

Preparing for Growth: How eye-Opening Data Protects the Calgary Region's Future

BY [CRPADMIN](#) • MAY 19, 2016 • [CALGARY METROPOLITAN PLAN, PARTNERSHIP/PLAN, REGIONAL SERVICING AND CMP IMPLEMENTATION](#)

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This article is Part 1 of a 2-part series on planning for growth in the Calgary Region using the ALCES (A Landscape Cumulative Effects Simulator) model. We explore how the ALCES can help current and future leaders in the Calgary Region prepare for future regional growth.

True, the past year presented some challenges for Albertans.

However, the Calgary Region is still recognized as one of the best places to live!



You could say we're lucky – but that isn't completely accurate.

What makes our Region great, didn't happen by accident.

It's the result of the residents, business, industries and our entrepreneurial spirit!

How regional planning helps plan for the future



Regional plans answer these questions of growth:

- Where will people live?
- How will they move around?
- Will there be enough water?
- What type of jobs will they have?

It's about protecting future generations quality of life – as well as additional considerations surrounding our lifestyle needs.

In fact, the only thing regional plans aren't designed is permanence.

Increased growth, environmental challenges, economic development, new technology and a shift in lifestyle norms all contribute to a regional plan's ongoing evolution.

To hypothesize, test and re-strategize to ensure yesterday's plans don't become barriers to tomorrow's growth.

Why the Region is key to prosperity



Few speak as passionately about the urgent need for a sophisticated strategy for regional infrastructure and growth development than [Colleen Shepherd](#), the Executive Director of the Calgary Regional Partnership (CRP).

A regional plan sets the conditions to help our economy thrive. It's about working together as a Region that prepares our communities for a prosperous future.



In a recent article published by the Calgary Herald, Colleen was quoted saying,

"Regions are now recognized as the most important economic geography in the global economy because they provide the scale and critical mass that drives growth and innovation."

Colleen believes, "Our quality of life, both today and far into the future, depends on the trade-offs and opportunities we are willing to commit to today!"

Gaining the cooperation of the Region is only the first step.

They also need to incorporate measurable tactics capable of promoting and achieving positive change for the Region.

To that end, Calgary Region leaders are learning to use data they need to make educated and strategic decisions.

[Regions provide the scale and critical mass that drives growth and innovation.](#)

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ALCES: A new way of looking at future regional growth

Most recently, when comes to understanding how growth and development trade-offs impact the Region, the CRP turned to the [ALCES](#) Group.

The Group created the ALCES® (A Landscape Cumulative Effects Simulator) computer model.

It allows stakeholders to explore a range of potential growth issues, strategies, and outcomes.

ALCES captures the impacts influencing the long-term (50-year) development in the Calgary Region.

“Our quality of life, both today and far into the future, depends on the trade-offs and opportunities we are willing to commit to today!”

The tool compares the consequences of more than one proposed urban growth strategy and land-use scenario.

In 2015, CRP used the ALCES to compare the view of our Region should we continue to grow as we have in the past (Business as Usual) against the CRP's [Calgary Metropolitan Plan](#).

The tool considers the tradeoffs of these items:

- Water
- Phosphorous counts
- Total Footprint;
- Farmlands;
- Grasslands;
- Infrastructure Costs;
- Population Growth;
- Walk Score;
- Health (Overweight risk reduction through densification).

A snapshot of the results can be seen here:

<https://www.slideshare.net/CalgaryRegion/case-study-exploring-cumulative-effects-of-regional-urban-growth-strategies-62109585>

Business as usual (BAU) scenario says keep going without a coordinated plan for the future.

On the other hand, the Calgary Metropolitan Plan (CMP) focuses on a number of key planning principles, trade-offs and commitments that we are making together.

Here are three examples BAU vs. CMP in approximately 50 years:

- 1) Constraining settlement footprint expansion in the CMP scenario not only curtailed negative environmental and economic impacts, it also improved the performance of social indicators by increasing population density relative to today
<https://www.slideshare.net/CalgaryRegion/calgary-region-scenario-footprint>
- 2) Over the course of the study, the CMP scenario avoided 2,266 tonnes of phosphorous runoff relative to BAU achieving an estimated \$58 million in water treatment cost savings over 50 years.

More impressive is the estimated \$18.4 billion saved over the 50-year simulation due to reduced road, water, and sewer construction needs.

<https://www.slideshare.net/CalgaryRegion/calgary-region-scenario-infrastructure-costs>

- 3) The CMP scenario required 53% less development of new town and rural residential footprint, such that 298 km² of farmland, 110 km² of grassland, and 8 km² of wetland were conserved relative to the BAU scenario.

<https://www.slideshare.net/CalgaryRegion/calgary-region-scenario-farmlands>

The results of the ALCES modelling in the Calgary Region were published in the peer-reviewed International Society of City and Regional Planners (ISOCARP) Journal: *Reinventing Planning: Examples from the Profession* in Fall 2015.

The modelling study was presented at the 51st [ISOCARP](#) Congress in Rotterdam, the Netherlands.

The Region will continue to use technology as it comes available to consider the tradeoffs and implications of actions and make good decisions together.

CRP uses the information gathered to design recommendations promoting collective benefits.

It's also about reducing risks across a wide range of social, economic and environmental values.

The growth outcomes we are preparing for has to consider both the needs of current and future generations.

For more information about [ALCES tool](#) or the [Calgary Regional Partnership](#) visit their respective websites.

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