

Calgary Metropolitan Region Board  
Intermunicipal Servicing Committee Meeting Agenda  
September 5, 2019, 1:00 PM  
Winsport COP  
Multipurpose Room C, Second Floor

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

1. Call to Order & Opening Remarks Oel
2. Adoption of Agenda All  
**For Adoption:** *Motion that the ISC adopt and/or revise agenda*
3. Approval of Minutes (Attachment) All  
**For Decision:** *Motion that the ISC review and approve the Minutes of the July 4, 2019 meeting*
4. Demand Management Study (Attachments) Graves/  
Associated  
**For Decision:** *Motion that ISC recommend to the Board approval of the Water Use and Conservation in the Calgary Metropolitan Region Study*
5. North Calgary Regional Transportation Study (Attachments) Graves/  
Merali  
**For Adoption:** *Motion that the ISC recommend to the Board adoption of the North Calgary Regional Transportation Study*
6. South and East Calgary Regional Transportation Study (Attachments) Graves/  
Merali  
**For Information:** *Motion that the ISC accept for information an update on the South and East Calgary Regional Transportation Study*
7. CMRB Servicing TAG Update (Attachment) Graves  
**For Information:** *Motion that the ISC accept for information an update on the work of the CMRB Servicing Technical Advisory Groups and servicing-related items*
8. Government of Alberta Ongoing Project Update  
**Closed Session** (pursuant to Sections 16 and 25 of FOIP)
9. Western Irrigation District Project  
**Closed Session** (pursuant to Sections 16 of FOIP)
10. Adjournment Oel

11.Next Meeting: Thursday October 3, 2019 at Mount Royal University

Servicing Committee Members:

Mayor Peter Brown (Airdrie)	Councillor Don Moore (High River)
Councillor Gian-Carlo Carra (Calgary)	Mayor Bill Robertson (Okotoks)
Mayor Marshall Chalmers (Chestermere)	Reeve Greg Boehlke (Rocky View)
Councillor Patrick Wilson (Cochrane)	Mayor Pat Fule (Strathmore)
Councillor Suzanne Oel, Vice Chair (Foothills)	Councillor Scott Klassen (Wheatland)

Christopher Sheard, Committee Chair  
Dale Beesley, GOA Representative

Upcoming Meetings:

Land Use Committee	Thursday Oct 3 – 9:30 AM	Mount Royal University
Servicing Committee	Thursday Oct 3 – 1:00 PM	Mount Royal University
Board Meetings	Friday Sept 20 – 9:30 AM Friday Oct 18 – 9:30 AM	Mount Royal University Mount Royal University
Governance Committee	Friday Sept 20 – 12:45 PM	Mount Royal University
Advocacy Committee	TBD	
Policing Subcommittee	Wednesday Oct 9 – 1:00 PM	CMRB Office
CMRB Flood Workshop	Thursday, Oct 10 – 8:30 AM	Highwood Memorial Centre, High River

Minutes of the meeting of  
the Intermunicipal Servicing Committee of  
the Calgary Metropolitan Region Board  
held at Mount Royal University  
on Thursday July 4, 2019

**Delegates in Attendance:**

Mayor Peter Brown – City of Airdrie  
Councillor Gian-Carlo Carra – City of Calgary  
Mayor Marshall Chalmers – City of Chestermere  
Councillor Patrick Wilson – Town of Cochrane  
Councillor Suzanne Oel – Foothills County  
Councillor Don Moore – Town of High River  
Councillor Tanya Thorn – Town of Okotoks  
Reeve Greg Boehlke – Rocky View County  
Mayor Pat Fule – Town of Strathmore  
Councillor Scott Klassen – Wheatland County

Dale Beesley – ADM Municipal Affairs

**CMRB Administration:**

Christopher Sheard, Chair  
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 1:00 PM

**2. Adoption of Agenda**

**Moved by** Mayor Fule, **Seconded by** Councillor Oel, accepted by Chair.

**Motion:** That the Calgary Metropolitan Region Intermunicipal Servicing Committee approve the agenda of this meeting.

**Motion carried unanimously.**

**3. Approval of Minutes**

**Moved by** Reeve Boehlke, **Seconded by** Councillor Klassen, accepted by Chair.

**Motion:** That the Calgary Metropolitan Region Intermunicipal Servicing Committee approve the Minutes of the June 6, 2019 meeting.

**Motion carried unanimously.**

Mayor Brown arrived at 1:05 PM

**4. Logical Extension of Servicing Study**

Urban Systems provided a presentation on the logical extension of servicing in the CMR and answered questions. The ISC directed CMRB admin to rename the study to be more reflective of the content.

**5. Natural and Managed Capacity Study**

WaterSMART provided a presentation on the natural and managed capacity study in the CMR and answered questions.

Chair Sheard noted that a review of the overall CMRB work plan at an upcoming Board meeting would be a beneficial refresher.

**6. City of Calgary Drought Presentation**

The City of Calgary Emergency Management Agency provided a presentation on the results of their disaster risk assessment, which included drought, wildfire impacts and poor air quality, and answered questions.

**7. Transit Subcommittee Findings**

Liisa Tipman, along with Devon LaFleche of the Town of Cochrane and Chris MacIsaac of the City of Airdrie, updated the Servicing Committee on the work of the Transit Subcommittee and the rationale for the recommendations going forward.

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

**Motion:** That the Calgary Metropolitan Region Intermunicipal Servicing Committee approve the recommendations of the Transit Subcommittee.

**Motion carried unanimously.**

**8. Next Meeting**

Thursday Sept 5, 2019 @ Winsport

**9. Adjourned at 3:30 PM.**

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**CMRB Chair, Christopher Sheard**

<b>Agenda Item</b>	<b>4</b>
<b>Submitted to</b>	<b>Intermunicipal Servicing Committee</b>
<b>Purpose</b>	<b>For Approval</b>
<b>Subject</b>	<b>Water Use and Conservation in the Calgary Metropolitan Region Study</b>
<b>Meeting Date</b>	<b>September 5, 2019</b>
<i><b>For Decision:</b> Motion that ISC recommend to the Board approval of the Water Use and Conservation in the Calgary Metropolitan Region Study</i>	
<p><b>Summary</b></p> <ul style="list-style-type: none"> <li>• On March 7, 2019, the Intermunicipal Servicing Committee granted CMRB Administration the authorization to complete a series of studies in support of the Water Roadmap, including Complexity B: Water Use and Conservation in the Calgary Metropolitan Region Study (“Complexity B”).</li> <li>• CMRB Administration collaborated with the Water Table Technical Advisory Group (“Water Table”), CMRB Subject Matter Expert, and municipal experts to develop a scope of work for the Complexity B Study.</li> <li>• The RFP was posted on Alberta Purchasing Connection on March 11<sup>th</sup>, 2019 with a closing date of April 8<sup>th</sup>. Associated Engineering (“AE”) was selected as the preferred proponent. The project was awarded on May 10<sup>th</sup>, 2019.</li> <li>• AE kicked off the work with a presentation to the Water Table followed by a kickoff presentation to the ISC on June 6, 2019. AE provided a mid-study update presentation and discussions to Water Table. A presentation of study findings was discussed at a Water Table meeting on August 1, 2019. The draft report was subsequently reviewed by the Water Table for comment and finalized.</li> <li>• AE has prepared a summary presentation of their work program and findings.</li> <li>• The final report is attached under separate email due to the large file size.</li> </ul>	
<p><b>Attachments</b></p> <ul style="list-style-type: none"> <li>• Water Use and Conservation in the Calgary Metropolitan Region Study, Associated Engineering</li> <li>• Slide Deck: Water Use and Conservation in the Calgary Metropolitan Region, Associated Engineering</li> </ul>	

# 1. Key Messages from This Study

## 1.1. Water Uses Defined

In this phase of the study, Associated Engineering reviewed how water consumption data is collected and measured for each of the Calgary Metropolitan Region (CMR) municipalities. This information informed the user types and volume of water used based on the types. It is typical for municipalities to use metering and a billing system to measure water use. Based on the data provided from phone interviews with the municipalities, 98% to 100% of water users in CMR municipalities are metered. Water use is typically tracked by user type which is either a) Residential, or b) Industrial, Commercial and Institutional (ICI).

In Foothills County, user types (i.e., Residential and ICI) are not differentiated, rather, users are billed a flat rate based on their meter size. In many other CMR municipalities, the ICI water use is further broken down into the following categories:

- Bulk Water
- Municipal
- Irrigation

Table 3-4 of the report summarizes how each municipality is currently tracking water use.

## 1.2. Then and Now

Many municipalities are already implementing water conservation measures with success as evidenced by the following Table from the report (Table 4-1), where L/c/d is litres per capita per day.

Table 4-1: Overall Change in Per Capita Water Use

Municipality	Airdrie	Calgary	Chestermere	Cochrane	Foothills	High River	Okotoks	Rocky View (Bragg Creek)	Strathmore	Wheatland
Period of Record	2008	2011	2012	2009	2008	2008	2007	2013	2006	2016
	2018	2018	2018	2018	2018	2018	2018	2018	2017	2018
Per Capita Water Use (L/c/d) for 2008 or the next closest record	257	320	198	255	N/A	322	231	181	376	250
for 2018 or the most recent record	211**	277	190	221	N/A	314	215	195	263	225
Change in Per Capita Water Use (%)	- 18%	- 20%	- 4%	- 13%	N/A*	- 2%	- 11%	+ 8%*	- 37%	- 10%

\* The per capita water use for Foothills County, East Balzac (Rocky View County) and the regional supply from High River to Foothills County (Aldersyde, Cayley and Mazzeppa Gas Plant) were not calculated due to a lack of historical population data. Further, Cargill Meats consumes over 2 million cubic meters per year of water, therefore it was excluded from the per capita consumption analysis for the Town of High River.

\*\* Recent data provided by The City of Airdrie shows a slight increase in per capita water use of 274 L/c/d for 2018 only. A confirmation of water use data consistency is recommended.

### 1.3. How was this achieved?

Municipalities are implementing measures in their municipalities on an ongoing basis, summarized in the following Table from the report (Table 8-3). Of note is that the municipalities that have employed the greatest number of water conservation measures (10/11) are Cochrane and Okotoks. These two municipalities also face the most imminent water shortage in the Region.

**Table 8-3: Comparison of Water Conservation Measures**

Municipality	Water Conservation Measures										
	Metering	Variable Water Rate Structure	Water Use Bylaws	Low-Flow Fixture Subsidy / Program*	Outdoor Watering Restrictions	Rain Barrel Subsidy	Non-Potable Water Use for Irrigation	Non-Potable Water Use/Re-Use for Municipal	Drought Tolerant Landscaping	Public Education Programs	Water Use Restrictions for ICI
Airdrie	✓	✓	✓	✓	✓		✓			✓	
Calgary	✓	✓	✓	✓		✓	✓	✓	✓	✓	
Chestermere	✓	✓					✓				
Cochrane	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
Foothills	✓	✓	✓					✓			
High River	✓	✓	✓	✓		✓				✓	
Okotoks	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Rocky View	✓	✓		✓			✓				✓
Strathmore	✓	✓	✓								✓
Wheatland	✓	✓	✓				✓	✓			



## 1.4. How Does the Region Rank Globally?

Compared to other countries in the world, we have much higher per capita water uses. The average water use per person of municipalities in the CMR varies from 190 L/c/d to 314 L/c/d. The following summary table outlines approximate global water use data (Table 7-3 of the report):

Country	Litres per capita per day (l/c/d)
Germany	~117
Spain	~110
Singapore	~150
United Kingdom	~142
United States	~300

~ values approximate

There are improvements to be made as a Region as we combine future population and economic growth with the potential for less reliable water sources in the future.

## 1.5. What can CMRB do to improve?

Based on the information provided and what has been observed to-date, the following are opportunities for CMRB to consider during development of the Growth and Servicing Plan to further address water security collaboratively:

1. Address Data Gaps
2. Reduce Water Loss
3. Set Targets
4. Implement Conservation and Efficiency Measures
5. Consult with the Experts
6. Consider Seasonality
7. Perform Additional Studies

### 1.5.1. Address Data Gaps

The CMRB should encourage consistency in data collection and address the data gaps identified in this study. Accurate accounting of the volume of water distributed to end users can help identify sources and volume of leakage as well as prioritizing abatement measures. Suggestions to improve harmonization of data collection across the CMR are listed below:

#### a) Population

- i. Record the residential population each year that is serviced by municipal supply.
- ii. Record the residential population each year that is serviced by rural water co-ops or individual groundwater wells.
- iii. Record the estimated number of visitors each year to large commercial developments (e.g., CrossIron Mills in east Balzac).

#### b) Water Use Data

- i. Record water consumption by user type (e.g., residential or ICI).
- ii. Record bulk water consumption by user type, determined at the card lock.
- iii. Record municipal water and irrigation<sup>1</sup> water consumption separately from residential and ICI.
- iv. Monitor and record hydrant use (e.g. temporary meters or implementing a requirement to report the duration that a hydrant was operational for).

**c) Land Use Area**

- i. Record the area of ICI land use and irrigated areas each year.

**d) Rural Water Coops**

- i. Obtain water use and historical population data for the rural water co-ops. The following means could be used to acquire the data:
- ii. Submit a Freedom of Information and Protection of Privacy (FOIP) request to AEP.
- iii. Request data from rural water co-op operators directly.
- iv. Request data from the Alberta Federation of Rural Water Cooperatives (AFRWC).

**e) Country Residential**

- i. Collect information to understand the water use habits of country residential users to better inform potential conservation measures.

### **1.5.2. Reduce Water Loss**

A significant volume of potable water is unaccounted for due to leakage and metering errors. To further conserve water, the sources of water loss should be identified and mitigated. Options for consideration include: water audits, water loss studies, night flow analysis, acoustic or helium leak detection, zone metering, monitoring spikes in monthly water use, meter replacement programs, regularly checking and calibrating water meters, water main break repair, and replacing aging infrastructure prior to leakage.

### **1.5.3. Set Targets**

A set of specific and measurable targets for residential water use, total water use and water loss reduction could be determined and agreed to collectively by all CMR municipalities.

When determining water use targets, it is important to acknowledge the difference between urban and rural lifestyles and how that correlates to water use. Additionally, there are different levels of jurisdiction over rural water co-ops in the CMR. The AUMA targets of 195 L/c/d for residential water use and 341 L/c/d total water use are specific to urban municipalities. Since there are different levers for rural municipalities, there may have to be different targets for urban versus rural settings, with consideration for where municipalities have jurisdiction.

In rural settings where the municipality does not have jurisdiction to implement best management practices (BMPs), the municipality can take a leadership role in public

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<sup>1</sup> The term 'irrigation' in this brief refers to the outdoor use of water, including municipal watering and residential watering. This term is not being used in the agricultural sense of large scale crop or livestock production.

education and the CMRB may agree to less aggressive water use targets for these areas. Additionally, the CMRB might also examine implementing a unit area water use target for irrigation<sup>2</sup> in rural settings. Other options for consideration are to use raw water, reclaimed stormwater or reclaimed wastewater for rural residential irrigation.

#### **1.5.4. Implement Conservation and Efficiency Measures**

Based on the information gathered for this study the following recommendations on water conservation strategies are provided to the CMRB for consideration.

Municipalities have flexibility to implement local bylaws to engage and curb behaviour for water consumption. Through implementation of bylaws, public education programs, and community engagement, municipalities can take a strong leadership role in water efficiency. Actions could include:

##### **a) Implement Conservation Strategies**

- i. Develop a water Conservation and Efficiency Plan (CEP) and establish targets and objectives for water reduction. For municipalities that already have a plan, identify areas for modification, and improvements, if required.
- ii. Evaluate the effectiveness of current water conservation initiatives to determine if existing programs should be continued, modified or terminated.
- iii. Evaluate the effectiveness of current bylaws to determine if modifications are required for improvement.
- iv. Identify champions and leaders at the municipal level and allocate resources to keep momentum in water conservation programs or initiatives.

##### **b) Public Engagement**

- i. Communicate the current water conditions in the CMR to the public. Clarify that water scarcity will only be exacerbated by time, population growth and climate change to emphasize the importance of water conservation. Develop public engagement materials using examples from other jurisdictions who are currently experiencing drought conditions to change the public's perspective on water use. Explain the water cycle and communicate that water is a finite resource.
- ii. Develop clear messages on why water conservation is important using local data and facts on water consumption in each municipality and the current environmental status to educate the public. Develop content that is relevant to the local hydrological and geographical environment.
- iii. CMR municipalities should take a unified role in preparing and presenting public engagement materials to present a consistent message throughout the region.

##### **c) Review Water Rates**

Data from other countries showed a reduction in water consumption when there is a high cost associated with water use. Raising water rates has been shown to effectively

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<sup>2</sup> Again, the term 'irrigation' in this brief refers to the outdoor use of water, including residential outdoor watering. This term is not being used here in the agricultural sense of large scale crop or livestock production.

curb water use behaviour. Municipalities can conduct an evaluation to determine if the current water pricing or rate structure reflects the long-range costs of operating and maintaining the water utility. The proposed water rate should consider stresses on the water system and encourage and reward users for water conservation.

### **1.5.5. Consult with the Experts**

- a) When implementing water conservation and efficiency measures, it is important that the CMRB consult with other jurisdictions who have experience with the implementation of similar measures.
- b) Engage scientific communities or associations to gain insights and/or share knowledge about water security holistically. These may include the AUMA, University of Calgary, University of Alberta, Alberta Water Council, or Bow River Basin Council.
- c) Several CMR municipalities have successfully implemented water conservation and efficiency efforts within their communities and could be a good resource to other member municipalities who want to undertake similar efforts. Refer to Table 8-3: Comparison of Water Conservation Measures (above) to identify other municipalities to consult with on their strategies and implementation. Suggestions for action may include:
  - i. Look to the Town of Okotoks who have strongly advanced their water conservation and efficiency efforts with successful implementation in their community. They can provide valuable insights and lessons learned from their experience.
  - ii. Many cities in the U.S. are currently experiencing water shortages and water quality issues due to the change in climate. It would be prudent to look to our southern neighbours for relevant resiliency strategies to avoid potentially “reinventing the wheel”. Additionally, there are lessons to be learned from their “mistakes”.
- d) There are many BMPs for water conservation within water utilities. A specific resource that provides good guidance is the USEPA Best Practices to Consider when Evaluating Water Conservation and Efficiency as an Alternative for Water Supply Expansion. For example, for end use water conservation and efficiency such as rebate programs for indoor and outdoor water fixtures, or water use restrictions, this document indicates the need to identify the customer profile to better implement water conservation initiatives and provides suitable metrics to measure success. Furthermore, the document has also identified tools to track performances.

### **1.5.6. Consider Seasonality**

When implementing BMPs, it is important to consider the season in which a BMP will have the most impact. During winter, river and aquifer levels are lower and there will be less raw water supply available. There is generally no residential watering or irrigation. The BMPs that have the most impact during the winter season are metering, public education on indoor water use behaviour, and rebate/replacement programs for

low-flow fixtures. The spring freshet can create water treatment challenges that may limit WTP capacity. During the summer (post freshet), river and aquifer levels are higher and there will be more raw water supply available. Water demand also peaks during this time due to an increased requirement for residential watering and irrigation. The BMPs that have the most impact during the spring and summer are outdoor watering restrictions (e.g. bylaws) and rebate programs for lawn replacement and water smart landscaping. During spring and summer, additional CMR municipalities may also look at implementing a xeriscaping rebate program.

### **1.5.7. Perform Additional Studies**

It is recommended that the CMRB undertake additional studies once further information is gathered to enable full cost accounting and identify the most cost effective BMPs to set priorities. Use available resources to help create a new regional water conservation plan or modify existing municipality plans. A useful tool is the Water Conservation Guide, 2013,<sup>19</sup> developed for the Province of British Columbia in collaboration with the Okanagan Basin Water Board. This document provides step-by-step processes for identifying geographic boundaries, community profiling, exploring conservation options, choosing the most effective measures, and putting the plan into action.

## **2. Administration Request**

That the Intermunicipal Servicing Committee recommend to the Board approval of the Water Use and Conservation in the Calgary Metropolitan Region Study



Associated  
Engineering



# Calgary Metropolitan Region Board

Water Use and Conservation in the Calgary Metropolitan Region

**Andy Barr**, M.Sc., P.Eng.  
**Juliana Tang**, M.Sc., P.Eng.

**Intermunicipal Servicing Committee**

**September 5, 2019**



# Scope of Work

**Task 1** – Meetings (Water Table / ISC)

**Task 2** – Information Gathering

**Task 3** – Review Water Use Data

**Task 4** – Examples of Canadian / US Water Conservation Best Practices

**Task 5** – Status Evaluation

**Task 6** – Reporting

**Task 7** – Project Management



# What We Accomplished

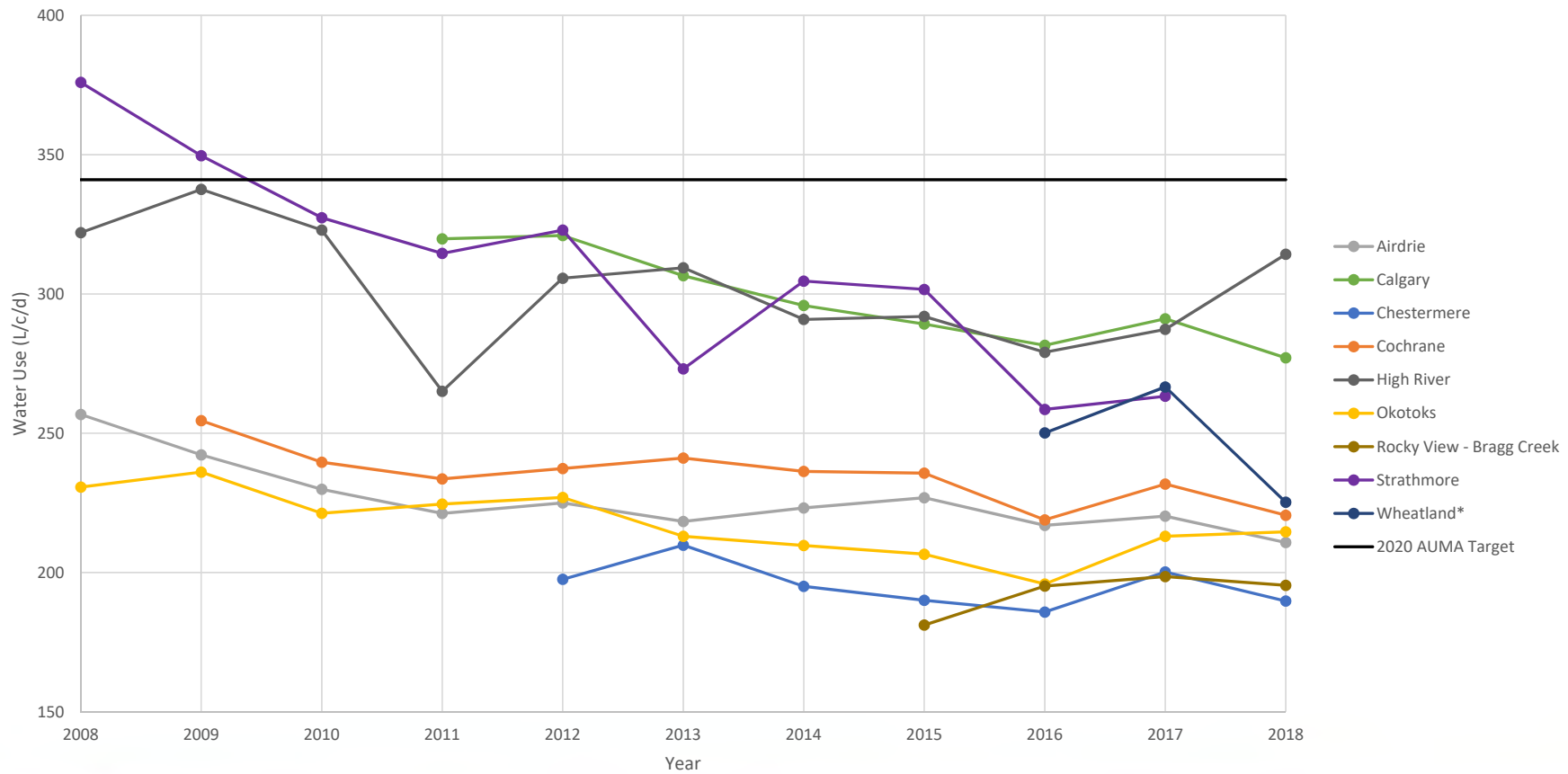
- Summarized Water Use by Municipality – Growth Plan Consultant Input
- Looked at How Water Use Data is Tracked
- Tabulated the Different Rate Structures
- Recommended Normalized Definitions for Usage
- Summarized Overall Decline in Per Capita Usage across CMR
- Examined Unaccounted Water Use Trends, Causes and Corrections
- Summarized Best Management Practices Across Canada, US and Globe





# Per Capita Water Use

CMR Municipalities - Per Capita Water Use



# Estimating Unaccounted For Water

- Difference between WTP meter (produced) or Bulk meter (purchased) water and metered billing data
  - Water Loss and Leakage
  - Unmetered Use
  - Metering Inaccuracy
  - Theft
- 10% to 40% was observed by the data provided



# Estimating Unaccounted For Water

- Average Regional Water Consumption = 391,000 m<sup>3</sup>/d
- Average Regional Unaccounted For Water = 129,000 m<sup>3</sup>/d
  - Unaccounted For Water is Equivalent to:
    - 9 hours of water use in Calgary
    - 23 days of water use in Okotoks
    - 32 days of water use in High River
    - 52 Olympic sized swimming pools



# Rural Water Co-Operatives

- Approximately 1.5 Million People in the CMR
- 100+ Rural Water Co-ops in the CMR
- Estimate up to 30,000 People Serviced by Rural Water Co-ops, including Country Residential
- Approximately 1% to 2% of Regional Demand



# Data Gaps

- Reliable Historical Population Data
- Water User Categories – Residential and ICI
- Water Use Data
  - Purchased or Produced Water
  - Bulk Water Use
  - Municipal Water Use
  - Privately Owned Rural Water Co-Ops



# Regulatory Overview

- Brief history of the framework
- Water for Life, 2003
- AUMA and Alberta Water Council
- Provincial Standards and Guidelines for Municipal Waterworks:
  - Flexibility and ample opportunity to integrate BMPs
  - Play a local regulatory role in water security through the application of bylaws



# Observed BMPs in Canada





# Observed BMPs in the United States





# Observed BMPs

- Setting Targets
- Water Use Restrictions
- Education – reduction of water use (irrigation, washing cars, leaks, water wise gardens)
- Rebate Programs
- Communicate Success – multiple ways of engagement
- Monitor and Data Collection – understand water use
- Champions / Resources - continuity and keeping the momentum



# Water Conservation Status Evaluation

- Metering (10/10)
- Variable Rate Structure (10/10)
- Water Use Bylaws (8/10)
- Low-Flow Fixture Subsidy / Program (6/10)
- Outdoor Watering Restrictions (3/10)
- Rain Barrel Subsidy (4/10)
- Non-Potable Water Use for Irrigation (7/10)
- Non-Potable Water Use / Re-Use for Municipal (4/10)
- Drought Tolerant Landscaping (3/10)
- Public Education Programs (5/10)
- Water Use Restrictions for ICI (3/10)

	✓	✓	✓	✓	✓		✓
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# Opportunities for the CMRB

- Address Data Gaps
- Reduce Water Loss
- Set Targets
- Implement Conservation and Efficiency Measures
- Consult with the Experts
- Consider Seasonality
- Perform Additional Studies



<b>Agenda Item</b>	<b>5</b>
<b>Submitted to</b>	<b>Intermunicipal Servicing Committee</b>
<b>Purpose</b>	<b>For Adoption</b>
<b>Subject</b>	<b>North Calgary Regional Transportation Study</b>
<b>Meeting Date</b>	<b>September 5, 2019</b>
<b><i>For Adoption:</i></b> Motion that the ISC recommend to the Board adoption of the North Calgary Regional Transportation Study	
<p><b>Summary</b></p> <ul style="list-style-type: none"> <li>• On January 20, 2016, the City of Airdrie, Rocky View County and the City of Calgary received a letter from Greg Bass, Deputy Minister, Alberta Transportation requesting that the three municipalities work together to determine transportation infrastructure priorities along QEII in the north Calgary region.</li> <li>• Through much of 2016, representatives from each municipality and Alberta Transportation collaborated on a potential process and workplan to determine how to best respond to the Deputy Minister’s request. During this process, it was also determined that the inclusion of the City of Chestermere and the Town of Cochrane would add value in the development of the overall transportation network in the north Calgary region.</li> <li>• Through a competitive RFP process, a consultant was selected to undertake the North Calgary Regional Transportation Study (NCRTS). The successful consultant, ISL Engineering and Land Services (ISL) started in early 2018.</li> <li>• CMRB administration attended the project meetings as observers throughout most of the NCRTS in 2018.</li> <li>• Together, the two studies, NCRTS and S&amp;ECRTS, are intended to establish the regional transportation infrastructure needs for 2028 and 2039 planning horizons. Figure 1, attached, illustrates the Regional Transportation Plan Development process approved by the ISC on December 6, 2018.</li> </ul>	
<p><b>Attachments</b></p> <ul style="list-style-type: none"> <li>• Figure 1: Regional Transportation Plan Development</li> <li>• Letter from Greg Bass, Deputy Minister Alberta Transportation</li> <li>• Executive Summary of North Calgary Regional Transportation Study report</li> <li>• Calgary Metropolitan Region Transportation Studies, Aziz Merali – CMRB Transportation Subject Matter Expert</li> </ul>	

## 1. North Calgary Regional Transportation Study

On January 20, 2016, the City of Airdrie, Rocky View County and the City of Calgary received a letter from Greg Bass, Deputy Minister, Alberta Transportation requesting that three municipalities (City of Calgary, Rocky View County and City of Airdrie) work together to determine transportation infrastructure priorities along QEII in the north Calgary region. Specifically, the municipalities were instructed to:

*"...meet, discuss and articulate priorities for the region. Included in the discussion would be the overpasses and interchanges needed, in priority order; arterial route expansion; intersection improvements; land use and future requirements; the consideration of a multi-modal corridor; and a new designated site for the weigh station."*

Through much of 2016, representatives from each municipality and Alberta Transportation collaborated on a potential process and workplan to determine how to best respond to the Deputy Minister's request. Through this process, it was also determined that the inclusion of the City of Chestermere and the Town of Cochrane would add value in developing the overall transportation network for the north Calgary region.

Funding was obtained through the Alberta Community Partnership grant and through Alberta Transportation. Through a competitive RFP process, a consultant was chosen to undertake the NCRTS. The successful consultant was ISL Engineering and Land Services.

Aziz Merali, CMRB Transportation Subject Matter Expert, is presenting an overview of the collaborative and technical process utilized for the study and the outcome of the study.

### 1.1. Next Steps

The North Calgary Regional Transportation Study was initiated in a timeframe between when the former Calgary Regional Partnership (CRP) was winding up and prior to the formation of the Calgary Metropolitan Regional Board (CMRB).

Once it was established, CMRB staff attended NCRTS milestone meetings on an observer basis. The CMRB is now undertaking a similar study for the South & East Calgary Region, using the NCRTS as a model for both the collaborative participation of member municipalities and the prioritization process itself. The intention is for both studies to be integrated and used as a common technical baseline in developing the Regional Growth Plan and Servicing Plan, expected to be completed by December 2020.

Airdrie, Calgary, Rocky View County, Cochrane and Chestermere presented the outcomes of the NCRTS study to the Alberta Transportation Deputy Minister, Director and Executive Director in July of 2019 given that this is where the work request originated. The outcome of the meeting was very positive and praise was given to the

municipalities for their collaborative efforts. The results of this study will be considered in the upcoming funding program review process in September, 2019.

The relative ranking of proposed transportation projects will provide benefit to the CMR as a whole and should assist with expediting provincial funding commitments. It is understood that this collaborative approach continues to be successful in the capital region, where area municipalities have participated in common regional prioritization efforts for more than a decade.

## **1.2. Recommendation**

*That the ISC recommend to the Board adoption of the North Calgary Regional Transportation Study*

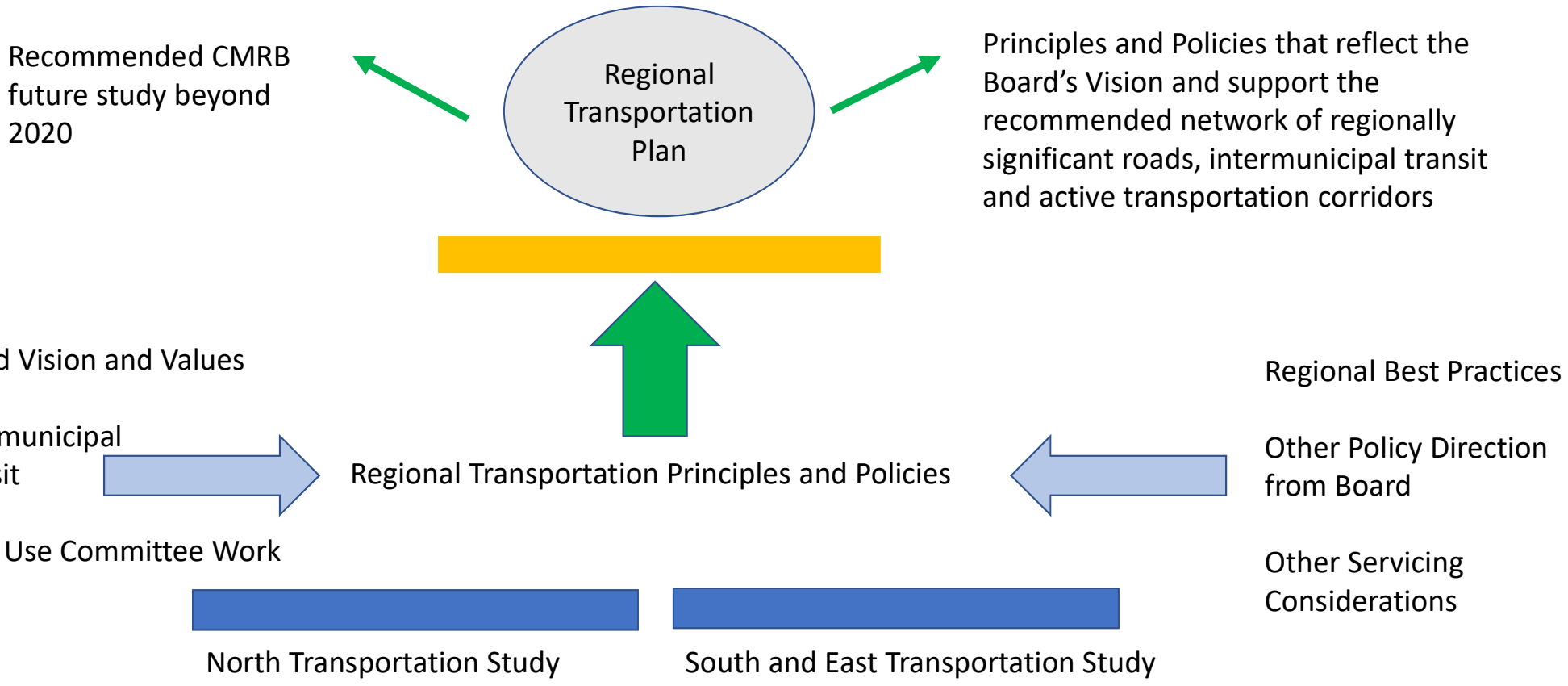


Figure 1  
**RTP Development**

Deputy Minister  
2nd Floor, Twin Atria Building  
4999 - 98 Avenue  
Edmonton, Alberta T6B 2X3  
Canada  
Telephone 780-427-6912  
Fax 780-422-6515  
[www.transportation.alberta.ca](http://www.transportation.alberta.ca)

January 20, 2016

Mr. Paul Schulz  
Chief Administrative Officer  
City of Airdrie  
400 Main Street  
Airdrie AB T4B 3C3

Mr. Kevin Greig  
County Manager  
Rocky View County  
911 - 32 Avenue NE  
Calgary AB T2E 6X6

Mr. Malcom Logan  
General Manager, Transportation  
City of Calgary  
PO Box 2100, Station M  
Calgary AB T2P 2M5

Dear Sirs:

Re: North Calgary Region Transportation Priorities

As Alberta Transportation plans for our next three-year cycle of capital funding, we are cognisant of the need to address aging infrastructure and traffic congestion from Stoney Trail north to Highway 567, and more specifically between Balzac Road overpass and Yankee Valley Boulevard. Our plans and subsequent work would be augmented greatly by having local municipal champions advise as to the priorities required to enhance our network in the area.

To this end, I suggest there is a pressing need for your three organizations to meet, discuss and articulate priorities for the region. Included in the discussion would be the overpasses and interchanges needed, in priority order; arterial route expansion; intersection improvements; land use and future requirements; the consideration of a multi-modal corridor; and a new designated site for the weigh station.

This regional and collaborative endeavour will assist Alberta Transportation greatly to deliver on the transportation needs for the area and truly become a partner in our collective interest to serve the needs of all Albertans. We must, obviously, reserve the right to always consider the macro-provincial network needs, as the building of this infrastructure must tie into a long-term strategic vision for our network.

If agreed, I will ensure local transportation officials participate with your teams on this work. As our QE II corridor study is now commencing, we all need to be mindful that requests will be in accordance with the future plans for the highway. The Alberta Transportation lead will be Assistant Deputy Minister Manon Plante and she can be reached at 780-643-1682 (dial 310-0000 for a toll-free connection or at [manon.plante@gov.ab.ca](mailto:manon.plante@gov.ab.ca). Manon and her team will follow your lead in establishing meetings and meeting agendas.

.../2

*anna.ball@gov.ab.ca.*





Our sincere desire is to have this work serve as a successful example of a smaller regional pilot that can be used on a larger regional basis and will complement the north section of the Calgary region QE II priorities.

Thank you in advance for this work and anticipated collaboration.

Sincerely,



Greg Bass  
Deputy Minister

cc: Manon Plante, Assistant Deputy Minister, Delivery Services, Alberta Transportation



Alberta's Official Road Reports

Up-to-date road information, including traffic delays, is a click or a call away.  
Call 5-1-1 toll-free, visit [511.alberta.ca](http://511.alberta.ca) or follow us on Twitter [@511Alberta](https://twitter.com/511Alberta) to get on the road to safer travel.

## Executive Summary

In 2016, the Deputy Minister of Alberta Transportation (AT) requested that The City of Calgary, City of Airdrie and Rocky View County meet, discuss and articulate transportation network priorities in the north Calgary region. By developing a consistent set of network priorities that reflect planned land use and growth, the resulting study was intended to serve as an example of how infrastructure priorities could be determined for the region as a whole over time, and to help AT identify funding priorities in its next three-year capital planning cycle, consistent with its own long-term provincial network plans.

In response to this request, the three municipalities undertook a number of steps through 2016 and 2017 to jointly secure grant funding and develop terms of reference for a North Calgary Regional Transportation Study (NCRTS). It was determined that significant additional value could be gained by taking a more integrated approach for the north Calgary region as a whole, hence the City of Chestermere and Town of Cochrane were also engaged to participate in the study. Together with AT, the five municipalities collectively formed the North Calgary Regional Committee (NCRC) to cooperatively advance the study. By integrating and reflecting approved land use plans in each of the participating municipalities, the study provides a common baseline for assessment of the regional transportation network that will be needed to support planned growth of more than 650,000 new residents in the north Calgary region over the next 20 years. The Calgary Metropolitan Region Board (CMRB), formed in January 2018, also participated in the study as an observer, and is expected to reference the study as a baseline for preparation of long-term regional servicing plans in the coming years.

Through an intensive network development process that included analysis with the Calgary Regional Transportation Model (RTM) and evaluation with a range of qualitative and quantitative criteria, comprehensive network plans have been recommended that reflect a mix of primary transit, corridor and interchange projects that can support the planned growth at the 10- and 20-year horizons. The Evaluation Framework used for the study was developed by consensus of the NCRC through a series of three workshops, and included 18 criteria grouped and weighted in 5 categories, as follows.

Table ES-1 Evaluation Categories

Category	Weighting
Regional Growth / Economy	30%
Performance / Efficiency	30%
User Service / Connectivity / Choice	25%
Environmental	10%
Financial	5%

Analysis and evaluation were also completed for major north-south routes in the Calgary-Airdrie area, particularly comparing options to either widen Deerfoot Trail and QEII between Stoney Trail and Airdrie, or develop a new East Airdrie Bypass. On balance, the evaluation found that there is significant region- and province-wide benefit to be gained in development of this new provincial highway corridor, though it is not quite warranted at the 20-year horizon. Key recommendations from this review included:

- Prioritize near-term investment in the existing QEII corridor, completing long-established plans for 8-laning of the highway from Stoney Trail to Airdrie
- Complete a corridor identification and functional planning study for the East Airdrie Bypass at the earliest possible opportunity, to ensure long-term protection of this valuable transportation corridor
- Review and evaluate the final recommendations of the Deerfoot Trail Corridor Study (currently underway by Alberta Transportation and The City of Calgary) in the regional context, when completed

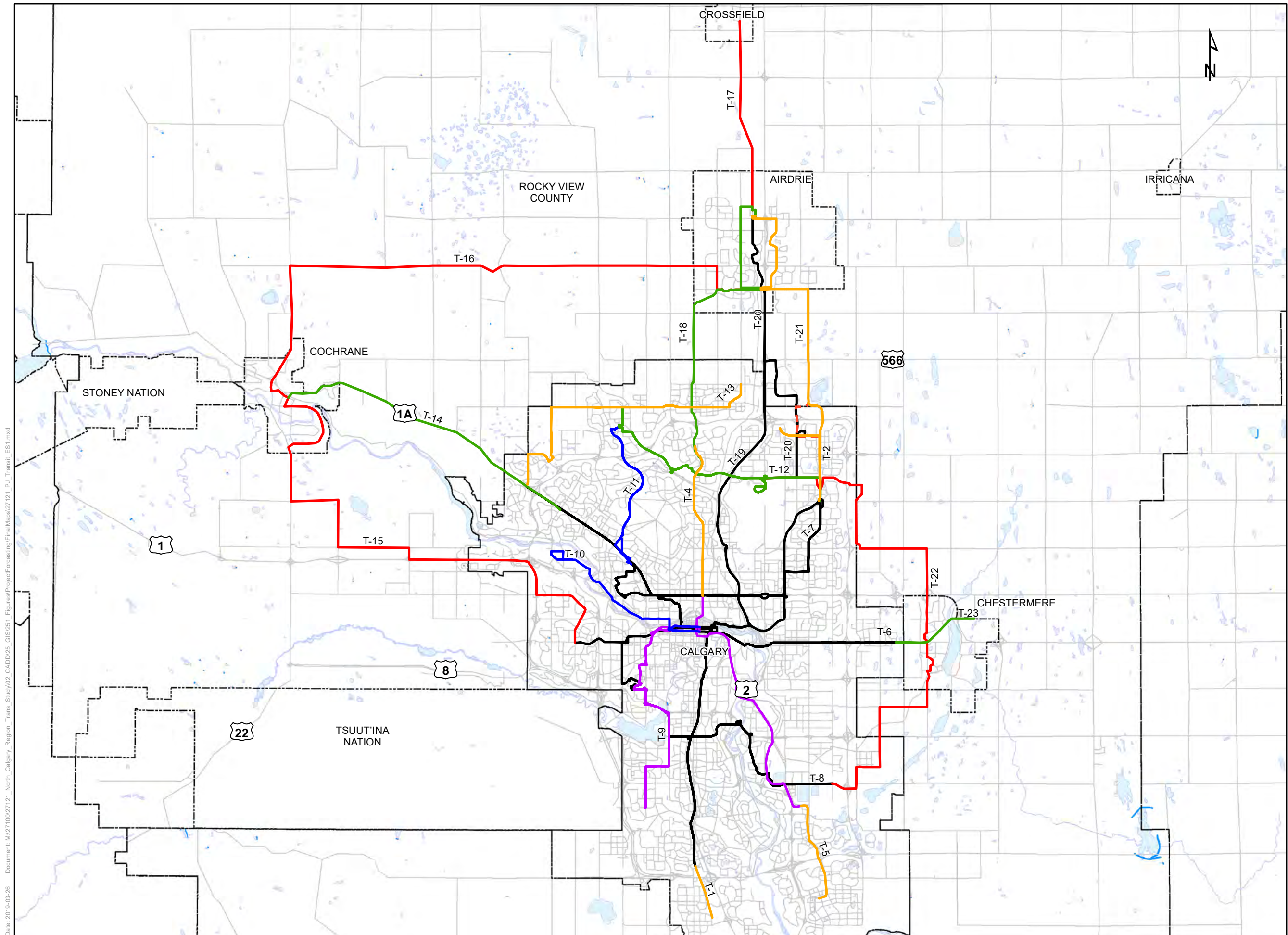
Final network recommendations for transit and roadways are shown on Exhibits ES-1 and ES-2, respectively.

Transit recommendations built from the extensive work already completed by Calgary Transit through the Route Ahead planning process, which among other priorities will see development of the Green Line LRT Phase 1 by the 10-year horizon and the recommendation of additional LRT system extensions and BRT corridors by the 20-year horizon. Key additional transit projects recommended at the 10-year horizon included three new regional BRT lines serving Cochrane via the Red Line LRT, Chestermere via the MAX Purple BRT, and Airdrie via the Green Line LRT, as well the YYC Airport Transit Connection, providing enhanced regional access to this major intermodal hub and employment centre.

Prioritization and ranking of regional projects within the recommended networks were completed by the NCRC using the Evaluation Framework. The 10 highest-priority regional corridor and interchange projects were as follows.

**Table ES-2 Highest Priority Regional Corridor and Interchange Projects**

Ranking	Code	Project	Score
1	C-12	11 St / RR 11 / 8 St (144 Ave NE to 40 Avenue) – 4 lanes	84.00
2	I-17	40 Ave / QEII Interchange	68.17
3	C-72	Hwy 1A (Hwy 22 to Gleneagles Dr) – 4 lanes	64.49
4	C-68	QEII (Stoney Tr to Yankee Valley Blvd) – 8 lanes	63.33
5	I-37	Stoney Tr / 11 St Interchange	61.33
6	I-35	Crowchild Tr / 12 Mile Coulee Rd Interchange	60.49
7	I-23	Stoney Tr / Airport Tr Interchange	59.83
8	I-11	Hwy 566 / QEII Interchange	59.17
9	I-38	Hwy 1 / Garden Rd Interchange	59.00
10	I-40	Hwy 1A / Hwy 22 Interchange	57.50



**Legend**

- Transit Projects**
- Beyond 2039
  - 2039 Regional
  - 2028 Regional
  - 2028 Non-Regional
  - Underway
  - Existing

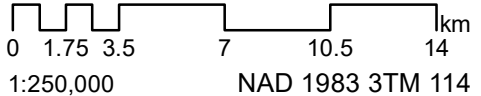


EXHIBIT ES-1  
TRANSIT PROJECT  
RECOMMENDATIONS

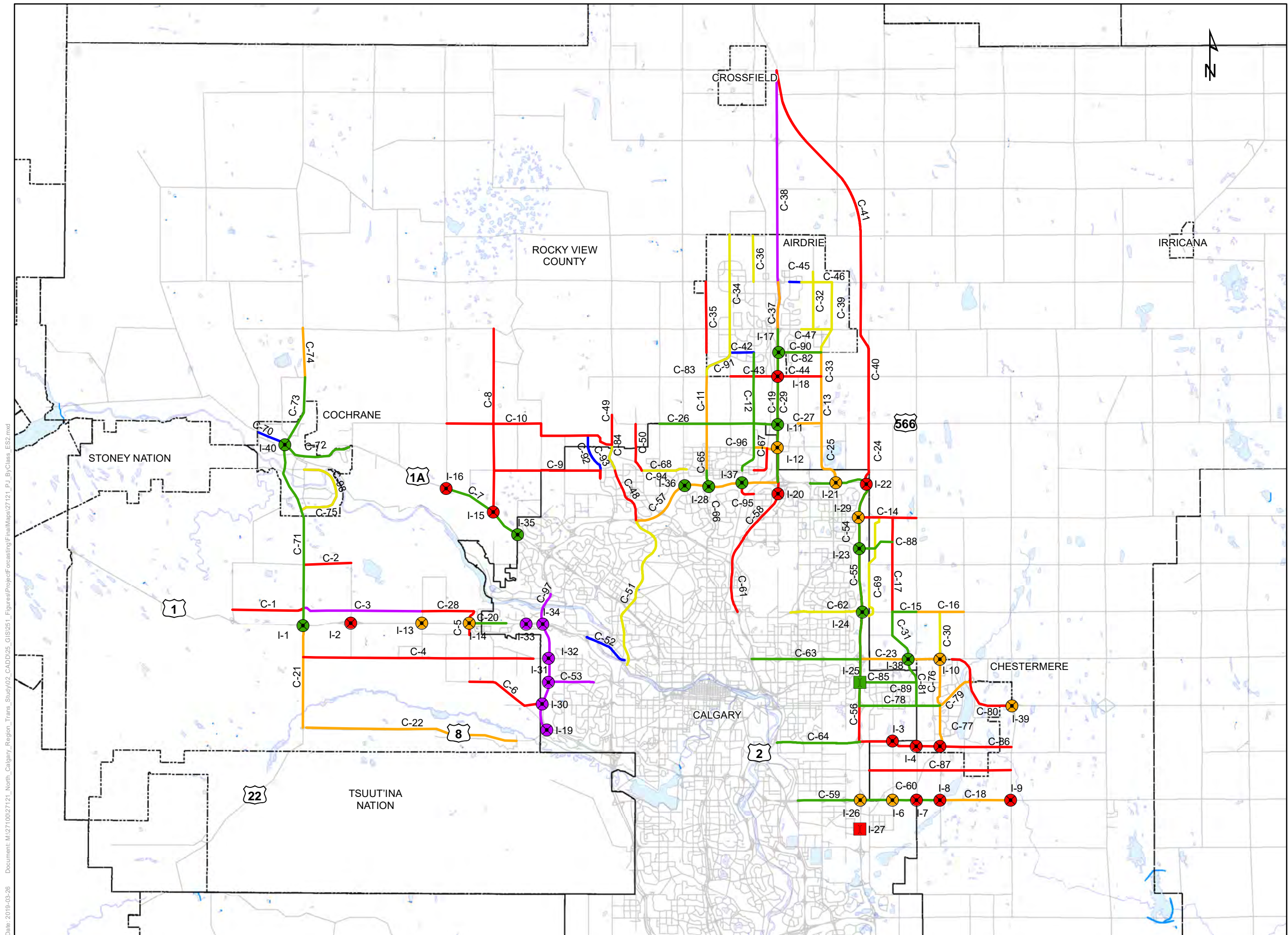
NORTH CALGARY REGIONAL  
TRANSPORTATION STUDY



Date: 2019-03-26 Document: M2710027121\_North\_Calgary\_Regional\_Transportation\_Study02\_CADD025\_GIS051\_Figures/ProjectForecasting/Final/Maps/27121\_PJ\_Transit\_ES1.mxd

Data Credits: Rocky View County, The City of Calgary, The City of Airdrie, The Town of Cochrane, The Town of Chestermere





**Legend**

- Base Road Network
- Interchange Type**
  - Flyover
  - Interchange
- Interchange Classification**
  - Beyond 2039
  - 2039 Regional
  - 2039 Non-Regional
  - 2028 Regional
  - 2028 Non-Regional
  - Underway
- Corridor Classification**
  - Beyond 2039
  - 2039 Regional
  - 2039 Non-Regional
  - 2028 Regional
  - 2028 Non-Regional
  - Underway

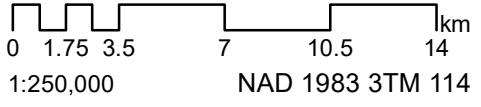


EXHIBIT ES-2  
CORRIDOR AND INTERCHANGE  
PROJECT RECOMMENDATIONS

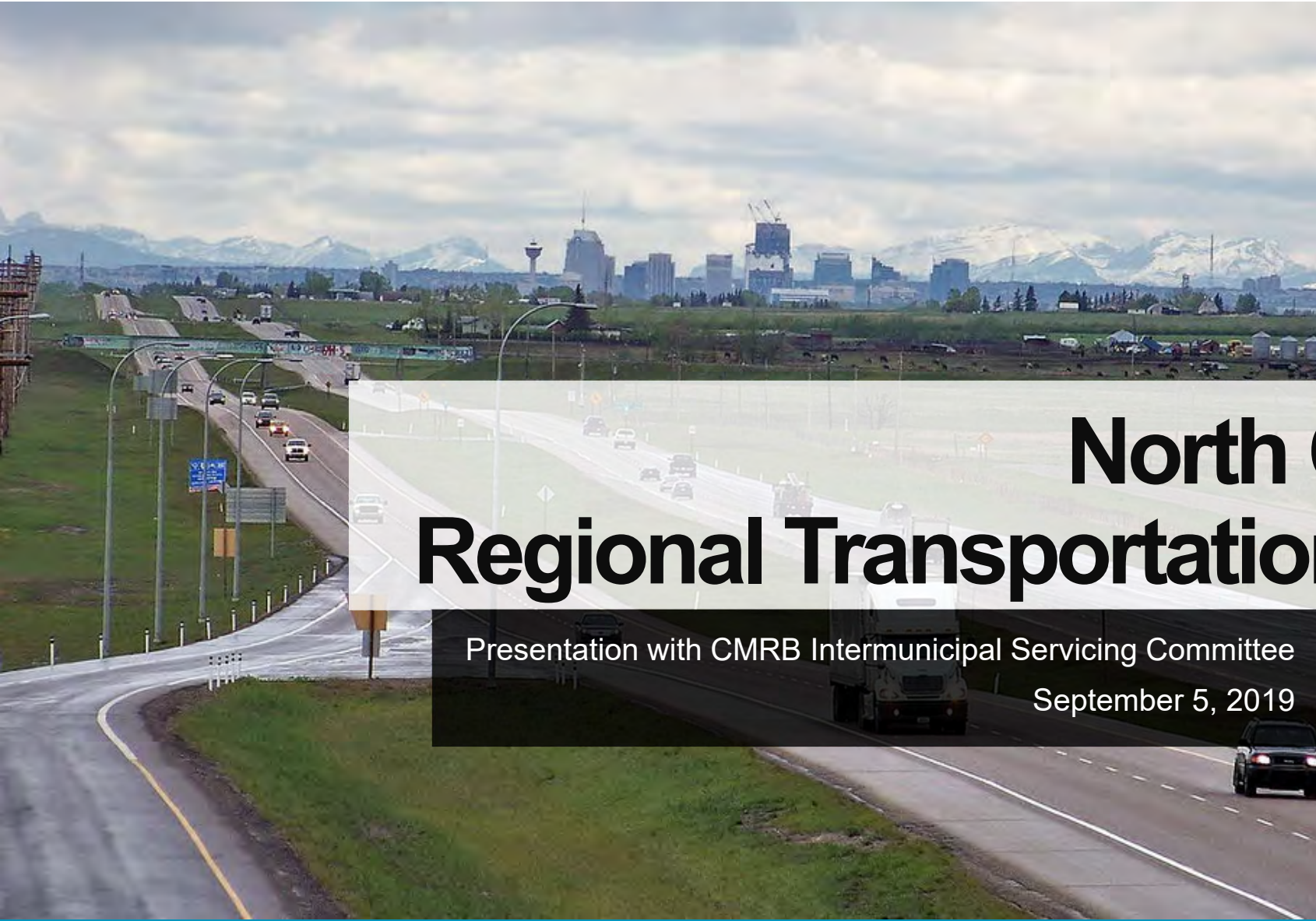
NORTH CALGARY REGIONAL  
TRANSPORTATION STUDY



Date: 2019-03-26 Document: M2710027121\_North\_Calgary\_Regional\_Transportation\_Study02\_CADD05\_GIS051\_Figures/ProjectForecasting/Map/27121\_P1\_ByClass\_ES2.mxd

Data Credits: Rocky View County, The City of Calgary, The City of Airdrie, The Town of Cochrane, The Town of Chestermere





# North Calgary Regional Transportation Study

Presentation with CMRB Intermunicipal Servicing Committee

September 5, 2019

# Study Overview

- Request from Alberta Transportation Deputy Minister to Airdrie, RVC, and Calgary to meet, discuss and articulate transportation network priorities in the north Calgary region for the next 10 and 20 years
- North Calgary Region Committee (NCRC) was formed and included Chestermere, Cochrane & Alberta Transportation
- NCRC guided this study and retained Aziz Merali of TransCan Engineering Ltd., a technical specialist, to manage the consultant contract
- ISL Engineering was selected through a competitive process to complete the study in 12 months using a modified study process endorsed by the NCRC.



# Study Overview

- Funding for the study was 50% from Alberta Transportation and 50% from Alberta Community Grant
- The City of Calgary and Alberta Transportation provided resources to develop/update the Calgary Regional Transportation Model
- NCRC actively participated and milestones and all key decisions were by consensus
- CMRB, formed in early 2018, participated in meetings in an observer capacity



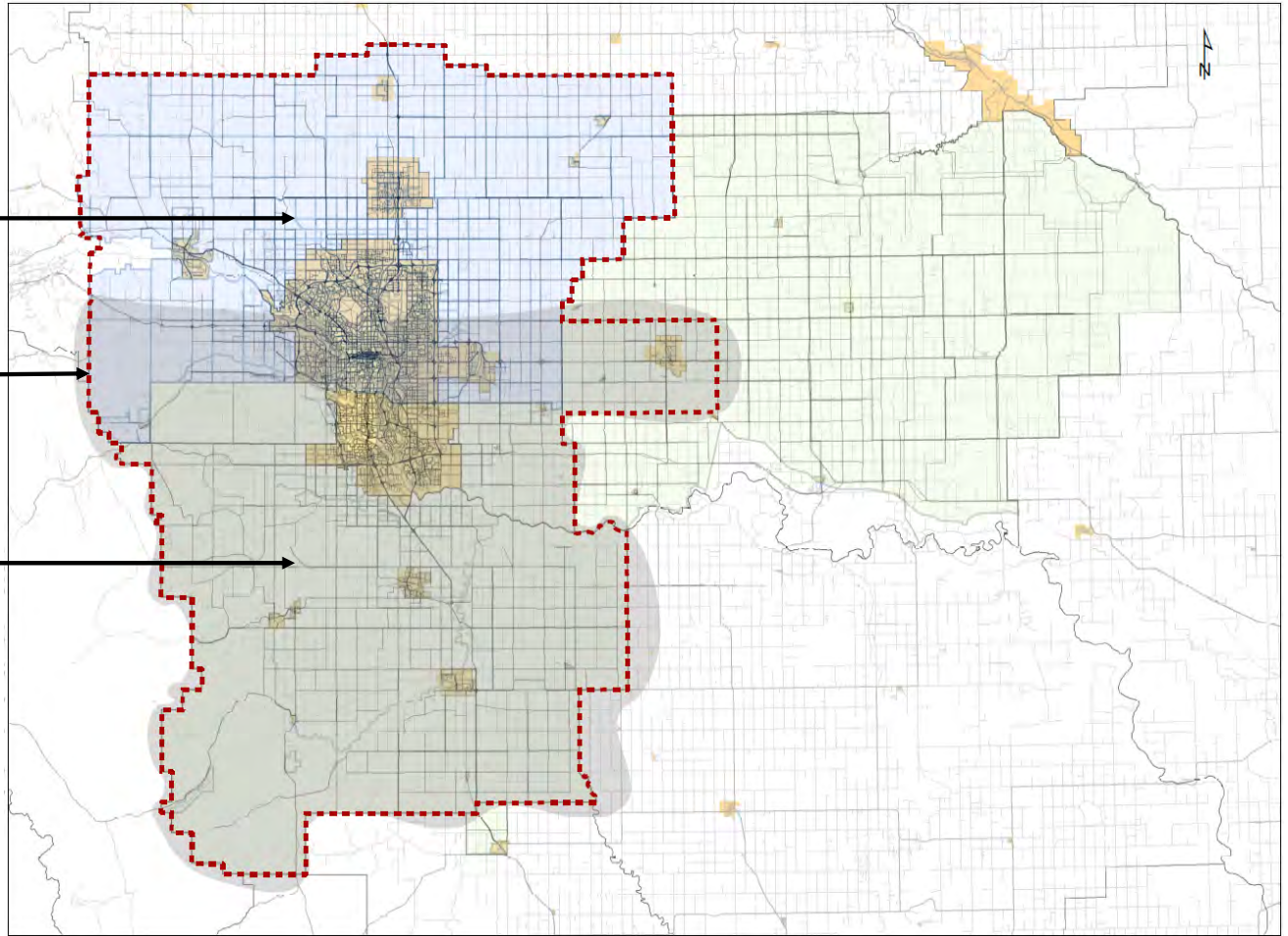


# NCRTS Overview

NCRTS Study Area  
(this study)

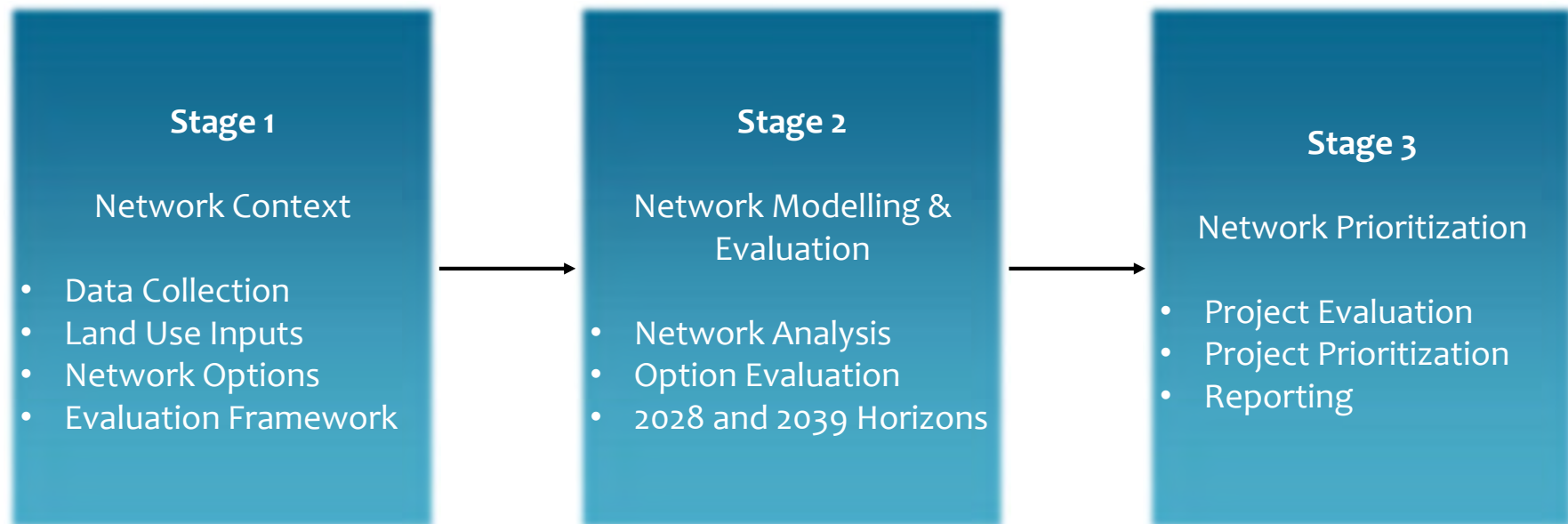
CMRB Boundary

S&ECRTS Study Area  
(underway now)



NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Study Process



NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Growth Assumptions

- All municipalities provided input based on approved ASPs (or more detailed plans) as of December 31, 2017
- 10-year (2028) and 20-year (2039) horizons – so not necessarily “full build” of each municipality

North Calgary Region*	Population	Jobs
2015 (Baseline)	1.00 Million	0.61 Million
2028 (10-Year)	1.36 Million	0.88 Million
2039 (20-Year)	1.65 Million	1.08 Million
Overall Growth	+65%	+75%

\* North Calgary Region figures only include area ~north of Glenmore Trail







# Transportation Network

- Candidate projects obtained from existing TMPs, ASPs and provincial highway plans
- Three categories:
  - Corridor projects – widening existing corridors or developing new corridors 98 Projects
  - Interchange projects – new or upgraded interchanges or flyovers 40 Projects
  - Transit projects – primary transit projects (BRT or LRT) 23 Projects
- Considered arterial-classification roadways or higher 161 Projects
- Underwent an iterative process of analysis and evaluation to classify all projects and refine a recommended network that effectively supports the given growth assumptions

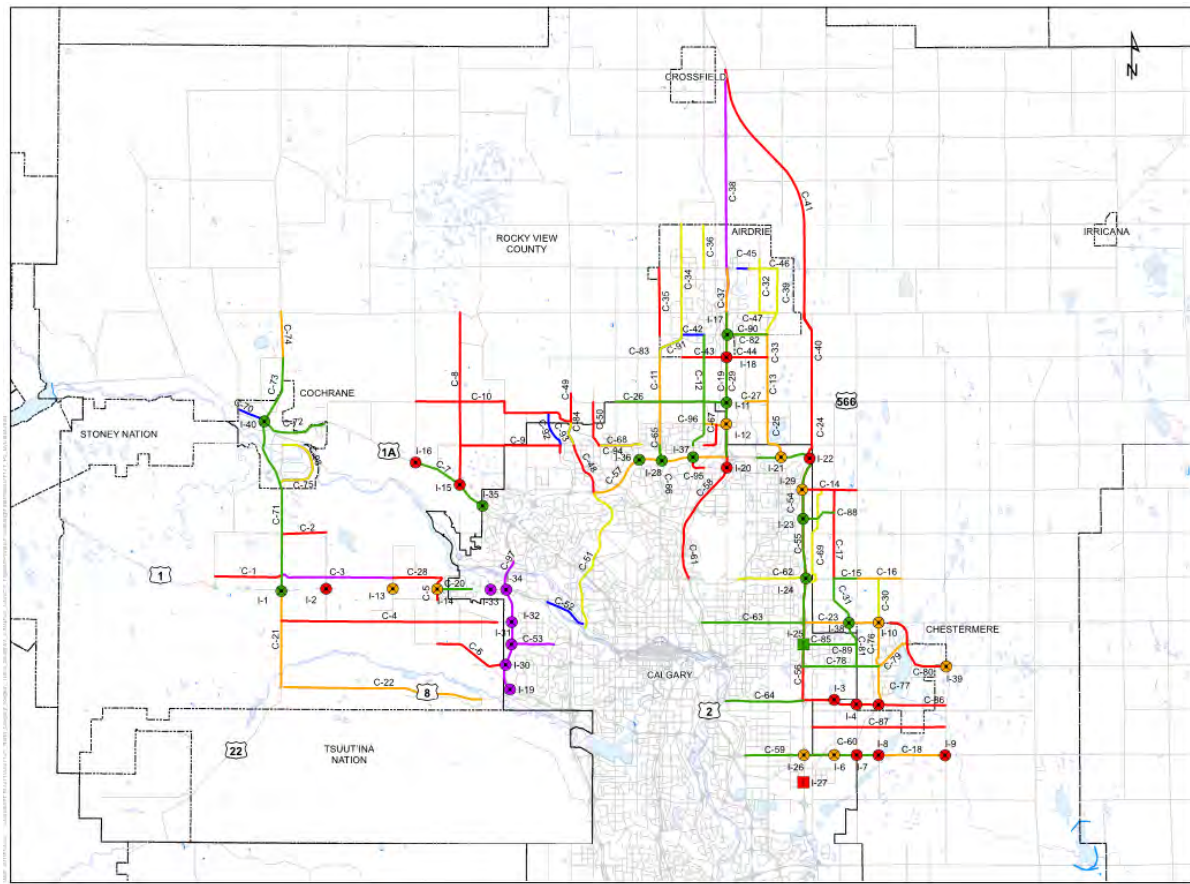
# Transportation Network

- Network analysis and option evaluation used to categorize all projects
- Beyond 2039 – not warranted in regional network at this 20-year horizon
- Non-Regional Projects – local in nature, serve a specific development or municipality only, or would normally be constructed by developers
- Regional Projects – serve multiple municipalities, facilitate intra-regional travel, serve a major intermodal or goods movement function, or are part of the provincial highway network
- Underway Now – are under construction or have assured funding (which was assumed to continue in effect)

## Category

-  Beyond 2039
-  2039 Regional
-  2039 Non-Regional
-  2028 Regional
-  2028 Non-Regional
-  Underway Now

# Transportation Network



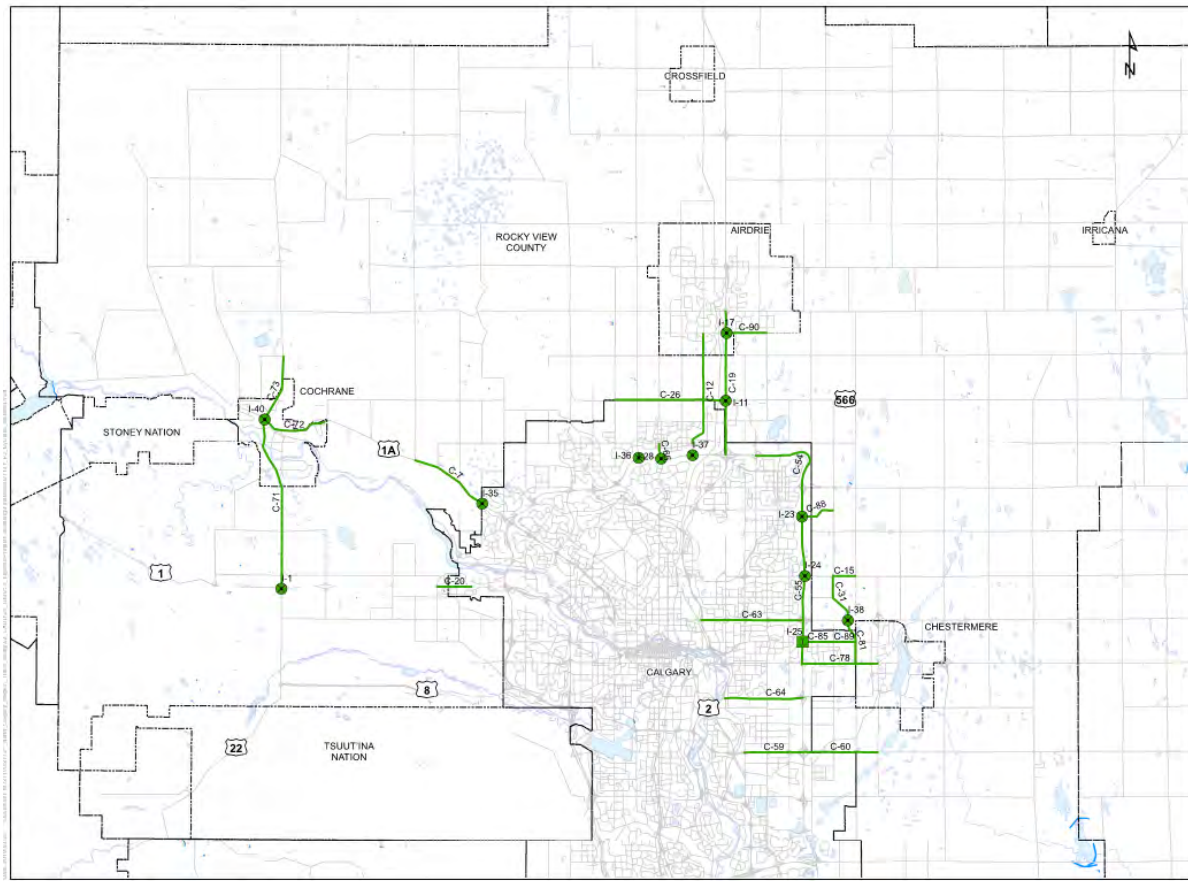
## Category

- Beyond 2039
- 2039 Regional
- 2039 Non-Regional
- 2028 Regional
- 2028 Non-Regional
- Underway Now

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee



# Transportation Network



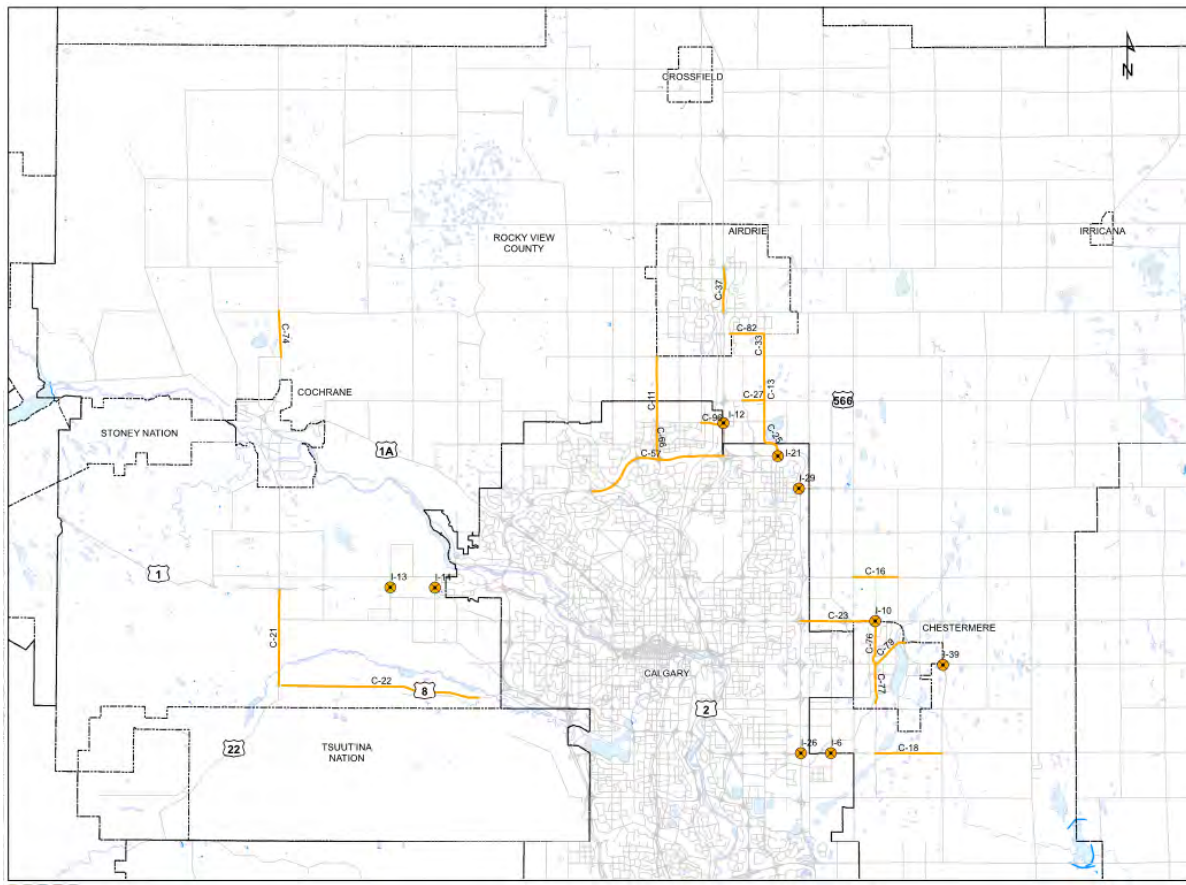
## Category

- Beyond 2039
- 2039 Regional
- 2039 Non-Regional
- 2028 Regional
- 2028 Non-Regional
- Underway Now

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee



# Transportation Network



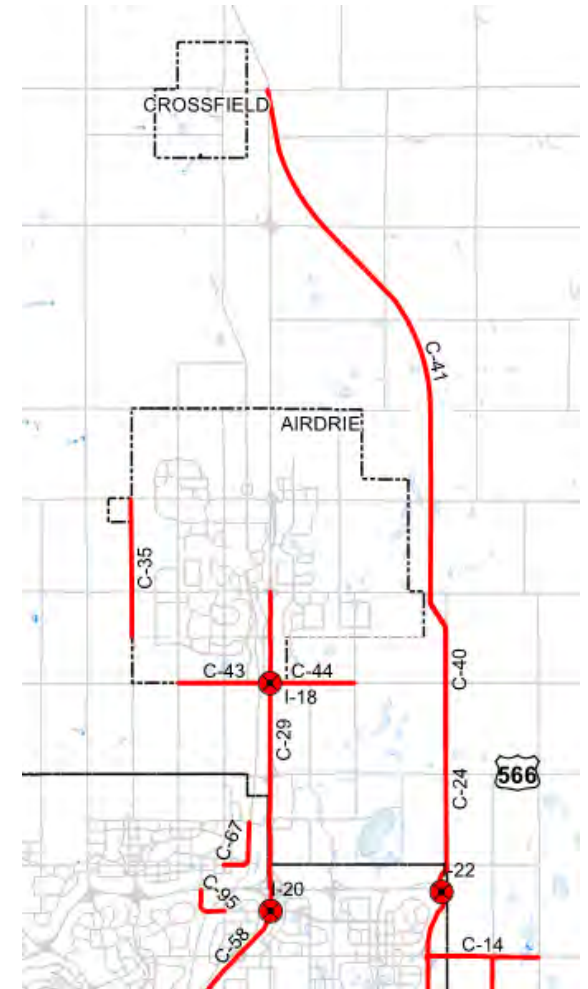
## Category

- Beyond 2039
- 2039 Regional
- 2039 Non-Regional
- 2028 Regional
- 2028 Non-Regional
- Underway Now

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# East Airdrie Bypass

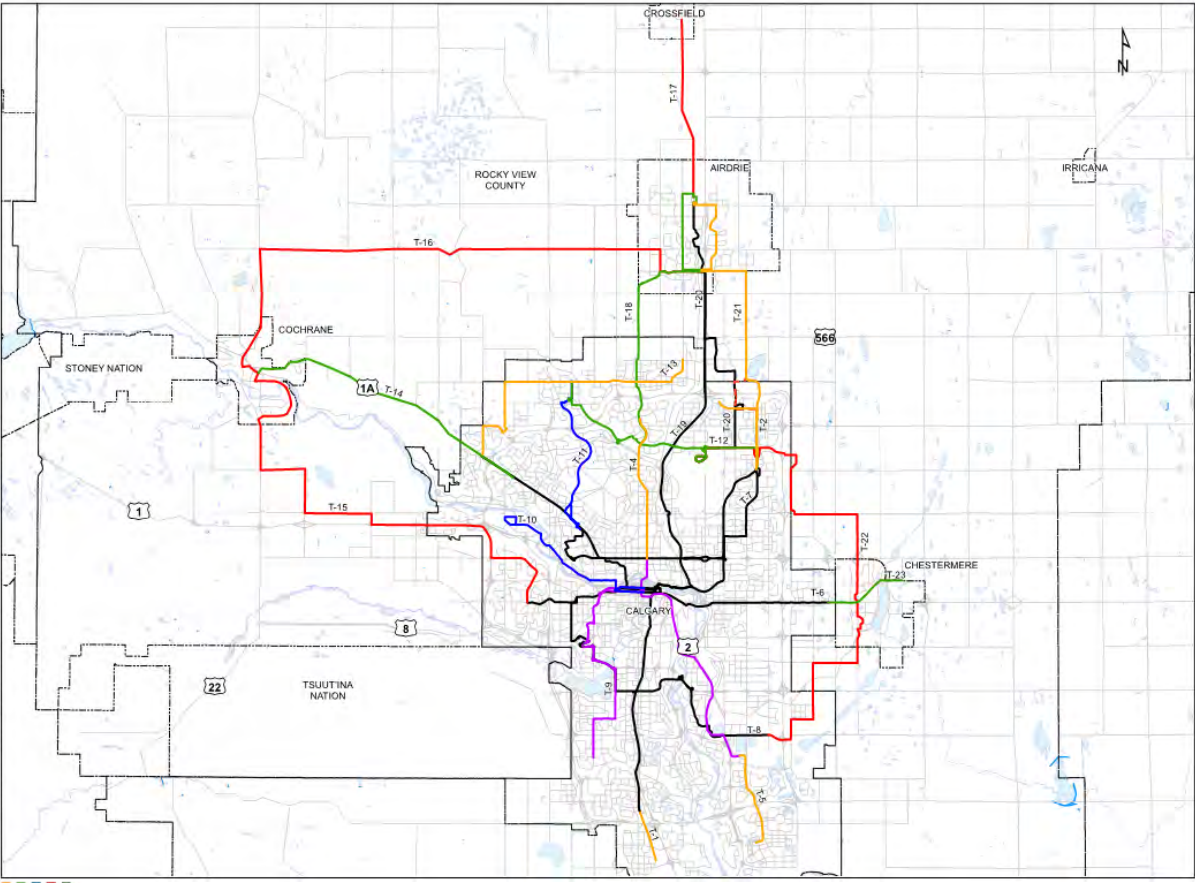
- Evaluated option of QE2 bypass to east side of Airdrie
- In short: evaluation found that there are significant region- and province-wide benefits to be gained in development of this new provincial highway corridor
- But: not yet warranted at a 20-year horizon
- Consistent with findings of recent AT QEII Corridor Study
- Recommendations:
  - Prioritize nearer-term investment in existing QE2 corridor
  - Complete a corridor identification and functional planning study for the East Airdrie Bypass at the earliest possible opportunity, so that opportunity for this route is not lost in future
  - Review and evaluate the final recommendations of the Deerfoot Trail Corridor Study (currently underway by Alberta Transportation and The City of Calgary) in the regional context, when completed



# Transit Network

- Consideration of primary transit services (BRT and LRT) in the regional context
- Primarily reflects The City of Calgary's "Route Ahead" plan, which is a comprehensive 30-year strategic blueprint and prioritization of Calgary's primary transit network
- Evaluated a number of additional regional services to connect area municipalities with the Calgary system, or with each other
- Classification / priorities considered separately from corridor and interchange projects
- Critical assumption that existing funding (Green Line, BRT Lines) and projects are implemented
- More comprehensive review currently underway by City of Calgary Route Ahead Update, and CMRB Transit Sub-committee

# Transit Network



- Category**
- Beyond 2039
  - 2039 Regional
  - 2039 Non-Regional
  - 2028 Regional
  - 2028 Non-Regional
  - Underway Now

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Evaluation Framework

- Tool for evaluation of network options and then project prioritization
- Referenced existing frameworks including Alberta Transportation, City of Calgary, Rocky View County, City of Edmonton, and international examples
- Study-specific framework developed by a collaborative workshopping process with the NCRC
- Follows a “Multiple Account Evaluation” (MAE) model
- 18 evaluation criteria grouped in 5 weighted categories
- Scoring is on a “1 or 0” scale (either a criteria is met, or it isn’t)

# Evaluation Framework

Category / Weighting	Criterion
<b>Regional Growth / Economy</b> <b>30%</b>	Supports Priority Growth Areas
	Supports Multiple Municipal Partners
	Supports Investment / Expansion
	Supports Goods Movement
	Supports Employment Areas
<b>Performance / Efficiency</b> <b>30%</b>	VkmT (Vehicle Kilometers Traveled)
	Capacity Improvement
	Safety Improvement
	Travel Time Savings
<b>User Service / Connectivity / Choice</b> <b>25%</b>	Network Connectivity
	Connecting Multiple Communities
	Supports Primary / Regional Transit
<b>Environmental</b> <b>10%</b>	GHG Emissions
	Land Preservation
	Impact on Environmental Features
<b>Financial</b> <b>5%</b>	Benefit / Cost Ratio
	Capital Cost
	Use of Existing Infrastructure

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Project Prioritization

- Scoring of quantitative criteria completed from technical analysis process
- Scoring of qualitative criteria completed collaboratively by NCRC members based on agreed scoring definitions
- Main focus for prioritization was on the 2028 Regional Projects (within 10-year horizon) (34 projects in total)
- Indicative prioritization also completed for 2039 Regional Projects (20+ years) (28 projects in total)
- Expected that prioritization scoring / ranking could be updated at regular intervals in future (Edmonton model)



# Project Prioritization

Ranking	10 Highest-Scored Projects (of 34 by 2028 Horizon)	Location	Score (/100)
1	11 Street / Range Rd 11 / 8 Street (144 Ave NE to 40 Avenue) – 4 lanes	Calgary / Balzac / Airdrie	84.00
2	40 Avenue / QEII Interchange	Airdrie	68.17
3	Highway 1A (Highway 22 to Gleneagles Dr) – 4 lanes	Cochrane	64.49
4	QEII (Stoney Trail to Yankee Valley Blvd) – 8 lanes	Calgary / Balzac / Airdrie	63.33
5	Stoney Trail / 11 Street Interchange	Calgary	61.33
6	Crowchild Trail / 12 Mile Coulee Rd Interchange	Calgary / Bearspaw	60.49
7	Stoney Trail / Airport Trail Interchange	Calgary / Omni	59.83
8	Highway 566 / QEII Interchange	Balzac	59.17
9	Highway 1 / Garden Rd Interchange	Calgary / RVC / Chestermere	59.00
10	Highway 1A / Highway 22 Interchange	Cochrane	57.50

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Study Completion / Next Steps

- Study completed December 2018 with final reporting in March 2019
- NCRC members have shared outcomes with their Councils
- NCRC has shared the study process & results with CMRB
- CMRB has initiated the South & East Calgary Regional Transportation Study (S&ECRTS)
- Both studies intended to be integrated and used as a technical baseline and input into the CMRB Regional Growth Plan and Servicing Plan (underway 2019-20)



NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Study Completion / Next Steps

- NCRC presented the study results to Alberta Transportation (AT) deputy minister and senior executives.
- AT supported the study process and results and confirmed that the recommended regional priority infrastructure projects will be considered in the capital program this fall.
- NCRC member municipalities committed to progress the construction of the non-regional priority infrastructure in support of the regional priority infrastructure.



# Questions ?

NCRTS – Presentation with CMRB Intermunicipal Servicing Committee

<b>Agenda Item</b>	<b>6</b>
<b>Submitted to</b>	<b>Intermunicipal Servicing Committee</b>
<b>Purpose</b>	<b>For Information</b>
<b>Subject</b>	<b>South and East Calgary Regional Transportation Study</b>
<b>Meeting Date</b>	<b>September 5, 2019</b>
<i><b>For Information:</b> Motion that the ISC accept for information an update on the South and East Calgary Regional Transportation Study</i>	
<p><b>Summary</b></p> <ul style="list-style-type: none"> <li>• In September 2018 CMRB administration was authorized by ISC to develop a RFP, with support from the Transportation Technical Advisory Group, for a transportation study covering the remaining geographical portions of the Calgary Metropolitan Region (CMR). The study is referred to as the South and East Calgary Regional Transportation Study (S&amp;ECRTS). ISL was the successful proponent, through the competitive bid process.</li> <li>• The S&amp;ECRTS began in January 2019 and is currently expected to be substantially completed in December 2019.</li> <li>• Together, the two studies, NCRTS and S&amp;ECRTS, are intended to establish the regional transportation infrastructure needs for 2028 and 2039 planning horizons. Figure 1, attached, illustrates the Regional Transportation Plan Development process was approved by the ISC on December 6, 2018.</li> </ul>	
<p><b>Attachments</b></p> <ul style="list-style-type: none"> <li>• Figure 1: Regional Transportation Plan Development</li> <li>• Calgary Metropolitan Region Transportation Studies, Aziz Merali – CMRB Transportation Subject Matter Expert</li> </ul>	

## 1. South & East Calgary Region Transportation Study (S&ECRTS)

The S&ECRTS was initiated by the CMRB request for proposal 2018-02 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, at the end of 2019, is a transportation model for the

2028 and 2039 planning horizons that can be used as base model to develop long term transportation models for the Calgary metropolitan region (CMR).

### **1.1. Study Objectives**

The study objectives include:

1. Using the NCRTS process as a guide, develop the interim and long term transportation network to support the planned growth in the south and east portion of the CMR over the next 10 and 20 years.
2. Design the study process such that the two transportation networks can be integrated
3. Develop a 2028 and 2039 Transportation Infrastructure Project Priorities list for the South & East Calgary Region.

### **1.2. Study Process**

The study process will be very similar to the process used in the NCRTS. The study is divided into three stages as follows:

Stage 1 – Update the Land Use and Transportation Network (Jan to Mar)

The key tasks include data collection and review where participating municipalities have provided data and information related to ASP's and outline plans approved prior to 31 December 2017. The updated land uses, population & employment forecast along with the expected road network will be added to the transportation forecasting model developed during the NCRTS resulting in composite models for the 2028 and 2039 planning horizons.

Stage 2 – Network Modelling and Evaluation (Apr to Oct)

During this stage a number of road and transit network scenarios will be modelled, analysed and evaluated to determine the final networks and projects required to support the planned growth in 2028 and 2039.

Stage 3 – Network Prioritization (Nov to Dec)

The preferred road and transit networks and projects from stage 2 will be evaluated, against a set of qualitative and quantitative criteria, by the key stakeholders. The results of this evaluation will determine the infrastructure projects and priority required to support the growth in the Calgary region over the next 10 and 20 years.

### **1.3. Project Status**

The project is on schedule and on budget at this time. Stage 1 is complete. Stage 2 is partially complete and the 2039 network was finalized in the last meeting with the consultant, ISL, and municipal administrative representatives.

## **1.4. Recommendation**

*That the ISC accept for information an update on the South and East Calgary Regional Transportation Study.*



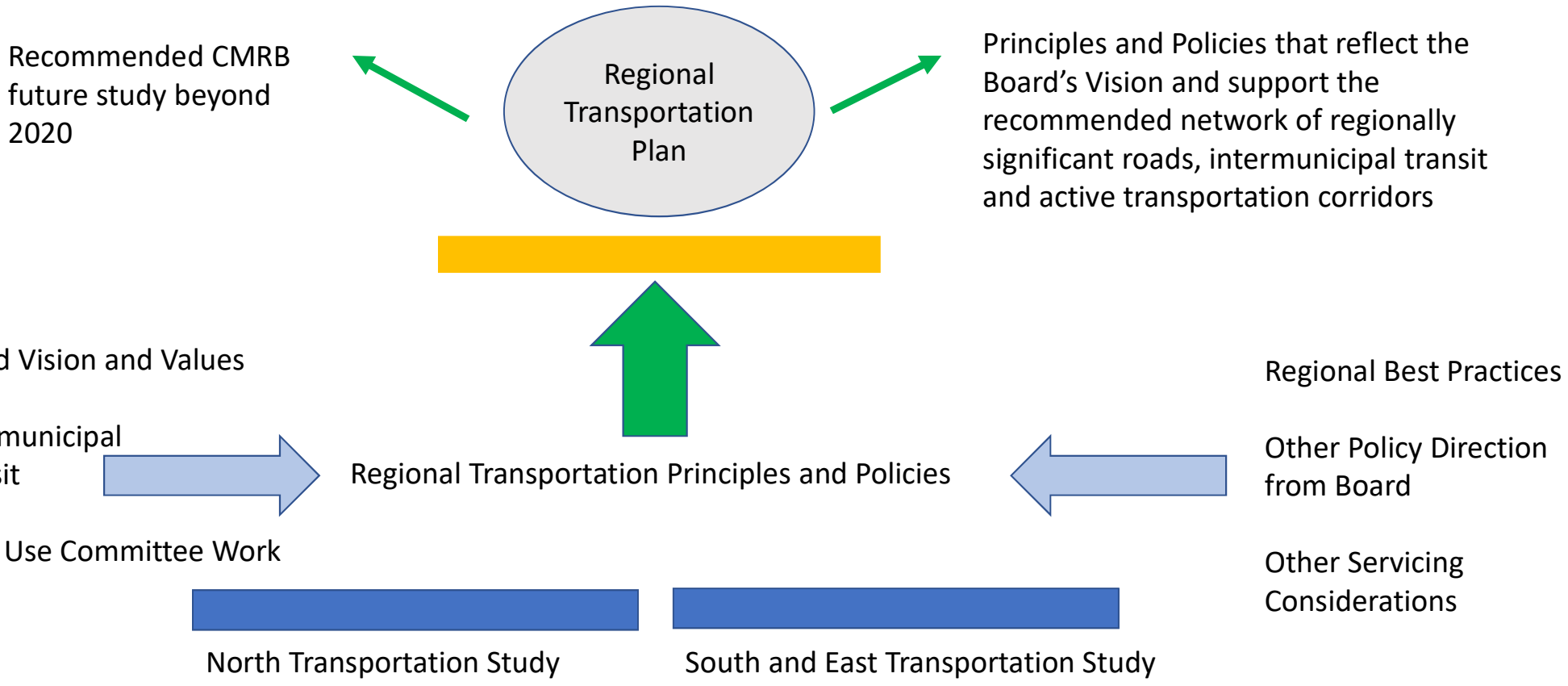


Figure 1  
RTP Development



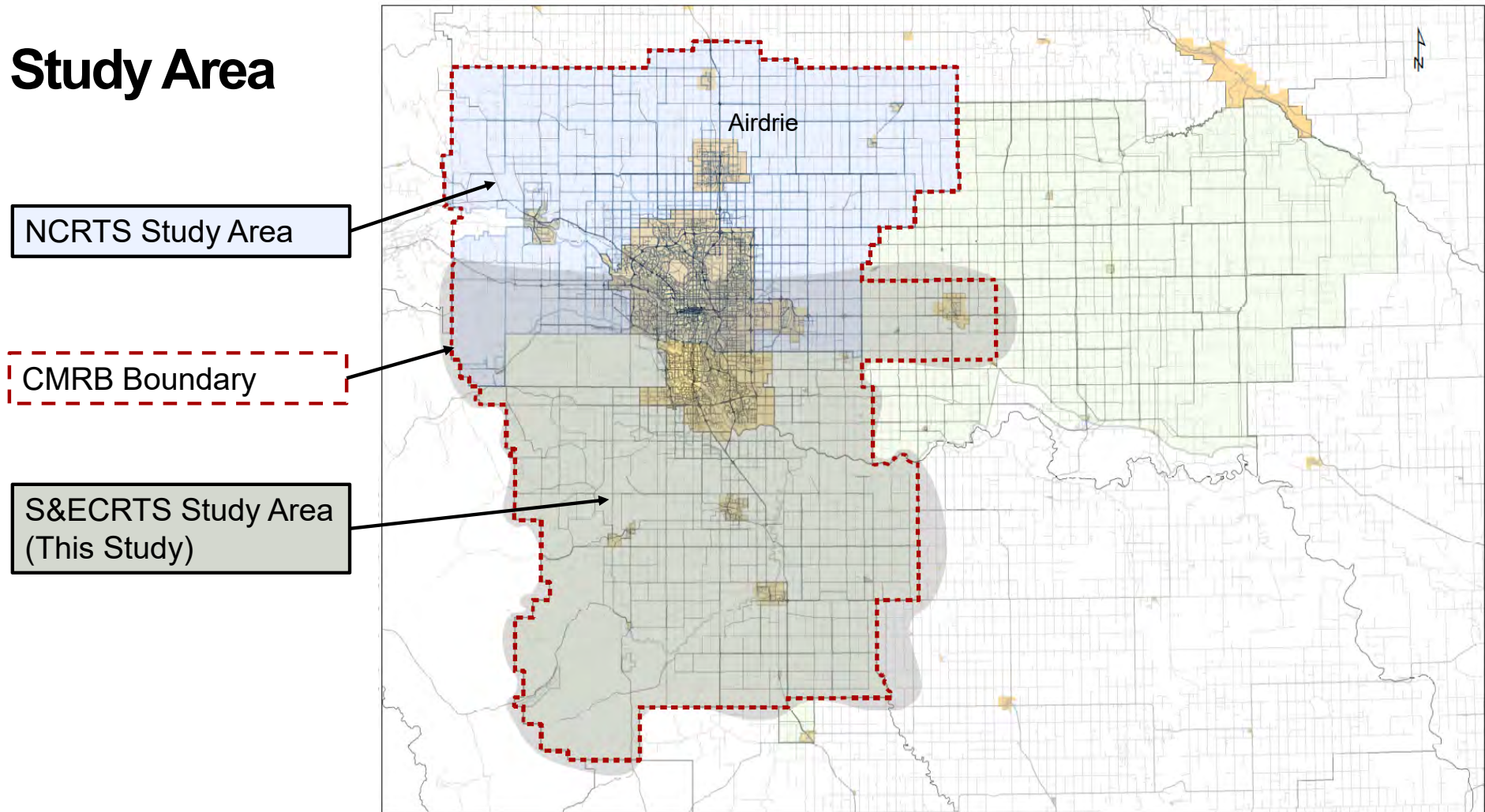


# South & East Calgary Regional Transportation Study

Presentation with CMRB Intermunicipal Servicing Committee

September 5, 2019

# Study Area



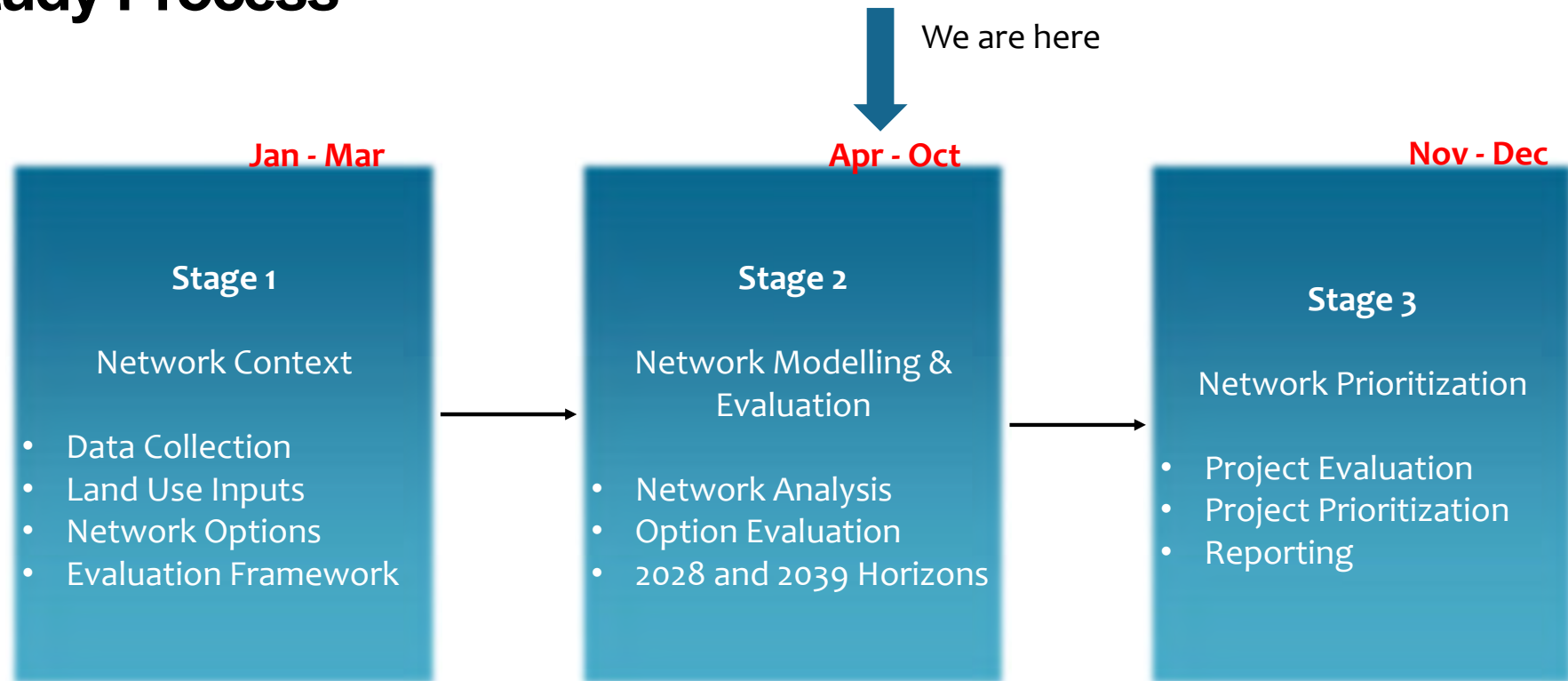
NCRTS Study Area

CMRB Boundary

S&ECRTS Study Area  
(This Study)

SECRTS – Presentation with CMRB Intermunicipal Servicing Committee

# Study Process



SECRS – Presentation with CMRB Intermunicipal Servicing Committee



# Approved Plans

Municipality	Land Use Data ASP/ARP/Plans
Calgary	7
Chestermere	0*
Foothills County	54
High River	5
Okotoks	7
Rocky View County	2
Strathmore	8
Wheatland County	11

\* Due to the complete overlap of Chestermere in the two study areas, land use data in the S&ECRTS study area was already available from the NCRTS

# Growth Assumptions

- All municipalities provided input based on approved ASPs as of December 31, 2017
- 10-year (2028) and 20-year (2039) horizons – so not necessarily “full build” of all plans

## Land Use Recap

Municipality	Pop 2015	Jobs 2015	Pop 2028	Jobs 2028	Pop 2039	Jobs 2039
Airdrie	66,033	13,456	108,951	34,667	154,708	61,547
Calgary	1,178,492	691,029	1,598,710	930,511	1,910,998	1,087,173
Chestermere	17,807	2,319	35,738	13,501	53,220	24,751
Cochrane	26,320	6,807	37,217	13,616	49,534	15,542
High River	14,551	7,816	19,464	10,339	24,817	10,339
Okotoks	28,747	8,468	37,835	10,947	45,677	11,850
Strathmore	13,423	6,255	17,095	6,747	20,483	6,857
RVC	43,136	13,053	75,366	38,999	104,059	61,642
Foothills	23,229	7,286	30,483	15,988	35,720	21,659
Wheatland	3,153	780	4,218	2,023	4,829	2,818
Other*	9,982	4,669	13,298	5,771	17,665	5,948
<b>TOTAL</b>	<b>1,424,873</b>	<b>761,938</b>	<b>1,978,375</b>	<b>1,083,109</b>	<b>2,421,711</b>	<b>1,310,126</b>

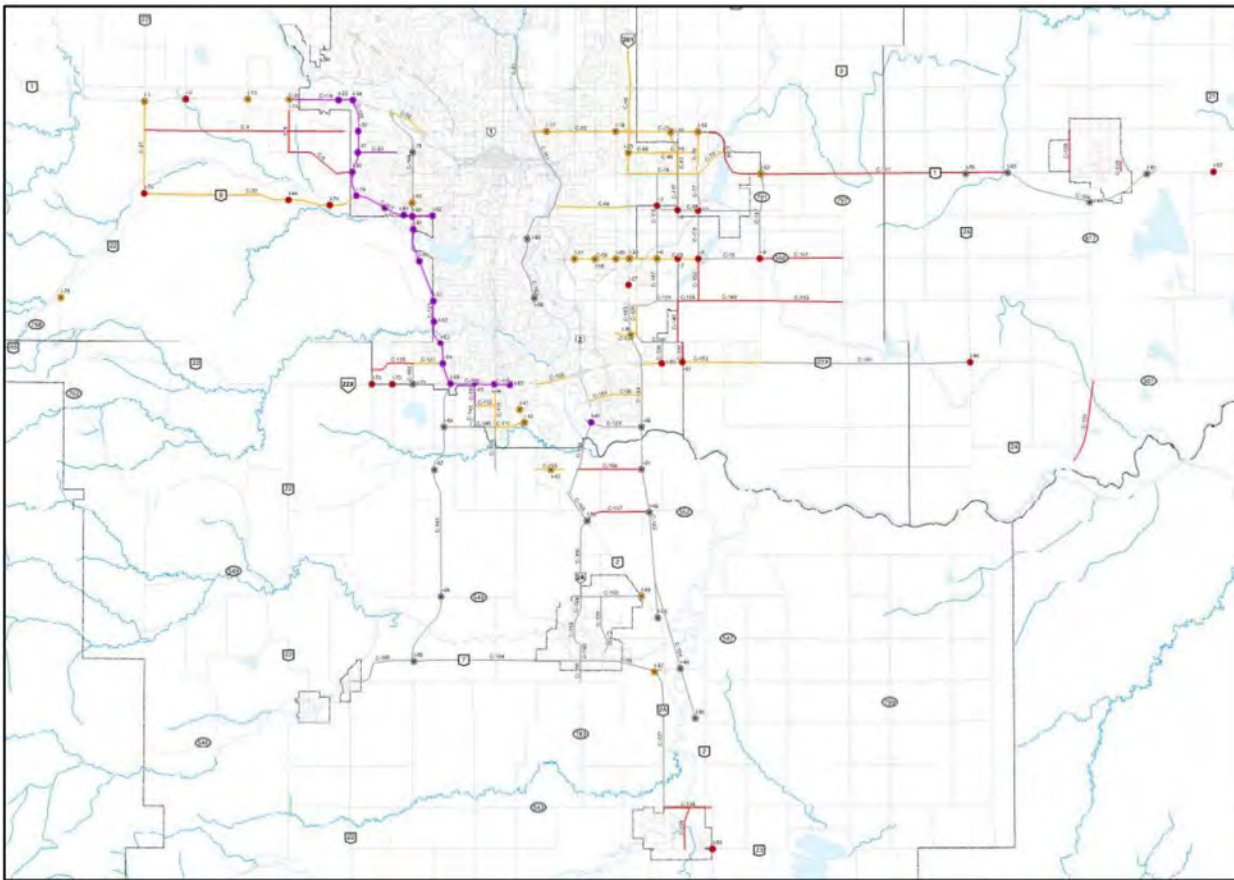
\* Other includes Beiseker, Black Diamond, Crossfield, Irricana, Longview and Turner Valley

\*\* Wheatland County data only includes area within CMRB boundary

SECRS – Presentation with CMRB Intermunicipal Servicing Committee



# Network Overview



## Interchanges

-  Beyond 2039
-  2039 Regional
-  Underway Now
-  To Be Determined

## Corridor Classification

-  Beyond 2039
-  2039 Regional
-  Underway
-  To Be Determined

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# Four Test Scenarios

<b>South Highways</b>	<b>4 Corridors</b>	<b>MT + DFT + 88</b>	<b>MT + DFT(I) + 37</b>	<b>MT + DFT(I)</b>
Okotoks	Hwy 2A 4 Lanes	Hwy 2A 4 Lanes (?)	Hwy 2A 4 Lanes	Hwy 2A 6 Lanes
Aldersyde	Hwy 2A 4 Lanes	Hwy 2A 2 Lanes	Hwy 2A 2 Lanes	Hwy 2A 4 Lanes
Providence	w/ 53 St IC	w/ 53 St IC	w/o 53 St IC	w/o 53 St IC
South Macleod	w/ W Outlet Only	w/o S+W Outlets	w/ S Outlet Only	w/ S Outlet Only
Deerfoot Calgary	No Upgrades	GT + AR Only	Full Upgrades	No Upgrades
Sarcee Trail	Full Upgrades	Full Upgrades	No Upgrades	Full Upgrades
South Shepard	Twin 22X to 791	Twin 22X to 797	Twin 22X to 791	Twin 22X to 797
S. of Chestermere	Various permutations on area corridors – Garden, Conrich, Peigan, Glenmore			
Strathmore	Full Bypass	No Bypass	Full Bypass	No Bypass

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# Next Steps

- Continue with the Transportation Modelling scenarios
- Identify adjustments to the Regional Road Network
- Evaluate candidate projects against a set of approved criteria
- Develop a list of projects and priorities to support the planned growth in the Calgary region
- Document the study process and results for CMRB approvals



# Questions ?

SECRS – Presentation with CMRB Intermunicipal Servicing Committee

<b>Agenda Item</b>	<b>7</b>
<b>Submitted to</b>	<b>Intermunicipal Servicing Committee</b>
<b>Purpose</b>	<b>For Information</b>
<b>Subject</b>	<b>Servicing Technical Advisory Group Updates</b>
<b>Meeting Date</b>	<b>September 5, 2019</b>
<i><b>For Information:</b> Motion that ISC receive for information an update on the work of the CMRB Servicing Technical Advisory Groups and servicing-related items</i>	
<p><b>Summary</b></p> <p>An update to ISC on the Transportation Servicing Technical Advisory Group was presented in a previous agenda item.</p> <p>Updates on the following are provided:</p> <ul style="list-style-type: none"> <li>• CMRB Water Table</li> <li>• Recreation Framework</li> <li>• Policing Subcommittee</li> </ul>	

## 1. 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 is currently being scoped. The workshop date has been revised to October 10, 2019 in order to accommodate schedules.
- Discussion of a framework to address governance of Regional water servicing is ongoing and CMRB Administration will come back to ISC with a proposed path forward.
- 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
  - Complexity A – Formerly “Logical Extension of Servicing in the CMR”. The scope of work was developed with input from Water Table. The RFP closed May 24, 2019. Urban Systems was awarded the contract on June 10, 2019 and the work is currently ongoing. At the direction of the ISC on July 4, 2019,

the study has been renamed to 'Calgary Metropolitan Region Existing Water and Wastewater Servicing and Regional Potential'.

- Complexity B – Demand Management. ISC received a presentation on this project in a previous agenda item by Associated Engineering.
- 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. WatertSMART was awarded the contract on June 26, 2019. The project is ongoing.
- Complexity D – Regulation, Approvals and Policy. CMRB Admin hosted a workshop with many ISC members and municipality administrations in attendance, and others on June 27<sup>th</sup>, 2019 at Cochrane Ranchehouse. Summary reporting is ongoing.
- 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 Study. This work is currently ongoing.
- A background report for consideration by the Growth Planning Consultant is currently underway for Stormwater by the Water Table. The objectives of the report are to:
  - 1) summarize the current state of stormwater servicing in each municipality;
  - 2) identify common definitions and what is municipal versus regional about stormwater;
  - 3) complete a review of regional best practices;
  - 4) identify regional opportunities for consideration of the Growth Planning consultant in growth and servicing plan development; and
  - 5) identify key themes for regional stormwater in the CMR
- 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.

## **2. Recreation Framework**

- The Recreation Servicing TAG have not met since the last ISC meeting. The workshop with Recreation Servicing TAG to define regional recreation was held on June 7, 2019. The consultant is preparing a summary report of the workshop. Recreation Servicing TAG will provide input and results will be presented to ISC.



### **3. Policing Subcommittee**

At the June 6, 2019 joint Committee meeting the following motion was unanimously passed:

- That the CMRB form a voluntary subcommittee of the Intermunicipal Servicing Committee to examine models of delivering policing services in the Calgary Metropolitan Region. Further, that CMRB Administration provide coordination services to strike the subcommittee and that this work be separate from the delivery of the Servicing Plan, outlined in the Calgary Metropolitan Region Board Regulation 190/2017 and due to the Minister by December 31, 2020.

Both elected and staff are eligible to participate in this subcommittee of the ISC. The first meeting of the subcommittee has been set as October 9, 2019. The first step will be to determine scope, methodology and any potential costs. These will then be brought back to the ISC for approval before work begins in earnest.

### **4. Recommendation**

That the Board receive this update on Servicing Technical Advisory Groups and servicing-related items FOR INFORMATION.

