data confirms that the City of Edmonton carries a high proportion of the burden for social infrastructure. Edmonton supports 189 police officers per 100,000 as opposed to 99 police officers per 100,000 in the other municipalities of the region and it has 93 percent of the social housing yet comprises just over 72 percent of the population. This is not surprising in that social service delivery including specialized health and mental health services are more readily available in the City of Edmonton, causing those in need of these services to gravitate toward the City. Historically some of the regional municipalities have valued their isolation from the social issues that are more apparent in the City.

Shared Vision

Recently some of the regional municipalities have experienced significant increases in the price of housing to the point where they are no longer able to offer affordable housing to new households forming in their community. Young couples who might have grown up in the community are increasingly finding it necessary to move outside of their home community to find housing that they can afford. At the same time and for the same reasons, these communities are finding it difficult to attract a work force for the service sector. Workforce implications to local businesses of the lack of affordable housing and inability to attract and retain young residents are causing some municipalities to rethink their housing policies. A shared vision in regards to housing, density, affordability, and service levels of the Capital Region would assist in shaping a Region to reflect the needs of residents in all municipalities.