

BE READY, OR BE LEFT BEHIND

Report of the Advisory Panel
on Metro Edmonton's Future

May 31, 2016



METRO MAYORS ALLIANCE

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OUR MESSAGE TO THE MAYORS

The Advisory Panel on Metro Edmonton's Future is pleased to provide its report and recommendations to the Metro Mayors Alliance.

As you will read, we believe that a globally competitive Edmonton Metro Region can be achieved, but only if municipalities act together to build the regional systems that are needed to leverage our strengths.

In coming together as an Alliance and establishing our Panel, you distinguished yourselves as nine leaders who recognize the need to secure the Metro Region's competitiveness – and recognize the risks the region faces if we don't. Your municipalities represent 95 percent of the region's population (a population forecast to be up to 2.2 million by 2044), 96 percent of its assessment base and about 80 percent of its land base.

Having done much homework on this subject, we understand why you set out our task. The Metro Region's critical mass of human, physical and natural assets has the potential to deliver decades of prosperity with a high quality of life – if we get it right.

Getting it wrong – failing to compete – could jeopardize our social, economic and environmental sustainability and may lead to ongoing contentious annexations or forced amalgamations in the future.

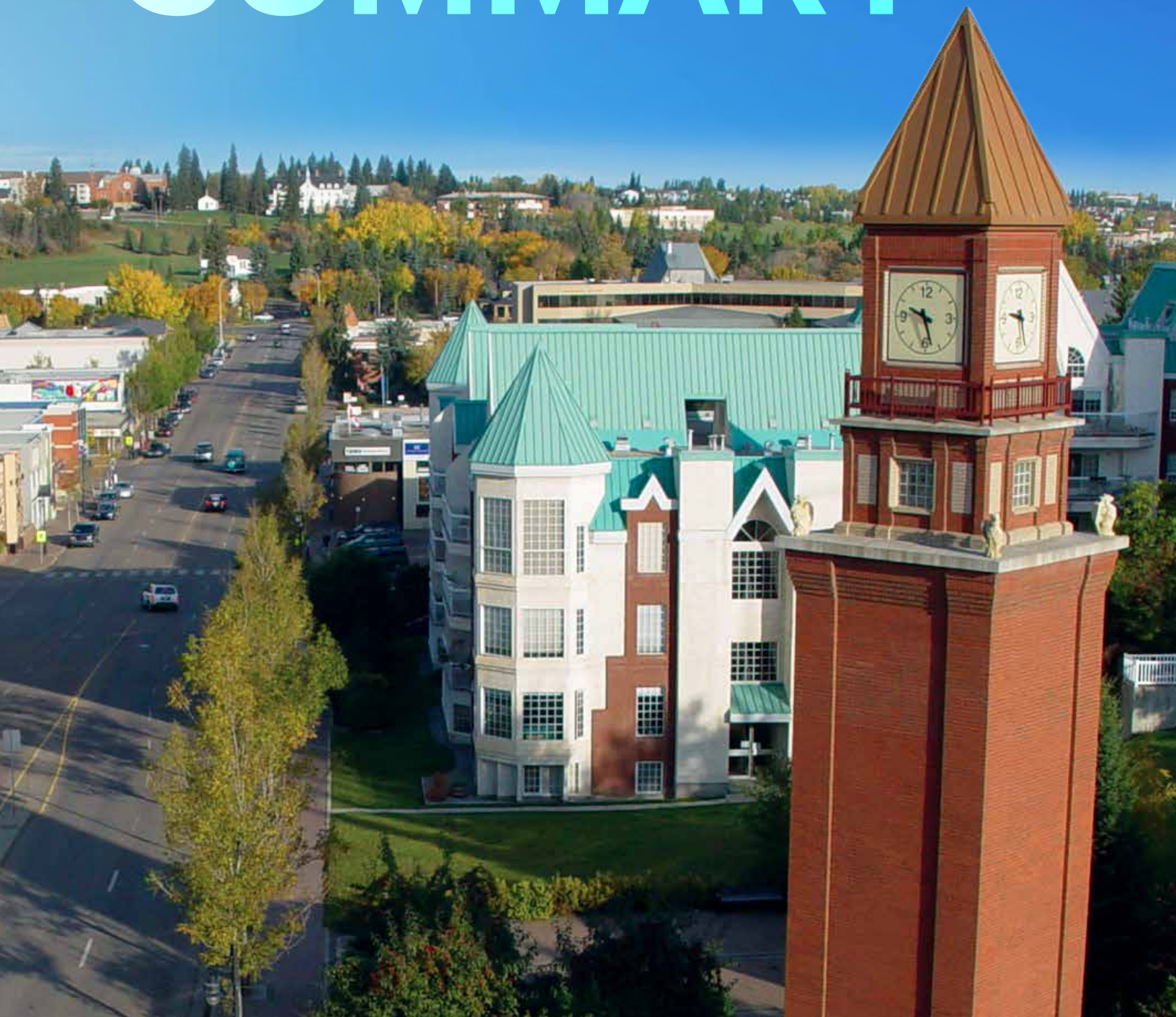
Against this backdrop, greater regional collaboration isn't an option. It's an imperative.

Our Panel sees the opportunities, just as you do. And though it will require everyone to think about things differently, we believe the solutions we present are practical and achievable. Acting together on the core drivers of regional competitiveness can be done in ways that preserve local diversity and identities, respect accountability to voters and keep the lion's share of municipal services squarely under the control of local governments.

We have crafted this report with awareness of the changes that are taking place around us, including recent actions by the Capital Region Board and the introduction of amendments to the *Municipal Government Act*. These changes are timely, and they make our recommendations all the more relevant and important.

Our Panel envisions the Edmonton Metro Region taking its rightful place as the strong and confident heart of a more resilient and competitive Alberta. With this report, we call on municipalities in the Metro Region to take action.

EXECUTIVE SUMMARY



The Metro Mayors Alliance asked our Panel to consider whether a globally competitive Edmonton region is achievable and, if so, to provide advice about how to make it happen.

Over the course of several months we talked to experts, reviewed literature and listened to those with experience in municipal governance. We spoke with a wide cross-section of people in the private, public and non-profit sectors of our Metro Region communities. All of their views informed our analysis.

Our advice to the Mayors is this: a globally competitive Edmonton Metro Region is achievable, but it will require municipalities **planning, delivering and acting as one Metro Region in certain key areas**. Our emphasis on those words is deliberate.

Municipalities have become skilled at discussing issues and undertaking planning as a region. These have been the productive fruits of their participation in the Capital Region Board (CRB). But it has been challenging to translate those discussions and plans into collaborative actions with on-the-ground results.

Despite years of interaction around the CRB table, municipalities still deliver services and infrastructure individually and compete with each other for land, resources and investment. When making choices, the costs and benefits to their individual municipality take precedence over the benefits to the overall region.

Provincial policies and legislation have played a significant role in cultivating current practices. Municipalities are playing within the confines of a system that has evolved over decades – a system that drives competition among municipalities and doesn't provide adequate mechanisms for their collaboration.

This is understandable, but it's not sustainable.

Modelling commissioned by our Panel indicates that if municipalities continue to develop the Metro Region under a "business as usual" approach our region won't just fail to be globally competitive, it will fall backwards, with serious implications for taxpayers and for the quality of life we all take for granted.¹

If municipalities don't change their current trajectory, the model shows as much as 87,700 additional hectares of agricultural land and 50,200 hectares of natural areas could be lost to uncoordinated development over the next 50 years. What's more, the settlement footprint across the region could double in size from 135,900 hectares to as much as 273,900 hectares. Taxpayers could be on the hook for an additional \$8.2 billion to service that larger footprint with roads and other public infrastructure.

The good news is that there is a far better way forward – without amalgamation or the creation of a new layer of government.

The modelling commissioned by our Panel indicates that if municipalities plan, decide and act as one Metro Region through an integrated approach, the expansion of the overall settlement footprint could be cut by approximately half. This would save precious agricultural land and natural areas. Municipal servicing costs would be cut in half, reducing upward pressure on municipal tax rates and saving money for taxpayers. All of this would help make the Metro Region globally competitive and improve its quality of life.

So how should things change?

From a functional standpoint, there are many options for municipal collaboration. One of the most promising ways is for municipalities to take a regional systems approach.

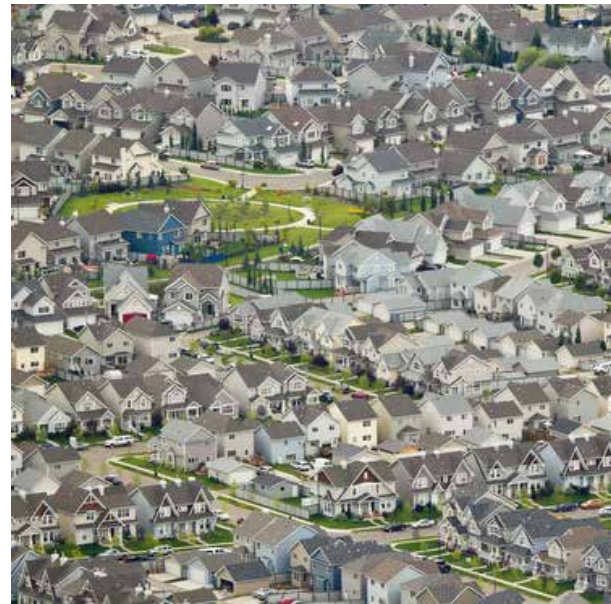
A regional systems approach doesn't mean delivering all aspects of a municipal service through a regional body. It means strategically bringing together elements of services that are regionally significant to create highly functioning systems across the region. Any aspect of a service that isn't regionally significant would continue to be locally planned and locally delivered by each municipality.

What are those regionally significant services that are important to our competitiveness?

Our Panel identified many recognized drivers of competitiveness in city-regions, but three stood out as “cornerstones” for the Edmonton Metro Region:

1. Economic development
2. Public transit
3. Land use and infrastructure development.

These three cornerstones are the primary factors considered by investors when deciding where to locate new industries and major facilities. Therefore, they are the areas of highest priority and greatest risk for the Metro Region. As inter-related areas, they should “snap together” to build a strong backbone that will enable the Metro Region to achieve its social, economic and environmental goals. And all three are areas where action is achievable, essential and urgent.



CHANGE TO COMPETE



A globally competitive Edmonton Metro Region can be achieved, but only if municipalities work together on regional issues that are crucial for building our competitiveness.

By looking beyond their respective municipal boundaries to the larger Metro Region, the Metro Mayors who established our Panel have already demonstrated their ability to do this. The nine municipalities they represent account for 95 percent of the region's population, 96 percent of its assessment base and about 80 percent of its land base, so they understand better than anyone what is at stake. They are already grappling with the challenges that have arisen from decades of inter-municipal competition. Those challenges are mounting and municipalities in the Metro Region today are coping, rather than competing.

There is a pressing need for municipalities to change direction. If they don't, the quality of life we currently enjoy in this region will steadily erode. We will continue to miss out on investments, jobs and opportunities that pass our region over in favour of others that are more competitive. And taxpayers will pay a lot more for a lot less.

Municipalities in the Metro Region are therefore faced with a choice: change how you work together and be ready for the future, or be left behind.

This change is possible, and it can be done without amalgamation or a new layer of government.

By acting as one Metro Region in regionally significant areas, municipalities can maintain their local identities while at the same time working to optimize the opportunities to build a globally competitive Metro Region. They share regional wins by working together.

In the following pages, we explain why and how this should be done.

Elements Of A Globally Competitive Metro Region

- Mechanisms that enable effective, efficient decision making
- Known in key markets as a premier location to work, learn, invest and live
- Home to a range of resilient economic clusters that support good-paying jobs
- Fiscally sound and sustainable
- Integrated transportation and public transit networks that enable efficient movement of people and goods
- Infrastructure to keep pace with the demands of the next 30 to 50 years
- Naturally healthy, with clean air, clean water, well-managed landscapes and healthy biodiversity
- Post-secondary institutions generating skilled graduates, research and innovation
- Safe communities with vibrant arts and culture
- Health, education, housing, recreation and other services that residents need and want

**MOVE
FORWARD
FASTER**



Many of the ingredients needed to build a resilient, globally competitive Metro Region are already present or obtainable, but they need to be assembled and leveraged more effectively. And this needs to happen with a greater sense of urgency.

City-regions are taking on greater significance in developed economies today. Experience is demonstrating that cities and regions have mutually beneficial relationships that can make them more competitive.

Regions are strengthened by the concentrations of people, businesses and services that their municipalities offer. For instance, a city is often where one finds a wide range of private and non-profit business and services, specialized health professionals, post-secondary institutions and cultural opportunities. A city typically has good connectivity, with built-out transit and transportation networks. People and businesses in a region need their city to be strong and vibrant for two critical reasons: to provide thrust for the overall region's economy and to offer greater amenities.

At the same time, cities are strengthened by the assets that are uniquely offered throughout their regions. Regions feature different landscapes and distinct communities, offering outdoor spaces for rural living and leisure. They also host diverse business and industrial sites, offer a wider workforce that can be drawn upon by economic clusters across the region and are responsible for a disproportionate share of the infrastructure that supports the larger economy. The city depends upon the diversity of the region.

Successful city-regions capitalize on these mutually beneficial relationships, leveraging their diverse assets by collaborating in strategic ways.

In the Edmonton Metro Region, the municipalities respect each other's economic and cultural diversity and recognize how each contributes to the overall potential of the region. However, they haven't always collaborated to leverage their key regional assets most efficiently and effectively. If they do so, they can build a Metro Region that is stronger and more competitive than the sum of its parts. If not, the full benefits of the Metro Region's potential will be lost to all.

We Need to Act Regionally

Defined by its demographics, diversity, natural resources and geographic location, our region is unique. There is no readily available "cookie cutter" model for regionalism that can be applied here. If it was easy, it would have been done by now, particularly considering how many times this issue has been studied and debated over the years.

On the positive side, municipalities in the Edmonton Metro Region have become skilled at planning together at a high level. Much of that has happened through the Capital Region Board (CRB).

Since 2008, the CRB has facilitated many conversations about regional cooperation and planning. But those conversations need to be translated into integrated decisions and action at a Metro Region level.

Provincially mandated structures haven't encouraged collaborative action to deliver services and infrastructure. In fact, some would argue that provincial structures have encouraged competition amongst municipalities as an operational philosophy.

That philosophy is increasingly problematic for the Metro Region. The world is more competitive than it has ever been. Jurisdictions are feverishly competing for investment and talent, and the Edmonton Metro Region isn't built to compete. Individual metro municipalities are doing a good job of managing their local services, but the overall Metro Region lacks the cohesive regional systems it needs to successfully attract jobs and investment now and in the future. For the Metro Region to be globally competitive, its municipalities need to act together to build regional systems in the areas that matter most.

At the same time, the provincial government has signalled a clear shift in direction in its recently introduced *Modernized Municipal Government Act*. This amending legislation places a clear emphasis on municipal collaboration as a path to better results. It makes sense for municipalities in the Metro Region to make a similar shift and realign themselves for greater collaboration. Doing so not only supports the new provincial direction, it helps build a more resilient and more competitive Alberta.

Build Regional Systems in Areas That Matter Most

Our Panel considered several options for how municipalities could collaborate to make the Metro Region globally competitive.

From a functional standpoint, options for working together exist on a spectrum. They range from purely voluntary cooperation at one end to formal amalgamation on the other. Neither end of the spectrum is ideal.

Voluntary cooperation between municipalities can effectively provide some discrete services, but it lacks the necessary rigour to be a foundation for building a great metropolitan area. Amalgamation can provide a metro-wide foundation, but it can create just as many challenges as it seeks to solve. It can weaken the link between elected representatives and their constituents, undermine regional diversity and often increases costs, further burdening taxpayers.

Evidence suggests that success can be found somewhere between these two ends of the spectrum using a regional systems approach. This widely accepted urban planning approach recognizes that developed areas and their surrounding environments are an interacting "system" that reacts dynamically to urban growth.

To be clear, a regional systems approach doesn't mean delivering all aspects of a municipal service through a regional body. It means strategically bringing together elements of services that are regionally significant so that crucial drivers of competitiveness are operating as highly functioning systems. Any aspect of a service that isn't regionally significant continues to be locally planned and locally delivered by each municipality.

Our Panel believes a regional systems approach offers the most promising direction. It would enable metro municipalities to maintain their local identities while they work together strategically in the areas that matter most for competitiveness.

What are the areas that matter most? There are a number of recognized drivers of competitiveness for city-regions. Of these, three in particular stand out as “cornerstones” for building a globally competitive Edmonton Metro Region:

1. **Economic development.** This has obvious linkages to a region’s ability to attract jobs and opportunities. When done effectively, it draws new businesses and builds industrial clusters that contribute to a region’s economic diversity and resilience. It also helps develop human capital, attracting and retaining the skilled talent needed to support a wide array of industries and, in turn, enhancing the region’s high quality of life. Other jurisdictions have pursued regional collaboration on economic development to build their labour markets, expand their markets for goods and services and improve the exchange of knowledge and ideas in their economies. Experts have said that a collaborative, growth-oriented commercial environment is a primary enabler for a region’s economic and social development. Regions have more to offer and are therefore more attractive than individual municipalities.
2. **Public transit.** Efficient inter-regional mass transit supports many social, economic and environmental goals. It enables people to move easily throughout a region – be it for work, school, leisure, medical appointments or other day-to-day needs. For those who are economically disadvantaged or have reduced mobility, transit can mean the difference between social engagement and social isolation. Well-planned inter-municipal transit helps to mitigate traffic congestion, lower greenhouse gas emissions and improve air quality. Regional collaboration on public transit helps improve connectivity between municipalities, expand transit ridership and realize economies of scale.

Key Drivers of Regional Competitiveness

- **Mobility** – The ability to efficiently move people and goods around a region.
- **Land use planning** – Growth-oriented planning that balances social, economic and environmental objectives.
- **Regional infrastructure** – Including roadways, bridges, pipelines and utility infrastructure that supports future growth and transportation connectivity.
- **Economic development** – The attraction of industries and opportunities that provide jobs and generate taxes, supported by a strong regional brand.
- **Human capital** – Skilled talent in a range of fields, including entrepreneurs, researchers and tradespeople.
- **Environment** – Clean air, water, land and other natural assets that support healthy ecosystems.
- **Social infrastructure** – Including assets that support the education, health and well-being of citizens and add to the region’s cultural and recreational vibrancy.
- **Effective governance** – Sound governance structures that enable the region to plan, decide and act at a regional level.

3. **Land use planning and infrastructure development.** Effective land use planning supports competitiveness by providing clarity and certainty to residents, businesses and investors. It makes trade-offs to balance a region's social, economic and environmental goals, identifying what lands will be conserved, where people will live and where industrial clusters will be located. It also serves as a guide for the development of a region's major infrastructure, which is a crucial factor in attracting people and investment.

We identified these three cornerstones for a number of reasons:

- They are recognized as the most critical drivers in building globally competitive city-regions.
- They are the primary factors considered by investors when deciding where to locate new industries and major facilities.
- They can generate region-wide benefits in terms of service improvements, value, efficiency or cost-effectiveness which can and should be measured
- There has already been some regional progress in each of these areas, allowing for early action that will help create regional cohesion more quickly.
- They are areas in which action is practical, achievable and essential – and in which inaction will lead to the region falling behind.

The three cornerstones are highly inter-related. They “snap together” to build a strong foundation that will enable the Metro Region to achieve many other things, including social and environmental goals. Conversely, without these three, many goals will simply be out of reach, and the Metro Region will stagnate or even slide backward.

Examples of Regionally Significant Projects

- **Alberta's Industrial Heartland**
- **Aerotropolis**

Acting on Regionally Significant Matter

Taking a regional systems approach means acting as one Metro Region on **regionally significant** aspects of these three cornerstones.

What is regionally significant? Ultimately that question will be up to Metro Region municipalities, but these are some characteristics that can provide guidance. A project is regionally significant if:

- It's a project integral to the region's economic strategy
- It benefits the broader region in measurable ways
- Land use issues cross boundaries
- Supporting infrastructure needs to be aligned

In terms of the three cornerstones, examples of regional significance include:

- **Economic development.**
 - Integrated strategies and activities to attract investment to the region.
 - Development of strategies for the identification, creation and expansion of industrial clusters throughout a region.
 - Agreement on the identity or brand being used to market the entire economic region.
- **Public transit.**
 - Park-and-ride lots and transit centers that support the inter-municipal flow of passengers by inter-municipal buses, car pools or van pools.
 - Priority transit corridors that facilitate inter-modal transportation and transit across the Metro Region.
 - Regional initiatives that facilitate regional transit, such as information services, smart buses, smartcards or a regional control center.

- **Land use planning and infrastructure.**
 - Land uses that identify and deliver on the highest and best use of land as a precious regional resource.
 - Arteries that serve to carry relatively high numbers of people, goods and utilities from one municipality to another within a region, including utility corridors, expressways and freeways.
 - Projects that have the potential to attract investment and jobs to the region or mitigate the loss of investment and jobs from the region. For example, the development of airport lands or of major industrial or research parks.



The World Won't Wait for Us

There is an urgency to this work. Globalization has accelerated and economies today tend to respond rapidly. Jurisdictions everywhere are trying to identify their niches and capitalize on their unique competitive positions, while working aggressively to undermine competitors.

We have a limited window to get in the game and fashion an Edmonton Metro Region that is recognized as a globally competitive place to live, work, play, invest and do business. Unless action is taken soon, our region risks being relegated to the class of “flyovers” and “other places” that aren't notable or sought after, even though we have a wealth of assets, people and potential.



THE COST OF INACTION



From Coping to Competing

When one considers how the Metro Region is growing and evolving, one sees how crucial it is for municipalities to plan, decide and act together to build regional systems that support competitiveness.

The CRB forecasts that there will be up to 2.2 million people living in this region by 2044. If current patterns continue, more than 80 percent of population growth is expected to occur outside the established neighbourhoods in the City of Edmonton's core.²

This will exacerbate a trend that already exists. Only one in ten jobs in the Edmonton Metro Region is located in the downtown core. So, unlike other city-regions, we don't have vast numbers of people commuting from outlying areas into a single downtown. Instead they live, work and play all over the region. This makes our land use planning and transportation infrastructure more complicated, making alignment and integration all the more important.

Systems that are vital for growth – such as transportation connectivity, infrastructure and land use policies – also cross municipal boundaries. For the Metro Region to be globally competitive these systems need to be well-planned, integrated and efficient. In one survey, 82 percent of business executives in the region pointed to these as key factors in their business' ability to be successful.³

Land use planning has particular importance when it comes to supporting the Metro Region's future economy. Unsustainable development costs all governments, taxpayers and the environment.

Worldwide trends suggest a substantial economic opportunity for the Metro Region is in the agri-food industry. The estimated value of agriculture and food in the region is currently \$4 billion. There is a potential to generate more value because the Metro Region is gifted with some of the best agricultural land in the world. However, due to the absence of a regional approach, these lands are being lost at a rapid rate.

The ability to attract and retain a skilled workforce is also key to global competitiveness. In an era when labour is mobile and jurisdictions furiously compete for talent, individuals have greater flexibility to choose where they live. People are increasingly drawn to places that offer appealing environments, including access to public transit, recreation and good infrastructure. Providing this kind of environment across the Metro Region will require municipalities to work in more collaborative and integrated ways.

With respect to the environment, the Metro Region has many natural assets but it's been experiencing ecosystem losses over time. Natural areas outside the river valley and ravines are at the highest risk. Between 2000 and 2007, almost a third of the City of Edmonton's Priority Natural Areas on lands above the river valley and ravine system were permanently lost to development.⁴ Minimizing landscape disturbances from infrastructure and increasing densities can help mitigate ecosystem losses in the Metro Region. This requires careful and strategic planning of land uses and better coordination of infrastructure development.

All of the above suggests the Metro Region is currently coping, rather than competing. This might be "good enough" for some people, but it's not a recipe for long-term stability.

² City of Edmonton. (2009). *The Way We Move: Transportation Master Plan*.

³ Sift Every Thing. (2014). *Choose to Lead: Building on the Competitive Advantages of the Capital Region*.

⁴ City of Edmonton. (2011). *The Way We Green: The City of Edmonton's Environmental Strategic Plan*.

Coping may have been acceptable when the region's economy was flush from oil prices in the range of \$80-\$100 per barrel, and we had an ample flow of investment. It becomes much harder to attract new investment to the region at prices of \$20-\$40 per barrel.

A truly globally competitive Metro Region is one that is resilient. It's one where citizens have jobs and opportunities and benefit from efficient and reliable services despite upturns and downturns in the economy.

If municipalities work together to build regional systems in the three cornerstones – if they move from coping to competing – they can build this kind of Metro Region.

If they don't, there will be a price to pay. Our region's growth won't just stall; it will start declining, with serious implications for taxpayers and our quality of life.

The Models and Numbers Are Compelling

To explore, understand and quantify how taking a regional systems approach could enhance the Metro Region's competitiveness, our Panel commissioned modelling by land use consultants⁵. A copy of the modelling results is provided in Appendix 2.

Using data from the *Consolidated CRB-Accepted Population and Employment Projections, 2014-2044*, models were run of the Capital Region's development over the next 50 years using two scenarios. One scenario was a "business as usual" case wherein growth is accommodated through development densities that follow existing patterns. The other scenario was of "integrated growth" wherein municipalities take a regional systems approach on the three cornerstones, including regional planning of land use and collaborative action on regionally significant infrastructure.⁶

HOW SHOULD THE REGION GROW?		
50 Year Comparison	Low Density (Business as Usual Approach)	Increased Density (Integrated Approach)
High Growth Scenario		
Agricultural lands lost	87,700 hectares	41,300 hectares
Natural areas lost	50,200 hectares	20,000 hectares
Settlement footprint growth	138,000 hectares	62,900 hectares
Total settlement footprint	273,900 hectares	198,800 hectares
Gross urban greenfield cost	\$54.0 billion	\$25.1 billion
Net urban greenfield cost	\$15.3 billion	\$7.1 billion
Low Growth Scenario		
Agricultural lands lost	58,400 hectares	29,800 hectares
Natural areas lost	33,200 hectares	14,200 hectares
Settlement footprint growth	91,700 hectares	44,800 hectares
Total settlement footprint	227,700 hectares	180,800 hectares
Gross urban greenfield cost	\$37.3 billion	\$18.0 billion
Net urban greenfield cost	\$10.6 billion	\$5.1 billion

100 ha = 1 km²

16 ⁵The modelling was conducted by Alces, a recognized leader, both nationally and internationally, in the delivery of land use modelling tools.

⁶The intensification and greenfield density targets in the proposed CRB's *Growth Plan 2.0* were used as the basis.

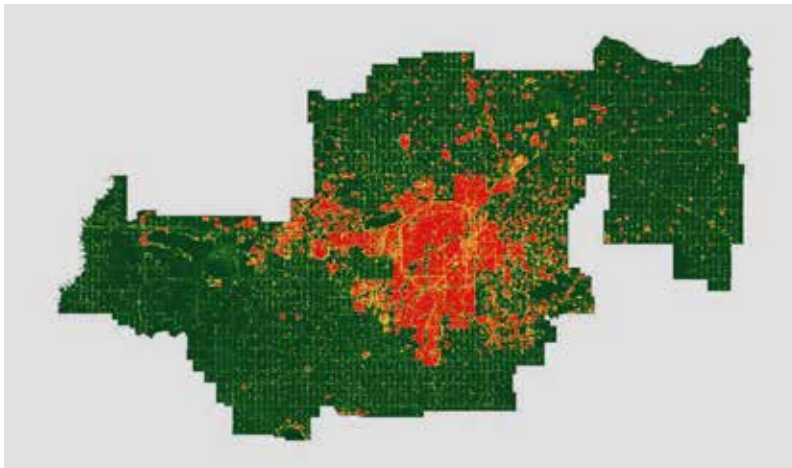
These two scenarios were modelled using projections for high growth and for low growth, yielding four sets of results.

While they are only estimates from modelling, the results are striking.

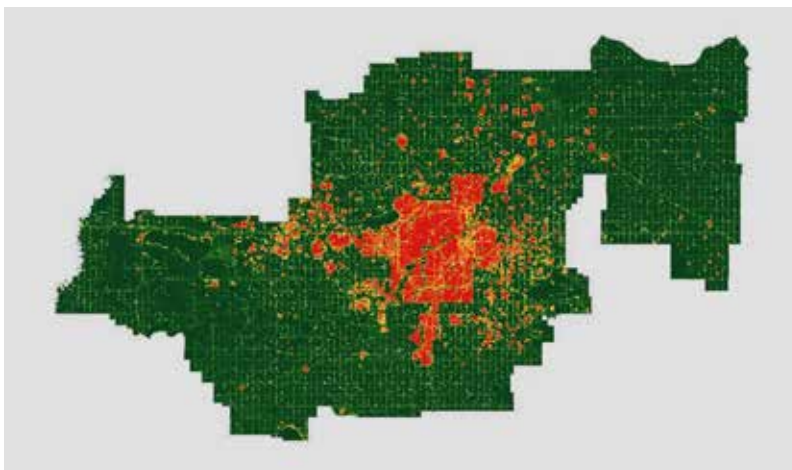
In a future with high growth, the region's development under a "business as usual" approach could result in the overall settlement footprint doubling in size from what it is today. Thousands of hectares of agricultural lands and natural areas could be lost as a result of



Figure 1. Total settlement footprint in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with high growth. The difference in size is 75,100 hectares.



Low Density - Low Growth



Increased Density - Low Growth

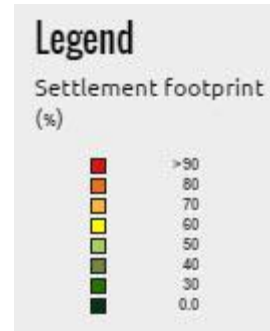


Figure 2. Total settlement footprint in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with low growth. The difference in size is 46,900 hectares.

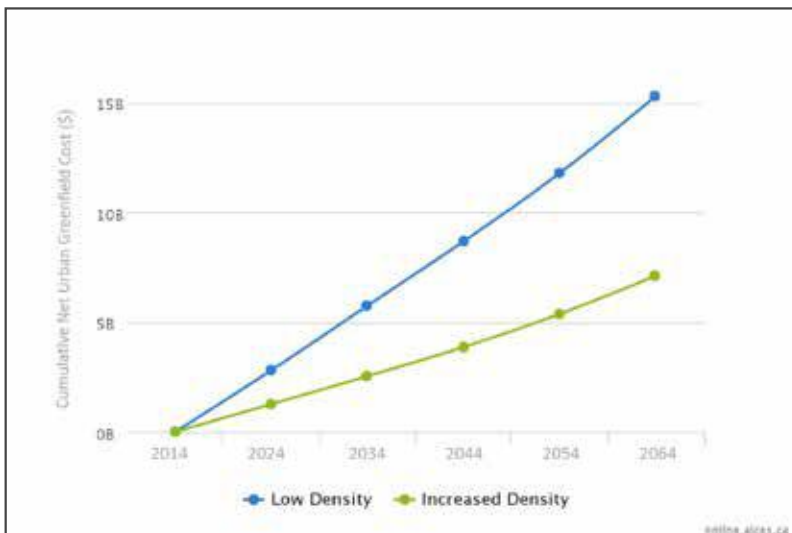


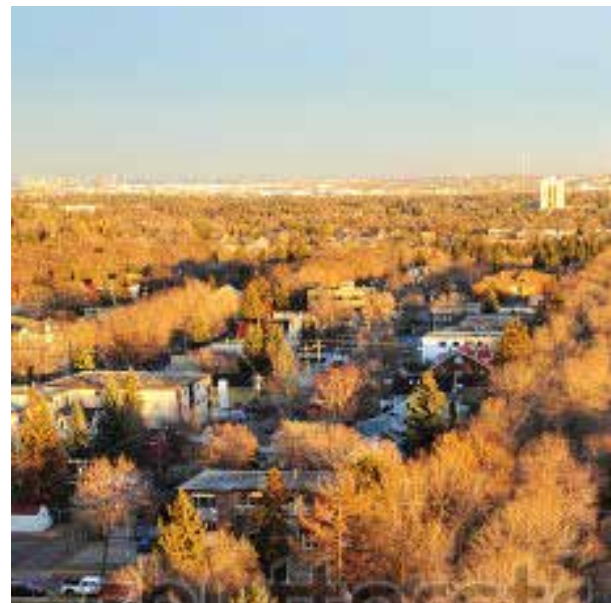
Figure 2a. Simulated cumulative net urban greenfield costs during Low Density and Increased Density scenarios with high population growth.

poorly coordinated expansion. More sprawl would mean longer commute times, more traffic on roads and higher emissions of greenhouse gases and air pollutants. Municipalities would face substantial costs to service the larger footprint (e.g. roads, infrastructure etc.), which could translate into notably higher taxes for Metro Region citizens and businesses. The overall picture isn't one of competitiveness, but of a reduced quality of life.

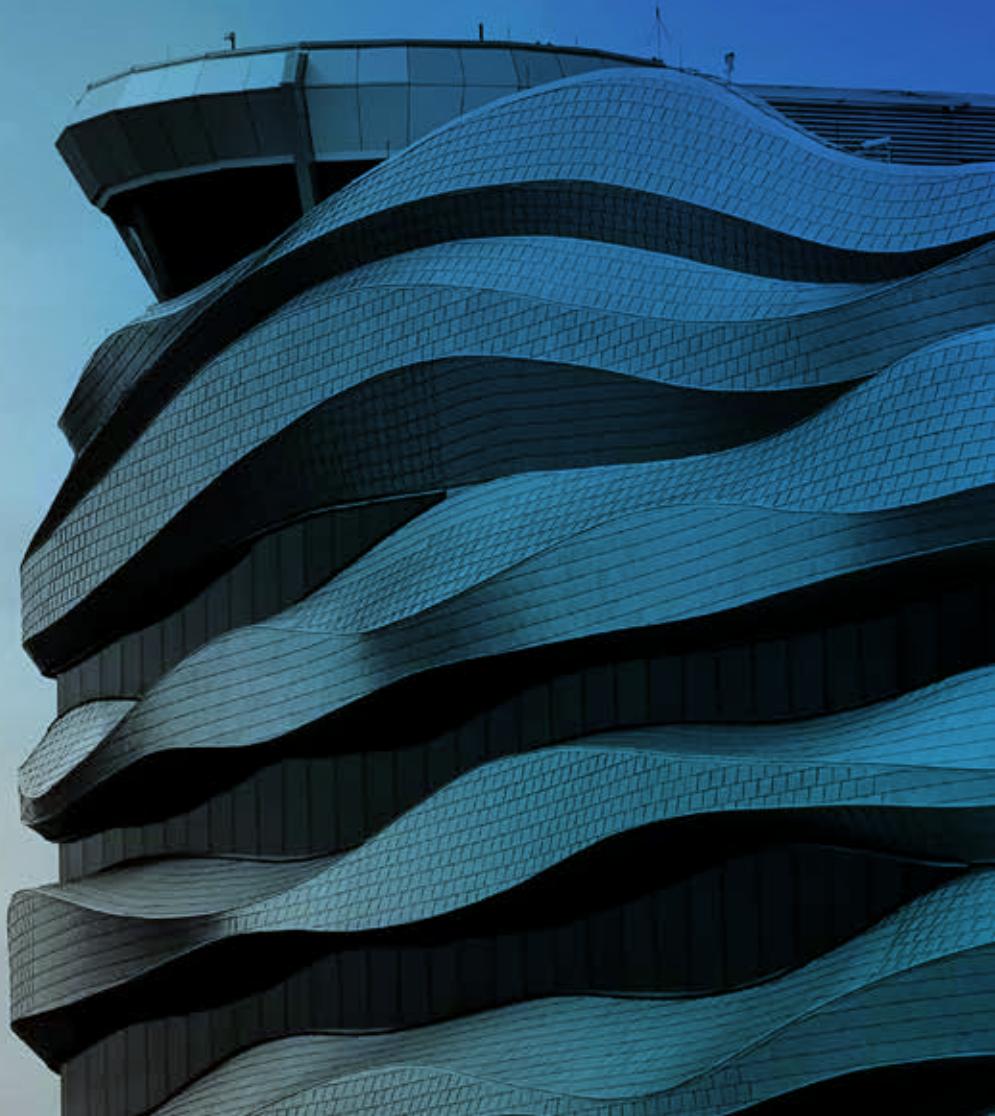
By comparison, the region's development under an "integrated growth" approach generates dramatically better results. In acting collaboratively on land use and development, municipalities save land and money. Expansion of the region's overall settlement footprint could be reduced by approximately half, as could losses of agricultural lands and natural areas. Such savings would preserve more farmland to support the region's agri-food industry and more natural lands to support the region's ecosystems. A smaller settlement area means municipalities could spend approximately half as much money on servicing costs, reducing pressure on municipal taxes for Metro Region citizens and businesses. The overall result is a region that is better positioned for global competitiveness, and has the capacity to better assure a good quality of life.

In a future with low growth, the magnitudes of the numbers are smaller but the overall pattern remains the same. Under an "integrated growth" approach the expansion of the settlement footprint, the loss of agricultural lands and natural areas and the associated costs to taxpayers could all be cut in half when compared to the "business as usual" approach.

Ultimately, the numbers generated by the modelling aren't important so much as the story they tell. By planning, deciding and acting as one Metro Region in areas where it counts the most, municipalities could build a more efficiently functioning region that better conserves land, provides better value for taxpayers and is better positioned to compete for investment, talent and jobs.



A METRO REGION MINDSET



As we noted earlier, many policies around municipal governance and funding have fostered competitive and territorial thinking amongst municipalities. Municipalities often must make choices through the narrow lens of their assessment base (i.e. how much in taxes they will raise from citizens and businesses). In order to fund services and infrastructure, each municipality seeks to expand its local assessment. This leads to municipalities competing with each other for resources, investment and especially land.

This inter-municipal competition is understandable, but it's not sustainable. In order to act differently, municipalities must start thinking differently.

The Government of Alberta has introduced amendments to the *Municipal Government Act* that emphasize a shift from inter-municipal competition to greater collaboration. Metro municipalities can make this shift by changing the architecture of their relationships in the three cornerstones of competitiveness we have identified.

Changing the architecture will help drive a new mindset, and in turn, lead to choices that help build the regional systems the Metro Region needs to be globally competitive.

So what kind of new mindset is needed?
One that embraces three central concepts.

The first is taking a regional systems approach on regional issues.

When it comes to the three cornerstones, municipalities need to shift from asking what's best for their individual budgets to what's best for the Metro Region as a whole. This means recognizing that building a globally competitive Metro Region benefits everyone because it attracts investments that would otherwise not come here. And it means being willing to give up some singular direct control so that the entire Metro Region can gain a lot.

Taking a regional systems approach also requires municipalities to understand how local choices and decisions can affect regional success. As discussed earlier, there are certain aspects of the three cornerstones that are crucial to building regional systems in order to drive competitiveness. Ideally, municipalities will manage local matters in ways that support and complement these regional systems while responding to their local needs and priorities.

The second concept is regional leadership.

Achieving a globally competitive Metro Region will take bold and determined actions. It will require doing what's right, even in the face of opposition or apathy. By regional leadership we don't mean a regional government or amalgamation. Rather, we mean leaders who recognize they have responsibilities to the broader Metro Region because the region's success affects the success of their municipality.

Mayors in the Metro Region have already demonstrated regional leadership by initiating the work of this Panel. Going forward, that same spirit of regional leadership needs to infuse and drive municipal decisions and actions.

The third concept that needs to be part of the new regional mindset is the philosophy of "shared investment, shared benefit." While this may be the most difficult shift in thinking, it may also prove the most critical.

Given the intricate ties that bind city-regions together, municipalities can't truly succeed when their neighbours are struggling. The critical infrastructure that underlies our regional economy doesn't reside within a single municipality. A manufacturer in Edmonton, for instance, relies on the infrastructure in the surrounding municipalities at least twice: first to receive the materials it requires, and then once again to get the finished product to market. Likewise, many of the services funded and delivered by the City of Edmonton (e.g. transit, an integrated road system etc.) support economic growth beyond the city's boundaries.

No municipality can attribute its success solely to its own actions, and as a result, it should share a portion of the benefits it enjoys with the greater region that made it possible. On the other side of the ledger, municipalities need to invest jointly to foster the conditions that make success possible.

Enid Slack, one of Canada's foremost experts in municipal finance, has identified four basic principles that need to underlie any successful "shared investment, shared benefit" arrangement:

- **Equity:** Costs and benefits should be shared fairly across the community taking into account the ability to pay and the benefits received.
- **Efficiency:** Resources should be optimized to ensure maximum value in services.
- **Cost-Effectiveness:** A service should be provided at the least cost.
- **Accountability:** Consumers and taxpayers should know who can be held accountable for service provision and the taxes they pay for these services.

The idea of sharing investment or costs with other municipalities in order to realize greater shared benefits or revenues in your own community may seem counterintuitive. However, evidence suggests that models that encourage greater inter-municipal cooperation decrease the potential for outmigration (i.e. when high taxes in one municipality drive people to neighbouring municipalities with lower taxes), and reduce the need to annex land simply for the sake of increasing revenue.

In terms of expenditures, there are three reasons that inter-municipal cooperation makes sense. First, municipal boundaries don't always coincide with boundaries that achieve efficient service delivery and effective infrastructure. Second, economies of scale can be realized by acting inter-municipally. Third, it helps get the job done by bringing together the necessary resources (e.g. financial, institutional, intellectual etc.) to address challenges that are regional in nature.

Investing together to benefit together isn't just a theoretical concept; it has been functionally employed in a number of jurisdictions. Often cited is the example of Minneapolis-St. Paul, where each municipality contributes 40 percent of its annual growth in commercial-industrial tax revenues to a pool of investment dollars that is distributed to participating municipalities based on local capacity.

Other places use different approaches that make sense for their local circumstances and needs. No single model can or should be "copied and pasted" for our Metro Region. However, given the evidence, our Panel strongly believes that municipalities in the Metro Region should adopt its own "shared investment, shared benefit" model, one that reflects the particular circumstances and interdependence of this region.

MAKING IT HAPPEN



Recommendation 1: Affirm the Metro Mayors Alliance by developing and signing a Memorandum of Understanding that spells out a commitment to plan, decide and act as one Edmonton Metro Region.

As a first step, municipalities should publicly affirm their Alliance as an Edmonton Metro Region by committing to a shared vision and principles embodied in a Memorandum of Understanding (MOU).

Our Panel has worked with legal advisors to develop a draft non-binding MOU for the Mayors to consider and present to their respective Councils. The MOU declares the municipalities' intent to plan, decide and act as a Metro Region on regionally significant issues in each of the three cornerstones of competitiveness. Under the MOU, municipalities commit to fulfill this intent. A copy of the MOU is provided in Appendix 1.

Committing to the MOU will demonstrate leadership from the Mayors and their Councils, and signal how they intend to lead as a Metro Region for the overall benefit of the region and its taxpayers. It will send a clear signal to other levels of government about how they intend to lead as a Metro Region that represents 95 percent of the population and 96 percent of the assessment base.

Recommendation 2: Formalize the commitment to plan, decide and act as an Edmonton Metro Region through a legally binding Master Agreement.

In order to successfully deliver and act as one Metro Region to build regional systems, municipalities will require a formal inter-municipal agreement. They will need to move forward in a way that is meaningful, rigorous and ensures a long-term commitment on the part of all Alliance members. This Master Agreement would set the stage for delivering and acting as one Metro Region.

The Master Agreement would:

- Formalize the recognition of the Edmonton Metro Region
- Reaffirm the commitment of municipalities to deliver and act as one Metro Region in the three cornerstone areas – economic development, public transit and land use and infrastructure – on regionally significant issues
- Identify the outcomes that are expected to be achieved
- Outline details about the organizational structures that will be established and used by municipalities to deliver and act as one Metro Region
- Outline the entitlements that municipalities each have in delivering and acting as one Metro Region (e.g. financial benefits, participant rights, decision-making rights etc.)
- Outline the obligations that municipalities each have in delivering and acting as one Metro Region (e.g. honouring regional decisions, financial obligations, shareholder obligations etc.)
- Specify decision-making and dispute resolution processes

- State the parties' agreement to share investments/ expenditures and benefits/revenues across the Metro Region equitably, and identify the principles that will inform and underscore the development of mechanisms to do this
- Set criteria and provide for the admission of additional municipalities to the Master Agreement (and hence, to the Metro Region)
- Provide for the expansion by participating municipalities into other key drivers of competitiveness in the future, if agreed to by signatories of the agreement
- Set conditions and provide for the exit of a municipality from the Master Agreement (and hence, from the Metro Region) and outline the consequences of exiting
- Set timelines for results

Importantly, the Master Agreement needs to reflect the inherent rights and obligations of municipal Councils under the current *Municipal Government Act*. It must also reflect the need for accountability to voters through municipal Councils.

Recommendation 3: Consistent with the signed Master Agreement, establish the structures needed to create the three key cornerstones of a globally competitive Edmonton Metro Region.

ECONOMIC DEVELOPMENT

Current State

In the course of our work, our Panel learned that the Metro Region has considerable catch-up work to do when it comes to economic development. Municipalities are each undertaking their own competing economic development activities. Each one markets its own brand. Municipalities are effectively bumping into each other in their efforts to bring business and industry to the same region. Prospective investors face a labyrinth of processes and players. Not only is this confusing, it's counter-productive.

There has been good progress on integrating regional tourism opportunities, however, the lack of regional collaboration on economic development has caused the Metro Region to miss out on investments and opportunities. We have been “passed over” on multiple occasions in favour of other places that have strong regional brands and have integrated their efforts to “hunt as a pack.”

Our Panel notes that the CRB has done work to improve cooperation in economic development, particularly in planning and research. The CRB has developed and approved an *Edmonton Metropolitan Region Economic Development Framework* and an *Edmonton Metropolitan Region Economic Development Strategy 2015-2018*.

On March 10, 2016, the CRB passed a motion “That the Capital Region Board incubate a formal regional economic development model, which would be independent of the CRB, for further development and that administration seek Provincial support for the next steps, and administration to report on progress in June.”

Our Panel finds the spirit of cooperation encouraging, but we believe work on this cornerstone of competitiveness should move forward faster.

Recommendation 3a: Establish and mandate a new entity responsible for regional economic development in the Edmonton Metro Region.

In today's hyper-competitive world of investment attraction, time means cost – and both time and cost matter to businesses. Our Metro Region needs to take action on this front by creating a single entity that would develop and execute a Metro Region economic development strategy. The content of that strategy should reflect and leverage the inherent strengths and assets of the Metro Region.

Our Panel has considered the various options that exist for structuring regional organizations (e.g. regional services commission, non-profit corporation etc.) and Appendix 5 contains a comparison of these options and their characteristics. In establishing the regional economic development entity (and other regional entities that our Panel recommends later in this report), municipalities will undoubtedly wish to use the structural option they think will be most appropriate. However, in the spirit of contributing advice based on what we have learned, we have suggested structural options for each of our recommendations.

In this case, we believe the regional economic development entity might best take the form of a non-profit (i.e. "Part 9") corporation. This would give it status as a separate legal entity that has a range of authorities (e.g. such as borrowing, owning property etc.).

To establish the entity, each municipality should put forward its most readily available regional economic development assets. This includes tangibles such as research, strategies and other information. Each municipality should also contribute financial resources and skilled talent to the entity. This will enable it to hit the ground running and achieve results quickly.

Suggested Hallmarks of a Metro Region Economic Development Strategy

- Building on the strength of our Industrial Heartland to attract value-added energy- and petrochemical-related industrial projects
- Looking at the health sector as a growth industry, building on successes in health innovation and existing assets in nanotechnology
- Positioning ourselves as a global producer of agriculture and food, as we are among a small handful of jurisdictions that has the land base and high-quality soil capable of fulfilling this role
- Making use of our "hub" position and sweet spot in supply chains to expand our transportation and logistics industry
- Pursuing environmental technologies in oil and gas that support a transition to a lower-carbon economy
- Leveraging our post-secondary institutions to reinforce and build our position as a centre of young, skilled entrepreneurs and of new ideas and discoveries
- Capitalizing on our existing, strong manufacturing industry to produce technological innovations

Desired Outcomes

- **A regional economic development strategy maximizes the Metro Region's assets and advantages and sustains its high quality of life.** The good work that has been done by municipalities and the CRB is used as a basis for the regional strategy. Key economic opportunities are identified across the region and collaborative strategies are developed to achieve them.
- **Significant investment and jobs are attracted to the Metro Region in the decades ahead.** This includes the identification, development and expansion of a range of economic clusters, including manufacturing, value-added oil and gas, agri-foods and knowledge-based industries.
- **A strong, overarching regional image and brand make the Metro Region competitive in key markets and support our economic goals.** The region competes and succeeds in key markets through its integrated marketing approach. Individual municipalities respect and support the regional brand and marketing strategy.
- **Metro municipalities support the role, responsibilities and activities of the regional economic development entity.** Metro municipalities participate in the development of a regional economic strategy and support the entity that delivers the regional brand and marketing. Municipalities continue to address their own local development initiatives, without competing with regional priorities.



PUBLIC TRANSIT

Current State

Public transit is a crucial cornerstone for developing a globally competitive region. However, citizens in the Metro Region currently experience a patchwork of multiple public transit networks operated by each municipality. This results in regional inefficiencies and higher costs as the region develops. It also inhibits those citizens who would choose public transit, thereby failing to maximize the environmental and other benefits that inter-municipal transit can realize. Between 2010 and 2014, the number of vehicles in the City of Edmonton alone increased by over 14 percent.

The lack of a regionally planned transit system also has costs to the overall economy, notably through traffic congestion. According to the Organization for Economic Cooperation and Development, developed countries lose three percent of their GDP each year due to traffic congestion. In Alberta, this translates to an estimated \$7 billion of economic activity lost each year.⁷

The City of Edmonton and the City of St. Albert have taken some important early steps to cooperate on public transit. A vision published jointly by Edmonton Transit System and St. Albert Transit, *Moving Integrated Transit Forward*, notes that:

- Population growth in the Metro Region is dramatic, and the window of opportunity to proactively put in place an integrated regional transit system is closing. The region risks being put in a position of constantly reacting to transit demands on a fractured basis, rather than effectively leveraging transit to encourage growth.
- People in the Metro Region are living farther away from where they work, and an effective transit “backbone” at the regional level is needed.
- Since its founding in 2008, the CRB has commissioned seven studies regarding improved regional transit. The CRB’s Inter-Municipal Transit Governance Study Report indicates there is a business case for regional transit.

To this end, Edmonton Transit and St. Albert Transit have sought agreement from their Councils to explore ways to integrate their transit operations in order to better serve citizens. In March 2016, St. Albert City Council and the City of Edmonton’s Transportation Committee agreed to move forward on developing a separate regional commuter bus service. This is encouraging, but our Panel believes that efforts should be made across the most populous areas of Metro Region.

Recommendation 3b: Establish and mandate an entity responsible for planning, decision-making and delivering core public transit across the Edmonton Metro Region.

Importantly, the feasibility of a Metro Region transit system depends on the participation of the metro municipalities with the three highest populations: Edmonton, St. Albert and Strathcona County, which together provide more than 95 percent of the transit service within the region. Other municipalities could participate later, but a regional transit system is only possible when these three municipalities commit to moving forward together.

The regional transit entity's focus should be on commuter corridors that enable the smooth flow of people between municipalities and enhance mobility throughout the Metro Region. Local bus routes should be left to individual municipalities.

In this case, the regional transit entity might best take the form of a regional services commission. That structure has been used in the past for inter-municipal activities such as water treatment. A regional services commission is a separate legal entity and has the authority to borrow and own land. Its directors are appointed by its member municipalities to ensure that the commission's work is informed by municipalities' views and priorities. It also works only for the benefit of member municipalities, as its service area is limited to the geographic boundaries of its members.

Desired Outcomes

- **Citizens and businesses in the Metro Region have better regional transit service.** Regional transit is delivered efficiently and seamlessly, enabling people to move around the region quickly and easily. People can move between municipalities without encountering unnecessary barriers such as misaligned routes. The time required to traverse the region by transit is markedly reduced.
- **The regional transit network leverages social and environmental benefits, as well as economic expansion.** The strategic development of a transit network can help enhance a region's overall air-road-rail connectivity which is sought after by many industries. Rail links between airports and downtown cores, for example, help make a region attractive to skilled talent and business investors.
- **Taxpayers realize significant procurement savings through an inter-municipal transit system.** By leveraging their collective purchasing power through a single entity, the participating municipalities are able to save money on vehicle purchases, service, repairs and administrative costs.



LAND USE AND INFRASTRUCTURE

Current State

Land is a scarce and valuable regional resource, and effective mechanisms to make decisions on the best uses for land are vital for the Metro Region's resilience and long-term competitiveness.

Aligning linear infrastructure such as major roads, interchanges and bridges with future land uses is a key driver of regional competitiveness. As such, decisions and actions concerning regional land use and infrastructure should be made at a regional systems level.

Over the years, the CRB has done substantial work in both land use and infrastructure, crafting a number of broad regional plans outlining where and how development should take place, including what lands should be set aside for certain purposes, and how the road and transit networks should evolve to support those purposes. However, our Panel was told consistently that:

- Further sprawl continues to be accommodated, putting all municipalities on track for increased servicing and infrastructure costs, and all taxpayers on track for much higher property taxes in the future.
- Prime agricultural lands remain at risk of conversion into residential, commercial or industrial developments, undermining the long-term prospects of the Metro Region's food and agriculture industry. This land use challenge is both complex and sensitive. It encompasses issues of densification, recognition of the rights of property owners and the implications for rural municipalities of preserving these lands.
- Annexation is the primary tool available to and used by Metro Region municipalities to expand their assessment base and control land uses. These competitive annexation processes are expensive, create regional antagonism and leave important regional land use issues either unresolved or exacerbated.

- There is currently no regional body that can effectively negotiate the necessary trade-offs among Metro Region municipalities or resolve regional land use conflicts and compliance issues. The need for such a mechanism in the Edmonton Metro Region is significant, given its growing population, its concentration of development and the diverse demands for regional land now and in the future. An entity with the capacity to affect and negotiate land uses at the Metro Region level is key to avoiding future contentious annexations.
- The Municipal Development Plans (MDPs) and other statutory plans of the Metro Region municipalities align with the current CRB *Growth Plan*, but compliance within those statutory plans is inconsistent across the region.
- Municipalities compete with each other for infrastructure funding from the provincial and federal governments. They do not take a consistent and deliberative approach to identifying those regional projects that would most benefit the region as a whole.

Recommendation 3c: Establish a structure with the capacity and authority to facilitate and act upon regional land use planning and regional infrastructure development in the Edmonton Metro Region.

Municipalities have already demonstrated an ability to work together on land use planning. They must now build on this, and consistently act on those plans as one Metro Region, including the development of major regional infrastructure.

Our Panel has identified two options for making this happen. One is the use of an Inter-Municipal Development Plan (IDP), which is a tool available under the *Municipal Government Act*. The other option is for municipalities to serve as a provincial Growth Management Board for the Edmonton Metro Region.

In operational terms, the differences between an IDP and a Growth Management Board are not significant. Both provide the means for driving alignment on regionally significant land uses and infrastructure.

The key difference is in how the two options can come about. The Growth Management Board approach would require action by the provincial government, since it has the necessary authority to establish such a board. The IDP approach could be pursued by metro municipalities on their own.

Each option is described in more detail below.

Option #1:

In order to plan, decide and act as one on regionally significant land use and aligned infrastructure, our Panel recommends an Edmonton Metro Region Inter-Municipal Development Plan be entered into by Edmonton Metro Region municipalities. This IDP would:

- **Include all of the land in the Edmonton Metro Region municipalities**
- **Direct cooperation on land use through procedures as allowed in the *Municipal Government Act***
- **Create and delegate powers to an Edmonton Metro Region Joint Committee on Infrastructure**
- **Establish an Edmonton Metro Region Infrastructure Development Fund managed by the Joint Committee on Infrastructure**

Inter-Municipal Development Plans are used by neighbouring municipalities to coordinate their land use planning in fringe areas where their municipal boundaries meet. Unlike traditional IDPs, the Edmonton Metro Region IDP could encompass the entire Metro Region and would accommodate the specific actions and purposes outlined in the recommendation above. This innovative use of the IDP process would require approval by each participating municipality in a bylaw.



The Edmonton Metro Region IDP would enable an effective regional system for land use and infrastructure planning. It would be a product of collaboration not a provincially mandated structure and it could:

- Establish policies for cooperation on land uses such as regionally significant residential, industrial, commercial and agricultural uses. Given the time, investment and expertise that have gone into the *Capital Region Growth Plan* and other CRB-led plans, the CRB's land use planning work should serve as the basis for the Metro Region IDP. This approach would avoid duplication and build further on the good work and collaboration across the Capital Region to date.
- Drive alignment on regionally significant land uses through Municipal Development Plans and Area Structure Plans as provided for under the *Municipal Government Act*.
- Provide the means to plan, decide and act on land use and infrastructure matters of significance to the entire Metro Region (e.g. support to economic clusters, new residential areas of regional significance, major industrial developments, aligning development with major infrastructure projects).
- Enable Metro Region municipalities to continue to manage their own municipal planning matters such as local roads, zonings and permitting.
- Create a platform that doesn't currently exist to negotiate the necessary trade-offs for shared regional benefit on land use decisions. The IDP would contain procedures and mechanisms by which the participating municipalities would facilitate collaborative investment/benefit sharing. These mechanisms would look at both the costs to municipalities (direct and indirect) of land use decisions and the regional benefits (revenues and other benefits), as well as how they would be shared.
- Allow the Metro Region municipalities to leverage their combined weight to achieve regional infrastructure goals through a highly integrated mechanism. This collaboration would enable the metro municipalities to more effectively advocate for provincial and federal funds at a time when government are embarking on significant multi-year initiatives to invest in infrastructure.
- Provide for the creation of a Joint Committee on Infrastructure to identify and support regionally significant infrastructure projects. Participating municipalities would need to either pass an enabling bylaw to authorize the Joint Committee's establishment and delegate powers to that Joint Committee, or include those provisions in the bylaw approving the IDP. This committee would determine which priorities are of regional significance and support regional goals across the "triple bottom line." Additionally, it would seek funding from the provincial and federal governments, other public authorities and the private sector. It could also undertake contracting and risk management for metro regional infrastructure developments.

- Enable investments in projects of regional significance by creating an Edmonton Metro Region Development Fund, a shared pool of capital investment dollars from which regional infrastructure development priorities would be financed. This Fund would include grants and investment dollars from other orders of government and partners. Municipalities would each maintain their current capital programs for local infrastructure projects that fall outside the criteria for regional scope.

Option #2:

Work with the Government of Alberta to obtain provincial recognition and authority to serve as the Metro Region’s Growth Management Board.

Given the pressing need for regional action in the Edmonton Metro Region, an alternative to the IDP that could be created quickly through provincial regulation is a Growth Management Board. Under the current *Municipal Government Act*, a Growth Management Board is responsible for integrated and strategic land use and infrastructure planning within a defined area.

The recently tabled *Modernized Municipal Government Act* proposes expanding the scope of Growth Management Boards to include specifying regional services and funding of those services. If passed into law, these changes would enable Growth Management Boards to be more effective in promoting integrated land use and infrastructure planning.

A Growth Management Board would provide an effective forum to negotiate the necessary trade-offs for shared regional benefit on land use decisions, as well as mechanisms to facilitate collaborative investment/benefit sharing. The Joint Committee on Infrastructure and the Edmonton Metro Region Infrastructure Development Fund could also be responsibilities of an Edmonton Metro Region Growth Management Board.

Desired Outcomes

- The Edmonton Metro Region facilitates growth and regional competitiveness collaboratively. A platform is in place to find the compromises and to negotiate the necessary trade-offs needed to ensure collaborative approaches to land use planning and aligned infrastructure development.
- The economic development goals of the Metro Region are supported by regional land use and infrastructure planning. The Metro Region has the capacity to implement decisions with a focus on economic resilience and affordability for taxpayers. The municipalities of the Edmonton Metro Region plan, act and advocate together to “win” as one rather than compete individually.
- The Metro Region is better served with a collaborative voice on significant regional infrastructure priorities. A strong, collaborative voice representing over one million people presents a united case to other orders of government on the infrastructure funding priorities for the Edmonton Metro Region.
- Investment dollars for regional infrastructure are pooled and leveraged for optimal regional benefit. Municipalities act with a “shared investment, shared benefit” philosophy to make capital investments in regionally significant infrastructure that supports the Metro Region becoming globally competitive. The pooling of investment dollars enables greater “bang for the buck,” providing benefits to Metro Region taxpayers.

ALIGNING WITH OTHER GOVERNMENTS



The Edmonton Metro Region has special significance in Alberta. It's a major economic and creative hub for the province. It's Alberta's capital city and a prime connector to and from Canada's north. As a globally competitive region it can play a strong role in helping advance a more resilient, more diverse and more competitive Alberta. Enhancing municipal-provincial alignment will enable the Metro Region to fully assume this role with confidence, generating substantial benefits for Metro Region residents and for all Albertans.

Building a globally competitive Metro Region will require provincial cooperation and support. It will involve municipalities and the province thinking and acting in parallel on economic, social and environmental policies. For example, while it should be firmly rooted in the needs and priorities of the Metro Region, the development of an inter-municipal public transit system should have a line of sight to broader provincial directions on urban transportation, mobility and intermodal policies. The Metro Region's economic strategy should also align with the provincial government's economic diversification and value added strategies.

The Government of Alberta has set new directions to modernize the Municipal Government Act that it would enable greater municipal collaboration in areas that will drive efficiencies, effectiveness and economic competitiveness. This makes especially good sense in an era of limited public resources.

The path our Panel recommends is consistent with this philosophy. We believe there is an opportunity for the Metro Region to be a model of successful inter-municipal collaboration in the province. To that end, we believe the province should develop flexible funding models that incent regional collaboration – and disincent inter-municipal competition where it leads to higher costs or inefficiencies.

We also believe the Metro Region municipalities should move quickly to work with the Government of Alberta to ensure maximum alignment to create new regional systems.

In some cases, this will mean the Metro Region obtaining approval from the provincial government to establish certain mechanisms. For example, the regional transit entity would need provincial approval to be established as a regional services commission. Provincial approvals or decisions might also be necessary in the establishment of an appropriate mechanism for inter-municipal sharing of investments and benefits.

It will also be valuable to ensure municipal-federal alignment, particularly as it concerns capital investment. The federal government has signalled an intent to invest heavily in municipal infrastructure. This creates opportunities for the Metro Region to build the regionally significant projects needed to lift up the whole region and help make it globally competitive.

**KEEP THE
COURAGE
AND KEEP
GOING**



The capacity for leadership, commitment and action are foundational elements of a resilient, globally competitive Metro Region. By signalling their willingness to think beyond their municipal boundaries and consider Metro Region issues and opportunities, the Mayors have demonstrated far-sighted leadership.

So what are the next steps?

1. **Accept the Panel's Report and Commit to a Shared Vision and Principles.** The first step would be for the Mayors to accept this report and commit to seek approval from their respective Councils of the shared vision and principles contained in this report. Since nothing else can happen until those who desire change commit to it, this needs to happen right away.
2. **Present the Panel Report and the Draft MOU to Councils.** The Mayors should present the Panel's report and proposed MOU to their respective Councils, a copy of which is included in Appendix 1.
3. **Engage with the Provincial Government.** The municipalities need to initiate a two-track engagement process with the Government of Alberta both with key Ministers and at administrative levels. Specific areas of focus would be establishing the transit entity as a regional services commission and establishing the Metro Region Alliance as a Growth Management Board (provided that option were chosen and agreed to by the province).
4. **Finalize and Sign the MOU.** While acknowledging the need for review, discussion and debate of the MOU by municipalities and their Councils, we believe the non-binding MOU could be signed by the fall of 2016.
5. **Initiate a Two-Stream Process to develop the Master Agreement.** The Mayors would need to move on two fronts simultaneously:
 - **A Master Agreement Steering Committee.** Given the critical and complicated nature of the process, the Mayors and their Councils should establish a Steering Committee to negotiate terms of the Master Agreement and identify a leader for this initiative who has the skill set to negotiate among the various interests and issues and is given the responsibility and mandate to do so.
 - **Focused Task Forces.** To aid and accelerate its work, the Steering Committee should create a set of task forces. The membership would include Chief Administrative Officers (CAOs), who have the ability to drive change, and experts, who have the knowledge and experience to inform the process. These task forces would tackle the key issues that will shape the Master Agreement including:
 - determining the principles that would inform the IDP, if the municipalities opt for that approach to land use and infrastructure
 - developing governance and operating models for regional economic development, the regional transit entity and either the IDP or the Growth Management Board
 - devising a Metro Region shared investment/shared benefit model
 - negotiating with the Province on elements that require legislative or other support
 - devising stakeholder engagement and communications plans

6. **Negotiate and Sign the Master Agreement.**
Once negotiations are complete, municipalities should endorse and sign the Master Agreement. Our Panel recommends a target date for completion of the Master Agreement by the end of March 2017.
7. **Metro Region Action on Economic Development and Public Transit.** When the Master Agreement is signed, municipalities should act quickly to establish the regional economic development agency. Working with the provincial government, the municipalities can similarly move forward to create a public transit entity.
8. **Integrate Land Use and Infrastructure at the Metro Region Level.** Our Panel’s recommendations provide two options for integrating regionally significant land use and infrastructure throughout the Edmonton Metro Region. In operational terms, the differences between an IDP and a Growth Management Board are not significant. The key difference is in how the two options can come about. The Growth Management Board approach would require action by the provincial government, while the municipalities could pursue the IDP approach on their own.
 - **Option #1: The Edmonton Metro Region Inter-Municipal Development Plan**
Although the principles contained in the Master Agreement would broadly shape a Metro Region IDP, its key elements would be statutorily dependent on public input. Appreciating that public consultations require time, our Panel believes the process should begin as soon as practical after the Master Agreement is signed. Once consultations are complete, the Councils, as required under the

Municipal Government Act, would need to pass bylaws to adopt the new plan.

OR

- **Option #2: The Edmonton Metro Region Growth Board**
The Edmonton Metro Region Growth Board would need to be created by provincial regulation once the new *Municipal Government Act* legislative changes are passed.
9. **Create the Joint Committee on Infrastructure and the Edmonton Metro Region Infrastructure Development Fund.** The Joint Committee on Infrastructure would be created by each municipality by passing an enabling bylaw. The committee would be responsible for the newly created Edmonton Metro Region Infrastructure Development Fund.
 10. **Identify Edmonton Metro Region Infrastructure Priorities.** The Metro Mayors Alliance should develop and secure Council agreement on a “short list” of the three to five most pressing projects of regional significance. Ideally, this should be ready to inform the 2017-2018 provincial and federal budget cycles. This list would eventually become the responsibility of the Joint Committee on Infrastructure.

Many will ask whether the targeted timelines outlined here are realistic. Our Panel would say they are clearly ambitious.

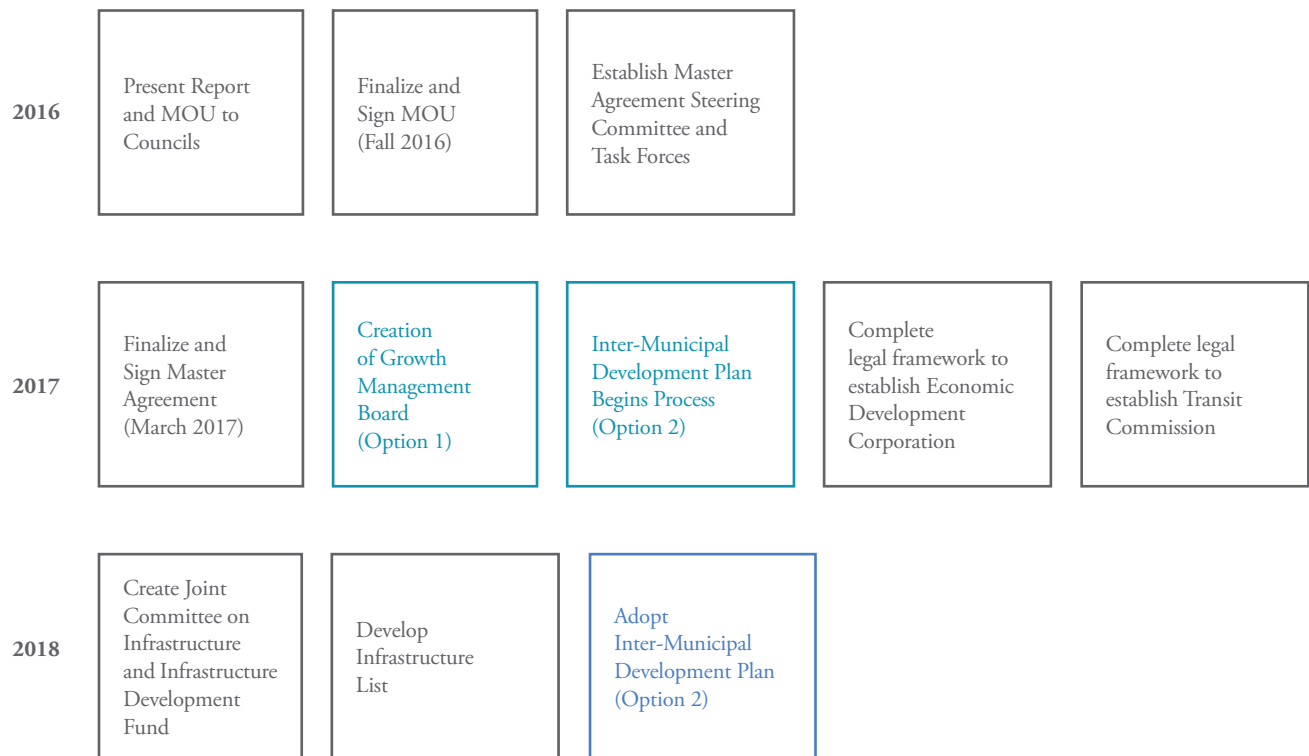
Our Panel’s recommendations focus on organizational models that have been successfully executed elsewhere and which don’t require significant new legislative or regulatory frameworks. However, they will require rigorous implementation planning, and the scope of that work shouldn’t be underestimated or unappreciated.

Our Panel recognizes that the support of municipal Councils in the Metro Region is required in order to proceed with some or all of our recommendations. This process will ensure a healthy and necessary democratic debate on building a competitive Edmonton Metro Region. After the review by Councils, control over how the process moves forward, and at what pace, would rest with the Metro Mayors Alliance.

We believe there is a clear imperative to remain resolutely ambitious on timelines in order to achieve change and results over the next two years.

Too often in our region's history we have taken the easy route – the status quo. As our report has frankly stated, the world isn't waiting on us. Instead, it's becoming more and more competitive at an increasingly rapid rate. If we don't act quickly to meet the competition, we risk wasting our region's tremendous potential.

Timeline Proposed By Panel



ADAPTABLE FOR THE FUTURE



By acting on our recommendations, municipalities can build a globally competitive, economically resilient Metro Region that is adaptable for the future.

- The Metro Region can compete globally. A refrain we consistently heard was that the Metro Region can be much more than the sum of its parts. We agree. Our recommended approach gives municipalities the ability to build a globally competitive, future-ready and economically resilient Metro Region.
- The Metro Region Alliance can evolve. Our Panel was established by nine Mayors who recognized the need for municipalities to think, plan and act differently in the future. We would hope and expect that these nine municipalities are founders of the Edmonton Metro Region. However, the approach we advocate can accommodate additional municipalities now and in the future. There may be certain municipalities whose participation makes immediate sense; for others, the value proposition may evolve over time. As we said earlier, there is great power in coming together in this deliberate and willing way.
- The Metro Region can be adaptive. Our Panel has emphasized the need for municipalities to deliver and act as one Metro Region on the three cornerstones of competitiveness. Once that is done, municipalities can and should feel free to deliver and act as a single Metro Region in other areas. Literature suggests it makes good sense for a “metro tier” to deliver services that have regional benefits. Our view is that municipalities should deliver and act as a Metro Region in areas where doing so will lead to better functioning systems, greater efficiencies and advantages for taxpayers. There will be many areas where the necessary economies of scale will simply not be present, and municipalities should handle these areas locally.
- The Metro Region can maintain its diversity. One advantage of our recommended approach is that municipalities can retain their unique identities while delivering and acting as one Metro Region. Literature indicates that diversity is a strength of competitive and successful city-regions. If our recommended approach is implemented well, the days of antagonistic annexations or amalgamation can be a thing of the past.

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Appendix 1

Proposed Memorandum of Understanding

This Memorandum of Understanding is made effective this ____ day of _____, 2016.

Between:

The City of Edmonton

And

Strathcona County

And

The City of Leduc

And

Leduc County

And

The City of Fort Saskatchewan

And

The City of St. Albert

And

The City of Spruce Grove

And

Parkland County

And

Sturgeon County

(collectively the “Municipalities”)

PREAMBLE

The Municipalities wish to realize a globally competitive, future-ready Edmonton Metro Region that attracts people from across the country and around the world to live, work, invest and raise a family.

The Municipalities realize that such a region, one that is more resilient to up-turns and downturns in the economy and capable of welcoming one million new residents by 2044, is not possible if they continue working independently of one another on issues of regional significance.

The Municipalities agree that they must plan, decide and deliver key regional-level systems that enable the future competitiveness of the Edmonton Metro Region.

For these reasons, the Municipalities through their respective Mayors established the Advisory Panel on Metro Edmonton's Future ("the Advisory Panel") to provide advice and to recommend options on how best to leverage the combined assets and attributes of the region.

The Advisory Panel's report identifies the following competitive cornerstones to building a globally competitive Edmonton Metro Region:

- (a) economic development
- (b) public transit
- (c) land use and infrastructure

(hereinafter referred to as "Cornerstones of Competitiveness" or "cornerstones:").

Because the Municipalities' ability to cooperate on these cornerstones will determine the Edmonton Metro Region's future competitive capacity and success, the Advisory Panel recommended that action be taken so the Municipalities can plan, decide and act in aligned and integrated ways on the Cornerstones of Competitiveness.

The Advisory Panel also recommended that Municipalities enter into clear agreements providing for a "shared investment/shared benefit" model related to regional economic development and land use and infrastructure development.

The Municipalities wish to explore ways they can establish, align and integrate these Cornerstones of Competitiveness, including a means for sharing investments and benefits, and therefore wish to facilitate further discussions in regard to these matters.

THEREFORE the Municipalities record their mutual understanding and intent, as follows:

UNDERSTANDINGS

1.0 Definitions

1.1 In this Memorandum of Understanding, the following words and terms will have the following meanings:

- a. "Advisory Panel" has the meaning given that term in the preamble hereto.
- b. "Council" means the respective Municipal Council of each of the Municipalities.
- c. "Edmonton Metro Region" means the region comprising the Municipalities, collectively.
- d. "Memorandum of Understanding" or "MOU" will mean this Memorandum of Understanding.
- e. "Municipalities" means the City of Edmonton, Strathcona County, the City of Leduc, Leduc County, the City of Fort Saskatchewan, the City of St. Albert, the City of Spruce Grove, Parkland County, and Sturgeon County, collectively and a "Municipality" means any of them.

2.0 Purpose and Intent of MOU

2.1 This MOU provides the framework to negotiate and develop the tools to implement the cooperation, coordination and potential combination of the Cornerstones of Competitiveness, and the shared investment/shared benefit approach for regionally significant economic development and land use and infrastructure within the Edmonton Metro Region.

2.2 This is not a legally binding agreement, and does not create binding obligations upon or between the Municipalities. It does, however, reflect the shared intention of the Municipalities who commit to work to achieve the outcomes included herein as a start to better overall cooperation, coordination and potential collaborative delivery models across areas necessary to improve regional competitiveness. This MOU is therefore intended to guide participating Municipalities, their Councils, their management and their staff in addressing issues that impact regional competitiveness in these areas.

2.3 Any Municipality may withdraw from this MOU, or any process contemplated within it, at any time, on appropriate and reasonable notice to the other Municipalities.

3.0 Actions Related to the Cornerstones of Competitiveness

3.1 The Municipalities will establish a steering committee to discuss and negotiate the terms of cooperation, coordination and potential collaborative models for the Cornerstones of Competitiveness and the shared investment/shared benefit approach. The Municipalities will determine the committee type, its membership and the number of members.

3.2 To aid and accelerate the work of the steering committee, the Municipalities will establish a set of task forces. Led by the committee, these task forces will study and advise on issues related to the Cornerstones of Competitiveness and the shared investment/shared benefit approach. The Municipalities will determine the number of task forces and their respective mandates as well as their membership.

3.3 The Municipalities will continue to meet in this context until they make their final recommendations to their Councils, adopt a different governance structure, or for so long as the Municipalities find it useful to continue meeting.

3.4 To ensure adaptability to the circumstances in each municipality, the Municipalities may:

- a. Proceed with Cornerstones of Competitiveness with the participation of less than all of the Municipalities, or with the inclusion of municipalities not currently included in the Edmonton Metro Region;
- b. Proceed with the process with respect to an amended list of Cornerstones of Competitiveness which may expand upon, limit or otherwise alter the list of Cornerstones of Competitiveness.

However to the extent it is not inconsistent with its other obligations, each Party shall endeavour to keep the others informed of such determinations.

3.5 There is urgency to this work, and the Municipalities will work towards a deadline of **XXXX, 2016**, to put into action appropriate structures and processes for the Cornerstones of Competitiveness, and the investments/benefits structures required to sustain them.

4.0 Future Amendments or Agreements

4.1 The discussions contemplated in this MOU are intended to lead to formal agreements between the Municipalities, including appropriate investments/benefits agreements, public transit agreements, economic development agreements or land use and infrastructure commitments.

4.2 The Municipalities may also mutually agree to amend this MOU, in writing, at any time.

EXECUTED on behalf of each Municipality by its duly authorized representative.

The City of Edmonton

Per: _____

Strathcona County

Per: _____

The City of Leduc

Per: _____

Leduc County

Per: _____

The City of Fort Saskatchewan

Per: _____

The City of St. Albert

Per: _____

The City of Spruce Grove

Per: _____

Parkland County

Per: _____

Sturgeon County

Per: _____

Appendix 2

Greater Capital Region Scenario Analysis



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Introduction

This report provides a summary of settlement land-use scenarios that have been simulated for the Edmonton Metro Region in order to identify a range of potential impacts on landscape composition and greenfield costs at various growth and density patterns.

This simulation technology used data available in the Capital Region Board's (CRB) recently updated Growth Plan and other available sources as noted. The results illustrate a "scale of magnitude" of the impact of various growth patterns.

In order to achieve a more accurate and detailed result, future analyses should use actual data sets available from municipalities and/or the CRB and apply them in these same models.

The Alces models used in this report have been peer reviewed and used for planning purposes across Alberta, Canada and internationally.

CONTEXT

This report recognizes that residential complexes (cities, towns, acreages, farm houses) and their embedded and surrounding watersheds (ecosystems) are an interacting "system" that respond dynamically to urban growth patterns. These responses are numerous and diverse and include such dynamics as transportation metrics, storm water movement, water quality, infrastructure costs, food security, and a broad suite of social performance metrics.

Data tells us that the constituent municipalities of the greater capital region and the Edmonton Metro Region interact within a dynamically shifting bio-physical-anthropogenic system. As such, it is critical for the Edmonton Metro municipalities to carefully consider the consequences of urban form in a "systems" context.

KEY FINDINGS

Planning objectives of Edmonton Metro Region municipalities recognize the importance of natural capital to the long-term prosperity of the greater Metro Region.

Urban densification strategies generate a broad and significant suite of socio-economic and fiscal benefits to both current and future generations.

The analyses presented here compare population densification patterns in two different scenarios:

- A **Low Density** scenario in which regional land use and infrastructure occurs without a regionally integrated approach to planning and development, resulting in low-density development that characterizes what has occurred in past decades.
- An **Increased Density** scenario in which there is a mechanism to apply an integrated approach to growth that implements intensification and minimum density standards to reduce the footprint that is required to accommodate future population growth.

The outcomes of the simulations point to clear benefits of an integrated approach including conservation of natural land and farmland and reduced development costs.

HOW SHOULD THE REGION GROW?		
50 Year Comparison	Low Density (Business as Usual Approach)	Increased Density (Integrated Approach)
High Growth Scenario		
Agricultural lands lost	87,700 hectares	41,300 hectares
Natural areas lost	50,200 hectares	20,000 hectares
Settlement footprint growth	138,000 hectares	62,900 hectares
Total settlement footprint	273,900 hectares	198,800 hectares
Gross urban greenfield cost	\$54.0 billion	\$25.1 billion
Net urban greenfield cost	\$15.3 billion	\$7.1 billion
Low Growth Scenario		
Agricultural lands lost	58,400 hectares	29,800 hectares
Natural areas lost	33,200 hectares	14,200 hectares
Settlement footprint growth	91,700 hectares	44,800 hectares
Total settlement footprint	227,700 hectares	180,800 hectares
Gross urban greenfield cost	\$37.3 billion	\$18.0 billion
Net urban greenfield cost	\$10.6 billion	\$5.1 billion

100 ha = 1 km²

LOW DENSITY SCENARIO

In a future with high growth, the region's development under a "low density" approach could result in:

- The overall settlement footprint doubling in area from what it is today. Expansion of low-density sprawl would likely mean longer commute times, more traffic, and increased emissions.
- Thousands of hectares of agricultural lands and natural areas could be lost as a result of poorly coordinated expansion.
- Municipalities would face substantial costs to service the larger footprint (e.g. roads, infrastructure etc.), which could translate into notably higher taxes for Metro Region citizens and businesses.

INCREASED DENSITY SCENARIO

By comparison, the region's development under an integrated approach to achieve increased density generates dramatically better results:

- In acting collaboratively on land use and development, municipalities save substantial land and money.
- Expansion of the region's overall settlement footprint would be reduced by approximately half, as could losses of agricultural lands and natural areas.
- Such savings would preserve more farmland to support the region's agri-food industry and more natural lands to support the region's ecosystems.
- A smaller settlement area means municipalities could spend approximately half as much money on creating new residential areas, reducing pressure on municipal taxes for Metro Region citizens and businesses.

Methods

CURRENT LANDSCAPE COMPOSITION

A spatial data layer describing the area and location of anthropogenic footprint, natural land, and farmland was derived from the City of Edmonton Landuse Map and numerous additional inventories provided by organizations such as AltaLIS, Open Street Map, Agriculture and Agri-food Canada Landcover, the Alberta Biodiversity Monitoring Institute, CanVec, and ESRI.

SCENARIOS

Four scenarios were simulated

1. Low Density development with high population growth –Implements the Capital Region Board high population growth trajectory, and accommodates the growing population using low density development that follows existing patterns.
2. Increased Density with high population growth –Implements the Capital Region Board high population growth trajectory, and accommodates the growing population using intensification and minimum greenfield density targets identified in the Growth Plan 2.0¹.
3. Low Density development with low population growth –Implements the Capital Region Board low population growth trajectory, and accommodates the growing population using low density development that follows existing patterns.
4. Increased Density with low population growth –Implements the Capital Region Board low population growth trajectory, and accommodates the growing population using intensification and minimum greenfield density targets identified in the Growth Plan 2.0.

POPULATION GROWTH

Low and high population growth trajectories by municipality over the next 50 years were as per the Consolidated CRB-Accepted Population and Employment Projections, 2014-2044 downloaded from the Capital Region Board website. Populations for member municipalities were available for years 2014 and 2044 under low and high growth. Population growth between 2014 and 2044 was assumed linear, based on the linear shape of population projections presented in the December 2009 Capital Region Growth Plan Addendum. The final 20 years of the 50 year population growth trajectories were based on a linear extrapolation of the 2014-2044 projection. i.e., population growth from 2045-2064 was assumed to be 2/3 of that projected for 2014-2044. Based on these assumptions, population grew from 1.25 million in 2014 to 2.89 million in 2064 under the high growth scenario, and to 2.42 million in 2064 under the low growth scenario. Population projections by member municipality are provided in the appendix.

Within the City of Edmonton, population growth was distributed at a finer spatial scale based on the recent distribution of new dwellings across wards, and the development status of neighbourhoods within each ward. The recent distribution of new dwellings across wards was calculated as the change in the number dwelling units for each ward between the 2012 and 2014 Edmonton censuses. Wards 6, 7, 8, 10, and 11 were excluded from the calculation because they are built out (i.e., no developing or planned neighbourhoods). The assumption that net new structures is a surrogate for new dwellings was tested through comparison with the spatial distribution of residential low density lot registrations (City of Edmonton 2014). Residential low density lot registrations were available by city subsector (North, Northeast, Northwest, West, Southeast, and Southwest). When wards and subsectors were organized into common spatial units, agreement between the distribution of net new structures and low density lot registrations was high².

¹ Growth Plan 2.0 refers to the growth plan described in Draft #1 of the Edmonton Metropolitan Region Growth Plan: Toward a Complete Region.

² The southeast subsector aligns with ward 9 and accounts for 24% of net new structures and 27% of lot registrations. The southwest subsector aligns with ward 9 and accounts for 31% of net new structures and 30% of lot registrations. The north, northwest, and west subsectors align with wards 1, 2, and 5 and account for 32% of net new structures and 34% of lot registrations. The northeast subsector aligns with ward 4 and accounts for 14% of net new structures and 10% of lot registrations.

Within each ward, development was sequenced across neighbourhoods based on their development status (City of Edmonton 2014). Developing neighbourhoods were developed first, and were sequenced based on the proportion of low density residential lots that have been registered. Planned neighbourhoods were developed after developing neighbourhoods were built out. Planned neighbourhoods were sequenced according to their planning status; neighbourhoods with a Neighbourhood Area Structure Plan (NASP) were developed prior to those with an Area Structure Plan (ASP). Mature, established, institutional, recreational, industrial, and transportation (e.g., Anthony Henday) neighbourhoods were not available for greenfield residential development.

As per the pattern anticipated by the City of Edmonton Growth Study, the city was simulated to expand into the proposed annexation areas south of Edmonton's municipal boundary upon exhaustion of residential land supply in wards south of the North Saskatchewan River. Development of the annexation areas proceeded outwards from the municipal boundary to the south. For the Low Density development with high population growth scenario, greenfield development exceeded the availability of land within the annexation areas towards the end of the simulation; greenfield demand was met by developing within 1 km of the municipal boundary.

Within other cities and towns, population growth occurred within municipal boundaries until available land was exhausted, at which time it expanded outwards from the municipal boundary. Within rural municipalities, population growth occurred within zoned country residential areas³. If zoned country residential areas were not available, country residential occurred elsewhere.

SETTLEMENT ASSUMPTIONS

The simulations tracked three types of footprint associated with human settlement: urban residential, country residential, and industrial. Urban residential footprint was simulated as gross footprint, such that it accounts for other urban land uses such as commercial and institutional.

Urban and country residential

Each municipality's development footprint was simulated to expand in accordance with its population projection. Scenarios explored the implications of two forms of development with differing relationships between population growth and development footprint.

In the Low Density scenario, settlement expansion favoured low density and dispersed development as has occurred in recent decades. All population growth in the Low Density scenario was accommodated by greenfield development with the exception of City of Edmonton for which intensification was simulated at the current level of infill (14%⁵). The dwelling unit densities of new developments in the Low Density scenario followed existing patterns as per "Existing PGA Residential Density" identified in table 2 of Appendix B of the October Addendum to the 2009 Growth Plan. These densities were 17.5 dwelling units per net residential hectare (du/nrha) for communities within PGA's Ce (Beaumont) and A (Spruce Grove and Stony Plain), 22.3 du/nrha for communities within PGA E (Leduc), and 25.6 du/nrha for communities within PGA's B (Edmonton and St. Albert) and G (Fort Saskatchewan). Those municipalities occurring outside of PGA's had dwelling unit density was set at 21.7 du/nrha which is the average existing net residential density of PGAs excluding downtown Edmonton according to the October Addendum to the 2009 Growth Plan. Dwelling units per net residential hectare (du/nrha) were multiplied by 0.544

³ Spatial polygons identifying the location of annexation areas were digitized from a map download from the City of Edmonton's website: http://www.edmonton.ca/city_government/documents/City_of_Edmonton_Annexation_Area_April_15_2015.pdf

⁴ Zoned country residential areas were digitized at the resolution of quarter sections from Draft Schedule 1: Edmonton Metropolitan Regional Structure to 2044 as presented in Draft #1 of the Edmonton Metropolitan Region Growth Plan: Toward a Complete Region.

⁵ Nichols Applied Management. 2014. City of Edmonton Growth Study.

to convert to dwelling units per gross residential hectare (du/grha) based on the City of Edmonton Growth Study which reports that 43% of gross area is net residential and that 79% of gross area is developable, implying that net residential accounts for 54.4% of gross developable area. Dwelling units per gross residential hectare (du/grha) was then converted to population density (people per gross residential ha) by assuming 2.5 people per household, which is the average number of people per household in the Edmonton Census Metropolitan Area according to the 2011 Statistics Canada Census ⁶. Existing dwelling unit density for rural municipalities followed the pattern of existing traditional country residential subdivisions (35 lots per quarter section as stated in the October Addendum to the 2009 Growth Plan ⁷). An exception was Sherwood Park, whose dwelling unit density was simulated at the average existing net residential density of urban areas outside of downtown Edmonton (21.7 du/nrha).

In the Increased Density scenario, dwelling unit density was increased through intensification of existing neighbourhoods and implementation of minimum density targets for greenfield developments, as proposed in Growth Plan 2.0 ⁸. Intensification within existing urban footprint accommodated 25% of population growth within Edmonton; 17.5% of population growth within St. Albert and Sherwood Park; 15% within Fort Saskatchewan, Leduc and Stony Plain; 10% within

Beaumont and Spruce Grove; 7.5% within Calmar, Devon, Lamont and Morinville; and 5% within other towns, villages, and hamlets. Dwelling unit densities for urban municipalities were 50 du/nrha for cities and towns within the metropolitan area⁹, 25 du/nrha for towns outside of the metropolitan area, and 20 du/nrha for villages. In rural municipalities, 50% of population growth was accommodated by urban residential development located at existing villages and hamlets as per Growth Plan 2.0, at a density of 20 du/nrha. The remaining residential development rural municipalities occurred as traditional country residential at a density of 0.8 du/grha¹⁰. In both urban and rural municipalities, sensitive environmental areas (municipal and provincial)¹¹ were protected from development in the Increase Density scenario as per Growth Plan 2.0.

Industrial

Industrial areas¹² in the City of Edmonton and the surrounding area expanded at 1372 net ha/decade based on the area of land absorption in industrial areas over the past decade (City of Edmonton 2015). Continued expansion at 1372 net ha/decade throughout the 50-year simulation was judged appropriate given the assumed linear population growth pattern. Net industrial area was converted to gross industrial area by assuming that net industrial footprint accounts for 61% of gross industrial footprint; the remaining 39% is assumed to be non-developable land and non-industrial developable such as parks, stormwater management facilities and roads (Nichols Applied Management 2014). Expansion of industrial areas in Edmonton was distributed based on the following pattern of expansion occurring over the past 10 years: 66% in the north, and 34% in the south. In

⁶ <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/famil122f-eng.htm>

⁷ 35 lots per quarter section was implemented as 0.54 du/grha based on 129 lots per quarter section being equivalent to 2 du/grha.

⁸ Intensification targets and minimum greenfield densities were as per table 2 in the briefing note "Growth Plan2.0: Growth Management Scenarios" which was part of the agenda package for the April 13 2016 Growth Plan Update Task Force meeting.

⁹ Municipalities located within the metropolitan area, as defined by the Growth Plan 2.0, are Beaumont, Edmonton, Fort Saskatchewan, Leduc, Spruce Grove, St. Albert, Stony Plain, and Sherwood Park.

¹⁰ A density of 0.8 du/grha is identified as the target for country residential areas in the briefing note "Growth Plan2.0: Growth Management Scenarios" which was part of the agenda package for the April 13 2016 Growth Plan Update Task Force meeting.

¹¹ Sensitive environmental areas were digitized at the resolution of quarter sections from Draft Schedule 6: Natural Living Systems to 2044 as presented in Draft #1 of the Edmonton Metropolitan Region Growth Plan: Toward a Complete Region.

¹² The location of industrial areas were digitized from Draft Schedule 3: Major Employment Areas as presented in Draft #1 of the Edmonton Metropolitan Region Growth Plan: Toward a Complete Region.

the north, the Northeast and Northwest industrial areas were first developed, followed by the planned Edmonton Energy and Technology Park as well as continued development in the Acheson Industrial Area immediately to the west of Edmonton's municipal boundary. In the south, the South and Southeast industrial areas were first developed; thereafter, industrial development was assumed to occur within industrial areas to the south of Edmonton including Nisku, Sherwood Park, Leduc, and the proposed Aerotropolis.

In addition to the City of Edmonton, three other areas were simulated to receive continue expansion in industrial development. The Alberta Industrial Heartland, Sturgeon Industrial Park, and Tri-Muni Industrial areas expanded in proportion to simulated employment growth in Fort Saskatchewan, Sturgeon County, and Spruce Grove/Stony Plain, respectively¹³. Under the low growth scenario, this implied that industrial area expansion relative to today was 6.8%/decade (497 ha/decade) in Alberta Industrial Heartland, 6.8%/decade (47 ha/decade) in Sturgeon Industrial Park, and 15%/decade (82 ha/decade) in Tri-Muni Industrial Area. Under the high growth scenario, industrial area expansion relative to today was 21.4%/decade (691 ha/decade) in Alberta Industrial Heartland, 20.2%/decade (66 ha/decade) in Sturgeon Industrial Park, and 19.2%/decade (115 ha/decade) in Tri-Muni Industrial Area.

INDICATORS

Landscape Composition

Three variables related to landscape composition were tracked. Settlement footprint was calculated as the sum of urban, rural, and industrial settlement footprint and roads. Farmland area included all cropland and pasture. Natural land included forest, wetland, and other natural cover types (e.g., grassland, shrubland) but excluded water.

Urban Greenfield Cost

The cost of creating new urban residential areas was calculated based on the average cost per gross developable area (GDA) of new neighbourhoods assessed by the City of Edmonton¹⁴. Costs included capital, operation and maintenance/service delivery, and renewal expenditures during the first 30 years of a neighbourhood. In addition to gross cost, net cost was calculated as the difference between expenditures and expected revenues from municipal tax, commercial tax, and user fees. The average expenditure across 15 neighbourhoods¹⁵ was \$1.26 million per gross developable ha. The average net expenditure was \$0.36 million per gross developable ha. There was not a strong relationship between city expenditures and population density for the 15 neighbourhoods. As a result, the same city expenditure coefficient was assumed for all greenfield urban areas, regardless of density¹⁶.

¹³ Employment projections were as per Consolidated CRB-Accepted Population and Employment Projections, 2014-2044 downloaded from the Capital Region Board website

¹⁴ Costs and Revenues for New Areas. Report provided by the City of Edmonton.

¹⁵ The City of Edmonton reports costs and revenues for 17 neighbourhoods. Two neighbourhoods were excluded: neighbourhood B because it is atypical in that it is predominantly (i.e., >50%) commercial; and neighbourhood C because it's population density is higher than what will be assumed for greenfield developments in the simulations.

¹⁶ Across the 15 neighbourhoods, population density ranges from 30 to 66 people/GDA ha with an overall average of 51 people/GDA ha. In comparison, the population density for greenfield urban residential areas simulated in the low density scenario ranges from 24 to 35 people/GDA ha across all urban areas in the greater capital region, with an area weighted average of 32 people per GDA ha. In the higher density scenario, population density of simulated greenfield urban residential areas ranges from 27 to 68 people per GDA ha with an overall average of 63 people per GDA ha.

Results

High Growth Scenarios

During the 50-year high population growth simulation, total settlement footprint doubled from 1359 km² to 2739 km² when Low Density development was applied. Rural residential footprint accounted for the largest portion of the settlement footprint growth (795 km²), followed by urban residential (428 km²) and industrial (156 km²). Settlement footprint growth was reduced by over 50% in the Increased Density scenario, reaching a total extent of 1988 km² as compared to 2739 km² during the Low Density scenario.

Reduced settlement footprint expansion during the Increased Density scenario resulted in the conservation of farmland and natural land. Whereas the Low Density scenario resulted in the loss of 502 km² of natural land cover and 877 km² of farmland under high population growth, these losses were reduced to 200 km² of natural land cover and 413 km² of farmland during the Increased Density scenario. This represents conservation of 302 km² of natural land cover and 464 km² of farmland relative to the Low Density scenario.

The lower settlement footprint expansion during the Increased Density scenario also resulted in lower urban greenfield costs relative to the Low Density scenario. Under high population growth, the cumulative gross urban greenfield cost during the Increased Density scenario was \$25 billion compared to \$54 billion during the Low Density scenario, for a savings of \$29 billion. Cumulative net urban greenfield cost during the Increased Density scenario was \$7 billion compared to \$15 billion during the Low Density scenario, for a savings of \$8 billion.

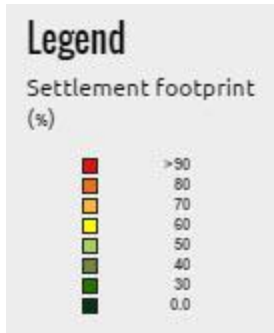
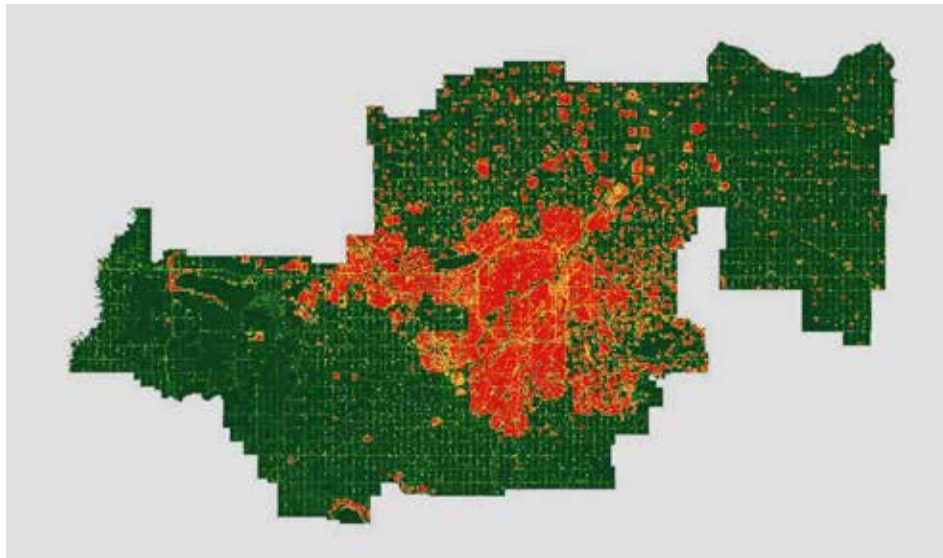
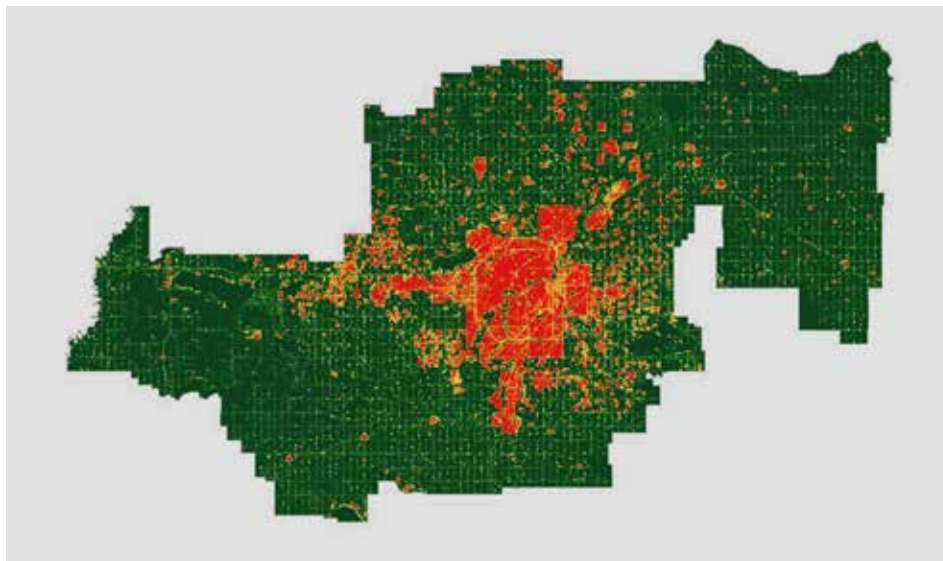


Figure 1. Total settlement footprint in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with high population growth.



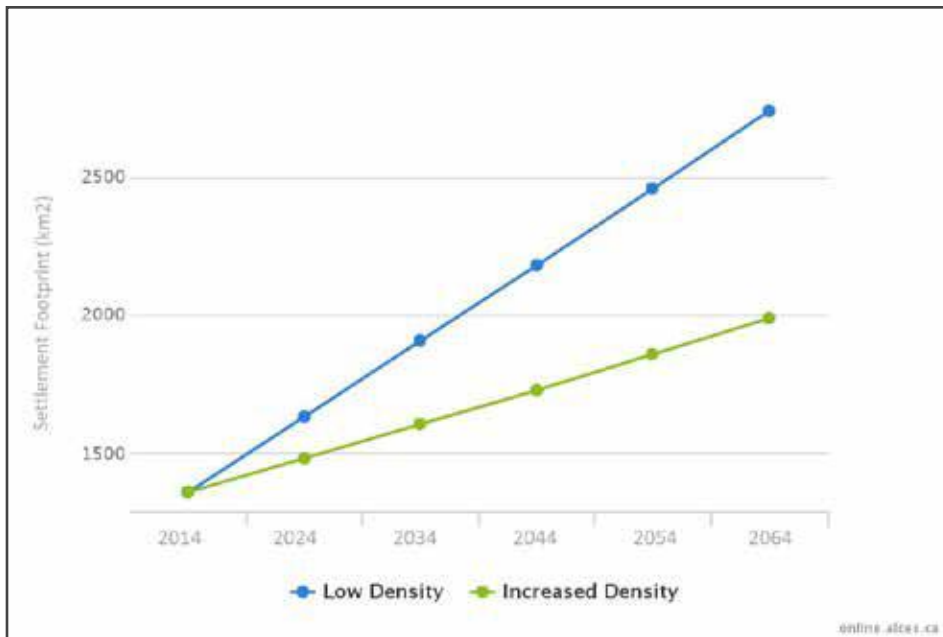


Figure 2. Simulated total settlement footprint growth during Low Density and Increased Density scenarios with high population growth.

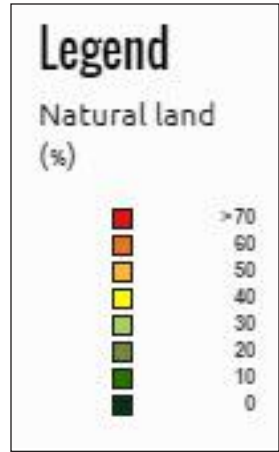
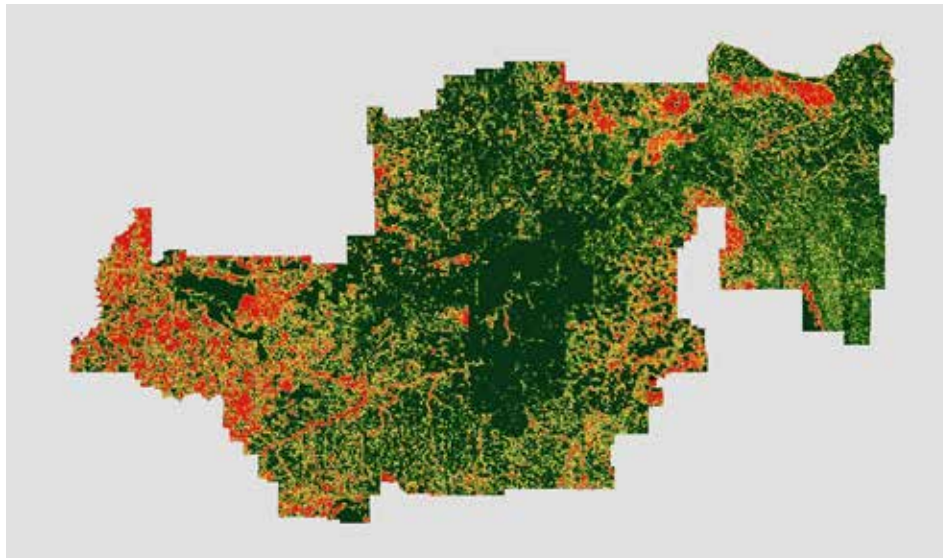
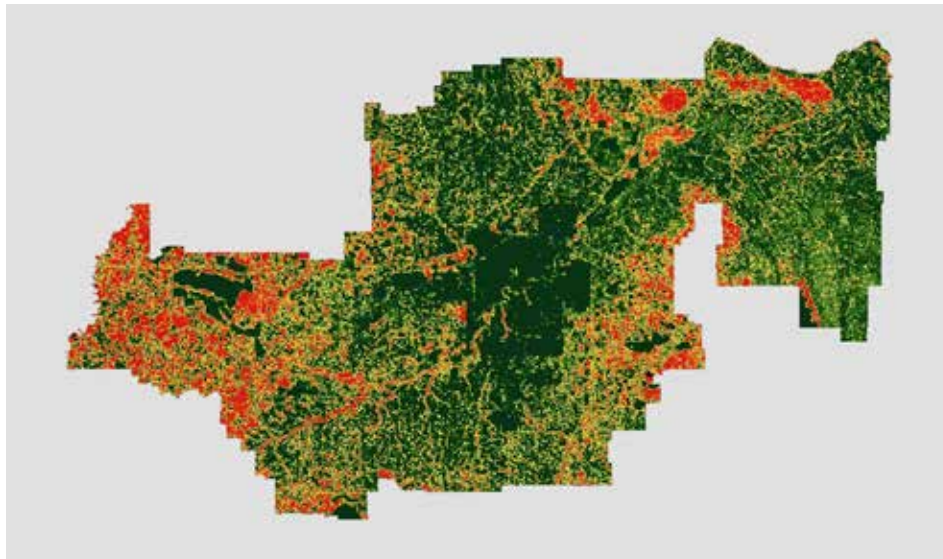


Figure 3. Natural land in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with high population growth.



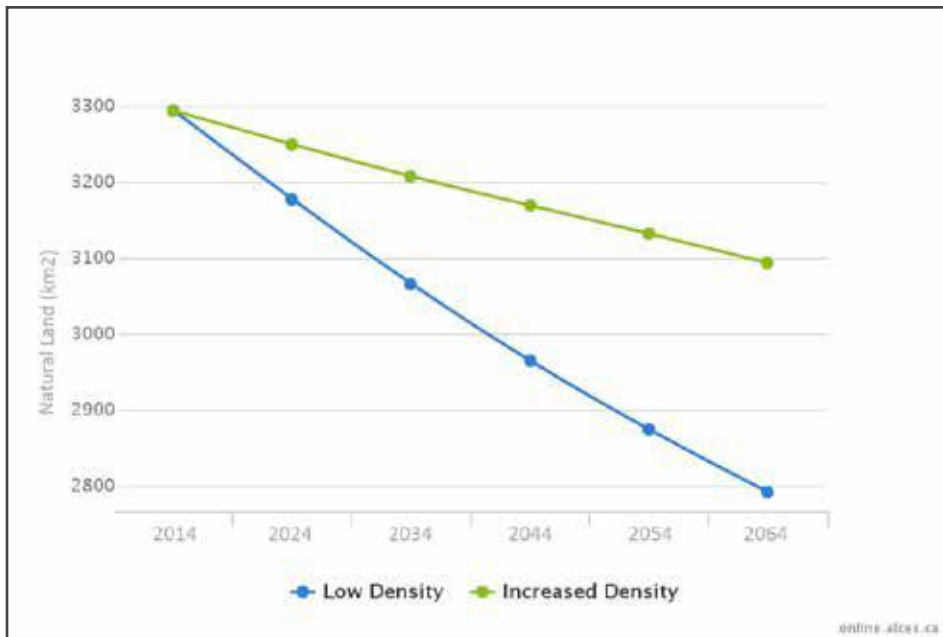


Figure 4. Simulated decline in natural land during Low Density and Increased Density scenarios with high population growth.

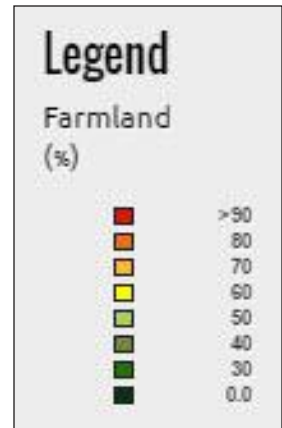
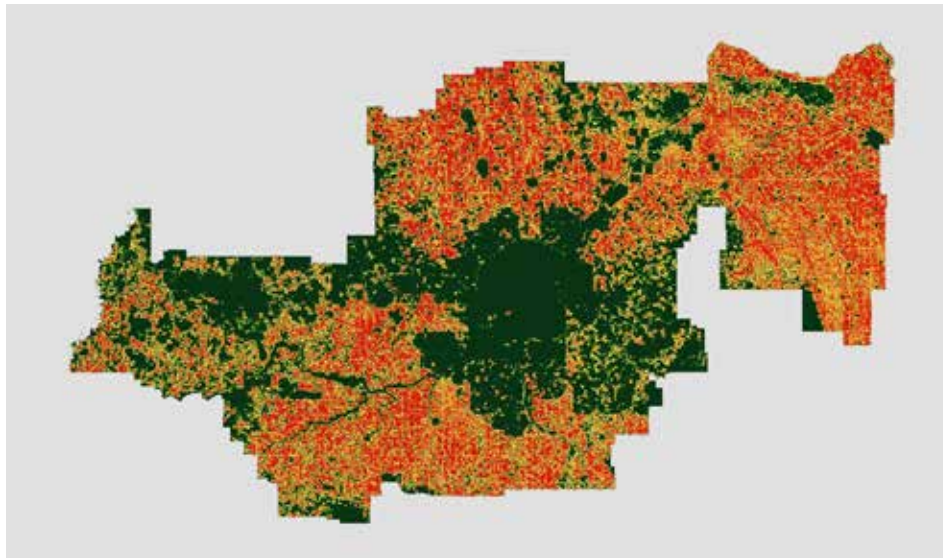
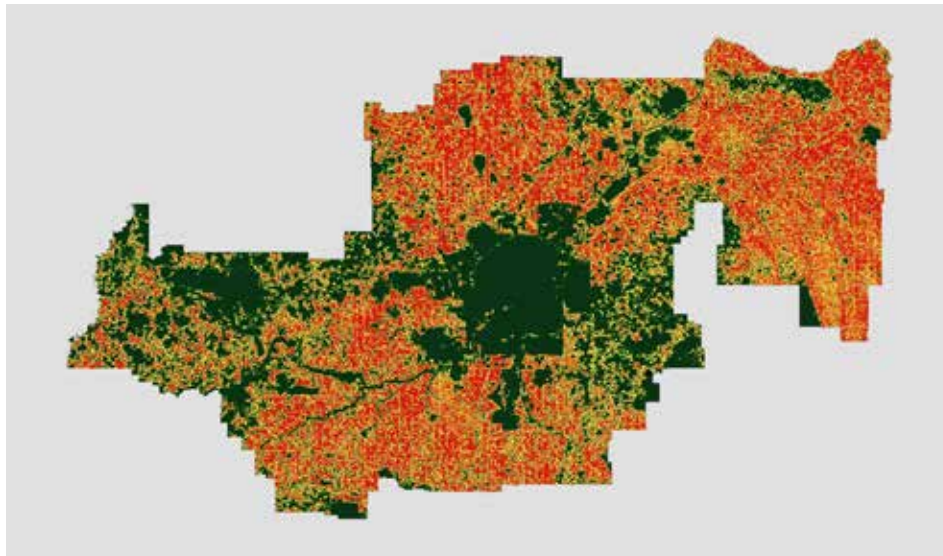


Figure 5. Farmland in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with high population growth.



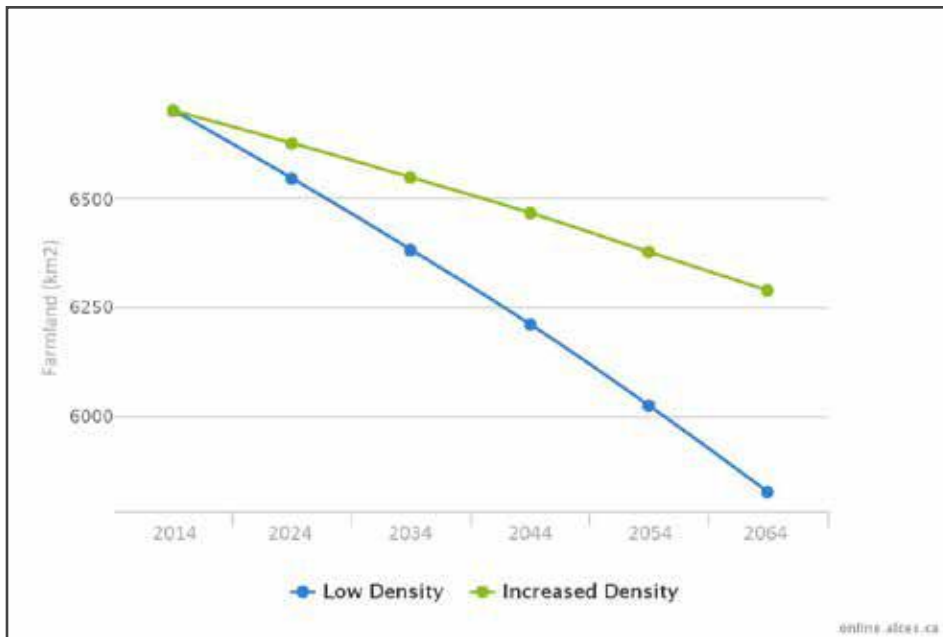


Figure 6. Simulated decline in farmland during Low Density and Increased Density scenarios with high population growth.

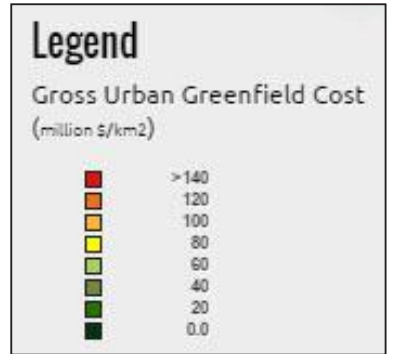
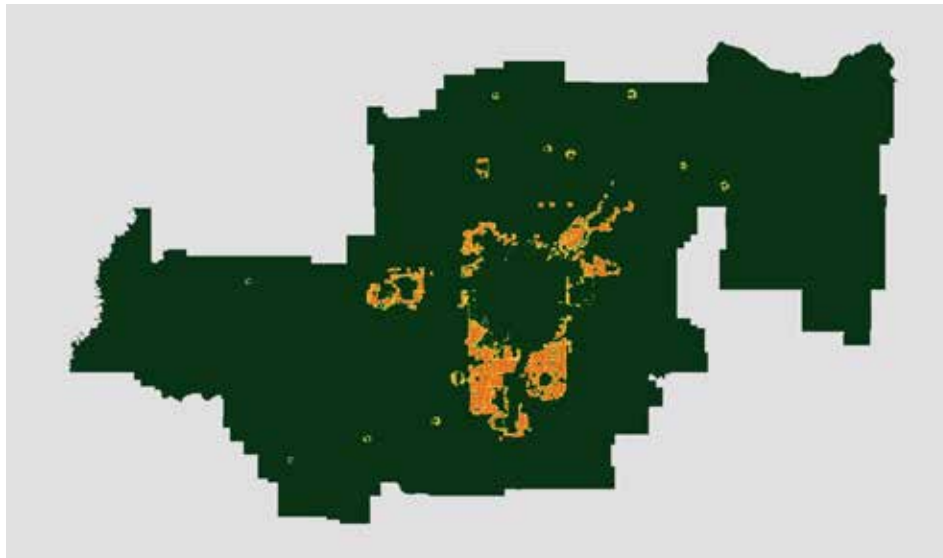
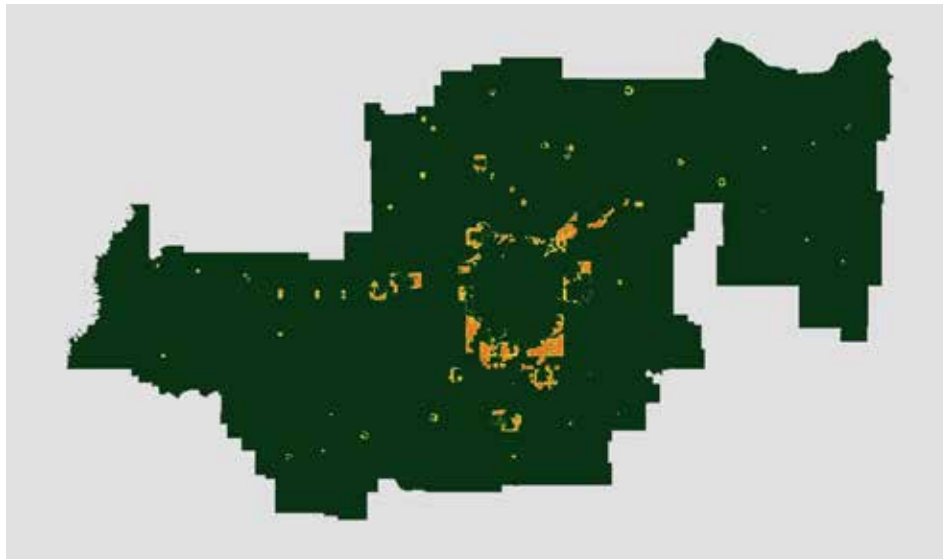


Figure 7. Cumulative gross urban greenfield cost under simulated Low Density (top) and Increased Density (bottom) scenarios with high population growth.



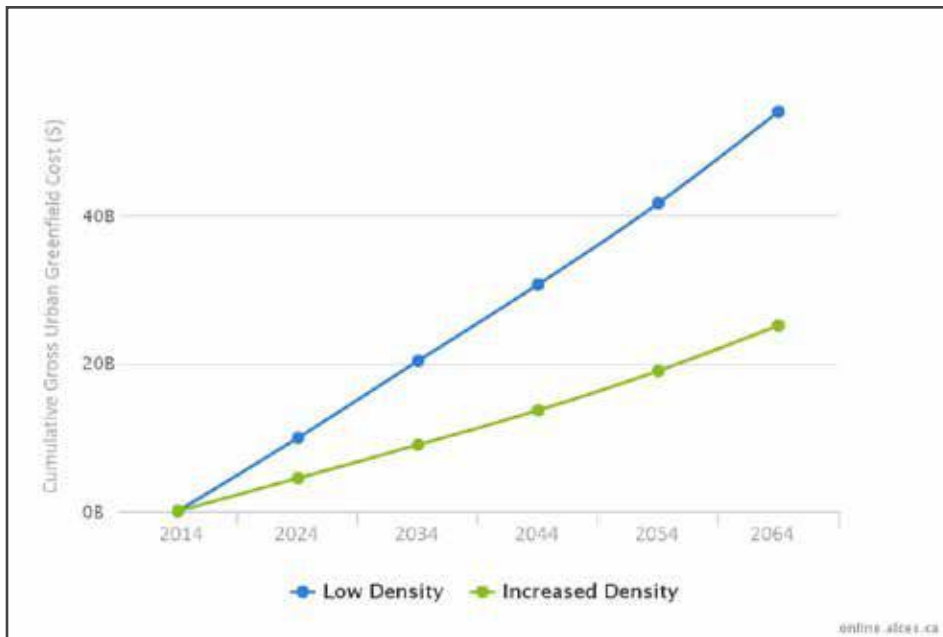


Figure 8. Simulated cumulative gross urban greenfield costs during Low Density and Increased Density scenarios with high population growth.

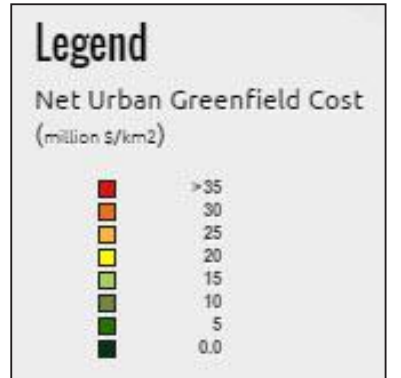
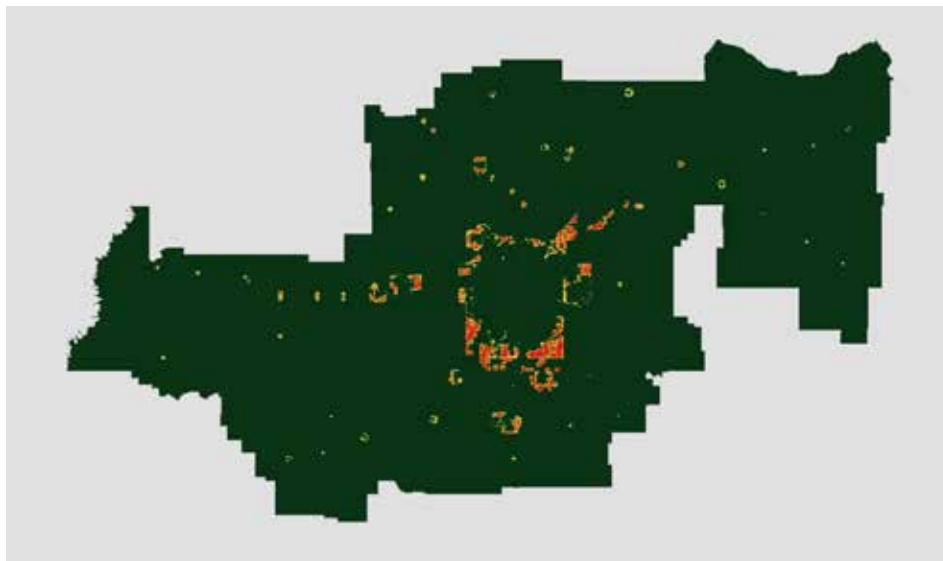


Figure 9. Cumulative net urban greenfield cost under simulated Low Density (top) and Increased Density (bottom) scenarios with high population growth.



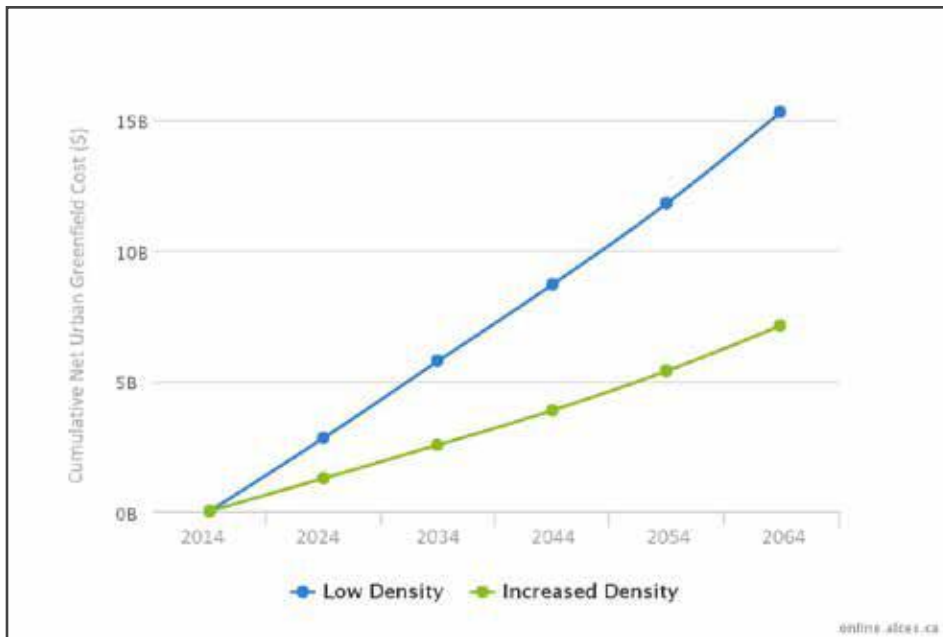


Figure 10. Simulated cumulative net urban greenfield costs during Low Density and Increased Density scenarios with high population growth.

Low Growth Scenarios

Under low population growth, the expansion of settlement footprint was reduced by 1/3rd compared to high population growth. As a result, loss of farmland and natural land was also reduced. By the end of the 50-year simulation of the Low Density scenario with low population growth, total settlement footprint had expanded by 917 km², resulting in a loss of 332 km² of natural land and 584 km² of farmland. The relative effect of the Increased Density scenario was the same under

low population growth as it was under high population growth (~50% reduction in settlement expansion), although the absolute effect was smaller due to the overall reduction in settlement expansion with lower population growth. The same pattern was evident for urban greenfield costs. Costs were reduced by 1/3rd under low population growth compared to high population growth, but the relative effect of the Increased Density scenario was the same (~50% reduction in cost relative to Low Density).

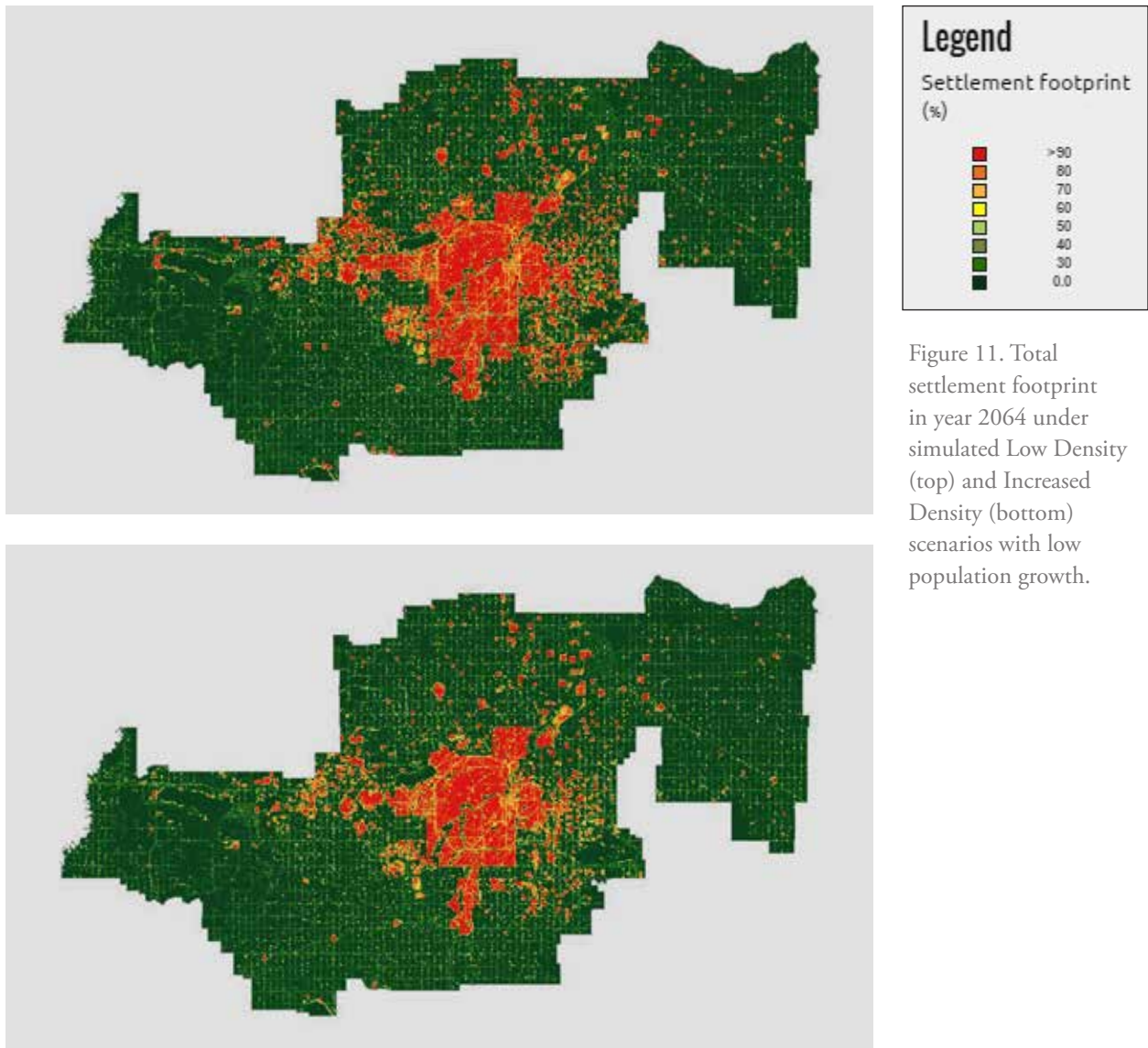


Figure 11. Total settlement footprint in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with low population growth.

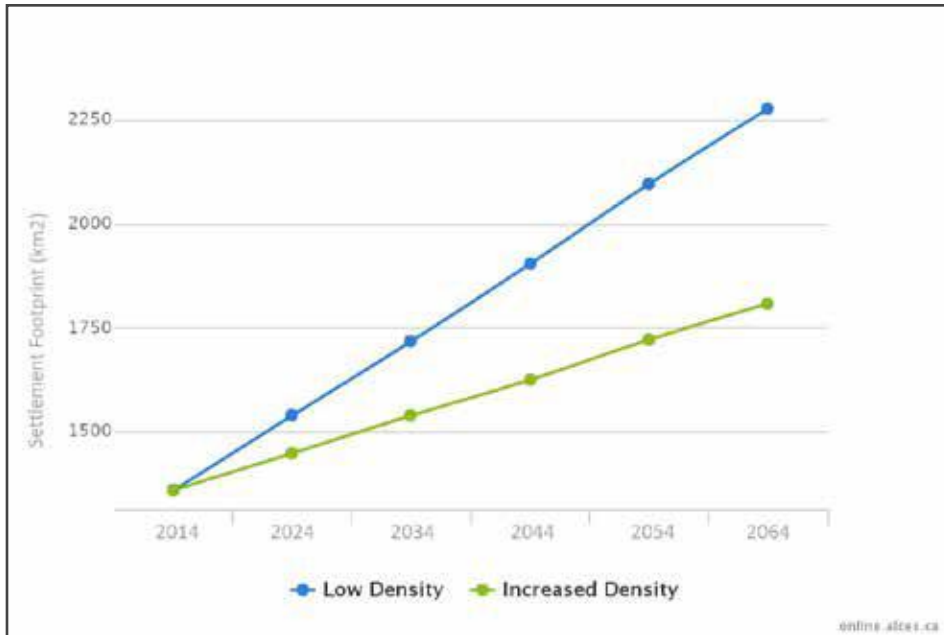


Figure 12. Simulated total settlement footprint growth during Low Density and Increased Density scenarios with low population growth.

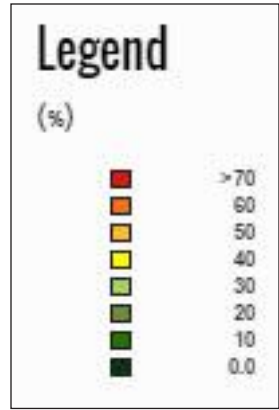
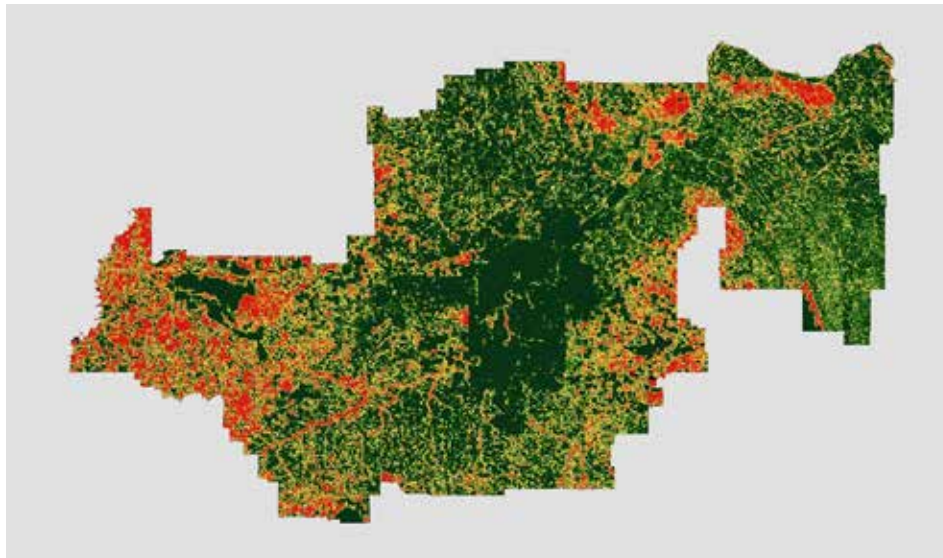
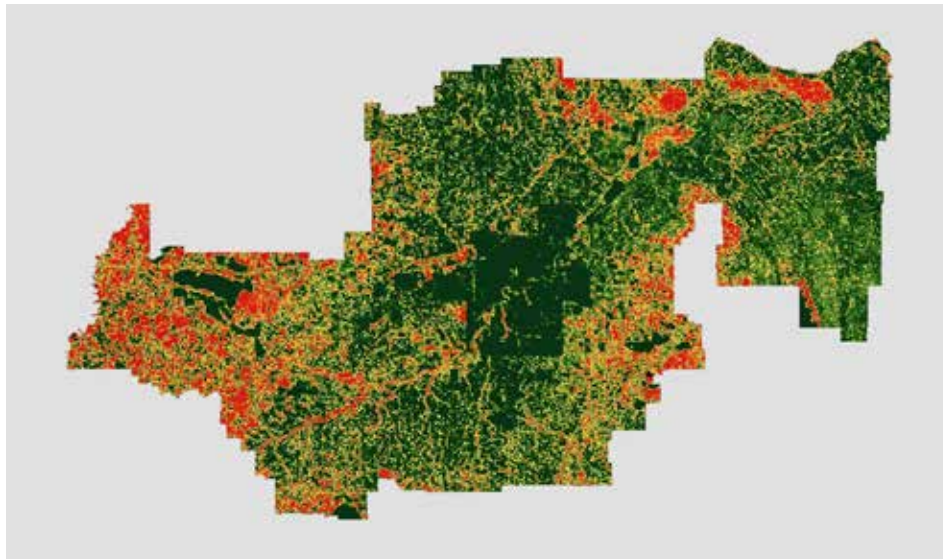


Figure 13. Natural land in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with low population growth.



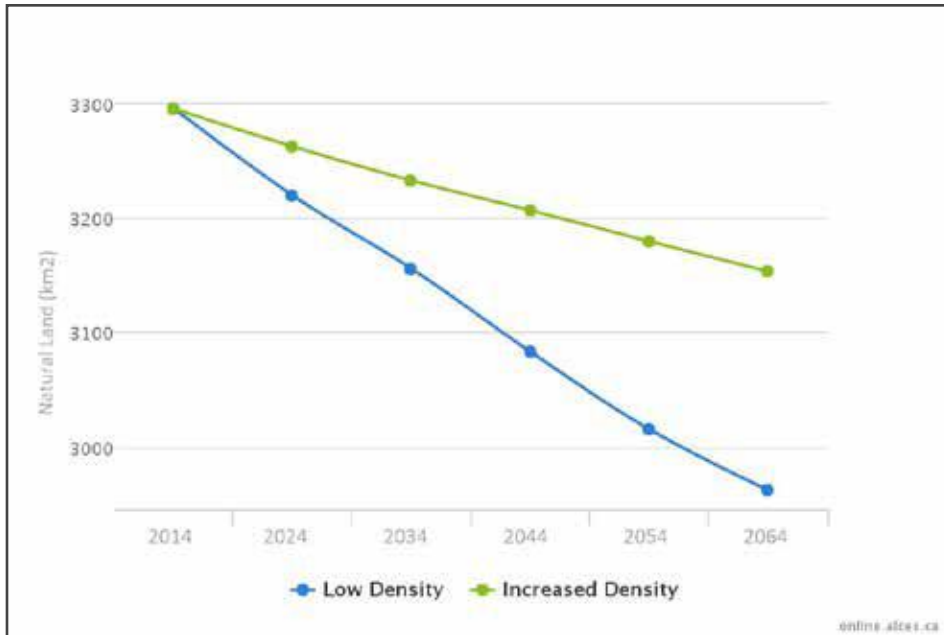


Figure 14. Simulated decline in natural land during Low Density and Increased Density scenarios with low population growth.

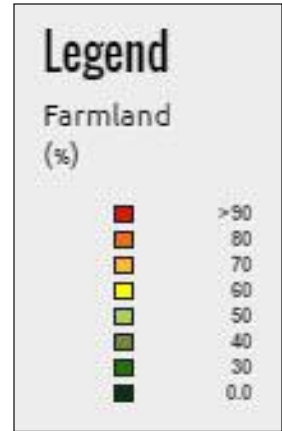
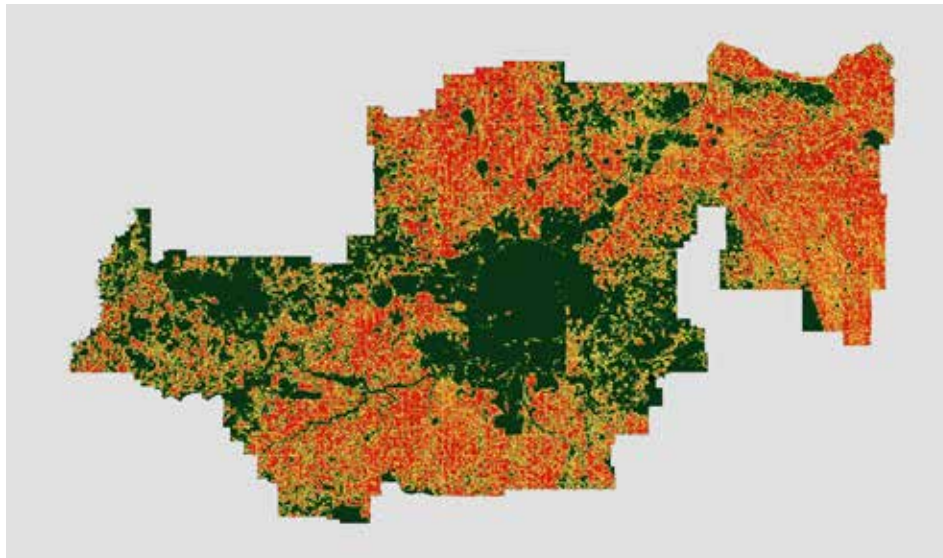
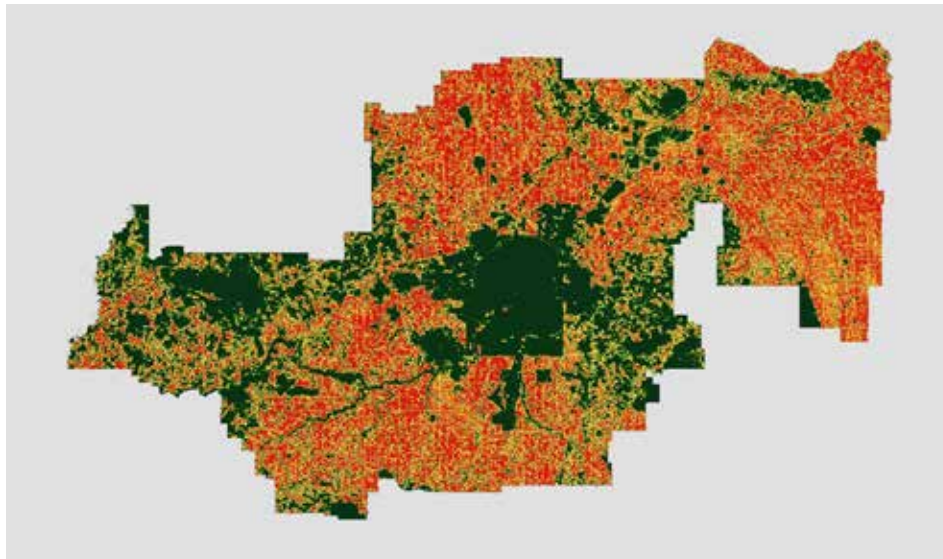


Figure 15. Farmland in year 2064 under simulated Low Density (top) and Increased Density (bottom) scenarios with low population growth.



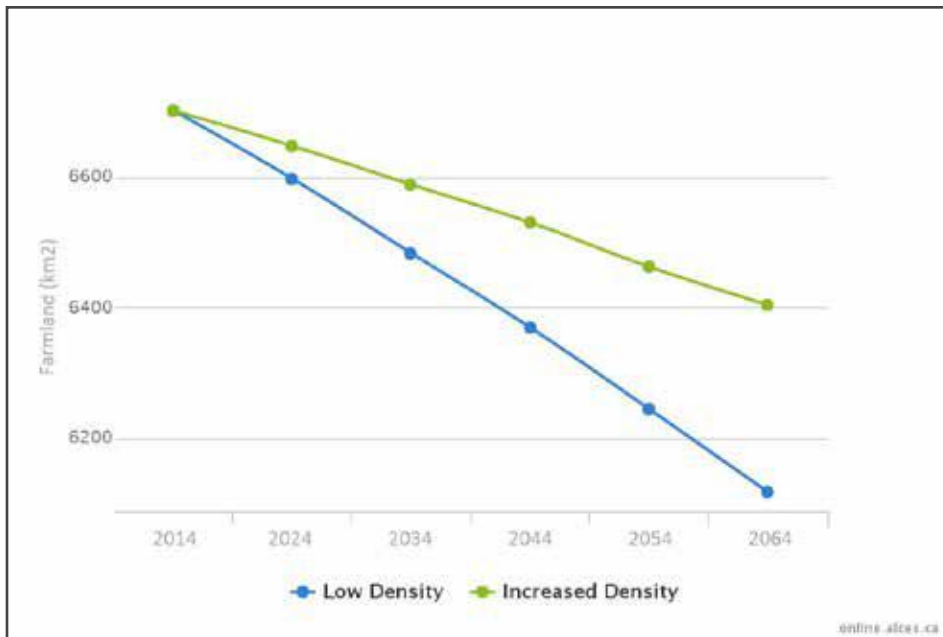
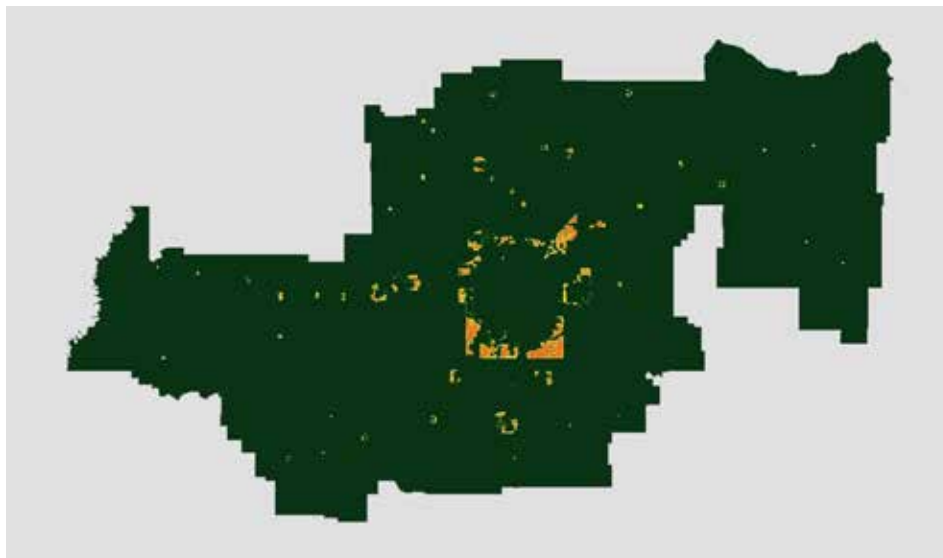


Figure 16. Simulated decline in farmland during Low Density and Increased Density scenarios with low population growth.



Figure 17. Cumulative gross urban greenfield cost under simulated Low Density (top) and Increased Density (bottom) scenarios with low population growth.



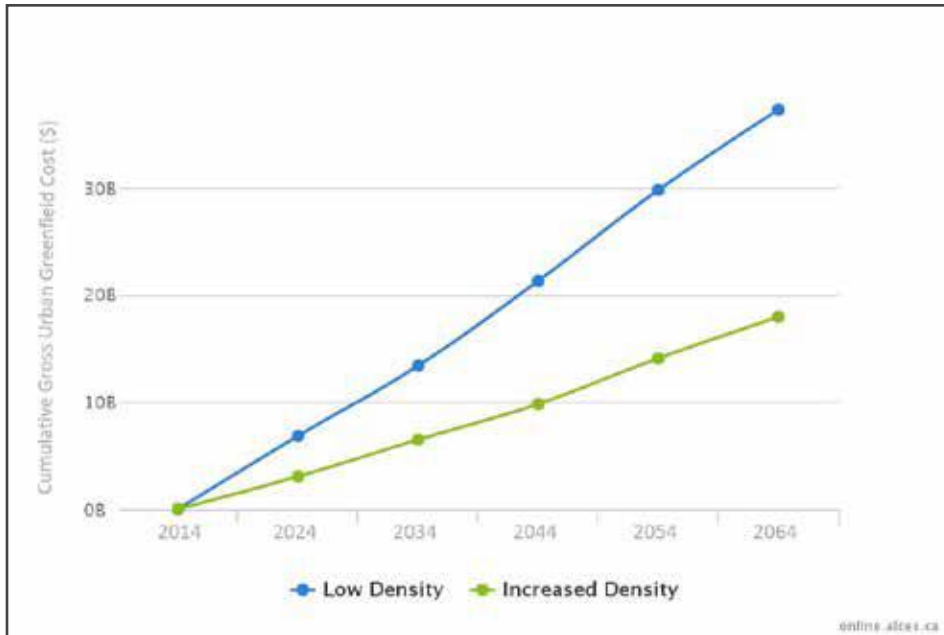


Figure 18. Simulated cumulative gross urban greenfield costs during Low Density and Increased Density scenarios low population growth.

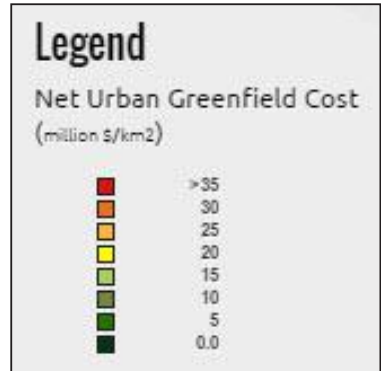
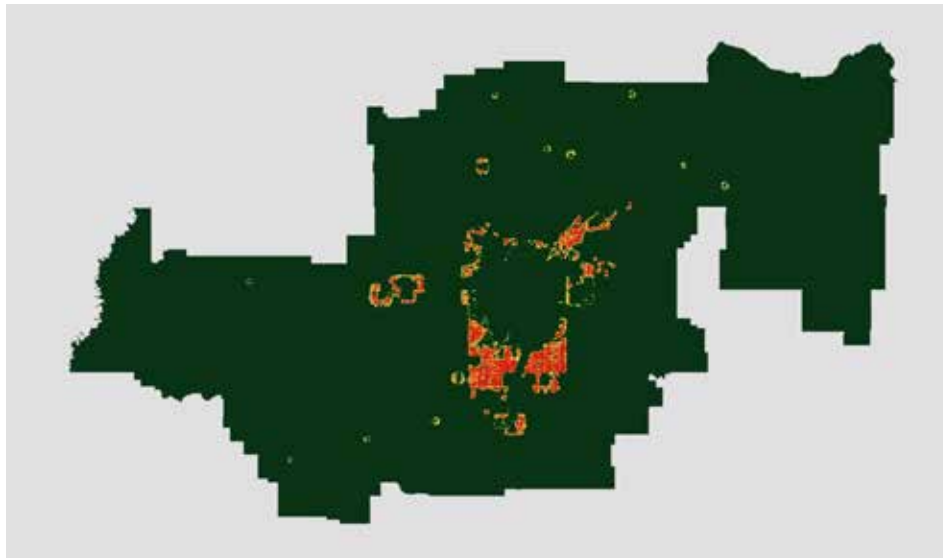
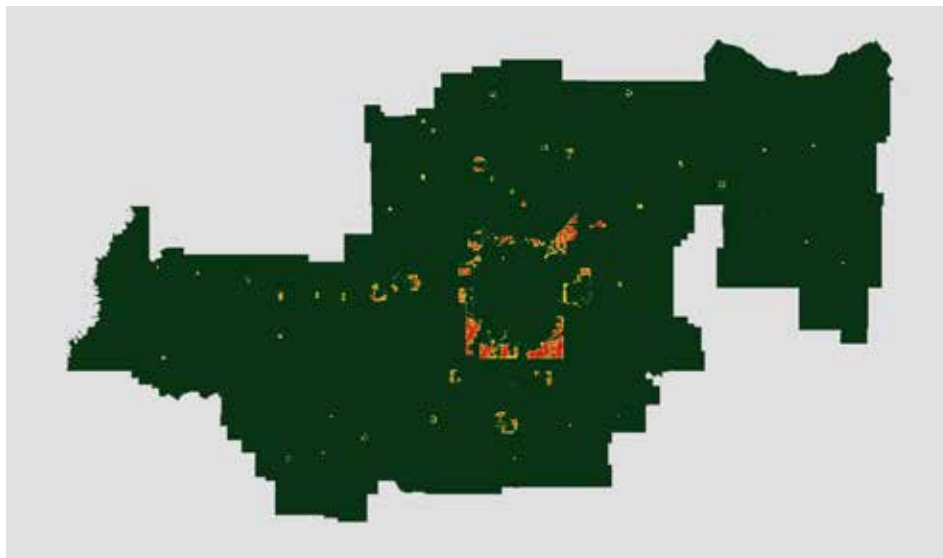


Figure 19. Cumulative net urban greenfield cost under simulated Low Density (top) and Increased Density (bottom) scenarios with low population growth.



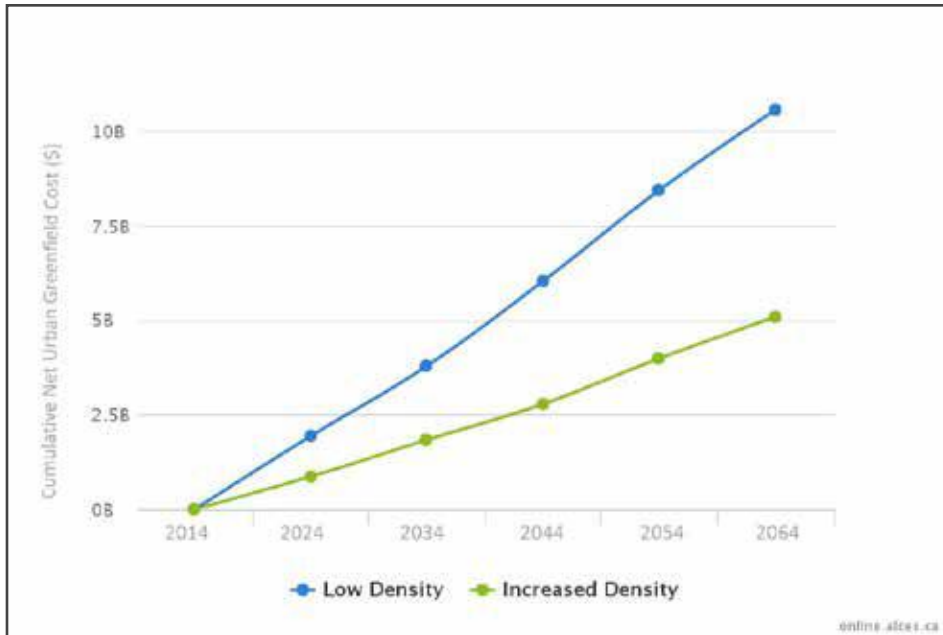


Figure 20. Simulated cumulative net urban greenfield costs during Low Density and Increased Density scenarios with low population growth.

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Appendix – Population Projections

As described in the report, low and high population growth trajectories by municipality over the next 50 years were as per the Consolidated CRB-Accepted Population and Employment Projections, 2014-2044 downloaded from the Capital Region Board website. Population growth between 2014 and 2044 and after 2044 was assumed linear.

Low Growth Population Projection

Member Municipality	2014	2024	2034	2044	2054	2064
Beaumont	15800	22800	29800	36800	43800	50800
Bon Accord	1600	1967	2333	2700	3067	3433
Bruderheim	1300	1667	2033	2400	2767	3133
Calmar	2100	2567	3033	3500	3967	4433
Devon	6700	8200	9700	11200	12700	14200
Edmonton	877900	1039167	1200433	1361700	1522967	1684233
Fort Saskatchewan	22800	29733	36667	43600	50533	57467
Gibbons	3200	3933	4667	5400	6133	6867
Lamont	1900	2300	2700	3100	3500	3900
Lamont County	4200	5200	6200	7200	8200	9200
Leduc	28600	35600	42600	49600	56600	63600
Leduc County	14100	15833	17567	19300	21033	22767
Legal	1400	1667	1933	2200	2467	2733
Morinville	9400	11333	13267	15200	17133	19067
Parkland County	31800	35433	39067	42700	46333	49967
Redwater	2200	2500	2800	3100	3400	3700
Spruce Grove	29500	36867	44233	51600	58967	66333
St. Albert	63300	72233	81167	90100	99033	107967
Stony Plain	16700	21867	27033	32200	37367	42533
Sherwood Park	69696	79584	89472	99360	109248	119136
Strathcona County	27104	30949	34795	38640	42485	46331
Sturgeon County	20600	24067	27533	31000	34467	37933
Thorsby	1000	1233	1467	1700	1933	2167
Wabamun	700	833	967	1100	1233	1367
Warburg	900	1033	1167	1300	1433	1567

¹⁷ The population projection for Sherwood Park was created by assuming that 72% of Strathcona County's population resides in Sherwood Park based on Strathcona County's 2015 census (<http://www.strathcona.ca/departments/legislative-legal-services/census/>).

High Growth Population Projection

Member Municipality	2014	2024	2034	2044	2054	2064
Beaumont	15800	30467	45133	59800	74467	89133
Bon Accord	1600	2167	2733	3300	3867	4433
Bruderheim	1300	1867	2433	3000	3567	4133
Calmar	2100	2800	3500	4200	4900	5600
Devon	6700	8867	11033	13200	15367	17533
Edmonton	877900	1075533	1273167	1470800	1668433	1866067
Fort Saskatchewan	22800	36367	49933	63500	77067	90633
Gibbons	3200	4267	5333	6400	7467	8533
Lamont	1900	2533	3167	3800	4433	5067
Lamont County	4200	5633	7067	8500	9933	11367
Leduc	28600	41733	54867	68000	81133	94267
Leduc County	14100	17133	20167	23200	26233	29267
Legal	1400	1833	2267	2700	3133	3567
Morinville	9400	12233	15067	17900	20733	23567
Parkland County	31800	37867	43933	50000	56067	62133
Redwater	2200	3067	3933	4800	5667	6533
Spruce Grove	29500	42867	56233	69600	82967	96333
St. Albert	63300	81533	99767	118000	136233	154467
Stony Plain	16700	24467	32233	40000	47767	55533
Sherwood Park	69696	84864	100032	115200	130368	145536
Strathcona County	27104	33003	38901	44800	50699	56597
Sturgeon County	20600	26800	33000	39200	45400	51600
Thorsby	1000	1400	1800	2200	2600	3000
Wabamun	700	933	1167	1400	1633	1867
Warburg	900	1133	1367	1600	1833	2067

Appendix 3 – The Panel and Its Process

BACKGROUND

With an eye to the region's collective future, a group of nine Edmonton-area Mayors formed a positive alliance and spearheaded an initiative to look at new ways of planning, deciding and acting as one Metro Region.

The Metro Mayors Alliance is made up of Mayor Don Iveson (City of Edmonton), Mayor Gale Katchur (City of Fort Saskatchewan), Mayor Greg Krischke (City of Leduc), Mayor John Whaley (Leduc County), Mayor Rodney Shaigec (Parkland County), Mayor Stuart Houston (City of Spruce Grove), Mayor Nolan Crouse (City of St. Albert), Mayor Roxanne Carr (Strathcona County) and Mayor Tom Flynn (Sturgeon County). The municipalities they represent account for 95 percent of the region's population (over one million people), 96 percent of its assessment base and about 80 percent of its land base.

In September 2015, the Alliance appointed an independent Panel to provide frank advice on maximizing the Metro Region's potential. Composed of 12 members with various backgrounds (business/industry, finance, academia, arts and culture, social and not-for-profit agencies, public policy and agriculture), the Advisory Panel on Metro Edmonton's Future was asked to examine and make recommendations on three key questions:

- Is a globally competitive Edmonton Metro Region achievable? What does success look like?
- What is required to get there? What are the key success factors?
- What needs to be different to achieve these results?

During the course of its work, the Panel was supported by three resources: a Working Group to offer guidance and expertise on municipal governance issues; a Research Group to provide research assistance, including summarizing the wealth of academic articles and policy papers relevant to the Panel's work; and a Secretariat to provide administrative coordination and facilitation support.

THE PROCESS

To ensure it heard from a representative selection of regional voices, the Panel reached out to a wide range of stakeholders, including community advocates, business leaders and local First Nations. It consulted with experts, regional leaders, academics, representatives from municipal and provincial governments and other knowledgeable voices.

The Panel also benefitted from the ideas raised during a series of roundtable discussions on economic development, infrastructure, land use and community and social issues. Each roundtable discussed:

- What's working now?
- What's not working now?
- What needs to change in order to plan, decide and act as an Edmonton Metro Region in order to become globally competitive – socially, environmentally and economically – for the future?
- What mechanisms would you recommend to achieve this?

These focussed questions led to a number of invaluable insights and suggestions.

In developing its recommendations and writing its report, the Panel met its mandated requirements to:

- Identify barriers to maximizing regional assets and recommend potential solutions to overcome those barriers.
- Clearly enumerate and define shared benefits for the Metro Region.
- Make recommendations on what change is required to achieve a competitive Edmonton Metro Region within the context of triple bottom line (economic, social and environmental) outcomes.

Be Ready, Or Be Left Behind is the culmination of the Panel's distillation and consideration of all these inputs.

EXPERTS, REGIONAL LEADERS AND KNOWLEDGEABLE VOICES

Municipal Issues Experts

- Enid Slack, Director, Institute on Municipal Finance and Governance and Adjunct Professor, Munk School of Global Affairs, University of Toronto
- Wendell Cox, Chair, Housing Affordability and Municipal Policy, Frontier Centre for Public Policy
- Robert O'Neill, Executive Director, International City/County Management Association

Regional Leaders and Knowledgeable Voices

- Jerry Bouma, Principal, Toma and Bouma Management Consultants
- Mike Chow, Director, Aboriginal Relations, City of Edmonton
- Rick Sloan, Senior Policy Advisor, Office of the General Manager, Sustainable Development, City of Edmonton
- Ian Morrison, Senior Principal, Stantec
- Brad Pickering, Deputy Minister, Alberta Municipal Affairs
- Joseph Doucet, Dean, Alberta School of Business, University of Alberta
- Deb Teed, Executive Director, Family and Community Support Services
- Carl Amrhein, Deputy Minister, Alberta Health
- Doug Bertsch, Vice President, Regulatory and Stakeholder Relations, Northwest Upgrading
- Jeremy Heigh, Principal, Sift Ever Thing
- Brad Ferguson, President and CEO, Edmonton Economic Development Corporation
- Malcolm Bruce, CEO, Capital Region Board
- William Barclay, Counsel, Reynolds Mirth Richards & Farmer LLP

Roundtable Participants

- Todd Banks, Executive Director, Public Relations, Sherwood Park Chamber of Commerce
- Warren Singh, Vice President, Policy and Outreach, Edmonton Chamber of Commerce
- Barbara McKenzie, Executive Director, Leduc Nisku Economic Development Association
- Neil Shelly, Executive Director, Alberta's Industrial Heartland
- Glen Vanstone, Vice President, Startup Edmonton
- Maggie Davison, Vice President, Tourism, Edmonton Economic Development Corporation
- Line Porfon, Vice President, Government Relations, Merit Contactors
- Richard Horncastle, Director, Leduc Chamber of Commerce
- Chris Lumb, CEO, TEC Edmonton
- Laurie Scott, Chair, Urban Development Institute (Edmonton Region)
- Gary Redmond, Executive Director, Strathcona Industrial Association
- Jillene Lakevold, Director, Corporate Strategy and Relations, Canadian Manufacturers & Exporters Alberta
- Anne Smith, President and CEO, United Way Capital Region
- Bruce Armson, CEO, Unlimited Potential
- Martin Garber-Conrad, CEO, Edmonton Community Foundation
- Ian Mathieson, Director, Operations, Boyle Street Mission
- Erick Ambtma, CEO, Edmonton Mennonite Centre
- Merle White, Executive Director, Native Friendship Centre
- Russ Dahms, Executive Director, Edmonton Chamber of Voluntary Organizations
- Lindsay Daniller, Director, Community Initiatives and Development, REACH Edmonton
- Ione Challborn, Executive Director, Canadian Mental Health Association

Panel Members

Don Lowry (Chair)

After 16 years as President & CEO of EPCOR Utilities, Don Lowry stepped down in 2013 to focus on corporate board and advisory work and to devote more time to local community boards and associations. During Don's time with EPCOR, he led the growth of the Edmonton-based utility into a North American power and water company. In 2009, Don initiated the spin-off of EPCOR's power generation business into one of Canada's largest investor-owned generation companies, Capital Power Corporation.

Carman McNary (Vice-Chair)

Carman McNary is the Managing Partner of the Edmonton office of Dentons Canada LLP, and has practiced law in Edmonton since 1982. His practice focuses on strategic level planning for tax, tax litigation and corporate transactions and structures, working with boards and executive teams to develop structures and transactional solutions to complex cross-border investment growth. Carman has served in the community in many previous roles, notably as Chair of the Edmonton Chamber of Commerce, Governor of the Canadian Tax Institute and Member of the Capital Region Economic Roadmap Task Force. Carman also served as an officer in the Canadian Armed Forces, Naval Reserve, from 1975-2008, retiring at the rank of Captain (Navy).

Dr. Stanford Blade

Dr. Stanford Blade was born in Alberta and raised on a dairy and grain farm. He received his Bachelor of Science from the University of Alberta, Masters of Science from the University of Saskatchewan and Doctorate from McGill University. Stanford is currently the Dean of the Faculty of Agricultural, Life and Environmental Sciences at the University of Alberta. The Faculty is focused on teaching, research and community service in its departments and schools. Stanford was also the founding CEO of the Alberta Innovates Bio Solutions Corporation, a provincial government agency that leads and coordinates science and innovation to grow prosperity in Alberta's agriculture, food and forestry sectors.

Phyllis Clark

After completing her Doctoral Candidacy in Economics at the University of Michigan, Phyllis Clark served as Assistant Deputy Minister of Ontario's Management Board Secretariat and, between 1991 and 1992, was the province's Chief Economist and Assistant Deputy Minister of Finance. She then transferred her skills to higher education and joined York University as Vice President of Finance and Administration. In 2002, Phyllis returned to Alberta for her current role as Vice President, Finance and Administration, and Chief Financial Officer at the University of Alberta.

Salima Ebrahim

Salima Ebrahim is the Executive Director of the Banff Forum, a national public policy organization whose mission is to reinvigorate public debate in Canada and to find ways to strengthen our country through engaging young leaders from diverse backgrounds and industry sectors. Prior to working with the Banff Forum, Salima was a management consultant with the world's largest professional services firm (Deloitte), where she led teams focusing on developing strategies for governments in the Middle East and North America. She also worked with the City of Calgary and the Government of Canada and was a fellow with the United Nations Office of the High Commissioner for Human Rights.

Linda Hughes

Linda Hughes has been a leading figure in Canadian media for over 20 years and continues to be one of Canada's most influential communicators and advocates for education. She served as the 19th Chancellor of the University of Alberta and Chair of the Senate. Prior to that, she had an extensive career in journalism. In 1992, she was named Publisher and President of the Edmonton Journal – the first woman in Canada to hold the position of publisher of a major newspaper. Deeply committed to her community, Linda is a founding member of the NorQuest College Foundation and former Chair of the Board of the United Way of the Alberta Capital Region.

Reg Milley

Reg Milley recently retired from Edmonton Airports where he was President and CEO since 2005.

Throughout his time with Edmonton Airports, Reg had a positive impact, not just on the airport, but in the community and region as well. Thanks to his vision and leadership, the Edmonton area has a world-class airport with 15 more non-stop destinations, 50 percent more terminal space and double the number of shops and services. Prior to joining Edmonton Airports, Reg was President of Halifax International Airport, a position he had held since 2001. Before that, he was a Vice President and Lead Officer with Husky Energy Inc. headquartered in Calgary.

Liz O'Neill

For over 30 years, Liz O'Neill has devoted her life to serving children and youth. She began her career at the Department of Secretary of State in youth policy and programming and then became the Field Director of Youth Services for the Ontario Youth Secretariat. Liz is currently the executive director of Boys and Girls Clubs Big Brothers Big Sisters Society of Edmonton & Area. She started in 1979, serving 50 children; today, this organization, after several mergers, has more than 3,000 volunteers and serves more than 5,000 children. As a driving force in Edmonton's charitable sector, Liz has demonstrated savvy business acumen, sound values and inspirational leadership.

Tim Reid

Tim Reid is currently President and CEO of Northlands. Leading one of Edmonton's oldest institutions through a period of evolution is no easy task, but he injects an entrepreneurial spirit back into an organization that was created by visionaries nearly 137 years ago. Joining the team in September 2014, he came to Northlands with unparalleled experience in revolutionizing entertainment and recreation facilities across Canada. Throughout his time at Northlands, Tim has been instrumental in pushing the organization into a new era where positive staff culture, long-term planning and people are paramount to its success.

Andrew Ross

Andrew Ross currently serves as Executive Vice President, Northern Operations, for Clark Builders, where he leads a team of more than 600. During his time with the company, Andrew has fuelled impressive growth, and is accountable for more than \$500M in revenue. His commitment to people, quality, innovation, and enduring relationships ensures operational excellence and sustainability for the future. Andrew is a proud Albertan driven to achieve long term success for the community. He commits his time, energy and skills to several non-profit boards and committees.

Dr. Brad Stelfox

Dr. Brad Stelfox established the ALCES Group in 1995. The ALCES Group is a collection of landscape planners and resource analysts whose mission is to be a world leader in the delivery of land-use cumulative effects simulation modeling tools, strategic land-use planning advice and the provision of practical strategies to assist governments, businesses and society make balanced, informed decisions. During the past decade, the ALCES Group has completed approximately 40 large land use cumulative effects projects in Canada, Paraguay, United States, India and Australia. Brad is also an adjunct professor at the Department of Biological Sciences, University of Alberta and Department of Environmental Design, University of Calgary.

Paul Whittaker

Paul Whittaker was appointed President and CEO of the Alberta Forest Products Association in 2014 and assumed the additional duties of Chair of the Alberta Softwood Lumber Trade Council in 2015. Previously, Paul was with the Government of Alberta for 31 years serving in a range of senior posts, including in Alberta Health, Alberta Federal and Intergovernmental Affairs, Deputy Minister of Alberta Municipal Affairs, President of the Alberta Social Housing Corporation, as well as working on Aboriginal and constitutional issues.

Working Group Members

- John McGowan, President and CEO, McGowan & Associates
- Dr. Robert Murray, Vice President, Research, Frontier Centre for Public Policy, Adjunct Professor, University of Alberta
- Simon O'Byrne, Vice President, Sector Leader – Community Development Canada, Stantec
- James Simpson, President, James V. Simpson & Associates Inc.

