

# Parallel Runway Project

## Project Description and Scoping Document

### Welcome

Thank you for coming to our first round of Public Consultation Meetings related to the Parallel Runway Project. This is the title that we have given to the Calgary Airport Authority's (the Authority's) new runway initiative at the Calgary International Airport (YYC).

These meetings are being held in order to get your input and to provide you with the following:

- An overview of the Parallel Runway Project, including the Project Description and the Need for the Project;
- An overview of the Environmental Assessment process that we will be undertaking for the Project. The process will include the preparation of a Comprehensive Study. We want to share with you the assessment methods we are proposing to use in preparing the Study, as well as the areas – or disciplines – that we are proposing to address within the Study.

Our proposed approach to preparing the Comprehensive Study is currently documented in a draft Project Description and Scoping Document. We want to ensure that you understand that this is your opportunity to review and comment on the Scoping Document before the assessment is undertaken.

These meetings are an opportunity for you to provide us with your comments and your input into the process. We also want to ensure that you are aware of the ways that you can stay informed and get involved in the process.

We want to know your thoughts on our proposed approach. As you move through our display panels, you will see prompts that will remind you that we want to know...

#### **WHAT DO YOU THINK?**

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### The Calgary Airport Authority

The Calgary Airport Authority is a not-for-profit, non-share capital corporation, incorporated under the Province of Alberta’s *Regional Airports Authorities Act*. Since 1992, it has been responsible for the operation, management and development of the Calgary International Airport, and subsequently the Springbank Airport, under long-term lease from the Government of Canada.

Our legislated mandate under the *Regional Airports Authorities Act* is....

“To manage and operate airports for which we are responsible in a safe, secure and efficient manner and

To advance economic and community development by means that include promoting and encouraging improved airline and transportation service and an expanded aviation industry”

....for the general benefit of the public in our region.

#### Our Vision

In support of our customers, our business partners and the entire Calgary community, we will operate and develop our airports in an efficient, innovative and sustainable manner.

Efficient → Lean organization; best practices; cost leadership

Innovative → Turning challenges into opportunities

Sustainable → Corporate social responsibility and leadership; prudent financial management



# Parallel Runway Project

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### Project Description

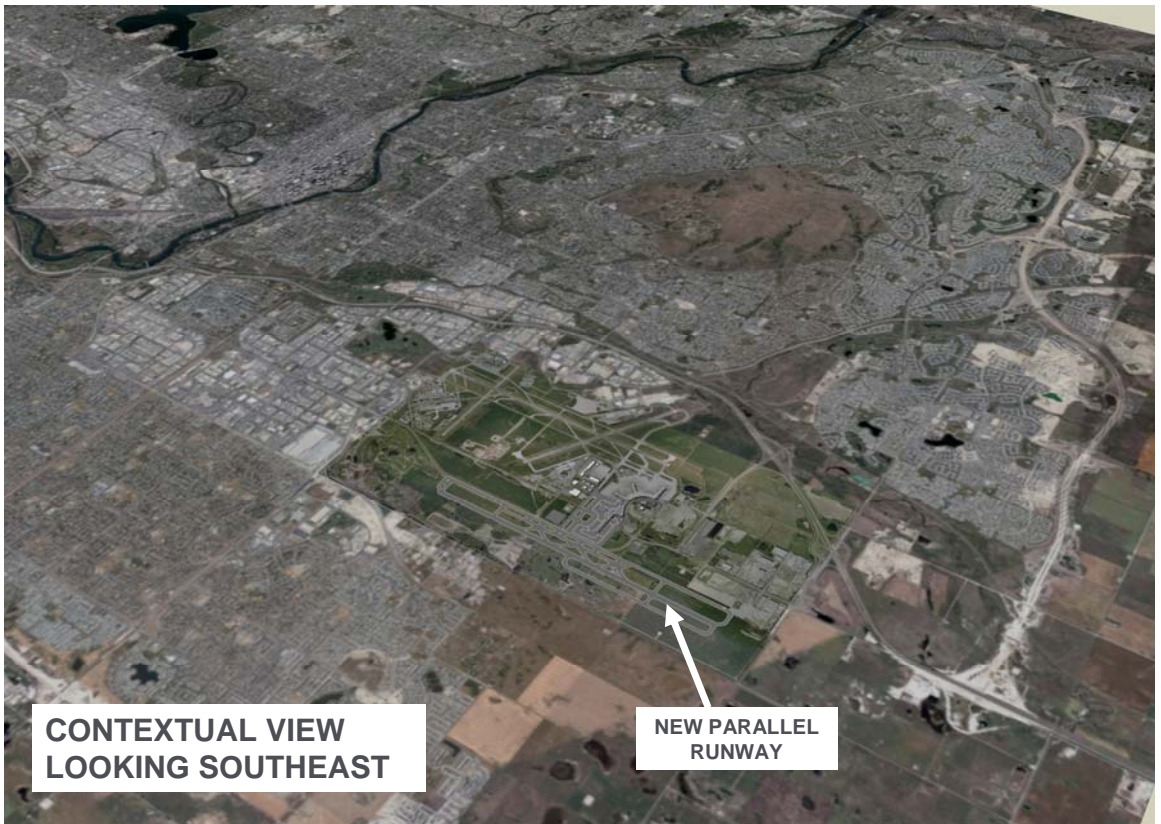
The scope of the project refers to components that make up the Project that will be the subject of the Comprehensive Study. In determining the scope of the project, the Authority considered the core project components, its related projects and ancillary works.

**Core project** components include anything that is being constructed, operated, modified, decommissioned or abandoned to achieve the main purpose of the project.

**Ancillary works** include all the infrastructure, utilities and services (e.g., electrical utilities, lighting, stormwater systems, signage) that are required to support the development, including any temporary works such as temporary buildings, storage areas, roads, etc.

The Parallel Runway Project consists of the following:

- A 14,000 foot x 200 foot runway (4,270m x 60m) and associated taxiways
- Visual and electronic navigation aids required for its operation
- A maintenance facility, a field electrical centre, changes to airfield roads necessitated by construction of the runway
- Closure of Barlow Trail between Airport Road and 48<sup>th</sup> Avenue NE
- An airfield tunnel to allow airport cargo and similar vehicles to pass under one of the taxiways



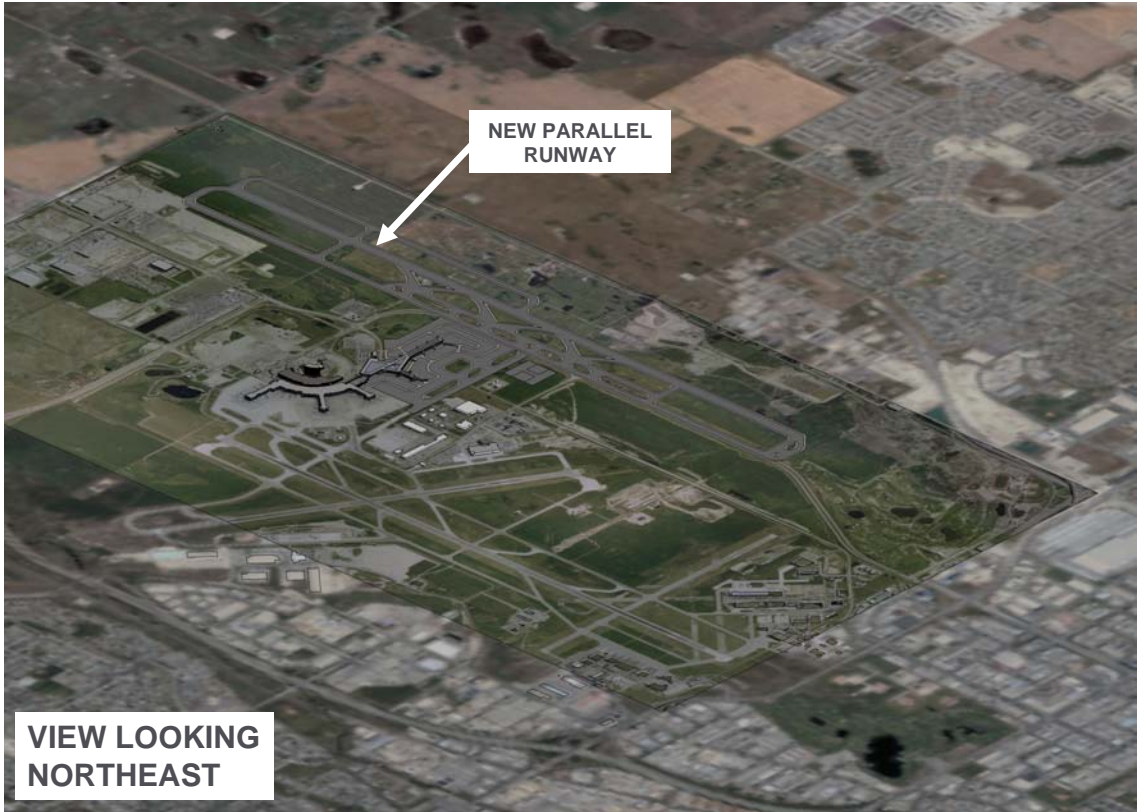
# Parallel Runway Project

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### Need for the Project

In the late 1990s, the Authority began to take note of significant air traffic congestion occurring on the airport's existing airfield system. As a result, an Airfield Capacity Assessment was conducted in 1998, and based on growth projections in effect at that time, the study suggested that the proposed runway could be required as early as 2006 (NAPA, 1999). However, the report also highlighted the fact that there were many operational improvements that could be made that would improve the overall efficiency and capacity of the existing airfield system. Various improvements were made by both the Airport Authority and NAV CANADA during subsequent years, some of which had dramatic and positive effects with regard to reducing delays and improving the efficiency of the existing airfield.

By the end of 2008, the vast majority of operational and infrastructure improvements that could enhance the efficiency of Calgary's existing airfield system had been made. In terms of current conditions, NAV CANADA (Canada's civil air navigational services provider) reports that in spite of the current economic downturn, the existing airfield continues to be operated at levels which exceed its practical capacity for a few hours on most days.



### Alternatives to the Project

Alternatives to the project include the following:

- Do nothing
- Building the airport elsewhere
- Divert traffic to other regional airports
- Upgrading existing YYC facilities

These alternatives will be evaluated as part of the overall Environmental Assessment process.

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### Communications and Consultation

Communications and consultation activities will be key components of the Parallel Runway Project. We want to make you aware of how you can stay informed and how you can get involved.

We are at the beginning of the Environmental Assessment process, and this is the first of three rounds of Public Consultation Meetings which are planned for the Comprehensive Study. This first round of meetings is focused on the draft Project Description and Scoping Document. You have the opportunity to provide your input and comments regarding this document. The document can be viewed and downloaded from the following website:

[www.yyc.com/RDP](http://www.yyc.com/RDP)

You can also view the document at the following public library branches:

- Village Square Library – 2623 – 56<sup>th</sup> Street NE
- Forest Lawn Library – 4807 – 8<sup>th</sup> Avenue SE
- Thornhill Library – 6617 Centre Street North
- Country Hills Library – 11950 Country Village Link NE
- Central Branch – 616 Macleod Trail SE

Subsequent public consultation meetings will discuss the Draft Baseline reports and the Draft Comprehensive Study expected in October 2010.

If you would like to be on our email, or mailing list, please send your contact information to the following: [info@rwy-yyc.com](mailto:info@rwy-yyc.com), or The Calgary Airport Authority, 2000 Airport Road NE, Calgary AB T2E 6W5.

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### Environmental Assessment Process

**The planning, design, and construction of the new runway will meet or exceed all federal and provincial standards.**

The Calgary International Airport is not subject to the *Canadian Environmental Assessment Act* (CEAA). However, the Authority is undertaking a Comprehensive Study that models the federal Environmental Assessment process.

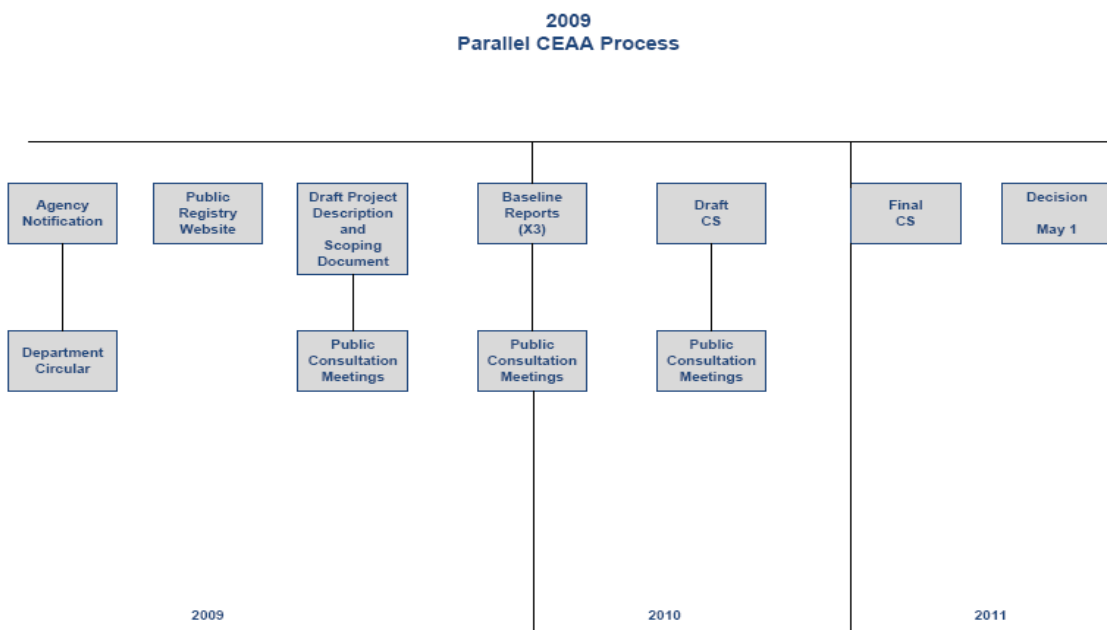
Consultation with all interested stakeholders and the public will be central to this process. The first stage of the Comprehensive Study is deciding what to study! This is where we currently are in the process. A draft Project Description and Scoping Document is available for review. This document lays out the issues to be addressed and studied during the estimated 18-month Comprehensive Study.

Future stages will deal with the review of Draft Baseline reports and the Comprehensive Study itself. All Comprehensive Study documentation will be subject to public, stakeholder, and government review, through stakeholder committees and public meetings, such as this meeting.

All issues raised throughout the course of the Comprehensive Study will be tracked, responded to, and reported in the Comprehensive Study.

#### Timeline

The timeline below outlines how various components of the Comprehensive Study of the Parallel Runway Project will be addressed over the course of the consultation period.





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## Project Description and Scoping Document

### Scoping the Assessment

The scope of the assessment includes consideration of all factors described in subsections 16 (1) and 16 (2) of the *Canadian Environmental Assessment Act* (CEAA) relevant to a Comprehensive Study. The Authority will consult with the public, stakeholders and government to determine the scope of the assessment, including the factors to be considered and the scope of those factors. The factors include:

- the purpose of the project;
- alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternatives;
- project-related environmental effects, including those related to malfunctions or accidents that may occur in connection with the project, and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- the capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future;
- the significance of the environmental effects;
- measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project;
- comments from the public;
- the need for and the requirements of any follow-up program in respect of the project; and
- any other matter relevant to the Comprehensive Study such as the need for the project, alternatives to the project or follow-up that the Authority may require to be considered.

The draft Project Description and Scoping Document describes a preliminary plan to consider these factors. It will be modified to take your suggestions into account.

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### Sustainability

The Authority has a well-established policy of incorporating sustainability principles into all of its projects. The Authority sustainability policy as referenced in its 2004 Master Plan reads as follows:

*“Calgary International Airport’s goal is to ensure that airport operations and expansion occur with minimal impact on human and environmental health. In order to provide this commitment, the Authority will:*

- *Serve Calgary’s growing need for air travel, while at the same time protecting the environment, and the health and safety of employees, travellers and the public at large.*
- *Ensure, as a minimum, all practices and procedures conform to relevant federal, provincial and municipal law.*
- *Promote environmental awareness among Airport Authority employees and tenants.*
- *Work co-operatively with all levels of government to implement responsible environmental programs.*
- *Subject new airport projects to an environmental review.*
- *Maintain plans and procedures to deal with environmental emergencies and take immediate corrective action in the event of an accident.*
- *Conduct regular reviews to assess the environmental condition of the airport.*
- *Conduct regular audits.*
- *Provide appropriate environmental training for Airport Authority staff*

*In addition to minimizing the environmental impact of fostering aviation development and economic growth, the Airport Authority will strive to exemplify strong environmental stewardship to local, national and international communities through innovation, leadership and new partnerships.”*

We would like to hear your suggestions regarding making the Parallel Runway Project sustainable.

#### WHAT DO YOU THINK?

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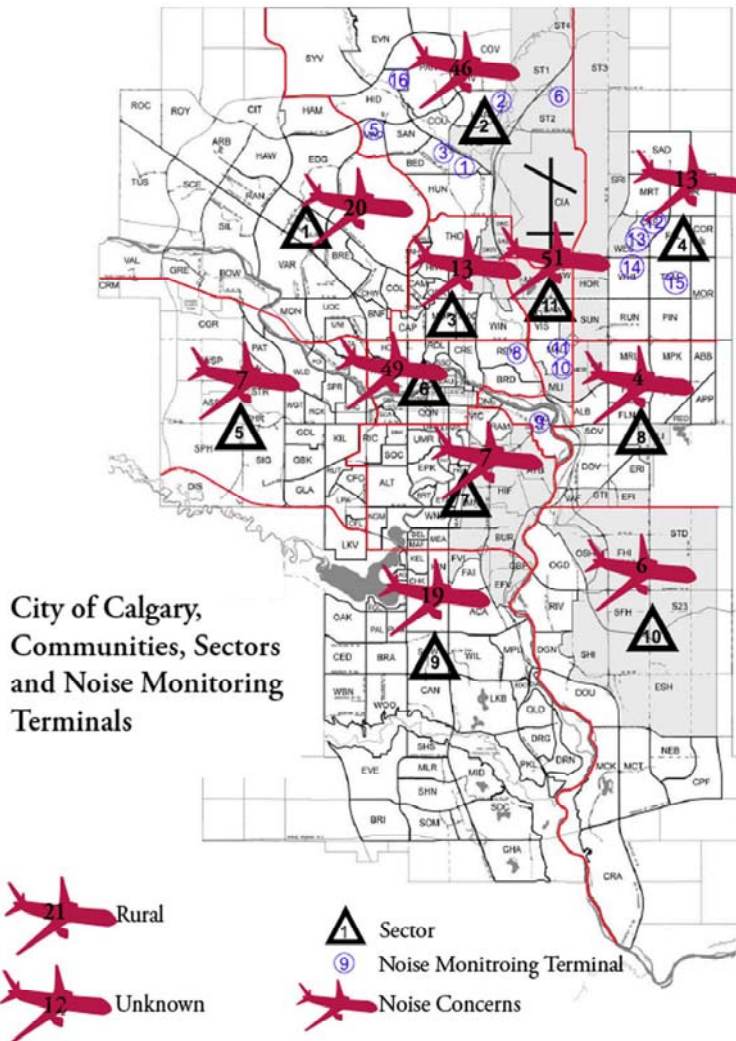
### Noise

Operation of the proposed runway would change aircraft flight paths, including arrival and take off profiles, flight tracks and runway utilization. Community response to aviation noise issues are predicated on their familiarity with the current flight and runway operational procedures. When these elements change, noise experienced at different locations may increase or decrease.

To help monitor aircraft operations, the Authority has maintained a network of fourteen noise sensors (“noise monitoring terminals or NMTs”) around the airport for many years.

On average, overall noise levels around the airport have declined since 1993, in spite of an increase in flight traffic through this period. This is largely attributed to the phase out of first generation noisier aircraft.

This database of noise and flight path information will be obtained for use in the baseline studies.



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### Noise

We are proposing to conduct a noise assessment to identify, assess and classify any beneficial or adverse project-specific effects (e.g., through comparison of baseline, predicted future conditions and a do nothing alternative if the runway is not built). The assessment will further review the potential for mitigation of adverse effects, and describe the implications of any residual effects after mitigation measures have been applied. We are considering assessing changes in the following:

- Changes in noise and vibration from construction works and traffic
- Changes in road traffic noise once the parallel runway is operational
- Changes in noise and vibration from aircraft taking off and leaving, and approaching and landing at the airport
- Changes in noise from fixed and mobile sources on the ground (e.g., engine testing, aircraft taxiing and fixed plant).

#### WHAT DO YOU THINK?

##### Issues: Change to Noise Patterns for Local Residences

Operation of the proposed parallel runway will change noise patterns that local residents have become accustomed to.

Aircraft noise in the vicinity of airports is usually assessed by means of noise modelling programs, such as Transport Canada’s Noise Exposure Forecast (NEF), or the US FAA Integrated Noise Model (INM). To aid in coordination with the existing airport noise monitoring system, we are proposing supplementary noise surveys to measure noise data in various communities. Future noise conditions will have to be computer modelled using data, including number of air traffic movements, the air fleet mix, flight track and flight profile information etc., as predicted for future operations at the airport. **WHAT DO YOU THINK?**



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### Air Quality and Greenhouse Gases

The development of the Project has the potential to affect air quality during both construction and operations. The main effects during construction phase will be related to the airborne dust and diesel emissions generated by construction activities.

Following construction, potential effects on air quality will result from the change in emissions of local air quality pollutants, in particular nitrogen dioxide (NO<sub>2</sub>), carbon dioxide and particulate matter, caused by changes in airport activities and road traffic flows on routes to and from the airport.

#### **Issues: Changes in Air Quality and Greenhouse Gas Emissions**

Direct measurement (i.e., monitoring) and dispersion modelling approaches are proposed to predict pollutant concentrations at specific sensitive receptors (e.g., hospitals, schools, old age homes, etc.) and appropriate mitigation measures will be assessed.



As current runways are nearing capacity, the proposed new parallel runway will result in a more efficient airfield system. These improvements will reduce aircraft ground delays, emissions and greenhouse gases that result from aircraft idling and queuing. **WHAT DO YOU THINK?**

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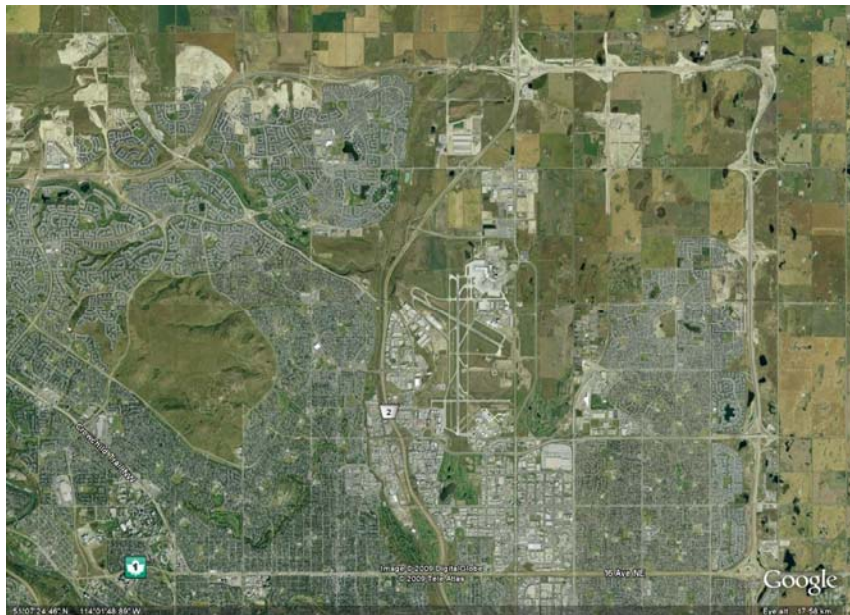
### Transportation

The proposed new parallel runway will result in the closure of portions of Barlow Trail and McCall Way along with the regional pathways through the airport lands which will directly affect the transportation in and around the airport.

The City of Calgary transportation department has and continues to work with the Airport Authority on the transportation network in and around the airport.

#### Construction

We are proposing to determine the number of trips anticipated during runway construction; identify anticipated times for peak construction activities; and estimate travel routes for significant construction traffic contributors such as tandem trucks required for removal and replacement of fill. We are proposing an effects assessment of construction traffic on roadway operations. **WHAT DO YOU THINK?**



#### Operations

All current information regarding existing and future route information and transit data will be obtained and included in the baseline. We are proposing to study changes in net travel time for vehicles, pedestrians and cyclists. **WHAT DO YOU THINK?**

#### Issue: Closure of Barlow Trail between Airport Trail and 48<sup>th</sup> Ave

Commuters will be able to access the airport from Airport Trail via Deerfoot Trail or from Barlow Trail via Country Hills Boulevard. **WHAT DO YOU THINK?**

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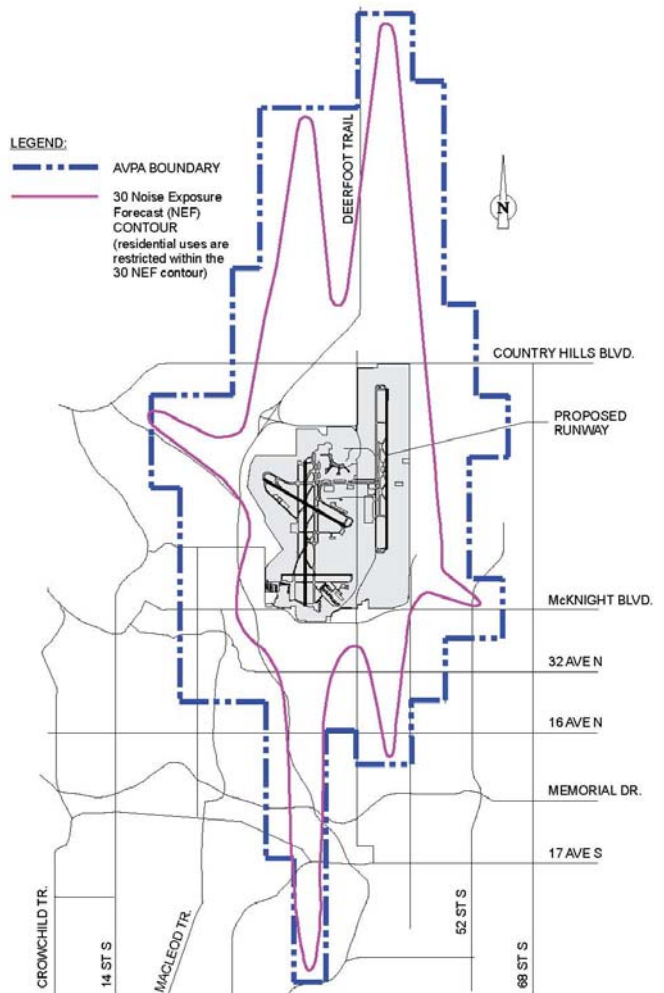
### Land Use

In 1979, the provincial government adopted the Airport Vicinity Protection Area (AVPA) Regulation in response to Transport Canada’s land use guidelines report TP-1247E. The AVPA is based on noise exposure forecast (NEF) contours of noise sensitive areas as they project out from the airport. Transport Canada’s recommended land use table provides municipalities with a basis for land use zoning.

At that time, plans for the airport anticipated the future development of a fourth runway. The application of the AVPA regulation on YYC and the surrounding area evaluated the compatibility of land use planning with the operation of an airport, including the Parallel Runway Project.

For the past 30 years, any development within the City of Calgary, or the MD of Rocky View, has been reviewed with respect to the AVPA regulation. This regulation dictates what type of land uses can be developed within each of the NEF contours. 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.

We are proposing to assess the Project effects on residential, industrial, commercial and open space/recreational use.  
**WHAT DO YOU THINK?**



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### Traditional Land Use and Cultural Resources

The development of the airport lands has been influenced by early settlement patterns and relationships with First Nations.

#### Traditional Land Use

Relationships with First Nations are valued. Their participation in the consultation process will be important in determining the full effect of the Parallel Runway Project on traditional land use and occupancy. We will respond to any issues that develop through the consultation process and work towards providing solutions.

#### Cultural Resources

A Historical Resources Impact Assessment (HRIA) of YYC lands was conducted in 2008 by Fedirchuk McCullough & Associates Ltd. under the guidelines established under the Alberta Historical Resources Act (1980). The report found that YYC property holds few archaeological sites and that those that were present were not unique historical resources in the area. The report recommended mitigation prior to development of the area. The airport has since implemented the recommended mitigation for those sites.





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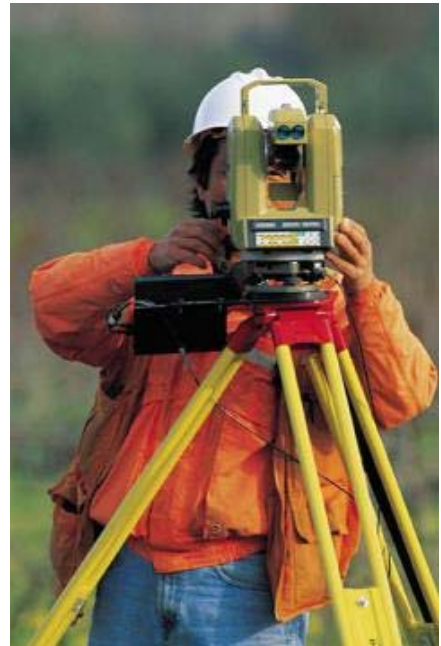
### Socio-economic and Human Health

The proposed Project has been envisioned since the late 1970s and incorporated in associated planning documents since that time. Land use designations around the study area have taken into consideration both Transport Canada regulations regarding building heights and Alberta noise regulations. As a result the effects of the Project should not be incompatible in any way with existing use. **WHAT DO YOU THINK?**

The Project will create additional employment. It has been estimated that the airport today has created 40,000 jobs in the region. There will be social benefits from the new runway, including effects on traveller convenience and comfort. On the other hand, there may be discomfort or inconvenience associated with changes in traffic patterns and dust generated during construction. We want to hear your ideas regarding possible effects that we should consider in our assessment. **WHAT DO YOU THINK?**

The scope of the assessment will ultimately be determined by the issues raised by stakeholders. The issues or potential effects will be determined through public input and regulatory consultation. We are proposing to conduct an effects assessment for physical, social, human and economic assets and to synthesize the data regarding the proposed development. **WHAT DO YOU THINK?**

The majority of human health concerns at existing or proposed large airports are associated with noise and air quality. All existing information on noise and human exposure levels to airborne contaminants for the proposed project area will be obtained and will be included in the baseline. We are proposing to conduct a human health risk assessment in order to determine any human health concerns. **WHAT DO YOU THINK?**



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### Geological Conditions

The development of the Project involves the direct disturbance of approximately 1 million m<sup>3</sup> of soil and the relocation of soils within YYC lands. An extensive area is going to be graded; some sections will be lowered by as much as seven meters and others filled by as much as three meters.

#### Soils

All existing information on soils for the proposed project area will be obtained and will be included in the baseline. We are proposing site-specific soil mapping for the Project to capture specific topsoil depths and classify soils. **WHAT DO YOU THINK?**

#### Issue: Soil Conservation

Some of the soils that will be disturbed will be Orthic Black Chernozems which are relatively rare and of high agricultural value. We are proposing the development of a Soil Management Plan to aid in construction and post-construction reclamation planning. **WHAT DO YOU THINK?**



#### Groundwater

The proposed grading may affect both groundwater discharge and recharge in the proposed project area. We are proposing the development of a hydrogeological conceptual model to better understand groundwater quantity and movement within the project area. **WHAT DO YOU THINK?**

#### Issue: Dewatering

Any new construction will require dewatering. The water will be directed into the stormwater drainage system. Dewatering will lower the groundwater table in the vicinity. **WHAT DO YOU THINK?**

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### Aquatic Ecosystems

There are no fish within the proposed project area. However Nose Creek, a fish bearing stream, is located down slope from the Project and flows into the Bow River which is classified as a “blue ribbon fishery” (i.e., a recreational fishery of extremely high quality). The Nose Creek watershed is influenced by many sources such as residential (urban and rural), agricultural and industrial uses.

#### Surface Water and Fish

All existing information regarding surface water and fish for the proposed project area and Nose Creek will be obtained and will be included in the baseline. **WHAT DO YOU THINK?**

#### Issue: Surface water runoff into Nose Creek

The development of the Project involves the grading and paving of an extensive area. This increase in impervious surface area will cause an increase in stormwater runoff for the project area. We are proposing to develop a stormwater drainage system that will not materially change the water quality and water quantity in Nose Creek. The Authority already samples the quantity and quality of water discharged into Nose Creek. It will continue to do so when the new runway is built. **WHAT DO YOU THINK?**



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### Terrestrial Ecosystems

The proposed project area is located in a highly urbanized, highly developed area with little remaining native vegetation and habitat.

#### Vegetation

All existing information regarding vegetation for the proposed project area will be obtained and included in the baseline. We are proposing site-specific vegetation investigations to identify upland and wetland plant communities, individual potentially at risk species and potentially invasive or otherwise undesirable plant species. **WHAT DO YOU THINK?**

#### Issue: Wetlands

In order to protect aircraft using the new runway from bird strikes a few small wetlands will be filled. This action is consistent with the Authority's Wetland Strategy for Reducing Bird Strike Risk (March 2007). This strategy was developed to address aviation safety while following the federal wetland policy. The strategy states the following:

*"Where loss of wetlands is unavoidable, potential locations for mitigation projects shall be considered through a variety of regional conservation alternatives outside the Primary and Secondary Bird Hazard Zones as identified in Transport Canada's guidance document - Safety Above All."*

#### WHAT DO YOU THINK?

#### Wildlife

All existing information regarding wildlife for the proposed project area will be obtained and included in the baseline.

We are proposing wildlife investigations including migratory bird surveys, surveys for species of concern and small mammal surveys.



The outputs of noise modelling may also be considered to compare baseline ecological risks to wildlife from noise disturbance. **WHAT DO YOU THINK?**

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### Next Steps

As previously mentioned, we are at the beginning of the Environmental Assessment process, and this is the first of three rounds of Public Consultation Meetings which are planned for the Comprehensive Study. At this point, we would like to receive your comments regarding the draft Project Description and Scoping Document.

Our second round of Public Consultation Meetings will coincide with the completion of the various draft Baseline report(s). As the reports become available, we will be sharing the key findings with the public. We anticipate the second round of Public Consultation Meetings to occur in late-2009 and 2010.

The third round of Public Consultation Meetings will address the Draft Comprehensive Study. We anticipate these meetings to occur mid-way through 2010.

Once again, if you would like to be on our email, or mailing list, please send your contact information to the following: [info@rwy-yyc.com](mailto:info@rwy-yyc.com), or to The Calgary Airport Authority, 2000 Airport Road NE, Calgary AB T2E 6W5.

Thank you for attending our Public Consultation Meeting. Please fill out a comment card and leave it with us. We will respond to any comments that you have.

#### WHAT DO YOU THINK?