

**Calgary Metropolitan Region Board
Joint Land Use & Intermunicipal Servicing Committee Meeting
Agenda**

January 16, 2020, 9:30 AM
Mount Royal University, Roderick Mah Centre for Continuous Learning
Room EC2010

The purpose of this meeting is to convene, discuss and make decisions regarding recommendations to be made to the Calgary Metropolitan Region Board.

		Page
1. Call to Order & Opening Remarks	Sheard	
2. Adoption of Agenda <i>For Decision: Motion to adopt and/or revise the agenda</i>	All	
3. Review and Approve Minutes (Attachment) <i>For Decision: Motion that the LUC/ISC review and approve the Minutes of the December 5, 2019 joint meeting</i>	LUC/ISC	3
4. Regional Employment Analysis (Attachment) <i>For Decision: Motion that the LUC/ISC recommend to the Board for approval the Regional Employment Analysis Report</i>	Applications Management	8
5. Growth & Servicing Plan Update (Verbal) <i>For Information: HDR Calthorpe will provide a verbal update</i>	HDR Calthorpe	
6. Public Engagement Plan Update (Attachment) <i>For Decision: Motion that the LUC/ISC recommend to the Board for approval the HDR Calthorpe Public Engagement Plan</i>	HDR Calthorpe	50
7. Communications & Engagement TAG (Attachment) <i>For Decision: Motion that the LUC/ISC approve the Terms of Reference for the Communications & Engagement Technical Advisory Group</i>	HDR Calthorpe	56
8. External TAG Membership (Attachment) <i>For Decision: Motion that the LUC/ISC recommend to the Board for approval the proposed membership for the External Technical Advisory Group</i>	HDR Calthorpe	61

9. TAG Update (Attachment) Tipman/Graves 62
For Information: Motion that LUC/ISC receive for information an update on the work of the CMRB Technical Advisory groups

Closed Session (Pursuant to Section 21 of FOIP) (Separate Package)

10. CMRB Messaging Platform (Attachment) Strut Creative 1
11. CMRB Vision Statement (Attachment) Strut Creative 26
12. Next Meeting: Thursday February 6, 2020
13. Adjournment Sheard

Land Use Committee Members:

Mayor Peter Brown (Airdrie)
 Councillor Gian-Carlo Carra (Calgary)
 Mayor Marshall Chalmers (Chestermere)
 Mayor Jeff Genung (Cochrane)
 Reeve Suzanne Oel (Foothills)

Mayor Craig Snodgrass (High River)
 Mayor Bill Robertson (Okotoks) *Vice Chair*
 Reeve Greg Boehlke (Rocky View)
 Councillor Tom Ikert (Wheatland)
 Councillor Bob Sobol (Strathmore)

Servicing Committee Members:

Mayor Peter Brown (Airdrie)
 Councillor Gian-Carlo Carra (Calgary)
 Mayor Marshall Chalmers (Chestermere)
 Councillor Tara McFadden (Cochrane)
 Reeve Suzanne Oel (Foothills) Vice Chair

Councillor Don Moore (High River)
 Mayor Bill Robertson (Okotoks)
 Reeve Greg Boehlke (Rocky View)
 Mayor Pat Fule (Strathmore)
 Deputy Reeve Scott Klassen (Wheatland)

Christopher Sheard, Committee Chair
 Dale Beesley, GOA Representative

Upcoming Meetings:

Land Use Committee	Thursday Feb 6 - 9:30 AM	Mount Royal University Centre for Continuous Learning, Room EC2010
Servicing Committee	Thursday Feb 6 – 1:00 PM	
Board Meetings	Friday Jan 24 – 9:30 AM	MRU Room EC2010
Governance Committee	Thursday Jan 30 – 9:30 AM	CMRB Offices
Advocacy Committee	TBD	

Minutes of the meeting of the
Joint Land Use & Intermunicipal Servicing Committees
of the Calgary Metropolitan Region Board held at
Mount Royal University on Thursday December 5, 2019

Delegates in Attendance for Land Use Committee:

Mayor Peter Brown – City of Airdrie
Councillor Gian-Carlo Carra – City of Calgary
Mayor Marshall Chalmers – City of Chestermere
Mayor Jeff Genung – Town of Cochrane
Reeve Suzanne Oel – Foothills County
Mayor Bill Robertson – Town of Okotoks (Vice Chair)
Reeve Greg Boehlke – Rocky View County
Councillor Bob Sobol – Strathmore
Councillor Tom Ikert – Wheatland County

Delegates in Attendance for Intermunicipal Servicing Committee:

Mayor Peter Brown – City of Airdrie
Councillor Gian-Carlo Carra – City of Calgary
Mayor Marshall Chalmers – City of Chestermere
Reeve Suzanne Oel – Foothills County (Vice Chair)
Mayor Jeff Genung – Town of Cochrane
Mayor Bill Robertson – Town of Okotoks
Reeve Greg Boehlke – Rocky View County
Mayor Pat Fule - Strathmore
Deputy Reeve Scott Klassen – Wheatland County

CMRB Administration:

Christopher Sheard, Chair
Jordon Copping, Chief Officer
Liisa Tipman, Project Manager–Land Use
Jaime Graves, Project Manager-Intermunicipal Servicing
JP Leclair, GIS Analyst
Shelley Armeneau, Office Manager

1. Call to Order

Called to order at 9:00 AM.

2. Approval of Agenda

Moved by Mayor Brown, **Seconded by** Reeve Boehlke, accepted by Chair

Motion: That the Committees approve the agenda adding item #11a CSMI Discussion.

Motion carried unanimously.

3. Review and Approve LUC Minutes

Moved by Councillor Carra, **Seconded by** Mayor Genung, accepted by Chair.

Motion: That the Land Use Committee approve the Minutes of the November 7, 2019 meeting.

Motion carried unanimously.

4. Review and Approve ISC Minutes

Moved by Councillor Moore, **Seconded by** Reeve Oel, accepted by Chair.

Motion: That the Intermunicipal Servicing Committee approve the Minutes of the November 7, 2019 meeting.

Motion carried unanimously.

Mayor Robertson arrived at 9:36 AM.

5. ESA Background Study

Liisa Tipman reviewed the report and introduced Leif Olson of O2 Planning + Design who provided a presentation and answered questions. The City of Calgary put forward a friendly amendment to the ESA Background Study as noted below, adding the words “inundation” and removing “Government of Alberta 2015”:

Appendix A, Sub-criteria, High Level Desktop Assessments (ASP scale)

Section 1.3

Methods:

1. Use NRCan/CanVec stream network (Natural Resources Canada 2019) to identify where watercourses occur and floodway/flood fringe/[inundation mapping](#) (~~Government of Alberta 2015~~) where available. Historic and present day ortho imagery, LiDAR DEM and contour maps will provide additional tools to delineate flood plain extents.

Appendix A, Sub-criteria, Detailed Field Assessments (non-statutory/outline plan scale) Section 1.3

Methods:

1. Identify presence of watercourse and classify as per provincial classification system (Alberta Agriculture and Forestry 2016).
2. Refer to provincial flood hazard mapping, [inundation mapping](#), or develop own mapping.

Moved by Councillor Carra, **Seconded by** Mayor Robertson, accepted by Chair.

Motion: That the Land Use Committee recommend to the Board the approval of the ESA Background Study as input for the Growth Plan Consultant, with changes put forward by the City of Calgary.

Motion carried unanimously.

6. Stormwater Background Report

Jaime Graves reviewed the report brief and answered questions.

Moved by Mayor Robertson, **Seconded by** Mayor Brown, accepted by Chair.

Motion: That the Intermunicipal Servicing Committee recommend to the Board approval of the Stormwater Background Report as input for the Growth Plan Consultant.

Motion carried unanimously.

7. S&E Calgary Regional Transportation Study Update

Jaime Graves and Aziz Merali reviewed the update and answered questions. Clarifications were made on how the study would be used by the Growth Plan Consultant going forward.

Moved by Mayor Brown, **Seconded by** Mayor Genung, accepted by Chair.

Motion: That the Intermunicipal Servicing Committee receive for information an update on the S&E Calgary Regional Transportation Study.

Motion carried unanimously.

8. Growth Plan Progress Update & Policy Development

Steve Power presented on behalf of HDR Calthorpe and answered questions.

Moved by Mayor Robertson, **Seconded by** Mayor Brown, accepted by Chair.

Motion: That the Committees receive for information an update on the HDR Calthorpe planning process.

Motion carried unanimously.

9. Growth Plan Public Engagement Strategy

Steve Power and Ann Harding reviewed the public engagement strategy and received feedback from the Committees as follows:

- Five open houses across the Region may not be enough
- Incorporate opportunities for in-person engagement that don't require people to come to us. Go to where people already are, for example: iPad at hockey rink.
- Highlight benefits of working together as a Region saves taxpayer dollars.
- Engaging in an activity at Open Houses is more effective than simply displaying information.
- Prioritize educating the public about CMRB before public engagement starts. Example: create Facebook page.
- Utilize individual member municipality communications experts and/or staff as a resource for ideas and planning.

Moved by Councillor Carra, **Seconded by** Mayor Brown, accepted by Chair.

Motion: That the Committees receive for information and provide input on the Growth Plan Engagement Strategy.

Motion carried unanimously.

Councillor Carra left the meeting @ 12:00 PM.

10. External TAG Membership

The Committee provided feedback on this item and suggested the following possible additions to the list of external TAG membership:

- CRAZ
- Calgary Airport Authority
- National Parks - Banff/Canmore
- Alberta Energy Regulator
- Economic development experts

The Chair requested that members forward additional suggestions to CMRB Administration by email.

Moved by Mayor Genung, **Seconded by** Mayor Robertson, accepted by Chair.

Motion: That the Committees receive for information and provide input on the proposed External TAG Membership.

Motion carried unanimously

11. TAG Update

Moved by Mayor Robertson, **Seconded by** Councillor Sobol, accepted by Chair.

Motion: That the Committees receive for information an update on the work of the CMRB TAG groups

Motion carried unanimously

11a) CSMI Discussion

Chestermere advised the Committees that their Council has withdrawn from the Cooperative Stormwater Management Initiative (CSMI) to explore alternative options for stormwater management.

12. Next Meeting: Thursday January 16, 2020 @ MRU

13. Adjournment

Meeting adjourned at 12:17 PM.

CMRB Chair, Christopher Sheard

Agenda Item	4
Submitted to	Land Use Committee & Intermunicipal Servicing Committee
Purpose	For Decision
Subject	Regional Employment Analysis
Meeting Date	January 16, 2020
<i>Motion that LUC/ISC recommend to the Board for approval the Regional Employment Analysis</i>	
<p>Summary</p> <ul style="list-style-type: none"> • At the November 7, 2019 meeting, the LUC recommended status quo regional employment projections to the Board for approval. These were approved by the Board at its November meeting. • The LUC requested that CMRB Administration work with the Land Use TAG to finalize the conclusions of the report related to regionally significant employment areas. • In consideration of input from the LUC, the outcomes of the analysis were discussed in collaboration with TAG and a final draft report was refined in consideration of the input received from the TAG. • Applications Management is presenting the final outcomes of the Regional Employment Analysis for recommendation to the Board. • Further planning for regionally significant employment will be completed as part of the HDR Calthorpe scope of work. 	
Attachment: "Regional Employment Analysis Presentation"- Applications Management Consulting	

1. Study Outcomes

Following the November LUC meeting, CMRB Administration met with Land Use TAG representatives to discuss finalizing the Regional Employment Analysis. A draft report was updated in consideration of the feedback received from TAG. The updated report was then circulated to TAG for further review and comment and was updated in consideration of that additional input. The main outcomes of the study include:

- A "status quo" (business as usual) regional employment forecast

- Characteristics for identifying regionally significant employment areas for the consideration of the HDR Calthorpe team (non-binding recommendations).

As part of the analysis, Applications Management completed some alternative scenario forecasts to identify ways that structural changes in employment might affect employment in the Calgary Metropolitan Region (CMR). These have been included as an appendix to the final report.

1.1. Status quo employment projections

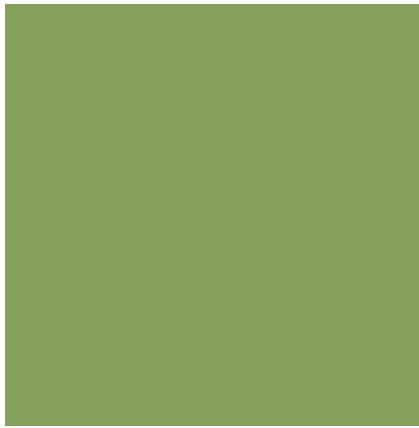
The status quo employment projection is a vital part of the data needed by HDR Calthorpe. The status quo regional employment projection was approved by the Board at its November meeting and is being incorporated into HDR Calthorpe's planning process. This projection was thoroughly reviewed as part of this background study and is consistent with the expectations of municipal administrations.

1.2. Defining Regionally Significant Employment Areas

The report provides a list of characteristics to inform the identification of regionally significant employment areas. Mapping the location of regionally significant employment areas has been removed from the scope of this project. Planning for regionally significant employment will be completed as part of the HDR Calthorpe scope of work. The outcomes of the report will not be binding to the work of HDR Calthorpe but will be available to them for their information.

2. Recommendation

Motion that LUC/ISC recommend to the Board for approval the Regional Employment Analysis



**Calgary Metropolitan
Region Board**

**Final
DRAFT**

**Regional
Employment Forecasts**



Suite 2220 Sun Life Place
10123 99 Street
Edmonton, Alberta T5J 3H1

T 780.425.6741
F 780.426.3737
www.think-applications.com

Final Report

January 8, 2020

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Introduction

The Calgary Metropolitan Region Board (CMRB) was officially established in January 2018 when the Calgary Metropolitan Region Board Regulation (“CMRB Regulation”, Alberta Regulation 190/2017) came into effect, creating the first provincially-mandated growth management board for the Calgary region. The CMRB has been mandated to prepare a regional Growth Plan and Servicing Plan that will guide the future growth of the region.

PURPOSE OF THE ANALYSIS

The purpose of this study is to evaluate the potential for non-residential growth within the Calgary region. This involves the projection of the employment growth in the region by major industry group over a long range timeframe, from 2018 to 2054. Additionally it involves consideration of the types of economic activity and employment growth that may be considered ‘regional’ in nature, as compared to activity that is considered to be local or sub-regional in nature. This distinction is important as the development of a regional plan should incorporate measures to ensure that the economic development potential of the region is not constrained by either planning or servicing impediments.

Further to this analysis a more in depth geographic analysis should be undertaken during the development of the Growth Plan to gain an understanding of the regionally significant employment areas within the region including where they are located, opportunities for growth, barriers to development, and approaches to planning these areas.

STUDY AREA

The CMRB consists of representatives from 10 municipalities mandated to develop a long term plan for managed, sustainable growth in the Calgary Metropolitan Region.

- ▶ City of Airdrie
- ▶ City of Calgary
- ▶ City of Chestermere
- ▶ Town of Cochrane
- ▶ Foothills County
- ▶ Town of High River
- ▶ Town of Okotoks
- ▶ Rocky View County
- ▶ Town of Strathmore
- ▶ Wheatland County (portion included in the CMRB)

ANALYSIS COMPONENTS

The consulting team participated in substantial engagement with member municipalities through several meetings with the CMRB’s Land Use Committee and Technical Advisory Group. In addition, discussions were held with representatives of member municipalities planning and economic development staff to develop a comprehensive list of economic opportunities that should be considered in the analysis.

BACKGROUND ON REGIONAL ECONOMY

The Calgary region economy has experienced significant economic expansion over the past decade, at times leading the nation in growth. This growth has been driven in large part by the energy sector. The swings in energy prices have also resulted in downturns in the regional economy. While other sectors in the economy have also grown, the predominance of the energy sector has been both the strength and achilles heel of regional economy.

Calgary is second to Toronto as the host of the most head offices in Canada. Many of these head offices are in the energy sector. However Calgary has been successful in attracting head offices in the financial, construction, transportation and engineering sectors. The most recent downturn has had a significant affect on the demand for office space in the downtown area. This decline in demand for office space combined with a significant increase in supply has resulted in high vacancy rates. These peaked around 25% are and now beginning to moderate.

Strides have been made in diversifying the regional economy. For example, over the past 30 years, the finance, insurance and real estate and transportation and warehousing sectors have doubled their share of total activity in the regional economy. Manufacturing, construction and professional scientific and technical services sectors have also experienced significant growth in their share of activity in the regional economy.

Current Employment

Employment for 2018 has been estimated for the region using data from various sources¹. This includes the City of Calgary's Regional Transportation analysis that was originally prepared in 2009 and updated in 2015. The 2018 employment data by transportation zone was broken down by 12 aggregated industry categories. As part of our analysis we disaggregated the 12 industry categories into Statistics Canada 2 digit NAICS. This disaggregation process was done using Labour Force Survey and Statistics Canada Census data.

JOBS BY INDUSTRY

Total employment in 2018 is estimated to total over 840,000 jobs. This employment has been broken down by industry in the table below. The North American Industrial Classification System (NAICS) has been used to describe the industry sectors. The two digit NAICS industry sector descriptions are provided in Appendix D.

The largest industry sector is Professional, scientific and technical services, with approximately 100,000 jobs representing almost 12% of total employment. Retail trade is the second largest industry group at 92,000 jobs (10.9% of the total), followed by Construction with approximately 83,000 jobs representing 9.8% of the total.

Calgary Metropolitan Region Employment by Industry (2018)²

NAICS Code	Industry	# of jobs	% of jobs
11	Agriculture, forestry, fishing and hunting	2,398	0.3%
21	Mining and oil and gas extraction	50,506	6.0%
22	Utilities	10,772	1.3%
23	Construction	82,833	9.8%
31-33	Manufacturing	46,436	5.5%
41	Wholesale trade	19,723	2.3%
44-45	Retail trade	92,020	10.9%
48-49	Transportation and warehousing	67,000	7.9%
51	Information and cultural industries	16,770	2.0%
52	Finance and insurance	30,917	3.7%
53	Real estate and rental and leasing	12,966	1.5%
54	Professional, scientific and technical services	99,569	11.8%

¹ See Appendix C for more information on the data sources used to inform the 2018 employment estimate.

² 2 digit NAICS - see Appendix C for a description of each industry category.

NAICS Code	Industry	# of jobs	% of jobs
55	Management of companies and enterprises	2,729	0.3%
56	Administrative and support, waste management and remediation services	36,872	4.4%
61	Educational services	48,655	5.8%
62	Health care and social assistance	77,198	9.2%
71	Arts, entertainment and recreation	20,995	2.5%
72	Accommodation and food services	53,963	6.4%
81	Other services (except public administration)	47,377	5.6%
91	Public administration	23,395	2.8%
Total		843,094	100%

JOBS BY MUNICIPALITY

The majority of jobs in the Region are located in the City of Calgary – 755,000 jobs representing 89% of total employment. Rocky View County has the second largest job total with 20,500 jobs representing 2.4% of the total. Each of the other municipalities have less than 2% of the regions jobs.

Calgary Metropolitan Region Employment by Municipality (2018)

Municipality	# of jobs	% of jobs
Airdrie	15,360	1.8%
Calgary	755,146	89.6%
Chestermere	2,759	0.3%
Cochrane	8,146	1.0%
High River	9,492	1.1%
Foothills County	13,963	1.7%
Okotoks	9,164	1.1%
Rocky View County	20,574	2.4%
Strathmore	6,898	0.8%

Municipality	# of jobs	% of jobs
Wheatland County*	1,594	0.2%
Total	843,096	100%

* Portion of Wheatland County included in the CMRB

Status Quo Scenario

For the purposes of this analysis a Status Quo scenario has been developed. The following section outlines the Status Quo scenario.³

STATUS QUO

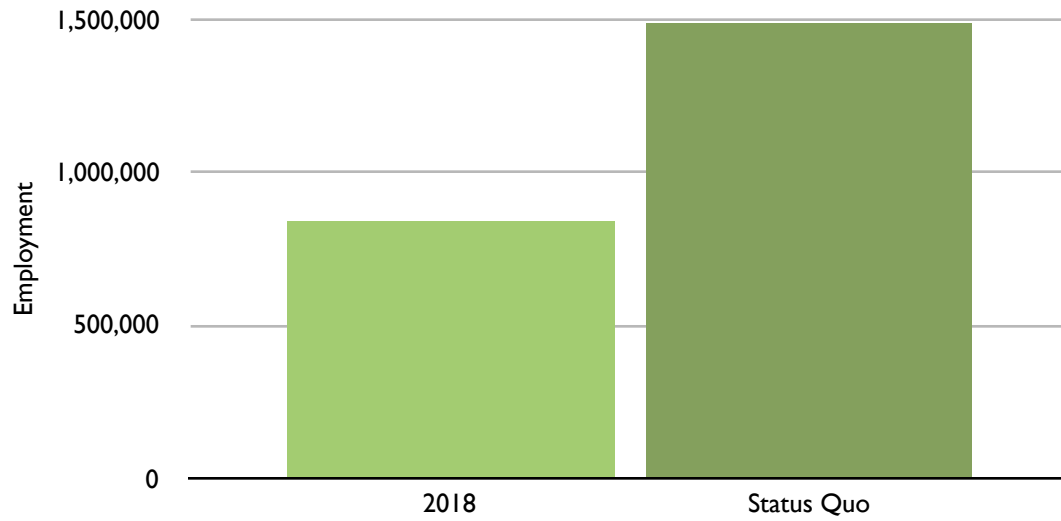
Employment growth in the Status Quo scenario was aligned to CMRB population forecasts prepared by Rennie Intelligence. The age-specific population forecast target for 2054 was interpolated using the 2051 and 2056 data provided by Rennie Intelligence.

The Status Quo scenario analysis results are summarized as follows:

- ▶ **Population:** Total population increases from 1,589,218 in 2018 to 2,647,657 by 2054, an increase of 1,058,438 representing a 1.4% average annual growth rate.
- ▶ **Employment:** Total employment is projected to increase from 846,463 to 1,485,069 across the same period, an increase of 641,974 representing an average annual growth rate of 1.6%.
- ▶ **Labour Force:** The labour force increases consistently through the forecast period at an average annual rate of 1.5%.
- ▶ **Participation Rate:** The aggregate participation rate dips slightly from its 2018 rate of 70.4% to 66.4% by 2036, followed by a gradual increase to 69.6% by 2054.
- ▶ **Unemployment Rate:** The unemployment rate is projected to decline gradually from its 2018 rate of 7.9%, but remains above the 7.0% level through 2036. The unemployment rate is expected to settle at around 5.5% nearing the end of the forecast period.

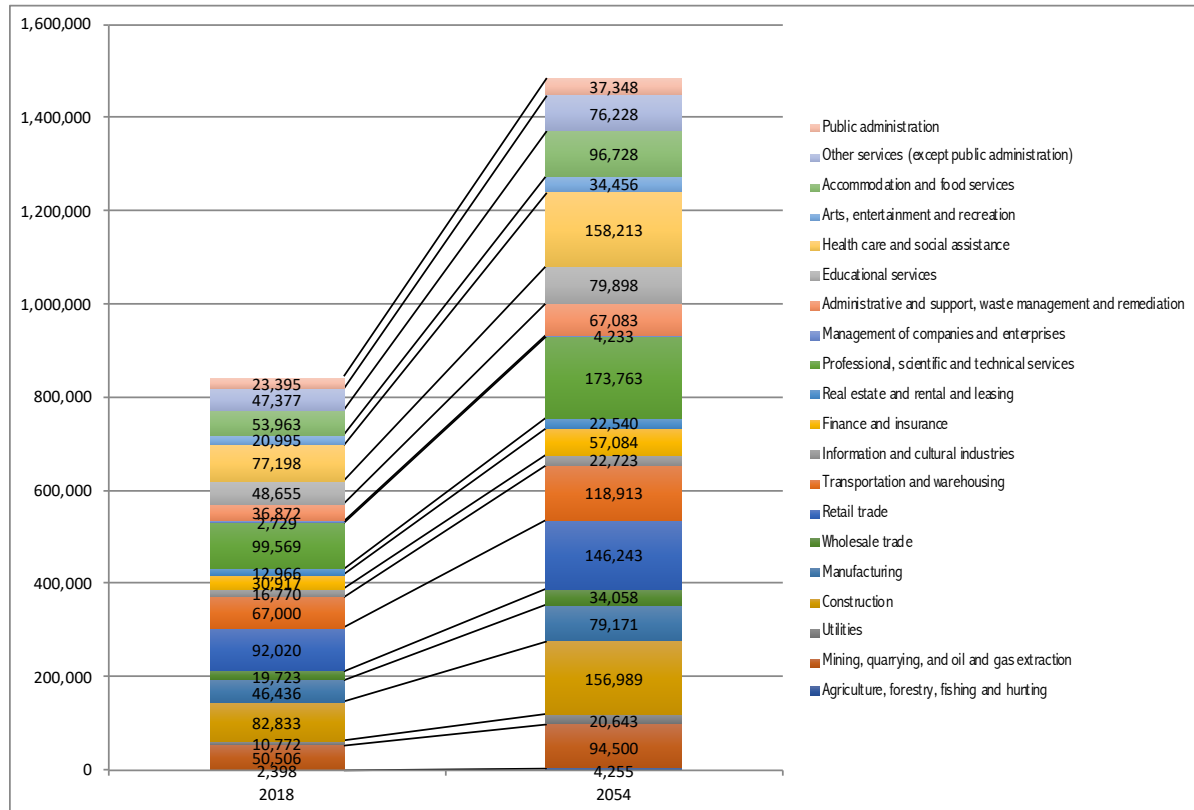
³The Status Quo scenario employment projections were approved by the Board at the November Board meeting.

Employment for 2018 and Status Quo Scenario



Between 2018 and 2054 there is job growth of 641,974. Relative to 2018, the industries with the largest job growth include: Healthcare and Social Assistance, Professional, scientific and technical services, Construction, Retail trade, and Transportation and warehousing. These industries comprise approximately 50% (+300,000 jobs) of total job growth over this period.

Employment by Industry - 2018 and Status Quo Scenario



Additional Scenario Discussion

As part of this process, the consulting team had further discussion with the Technical Advisory Group on different assumptions regarding six growth parameters and the respective employment impacts attributable to these parameters.⁴ The variation in these assumptions was explored to understand how employment will evolve based on structural changes to the economy. The details regarding these additional scenarios are presented in Appendix A.

These additional scenarios are not intended to be used as official regional projections. They are collectively intended to be used as a high-level reference tool that reflects the future directions of change envisioned for the region, recognizing that over a long term projection horizon there is uncertainty.

⁴ Growth parameters are defined as the fundamental components of the economy that can be used to define what direction economic growth can be expected to occur. These are described in detail in Appendix A.

Regionally Significant Employment Areas

Defining employment areas that have regional significance is important to ensure that sufficient lands are available for development, in the right locations, to maximize the potential for future economic and employment growth in the region. The definition of what comprises a 'regionally significant employment area' is subjective. As a result, an attempt has been made to attach some rigour to the process of defining "Regionally Significant Employment Areas". This has taken the form of some characteristics that may be considered in defining what areas rise to be of regional significance.

WHY ARE SOME EMPLOYMENT AREAS REGIONALLY SIGNIFICANT?

Some employment in every community and neighbourhood is tied to a specific location because it primarily services the community or neighbourhood around it. This would include a neighbourhood mall with a convenience store, gas station, health clinic and other retail and non-commercial services. This type of employment would not likely be considered 'regionally significant' because of its ties to the local community or neighbourhood. Contrast this with the Calgary International Airport, which provides a range of transportation and non-transportation services to the City of Calgary, residents and businesses in the Calgary metropolitan region and beyond. Employment of this type would clearly be 'regionally significant' as it services a broad range of users within the region and beyond the region. The purpose of identifying characteristics is to help define where an employment area transitions from primarily serving a local geographic base, to one that provides a regional function.

Further, it is noted that a 'regionally significant employment area' does not need to only accommodate development that is truly regional in nature, but would likely be predominately of this character. Similarly, it is possible that an area is not considered to have regional significance, but to have some development that provides goods or services beyond, or well beyond, what would be considered local within which it is located.

CHARACTERISTICS FOR DETERMINING REGIONALLY SIGNIFICANT EMPLOYMENT AREAS

It is recognized that determining 'regional significance' is not a precise science, but rather one that involves judgement. The following characteristics have been identified as a tool to assist in arriving at a consensus as to the factors important in determining 'regional significance' in the Calgary Metropolitan Region.

- ▶ Areas with approved land use plans.
- ▶ Areas with a critical mass of existing development. This could consider total employment, number of businesses or other metrics that help define critical mass.
- ▶ Areas with existing servicing and infrastructure 'in-place'.
- ▶ Connections to the regional, national and international transportation network including for both access to markets and supply of inputs to production:⁵
 - ▶ Rail

⁵ Consideration of the services and level of services for each transportation mode could be considered. For example, airport infrastructure with schedule air services could be considered more important than those without scheduled air service. Similarly, road infrastructure may consider the the level of service (i.e. highway, major arterials arterials, etc.).

- ▶ Road
- ▶ Air
- ▶ Connections to the regional transportation network to provide efficient access to required labour:
 - ▶ Road network
 - ▶ Transit
 - ▶ LRT / higher order transit
- ▶ Strategic considerations that areas may have potential for expanding in size and scale to provide regional benefit.

Appendix A: Scenario Development and Additional Scenario Results

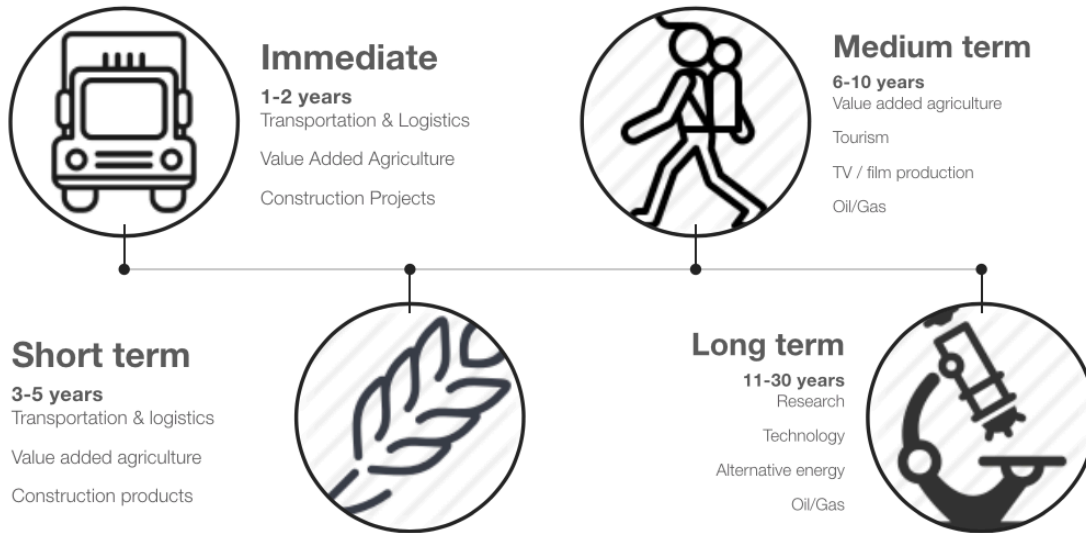
In developing the projections of future growth, the consulting team conducted a workshop with the Technical Advisory Group. Subsequent to this, discussions were held with representatives of each CMRB member municipality to discuss which industries were expected to hold the greatest potential for the municipality and for the region. This information was combined with published economic development initiatives and strategies as available for the member municipalities. The result was the definition of key industries that can be expected to drive growth in the future.

DRIVER INDUSTRIES




Based on research and input from the member municipalities, a road map of future growth by industry was prepared. This included consideration of not only which industries can be expected to lead growth – ‘driver industries’ – but also the general timeframe over which these industries might be expected to grow most significantly.

The specific driver industries identified and expected timeframe for growth are detailed below.




Driver Industries






IMMEDIATE TERM (1-2 YEARS)

<p>Transportation & logistics specialized cargo and logistic facilities</p>	 Transportation
<p>Value added agriculture: specialized food and beverage manufacturing.</p>	 Value Added Agriculture
<p>Non-residential construction: projects currently under construction is estimated at \$12.9 Billion.</p>	 Construction Projects




SHORT TERM (3-5 YEARS)

<p>Transportation and logistics: Large scale warehousing and storage facilities Transportation (air, rail, truck)</p>	 Transportation
<p>Value added agriculture: speciality food manufacturing, seed cleaning, cannabis production</p>	 Value Added Agriculture
<p>Manufacturing: growth in residential construction, building products/specialized home products, Industrial machinery/specialized machine shops, reinforced plastics.</p>	 Manufacturing

MEDIUM TERM (6-10 YEARS)

<p>Value added agriculture: plant proteins, micro-breweries/wineries</p>	 Value Added Agriculture
<p>Tourism: food accommodation sector; outdoor adventures, equestrian.</p>	 Tourism
<p>TV/Film Production: growth in residential construction, building products/specialized home products, Industrial machinery/specialized machine shops, reinforced plastics.</p>	 T V / Film Production

LONG TERM (11-20 YEARS)

<p>Research: pharmaceuticals, bio-technology, environmental sciences, growth food</p>	 <p>Research</p>
<p>Technology: oil/gas/geomatics, software, big data, architecture, agriculture technology</p>	 <p>Technology</p>
<p>Alternative Energy: solar farms, natural gas, bio-solids</p>	 <p>Alternative Energy</p>

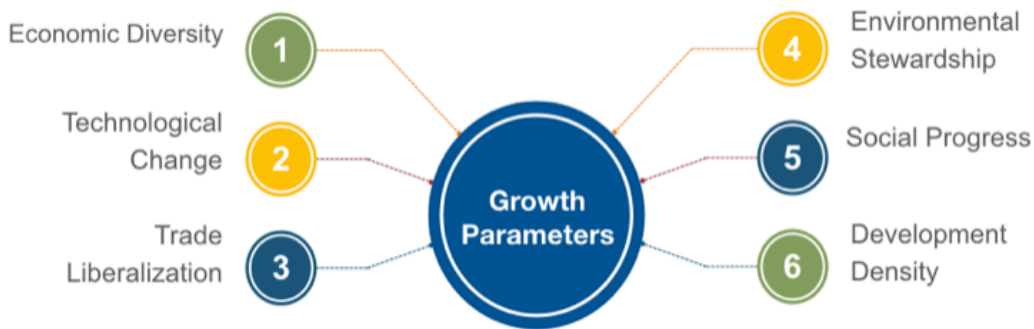
BASELINE GROWTH & STRUCTURAL CHANGE

The employment forecast includes two components: a Baseline projection that assumes there are no changes in economic 'structural' components of the regional economy. This Baseline employment forecast estimates total employment to increase to 1,341,460 for 2054. The Status Quo employment scenario includes a Baseline employment component, as well as a 'structural' employment component that results from assumptions regarding the degree to which each of six dimensions of the regional economy can change in the forecast. These 'structural' components of the forecast include the following dimensions: Economic Diversity; Technological Change; Trade Liberalization; Environmental Stewardship; Social Development; and Development Density. Each of these parameters are discussed below.

COMPONENTS OF STRUCTURAL CHANGE

Six key parameters of growth have been defined for the purpose of scenario development. These growth parameters have been used in the development of the employment scenario for this analysis. These growth parameters reflect consideration of the evolution of the Calgary regional economy over the long term forecast period

Structural Growth Parameters



It is recognized that each of these dimensions of structural growth often do not act independently. Rather they are related and to develop consistent projections of future economic and employment

growth, these interactions need to be defined. Below each of the components of structure growth are defined and how they are related is presented below.

ECONOMIC DIVERSITY

Diversification of the economy is a key initiative for the region and provincially. This refers to the variety of business and employment activities in the economy being spread across more industries as opposed to be concentrated in a few industries. In the context of the Calgary region, this refers to more of future economic growth being in non-energy related sectors than has historically been the case.

In measuring progress in diversifying the economy, the range for this parameter is defined as follows:

- ▶ **High:** The energy sector grows but at a lower rate than other selected driver industries.
- ▶ **Low:** The energy sector continues to dominate the regional economy.

Economic diversity is deemed to be strongly related to advancement of technological change, environmental stewardship and development density. The relationship of each structural parameter to economic diversity is provided below.



Economic Diversity

Economic Diversity	Technological Change	Trade Liberalization	Environmental Stewardship	Social Progress	Development Density
Relationship What is the relationship between Economic Diversity and the other Growth Parameters. + Positive ≈ Neutral - Negative	+++ Positive Faster adoption of new technologies will help to promote 'economic diversity'.	≈ Neutral Reduced barriers to trade will expose businesses to increased competition as well as provide greater opportunities to export for other businesses.	+ Positive Greater environmental stewardship will encourage evolution of enterprises to meet demand for new products and services increasing diversity.	≈ Neutral Social progress is largely independent of economic diversity.	++ Positive Newly emerging enterprises will likely benefit from the connectivities of increased densities and proximity to other businesses, services and workforce.
Dependency	Strong dependency: Moves in same direction	Mixed dependency: Industry specific	Minor dependency: Moves in same direction	Not dependent: Moves independently	Minor dependency: Moves in same direction

TECHNOLOGICAL CHANGE

Technological change is inevitable in today's economy and can affect each sector of the economy, albeit differentially. The effects of technological change depends on both the rate of technological change as it happens in the global economy and how quickly it is adopted within the local regional economy.

The range for this parameter is defined as follows:

- ▶ **High:** The rate of technological advancement and adoption of this technology is fast. As an example, autonomous vehicles and AI are developed and adopted quickly.
- ▶ **Low:** The rate of technological advancement is slow and costly to implement.

Technological change is deemed to be strongly related to economic diversity, trade liberalization, environmental stewardship and development density. The relationship of each structural parameter to technological change is provided below.



Technological Change

Technological Change	Economic Diversity	Trade Liberalization	Environmental Stewardship	Social Progress	Development Density
Relationship What is the relationship between Technological Change and the other Growth Parameters. + Positive ≈ Neutral - Negative	+++ Positive Adoption of productivity enhancing technology is likely to lead to increased competitiveness of local businesses and new opportunities across a range of industries.	+ Positive Improved trade liberalization is likely to result in better access to more efficient methods of production (through technology) due to comparative advantage.	++ Positive Environmental challenges will advance the adoption of technological change as businesses will evolve using new practices and processes.	≈ Neutral Social progress is largely independent of technological change.	+ Positive Increased density of development will enhance the adoption of technological advancements that take advantage of smaller business footprints.
Dependency	Minor dependency: Moves in same direction	Average dependency: Moves in same direction	Average dependency: Moves in same direction	Not dependent: Moves independently	Minor dependency: Moves in same direction

TRADE LIBERALIZATION

There are numerous international and inter-provincial barriers to trade that inhibit the movement of goods and services to and from Alberta and the Calgary region. The broad trend over past decades has been to reduce barriers to trade. Recently however, protectionist policies have been implemented, most notably by the United States.

The range for this parameter is defined as follows:

- ▶ **High:** Inter-provincial and international trade barriers are lowered through international trade agreements and inter-provincially through harmonization of specific industry requirements that removes or reduces the advantage of local suppliers.
- ▶ **Low:** Barriers to trade may be raised, including the implementation of tariffs or other policies that disadvantage non-local suppliers.

Trade liberalization is deemed to be strongly related to economic diversity, technological change, environmental stewardship and development density. The relationship of each structural parameter to technological change is provided below.



Trade Liberalization

Trade Liberalization	Economic Diversity	Technological Change	Environmental Stewardship	Social Progress	Development Density
Relationship What is the relationship between Trade Liberalization and the other Growth Parameters. + Positive ≈ Neutral - Negative	≈ Neutral Trade liberalization will likely affect some businesses positively (with export potential) and some negatively (where they compete with imports).	+ Positive Trade liberalization will increase the advancement and adoption of technological change.	++ Positive Trade agreements often include environmental measures and standards forcing the adoption of higher environmental standards.	≈ Neutral Trade liberalization is relatively independent of Social Progress for Canada. This may not be the case of some of Canada's trading partners.	+ Positive Businesses that rely on trade (imports/exports) will likely prefer to locate near major transportation hubs, encouraging density (where possible) in these locations.
Dependency	Mixed dependency: Industry specific	Minor dependency: Moves in same direction	Average dependency: Moves in same direction	Not dependent: Moves independently	Minor dependency: Moves in same direction

ENVIRONMENTAL STEWARDSHIP

Environmental stewardship is manifest in policies and practices that protect environmental assets. This has possible implications for many sectors of the economy, from energy production to consumer products.

The range for this parameter is defined as follows:

- ▶ **High:** Significant progress in advancing recycling, reducing air and water emissions and slowing/reversing climate change.
- ▶ **Low:** Slow progress in advancing recycling, reducing air and water emissions and slowing climate change.

Environmental stewardship is deemed to be strongly related to economic diversity, technological change, trade liberalization and development density. The relationship of each structural parameter to technological change is provided below.



Environmental Stewardship

Environmental Stewardship	Economic Diversity	Technological Change	Trade Liberalization	Social Progress	Development Density
Relationship What is the relationship between Environmental Stewardship and the other Growth Parameters. + Positive ≈ Neutral - Negative	+ Positive An emphasis on Environmental Stewardship will encourage economic diversification by creating demand for new and emerging businesses.	+ Positive Environmental challenges will advance the adoption of technological change as businesses will evolve using new practices and processes.	++ Positive Trade agreements often include environmental measures and standards forcing the adoption of higher environmental standards.	≈ Neutral Environmental Stewardship is relatively independent of Social Progress.	+ Positive Intensification of development will help reduce the demand for land resources.
Dependency	Minor dependency: Moves in same direction	Minor dependency: Industry specific	Average dependency: Moves in same direction	Not dependent: Moves independently	Minor dependency: Moves in same direction

SOCIAL DEVELOPMENT

Social development is defined as progress toward improving the well-being of citizens. This includes improving levels of education, health and well-being, and reducing poverty and income inequality. A healthy and educated population have lower social costs associated with health care, criminal justice and social services. Lower poverty and income balance tends to grow the local economy by creating more purchasing power in the hands of more people.

The range for this parameter is defined as follows:

- ▶ **High:** Major advances in reducing poverty and income disparity. Increases in general levels of education and well-being.
- ▶ **Low:** Little or no progress in reducing poverty and moderating income inequality. Similarly, no advancement in general levels of education and citizen well-being.

Social development is largely independent of the other structural change components. It is expected however, that increased density of development would help to promote social development by creating opportunities for living and working in the same community.



Social Progress

Social Progress	Economic Diversity	Technological Change	Trade Liberalization	Environmental Stewardship	Development Density
Relationship What is the relationship between Social Progress and the other Growth Parameters. + Positive ≈ Neutral - Negative	≈ Neutral Social progress is largely independent of economic diversity.	≈ Neutral Social progress is largely independent of technological change.	≈ Neutral Trade liberalization is relatively independent of Social Progress for Canada.	≈ Neutral Environmental Stewardship is relatively independent of Social Progress.	+ Positive Productivity-enhancing technology could result in better use of land resources for industries. Produce the same (or greater) amount using less space.
Dependency	Not dependent: Moves independently	Not dependent: Moves independently	Not dependent: Moves independently	Not dependent: Moves independently	Minor dependency: Moves in same direction

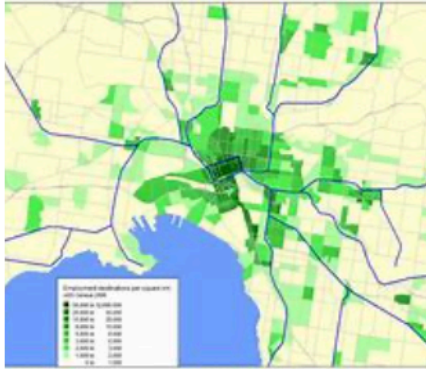
DEVELOPMENT DENSITY

Development density isn't as much an economic parameter, but rather a planning/development dimension that can affect the nature and magnitude of growth. For the purposes of this analysis, development density has been defined as putting more development in less space. This has implications for municipal servicing, community development and business efficiency. As well, reducing the footprint of development creates opportunities for alternate land uses and can reduce environmental impacts associated with development.

The range for this parameter is defined as follows:

- ▶ **High:** Higher density employment based activities are increased and intensified for businesses that have an opportunity to do so. It is noted not all business activities are able to operate effectively and efficiently in less space.
- ▶ **Low:** A continuation of historical development patterns where compact development is not typically considered.

Development density is seen to have a positive relationship with each of the other structural components.



Development Density

Development Density	Economic Diversity	Technological Change	Trade Liberalization	Environmental Stewardship	Social Progress
<p>Relationship</p> <p>What is the relationship between Development Density and the other Growth Parameters.</p> <p>+ Positive ≈ Neutral - Negative</p>	<p>++ Positive</p> <p>Newly emerging enterprises will likely benefit from the connectivities of increased densities and proximity to other businesses, services and workforce.</p>	<p>+ Positive</p> <p>Increased density of development will enhance the adoption of technological advancements that take advantage of smaller business footprints.</p>	<p>+ Positive</p> <p>Businesses that rely on trade (imports/exports) will likely prefer to locate near major transportation hubs, encouraging density (where possible) in these locations.</p>	<p>++ Positive</p> <p>Technological change is relatively independent of Social Progress.</p>	<p>+ Positive</p> <p>Productivity-enhancing technology could result in better use of land resources for industries. Produce the same (or greater) amount using less space.</p>
<p>Dependency</p>	<p>Average dependency: Moves in same direction</p>	<p>Minor dependency: Moves in same direction</p>	<p>Minor dependency: Moves in same direction</p>	<p>Average dependency: Moves in same direction</p>	<p>Minor dependency: Moves in same direction</p>

STATUS QUO SCENARIO

The Status Quo scenario incorporates some structural change, but this has been assumed to be minimal. The specific assumptions regarding structural change are summarized below.

Status Quo - Structural Change

Status Quo

Economic Diversity: The energy sector remains dominant (1.5).

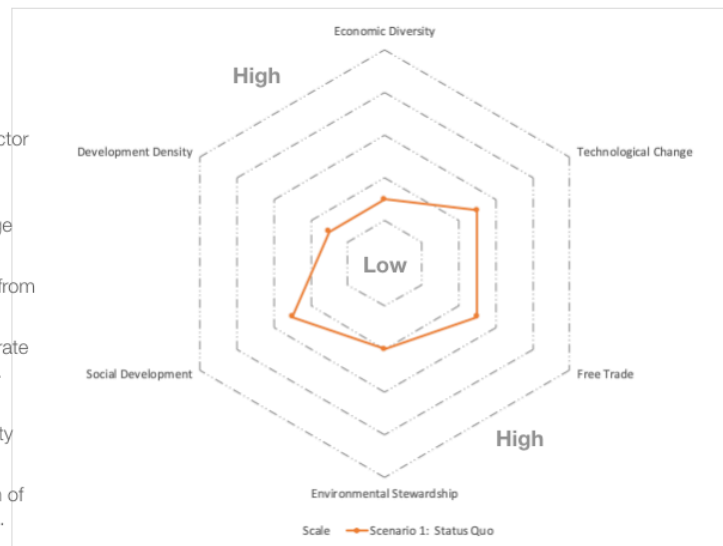
Technological Change: Moderate advancement of technological change (2.5).

Free Trade: Few gains in free trade from current situation (2.5).

Environmental Stewardship: Moderate advancement of this parameter (2.0).

Social Development: Some gain in poverty reduction and income equality (2.5).

Development Density: Continuation of existing pattern of development (1.5).



5 point scale: 1 = Low , 5 = High

Over the forecast period to 2054, structural change is projected to add an additional 144,000 jobs to the regional economy – 10.7% over and above the Baseline projection.⁶ The resulting total employment for this scenario is 1.485 million jobs.

Status Quo Employment Scenario - Forecast Results for 2054

SCENARIO	BASELINE 2054	BASELINE + STRUCTURAL CHANGE 2054	STRUCTURAL CHANGE IN EMPLOYMENT	% CHANGE RELATIVE TO BASELINE
Status Quo	1,341,460	1,485,069	143,609	10.7%

In the Status Quo scenario employment in the Calgary region grows from 846,463 in 2018 to 1,485,069 by 2054, an average annual increase of 1.6% over the 35 year forecast period.

As part of this process, there was additional discussion on the variation of the six key parameters which were used for developing the Status Quo Scenario. Variation of the parameters reflect consideration of the evolution of the regional economy over the long term forecast period. The additional scenarios that were discussed include:

⁶The Baseline forecast is projected to increase employment in the region from 846,000 to 1.341 million between 2018 and 2054. This represents a total increase of 59% over the forecast period.

- ▶ **Economic Diversification Scenario:** This scenario focuses on maximizing the potential for diversification opportunities in the regional economy.
- ▶ **Technological Change Scenario:** This scenario focuses on maximizing the advancement of technological change and its adoption in the regional economy.
- ▶ **Development Density Scenario:** This scenario focuses on maximizing the potential for intensifying development in the regional economy.

The following section provides details regarding each of these additional scenarios. It is important to note that these scenarios are intended for discussion purposes only.

ECONOMIC DIVERSIFICATION SCENARIO

Population growth in the Economic Diversification scenario was projected using fertility, mortality and migration profiles identical to those outlined in the preceding Status Quo scenario section of this report.

The Economic Diversification scenario analysis results are summarized as follows:

- ▶ **Population:** Total population increases from 1,589,218 in 2018 to 2,854,016 by 2054, an increase of 1,264,016 representing a 1.6% average annual growth rate.
- ▶ **Employment:** Total employment is projected to increase from 846,463 to 1,602,069 across the same period, an increase of 755,606 representing an average annual growth rate of 1.8%.
- ▶ **Labour Force:** The labour force increases consistently through the forecast period at an average annual rate of 1.7%.
- ▶ **Participation Rate:** The aggregate participation rate dips slightly from its 2018 rate of 70.4% to 66.8% by 2036, followed by a gradual increase to 69.6% by 2054.
- ▶ **Unemployment Rate:** The unemployment rate is projected to decline relatively quickly from its 2018 rate of 7.9% to an average of about 6.0% by the 2026 to 2041 period, followed by further decline to 5.5% by the end of the forecast period.

The Economic Diversification scenario incorporates significant structural change. The specific assumptions regarding structural change are summarized below.

Economic Diversification - Structural Change

Economic Diversification

Economic Diversity: Maximize diversification opportunities (5.0).

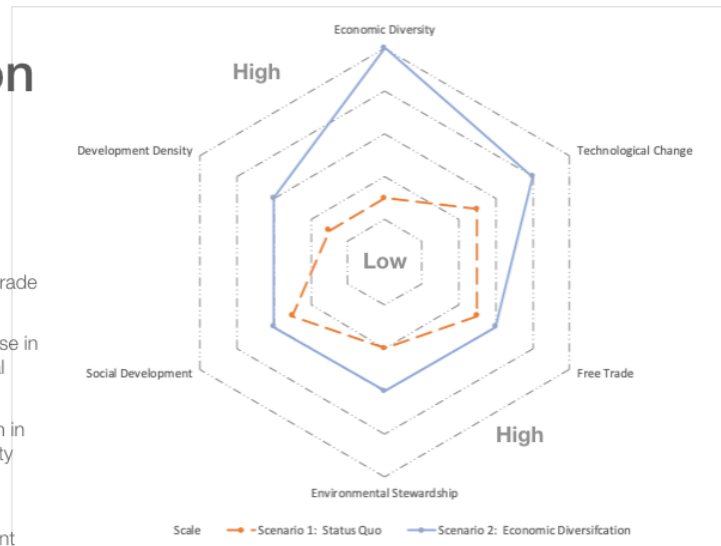
Technological Change: Fast advancement and adoption of technological change (4.0).

Free Trade: Moderate gains in free trade from current situation (3.0).

Environmental Stewardship: Increase in concern and action on environmental issues (3.0).

Social Development: Moderate gain in poverty reduction and income equality (3.0).

Development Density: Moderate increase in the density of development (3.0).



5 point scale: 1 = Low , 5 = High

Over the forecast period to 2054, structural change is projected to add an additional 260,000 jobs to the regional economy – 19.4% over and above the Baseline projection.⁷ The resulting total employment for this scenario is 1.6 million jobs.

Economic Diversification Employment Scenario - Forecast Results for 2054

SCENARIO	BASELINE 2054	BASELINE + STRUCTURAL CHANGE 2054	STRUCTURAL CHANGE IN EMPLOYMENT	% CHANGE RELATIVE TO BASELINE
Status Quo	1,341,460	1,485,069	143,609	10.7%
Economic Diversification	1,341,460	1,602,069	260,609	19.4%

TECHNOLOGICAL CHANGE SCENARIO

Population growth in the Technological Change scenario was projected using fertility, mortality and migration profiles identical to those outlined in the preceding Status Quo scenario section of this report.

The Technological Change scenario analysis results are summarized as follows:

- **Population:** Total population increases from 1,589,218 in 2018 to 2,840,880 by 2054, an increase of 1,251,662 representing a 1.6% average annual growth rate.
- **Employment:** Total employment is projected to increase from 846,463 to 1,594,900 across the same period, an increase of 748,437 representing an average annual growth rate of 1.8%.

⁷ The Baseline forecast is projected to increase employment in the region from 846,000 to 1.341 million between 2018 and 2054. This represents a total increase of 59% over the forecast period.

- ▶ **Labour Force:** The labour force increases consistently through the forecast period at an average annual rate of 1.7%.
- ▶ **Participation Rate:** The aggregate participation rate dips slightly from its 2018 rate of 70.4% to 66.8% by 2036, followed by a gradual increase to 69.6% by 2054.
- ▶ **Unemployment Rate:** The unemployment rate is projected to decline relatively quickly from its 2018 rate of 7.9% to an average of about 6.0% by the 2026 to 2041 period, followed by further decline to 5.5% by the end of the forecast period.

The Technological Change scenario incorporates significant structural change. The specific assumptions regarding structural change are summarized below.

Technological Change - Structural Change

Technological Change

Economic Diversity: Moderate diversification of the economy (3.0).

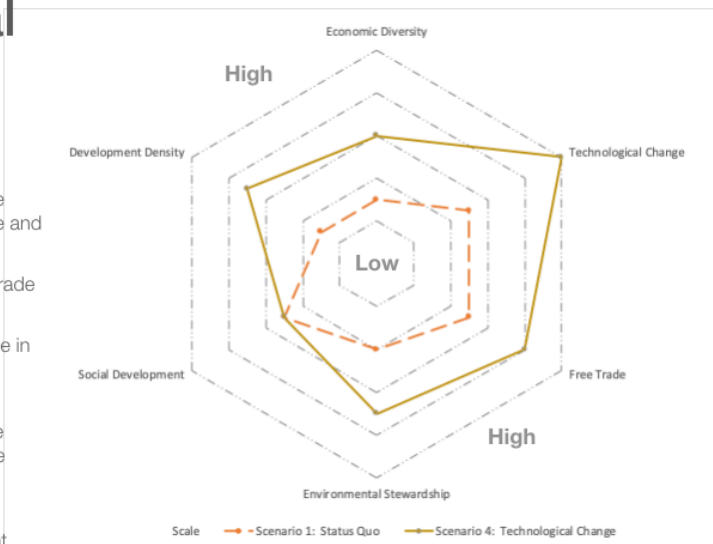
Technological Change: Maximize the advancement of technological change and its adoption (5.0).

Free Trade: Significant gains in free trade from current situation (4.0).

Environmental Stewardship: Increase in concern and action on environmental issues (3.5).

Social Development: No appreciable gains in poverty reduction and income equality (2.0).

Development Density: Moderate increase in the density of development (3.5).



Over the forecast period to 2054, structural change is projected to add an additional 253,000 jobs to the regional economy – 18.9% over and above the Baseline projection.⁸ The resulting total employment for this scenario is 1.6 million jobs.

Technological Change Scenario - Employment Forecast Results for 2054

SCENARIO	BASELINE 2054	BASELINE + STRUCTURAL CHANGE 2054	STRUCTURAL CHANGE IN EMPLOYMENT	% CHANGE RELATIVE TO BASELINE
Status Quo	1,341,460	1,485,069	143,609	10.7%
Technological Change	1,341,460	1,594,900	253,440	18.9%

⁸ The Baseline forecast is projected to increase employment in the region from 846,000 to 1.341 million between 2018 and 2054. This represents a total increase of 59% over the forecast period.

DEVELOPMENT DENSITY SCENARIO

Population growth in the Development Density scenario was projected using fertility, mortality and migration profiles identical to those outlined in the preceding Status Quo scenario section of this report.

The Development Density scenario analysis results are summarized as follows:

- ▶ **Population:** Total population increases from 1,589,218 in 2018 to 2,821,975 by 2054, an increase of 1,232,756 representing a 1.6% average annual growth rate.
- ▶ **Employment:** Total employment is projected to increase from 846,463 to 1,584,410 across the same period, an increase of 737,947 representing an average annual growth rate of 1.8%.
- ▶ **Labour Force:** The labour force increases consistently through the forecast period at an average annual rate of 1.7%.
- ▶ **Participation Rate:** The aggregate participation rate dips slightly from its 2018 rate of 70.4% to 66.8% by 2036, followed by a gradual increase to 69.6% by 2054.
- ▶ **Unemployment Rate:** The unemployment rate is projected to decline relatively quickly from its 2018 rate of 7.9% to an average of about 6.0% by the 2026 to 2041 period, followed by further decline to 5.5% by the end of the forecast period.

The Development Density scenario incorporates significant structural change. The specific assumptions regarding structural change are summarized below.

Development Density - Structural Change

Density of Development

Economic Diversity: Moderate diversification of the economy (3.0).

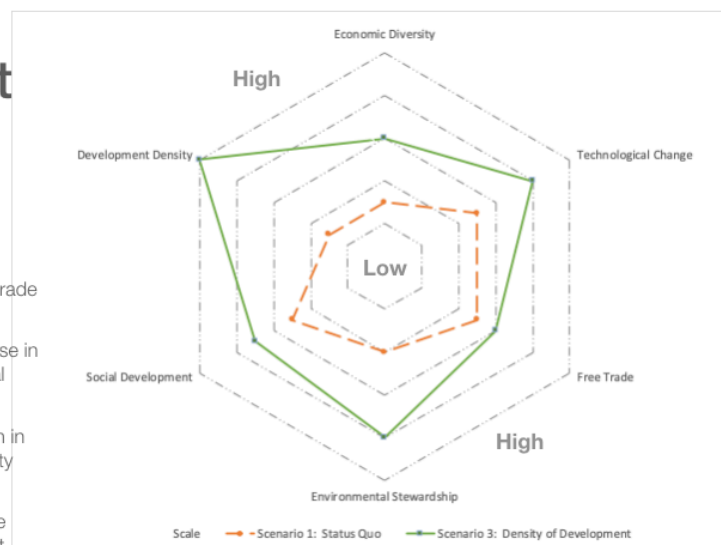
Technological Change: Fast advancement and adoption of technological change (4.0).

Free Trade: Moderate gains in free trade from current situation (3.0).

Environmental Stewardship: Increase in concern and action on environmental issues (4.0).

Social Development: Moderate gain in poverty reduction and income equality (3.5).

Development Density: Maximize the potential for intensifying development (5.0).



5 point scale: 1 = Low , 5 = High

Over the forecast period to 2054, structural change is projected to add an additional 243,000 jobs to the regional economy – 18.1% over and above the Baseline projection.⁹ The resulting total employment for this scenario is 1.58 million jobs.

⁹The Baseline forecast is projected to increase employment in the region from 846,000 to 1.341 million between 2018 and 2054. This represents a total increase of 59% over the forecast period.

Development Density Employment Scenario - Forecast Results for 2054

SCENARIO	BASELINE 2054	BASELINE + STRUCTURAL CHANGE 2054	STRUCTURAL CHANGE IN EMPLOYMENT	% CHANGE RELATIVE TO BASELINE
Status Quo	1,341,460	1,485,069	143,609	10.7%
Density of Development	1,341,460	1,584,410	242,950	18.1%

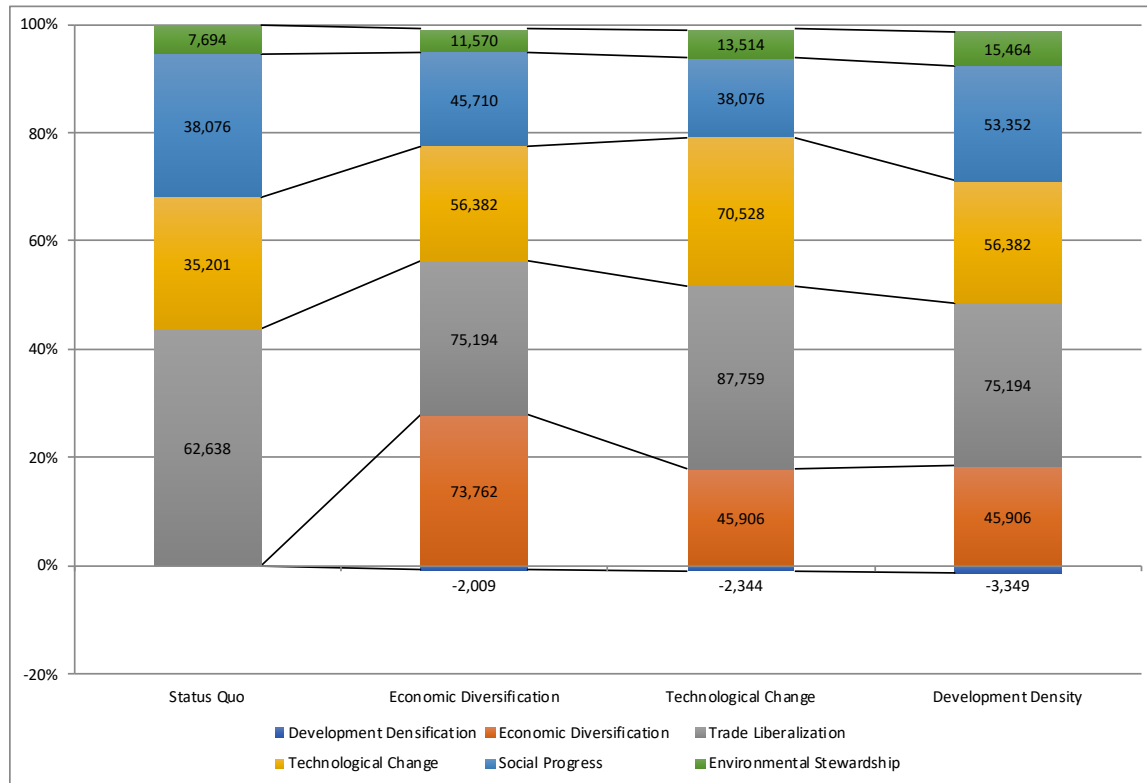
ASSOCIATED WITH STRUCTURAL CHANGE

This section describes the structural parameters that contribute to employment growth through the forecast period (relative to the Baseline scenario).

- ▶ **Status Quo:** Of the 143,609 additional jobs attributable to structural change in the Status Quo scenario, a majority are related to the liberalization of trade conditions (62,638). Significant job growth is also driven by improvements in social development (38,076) and technological change (35,201). Environmental stewardship efforts also contribute a meaningful amount of jobs (7,694) through 2054.
- ▶ **Economic Diversification:** Of the 260,609 additional jobs attributable to structural change in the Economic Diversification scenario, a majority again are related to the liberalization of trade conditions (75,194), though economic diversification efforts contribute nearly as many new positions (73,762). Significant job growth is also driven by improvements in technological change (56,382) and social progress (45,710). Environmental stewardship efforts also contribute a meaningful amount of jobs (11,570) through 2054. Development densification improvements have a net impact of subtracting a relatively small number of jobs (-2,009) through the forecast period.
- ▶ **Technological Change:** Of the 253,440 additional jobs attributable to structural change in the Technological Change scenario, a majority again are related to the liberalization of trade conditions (87,759), though adoption of new technology contributes nearly as many new positions (70,528). Significant job growth is also driven by economic diversification (45,906) and social progress (38,076). Environmental stewardship efforts also contribute a meaningful amount of jobs (13,514) through 2054. Development densification improvements have a net impact of subtracting a relatively small number of jobs (-2,344) through the forecast period.
- ▶ **Development Density:** Of the 253,440 additional jobs attributable to structural change in the Technological Change scenario, a majority again are related to the liberalization of trade conditions (75,194). Significant job growth is also driven by the adoption of new technology (56,382), social progress (53,352), and efforts to improve economic diversification (45,906). Environmental stewardship efforts also contribute a meaningful amount of jobs (15,464) through 2054. Development densification improvements have a net impact of subtracting a relatively small number of jobs (-3,349) through the forecast period.

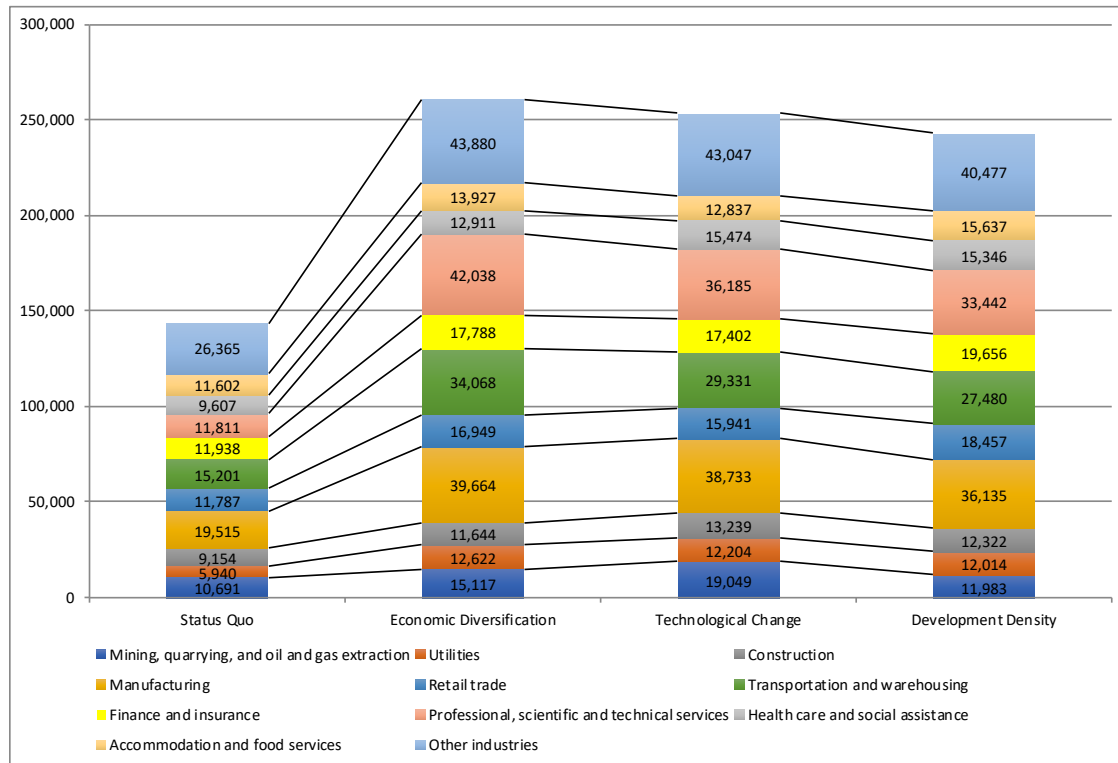
The chart below displays the structural component impacts on employment growth in each scenario, by type, through the forecast period relative to the Baseline.

Structural Parameter Impacts on Scenario-Specific Employment Growth (2054)



Differences in assumptions regarding the magnitude of structural component change across scenarios also results in different rates of job growth across industries. The chart on the following page disaggregates parameter-specific employment impacts in each scenario, according to industry group.

Scenario-Specific Structural Employment Growth (2054)



Appendix B: Employment Scenarios by 2 Digit NAICS

Status Quo Scenario - Employment by 2 Digit NAICS

2 DIGIT NAICS INDUSTRY	2018 EMPLOYMENT	2054 EMPLOYMENT	CHANGE IN EMPLOYMENT	AVERAGE ANNUAL % CHANGE
11 Agriculture, forestry, fishing and hunting	2,398	4,255	1,857	1.1%
21 Mining and oil and gas extraction	50,506	94,500	43,994	1.7%
22 Utilities	10,772	20,643	9,871	1.8%
23 Construction	82,833	156,989	74,156	1.8%
31-33 Manufacturing	46,436	79,171	32,735	1.5%
41 Wholesale trade	19,723	34,058	14,335	1.5%
44-45 Retail trade	92,020	146,243	54,223	1.3%
48-49 Transportation and warehousing	67,000	118,913	51,913	1.6%
51 Information and cultural industries	16,770	22,723	5,953	0.8%
52 Finance and insurance	30,917	57,084	26,167	1.7%
53 Real estate and rental and leasing	12,966	22,540	9,574	1.5%
54 Professional, scientific and technical services	99,569	173,763	74,194	1.6%
55 Management of companies and enterprises	2,729	4,233	1,504	1.2%
56 Administrative and support, waste management and remediation services	36,872	67,083	30,211	1.7%
61 Educational services	48,655	79,898	31,243	1.4%
62 Health care and social assistance	77,198	158,213	81,015	2.0%
71 Arts, entertainment and recreation	20,995	34,456	13,461	1.4%
72 Accommodation and food services	53,963	96,728	42,765	1.6%
81 Other services (except public administration)	47,377	76,228	28,851	1.3%
91 Public administration	23,395	37,348	13,953	1.3%
Total Employment	843,094	1,485,069	641,975	1.6%

*Highlighted shading represents the NAICS industries with average annual growth rates above the aggregate employment growth rate.

Economic Diversification Scenario - Employment by 2 Digit NAICS

2 DIGIT NAICS INDUSTRY	2018 EMPLOYMENT	2054 EMPLOYMENT	CHANGE IN EMPLOYMENT	AVERAGE ANNUAL % CHANGE
11 Agriculture, forestry, fishing and hunting	2,398	4,341	1,943	1.1%
21 Mining and oil and gas extraction	50,506	98,926	48,420	1.9%
22 Utilities	10,772	27,326	16,554	2.6%
23 Construction	82,833	159,479	76,646	1.8%
31-33 Manufacturing	46,436	99,320	52,884	2.1%
41 Wholesale trade	19,723	38,833	19,110	1.9%
44-45 Retail trade	92,020	151,405	59,385	1.4%
48-49 Transportation and warehousing	67,000	137,780	70,780	2.0%
51 Information and cultural industries	16,770	29,712	12,942	1.6%
52 Finance and insurance	30,917	62,934	32,017	2.0%
53 Real estate and rental and leasing	12,966	22,691	9,725	1.6%
54 Professional, scientific and technical services	99,569	203,990	104,421	2.0%
55 Management of companies and enterprises	2,729	4,338	1,609	1.3%
56 Administrative and support, waste management and remediation services	36,872	69,949	33,077	1.8%
61 Educational services	48,655	81,308	32,653	1.4%
62 Health care and social assistance	77,198	161,517	84,319	2.1%
71 Arts, entertainment and recreation	20,995	35,231	14,236	1.4%
72 Accommodation and food services	53,963	99,054	45,091	1.7%
81 Other services (except public administration)	47,377	77,232	29,855	1.4%
91 Public administration	23,395	36,703	13,308	1.2%
Total Employment	843,094	1,602,069	758,975	1.8%

*Highlighted shading represents the NAICS industries with average annual growth rates above the aggregate employment growth rate.

Technological Change Scenario - Employment by 2 Digit NAICS

2 DIGIT NAICS INDUSTRY	2018 EMPLOYMENT	2054 EMPLOYMENT	CHANGE IN EMPLOYMENT	AVERAGE ANNUAL % CHANGE
11 Agriculture, forestry, fishing and hunting	2,398	4,424	2,026	1.2%
21 Mining and oil and gas extraction	50,506	102,858	52,352	2.0%
22 Utilities	10,772	26,907	16,135	2.6%
23 Construction	82,833	161,074	78,241	1.9%
31-33 Manufacturing	46,436	98,389	51,953	2.1%
41 Wholesale trade	19,723	37,708	17,985	1.8%
44-45 Retail trade	92,020	150,397	58,377	1.4%
48-49 Transportation and warehousing	67,000	133,043	66,043	1.9%
51 Information and cultural industries	16,770	27,779	11,009	1.4%
52 Finance and insurance	30,917	62,548	31,631	2.0%
53 Real estate and rental and leasing	12,966	22,777	9,811	1.6%
54 Professional, scientific and technical services	99,569	198,136	98,567	1.9%
55 Management of companies and enterprises	2,729	4,419	1,690	1.3%
56 Administrative and support, waste management and remediation services	36,872	70,306	33,434	1.8%
61 Educational services	48,655	82,004	33,349	1.5%
62 Health care and social assistance	77,198	164,080	86,882	2.1%
71 Arts, entertainment and recreation	20,995	35,054	14,059	1.4%
72 Accommodation and food services	53,963	97,963	44,000	1.7%
81 Other services (except public administration)	47,377	78,504	31,127	1.4%
91 Public administration	23,395	36,531	13,136	1.2%
Total Employment	843,094	1,594,900	751,806	1.8%

*Highlighted shading represents the NAICS industries with average annual growth rates above the aggregate employment growth rate.

Density of Development Scenario - Employment by 2 Digit NAICS

2 DIGIT NAICS INDUSTRY	2018 EMPLOYMENT	2054 EMPLOYMENT	CHANGE IN EMPLOYMENT	AVERAGE ANNUAL % CHANGE
11 Agriculture, forestry, fishing and hunting	2,398	4,343	1,945	1.1%
21 Mining and oil and gas extraction	50,506	95,792	45,286	1.8%
22 Utilities	10,772	26,717	15,945	2.5%
23 Construction	82,833	160,157	77,324	1.8%
31-33 Manufacturing	46,436	95,791	49,355	2.0%
41 Wholesale trade	19,723	37,035	17,312	1.8%
44-45 Retail trade	92,020	152,913	60,893	1.4%
48-49 Transportation and warehousing	67,000	131,192	64,192	1.9%
51 Information and cultural industries	16,770	27,318	10,548	1.4%
52 Finance and insurance	30,917	64,802	33,885	2.1%
53 Real estate and rental and leasing	12,966	22,724	9,758	1.6%
54 Professional, scientific and technical services	99,569	195,393	95,824	1.9%
55 Management of companies and enterprises	2,729	4,338	1,609	1.3%
56 Administrative and support, waste management and remediation services	36,872	69,454	32,582	1.8%
61 Educational services	48,655	81,524	32,869	1.4%
62 Health care and social assistance	77,198	163,953	86,755	2.1%
71 Arts, entertainment and recreation	20,995	35,766	14,771	1.5%
72 Accommodation and food services	53,963	100,764	46,801	1.7%
81 Other services (except public administration)	47,377	78,148	30,771	1.4%
91 Public administration	23,395	36,285	12,890	1.2%
Total Employment	843,094	1,584,410	741,316	1.8%

*Highlighted shading represents the NAICS industries with average annual growth rates above the aggregate employment growth rate.

Appendix C: 2018 Employment Estimate

For this analysis, there were no publicly available estimates of 2018 employment for the CMRB region. As a result, employment for the entirety of the region was estimated.

Employment was estimated for 2018 for the CMRB region. An estimate of 2018 employment based on the Calgary Transportation Model¹⁰ was provided and used as a basis for the employment analysis. In addition to this estimate of employment, other population and employment estimates for the Calgary region were reviewed to develop a 2018 employment estimate.

Other data sources included in the review were:

- ▶ Calgary Municipal Census (2018);
- ▶ Rennie Population Projections Report (CMRB);
- ▶ Federal Census (2016);
- ▶ Alberta Regional Dashboard;
- ▶ Conference Board of Canada;
- ▶ Statistics Canada CANSIM Database (Labour Force Survey)

As the CMRB region is a unique geography, publicly available data sources do not align with this geography. For each of the data sources reviewed, the geographies were unique, and as part of our analysis adjustments were necessary in order to compare estimates. In addition, with some data source assumptions regarding the labour force participation rates and unemployment rates were applied to population by age specific figures to estimate employment.

¹⁰ Calgary Transportation Model (2015 Scenario Series)

Appendix D: NAICS Industry Definition

Please refer to NAICS Industry Classification Table (below) for the industry names corresponding to the industry codes presented in the tables in this report.

NAICS Industry Classification¹¹

2-DIGIT NAICS CODE	INDUSTRY NAME
11	Agriculture, Forestry, Fishing and Hunting
21	Mining and Oil and Gas Extraction
22	Utilities
23	Construction
31-33	Manufacturing
41	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information and Cultural Industries
52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support, Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment and Recreation
72	Accommodation and Food Services
81	Other Services (except Public Administration)
91	Public Administration

The following section describes the methodology for describing the employment activities captured or excluded from the 2-digit North American Industry Classification System (NAICS) industry categories.

11 Agriculture, forestry, fishing and hunting

This sector comprises establishments primarily engaged in growing crops, raising animals, harvesting timber, harvesting fish and other animals from their natural habitats and providing related support activities. The establishments that are primarily engaged in agricultural research or that supply veterinary services are not included in this sector.

¹¹ Description of 2-digit NAICS from [Industry Canada](#)

21 Mining and oil and gas extraction

This sector comprises establishments primarily engaged in extracting naturally occurring minerals. These can be solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. It also includes establishments engaged in exploration, support activities for mineral, oil and gas extraction as well as those operating on a contract or fee basis.

22 Utilities

This sector comprises establishments primarily engaged in operating electric, gas and water utilities. These establishments generate, transmit, control and distribute electric power; distribute natural gas; treat and distribute water; operate sewer systems and sewage treatment facilities; and provide related services, generally through a permanent infrastructure of lines, pipes and treatment and processing facilities.

23 Construction

This sector comprises establishments primarily engaged in constructing, repairing and renovating buildings and engineering works, and in subdividing and developing land. These establishments may operate on their own account or under contract to other establishments or property owners. These establishments may be involved from the project start till its completion or be involved in joint ventures. Activities include: construction of buildings; land subdivision and land development; engineering construction; construction management; site preparation work; building interior finishing work; building equipment installation, other specialty contractors. Establishments that are excluded from this category are those which are primarily engaged in manufacturing and installing building equipment, such as power boilers; manufacturing pre-fabricated buildings (31-33, Manufacturing); operating highways, streets and bridges (48-49, Transportation and Warehousing); projects management services, when it is a primary activity (54133, Engineering Services); maintenance of rights of way for power, communication and pipe lines; and cleaning building exteriors after construction (56, Administrative and Support, Waste Management and Remediation Services).

31-33 Manufacturing

This sector comprises establishments primarily engaged in the physical or chemical transformation of materials or substances into new products. These products may be finished, in the sense that they are ready to be used or consumed, or semi-finished, in the sense of becoming a raw material for an establishment to use in further manufacturing. Related activities, such as the assembly of the component parts of manufactured goods; the blending of materials; and the finishing of manufactured products by dyeing, heat-treating, plating and similar operations are also treated as manufacturing activities.

Certain activities involving the transformation of goods are classified in other sectors. Some examples are post-harvest activities of agricultural establishments, such as crop drying; logging; the beneficiating of mineral ores; the production of structures by construction establishments; and various activities conducted by retailers, such as meat cutting and the assembly of products such as bicycles and computers.

41 Wholesale trade

This sector comprises establishments primarily engaged in wholesaling merchandise and providing related logistics, marketing and support services. The wholesaling process is generally an intermediate step in the distribution of merchandise; many wholesalers are therefore organized to sell merchandise in large quantities to retailers, and business and institutional clients. However, some wholesalers, in particular those that supply non-consumer capital goods, sell merchandise in single units to final users.

This sector recognizes two main types of wholesalers, that is, wholesale merchants and wholesale agents and brokers.

Wholesale merchants buy and sell merchandise on their own account, that is, they take title to the goods they sell. They generally operate from warehouse or office locations and they may ship from their own inventory or arrange for the shipment of goods directly from the supplier to the client. Dealers of machinery and equipment, such as dealers of farm machinery and heavy-duty trucks, also fall within this category.

Wholesale Agents and Brokers

Wholesale agents and brokers buy and sell merchandise owned by others on a fee or commission basis. They do not take title to the goods they buy or sell, and they generally operate at or from an office location.

44-45 Retail trade

The retail trade sector comprises establishments primarily engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

The retailing process is the final step in the distribution of merchandise; retailers are therefore organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers, that is, store and non-store retailers.

Store retailers operate fixed point-of-sale locations, located and designed to attract a high volume of walk-in customers. In general, retail stores have extensive displays of merchandise and use mass-media advertising to attract customers. They typically sell merchandise to the general public for personal or household consumption, but some also serve business and institutional clients. Catalogue sales showrooms, gasoline service stations, and mobile home dealers are treated as store retailers.

Non-store retailers, like store retailers, are organized to serve the general public, but their retailing methods differ. The establishments of this sub-sector reach customers and market merchandise with methods such as the broadcasting of infomercials, the broadcasting and publishing of direct-response advertising, the publishing of traditional and electronic catalogues, door-to-door solicitation, in-home demonstration, temporary displaying of merchandise (stalls) and distribution by vending machines. The non-store retailers sub-sector also includes establishments engaged in the home delivery of products. This includes home heating oil dealers and newspaper delivery companies.

48-49 Transportation and warehousing

This sector comprises establishments primarily engaged in transporting passengers and goods, warehousing and storing goods, and providing services to these establishments. The modes of transportation are road (trucking, transit and ground passenger), rail, water, air and pipeline. National post office and courier establishments, which also transport goods, are included in this sector. Many of the establishments in this sector are structured as networks, with activities, workers, and physical facilities distributed over an extensive geographic area.

The establishments excluded from this category are those which are primarily engaged in the renting and leasing of transportation equipment without operator (532, Rental and Leasing Services).

51 Information and cultural industries

This sector comprises establishments primarily engaged in producing and distributing (except by wholesale and retail methods) information and cultural products. Establishments providing the means to transmit or

distribute these products or providing access to equipment and expertise for processing data are also included.

The unique characteristics of information and cultural products, and of the processes involved in their production and distribution, distinguish this sector from the goods-producing and services-producing sectors.

Most of these products are protected from unlawful reproduction by copyright laws. Only those possessing the rights to these works are authorized to reproduce, alter, improve and distribute them. Acquiring and using these rights often involves significant costs.

The main components of this sector are the publishing industries (except exclusively on Internet), including software publishing, the motion picture and sound recording industries, the broadcasting industries (except exclusively on Internet), the telecommunications and related services industries (i.e., telephony, including VoIP; cable and satellite television distribution services; Internet access; telecommunications reselling services), data processing industries, and the other information services industries, including Internet publishing and broadcasting and web search portals.

52 Finance and insurance

This sector comprises establishments primarily engaged in financial transactions or in facilitating financial transactions. Included are: Establishments that are primarily engaged in financial intermediation. Establishments that are primarily engaged in the pooling of risk by underwriting annuities and insurance. Establishments that are primarily engaged in providing specialized services that facilitate or support financial intermediation, insurance and employee benefit programs. In addition, establishments charged with monetary control - the monetary authorities - are included in this sector.

53 Real estate and rental and leasing

This sector comprises establishments primarily engaged in renting, leasing or otherwise allowing the use of tangible or intangible assets. Establishments primarily engaged in managing real estate for others; selling, renting and/or buying of real estate for others; and appraising real estate, are also included.

54 Professional, scientific and technical services

This sector comprises establishments primarily engaged in activities in which human capital is the major input. These establishments make available the knowledge and skills of their employees, often on an assignment basis. The individual industries of this sector are defined on the basis of the particular expertise and training of the service provider.

The main components of this sector are legal services industries, accounting and related services industries, architectural, engineering and related services industries, surveying and mapping services industries, design services industries, management, scientific and technical consulting services industries, scientific research and development services industries, and advertising services industries.

Much of the expertise requires a university or college education, though not in every case.

Establishments that have been excluded are those primarily engaged in providing instruction and training in a wide variety of subjects and those primarily engaged in providing health care by diagnosis and treatment are not included in this sector.

55 Management of companies and enterprises

This sector comprises establishments primarily engaged in managing companies and enterprises and/or holding the securities or financial assets of companies and enterprises, for the purpose of owning a controlling interest in them and/or influencing their management decisions. They may undertake the function of management, or they may entrust the function of financial management to portfolio managers.

56 Administrative and support, waste management and remediation services

This sector comprises two different types of establishments: those primarily engaged in activities that support the day-to-day operations of other organizations; and those primarily engaged in waste management activities.

The first type of establishment is engaged in activities such as administration, hiring and placing personnel, preparing documents, taking orders from clients, collecting payments for claims, arranging travel, providing security and surveillance, cleaning buildings, and packaging and labelling products. These activities are often undertaken, in-house, by establishments found in many sectors of the economy. The establishments classified to this sector specialize in one or more of these activities and can therefore provide services to clients in a variety of industries and, in some cases, to households.

Waste management establishments are engaged in the collection, treatment and disposal of waste material, the operation of material recovery facilities, the remediation of polluted sites and the cleaning of septic tanks.

61 Educational services

This sector comprises establishments primarily engaged in providing instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities and training centres. These establishments may be privately owned and operated, either for profit or not, or they may be publicly owned and operated. They may also offer food and accommodation services to their students.

62 Health care and social assistance

This sector comprises establishments primarily engaged in providing health care by diagnosis and treatment, providing residential care for medical and social reasons, and providing social assistance, such as counselling, welfare, child protection, community housing and food services, vocational rehabilitation and child care, to those requiring such assistance.

71 Arts, entertainment and recreation

This sector comprises establishments primarily engaged in operating facilities or providing services to meet the cultural, entertainment and recreational interests of their patrons. These establishments produce, promote or participate in live performances, events or exhibits intended for public viewing; provide the artistic, creative and technical skills necessary for the production of artistic products and live performances; preserve and exhibit objects and sites of historical, cultural or educational interest; and operate facilities or provide services that enable patrons to participate in sports or recreational activities or pursue amusement, hobbies and leisure-time interests.

Establishments that are excluded for the reason that they fall into other related NAICS categories are follows. Establishments primarily engaged in transportation providing sightseeing and pleasure cruises (48-49, Transportation and Warehousing),

motion picture theatres, libraries and archives, and publishers of newspapers, magazines, books, periodicals and computer software (51, Information and Cultural Industries), establishments that provide both accommodation and recreational facilities, such as hunting and fishing camps, resorts and casino hotels (721, Accommodation Services), restaurants and night clubs that provide live entertainment in addition to the sale of food and beverages (722, Food Services and Drinking Places).

72 Accommodation and food services

This sector comprises establishments primarily engaged in providing short-term lodging and complementary services to travellers, vacationers and others, in facilities such as hotels, motor hotels, resorts, motels, casino hotels, bed and breakfast accommodation, housekeeping cottages and cabins, recreational vehicle parks and campgrounds, hunting and fishing camps, and various types of recreational and adventure camps. This sector also comprises establishments primarily engaged in preparing meals, snacks and beverages, to customer order, for immediate consumption on and off the premises.

81 Other services (except public administration)

This sector comprises establishments, not classified to any other sector, primarily engaged in repairing, or performing general or routine maintenance, on motor vehicles, machinery, equipment and other products to ensure that they work efficiently; providing personal care services, funeral services, laundry services and other services to individuals, such as pet care services and photo finishing services; organizing and promoting religious activities; supporting various causes through grant-making, advocating (promoting) various social and political causes, and promoting and defending the interests of their members. Private households are also included.

91 Public administration

This sector comprises establishments primarily engaged in activities of a governmental nature, that is, the enactment and judicial interpretation of laws and their pursuant regulations, and the administration of programs based on them. Legislative activities, taxation, national defence, public order and safety, immigration services, foreign affairs and international assistance, and the administration of government programs are activities that are purely governmental in nature.

Ownership is not a criterion for classification. Government owned establishments engaged in activities that are not governmental in nature are classified to the same industry as privately owned establishments engaged in similar activities.

Government establishments may engage in a combination of governmental and non-governmental activities. When separate records are not available to separate the activities that are not governmental in nature from those that are, the establishment is classified to this sector.

Agenda Item	6
Submitted to	Land Use Committee & Intermunicipal Servicing Committee
Purpose	For Decision
Subject	Public Engagement Plan
Meeting Date	January 16, 2020
<i>Motion that the LUC/ISC recommend to the Board for approval the HDR Calthorpe Public Engagement Plan</i>	
<p>Summary</p> <ul style="list-style-type: none"> • The Public Engagement Plan was presented to the Land Use and Intermunicipal Servicing Committee at the December 6, 2019 meeting to gather input from Committee members. • The Plan has been updated to: <ul style="list-style-type: none"> ○ Include an introductory sentence that notes that the Plan is a living document which will evolve as the planning process progresses and further inputs are received, ○ Employ a consistent use of the term “engagement” rather than “outreach”, and ○ Reflect the desire of the Committees for multiple forms of in-person engagement. • The updated Public Engagement Plan is being presented for recommendation to the Board. 	
<p>Attachments</p> <ol style="list-style-type: none"> 1. Public Engagement Plan, HDR Calthorpe 	

Growth and Servicing Plan

Calgary Metropolitan Region Board

Date: Tuesday, January 07, 2020

Subject: UPDATED Preliminary Public Engagement Plan

The following outlines the public engagement associated with the CMRB Growth and Servicing Plan (G&SP). It is a living document and will evolve along with the G&SP development, and with input from the CMRB and member municipalities.

Approach

Using the IAP2 spectrum (Figure 1), the public will be engaged at the “Consult” level. Regional engagement requires a wide geographic and demographic reach that is viewed as being equitable among all communities within the region. Opportunities will be provided for both face to face and digital participation.

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives and/or solutions.	To obtain public feedback on analysis, alternatives and/or decision.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Figure 1: IAP2 Levels of Engagement

As a starting point, it will be important to share the story of the Growth and Servicing Plan and why it matters to those who live and work in the Calgary Metropolitan Region (CMR). The public online engagement launch will occur in *Phase 2: Regional Scenarios* phase of the Growth and Servicing Plan. The public will be invited to provide input on the Growth and Servicing Plan

through and online engagement tool and an open house series. An engagement report summarizing what was heard will be prepared.

As the Growth and Servicing Plan is further refined, it will be shared with the public including how internal and public feedback was used in the process. The public will be asked to share their feedback on overall direction for regional growth to help refine the Plan. An engagement report summarizing what was heard will be prepared. The outcomes of the final plan will be shared broadly.

The tasks are further described in the *Engagement Process and Techniques* section below.

Objectives

The objectives for the public engagement plan are:

- to inform the public about the project, including the impacts and the outcomes, using plain language;
- to encourage the public to share their feedback on potential and preferred scenarios;
- to reach a broad and diverse representation of the public from across the region; and
- to report back on what was heard during engagement events and the next steps.

Public Participants

Public participants are people who live and/or work in the member municipalities:

- City of Airdrie
- City of Calgary
- City of Chestermere
- Town of Cochrane
- Foothills County
- Town of High River
- Town of Okotoks
- Rocky View County
- Town of Strathmore
- Wheatland County (portion as described in the *Calgary Metropolitan Region Board Regulation*)

In all requests for feedback, we will request which municipality respondents live and/or work in, so that we can identify differences in feedback from different areas in the CMR.

Engagement Process and Techniques

This section outlines how we will undertake the public engagement. It is organized around public engagement activities that will take place through Phases 2 and 3 of the Growth and Servicing Plan. A “What We Heard” summary will be generated following each of the engagement events or activities. The project team has recommended creation of a

Communications and Engagement Technical Advisory Group (CE TAG), comprised of communication and engagement representatives from each of the member municipalities. We will work with the CE TAG to help promote the online and in-person engagement activities.

Public Engagement Program Phase 1

The first phase of the public engagement program will introduce the public to the overall Growth and Servicing Plan, and specifically to the regional scenario development process. It will allow for feedback on the Plan process and on the initial scenarios as developed by the project team with input by the Land Use and Intermunicipal Servicing Committees (LUC and ISC).

The communications and engagement team will work closely with the rest of the project team to develop the narrative and visual materials that will be programmed into an online platform. This will be the first time many members of the public will engage with the CMRB regarding the Growth and Servicing Plan. The online engagement narrative will tell the full story and bring the public up to speed before diving into the scenarios and gather feedback. Our team will develop plug-and-play key messaging and marketing materials that can be easily shared by respective stakeholder communications to share on their existing communications channels.

An online platform will allow for easy use on a variety of devices from computers to smartphones, and will be designed to be accessible with all types of online connectivity, including cell service. The online site will be launched and announced via the CMRB website and through the various member municipality communications vehicles with the assistance of the CE TAG members.

Through the online site, community members will have a number of ways to share their input, from quick polls and surveys to more qualitative discussion forums on topics of their interest.

The effort will include:

- story creation;
- program, test, announce, and launch the online engagement platform;
- develop key messages, soundbites and regional scenarios newsletter;
- launch and monitor online platform;
- collect, review and summarize public feedback including a public-facing “What We Heard” report; and
- help refine preferred scenario direction based on public feedback.

A series of in-person engagement activities will be conducted around the region to engage the public in the process, inform them about the scenarios, and lead them to participate through the web site. Through “pop-up” engagement activities that “meet people where they are at” in high traffic locations, as well as heavily promoted open houses in larger urban centres, the public will be able to learn more about the Growth and Servicing Plan and provide meaningful input to help shape the preferred growth scenario. Up to ten “pop-up events” and three open houses are planned for the first phase of the public engagement program.

Public Engagement Program Phase 2

The second phase of engagement will focus on refinement of a preferred growth scenario and input to supporting policy, and will occur in the later stages of *Phase 3: Preferred Scenario and Adoption* of the Growth and Servicing Plan. This engagement will seek input to support refinement of the preferred scenario.

It will continue to tell the Growth and Servicing Plan story using the online platform developed for the first phase of public engagement. The narrative will explain how the preferred scenario was identified, including how previous internal and public feedback was used in the process. The public will be asked to comment on the preferred scenario. Feedback gathered will be used to assist in the further refinement of the preferred scenario prior to the final review of the preferred scenario by the LUC and ISC.

The public engagement program will involve the following tasks:

- develop, program and test online engagement tools;
- develop key messages, soundbites and preferred scenario newsletter;
- launch online platform;
- summarize public feedback, including a What We Heard Report.

Building Awareness

The CE TAG will be important in assisting in identifying advertising and promotional opportunities to build awareness about the project and the opportunities to provide feedback, given their knowledge of the most effective tools in their own community.

Timelines

Early March – meet with the communication and engagement TAG for identification of advertising and promotional opportunities in each municipality

- Public Engagement Program Phase 1:
 - March to early April 2020 – creation of materials for both the online and face to face engagement and promotion
 - Mid to late April 2020 – online and face to face engagement
 - Late April to early May 2020 – report on what was heard in all engagement activities
- Public Engagement Program Phase 2:
 - June 2020 – creation of materials for online engagement and promotion
 - June to early August 2020 – online engagement
 - Mid-August 2020 – report on what was heard through online engagement

Reporting and Evaluation

Reports will be completed at the end of each of the two phases of public engagement. They will speak to who participated, what feedback they provided and how it was incorporated into the project.

Evaluation will be collected at the end of each face to face activity and will be solicited on the online engagement platform. It will be used to identify any gaps in messaging and improvements for future processes.

Agenda Item	7
Submitted to	Land Use Committee & Intermunicipal Servicing Committee
Purpose	For Decision
Subject	Communications & Engagement Technical Advisory Group
Meeting Date	January 16, 2020
<i>Motion that the LUC/ISC APPROVE the Terms of Reference for the Communications and Engagement Technical Advisory Group</i>	
<p>Summary</p> <ul style="list-style-type: none"> • At the December Committee meetings, HDR Calthorpe presented a preliminary Public Engagement Plan for review and input. The plan recommends the development of a Communications and Engagement Technical Advisory Group (C&E TAG) to provide strategic support for the various engagement activities related to the development of the Growth Plan. • The draft meeting schedule for the C&E TAG is as follows: <ul style="list-style-type: none"> ○ Meeting 1 – In Person, Early March, to support the launch of the online public engagement component of the Growth and Servicing Plan and to identify advertising and promotional opportunities in each municipality. ○ Meeting 2 – Teleconference, Early April, to support promotion of the upcoming public open house (and/or other in-person) engagement activities. ○ Meeting 3 – Teleconference, Late May, to report on feedback received in the initial online engagement and in-person engagement and to support promotion of the second round of online engagement. • A Terms of Reference for the C&E TAG is attached for the decision of the Committees. 	
<p>Attachments</p> <ol style="list-style-type: none"> 1. Proposed Terms of Reference for the Communications and Engagement Technical Advisory Group (C&E TAG), HDR Calthorpe 	

Communication and Engagement Technical Advisory Group

Calgary Metropolitan Region Board Growth Plan

Terms of Reference

1. Background

The *Calgary Metropolitan Region Board Regulation* ("Regulation") mandates the delivery of a Growth Plan and Servicing Plan for the Calgary Metropolitan Region to the Minister of Municipal Affairs before December 31, 2020. As described in the Regulation, the Growth Plan and the Intermunicipal Servicing Plan must work together to promote a coordinated, efficient and strategic approach to growth in the Calgary Metropolitan Region.

2. Objectives

To develop an approach for fulfilling the objectives of the Growth and Servicing Plan, coordinated with the Servicing Plan, as defined in the Regulation as described in Section (8) of the *Calgary Metropolitan Region Board Regulation*.

The objectives of the Growth Plan include the following:

- *to promote an integrated and strategic approach to planning for future growth in the Calgary Metropolitan Region,*
- *to identify the overall development pattern and key future infrastructure investments that would*
 - *best complement existing infrastructure, services and land uses in the Calgary Metropolitan Region,*
 - *best complement the desired scale of development and community visions across the Calgary Metropolitan Region,*
 - *best address efficient and cost-effective growth and development, and*
 - *maximize benefits to the Calgary Metropolitan Region,*
- *to coordinate decisions in the Calgary Metropolitan Region to sustain economic growth and ensure strong communities and a healthy environment, and to promote the social, environmental and economic well-being and competitiveness of the Calgary Metropolitan Region.*

3. Mandate

To support the public engagement components of the Growth and Servicing Plan by providing advice on effective local communication and engagement tactics.

4. Regulatory Requirements/Scope of Work

4.1. Growth Plan

As described in Section 9(1) of the *Calgary Metropolitan Region Board Regulation*, except as otherwise specified by the Minister, a proposed Growth Plan must contain a comprehensive, integrated regional land-use plan for the Calgary Metropolitan Region.

Communication and Engagement TAG ToR – DRAFT – January 6, 2020 Agenda Item 7 Attachment

The Growth and Servicing Plan is required to provide direction on:

- a) population and employment projections;*
- b) the identification of
 - i. growth areas,*
 - ii. land supply for residential, commercial and industrial purposes,*
 - iii. agricultural lands,*
 - iv. density of development,*
 - v. the development and location of infrastructure, and*
 - vi. corridors for recreation, transportation, energy transmission, utilities and intermunicipal transit;**
- c) policies regarding the planning for corridors for recreation, transportation, energy transmission, utilities and intermunicipal transit;*
- d) policies regarding environmentally sensitive areas;*
- e) policies regarding the coordination of infrastructure planning and development among the participating municipalities;*
- f) policies that address new settlement areas;*
- g) policies that address the intensification of existing settlement areas;*
- h) policies regarding the conservation of agricultural lands;*
- i) specific actions to be taken by the participating municipalities to implement the Growth Plan.*

In addition, the Board has added “flood prone areas” as a requirement of the Growth and Servicing Plan. The Board may add regard to other matters through its visioning process and the development of the Growth and Servicing Plan.

5. Project Term

The Group will fulfill its mandate upon completion of the Calgary Metropolitan Region Growth and Servicing Plan or December 31, 2020.

6. Membership

The Communication and Engagement Technical Advisory Group (C&E TAG) should include representatives from member municipalities who are involved in corporate communication and/or public engagement for the member municipality. If a member municipality does not have a representative specifically tasked with communication and/or engagement within their municipality, another representative with an understanding of local communication and engagement needs may be identified.

7. Roles and Responsibilities

7.1. CMRB Administration

CMRB Administration will act as the Project Manager for the development of the Growth Plan and Servicing Plan. The CMRB Administration will:

- Provide project management services to deliver a project that aligns with the vision and values of Board members in a timely and cost-effective manner;
- Chair the meetings of the C&E TAG;
- Be responsible for overall coordination, management of the deliverable(s) and carry out specific tasks as appropriate;
- Technical recommendations shall be made at the discretion of CMRB with heavy consideration given to input provided by municipality administrations. Whenever possible, the CMRB shall strive for consensus; however, where consensus is not possible, CMRB holds responsibility to move the process forward to respect the Growth Plan and Servicing Plan timelines; and
- Update the Land Use and Servicing Committees on progress of the C&E TAG.

7.2. Growth Plan Consultant (as defined in CMRB contract 2019-06 B)

The Growth Plan consultant will:

- Communicate objectives and develop materials for C&E TAG meetings, deliver same to CMRB Administration 10 days in advance of C&E TAG meetings;
- Present technical materials to C&E TAG, where appropriate;
- Seek guidance from the C&E TAG on matters related to public outreach;
- Work with all internal and external stakeholders to develop technical recommendations related to the Growth and Servicing Plan;
- Present technical recommendations to the Land Use and Servicing Committees;
- Provide the C&E TAG a summary of how their input was considered in the development of the Growth and Servicing Plan public engagement process.

7.3. Communication and Engagement TAG

The C&E TAG will act as technical experts for the project. C&E TAG members will:

- Contribute their time to attend meetings. Teleconferences will be used whenever possible. It is anticipated that four to six meetings will be required;
- Provide input into the public engagement components of the Growth and Servicing Plan development on behalf of their member municipality;
- Assist in identifying effective communication methods within their respective municipality to support promotion of public engagement activities; and
- Collaborate with CMRB Administration, consultants, and other participants to identify and solve public engagement challenges and to move project forward.

8. Costs

Any participating organization or government is asked to provide funding for time and disbursements related to participation in the C&E TAG.

1. Appendix 1: Communication and Engagement TAG Meetings Protocols

8.1. Meeting Attendance

- If primary representatives are unable to attend a meeting, an alternate will be sent in their place.
- Primary representatives and alternates must be approved by the CMRB.

8.2. Meeting Confidentiality

- Any information that is deemed proprietary or confidential will be stated at the beginning of each meeting and will not be shared outside the TAG.
- A confidentiality agreement will be executed by all primary and alternate members of the Communication and Engagement TAG prior to participating in the development of the Growth Plan and Servicing Plan.

8.3. Meeting Minutes

- Meeting minutes will provide a general summary of the matters discussed at the meeting, a list of action items, and any decisions agreed upon by the group.
- Meeting minutes will be provided by the Growth Plan Consultant.

8.4. Meeting Agendas

- Target date for circulation of an agenda and key materials is one (1) week in advance of meeting.
- Materials for the agenda will be provided by the Growth Plan Consultant.

8.5. Meeting Decorum

- All members of the Communication and Engagement TAG will participate respectfully. This includes keeping comments on topic, allowing others to speak, disagreeing in a respectful manner, being mindful of the time spent discussing any one topic.
- Every member has the right to participate fully in the meetings and will be recognized by the Chair if they wish to speak to an issue.

Agenda Item	8
Submitted to	Land Use Committee & Intermunicipal Servicing Committee
Purpose	For Decision
Subject	External TAG Membership
Meeting Date	January 16, 2020
<i>Motion that the LUC/ISC recommend to the Board for approval the proposed membership for the External Technical Advisory Group</i>	
<p>Summary</p> <ul style="list-style-type: none"> • On November 7th, representatives of HDR Calthorpe presented an Internal and External Stakeholder Engagement Plan to the Committees for discussion. • The Internal and External Stakeholder Engagement Plan includes a recommendation to establish an External Technical Advisory Group (“External TAG”). The External TAG would participate in the development of the Growth Plan and Servicing Plan by acting as expert technical advisers. • The optimum number of representatives participating in the External TAG is ten representatives. • Following input received from the joint Land Use and Intermunicipal Servicing Committee meeting on December 5, 2019, the following list represents the proposed invitees for External TAG membership: <ul style="list-style-type: none"> ○ Government of Alberta - Alberta Environment and Parks ○ Government of Alberta - Municipal Affairs ○ Government of Alberta – Alberta Transportation ○ Bow River Basin Council (BRBC) ○ Building Industry and Land Development Association Calgary (BILD Calgary) ○ Calgary Real Estate Board (CREB) ○ Calgary Regional Airshed Zone (CRAZ) ○ Miistakis Institute ○ National Association for Industrial and Office Parks (NAIOP) Calgary Chapter ○ Western Irrigation District (WID) 	

Agenda Item	9
Submitted to	Land Use Committee and Intermunicipal Servicing Committee
Purpose	For Information
Subject	Technical Advisory Group Updates
Meeting Date	January 16, 2020
<i>Motion that the LUC/ISC receive for information an update on the work of the CMRB Technical Advisory Groups</i>	
<p>Summary</p> <p>The Land Use TAG and Servicing TAGs are currently focusing on the following areas:</p> <ul style="list-style-type: none"> • HDR Calthorpe Planning Process • Regional Employment Analysis • Digitization of Existing and Approved Land Uses (formerly Land Supply Analysis) • Agriculture Subcommittee • Transit Subcommittee • Transportation Study • CMRB Water Table • Recreation Framework • Policing Subcommittee <p>Updates on the HDR Calthorpe Planning Process, Environmentally Sensitive Areas Background Study and the Stormwater Background report are provided as part of other agenda items in this agenda package.</p>	

1. HDR Calthorpe Planning Process

- HDR Calthorpe is preparing for Workshop #2-Alternatives Scenarios Workshop to be held on January 31, 2020.
- CMRB Administration continues to support the HDR Calthorpe team with data and information gathering as they prepare for Workshop #2.

2. Regional Employment Analysis

- A final report will be presented to LUC for its recommendation at the January 16th Joint Committee meeting.

3. Digitization of Existing and Approved Land Uses (formerly Land Supply Analysis)

- The data from the Digitization of Existing and Approved Land Uses has been delivered to HDR Calthorpe. It will be used to develop materials for Workshop #2.
- This study is now complete.

4. Agriculture Subcommittee

- A draft report has been completed and will be circulated to the Land Use TAG and Agriculture Subcommittee for their review and input.
- The draft report will be presented to the LUC for its approval.

5. Transit Subcommittee

- Interim findings as approved by the ISC are being used to support the HDR Calthorpe planning process, including the need to focus on key themes of “integration,” “connection” and “efficiency” in transit.
- Municipal transit specialists are being incorporated into the HDR Calthorpe planning process as approved by ISC.
- Reporting of the Subcommittee findings are ongoing. The draft will be reviewed by the Transit Subcommittee prior to ISC for approval.

6. South and East Calgary Regional Transportation Study (S&ECRTS)

- The S&ECRTS was initiated by the CMRB in October 2018. The successful consultant, ISL Engineering and Land Services, began in their work in January 2019.
- The S&ECRTS will build upon the study process, analyses, evaluation and results of the NCRTS. The expected outcome, is a scenario for the 2028 (10 year) and 2039 (20 year) planning horizons that can be used as base case to develop long term transportation models for the Calgary metropolitan region.
- The 2039 network was finalized in September 2019 and the 2028 network is substantially complete and will be finalized in early January 2020.
- The next phase of work is project evaluation and prioritization in January and February 2020.

7. CMRB Water Table

- The Water Roadmap continues to be revised to include an approach to integrated policy direction on development in flood-prone areas. A workshop to kick off the work on flood-prone areas occurred on October 10, 2019 in High River. Summary report preparation is ongoing.
- The Water Table has been working through scopes of work A through E of the Water Roadmap Complexities and the Stage 1 Report.
 - Stage 1 Report Executive Summary was approved by ISC in a joint meeting of the land use committee (LUC) and ISC on June 6, 2019. The executive summary was shared with the Growth Plan consultant.
 - Complexity A – “Calgary Metropolitan Region Existing Water and Wastewater Servicing and Regional Potential”. The scope

of work was developed with input from Water Table. The RFP closed May 24, 2019. ISC recommended the report for approval by the Board on November 7, 2019. The Board approved the report on November 22, 2019. The study has been shared with the Growth Plan consultant.

- Complexity B – Demand Management. ISC recommended the report for approval by the Board on September 5, 2019. The Board approved the study on October 18, 2019. The study has been shared with the Growth Plan consultant.
- Complexity C – Managed and Natural Capacity. CMRB Admin, Water Table, and AEP developed the scope for the RFP. The RFP closed on June 11, 2019. ISC recommended the deliverables for approval by the Board on November 7, 2019. The Board approved the deliverables on November 22, 2019. The deliverables have been shared with the Growth Plan consultant.
- Complexity D – Regulation, Approvals and Policy. CMRB Admin hosted a workshop with many ISC members and municipality administrations in attendance, and others on June 27th, 2019 at Cochrane Ranchehouse. The summary report has been circulated and next steps with AEP are being discussed. The Advocacy Committee is also working on materials for advocacy with the Province on topics related to water.
- Complexity E – Water Quality. Land Use TAG, CMRB admin and Water Table are working jointly on land use planning for water quality in the CMRB through the Environmentally Sensitive Areas (ESA) Background Study. The ESA Background Study was approved by the Board in December 2019. The deliverable has been shared with the Growth Plan consultant.
- A background report for consideration by the Growth Planning Consultant was developed by the Water Table on Stormwater. An update was provided to ISC on November 7, 2019. The report has been provided in another agenda item. The report has been shared with the Growth Plan consultant.
- CMRB administration continue to participate at meetings of AEP projects including Bow River Phosphorus Management Plan Implementation Committee and the Bow Basin Water Management Options Conceptual Assessment.

8. Recreation Framework

The workshop with Recreation Servicing TAG to define regional recreation was held on June 7, 2019. The consultant has prepared a summary report of the workshop. Recreation Servicing TAG has reviewed the report. A meeting of the TAG was held on October 29 to discuss the feedback. Another meeting of the Recreation TAG was held December 17, 2019.

Revisions to the report are currently ongoing based on the feedback from the Recreation Servicing TAG.

9. Policing Subcommittee

The first meeting of the subcommittee was held on October 9, 2019. The Committee determined to do a current state report and is exploring the possibility of Mount Royal University students conducting the work free of charge.

10. Recommendation

That the LUC/ISC receive for information an update on the work of the CMRB Technical Advisory Groups