

The Calgary Airport Authority
Parallel Runway Project
Volume V – Item 7
Land Use Baseline Report

Report

The Calgary Airport Authority

**Parallel Runway Project
Volume V – Item 7
Land Use Baseline Report**

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Project Number: 60114017

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2000 Airport Road N.E.
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Dear Peter:

**Re: Baseline Study – Land Use
Comprehensive Study Environmental Assessment
Parallel Runway Project 16L-34R - Runway Development Program**

This report presents the results of the baseline study for Land Use conducted by AECOM Canada Ltd. for the Parallel Runway Project 16L-34R and connecting taxiways to be constructed at the Calgary International Airport in Alberta.

The report is part of the Comprehensive Study – Environmental Assessment and forms part of Volume V of that study.

If you have any questions concerning this report, please contact the undersigned at (403) 717-3498.

Sincerely,
AECOM Canada Ltd.



Barry Hawkins Project Manager
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TJ:
Encl.
cc: File

Acronyms

Abbreviation	Full Text
ARP	Area Redevelopment Plan
ASP	Area Structure Plan
the Authority	The Calgary Airport Authority
AVPA	Calgary International Airport Vicinity Protection Area Regulation
CEAA	Canadian Environmental Assessment Act
CS	Comprehensive Study
EA	Environmental Assessment
FEC	Field Electric Centre
LSA	Local Study Area
MGA	Municipal Government Act
NAP	National Airport Policy
NEF	Noise Exposure Forecast
PRP	Parallel Runway Project
RSA	Regional Study Area
TC	Transport Canada
VC	Valued Component
YYC	The Calgary International Airport

Executive Summary

This Baseline Report provides a starting point from which to measure any changes in land use as a result of the Parallel Runway Project (PRP). In this environmental assessment (EA), the valued components (VC) for Land Use are residential, industrial and commercial land uses.

Change in the revenue over the past five years for the residential VC is measured through median property values within the Local Study Area (LSA). Property owners can easily identify with fluctuations in property values as a result of changing circumstances

The Site Area addresses the Airport Lands themselves and land uses within the site area pertain primarily to the operation of an airport. The Airport Master Plan provides a framework for development within this area and addresses the PRP. The majority of land within the Site Area falls within the industrial and commercial land use types.

The LSA for the EA contains those communities within the cities of Calgary and Airdrie and Rocky View County which lie within or bisect the boundary of the Calgary International Area Vicinity Protection Area (AVPA). For the past 30 years, development within the City of Calgary, the City of Airdrie and Rocky View County has been reviewed with respect to the AVPA regulations. These regulations dictate compatible land uses within the Noise Exposure Forecast (NEF) contours surrounding YYC. For example, residential areas are only allowed outside the 30 NEF contour. There is a definite correlation on the existing land use map for the City of Calgary between the boundary of the 30 NEF contour and the development of residential areas.

The PRP has been planned for 30 years and in response, the federal, provincial and municipal governments have been making appropriate planning decisions mitigating the impact of the operation of the airport and sensitive land uses. In light of the historical land use activities within the AVPA, the baseline information for land use is predictable.

Table of Contents

Acronyms Executive Summary

	page
1. Introduction	1
2. Land Use	2
2.1 Summary of Federal, Provincial and Municipal Regulations	2
2.1.1 Federal Regulations and Guidelines.....	2
2.1.1.1 National Airport Policy.....	2
2.1.1.2 Calgary International Airport Zoning Regulations.....	3
2.1.1.3 Aviation Land Use in the Vicinity of Airports TP 1247E	3
2.1.1.4 Federal Ground Lease	3
2.1.2 Provincial Regulations	4
2.1.2.1 Municipal Government Act.....	4
2.1.2.2 Calgary International Airport Vicinity Protection Area Regulations.....	5
2.1.3 Municipal Regulations.....	5
2.1.3.1 City of Calgary/Calgary Airport Authority Agreement on Land Use, Development Guidelines and Acreage Assessments.....	5
2.1.3.2 Community Area Structure Plans and Area Redevelopment Plans	5
2.2 Site Area	7
2.2.1 Methods	8
2.2.2 Site Study Area Baseline Conditions	8
2.3 Local Study Area.....	10
2.3.1 Methods	14
2.3.1.1 Property Values	14
2.3.1.2 Population	15
2.3.2 LSA Baseline Conditions	15
2.3.2.1 Property Values	15
2.3.2.2 Population	19
2.4 Regional Study Area	22
2.4.1 Methods	22
2.4.1.1 Property Values	22
2.4.1.2 Population	24
2.4.2 RSA Baseline Conditions.....	24
2.5 Summary and Considerations.....	25
3. Traditional Land Use.....	25
4. References.....	26

Statement of Qualifications and Limitations

Figures

Figure 1	Air Photo Northeast Calgary Circa 1979.....	6
Figure 2	Site Area - Airport Lands.....	9
Figure 3	Land Use Local Study Area	11
Figure 4	Calgary Northwest Median Property Values	16
Figure 5	Calgary Northeast Median Property Values	17
Figure 6	Calgary Southwest and Southeast Median Property Values	18
Figure 7	Airdrie Median Property Values	18
Figure 8	Calgary Northwest Population 2004 - 2008	19
Figure 9	Calgary Northeast Population 2004 - 2008.....	20
Figure 10	Calgary Southwest and Southeast Population 2004 – 2008	21
Figure 11	Airdrie Communities within LSA Population 2008	22
Figure 12	Land Use Regional Study Area.....	23
Figure 13	Regional Median Property Values	24

List of Tables

Table 1	Land Use District and Permitted Uses on Airport Lands	7
Table 2	Baseline Conditions of Airport Lands.....	10
Table 3	Calgary Communities within LSA.....	12
Table 4	Airdrie Communities within LSA.....	13
Table 5	RSA Population.....	24

1. Introduction

This Baseline Report forms part of a Comprehensive Study (CS) of the proposed Parallel Runway Project (PRP) at Calgary International Airport (YYC). The CS is being prepared as part of an environmental assessment (EA) and approval process established by the Calgary Airport Authority (the Authority). The process shadows the EA process under the *Canadian Environmental Assessment Act* (CEAA).

The PRP consists of the following components:

- A 4,267 m x 60 m runway (14,000 ft x 200 ft)
- Associated taxiways
- A perimeter road with security fencing
- Grading of developable property to the east of the proposed runway
- Visual navigation aids
- Electronic navigation aids
- A maintenance building
- A field electric centre (FEC)
- Changes to airside/groundside roads necessitated by construction of the runway
- Closure of Barlow Trail between 48 Avenue and Airport Road
- A taxiway underpass (designated Taxiway J Underpass) servicing the airport's cargo area for airport service vehicles to pass under one of the taxiways
- Utility services to the runway including some changes to the airfield storm drainage system

Further details regarding the process and project can be found in Volume II Chapter 5 of the CS.

As part of the CS, a series of baseline studies have been undertaken to describe the biophysical, socio-economic and cultural resource baseline conditions. In total, 13 baseline studies have been undertaken:

- Soils and Terrain
- Vegetation
- Surface Water and Aquatics Resources
- Wildlife and Wildlife Habitat
- Groundwater
- Transportation
- Land Use
- Noise
- Climate and Greenhouse Gases
- Air Quality
- Cultural Resources
- Socio-economics
- Human Health

During the CS the results of each of the baseline studies were documented in stand-alone technical reports such as this one. In each case, a draft was prepared and made available for public, stakeholder and government agency comment. The final baseline conditions will be summarized in each individual assessment chapter (Volume III), with each of the stand-alone technical reports becoming an appendix to the CS.

2. Land Use

The new parallel runway has been in the YYC's long-term plans for 30 years and the federal, provincial and municipal governments have been making proactive planning decisions in an attempt to address any conflict between the operation and development of the airport and sensitive land uses. In order to examine effects of the PRP on the revenue generated by local land use, it is necessary to understand the baseline conditions prior to project development.

This report examines the existing land use in and around YYC with respect to residential, industrial, commercial, open space and recreational land uses. In the original Scoping Document, the parameters identified for measuring the effects of the PRP on land use were:

- changes in the enjoyment of the specific land use
- changes in the utilization of the specific land use
- changes in the revenue generated from a specific land use

The first two parameters, changes in the enjoyment of the specific land use, and changes in the utilization of the specific land use will be better dealt with under the socio-economic discipline. Please refer to Volume V, Item 12 for this information. This baseline report will focus on changes in the revenue generated for each type of land use. The indicator that will be used to measure change in revenue will be property values. Population projections will also be examined to establish the potential for growth and development within the study areas.

Impacts on open space and recreation land uses can be better measured through:

- changes in the enjoyment of the specific land use; and
- changes in the utilization of the specific land use.

These two parameters are dealt with under the socio-economic discipline. Please refer to Volume V, Item 12 for this information

2.1 Summary of Federal, Provincial and Municipal Regulations

Airports within Canada are under the jurisdiction of the federal government while municipal land use planning is the responsibility of the province and is governed by the *Municipal Government Act* (MGA) in Alberta. The MGA authorizes each municipality to enact a land use bylaw to regulate and control the use and development of land and buildings within the municipality. This hierarchy of decision making and regulations has a direct impact on the development that has occurred in and around YYC over the past 30 years.

2.1.1 Federal Regulations and Guidelines

2.1.1.1 National Airport Policy

The National Airport Policy (NAP) is a federal program which began during the 1990s focusing on the privatization or private operation of nearly all of the country's [airports](#). Under NAP (1994), airport authorities were private, not for profit, non-share-capital corporations focused on providing a publicly supported transportation system. The purpose of local airport authorities was to make airports more competitive and viable, giving communities greater flexibility to meet their specific needs and create additional tools for economic development. Airport Authorities entered into a ground lease agreement with

Transport Canada (TC). The Authority was formed in 1990 under the Regional Airport Authority Act and in 1992 assumed the responsibilities for the management and operation of the airport. While the Authority operates the airport, the federal government continues to be responsible for all aspects of aviation safety.

2.1.1.2 *Calgary International Airport Zoning Regulations*

The federal government sets safety and security standards for all Canadian airports. The federal *Aeronautics Act* provides standards and regulations to protect airports by restricting the heights of buildings adjacent to airports and defining obstacle limitation surfaces. In 1977, the *Calgary International Airport Zoning Regulations* were developed by TC to facilitate the safe operation of the airport. These regulations apply to all lands including the public road allowances, adjacent to or in the vicinity of the airport which are directly beneath the circling and approach surfaces. These regulations limit the height of buildings, structures and natural growth along approach surfaces, outer surfaces, and transitional surfaces (Transport Canada 1977).

2.1.1.3 *Aviation Land Use in the Vicinity of Airports TP 1247E*

The *Aviation Land Use in the Vicinity of Airports TP 1247E* specifically deals with land use in the vicinity of airports. It recommends compatible land uses in relationship to the operation of an airport and development surrounding the airport. TP 1247E addresses six components related to land use in the vicinity of airports.

1. Obstacle Limitation Surfaces
2. Protection of Telecommunication and Electronic Systems
3. Bird Hazards
4. Aircraft Noise
5. Restrictions to Visibility
6. Site Protection and Line of Sight Requirements

Assessing the annoyance from aircraft noise is necessary when planning for the development of lands on and adjacent to airports. Of specific concern to land use and the PRP are aircraft noise and Noise Exposure Forecast (NEF) contours and their use to control compatible land use planning in the vicinity of airports. Within TP1247E, TC recommends that NEF contours be used in conjunction with their recommended land use guidelines; the NEF contour with the highest number being the loudest and therefore most restrictive area. Industrial and commercial uses are recommended within the >40 NEF contour. Recreational and outdoor uses are recommended on a limited basis within the >40 NEF contour depending on the use. Residential areas are permitted within the 25-30 NEF contour and < 25 NEF contour (Transport Canada 2005).

2.1.1.4 *Federal Ground Lease*

Through the Federal Ground Lease, the Authority is required to prepare an Airport Master Plan within the first three years of operation. In 1996, the Authority's first Master Plan was adopted and it was later updated in 2004. The plan is to provide a strategy for the long term development of the airport lands and address the following:

- Socio-economic Profiles: related to the operation of an airport within the local community and region
- Airport Activity: in terms of airport classification, development of aviation within the community and construction history at the site

- Airport Environment and Environmental Impact: present and future environmental impacts on the airport and surrounding area
- Airfield: capacity and congestion of airside and aprons along with identifying current and future problems
- Airport Terminal Building: analyse current requirements and ensure viability and compatibility with other components of the airport
- Ground Transportation: location and capacity of all access, service and special purpose roads on the airport lands
- Airport Commercial Services and Facilities: analyse future space requirements for general aviation activities and facilities and aviation support activities
- Airport Operational Support Services: emergency response requirements, administration and operational activity, utilities, power, water supply and airport maintenance
- Noise Management Plan
- Land Use: development strategy for YYC and all of the subsystems in a compatible, rational plan for future development

The Federal Ground Lease stipulates that the Airport Master plan be updated every ten years. Prior to the approval of a land use plan for the Airport Lands by the Federal Minister of Transportation, the Authority is required to engage the City of Calgary and surrounding municipalities, the Province of Alberta, appropriate federal departments and other interested groups in meaningful consultation in order to establish an acceptable plan for all parties.

2.1.2 Provincial Regulations

2.1.2.1 *Municipal Government Act*

The MGA provides municipalities with the power to develop and maintain safe and viable communities. Every municipality must pass a land use bylaw. The purpose of a land use bylaw is to regulate and control the use of development of land and buildings within a municipality (Municipal Government Act 1995).

It should be noted that although the land use has been determined for all of the land within the site area and the LSA, there are some parcels of land within the site area and LSA which currently contain non-conforming uses.

According to the MGA, “non-conforming use” means a lawful specific use

- i. Being made of land or a building or intended to be made a building lawfully under construction at the date a land use bylaw affecting the land or building becomes effective, and
- ii. That on the date the land use bylaw becomes effective does not, or in the case of a building under construction will not, comply with the land use bylaw.

These parcels were zoned for a particular use according to federal, provincial and municipal regulations but there has been no change in use or development activity to the parcel since that time. As a result, the current use is a non-conforming lawful use. Any new development or change in use on these parcels will need to conform to the current land use district.

2.1.2.2 *Calgary International Airport Vicinity Protection Area Regulations*

The PRP has been part of the long-term master plan for YYC from the time TC acquired the lands for the PRP in the 1970s. In 1979, the provincial government created the Airport Vicinity Protection Area Regulation (AVPA), to work in conjunction with the previous Planning Act and current MGA, establishing rules for compatible land uses in relationship to the NEF contours (Alberta Municipal Affairs 1979). The AVPA took into consideration the new parallel runway and any subsequent noise from future aircraft. The foresight of this decision by the province has been instrumental in the smooth progression of development around YYC. A 1979 air photo of the lands adjacent to the airport, Figure 1, illustrates the approximate limit of development within the City of Calgary when the AVPA came into effect. During that time, the airport was on the edge of the city with agricultural land to the north and east. The City's development has since expanded out beyond YYC and the AVPA has been in place to guide compatible land use development within the influence of YYC. As area structure plans (ASP), outline plans, subdivision plans and development permits come into the City of Calgary for approval, development officers are required to assess the proposed development against the AVPA, rejecting any development that does not fit within the AVPA guidelines.

In 2005, the Province ordered a review of the AVPA with participation from the Authority, the City of Calgary, Rocky View County, and the City of Airdrie.

The document also sets out the framework and relationship with the City as it related to development at the airport. It addresses planning processes, approval and appeal processes, development guidelines, sign guidelines, and acreage assessments.

2.1.3 *Municipal Regulations*

2.1.3.1 *City of Calgary/Calgary Airport Authority Agreement on Land Use, Development Guidelines and Acreage Assessments*

The City of Calgary/Calgary Airport Authority Agreement on Land Use, Development Guidelines and Acreage Assessments came into effect in 1993 and specifies land uses within the boundary of the Calgary airport (Calgary Airport Authority and the City of Calgary 1993). Seven land use districts related to the operation of an airport were created, each with restrictions and permitted uses.

2.1.3.2 *Community Area Structure Plans and Area Redevelopment Plans*

Area structure plans and Area redevelopment plans (ARP) provide a framework for subdivision and development within an area of land and can also provide a mechanism to preserve or improve land and buildings within the area. There are a number of ASPs and ARPs within the Calgary LSA which outline the type of land use within a community and phasing of development. Many of these ASPs and ARPs are influenced by the land use controls set out in the AVPA.

2.2 Site Area

The Site Area for this study is YYC land proper, containing 2,136 ha of federally owned land (see Figure 2). Land use and development in the Site Area has been guided by the *Calgary International Airport Master Plan (2004)*, *The City of Calgary/Calgary Airport Authority Agreement on Land Use, Development Guidelines and Acreage Assessments (1993)* and the Federal Ground Lease. Based on these documents, the land is divided into seven land use districts with permitted uses outlined for each district. Table 1 outlines the seven land use districts within YYC land, the intent of each district and the permitted uses within each. The 2004 master plan was prepared to offer clarity and provide a framework for which development will take place over a 20 year time period within specific zones on the airport lands.

Table 1 Land Use District and Permitted Uses on Airport Lands

Land Use District	Purpose
1. Air Terminal District:	To provide for a wide variety of support services, activities and commercial uses which serve the airport and airlines and related to the movement of passengers, vehicles, baggage, cargo and aircraft.
<u>Permitted Uses:</u> agriculture, air cargo facilities, air terminal buildings and associated uses, air traffic control facilities, airport maintenance and operational facilities, aprons, baggage services, government , agencies, catering and commissaries, emergency response services, essential airport services, financial institutions, car rental facilities, parking and services, ground transportation facilities and services, helicopter operations, hotels, information services, meteorological installations, navigational aid facilities, offices, parking areas and structures, parks and recreation areas, private clubs and organizational related to airport activities, restaurants, runways, taxiways, and utilities	
2. Airfield District:	To provide for the movement of aircraft and other facilities directly related to aviation.
<u>Permitted Uses:</u> agriculture, air traffic control facilities, aircraft fuel and provisioning services, airport maintenance and operational facilities, aprons, essential airport services. emergency response services, government agencies, meteorological installations, navigational aid facilities, parking, separate location from the use it serves, parks and recreation, runways, taxiways, and utilities	
3. Aviation Services District:	To provide for a wide variety of industrial and business uses which normally make use of airside access
<u>Permitted Uses:</u> aerial application and spraying operations, aerial photography services, agriculture, air ambulance, aircraft sales, leasing and rentals, aircraft parts, supply and services, air cargo facilities, air courier facilities, air traffic control facilities, aircraft charter operations, aircraft manufacturing and assembly, aircraft fuel and provisioning services, aircraft storage facilities, airport maintenance and operational facilities, baggage services , ancillary retail – non-manufacturing, aprons, aviation consulting and services, ancillary retail – manufacturing, car rental facilities, parking and services, catering and commissaries, cleaning, servicing, testing or repairing, emergency response services, essential airport services, fixed base operations, flight training schools, fuel facilities, government agencies, ground transportation facilities and services, hangars, helicopter operations, information services, laboratories, livestock handling facilities, meteorological installations, navigational aid facilities, open air museum, parking, separate location from the use it serves, parks and recreation areas, passenger terminals, private clubs and organizations related to airport activities, public and quasi-public buildings taxiways, utilities, viewing areas, and warehouses	
4. Airport Recreation District:	To provide for recreational and other extensive land uses.
<u>Permitted Uses:</u> agriculture, athletic and recreational facilities, essential airport services, golf courses and driving ranges, nurseries and greenhouses, meteorological installations, navigational aid facilities, horse riding academies, open air museums, parking, separate location from the use it serves, parks and recreation, private clubs and organizational related to airport activities, public and quasi-public buildings, race tracks, and utilities	
5. Airport Commercial District:	To provide full range of commercial retail uses in free standing buildings or in a comprehensively designed shopping centre
<u>Permitted Uses:</u> amusement arcades, commercial schools, automotive services, automotive specialties, billiard parlours, bottle return depot, child care facilities, athletic and recreational facilities, drinking establishments entertainment establishments, hotels, government agencies, grocery store, financial institutions, liquor stores, medical clinics, meteorological installations, navigational aid facilities, offices, parks and recreation areas, personal service businesses, private clubs and organizational, public and quasi-public buildings, radio and television studios, restaurants, retail stores, shopping centres, utilities, and veterinary clinics	

Land Use District	Purpose
6. Airport Light Industrial District:	To provide a wide range of industrial and business uses which are compatible with each other and airport operations
<p><u>Permitted Uses:</u> agriculture, airport maintenance and operational facilities, amusement arcades, ancillary retail – manufacturing, ancillary retail – non-manufacturing, child care facilities, auto body and paint shops, automotive sales and rentals, automotive services, automotive specialties, billiard parlours, bottle return depot, car rental facilities, parking and services, auctions halls, commercial schools, crematoriums and columbarium, custodial quarters, drinking establishments, emergency response services, entertainment establishments, essential airport services, fuel facilities, financial institutions, government agencies, grocery store, hotels, information services, kennel, laboratories, liquor stores, manufacturing, fabricating, processing, assembly, disassembly, production of materials goods and services, mechanical reproduction and printing establishments, meteorological installations, movement or storage of materials, good or products, navigational aid facilities, nurseries and greenhouses, offices, parking areas and structures, parks and recreation areas, private clubs and organizational, production processing movement or storage of materials, goods or products, cleaning, servicing, testing or repairing, public and quasi-public buildings, radio and television studios, recreational and commercial vehicle repair, services, sales and rental, restaurants, utilities, veterinary clinics, veterinary hospitals, and warehouses</p>	
7. East Airfield Industrial District:	To provide for a wide range of light industrial and business uses which are compatible with each other and airport operations
<p><u>Permitted Uses:</u> agriculture, automotive specialties, ancillary retail – non-manufacturing, auctions halls, automotive services, ancillary retail – manufacturing, automotive sales and rentals, auto body and paint shops, billiard parlours, cleaning, servicing, testing or repairing, crematoriums and columbarium, custodial quarters, emergency response services, essential airport services, financial institutions, grocery store, government agencies, manufacturing, fabricating, processing, assembly, disassembly, production of materials goods and services, mechanical reproduction and printing establishments, meteorological installations, movement or storage of materials, good or products, navigational aid facilities, offices, parking areas and structures, parks and recreation areas, private clubs and organizational, radio and television studios, recreational and commercial vehicle repair, services, sales and rental, utilities, veterinary clinics, veterinary hospitals, and warehouses</p>	

Source: (Calgary Airport Authority and the City of Calgary, 1993).

2.2.1 Methods

To understand the potential effects of the PRP on the revenue generated within YYC land, it is useful to understand the baseline conditions prior to the project development.

The baseline data for the Site Area was gathered through an interview with YYC's Director of Airport Planning Services and observations made during a site tour on 17 November, 2009.

2.2.2 Site Study Area Baseline Conditions

The land use within the Site Area is specific to the operation of an airport, with the majority of land within the Site Area falling within the industrial and commercial land use types. There is one larger portion of land within the southeast corner of the site which has a recreation designation. Table 2 describes the development zones and the baseline conditions within each zone. The majority of the airport lands are developed or leased although the opportunity for further development activity exists. The East Airport Industrial area is the main section of land that remains agricultural. The completion of the PRP would trigger a change in land use from agricultural within this area.

Table 2 Baseline Conditions of Airport Lands

Development Zones within Site Study Area	Baseline Condition
Deerfoot North Aviation Park and Commercial	<ul style="list-style-type: none"> • Currently under development with stripping and grading proceeding • Outline Plan approved in summer of 2009 • Target for development 2011
Deerfoot South Aviation Park	<ul style="list-style-type: none"> • First phase of development is complete. Land is leased out to courier and light industrial operations • Second phase Outline Plan was approved in summer of 2009
McKnight Aviation Park and Commercial Areas	<ul style="list-style-type: none"> • Area is developed • There is an opportunity for some infill development • An outline plan for the area has been approved
McCall South Aviation Park	<ul style="list-style-type: none"> • Area is developed • There is an opportunity for some infill development
Recreation	<ul style="list-style-type: none"> • Area is developed and leased to Silver Wing golf course, a 27 hole course
East Airfield Industrial Park	<ul style="list-style-type: none"> • Undeveloped • The Authority is currently undertaking a conceptual and outline plan for the area
North Barlow Aviation Park and Commercial	<ul style="list-style-type: none"> • Land is serviced and the majority of it is leased out
Air Terminal Reserve Lands	<ul style="list-style-type: none"> • Land is reserved for future terminal expansion. 2008 terminal reserve plan developed.
McCall North Aviation Park	<ul style="list-style-type: none"> • Area is substantially developed • Lands west of McCall Way are developed with infill lots available • Lands east of McCall Way and west of Barlow Trail are undeveloped except for a four acre fuel tank farm. • YYC is currently preparing a land use strategy for the area.
McCall Central	<ul style="list-style-type: none"> • NAV CANADA transmitter and UHF/VHF receiver are located in this area • FEC • Concept plan is approved and the outline plan is currently being prepared for this area

2.3 Local Study Area

The Local Study Area (LSA) includes residential communities as defined by the City of Calgary, the City of Airdrie and Rocky View County that are excluded from the site area, but lie within the limits of the AVPA or are bisected by the AVPA limit. The LSA also includes communities that are located outside the AVPA limit but whose boundaries are adjacent to communities within the AVPA limit as shown in Figure 3.

Statistics for each community within the AVPA limits in the City of Airdrie were not available and as a result the entire City of Airdrie will be included in the LSA. The portion of Rocky View County lying within the AVPA limits was included in the LSA. A list of the communities in the LSA both within Calgary and Airdrie are included in Tables 3 and 4.

The land use within the LSA consists of a number of residential communities, industrial parks, commercial areas and open space or recreational uses. The residential areas are primarily beyond the NEF 30 contour pursuant to the *Aviation Land Use in the Vicinity of Airports TP 1247E* document and the Province of Alberta AVPA. Portions of some residential communities in the LSA which were established prior to 1979 and the AVPA lie within the NEF 30 contour. These communities include Mayland Heights, Vista Heights, Inglewood, Renfrew and Bridgeland/Riverside.

Table 3 Calgary Communities within LSA

Zone	Calgary Community
Northwest	Beddington Heights
	Bridgeland
	Country Hills
	Coventry Hills
	Crescent Heights
	Evanston
	Greenview
	Harvest Hills
	Hidden Valley
	Highland Park
	Highwood
	Huntington Hills
	MacEwan Glen
	North Haven
	North Haven Upper
	Panorama Hills
Renfrew Regal Terrace	
Sandstone	
Thornccliffe	
Tuxedo	
Winston Heights Mountain View	
NW Control Community	Charleswood
Southwest	Downtown East Village
SW Control Community	Glamorgan
Southeast	Acadia
	Douglas Ridge Douglasdale
	Douglasdale Estates
	Douglasglen
	Inglewood
	Ogden Lynnwood
	Ramsey
Riverbend	
SE Control Community	Deer Run
Northeast	Albert Park
	Castleridge
	Castleridge Estates
	Coral Springs
	Dover
	Dover Glen
	East Mayland Heights
	Erinwoods
	Falconridge
Northeast	Forest Heights
	Forest Lawn
	Marlborough
	Marlborough Park
	Martindale
	Mayland Heights
	Monterey Park
	Pineridge
	Radisson Heights
	Rundle
	Saddleridge

Zone	Calgary Community
	Southview
	Taradale
	Temple
	Vista Heights
	West Dover
	Whitehorn
	Skyview Ranch *
NE Control Community	Applewood

**Skyview Ranch is a new community. Calgary Real Estate Board does not have any Median Property Value statistic for this community.*

Table 4 Airdrie Communities within LSA

Zone	Airdrie Community
LAA1 Airdrie	The Village
	Edmonton Trail
	Airdrie Meadows
	Stonegate
	Sunridge
	Old Town
	Downtown
	Jensen
LAA2 Airdrie	East Lake
LAA3 Airdrie	Edgewater
	Summerhill
	Waterstone
	Ridgegate
LAA4 Airdrie	Big Springs
LAA5 Airdrie	Thornburn
	Meadowbrook
LAA6 Airdrie	Luxstone
	Bayside
	Wood Side
	Canals
	Mackenzie Point
	Willowbrook
	Silver Creek
	Fairways
	Sagewood
LAA7 Airdrie	Coopers Crossing
	Morning Side
	Prairie Springs

Four control communities located outside the LSA were also examined in terms of property values. These controls will help during the assessment of the effect of the PRP within the LSA. The control communities are in the City of Calgary and include Northwest – Charleswood, Northeast – Applewood, Southwest – Glamorgan and Southeast – Deer Run.

2.3.1 Methods

For the purpose of this baseline report, the residential valued component (VC) will be measured in terms of the change in revenue experienced between 2005 and 2009.

The residential land use VC will be examined through:

- A change in revenue as measured through the annual average median property values of each community between 2005 and 2009

Population capacity will be examined as an indicator of potential growth and therefore a potential for development activity. Employment statistics will be examined in Volume V, Item 12 Socio-economic Baseline Report.

2.3.1.1 Property Values

Property values were used as the baseline indicator for revenue generated within the residential land uses. Property owners can easily identify with fluctuations in property values as a result of changing circumstances. Property value data for each of the residential communities within the LSA was collected from the Calgary Real Estate Board for the City of Calgary and the City of Airdrie. Median property values for single family units were used for each community within the Calgary LSA (Calgary Real Estate Board 2009). The LSA for Calgary is divided into four zones, Northwest, Northeast, Southwest and Southeast. There is only one LSA community within the Southwest zone of Calgary so for the purpose of this baseline report the Southwest and Southeast zones have been combined in the figures.

Median property values for the communities within the City of Airdrie were not separated into communities. Data for the City of Airdrie is divided into seven zones and does not necessary coincide exactly with the boundaries of the LSA. Median property values for each of the zones within Airdrie were included in the baseline conditions.

Information for Rocky View County was more difficult to obtain. The Calgary Real Estate Board does not have any statistical data on median property values for residential communities within the Rocky View County LSA. Rocky View County has information based on individual parcels of land or very general market trends.

Median property values represent the property value at the midpoint of all sales occurring within the community. By using the median property value as opposed to the average property value, extreme property values which may skew the data are eliminated. Median property values were gathered on a monthly basis for each community within the LSA between 2005 and 2009. Due to the vast amount of data generated, the average median property value was calculated for each community within each year for the City of Calgary and the City of Airdrie.

2.3.1.2 Population

Population statistics were gathered for the communities within the City of Calgary LSA between 2004 and 2008. Additional information was obtained through *The Calgary Snapshot June 2009* report.

Population information for the City of Airdrie was available through the *Census Results 2008* report prepared by the City of Airdrie. Information is available for each community within the LSA for 2008.

Rocky View County population statistics are broken down into broad areas which extend beyond the LSA. The only recent population information available is from census year 2006 and includes the rural area surrounding Airdrie within Rocky View County.

2.3.2 LSA Baseline Conditions

2.3.2.1 Property Values

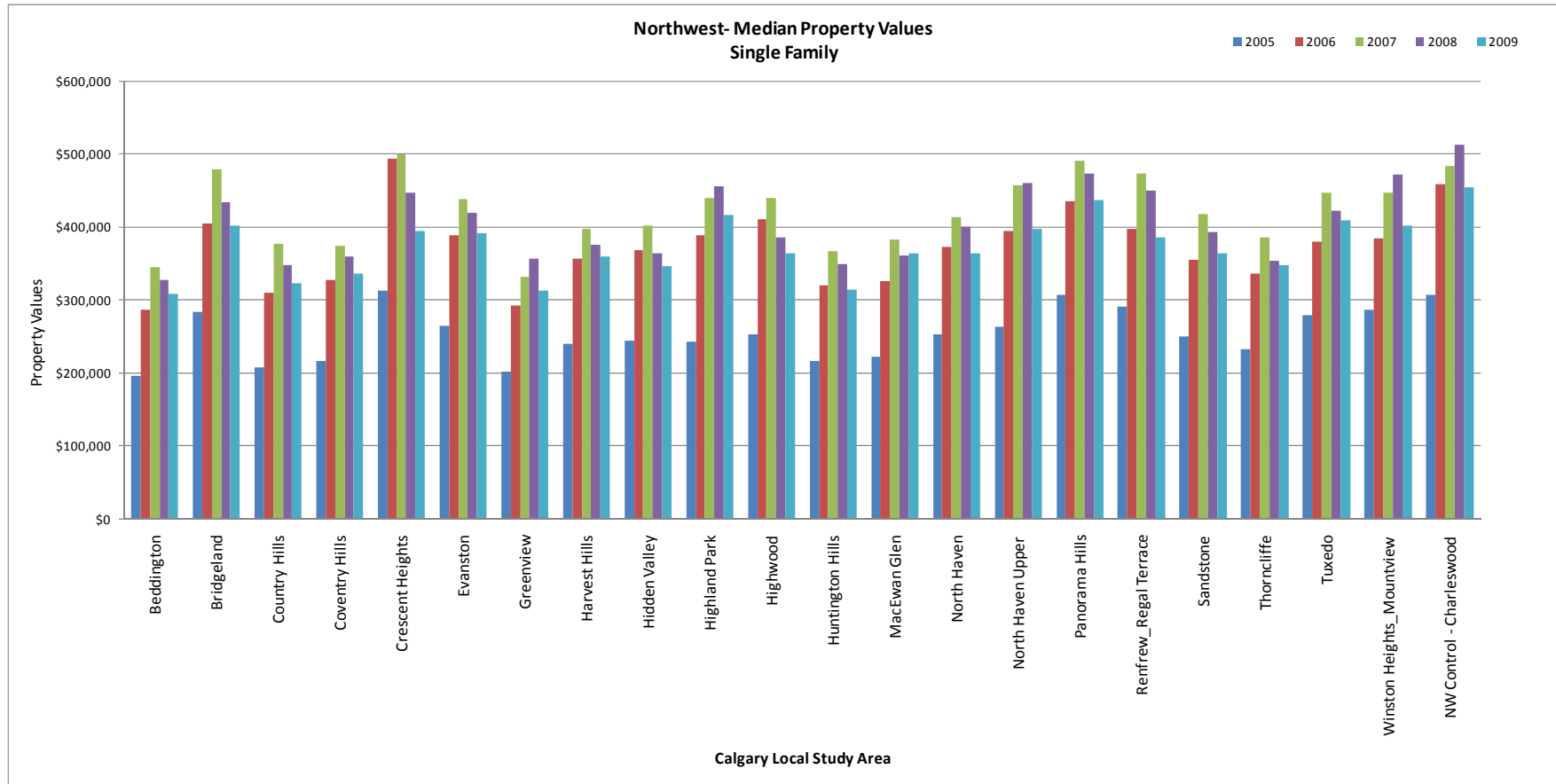
Residential property values within the LSA in the City of Calgary and the City of Airdrie have been outlined indicating the median property values Figures 4 to 7.

During the last five years within the Calgary LSA, property values peaked during 2007 and then started to decline. This is reflective of the boom period experienced by the Calgary economy leading up to 2007 and the global recession that followed. Calgary's Downtown East Village in the Southwest is in a transition and has erratic resale activity, as shown on Figure 6.

Median property values for the City of Airdrie between 2005 and 2009 indicate that property values peaked in 2007 as shown in Figure 7.

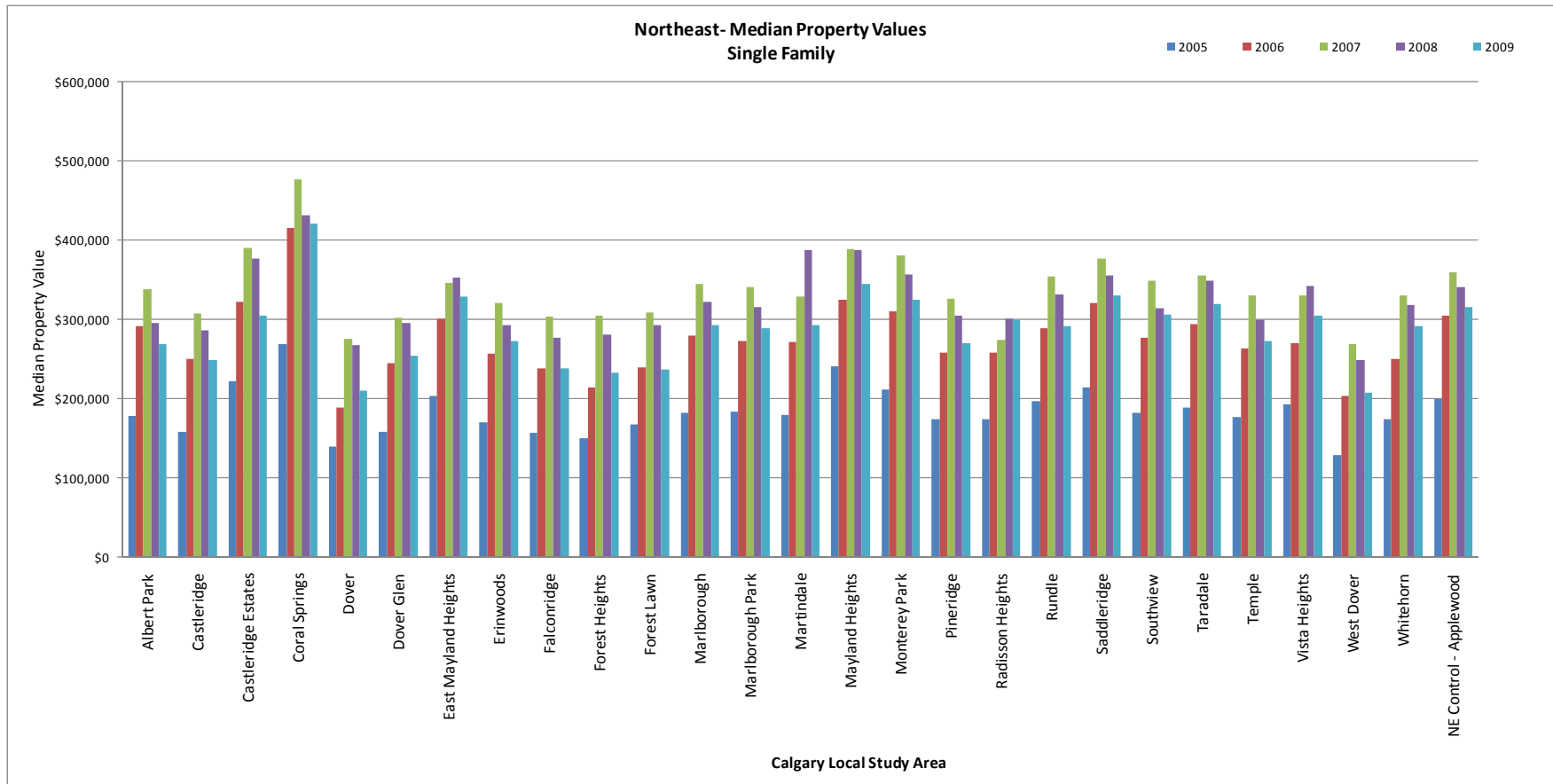
According to Rocky View County assessment department, property values for residences within the LSA have increased approximately 7% within the last year (Rocky View County 2009).

Figure 4 Calgary Northwest Median Property Values



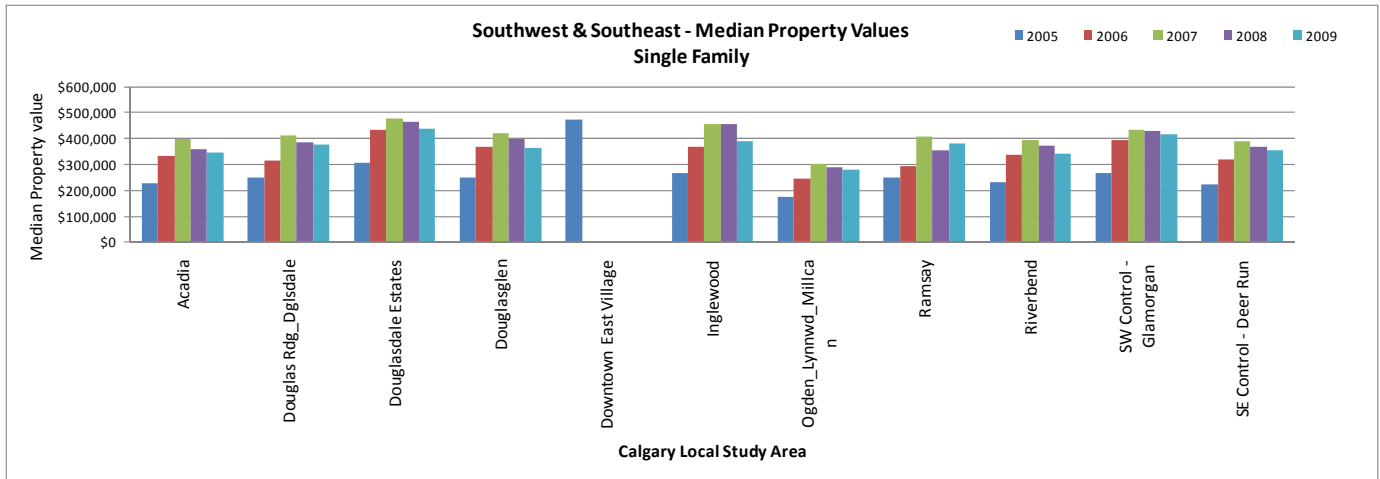
Source: (Calgary Real Estate Board. 2009).

Figure 5 Calgary Northeast Median Property Values



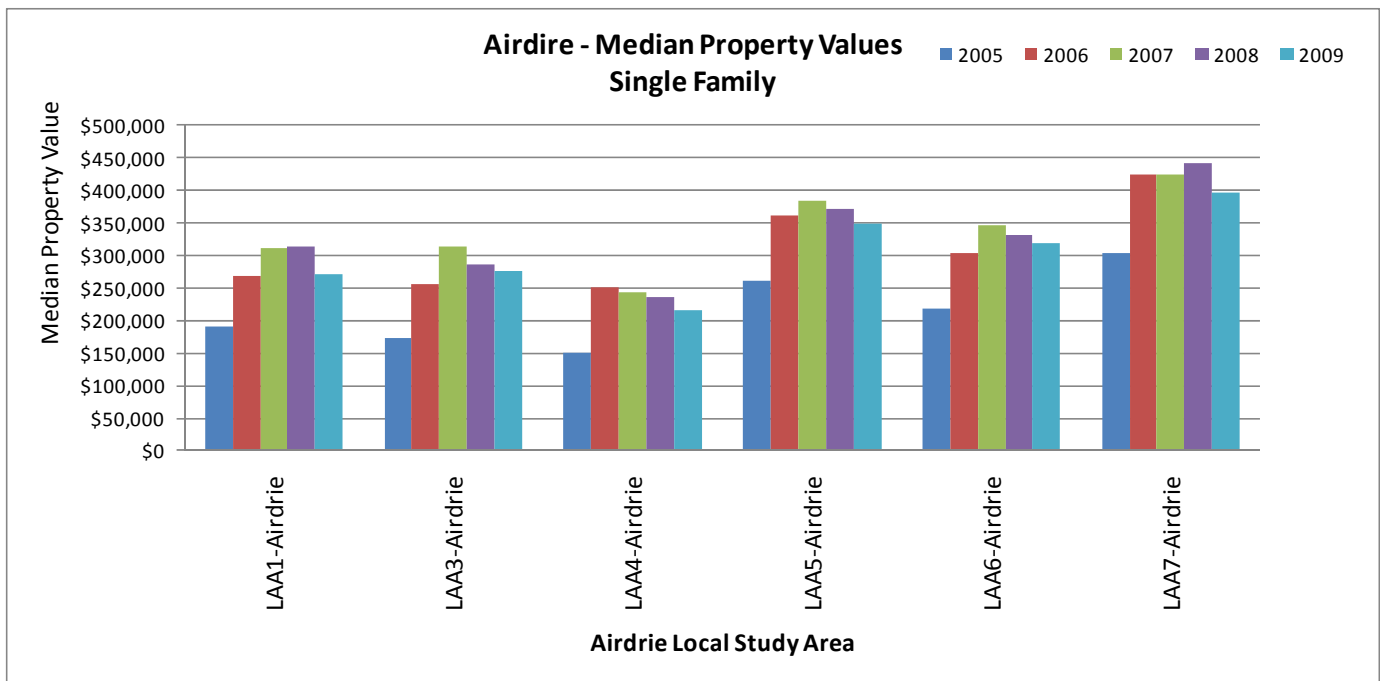
Source: (Calgary Real Estate Board. 2009)

Figure 6 Calgary Southwest and Southeast Median Property Values



Source: (Calgary Real Estate Board, 2009)

Figure 7 Airdrie Median Property Values



Source: (Calgary Real Estate Board, 2009)

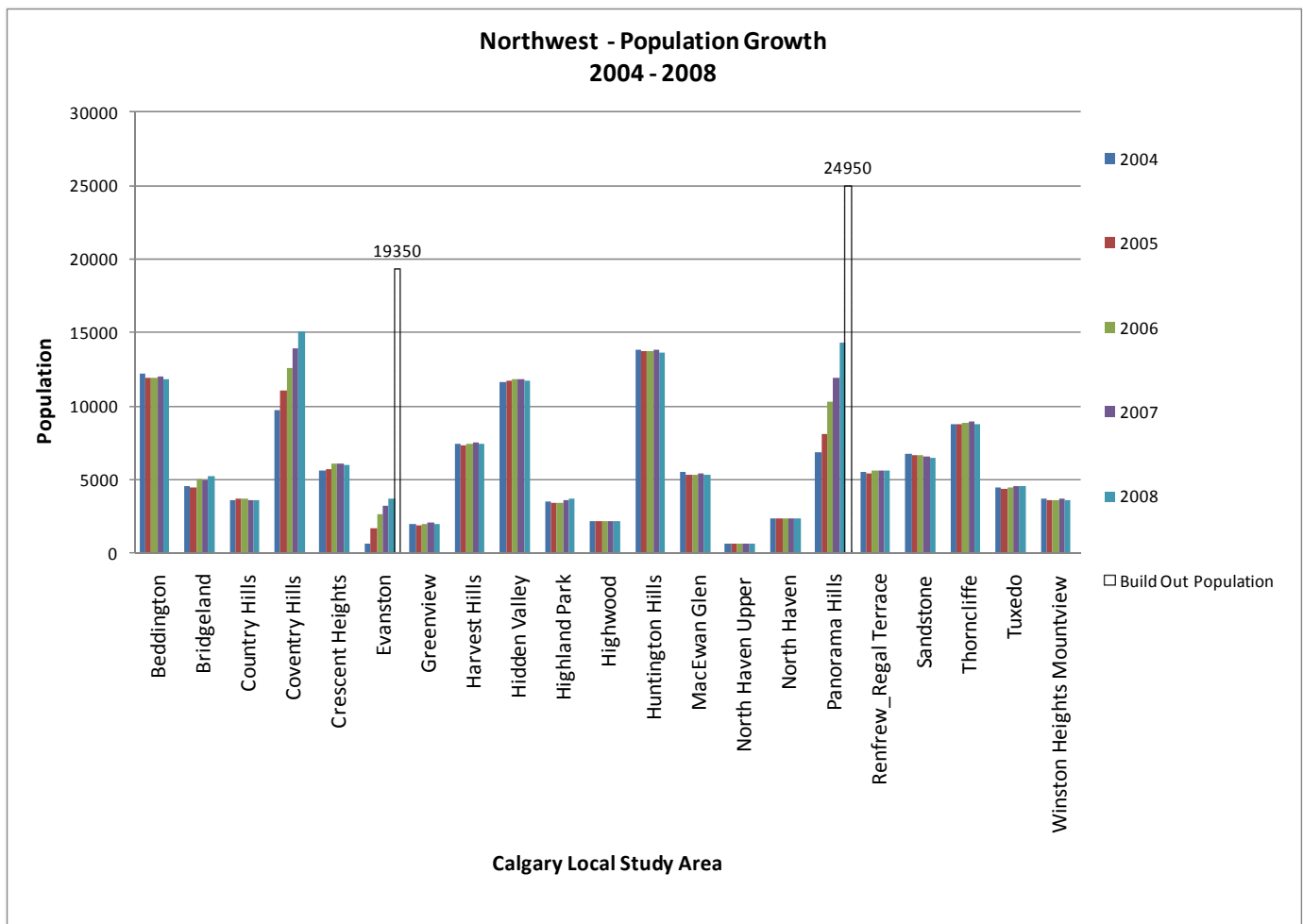
2.3.2.2 Population

Population within the City of Calgary LSA is illustrated in Figures 8 through 11. As indicated through the tables, the majority of communities are levelling off with respect to population and many have reached build out (Land Use, Planning and Policy, and Planning, Development & Assessment June 2009). There are only five communities that have room for growth based on approved ASP and land use applications. Those communities include:

- Panorama Hills
- Evanston
- Saddleridge
- Taradale
- Skyview Ranch (new community)

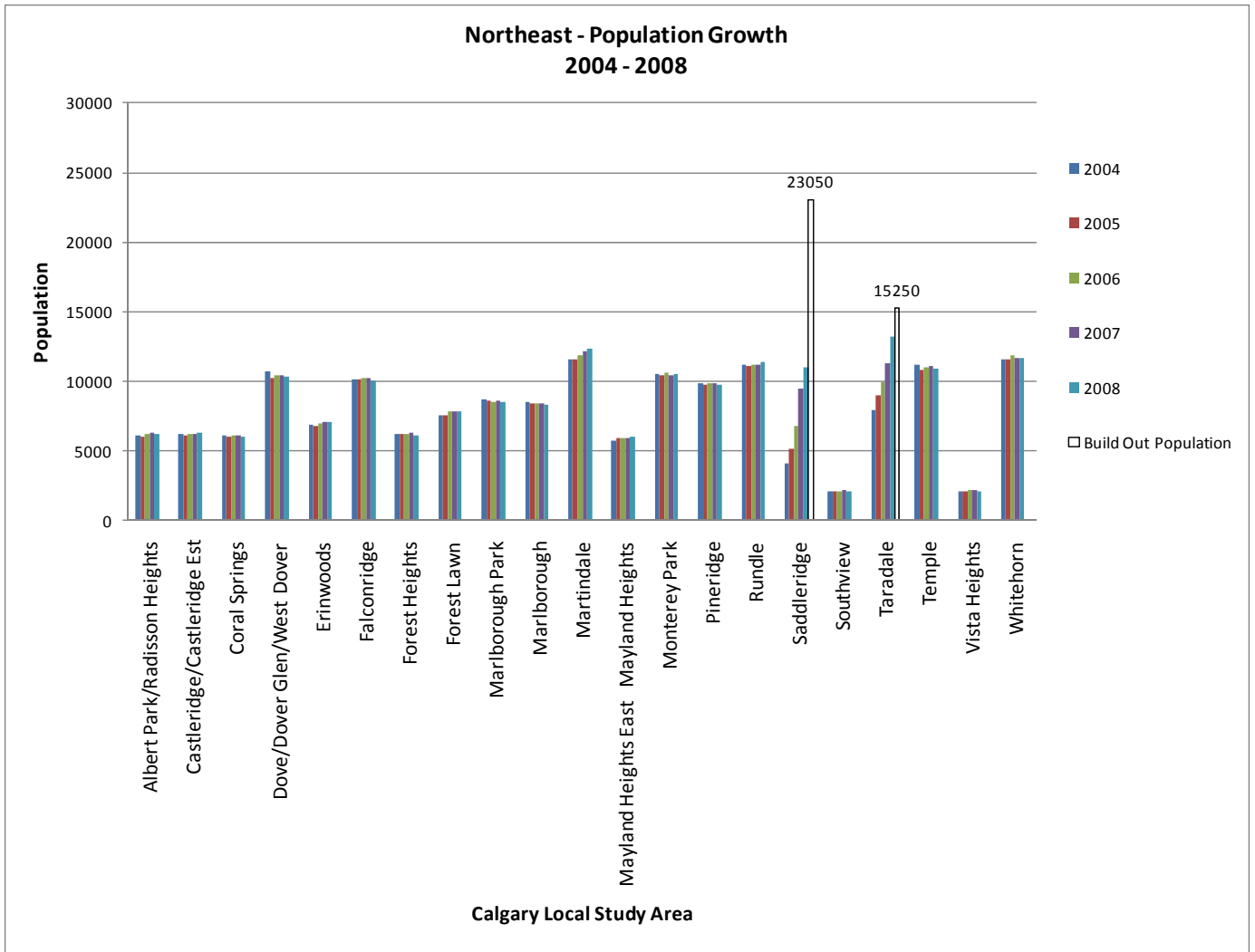
The remaining communities are within established areas where population appears to have reached its peak.

Figure 8 Calgary Northwest Population 2004 - 2008



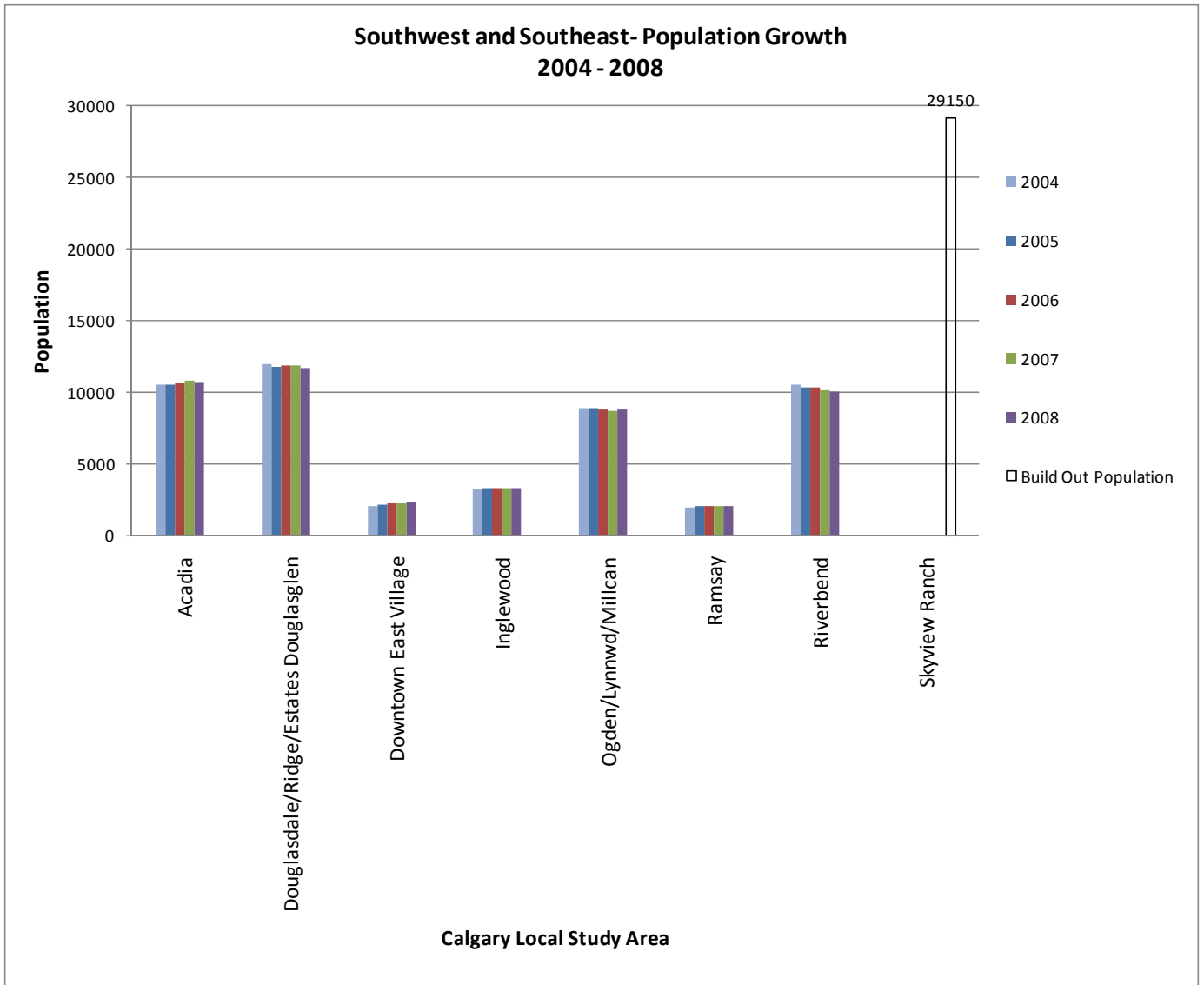
Source: (Land Use, Planning & Policy, and Planning, Development & Assessment, June 2009)

Figure 9 Calgary Northeast Population 2004 - 2008



Source: (Land Use, Planning & Policy, and Planning, Development & Assessment, June 2009)

Figure 10 Calgary Southwest and Southeast Population 2004 – 2008

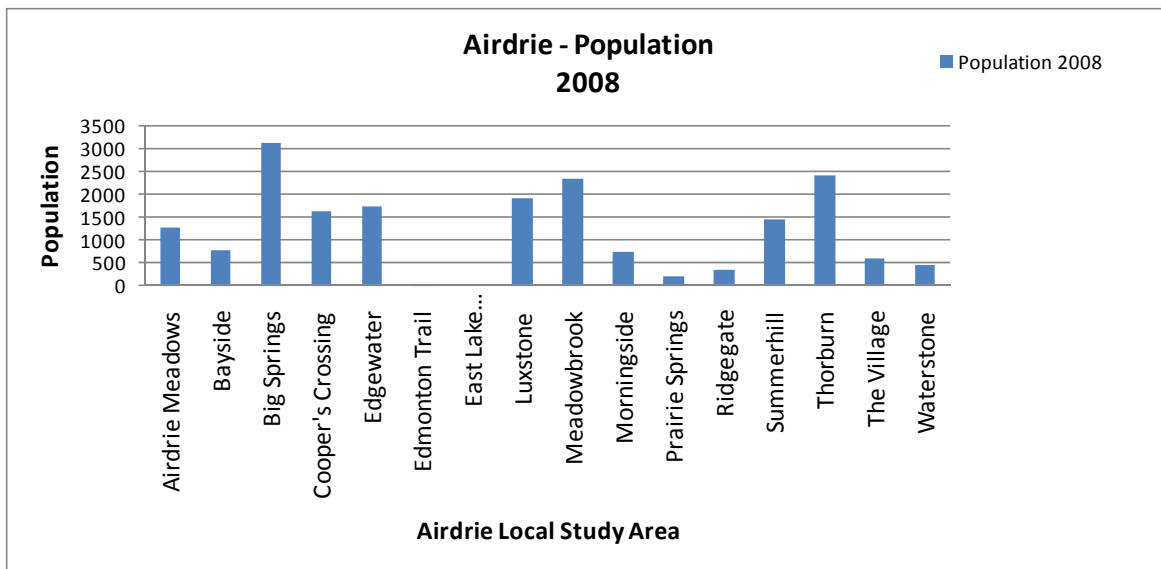


Source: (Land Use, Planning & Policy, and Planning, Development & Assessment, June 2009)

Airdrie has experienced a significant amount of growth in the recent years. The majority of its residential, industrial and commercial land is within the southern portion of the Airdrie LSA. Servicing constraints, particularly the need for investment in roads, has slowed down development in this area (Dillon Consulting October 2008).

Rocky View County does not separate their statistical data for populations into the parcels which coincide with the LSA. Population information is gathered from the census data for the entire County and for the rural area surrounding the City of Airdrie. Over the past ten years, Rocky View's population has increased on an average of 1,100 per year at a rate of 2.7% annually.

Figure 11 Airdrie Communities within LSA Population 2008



Source: (Airdrie, City of, 2008).

2.4 Regional Study Area

Providing a regional context for the land use analysis allows for property values and development activity to be examined in relationship to the larger area. The Regional Study Area (RSA) of the PRP includes the City of Calgary as a whole, the City of Airdrie as a whole and Rocky View County (see Figure 12).

2.4.1 Methods

2.4.1.1 Property Values

Change in revenue for residential land use was measured through property values. Median property values were gathered from the Calgary Real Estate Board for the City of Calgary, the City of Airdrie and Rocky View County from January 2005 through to October 2009. The data for property values in Calgary is separated into quadrants corresponding to information provided by Calgary Real Estate Board.

2.4.1.2 Population

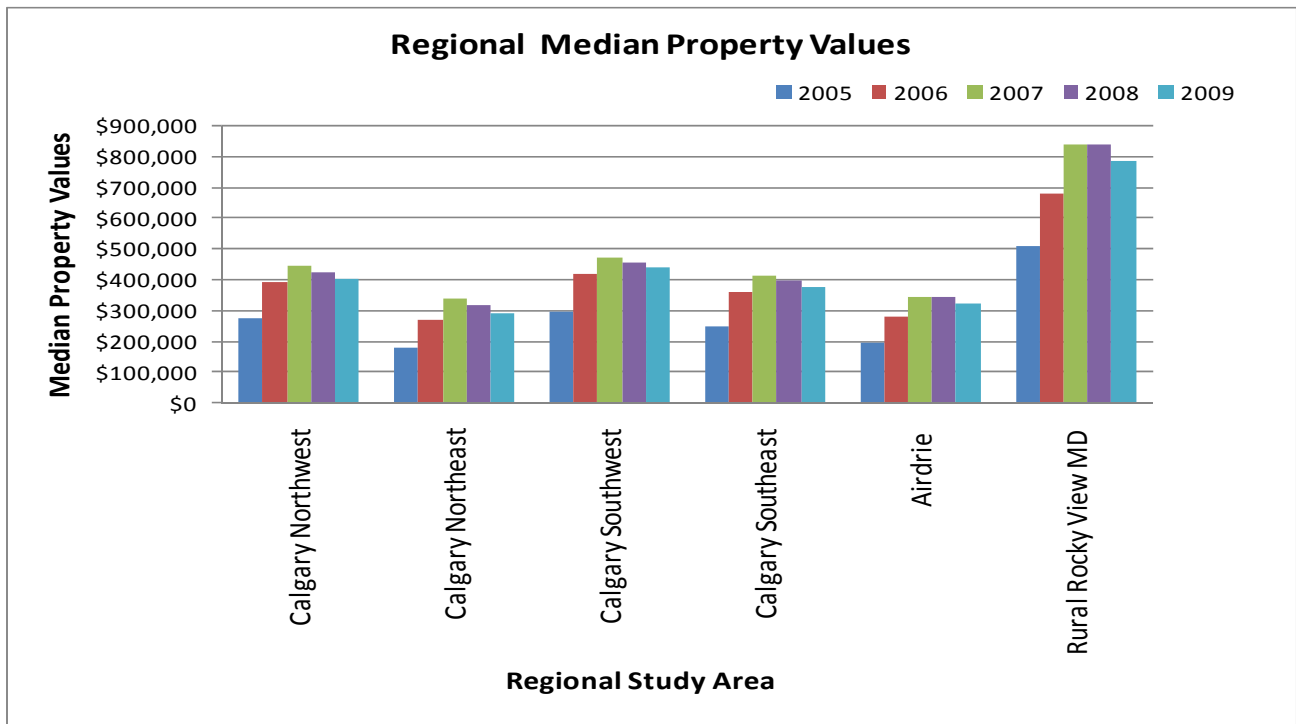
Population statistics for the City of Calgary were gathered from the City’s community profile webpage (Calgary, City of 2009). The City of Airdrie population data was gathered from the Airdrie Census 2008 (Airdrie, City of 2008). Population data for Rocky View County was harder to obtain. Only population census data for 2006 was available for Rocky View County.

2.4.2 RSA Baseline Conditions

Median property values within the RSA are similar to the LSA in that they peaked in 2007 and declined with the global recession as shown in Figure 13.

Over the last five years, the Southeast, North and Southern portions of Calgary have experienced the most suburban residential growth. However, suburban growth is starting to slow as there is an increased trend in intensifying the established areas (Land Use Planning & Policy, and Planning, Development & Assessment 2009).

Figure 13 Regional Median Property Values



Source: (Calgary Real Estate Board. 2009)

General population statistics are available for the Cities of Calgary and Airdrie for the years 2005 through to 2008. Table 5 indicates that population growth has been on a general increase.

Table 5 RSA Population

Municipality	2005	2006	2007	2008	2009*
Calgary	933,495	956,078	991,759	1,019,942	1,042,892
Airdrie	25,606	27,169	29,035	31,512	34,512
Rocky View		34,171			

2.5 Summary and Considerations

The baseline information gathered for the Site Area, the LSA and the RSA varied greatly in the level of information available.

The Site Area is controlled by one property owner (the Authority) and it is difficult to measure changes in revenue based on land uses when all of the land uses are related to the operation of the airport and supportive of the local demand for air travel. Changes to the built environment within YYC lands are setting the stage for the PRP. As indicated in Table 2, the East Airport Industrial area is the main section of land that remains agricultural. The completion of the PRP would trigger changes in land use from agricultural within this area.

The LSA has been shaped and formed in anticipation of the PRP. The baseline information on property values will identify any changes to the ability to generate revenue from specific land uses once the PRP is in place.

The RSA is spread across three municipalities, each with a broader set of revenue generating indicators for specific land uses.

In light of the historical land use activities and policies and regulations that have been developed within YYC land, the LSA and the RSA, it is anticipated that the PRP will have a minimal effect on land use surrounding YYC.

3. Traditional Land Use

The traditional land use of YYC land dates back to the first nations and the oldest residents of the western prairie region. During the mid 1800s, European settlers began entering the west and settled in the Calgary area. This was the beginning of a changing prairie landscape.

The airport lands are located within the City of Calgary. Current land use is largely agricultural with some residential acreages, roads and other infrastructure. There is no traditional land use. The lands are within the City of Calgary and firearm use is prohibited unless licensed for special purposes such as bird strike countermeasures. There are no trap lines and no fish bearing water bodies.

According to information received from INAC, the proposed project location may be the subject of litigation filed by the Tsuu T'ina (Band) and the Kainaiwa Nation (Blood Tribe). The Métis Nation of Alberta has also asserted a Métis right to harvest across the province.

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