Land Use & Planning Committee

Agenda

Thursday, October 22, 2015
8:00 a.m. – 11:00 a.m.

La Cite Francophone – Hall Jean-Louis Dentinger
8627 rue-Marie-Gaboury (91 Street), Edmonton

Agenda Items

1. Call to Order – Mayor Tom Flynn, Chair

2. Chair Opening Remarks

3. Approval of Agenda – Mayor Tom Flynn, Chair

4. Approval of Minutes of August 20, 2015 – Mayor Tom Flynn, Chair

5. Regional Energy Corridors Master Plan – Mayor Tom Flynn, Chair
   5.1 Final Master Plan – Thom Stubbs, Headwater Group

   Recommended Motion: That the Land Use & Planning Committee recommend the Capital Region Board approve the Capital Region Energy Corridors Master Plan.

6. Growth Plan Update 2.0 – Mayor Tom Flynn, Chair
   6.1 Committee Consultation Summary Review – Neal Sarnecki, Project Manager

   Recommended Motion: That the Land Use & Planning Committee approve the Growth Plan Update Committee Consultation Summary and that it be referred to the Growth Plan Update Task Force for information.

7. 2016/17 Land Use & Planning Workplan – Mayor Tom Flynn, Chair
   7.1 Project Prioritization for Budget Purposes – Mayor Tom Flynn, Chair

8. 2015 Committee Meeting Schedule – Mayor Tom Flynn, Chair
   8.1 December 17, 2015 Meeting – Mayor Tom Flynn, Chair

9. Adjournment – Mayor Tom Flynn, Chair
Land Use & Planning Committee

Thursday, August 20, 2015
9:00 a.m. – 11:00 a.m.
La Cite Francophone – Classroom 040A
8627 rue-Marie Gaboury (91 Street), Edmonton

Members:
Tom Flynn, Sturgeon County (Chair)
Rod Shaigec, Parkland County (Vice Chair)
Ed Gibbons, City of Edmonton
Gale Katchur, City of Fort Saskatchewan
David MacKenzie, City of Leduc
Clay Stumph, Leduc County
Patricia Lee, Town of Bruderheim
Amber Harris, Town of Gibbons
Barry Turner, Town of Morinville (alternate)
Dwight Ganske, Town of Stony Plain
Lloyd Jardine, Village of Thorsby

Guests:
Nolan Crouse, Board Chair
Ben Ansaldo, Leduc County
Carol Bergum, City of St. Albert
Lindsey Butterfield, City of Edmonton
Gibby Davis, City of Edmonton
Paresh Dhariya, Town of Devon
Jacquie Hansen, City of St. Albert
Kari Jones, City of Leduc
Marnie Lee, Strathcona County
Janelle Smith-Duguid, Fort Saskatchewan
Elaine Milliken, Town of Lamont
Yolande Shaw, Strathcona County
Thom Stubbs, Headwater Group
Shauna Kuiper, ISL Engineering & Land Services
Loreen Lennon, Communications Manager
Lisa Saskiw, Administrative Assistant

1. Call to Order

Chair, Mayor Flynn, called the meeting to order at 9:00 a.m.

2. Chair Opening Remarks

3. Approval of Agenda

It was agreed by unanimous consensus that the Land Use & Planning Committee accept the agenda as presented.
4. Approval of Minutes of June 18, 2015

It was agreed by unanimous consensus that the Land Use & Planning Committee accept the minutes of June 18, 2015 as presented.

5. Regional Energy Corridors Master Plan

5.1 Proposed Master Plan

**Motion:** That the Draft Capital Region Energy Corridors Master Plan be referred to Alberta’s Industrial Heartland Association for its review and comment, and that Administration bring the Master Plan back to the next Committee meeting.

**Moved by:** Councillor Ed Gibbons, *City of Edmonton*

**Decision:** Carried unanimously

6. 2016/17 Land Use & Planning Workplan

6.1 Work Plan Review and Approval

**Motion:** That the Land Use & Planning Committee approve the proposed 2016/17 Land Use & Planning Work Plan and that the Work Plan be forwarded to the Governance, Priorities & Finance Committee for consideration in the preparation of the Board’s Business Plan and Budget.

**Moved by:** Mayor Gale Katchur, *City of Fort Saskatchewan*

**Decision:** Carried unanimously

7. Growth Plan Update 2.0

7.1 Project Update

It was agreed by unanimous consensus that the Land Use & Planning Committee accept the Growth Plan Update 2.0 update and the Committee input instructions for information.

8. Adjournment

It was agreed by unanimous consensus that the Land Use & Planning Committee meeting be adjourned.

Meeting adjourned at 10:40 a.m.

**Next Meeting:** October 22, 2015 at 9:00 a.m., La Cite Francophone – Hall Jean-Louis Dentinger

Committee Chair, Tom Flynn
Capital Region Energy Corridors Master Plan

Motion

*That the Land Use & Planning Committee recommend the Capital Region Board approve the Capital Region Energy Corridors Master Plan.*

Background


- The Report included a framework for establishing future energy corridors policy and recommended that the Board undertake the preparation of an Integrated Regional Energy Corridors Master Plan.

- On October 9, 2014, the Board approved a revised 2014 Business Plan and Budget including the preparation of a Regional Energy Corridors Master Plan by the Land Use & Planning Committee.

- On January 26, 2015, CRB Administration and the Consultant hosted a stakeholder workshop to review and discuss issues and options for corridor development in the Capital Region.

- At its meeting of February 19, 2015, the Land Use & Planning Committee received a Master Plan Briefing and Stakeholder Workshop Summary for information.

- April 16, 2015 – The Draft Regional Energy Corridors Master Plan was presented to the Committee for information.

- On May 25, 2015 the project team held a second stakeholder workshop to gather feedback from industry, member municipalities and the Province on key components of the draft Master Plan.

- June 18, 2015 – Following the presentation of the Draft Capital Region Energy Corridors Master Plan, the Committee approved a motion referring the Plan back to administration to incorporate Committee input and discussion and bring back the updated report to the next Committee meeting, August 20, 2015.

- August 20, 2015 – Following the presentation of the Final Capital Region Energy Corridors Master Plan, the Committee approved a motion directing Administration to refer the Plan to the Alberta’s Industrial Heartland Association for its review and comment, and bring the Plan to the next Committee meeting.

- The project team revised the Master Plan based on the feedback from Alberta’s Industrial Heartland Association (Attachment 2) and discussions at the last committee meeting. A summary of the changes are included in the attached Appendix.
Rationale:

- Energy corridors play a significant role in the regional economy. Without a coordinated approach, the ad hoc planning of corridors runs the risk of unintentionally sterilizing land, impacting the implementation and patterns of growth, and supplanting opportunities to support economic development. The Regional Energy Corridors Master Plan establishes policies and criteria for identification and protection of Regional Energy Corridors within the Capital Region in a manner that is consistent and compatible with the Principles and Policies of the Capital Region Growth Plan.

Appendix:

Summary of revisions and changes to Master Plan

Attachments:
1. Capital Region Energy Corridors Master Plan
2. Alberta’s Industrial Heartland Association - Comments and Recommendations
APPENDIX - Summary of revisions and changes to Master Plan

Alberta’s Industrial Heartland Association comments:

1. Adjust the list of priorities
   - The priorities in the report (section 4.3) have been adjusted to follow the same order as identified by AIHA. Additional rationale has been added to include some of the comments provided.
   - The Corridor Map numbering has been adjusted to show the same relative priority

2. Refine Exact Corridor Locations – A new Recommendation (#3) has been added directing the CRB to work with member municipalities to refine the locations and alignments of Priority Energy Corridors.

3. Best Management Practices – Recommendation #2 has been adjusted to include industry, the province and regulators in the discussion on future best management practices

4. AER Hearing Standing – Action #2 has been amended to state that a policy to guide when the Board would intervene would be developed if the CRB is granted standing

August 20, 2015 Committee Feedback:

- There was discussion and feedback from the City of Edmonton and Sturgeon County regarding the need for the new Edmonton Energy and Technology Park (EETP) corridor to branch into two lines. The report was revised by removing the southeast river crossing branch based on the following:
  - More complex routing issues
  - River crossing may not be feasible at that location
  - Crosses industrial land sites with facility location obstacles
  - Does not provide corridor access to major/ natural flow of petroleum products

- Fort Saskatchewan Mayor Katchur asked why there was not just one Heartland Corridor defined instead of the two that appear in the draft Master Plan. Mayor Katchur noted that the northwest branch was impacting development within Fort Saskatchewan and was concerned that further development as a priority corridor would inhibit future development within the City. The project team reviewed the Heartland Corridors in accordance with the principles and policies of the Master Plan and noted that the subject northwest corridor is inconsistent with the following principles and their policies:
  - Principle 1 Reduce Land Use Conflicts Associated with Regional Energy Corridors
  - Principle 2 Minimize Fragmentation of Growth Areas

Continued development and expansion of the northwest Heartland Connector will perpetuate existing and future land use conflicts within Fort Saskatchewan and cause further fragmentation of Priority Growth Area ‘G’, when there is another suitable corridor in the vicinity that is not in conflict with the principles and policies.

The project team recommends to the Committee that the corridor continue to be recognized as an existing major corridor in the region, however, not be considered a priority for future development and expansion.
• The Committee requested that Water/Waste Water Commissions be recognised as a stakeholder in the Energy Corridors Stakeholder Forum. This has been added.

• There was a discussion of the overall costs/impacts of the recommendations in the Report.

  1. *That the Capital Region Board endorse the Capital Region Energy Corridors Master Plan, and that its policies be integrated into the Growth Plan through the 2015/16 Growth Plan Update.*

     Minimal cost to incorporate the Master Plan into the Growth Plan Update.

  2. *That the Capital Region Board facilitate the development of common best practices and approaches for the siting, right-of-way design, and protection of energy corridors by member municipalities in discussion with industry, the province and regulators.*

     It is proposed that the CRB partner with members, industry, the province and regulators to minimize the costs of developing common best practices.

  3. *That the Capital Region Board work with member municipalities to refine the locations and alignments of the Priority Energy Corridors as shown on the Maps of Energy Corridors in Appendix F.*

     As part of the Growth Plan Update work, the CRB will work with members to refine the locations and alignments to support the Metropolitan Structure currently being considered by the Growth Plan Task Force.

     The Further Actions described in the Report will be considered as part of the development of an advocacy strategy undertaken by the Advocacy and Monitoring Committee.
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Executive Summary

The Capital Region Board recently approved a vision statement for the first 5 year update to the Capital Region Growth Plan. Embedded in the vision are two elements at the core of energy corridor planning:

“The Edmonton Metropolitan Region is the dominant hub for northern Alberta”
and
“is globally recognized for its… leadership in energy development”.

If the Edmonton Metropolitan Region is the hub, then the petroleum pipelines and power transmission lines extending into and out of the Region are the spokes which drive the energy industry and the Canadian economy. Energy corridors are the essential networks that maintain the economic viability of the petrochemical energy cluster in Alberta’s Industrial Heartland and continued success of existing refining activities.

Over 40% of Alberta’s GDP is generated in the Edmonton Region. While the current low price of oil may result in a slowing of the economy over the next year or two, the Region is fully aware of the cyclical nature of a boom and bust resource industry. Planning for the next economic boom is critical to ensuring the region remains globally competitive and continues to prosper and thrive. This means planning for the people that are going to come to the Region to take advantage of the opportunities.

Between 2006 and 2011 the population of the Capital Region grew by over 12%, one of the fastest growing areas in Canada, driven mostly by the influx of skilled workers needed by the energy industry. Another 1 million people are expected to make the Capital Region their home in the next 30 years, increasing the population from 1.2 million to 2.2 million.

With the anticipated growth where are these people going to live? Work? Recreate? What is the plan for the efficient use of land? Maintaining a safe and healthy environment? All the while ensuring industry can continue to flourish.

Energy Corridors are needed to provide efficient and cost-effective access into and out of the Region from power and petroleum producing sources. As the ability to move and access power and petroleum products becomes more constrained in the Region, other potential petrochemical hubs such as Hardisty or Northeast British Columbia will become more attractive for related industrial development and economic growth.

The rational planning of energy corridors is also needed to maintain the quality of life of residential and commercial areas of the Region. Land fragmented by energy corridors limits efficient development of Priority Growth Areas and the ability of the Region to meet the objectives of the Growth Plan. However, there is little direction and policy to support the planning or integration of future corridors, energy or otherwise, into the land use fabric of the region.
The Regional Energy Corridors Master Plan establishes a policy framework and regional corridor strategy to protect energy corridors needed for future economic growth, and limit land fragmentation of growth areas in the Capital Region.

**Policy Framework**

The Policy Framework of the Master Plan is derived from the principles and policies of the Capital Region Growth Plan to support development and economic growth, and minimize land fragmentation. The Policy Framework establishes the following themes:

Policy Themes:
- Integrate energy corridors with the principles and policies of Growth Plan
- Minimize land use conflicts and the fragmentation of land
- Support the development of energy industrial clusters and economic development of the region
- Ensure effective coordination of energy corridors across and between municipal jurisdictions

The themes are used to guide the development of the energy corridor policies.

**Corridor Strategy**

The Regional Energy Corridors Strategy was developed to identify which corridors, existing and future, should be prioritized and what options are available for their protection. The Strategy sets out four steps for this process:

1. Identify existing regional corridors (e.g. the Transportation Utility Corridor)
2. Assess future corridor needs and options
3. Identify priority corridors
4. Identify approaches and management models to protect lands for priority Regional Energy Corridors

The Strategy identifies seven priority corridors for the CRB to review as part of its future growth planning (see Figures 2.0 and 4.0 in Appendix F):

**Short Term – 0 to 5 years**

- **North East Penetrator Corridor** – Actions are necessary to increase corridor space and access needed for multiple projects into the Transportation and Utility Corridor (TUC), Refinery Row and Alberta’s Industrial Heartland.

- **Alberta’s Industrial Heartland Intersite Connector Corridor** – An energy corridor(s) within Alberta’s Industrial Heartland to move product to and between the multiple energy facilities within the area.

- **Heartland Connector(s) Corridors** – Focus on identifying corridor routing between the Alberta’s Industrial Heartland and Refinery Row and limiting the further fragmentation of land between the energy hubs.

**Medium Term – 5 to 20 years**

- **Edmonton Energy and Technology Park Connector** – An energy corridor from Alberta’s Industrial Heartland to the Edmonton Energy and Technology Park (EETP) and TUC to provide product to EETP and an alternate route to Refinery Row to complement the North East Penetrator Corridor.
Redwater Bypass Corridor – An energy corridor from northeast Alberta to Alberta’s Industrial Heartland on north side of the North Saskatchewan River.

Northwest Alberta Connector – An energy corridor from northwest Alberta and northeast British Columbia to Alberta’s Industrial Heartland.

Long Term – 20 plus years

Southeast Heartland Ring Corridor – A multi-use corridor aligned along the east and south boundary of Alberta’s Industrial Heartland that supports access to all areas of the Heartland.

The Strategy also identifies potential protection options for the priority corridors. The approaches are based on a combination of potential land easement and ownership opportunities ranging from individual right-of-way easements to provincially owned corridors (e.g. TUC) and land use tools ranging from Growth Plan designated corridors to regulatory and/or bylaw tools to manage land uses on and adjacent to regional energy corridors.

Recommendations and Further Actions

The Master Plan establishes recommendations and identifies further actions to plan for the management of regional energy corridors in the Capital Region.

Recommendations

1. That the Capital Region Board endorse the Capital Region Energy Corridors Master Plan, and that its policies be integrated into the Growth Plan through the 2015/16 Growth Plan Update.

2. That the Capital Region Board facilitate the development of common best practices and approaches for the siting, right-of-way design, and protection of energy corridors by member municipalities in discussion with industry, the province and regulators.

3. That the Capital Region Board work with member municipalities to refine the locations and alignments of the Priority Energy Corridors as shown on the Maps of Energy Corridors in Appendix F.

Further Actions

1. That the Capital Region Board support and provide leadership in the development of a Capital Region Energy Corridors Stakeholder Forum. The purpose of the Forum will be to bring together the various stakeholders involved in policy development, regulation, planning, acquisition, infrastructure development, and monitoring of energy corridors in the Capital Region to:
   a. Meet on a periodic basis to review energy corridors and serve as a communications forum.
   b. Identify and facilitate energy corridor protection options for consideration.
   c. Review best practices for energy corridors development.
   d. Maintain an up-to-date map and summary of developed, approved, planned and anticipated energy corridors with a twenty-year outlook.
   e. Invite participation from key stakeholders including, but not limited to:
      i. Pipeline Companies with interests in the Capital Region
      ii. Transmission Line Companies with interests in the Capital Region
      iii. Alberta Industrial Heartland Association
      iv. Alberta Utilities Commission
2. That the Capital Region Board approach the Government of Alberta with a proposal to grant the CRB standing in Alberta Energy Regulator and Alberta Utilities Commission hearings related to the review of energy corridor projects and their routing within the Capital Region. Should standing be granted, the CRB will develop policy to guide intervening in hearings for proposed transmission lines and pipelines that are inconsistent with the Capital Region Growth Plan.

3. That the Capital Region Board seek industry and government support, participation and funding of a business case that defines, assesses and evaluates multi-use corridors verses individual rights-of-ways to support the protection and use of multi-use corridors for energy infrastructure.

4. That the Capital Region Board advocate to the Government of Alberta the coordination and integration of long range regional transportation and energy corridor planning in the Capital Region.

5. That the Capital Region Board request the Alberta Energy Regulator review options and alternatives to more effectively enable energy corridors within the Capital Region, including:
   a. Clarifying AER Directives to:
      i. further influence the use of multi-use energy corridors by pipeline proponents; and,
      ii. consider the level of project review for proponents using identified multi-use energy corridors.
   b. Considering the use of a Play Based Regulation Pilot for planned regional pipeline corridors to encourage applicants to collaborate on surface development plans in order to
      i. minimize the number of facilities and other surface impacts; and,
      ii. ensure that effective practices are used to minimize land alienation.
## Glossary of Terms and Abbreviations

<table>
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<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AER</td>
<td>Alberta Energy Regulator</td>
</tr>
<tr>
<td>AESO</td>
<td>Alberta Electrical System Operator</td>
</tr>
<tr>
<td>AUC</td>
<td>Alberta Utilities Commission</td>
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<tr>
<td>AIH</td>
<td>Alberta’s Industrial Heartland - A 582 km² heavy industrial zoned area northeast of Edmonton that has become the largest hydrocarbon processing region in Canada.</td>
</tr>
<tr>
<td>Capital Region Growth Plan</td>
<td>The Growth Management Plan approved by the CRB and the Province pursuant to the Capital Region Board Regulation (AR 38/2012).</td>
</tr>
<tr>
<td>Corridor</td>
<td>Defined in the Growth Plan Addendum as ‘A corridor designed to accommodate multiple infrastructure facilities such as roads, transmission lines and pipelines within and beyond the Region’.</td>
</tr>
</tbody>
</table>
| Constraint   | - Physical constraints – constraints related to corridor capacity, or existing development footprint, airports, coal extraction areas
- Policy constraints – growth areas (PGAs, CCRAs, Alberta’s Industrial Heartland), lands outside local jurisdiction (reserves, CFB Edmonton)
- Natural constraints – hydrology, parks, protected areas, environmentally sensitive areas; would result in fragmentation/disturbance |
<p>| CRB          | Capital Region Board – is a non-profit corporation consisting of an elected official from the 24 member municipalities from within the Greater Edmonton Metropolitan Region. |
| Easement     | A right-of-way across land supported by regulatory approvals that grants the owner rights to install and operate their energy facility. |
| LTP          | Long-term Transmission Plan |
| Heartland Pipeline Corridor | Regionally significant corridors that are identified and protected as conceptual locations of multiple new energy sectors’ inter-connecting and intra-connecting pipelines necessary in conveying product to processors and to the market in Alberta’s Industrial Heartland. These corridors function to minimize risk, land fragmentation and the impact on the environment. |
| NEB          | National Energy Board |
| NRCB         | Natural Resources Conservation Board |
| PGA          | Priority Growth Areas as defined in the Capital Region Growth Plan |
| Petroleum Pipeline Infrastructure | Petroleum Pipeline Infrastructure consists of Transmission Pipelines and Feeder Lines that move petroleum across the province and internationally and between storage and processing facilities. |
| Play Based Regulation | Through the play-based regulation initiative (PBR), the AER will be piloting a new framework to govern unconventional oil and gas development. The play-based regulation pilot project aims to encourage applicants to collaborate on surface development plans and participate in the pilot in order to minimize the number of facilities and other surface impacts during the pilot. |</p>
<table>
<thead>
<tr>
<th><strong>Power Infrastructure</strong></th>
<th>Power Infrastructure consists of Electricity Transmission lines that provide the bulk transfer of electricity on regional 138, 240 and 500 kV Transmission Corridors and their Substations.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protection</strong></td>
<td>A method to influence and/or protect lands for the location of energy corridors</td>
</tr>
<tr>
<td><strong>Refinery Row</strong></td>
<td>The unofficial name given to the concentration of oil refineries in west Sherwood Park, Strathcona County, Alberta, just east of the city of Edmonton.</td>
</tr>
<tr>
<td><strong>Regional Energy Corridor</strong></td>
<td>The identified Multi-Use Corridors for regional Power Infrastructure - Electricity Transmission (138kv and larger) and Bulk System Substations and regional Petroleum Pipeline Infrastructure - Transmission Pipelines and Feeder Lines within and beyond the Region.</td>
</tr>
<tr>
<td><strong>Restricted Development Areas</strong></td>
<td>Restricted Development Areas are defined under regulation to enable the province to establish and maintain Multi-Use Corridors and are known as Transportation Utility Corridors (TUCs).</td>
</tr>
<tr>
<td><strong>Right of Way</strong></td>
<td>An easement across land supported by regulatory approvals that grants the owner rights to install and operate their energy facility</td>
</tr>
<tr>
<td><strong>Setback</strong></td>
<td>A setback is the absolute minimum distance that must be maintained between any energy facility (for example, a drilling or producing well, a pipeline, or a gas plant) and a dwelling, rural housing development, urban centre, or public facility. Setbacks vary according to the type of development and whether the well, facility, or pipeline contains sour gas.</td>
</tr>
<tr>
<td><strong>TUC</strong></td>
<td>Transportation Utility Corridors - TUCs are Multi-Use Corridors designed for long-term alignment of ring roads and major linear utilities in urban areas. For the purposes of this report TUC refers to the Edmonton TUC.</td>
</tr>
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1.0 Introduction

The Capital Region Board recently approved a vision statement for the first 5 year update to the Capital Region Growth Plan. Embedded in the vision are two elements at the core of energy corridor planning:

"The Edmonton Metropolitan Region is the dominant hub for northern Alberta" and
"is globally recognized for its... leadership in energy development".

If the Edmonton Metropolitan Region is the hub, then the petroleum pipelines and power transmission lines extending into and out of the Region are the spokes which drive the energy industry and the Canadian economy. Energy corridors are the essential networks that maintain the economic viability of the petrochemical energy cluster in Alberta’s Industrial Heartland and continued success of existing refining activities.

Over 40% of Alberta’s GDP is generated in the Edmonton Region. While the current low price of oil may result in a slowing of the economy over the next year or two, the Region is fully aware of the cyclical nature of a boom and bust resource industry. Planning for the next economic boom is critical to ensuring the region remains globally competitive and continues to prosper and thrive. This means planning for the people that are going to come to the Region to take advantage of the opportunities.

Between 2006 and 2011 the population of the Capital Region grew by over 12%, one of the fastest growing areas in Canada, driven mostly by the influx of skilled workers needed by the energy industry. Another 1 million people are expected to make the Capital Region their home in the next 30 years, increasing the population from 1.2 million to 2.2 million.

With the anticipated growth where are these people going to live? Work? Recreate? What is the plan for the efficient use of land? Maintaining a safe and healthy environment? All the while ensuring industry can continue to flourish.

Energy Corridors are needed to provide efficient and cost-effective access into and out of the Region from electrical and petroleum producing sources. As the ability to move and access electrical and petroleum products becomes more constrained in the Region, other potential petrochemical hubs such as Hardisty or Northeast British Columbia will become more attractive for related industrial development and economic growth.

The Capital Region Board Regulation (38/2012) directed the Capital Region Board (CRB) to prepare a comprehensive, integrated regional land use plan. The approved plan includes the location of municipal infrastructure, priority growth areas, and existing corridors for recreation, transportation, and inter-municipal transit. The Plan also identifies a limited number of existing energy and utility corridors within the Capital Region. However, there is little direction and policy to support the planning or integration of future corridors, energy or otherwise, into the land use fabric of the region.

The rational planning of energy corridors is needed to maintain the quality of life of residential and commercial areas of the Region. Land fragmented by energy corridors limits efficient development of Priority Growth Areas and the ability of the Region to meet the objectives of the Growth Plan.
To understand the scope and context of energy corridors, the Land Use and Planning Committee of the CRB undertook the preparation of a Regional Energy Corridors Policy Framework in 2014 to establish the groundwork for developing Growth Plan policies for energy corridors. The Framework concluded that there is a policy gap in the Growth Plan when it comes to energy corridors. The current approach “to identify and protect” existing corridors does not support the planning of future energy corridors, and as a result impacts the coordinated and strategic planning of growth areas.

The Capital Region Regional Energy Corridors Policy Framework Report was approved by the Board in October 2014. The Report contained two recommendations:

1. *That the CRB develop a comprehensive master plan to guide the location and development of energy corridors within the Capital Region; and*

2. *That the CRB leads the development a comprehensive energy corridors advocacy strategy, in partnership with industry stakeholders, to communicate energy corridor issues and challenges in the Capital Region to the Provincial and Federal governments.*

The Capital Region Energy Corridors Master Plan establishes a regional corridor strategy and policy framework to protect energy corridors needed for future economic growth, and limit land fragmentation of priority growth areas in the Capital Region. This Master Plan proposes energy corridor policies to guide the location and development of energy corridors within the Capital Region; a regional energy corridors strategy; and recommendations and further actions to implement the Master Plan.

### 1.1 Organization of the Master Plan

The Master Plan is organized into six sections:

- **Section 1.0** *Introduction* – Introduces this report and describes its purpose
- **Section 2.0** *Background and Context* – Describes the CRB Energy Corridor Policy Framework and the CRB Growth Plan context for energy corridors
- **Section 3.0** *Energy Corridor Policy Framework* – Identifies objectives and policies for the identification and protection of energy corridors within the Capital Region
- **Section 4.0** *Regional Energy Corridor Strategy* – Identifies the strategic approach for the identification, assessment and protection of regional energy corridors
- **Section 5.0** *Recommendations and Further Actions* – Recommendations and suggested further actions for the Capital Region Board to explore with key stakeholders of energy corridors

**Appendices**
2.0 Background and Context

2.1 Capital Region Board Mandate

The mandate of the Capital Region Board, as directed in the Capital Region Board Regulation, was to prepare a Capital Region Growth Plan. The Growth Plan was completed and approved in 2010. The mandate further directed the Board to facilitate the resolution of issues arising from the preparation and implementation of the Capital Region Growth Plan. A noticeable issue in the preparation and subsequent implementation of the Growth Plan was the lack of a regional transportation plan and energy corridors plan. Therefore, the CRB made it a priority after approval of the Plan to prepare and integrate a regional transportation master plan into the Growth Plan. Similarly, as the 5 year Growth Plan Update proceeds, it is evident that planning for energy corridors requires the same approach.

2.2 Growth Plan Objectives

The Capital Region Board Regulation states the objectives of the Capital Region Growth Plan:

- To promote an integrated and strategic approach to planning for future growth in the Capital Region
- To identify the overall development pattern and key future infrastructure investments that would best complement existing infrastructure, services and land uses in, and maximize benefits to the Capital Region
- To co-ordinate decisions in the Capital Region to sustain economic growth and ensure strong communities

The objectives clearly support the preparation of a Master Plan for energy corridors: A strategic approach to integrating land use and energy corridors is critical to planning for future growth in the Region; where to direct key infrastructure investments and locate energy corridors will complement and benefit the overall development pattern; and through the coordination and collaboration with key energy industry stakeholders the Board can ensure sustained economic growth and strong communities.

2.3 Growth Plan Principles and Policies

The purpose of the Growth Plan is to coordinate and manage growth to the benefit of the entire Region. The Growth Plan establishes a regional policy framework to integrate and manage growth across four priority areas – Land Use, Intermunicipal Transit, Housing and Geographic Information Services. The Plan’s foundation is based on a set of six guiding principles and numerous policies that support regional decision-making in the priority areas.

The following are the principles of the Capital Region Growth Plan to manage growth:

**Protect the environment and resources**

The Plan establishes appropriate policy to ensure a balance between resource-based activities and regional growth while minimizing the impacts on the surrounding natural environment and other uses.
Minimize the regional footprint

The Plan directs that lands identified for regional infrastructure such as energy transmission, highways, municipal infrastructure, etc. be protected from incompatible development and that priority growth areas be reviewed and planned in conjunction with new alignments or changes to alignments and/or location of major regional infrastructure.

Strengthen communities

Creating complete, compact and contiguous communities is a foundational objective of the Plan.

Increase transportation choice

Transportation choice is about more than just the movement of people – it is about moving goods and products into, through and out of the region in a variety of ways – pipelines, power lines, rail, air, etc.

Ensure efficient provision of services

One method of ensuring the efficient provision of services is identifying and protecting corridors for transportation, transit and infrastructure, now and in the future.

Support regional economic development

The Plan directs that an adequate supply of land be available for the future development of the Region’s industries and support for the further diversification of the regional economy.

2.4 Regional Energy Corridors Policy Framework

The CRB adopted the Regional Energy Corridors Policy Framework in October 2014 to help guide further work on the planning and integration of energy corridors in the Capital Region.

The Policy Framework called for a comprehensive Master Plan to guide the location and development of energy corridors within the Capital Region. A summary of the overall Policy Framework and recommendations are provided in Appendix A. However, the following specific themes from the policy framework are relevant to the development of an Energy Corridors Master Plan:

“The CRB will plan for energy corridors in the Growth Plan to ensure the needs of industry are supported and sustained”

The energy industry continues to grow in Alberta, and it is important to recognize the role of this sector in the provincial and regional economy. Therefore it is prudent that any planning for growth ensure the needs of industry are understood, acknowledged and sustained into the future, and are not prejudiced by the growth pattern of the Region.

“Growth Plan policies should recognize and seek to address existing and potential barriers to energy corridor development”

The growth of the Region has paralleled the growth of the energy industry. As the development footprint expands, the potential for conflict with the energy infrastructure increases resulting in incompatible development adjacent to pipeline rights-of-way and electrical transmission lines. These conflicts limit the ability of energy corridors to expand and accommodate new energy infrastructure,
requiring the development of costly new rights-of-way and utility corridors, and increase the requirement to establish safety and emergency measures. Further, unchecked energy infrastructure growth also impacts the ability to logically and efficiently extend municipal infrastructure and the overall development pattern.

“Policies in support of energy corridors shall align to the greatest extent possible with the Growth Plan principles and policies”

The principles and policies of the Capital Region Growth Plan are the framework that guides future growth and development in the Capital Region to achieve its vision. The Region has grown around energy infrastructure and will continue to expand together with the energy industry well into the future. Therefore, planning for energy corridors must also abide by the Growth Plan’s principles and policies.

2.5 Growth and Constraints

The population of the Capital Region is expected to grow from 1.2 million to 2.2 million over the next 30 years. To accommodate the growth in population, the Growth Plan has identified Priority Growth Areas (PGAs) wherein growth will be concentrated in order to maximize the use of infrastructure and public transit by incorporating mixed use and higher density development that establishes a growth pattern integrated with and complementary to the needs of communities and industry.

The coordinated approach to planning future energy corridors requires the accommodation of PGAs and an understanding of the constraints to locating power transmission lines and pipelines in the region.

The Regional Energy Corridors Policy Framework identified three types of constraints to the location of energy corridors:

Physical constraints – limited capacity in existing corridors; the existing development footprint; and other features and uses that impact the placement or expansion of corridors such as airports, coal extraction areas, etc.

Policy constraints – includes legislation and regulations that impact the location of corridors, such as designated growth areas in the Growth Plan (PGAs, CCRAs, Alberta’s Industrial Heartland), lands outside of local jurisdiction (reserves, CFB Edmonton), etc.

Natural constraints – hydrology, parks, protected areas, environmentally sensitive areas, etc.

2.6 Future Corridor Development

Future Power Transmission Projects

Electrical transmission growth forecast was based on the 2013 Alberta Electricity System Operator (AESO) Long Term Transmission Plan. AESO forecast nine large (138 kv or larger) transmission lines and three major power substations within the Region over the next twenty years. The geographical start and end points for these projects have been identified (reference Figure 9, CRB Regional Energy Corridors Policy Framework, October 2014).
Future Pipeline Projects

Pipeline project growth forecast was based on the ERCB 2013 Energy Reserves Supply/Demand Outlook and interviews with industry stakeholders. Over the next ten years (2014 – 2024) the Capital Region can anticipate eight to ten additional projects. Ten to twenty years out (2025 – 2034) the Capital Region can anticipate a further four to six projects. Eight of these anticipated projects have been publically announced and are at different stages of design, permitting or preliminary construction. These projects are described in more detail in the 2014 CRB Regional Energy Corridors Policy Framework Report.

2.7 Recent Energy Corridor Planning

The challenge of regional growth and the location of energy corridors is not new, and efforts have been made over the past ten years to address the issue. A number energy corridor planning documents were reviewed through the preparation of the Master Plan, including:

- Edmonton Energy and Technology Park Linear Corridor Feasibility Study (2015)
- Linear Infrastructure Corridor System Proposed Pipeline Corridors (2010)
- Regional Pipeline Corridor and Setback Study (2004)

The above studies provided an understanding of energy corridor needs to accommodate future growth and in context of existing constraints, and develop a policy framework to plan for that growth.

2.8 Municipal Legislative Limitations

Finally, member municipalities have few resources and rights under existing Federal and Provincial legislation to influence the location of corridors and rights-of-way used for the transmission of energy and movement of product in pipelines. They are limited to reacting to proposed corridors by intervening at regulatory hearings and are not the final arbiter of corridor location. The ability of municipalities to plan for, or direct the location of future corridors is restricted to those capabilities under the Municipal Government Act, and due to exemptions provided to pipelines in section 619(1) of the Act which:

- Recognizes NRCB, AER and AUC authorizations over any municipal statutory plan, land use bylaw, subdivision decision or development decision.
- Requires Municipal decisions to be consistent with NRCB, AER and AUC authorizations.
- Restricts municipalities from holding hearings covering issues already decided upon by the NRCB, AER and AUC.
3.0 Policy Framework

The Capital Region Growth Plan provides the current policy framework for energy corridors at the Regional level in an effort to protect growth areas from fragmentation. The Growth Plan provides the basis for an Energy Corridors Master Plan to plan for and protect future corridors.

Using the Growth Plan as a basis to extend policies specific to the Regional Energy Corridors Master Plan, key themes have been derived to guide policy development. They are identified below.

Policy Themes:
- Integrate energy corridors with the principles and policies of Growth Plan
- Minimize land use conflicts and the fragmentation of land
- Support the development of energy industrial clusters and economic development of the region
- Ensure effective coordination of energy corridors across and between municipal jurisdictions

3.1 Integrate Energy Corridors with Capital Region Growth Plan Principles and Policies

Principle 1 Preserve the Integrity of Priority Growth Areas

Preamble
Established by the Growth Plan, Priority Growth Areas (PGAs) are areas of planned concentrated growth within the Region, supported by higher urban densities and land uses, and major employment areas. In order to protect PGAs and major employment areas for growth, existing and future energy corridor needs must be identified and integrated into the Growth Plan.

Policy
A. Identified energy corridors will be integrated into Growth Plan policies and represented graphically.
B. In order to maintain the integrity of PGAs, new energy corridors will be identified and planned to avoid fragmenting and severing the contiguity of growth areas.
C. Existing Energy Corridors within PGAs will be considered first to accommodate additional pipelines or transmissions line rights-of-way in effort to reduce the creation of new corridors within PGAs.

Principle 2 Identify, Protect and Prioritize Lands for Existing and Future Energy Corridors

Preamble
The Growth Plan currently identifies existing regional infrastructure that member municipalities need to protect from incompatible development through their statutory plans; but energy corridors are not specifically addressed, nor is their growth. Future energy corridors must also be identified and protected from incompatible development.

Policy
A. Strategic entry points to access existing regional and future energy corridors shall be identified and protected through Growth Plan policy and through municipal statutory plans.
B. Member municipalities will protect regional energy corridors from incompatible development and facilitate the integration of energy corridors through policy or graphic representation in municipal statutory plans or amendments thereto.

C. Lands for needed for energy corridors in and out of the region shall be identified, protected and prioritized to ensure access to key upstream sources and their product destination sites within and beyond the Region.

3.2 Minimize Land Use Conflicts and Fragmentation of Land

Principle 1 Reduce Land Use Conflicts Associated with Regional Energy Corridors

Preamble

PGAs are the focus for growth in the Capital Region. They are urban areas that consist of a mix of land uses, employment, and higher residential densities. There are increased probabilities of land use conflicts and risks associated with regional energy corridors. In order to reduce the potential for land use conflicts, the Region must strive to utilize existing infrastructure corridors to accommodate energy infrastructure, and they should be located minimally within PGAs, while acknowledging that there are major employment areas located within PGAs.

Growth within the Region is also to be accommodated in areas outside of PGAs. The ability of the Region to reduce land use conflicts is also closely tied to minimizing the fragmentation of growth areas. Co-location of energy infrastructure will reduce land use conflicts by enabling the Region and member municipalities to plan for compatible and complementary adjacent land uses.

Policies

A. Leverage existing regional multi-use corridors (e.g. TUC, NEPC) to address existing constraints and accommodate future energy infrastructure growth.

B. Locate and integrate regional energy infrastructure with existing linear infrastructure (e.g. highways, railway right-of-ways).

C. Identify regional energy corridors in the Growth Plan to enable member municipalities to plan for appropriate adjacent land uses to reduce possible land use conflicts.

Principle 2 Minimize Fragmentation of Growth Areas

Preamble

Fragmented land negatively impacts the ability to achieve Growth Plan principles and the efficient development of land. A considerable number of energy corridors transect the Region and impact the ability to efficiently develop land in the long term. In order to reduce the further fragmentation of growth areas, it is necessary to identify and protect land to address current and future energy corridor needs.

Policies

A. Encourage and advocate for energy sector stakeholders to accommodate energy infrastructure growth within existing and future multi-use corridors. Adjacent lands should be identified and protected to respond to existing constraints and accommodate future growth.
B. Regional energy corridors should:
   o integrate with existing linear infrastructure (e.g. highways, railway right-of-way)
   o be rationalized by demonstrating that the proposed Regional energy corridor:
     • addresses current constraints;
     • responds to future planned growth within the energy sector; and,
     • connects upstream sources, major employment areas within the Region, and markets.

C. Best practices should be developed and used to minimize corridor widths and ensure the efficient use of land within PGAs in order to avoid the severance of developable lands.

3.3 Support the Energy Sector Industrial Clusters and Economic Development of the Region

Principle 1  Support the Role of the Energy Sector in the Prosperity of the Regional Economy

Preamble

The prosperity of the Region and the viability of growth areas are dependent on the energy related industrial clusters throughout the Capital Region. The energy cluster within the AIH is one of the core drivers of the regional and provincial economy. The success of the clusters depends on movement of energy resources into, within, and beyond the Region. This includes those areas illustrated on Figure 1.0: Regional Pipeline Corridors, and Figure 3.0 Regional Power Transmission Corridors.

To support regional prosperity, a strategic and coordinated system of regional energy corridors that responds to existing conditions and anticipates future growth is necessary.

Policies

A. Regional energy corridors will establish connections to existing and future planned upstream sources, national and global energy markets, and major employment areas within the Region.

B. Regional energy corridor needs will be strategically prioritized in order to efficiently meet current and future demands to move upstream goods, and grow and strengthen the Regional economy.

C. The expansion of existing, and the identification of new regional energy corridors, will be supported by a business case that demonstrates the role of regional energy corridors as a key component of the success of the energy sector and the economic prosperity of the Capital Region. The business case will also be used to assist the Capital Region Board in identifying priorities for regional energy corridor growth.

3.4 Ensure Effective Coordination of Energy Corridors Across and Between Jurisdictions

Principle 1  Coordinate Energy Corridor Planning and Development between Jurisdictions

Preamble

In order to maintain and support the energy industry in the Capital Region, member municipalities, energy sector stakeholders, regulators and the Government of Alberta must work collaboratively to coordinate energy corridor activities that benefit the Region.
Policies

A. The Capital Region Board will work collaboratively with the Government of Alberta, member municipalities and energy sector stakeholders to investigate, identify, develop and strategically implement a regional energy corridor management model for the protection and administration of the energy corridors depicted in Figure 2.0: Priority Pipeline Corridors in the Heartland Area, and Figure 4.0: Priority Power Transmission Corridors of the Regional Energy Corridors Master Plan

B. That the Capital Region Board work with the Government of Alberta, the Alberta Energy Regulator and the Alberta Utilities Commission to explore, identify, and implement amendments to relevant Acts, Regulations and processes to support the precedent use of regional energy corridors.

C. The Capital Region Board and stakeholders will identify, prioritize, and regularly confirm energy corridors needs to ensure current and future growth can be efficiently accommodated within the Region.

D. Adopt and maintain a CRB Regional Energy Corridors Master Plan strategy that identifies and protects regional energy corridors
4.0 Regional Energy Corridor Strategy

The Regional Energy Corridors Strategy was developed to identify which corridors, existing and future, should be prioritized and what options are available for their protection. The Strategy sets out four steps for this process:

1. Identify existing regional corridors – the main corridors used now
2. Assess future energy corridor needs and options
   - amongst potential corridor routes within the Region
   - against the principles of the Growth Plan to assess the overall impact of the Region
3. Identify priority corridors
4. Identify protection approaches and models for priority corridors

4.1 Identify Existing Regional Energy Corridors

There are hundreds of existing power and petroleum based rights-of-way and corridors throughout the Capital Region. Many of these are spokes that emanate out of the Transportation Utility Corridor Hub around Edmonton, facilitating the movement of energy goods from outside of the Region into and around Edmonton and Alberta’s Industrial Heartland.

The primary existing Energy Corridors in the Region are depicted on Figure 1.0: Regional Pipeline Corridors and Figure 3.0 Regional Power Transmission Corridors. The Regional Corridors were identified by stakeholders and were selected to show the main corridor routes into and out of the Capital Region. Not all routes are identified. Regional Energy Corridors, Priority Growth Areas and Transportation Priority Corridors are outlined on Figure 5.0. (All Figures are provided in Appendix F and come as a separate attachment).

Regional Corridors

Currently Defined Multi-Use Corridors:
- Transportation Utility Corridor (TUC) – Hosting petroleum and power project access into and around Edmonton.
- North East Penetrator Corridor (NEPC) - Hosting (mostly) petroleum and power project access into and from Refinery Row to Alberta’s Industrial Heartland.
- Heartland Pipeline Corridor - Hosting (mostly) petroleum and power project access into and from the NEPC into Alberta’s Industrial Heartland.

Petroleum Pipeline Corridors
- Brazeau/Drayton Valley – Shipping products from the Pembina and Drayton Valley fields and others into the refineries and storage facilities in Alberta’s Industrial Heartland.
- Hardisty Connectors – Shipping products from refineries and storage facilities in Alberta’s Industrial Heartland to the United States and eastern Canada.
- Cold Lake/Southern Athabasca Oilsands/Fort McMurray – Shipping bitumen into the refineries and storage facilities of Alberta’s Industrial Heartland and diluent in return.
- Heartland – Fort McMurray - Shipping bitumen into the refineries and storage facilities of Alberta’s Industrial Heartland and diluent in return.
- Vancouver – Shipping oil to Vancouver via Jasper from the refineries and storage facilities of Alberta’s Industrial Heartland.
Power Line Corridors and Rights-of-Way

- Heartland Transmission Line
- Western Alberta 500kv Transmission Line
- Eastern Alberta 500kv Transmission Line
- Fort McMurray West 500 kV Transmission Project (Under construction)
- Fort McMurray East 500 kV Transmission Project (to be Awarded mid 2015)

4.2 Assess Priority Corridor Needs and Options

4.2.1 Corridor Needs

Corridor needs were addressed through previous assessments and a review of options with stakeholders. Based on past studies and the Stakeholder Workshop, a preliminary set of priority Regional Energy Corridors were identified.

The overall needs assessment is summarised on Table 1.0.

Other corridors that were identified in previous studies, through stakeholder interviews, and workshops include:

- **Transportation Utility Corridor** - The existing provincial TUC serves to enable large transmission line connections and connect the Leduc, Devon and Pembina oil and gas fields to the petrochemical complexes of AIH.

- **Hardisty Connector** - This corridor currently provides access from the Alberta’s Industrial Heartland to Hardisty north of Elk Island Park, following the Alliance Pipeline east.

- **Hardisty Connector (2)** - This corridor currently provides access from Refinery Row towards Hardisty south of Sherwood Park, paralleling existing Enbridge mainlines.

- **Southeast Heartland Ring Corridor** - This conceptual corridor was identified as a ring coming from the north and extending around the east side of the main Heartland Industrial Area east of Bruderheim and then circling west along the south border of AIH to connect with the Heartland Connectors.

- **Northern Gateway Corridor*** – An energy corridor to accommodate the planned twin pipeline from Alberta’s Industrial Heartland to Kitimat, B.C. (*Note – This corridor was added as a priority based on input received from the Land Use & Planning Committee and was not part of stakeholder discussions)

- **Fort McMurray West 500kv Transmission Project** - A power transmission line corridor heading directly north from Sunnybrook (Genesee Area) past Barrhead to Fort McMurray is currently under study by ATCO.

- **Fort McMurray East 500kv Transmission Project** - A transmission line corridor heading directly north from the Heartland Transmission Line to Fort McMurray is in the planning stages by AESO.

The priority energy corridors depicted in Figures 2.0 and 4.0 have been evaluated against the Regional Growth Plan Principles. The results are shown in Appendix E.
### Table 1.0: Priority Regional Energy Corridor Needs Assessment

<table>
<thead>
<tr>
<th>Corridor Needs Assessment Summary</th>
<th>North East Penetrator Corridor</th>
<th>Heartland Connector(s)</th>
<th>Southeast Heartland Ring Corridor</th>
<th>AIH Intersite Connector Corridor</th>
<th>Redwater Bypass Corridor</th>
<th>Edmonton Energy and Technology Park Connector</th>
<th>NW Alberta Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address Constraint</strong></td>
<td>Specific land access constraints to access Refinery Row</td>
<td>To focus routing decisions</td>
<td>To route around oil and gas fields west of Bruderheim limit access through area</td>
<td>Multiple projects and facilities need corridor access Key River Crossing location</td>
<td>To route west of Redwater and access across the Sturgeon River</td>
<td>To ship oil, gas and liquids from Swan Hills, Rainbow Lake, Norman Wells etc. to the Heartland</td>
<td></td>
</tr>
<tr>
<td><strong>Project Access</strong></td>
<td>Multiple projects anticipated over next 20 years</td>
<td>Multiple projects anticipated over next 20 years</td>
<td>Multiple projects accessing and connecting facilities</td>
<td>Accessing and connecting facilities within the Heartland</td>
<td>To connect the EETP to the Heartland north of the river</td>
<td>From the NW corner of the AIH north and west</td>
<td></td>
</tr>
<tr>
<td><strong>Facilitate Goods Movement</strong></td>
<td>Connecting Refinery Row and Storage facilities</td>
<td>Connecting Refinery Row and Storage facilities</td>
<td>Access into the Industrial Heartland from North-East Alberta</td>
<td>Accessing and connecting facilities from Northern Alberta</td>
<td>To connect the EETP to other industrial locations in the Heartland</td>
<td>Access into the Industrial Heartland from North-West Alberta</td>
<td></td>
</tr>
</tbody>
</table>
4.3 Identify Priority Energy Corridors

The identification of Priority Energy Corridors is based on the development of the hydrocarbon cluster in Alberta’s Industrial Heartland and Refinery Row. Priority Energy Corridors are selected to provide energy system access through existing constraint areas and reduce future land fragmentation.

The identified Priority Energy Corridors connect four key industrial areas in the northeast portion of the Capital Region:

1. Refinery Row – East of the North Saskatchewan River
2. Alberta’s Industrial Heartland – East of the North Saskatchewan River
3. Alberta’s Industrial Heartland – West of the North Saskatchewan River
4. Edmonton Energy and Technology Park - West of the North Saskatchewan River

Priority corridors are depicted on Figure 2.0: Priority Pipeline Corridors in the Heartland Area, and Figure 4.0: Priority Power Transmission Corridors and described in Appendix D.

4.3.1 Priority Energy Corridors:

1. **North East Penetrator Corridor** - Connecting Refinery Row and the TUC to Alberta’s Industrial Heartland

2. **Heartland Connector(s) Corridor** - Connecting the NEPC into AIH along two parallel Heartland Connector corridors:
   a. Heartland West – Connecting the NEPC to the southeast corner of Fort Saskatchewan
   b. Heartland East – Following the southern edge of the Canadian Pacific Rail line northeast

3. **Southeast Heartland Ring Corridor** – An energy corridor around the core of Alberta’s Industrial Heartland for raw products coming from the northeast portion of the province

4. **AIH Intersite Connector Corridor** - Connecting into and within the chemical cluster, storage and tank farms of the AIH. This is an internal AIH corridor network

5. **Redwater Bypass Corridor** - To provide access into the northern border of Sturgeon County into and out of the Heartland on the west side of the North Saskatchewan River

6. **Edmonton Energy and Technology Park (EETP) Connector** - Connecting the EETP in northeast Edmonton to Alberta’s Industrial Heartland.

7. **Northwest Alberta Connector** – Shipping petroleum products from the Swan Hills, Rainbow Lake, Norman Wells fields and others in northwest Alberta to the Capital Region.

Of the seven identified corridors above, one project, a 240kv transmission line from Clover Bar to a new substation between Sherwood Park and Fort Saskatchewan has been identified by the AESO that follow similar routing along the NEPC Corridor. There are six other planned transmission lines/ sub-stations (see 2014 Capital Region Regional Energy Corridors Policy Framework). There are recognised co-location issues associated with pipelines and transmission lines. The utility of these corridors and potential integration of them needs to be reviewed with the electricity industry.
4.3.2 Corridor Timing

Through stakeholder interviews, review of previous energy corridor planning reports, and stakeholder workshops, timing for the development of priority corridors was considered. They are identified below:

Short Term – 0 to 5 years

- **Alberta’s Industrial Heartland Intersite Connector Corridor** – An energy corridor(s) within Alberta’s Industrial Heartland to move product to and between the multiple energy facilities within the area.
- **North East Penetrator Corridor** - Continued actions to increase corridor space and access needed for multiple projects.
- **Heartland Connector(s) Corridors** – An increased focus on prioritizing corridor routing and limiting land alienation is needed.

Medium Term – 5 to 20 years

- **Redwater Bypass Corridor** – North-south corridor on the west side of Redwater that links Alberta’s Industrial Heartland with Fort McMurray.
- **Edmonton Energy and Technology Park Connectors** - Development of a set corridor is needed to prioritize corridor routing and limit land sterilization as projects seek to access the EETP.
- **Northwest Alberta Connector** - protection of a corridor northwest of the Heartland is required to provide access to the northwest Alberta and northeast British Columbia.

Long Term – 20 plus years

- **Southeast Heartland Ring Corridor** - protection of a corridor northeast of Alberta’s Industrial Heartland is required to provide access to facilities in the AIH.

4.4 Priority Corridor Protection Approaches and Strategy

Priority energy corridors can be protected using a range of regulatory and ownership tools. However, there is no one size fits all approach or model. Most projects currently use a variety of approaches to secure tenure along the length of its route as it moves through different jurisdictions, land ownership and landscapes. These will be represented through different corridor models over the length of the project. For example, a pipeline may use part of the TUC, a single right-of-way, and/or run parallel to other energy infrastructure to create an unofficial common corridor.

A corridor can be protected using a range of land use policy and ownership tools to influence how and where projects are located. Protection can include a combination of tools ranging from simple identification (map notation) to outright ownership (TUC). Municipal statutory plans and permits may provide some limited influence over corridors. However, municipal plans must comply with AER, AUC, AEUB and NRCB authorizations (Section 619, *Municipal Government Act*).

A summary of the current protection status of the priority energy corridors is provided in Appendix D.
4.4.1 Corridor Protection Approaches

The following types of approaches would most likely be used in combination to protect Priority Corridors:

**Land Easement/Ownership**

- **Private Single Proponent Right-of-Way** – an easement supported by regulatory approvals that grants a single proponent development rights for their energy facility. (e.g. Transcanada Grand Rapids pipeline or AltaLink Heartland Transmission line north of the TUC.)

- **Private Common Corridor** – an easement supported by regulatory approvals that grants adjacent individual proponent development rights for their energy facilities. Current regulations recommend the development of corridors along existing corridors. (e.g. Pipeline Alley).

- **Municipal (Publicly Owned) Corridor** – Municipal land ownership of a corridor specifically to secure access (ie. Sturgeon County corridor in AIH). The City of Edmonton is currently considering this as one option to connect Alberta’s Industrial Heartland and the Edmonton Energy Technology Park.

- **Provincial (Publicly Owned) Corridor** – Provincial land ownership of a corridor specifically to secure access. Land protected by Restricted Development Area Regulation (e.g. Provincial Transportation Utility Corridors).

- **Options to Purchase** – Future options to purchase lands/easements on routes for corridors.

- **Special Purpose (Multiple private and public owners) Corridor** – A combination of private and public interests establishing a special purpose corporation for the securing of land for corridor access. There are no current examples in the Region - this is one option under consideration within the EETP.

**Land Use Tools**

- **Growth Plan Designated Corridor** – A policy statement and/or map designation without land use zoning protection.

- **Regulatory Protected Corridor** – A provincial regulation that limits land use such as the existing Restricted Development Area Regulation, which is used to regulate land uses within the TUC.

- **Bylaw Protected Corridor** – A specific municipal bylaw that assigns land use regulation through land use or zoning bylaws to protects land for energy corridor use.

- **Complementary Highway Alignment** – Integrate transportation and energy corridor planning and alignments.

- **Statutory Tools** – Recommend amendments to provincial acts and regulations to implement tools to protect and facilitate energy corridors such as easement tax, trade-offs and incentive options.

- **Corridor Right-of-Way Widths and Setbacks** – adjust land required for rights-of-way to incorporate future linear projects within existing rights-of-way.
4.4.2 Preferred Corridor Protection Strategy

A preferred corridor protection strategy will need to be developed for each priority corridor. The strategy will depend on the location and types of constraints that each corridor faces. There are many policy and ownership roles that different stakeholders play with every energy corridor.

A review of potential protection options was undertaken by stakeholder workshop participants. Feedback from stakeholders is outlined on Table 2.0: Corridor Protection Options, detailing potential methods and relative stakeholder preferences to protect each corridor.

### Table 2.0: Stakeholder Workshop Corridor Protection Options Feedback

#### Ranking Method and Summary Discussion

- Protection Options were ranked as participants were asked to identify their top three protection options for each potential corridor option.
- Protection Options were scored with a simple formula: 1\(^{st}\) choice = 3 points, 2\(^{nd}\) choice = 2 points, 3\(^{rd}\) choice = 1 point.
- The ranked results were tabulated and then colour coded to show differentiation using the coding table to the left.
- The darker colours show the preferred protection options for each corridor.

<table>
<thead>
<tr>
<th>Protection Option</th>
<th>NEPC</th>
<th>Heartland Connector</th>
<th>Southeast Heartland</th>
<th>AIH Inter-site Connector</th>
<th>Redwater Bypass</th>
<th>EETP</th>
<th>NW Alberta Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth Plan Identified Corridor</td>
<td>1</td>
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<td>8</td>
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<td>8</td>
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<td>5</td>
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<td>Private Common Corridor</td>
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<td>6</td>
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<td>7</td>
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<td>11</td>
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<td>Special Purpose Corridor</td>
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<td>Regulation Protected Corridor (RDA model)</td>
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<td>13</td>
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<td>Statutory Instrument to Influence Protection</td>
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<td>Options to Purchase Rights</td>
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<td>4</td>
<td>2</td>
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<tr>
<td>Highway Alignment Corridor</td>
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<td>3</td>
<td>3</td>
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</table>
5.0 Recommendation and Further Actions

5.1 Recommendations

The following recommendations have been identified within the mandate of the Capital Region Board:

1. That the Capital Region Board endorse the Capital Region Energy Corridors Master Plan, and that its policies be integrated into the Growth Plan through the 2015/16 Growth Plan Update.

2. That the Capital Region Board facilitate the development of common best practices and approaches for the siting, right-of-way design, and protection of energy corridors by member municipalities in discussion with industry, the province and regulators.

3. That the Capital Region Board work with member municipalities to refine the locations and alignments of the Priority Energy Corridors as shown on the Maps of Energy Corridors in Appendix F.

5.2 Further Actions

The following further actions have been identified by stakeholders throughout the process of the CRB Regional Energy Corridors Master Plan for future individual and/or collective action:

1. That the Capital Region Board support and provide leadership in the development of a Capital Region Energy Corridors Stakeholder Forum. The purpose of the Forum will be to bring together the various stakeholders involved in policy development, regulation, planning, acquisition, infrastructure development, and monitoring of energy corridors in the Capital Region to:
   a. Meet on a periodic basis to review energy corridors and serve as a communications forum.
   b. Identify and facilitate energy corridor protection options for consideration.
   c. Review best practices for energy corridor development.
   d. Maintain an up-to-date map and summary of developed, approved, planned and anticipated energy corridors with a twenty-year outlook.
   e. Invite participation from key stakeholders including, but not limited to:
      i. Pipeline Companies with interests in the Capital Region
      ii. Transmission Line Companies with interests in the Capital Region
      iii. Alberta Industrial Heartland Association
      iv. Alberta Utilities Commission
      v. Alberta Electrical System Operator
      vi. Alberta Energy Regulator
      vii. Alberta Municipal Affairs
      viii. Alberta Energy
      ix. Alberta Infrastructure
      x. Capital Region Board
      xi. Capital Region Member Municipalities
      xii. Capital Region Water and Wastewater Commissions
      xiii. National Energy Board
2. That the Capital Region Board approach the Government of Alberta with a proposal to grant the CRB standing in Alberta Energy Regulator and Alberta Utilities Commission hearings related to the development of new energy corridors within the Capital Region. Should standing be granted, the CRB will develop policy to guide intervening in hearings for proposed transmission lines and pipelines that are inconsistent with the Capital Region Growth Plan.

3. That the Capital Region Board seek industry and government support, participation and funding of a business case that defines, assesses and evaluates multi-use corridors verses single purpose corridors to support the protection and use of multi-use corridors for energy infrastructure.

4. That the Capital Region Board advocate to the Government of Alberta the coordination and integration of long range regional transportation and energy corridor planning in the Capital Region.

5. That the Capital Region Board request the Alberta Energy Regulator review options and alternatives to more effectively enable energy corridors within the Capital Region, including:
   c. Clarifying AER Directives to:
      i. further influence the use of multi-use energy corridors by pipeline proponents; and,
      ii. consider the level of project review for proponents using identified multi-use energy corridors.
   d. Considering the use of a Play Based Regulation Pilot for planned regional pipeline corridors to encourage applicants to collaborate on surface development plans in order to
      i. minimize the number of facilities and other surface impacts; and,
      ii. ensure that effective practices are used to minimize land alienation.
6.0 Appendices
## Appendix A Stakeholders and Workshop Participants

<table>
<thead>
<tr>
<th>Organization</th>
<th>Contact Name</th>
<th>Title</th>
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<tbody>
<tr>
<td><strong>Provincial</strong></td>
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<tr>
<td>Alberta Infrastructure</td>
<td>Lyle Markovich</td>
<td>Director, Land Planning</td>
</tr>
<tr>
<td></td>
<td>Brian Delong</td>
<td>Manager, Land Planning</td>
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<tr>
<td>Treasury Board Oil Sands Secretariat</td>
<td>Gary Haynes</td>
<td>Director, Community and Regional Planning</td>
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<tr>
<td></td>
<td>Patricia Hoyland</td>
<td>Policy Analyst</td>
</tr>
<tr>
<td>Alberta Transportation</td>
<td>Shaun Hammond</td>
<td>ADM Safety, Policy and Engineering</td>
</tr>
<tr>
<td>Municipal Affairs</td>
<td>Gary Sandberg</td>
<td>ADM Municipal Services and Legislation</td>
</tr>
<tr>
<td></td>
<td>Victoria Brown</td>
<td>Manager, Planning</td>
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<td><strong>Regional</strong></td>
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<tr>
<td>Capital Region Board</td>
<td>Neal Samecki</td>
<td>Manager Regional Projects</td>
</tr>
<tr>
<td></td>
<td>Stephanie Chai</td>
<td>Regional Planner</td>
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<td><strong>Municipalities</strong></td>
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<tr>
<td>City of Edmonton</td>
<td>Rick Sloan</td>
<td>Senior Policy Advisor, Office of the General Manager, Sustainable Development</td>
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<tr>
<td></td>
<td>Kate Gibson</td>
<td>Senior Consultant, Office of the General Manager, Sustainable Development</td>
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<tr>
<td></td>
<td>Kunal Sharma</td>
<td>Strategic Initiatives Coordinator, Business Strategy and Operations</td>
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<tr>
<td></td>
<td>Kelly Greenwood</td>
<td>Principal Planner</td>
</tr>
<tr>
<td></td>
<td>Ken Mamczasz</td>
<td>Senior Development Engineer</td>
</tr>
<tr>
<td></td>
<td>Gilbert Davis</td>
<td>Senior Policy Advisor, Office of the General Manager, Sustainable Development</td>
</tr>
<tr>
<td></td>
<td>Ian Morrison</td>
<td>Consultant, Senior Principal at Stantec</td>
</tr>
<tr>
<td>Strathcona County</td>
<td>Gerry Gabinet</td>
<td>Director Economic Development</td>
</tr>
<tr>
<td></td>
<td>Lori Mills</td>
<td>Energy Exploration Liaison</td>
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<td></td>
<td>Garret Matscotti</td>
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<tr>
<td>Sturgeon County</td>
<td>Jordan Rumohr</td>
<td>Economic Development Officer</td>
</tr>
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<td>Lamont County</td>
<td>Jim Newman</td>
<td>Economic Development Officer</td>
</tr>
<tr>
<td></td>
<td>Stephen Hill</td>
<td>Director, Planning and Development</td>
</tr>
<tr>
<td></td>
<td>Allan Harvey</td>
<td>CAO</td>
</tr>
<tr>
<td>City of Fort Saskatchewan</td>
<td>Mark Morrissey</td>
<td>Economic Development Officer</td>
</tr>
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<td></td>
<td>Janel Smith</td>
<td>Director, Planning and Development</td>
</tr>
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<td>Parkland County</td>
<td>Paul Hanlan</td>
<td>Manager of Planning and Development</td>
</tr>
<tr>
<td>Leduc County</td>
<td>Jordan Evans</td>
<td>Manager, Long Range Planning</td>
</tr>
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<td></td>
<td>Dave Desimone</td>
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</tr>
<tr>
<td><strong>Regulators</strong></td>
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<td>Alberta Electrical System Operator</td>
<td>Bill Strongman</td>
<td>Director, Regional System Planning</td>
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<td></td>
<td>Ata Rehman</td>
<td>Director, Transmission System Planning</td>
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<tr>
<td>Alberta Energy Regulator</td>
<td>Mark Taylor</td>
<td>Vice President, Industry Operations</td>
</tr>
<tr>
<td></td>
<td>Maria Skog</td>
<td>Manager, Enforcement and Surveillance</td>
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<td>David Helmer</td>
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<td><strong>Industry Associations</strong></td>
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<tr>
<td>Alberta Industrial Heartland Association</td>
<td>Neil Shelly</td>
<td>Executive Director</td>
</tr>
<tr>
<td><strong>Pipeline Companies</strong></td>
<td></td>
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<tr>
<td>TransCanada Pipelines</td>
<td>Scott Clark</td>
<td>Capital Projects Land Manager</td>
</tr>
<tr>
<td></td>
<td>Ryan Guigewilla</td>
<td>Sr Land Representative</td>
</tr>
<tr>
<td>Enbridge Pipelines Inc.</td>
<td>Brent Kaup</td>
<td>Sr. Manager, Land Services</td>
</tr>
<tr>
<td></td>
<td>Kara Schwaebe</td>
<td>Sr Land and ROW Planner</td>
</tr>
<tr>
<td></td>
<td>Theresa Doolittle</td>
<td>Team Lead, Crossings</td>
</tr>
<tr>
<td>Keyera Energy</td>
<td>Jason Johnson</td>
<td>Commercial Manager</td>
</tr>
<tr>
<td>InterPipeline Fund</td>
<td>Michelle Dawson</td>
<td>Director of Regulatory Affairs</td>
</tr>
<tr>
<td>Plains Midstream</td>
<td>Manuel Perez</td>
<td>Senior Project Engineer</td>
</tr>
<tr>
<td></td>
<td>John Schwarz</td>
<td>Surface Landman</td>
</tr>
<tr>
<td>Access Pipelines</td>
<td>Michelle Wright</td>
<td>Director, HSE and Regulatory</td>
</tr>
<tr>
<td>Kinder Morgan</td>
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<td>Pembina Pipelines</td>
<td>Bart Grant</td>
<td>Surface Landman</td>
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<td><strong>Utility Operators</strong></td>
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<td></td>
</tr>
<tr>
<td>AltaLink</td>
<td>Mark Johns</td>
<td>Director, Stakeholder Engagement</td>
</tr>
<tr>
<td></td>
<td>Britney Wickham</td>
<td>Right-of-Way Planner</td>
</tr>
<tr>
<td></td>
<td>Ian Johnstone</td>
<td>Manager, Siting, Regional and Customer Projects South</td>
</tr>
<tr>
<td><strong>Land Companies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phoenix Land</td>
<td>Terry Jewel</td>
<td>President Phoenix Land</td>
</tr>
<tr>
<td>Progress Land</td>
<td>Elliott Fredrichs</td>
<td>General Manager Progress Land</td>
</tr>
</tbody>
</table>

Committee Meeting: October 22, 2015
Appendix B  References

Note – All weblinks accessed March through June 2015.


ERCB Calgary, Alberta.  

Chapter 10.0: Pipelines.  


Scenarios to Strategy (2007) Alberta’s Industrial Heartland Corridors for Linear Infrastructure Stakeholders Infrastructure Priorities.  
http://www.municipalaffairs.alberta.ca/documents/CRIGMP_Core_Infrastructure_November_2007_Appendix_B.pdf

Stantec (2004) AIHA Regional Pipeline Corridor and Setback Study.  

Stewart Weir (2010) Linear Infrastructure Corridor (LIC) System Proposed Pipeline Corridors.
Appendix C  CRB Energy Corridors Policy Framework

The CRB Energy Corridors Policy Framework commitments are outlined below.

Policy Framework

- The CRB is committed to securing economic growth that creates jobs and prosperity for the Region.
- The CRB recognizes that power transmission lines and petroleum pipelines are vital infrastructure necessary to support sustainable growth and enable the Region to compete globally.
- Growth management planning by the CRB and within the Region should operate to encourage and facilitate, and not act as an impediment to, energy corridors.
- Regional planning of energy corridors shall ensure compatibility of land uses and minimize the impact on municipal growth.
- The CRB will plan for energy corridors in the Growth Plan to ensure the needs of industry are supported and sustained.
- Growth Plan policies should recognize and seek to address existing and potential barriers to energy corridor development.
- Policies in support of energy corridors shall align to the greatest extent possible with the Growth Plan principles and policies.
- The CRB will actively promote collaboration between members, industry and the province to facilitate and prioritize the location of future energy corridors within the Capital Region.

Recommendations

- Planning - That the CRB develop a comprehensive master plan to guide the location and development of energy corridors within the Capital Region.
- Advocacy - That the CRB leads the development a comprehensive energy corridors advocacy strategy, in partnership with industry stakeholders, to communicate energy corridor issues and challenges in the Capital Region to the Provincial and Federal governments.
## Appendix D  Priority Energy Corridor Descriptions

<table>
<thead>
<tr>
<th>1.0</th>
<th><strong>North East Penetrator Corridor (NEPC)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Corridor</strong></td>
<td>Connecting Refinery Row and the Transportation Utility Corridor (TUC) to Alberta’s Industrial Heartland (AIH)</td>
</tr>
</tbody>
</table>
| **Purpose** | • To provide access for raw, refined and finished products in the Refinery Row refineries, tank farms and plant sites to and from the AIH, Athabasca Oilsands and Cold Lake areas of Alberta  
• To provide access from the AIH to the chemical developments in the Joffre area of the province  
• To feed export lines in from storage in the Enbridge and Kinder Morgan pipeline systems |
| **Constraints/Design Considerations** | • Light/medium industrial development north of highway 16  
• Potential future developments in the Bremner/Cambrian areas  
• Limited capacity within the NEPC  
• Georgia Pacific plant site adjacent to Highway 16  
• Natural/environmental constraints including Oldman Creek  
• Alignment of 130th Avenue |
| **Protection Status and Options** | • NEPC is partially protected by provincial government crown land ownership  
• Existing linear right of ways will influence future development applications along corridor  
• Strathcona County MDP  
  • Bremner has been identified as a possible constraint to the expansion of the corridor, however, no development is contemplated in the MDP. Development is proposed in the area immediately west of Highway 21, Cambrian Crossing.  
  • Policy 7.24 – requires new pipelines or utilities to follow existing corridors, quarter sections or rights of way, in accordance with Map 2;  
  • Policy 7.25 – ensure that new or expanded pipelines or utility corridors do not impact high or medium priority environment management areas, wherever possible;  
  • Policy 16.2 – work with surrounding municipalities and utility companies to ensure integrated utility corridors are created and maintained;  
  • Policy 16.3 – support the rationalization and development of pipeline/utility corridors in consultation with industry, utility companies, federal, provincial and municipal governments;  
  • Policy 16.4 – Use pipeline/utility corridors as multiple use corridors to accommodate oil, natural gas, municipal utilities, electrical transmission lines, communications infrastructure, and pedestrian linkages;  
  • Policy 16.4(a) – encourage that regional corridors and infrastructure as identified in the Capital Region Growth Plan will be integrated into |
1.0 North East Penetrator Corridor (NEPC)

- Edmonton MDP
  - Policy 8.1.6.4 – plan for regional corridors for transportation, utilities and pipelines within the context of the Capital Region Growth Plan (see map 16);
  - Policy 9.3.1.3 – collaborate with Edmonton Area Pipeline and Utility Operators Committee (EAPUOC), Energy and Resources Conservation Board (ERCB), other jurisdictions and other industry operators as they plan and maintain pipeline corridors;
  - Policy 9.3.1.5 – Plan pipelines in corridors with other utilities where possible.

common corridors wherever possible in order to protect these lands for their intended purpose.
### Heartland Connectors

**Corridor**

Connecting the NEPC into the AIH along two parallel Heartland Connector corridors:
- Heartland North – Connecting the NEPC to the SE corner of Fort Saskatchewan
- Heartland South – Following the southern edge of the CP Rail line north-east

**Purpose**

- To provide access for raw, refined and finished products to the NEPC and Refinery Row from the AIH linking Athabasca Oilsands and Cold Lake areas of Alberta
- To provide access to and from the NEPC to the AIH and to the chemical developments in the Joffre area of the province
- To feed export lines from the NEPC to the Enbridge and Kinder Morgan pipeline systems

**Constraints/Design Considerations**

- Capacity of existing corridors/linear disturbances to facilitate additional pipelines
- Potential future growth node for Sherwood Park adjacent to Highway 21
- Minimizing new routes on existing farm and acreages
- Impact on development in Fort Saskatchewan

**Protection Status and Options**

- Two main corridors supported by existing right of ways
- Existing linear right of ways will influence future development applications along corridors
- Strathcona County MDP
  - Policy 7.24 – requires new pipelines or utilities to follow existing corridors, quarter sections or rights of way, in accordance with Map 2;
  - Policy 7.25 – ensure that new or expanded pipelines or utility corridors do not impact high or medium priority environment management areas, wherever possible;
  - Policy 16.2 – work with surrounding municipalities and utility companies to ensure integrated utility corridors are created and maintained;
  - Policy 16.3 – support the rationalization and development of pipeline/utility corridors in consultation with industry, utility companies, federal, provincial and municipal governments;
  - Policy 16.4 – Use pipeline/utility corridors as multiple use corridors to accommodate oil, natural gas, municipal utilities, electrical transmission lines, communications infrastructure, and pedestrian linkages;
  - Policy 16.4(a) – encourage that regional corridors and infrastructure as identified in the Capital Region Growth Plan will be integrated into common corridors wherever possible in order to protect these lands for their intended purpose.
- Fort Saskatchewan MDP
  - No policies protecting a corridor within the MDP.
### 3.0 Southeast Heartland Ring Corridor

**Corridor**
A by-pass access around the core of the AIH area for raw products coming from the NE portion of the province.

**Purpose**
- To provide access into the AIH for major pipelines in NE Alberta
- To bypass industrial activities in the AIH and access Refinery Row
- To connect to the Heartland Corridors

**Constraints/Design Considerations**
- To develop an economic and effective alignment into the AIH
- To find routes around existing oil and gas wells and gathering lines south and west of the Town of Bruderheim
- To find a suitable crossing of Beaverhill Creek
- To minimize disturbances and impact on alienation of farm land

**Protection Status and Options**
- Existing linear right of ways will influence future development applications along corridor
- Strathcona County MDP
  - Policy 7.24 – requires new pipelines or utilities to follow existing corridors, quarter sections or rights of way, in accordance with Map 2;
  - Policy 7.25 – ensure that new or expanded pipelines or utility corridors do not impact high or medium priority environment management areas, wherever possible;
  - Policy 16.2 – work with surrounding municipalities and utility companies to ensure integrated utility corridors are created and maintained;
  - Policy 16.3 – support the rationalization and development of pipeline/utility corridors in consultation with industry, utility companies, federal, provincial and municipal governments;
  - Policy 16.4 – Use pipeline/utility corridors as multiple use corridors to accommodate oil, natural gas, municipal utilities, electrical transmission lines, communications infrastructure, and pedestrian linkages;
  - Policy 16.4(a) – encourage that regional corridors and infrastructure as identified in the Capital Region Growth Plan will be integrated into common corridors wherever possible in order to protect these lands for their intended purpose.
- Lamont County MDP
  - Policy 10.8(d) – use corridors to integrate a number of utilities;
  - Policy 10.13 – when planning for future residential development in the areas near pipelines and powerlines, the County will require rights-of-way to contain sufficient width to ensure adequate buffers or setbacks between the proposed residential development and adjoining uses.
<table>
<thead>
<tr>
<th>4.0</th>
<th>AIH Intersite Connector</th>
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<tbody>
<tr>
<td><strong>Corridor</strong></td>
<td>Connecting into and within the chemical cluster, storage and tank farms of the AIH. This is an internal AIH corridor network</td>
</tr>
</tbody>
</table>
| **Purpose** | • To provide external access to the AIH to connect to key points  
  o East to connect to the NE pipeline corridors from the Oilsands and Cold Lake  
  o Access through to the Suncor/ Fort Hills lands and the EETP  
  o South to connect to the Heartland Connector  
  • To provide a main internal access corridor within the AIH |
| **Constraints/Design Considerations** | • Working around existing oil and gas operations (East of river)  
• Impact on Silica Sand operations – north of Bruderheim  
• Future space to twin Highway 643  
• North Saskatchewan River Crossing  
• Access through existing industrial developments |
| **Protection Status and Options** | • Existing linear right of ways will influence future development applications along corridor  
  • Strathcona County MDP  
  o Policy 7.24 – requires new pipelines or utilities to follow existing corridors, quarter sections or rights of way, in accordance with Map 2;  
  o Policy 7.25 – ensure that new or expanded pipelines or utility corridors do not impact high or medium priority environment management areas, wherever possible;  
  o Policy 16.2 – work with surrounding municipalities and utility companies to ensure integrated utility corridors are created and maintained;  
  o Policy 16.3 – support the rationalization and development of pipeline/utility corridors in consultation with industry, utility companies, federal, provincial and municipal governments;  
  o Policy 16.4 – Use pipeline/utility corridors as multiple use corridors to accommodate oil, natural gas, municipal utilities, electrical transmission lines, communications infrastructure, and pedestrian linkages;  
  o Policy 16.4(a) – encourage that regional corridors and infrastructure as identified in the Capital Region Growth Plan will be integrated into common corridors wherever possible in order to protect these lands for their intended purpose. |
<table>
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<th>5.0</th>
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<tbody>
<tr>
<td><strong>Corridor</strong></td>
<td>To provide access into the northern border of Sturgeon County into and out of the Heartland on the west side of the North Saskatchewan River</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>• Providing access into the AIH, connecting north east Alberta, the Suncor/ Fort Hills lands into the AIH and the EETP</td>
</tr>
</tbody>
</table>
| **Constraints/Design Considerations** | • Determining around the Redwater oil and gas fields  
• Redwater River crossing  
• Land alienation impact southeast of the Redwater Town site |
| **Protection Status and Options** | • Existing linear right of ways will influence future development applications along corridor  
• Strathcona County MDP  
  o Bremner has been identified as a possible constraint to the expansion of the corridor, however, it is believed that the possible constraint may be in the proposed Cambrian development to the west. An amendment is currently being reviewed by the County that would increase the population in this area from 10,000 to 13,500;  
  o Policy 7.24 – requires new pipelines or utilities to follow existing corridors, quarter sections or rights of way, in accordance with Map 2;  
  o Policy 7.25 – ensure that new or expanded pipelines or utility corridors do not impact high or medium priority environment management areas, wherever possible;  
  o Policy 16.2 – work with surrounding municipalities and utility companies to ensure integrated utility corridors are created and maintained;  
  o Policy 16.3 – support the rationalization and development of pipeline/utility corridors in consultation with industry, utility companies, federal, provincial and municipal governments;  
  o Policy 16.4 – Use pipeline/utility corridors as multiple use corridors to accommodate oil, natural gas, municipal utilities, electrical transmission lines, communications infrastructure, and pedestrian linkages;  
  o Policy 16.4(a) – encourage that regional corridors and infrastructure as identified in the Capital Region Growth Plan will be integrated into common corridors wherever possible in order to protect these lands for their intended purpose.  
• Sturgeon County MDP  
  o Policy 5.4.9 – should identify utility corridors that promote efficient use of land and that maximize development potential;  
  o Policy J.5(d) – working with the Province, the Energy Resources Conservation Board and regional partners to formulate a consolidated pipeline plan for locating new pipeline right-of-ways in the AIH region. |
### 6.0 EETP Connector A and B

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Connecting the EETP in NE Edmonton to (A) to a crossing of the North Saskatchewan River where the Williams Pipeline currently crosses (B) to the NW corner of the AIH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>• To link the EETP into the AIH</td>
</tr>
<tr>
<td>Constraints/Design Considerations</td>
<td>• Identification of connection to the AIH west of the North Saskatchewan River • Topography of Sturgeon valley and river • Future location of petrochemical facilities within the AIH</td>
</tr>
<tr>
<td>Protection Status and Options</td>
<td>• Corridor supported by existing Pembina ROW into NW corner of the EETP • Existing linear right of ways will influence future development applications along corridor</td>
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### 7.0 Northwest Alberta Connector

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Shipping oil, gas and natural gas lines from the Swan Hills, Rainbow Lake, Norman Wells fields and others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>• To link NW Alberta and NE BC into the AIH</td>
</tr>
<tr>
<td>Constraints/Design Considerations</td>
<td>• Identification of connection to the AIH west of the North Saskatchewan River • Future location of facilities within the AIH</td>
</tr>
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<td>Protection Status and Options</td>
<td>• Existing linear right of ways will influence future development applications along corridor</td>
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Appendix E  Priority Energy Corridors - Growth Plan Land Use Principles and Policies Review

**Legend**

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<td>Corridor has a high level of consistence with Growth Plan Policies</td>
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<td>Medium</td>
<td>Corridor has a medium level of consistence with Growth Plan Policies</td>
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<td>3</td>
<td>Low</td>
<td>Corridor has a low level of consistence with Growth Plan Policies</td>
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**Core Principle I: Protect the Environment and Resources**

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<tr>
<td>a. Preserve and Protect the Environment</td>
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<tr>
<td></td>
<td>One creek crossing, potential North Saskatchewan river crossing</td>
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<tr>
<td>b. Preserve Agricultural Lands</td>
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<tr>
<td>c. Minimize the Impact of Heavy Industrial Developments</td>
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</tr>
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<td>Only corridor outside of AIH</td>
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### Core Principle II: Minimize Regional Footprint

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<th>Principle</th>
<th>Consistency with Growth Plan Policies</th>
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</tr>
<tr>
<td>a. Identify, Protect and Prioritize Lands for Regional Infrastructure</td>
<td>1</td>
</tr>
<tr>
<td>b. Concentrate New Growth Within Priority Growth Areas</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Traverses PGA B and F; land area F is currently undeveloped</td>
</tr>
<tr>
<td>c. Allow Growth Outside of Priority Growth Areas</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Core Principle V: Ensure Efficient Provision of Services

<table>
<thead>
<tr>
<th>Principle</th>
<th>NEPC</th>
<th>Heartland Connectors</th>
<th>Southeast Heartland Ring Corridor</th>
<th>AIH Intersite Connectors</th>
<th>Redwater Bypass</th>
<th>EETP Connector</th>
<th>Northwest Alberta Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Design Integrated Physical Infrastructure with the Region</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1 Includes an existing power transmission corridor (north-south portion); no adjacent infrastructure on east-west portion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Maximize Utilization of Existing Infrastructure</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>1 Adjacent to some existing pipeline corridors</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Southern portion includes existing pipeline

Core Principle VI: Support Regional Economic Development

<table>
<thead>
<tr>
<th>Principle</th>
<th>NEPC</th>
<th>Heartland Connectors</th>
<th>Southeast Heartland Ring Corridor</th>
<th>AIH Intersite Connectors</th>
<th>Redwater Bypass</th>
<th>EETP Connector</th>
<th>Northwest Alberta Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Ensure a Supply of Land to Sustain a Variety of Economic Development Activities</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>b. Support Regional Prosperity</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>c. Position the Capital Region Competitively on the World Stage</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix F  Figures 1.0 – 5.0:  Maps of Energy Corridors
FIGURE 2.0: PRIORITY PIPELINE CORRIDORS – DRAFT

Coordinate System: 3TM 114-83
Projection: Transverse Mercator
Datum: North American 1983
central meridian: -114.0000

Priority Pipeline Corridors
1. Northeast Penetrator Corridor
2. Heartland Connectors
3. Southeast Heartland Ring Corridor
4. AIH Intersite Connector
5. Redwater Bypass
6. EETP Connector
7. Northwest Alberta Connector

Committee Meeting: October 22, 2015
Land Use & Planning Committee
Page 54 of 66
Introduction:

The Capital Region Board (CRB) has prepared a draft “Energy Corridors Master Plan” (the “Plan”) for the region that was presented to the Land Use and Planning Committee on August 20th, 2015. Following the presentation, the Committee approved a motion that the Plan be referred to Alberta’s Industrial Heartland Association for review and comment by September 30, 2015.

The Plan was reviewed by AIHA’s administration who compiled the comments and recommendations for consideration in the next version. These are based upon the contents of the report, previous work done by AIHA on corridors as well as discussions with some of the local municipal members.

Comments:

The Plan provides a good overview of the situation regarding pipeline corridors in the region and how they are essential for continued economic growth as well as good land use planning. The Plan covers two main topics; the general routing of where corridors are needed as well as a discussion on the mechanism(s) by which these could be put in place.

Regarding the general routing of the corridors, the network is aligned with the views of AIHA’s own report in 2010 and would allow for the flow of products, feedstocks and by-products necessary to support the current and future development within the Heartland. There have been concerns raised by some municipal members regarding exact location of these corridors as described within the Plan, but from a macro view point, the main routes and their approximate locations cover the needs of AIHA. Some additional work will be required to refine these main routings (described in figure 2.0 of appendix F of the Plan) especially the “Edmonton Energy and Technology Park” (EETP) connector, Heartland Connectors and the AIH Inter-site Connector.

The Plan provides a prioritization for corridor development. From our perspective, the priorities could be adjusted as noted below:

1. North East Penetrator Corridor
   
   Rationale: This is the most critical pinch point in the pipeline system of the region. With limited space available, this issue needs to be addressed first.

2. AIH Inter-site Connector
   
   Rationale: This will be important to the overall development of the Heartland region and while currently there are limited restriction to its development, any new or proposed development could create major problems.

3. Heartland Connector(s)
Rationale: This corridor has been designed with two options for its northern leg: one through the City of Fort Saskatchewan and the other to the east through Strathcona County. Development in either of these municipalities could restrict future corridor development and further work should be done on this matter to ensure it is aligned with the municipal growth plans.

4. EETP Connector

Rationale: Currently, there is little development along this proposed corridor route to restrict development; however, it is important to establish this route early to ensure future activities and plans are in sync.

5. Southeast Heartland Ring Corridor

Rationale: The intent of this corridor is to avoid creating encumbrances in the relatively undeveloped part of the Heartland in Lamont County. Many options for the exact routing are available and should be developed in time.

6. Redwater Bypass Corridor

Rationale: This is intended to be the main route for connecting the Heartland to new oil sands production in the Wood Buffalo region. The main current restriction for this route is the Fort Hills land ownership and the difficulties in gaining pipeline access through this area.

This route can also serve an additional purpose of an extension of the AIH Inter-site Connector network to allow for development in the northern sections of Sturgeon County.

7. Northwest Alberta Connector

Rationale: Growth of shale gas developments in northwest Alberta and BC will be an important feedstock for petrochemical developments in the Heartland region. Currently, there are few restrictions on pipeline developments in this area, but thought should be put into a corridor to connect us to this important resource.

The main barrier to implementing a corridor system stemming from the AIHA report in 2010 was the lack of a regulatory/legal mechanism to put these in place. The Plan does a good job in describing the actions that are needed to implement a corridor system.

We agree with the recommendation in the report that a meeting be held to discuss Best Management Practices regarding pipeline corridors. Pipelines can stretch across multiple municipal boundaries and a common understanding on BMP would be helpful to all involved. This meeting should include representatives from the municipalities, industry and regulators (Alberta Government as well as the AER). Included in these discussions should be “rules of use” within the corridors themselves (i.e. spacing between pipelines, work spaces, etc.). Without effective rules, a corridor could be filled in a short period of time requiring an expansion of the corridor or the need to look at a new routing.

We would offer a word of caution regarding recommendation #2 (on page 11 of the Plan) regarding the CRB having official standing with the AER for pipeline development within the region. Given the number
of pipelines in the area, this would require a significant amount of resources (HR and financial) to effectively comment on each new pipeline. Additionally, each of the municipalities through which the pipeline would run would potentially want to intervene as well. Further discussion should be undertaken on the roles of the CRB and individual municipalities in the AER regulatory process.

We agree with recommendation #5 of the plan that the best way of managing the situation would be to have the AER designate the corridors as the routing under a “play based” approach to the regulatory process. This would put the onus on the pipeline companies to make their case if they want to deviate outside of the corridors. In these exception cases, the CRB and/or the municipality could get involved to assess and comment on the impacts this would have. Historically the AER and its predecessor, the ERCB, judged each pipeline on its own merits. This places the onus on the municipalities to justify why the pipeline may not be aligned with long term planning objectives.

Conclusion:

From our assessment, we feel that the Plan as developed by the CRB would be a benefit to creating the necessary energy corridors for the region. While there are some detailed issues to be worked out on the exact location of routing, it would be beneficial to endorse this report so that follow up actions on implementing the corridors can start sooner than later.

Recommendation:

The Plan, as presented by the CRB, be accepted and acted upon with the following modifications:

1. That the AIHA request member municipalities’ work in conjunction to refine the exact location of corridors in the region.
2. That the AIHA request that the CRB adjust the priorities for corridor development to align with AIHA’s assessment.
3. That the AIHA request that the CRB work with AIHA member municipalities to determine roles and responsibilities for involvement in AER regulatory hearings for pipelines in the region.
CRB Committee Consultation

Land Use & Planning Committee

October 22, 2015

The input as submitted from members is included below.

Notes:

- A table has been prepared for each priority issue with the comments provided by each member.
- Some of the responses were related to directly to the supporting statements which have been added in the table (bulleted) to give context to the input.
- Where comments have been made outside the Priority Issues I have inserted the comment in brackets or added it at the end of the Priority Issue.
CRB Committee Consultation

The Task Force has approved and established the Principles, Policy Areas, Objectives of each Policy Area, and the Priority Issues the Growth Plan Update needs to address in each Policy Area, as outlined in the Briefing Note provided at the Committee meeting.

The Task Force is looking for the Committees to provide input and comments on each of the priority issues in the Briefing Note. The Committee is requested to review the supporting statements (bullet points) under each of the priority issues, as shown below, and provide input that will assist the consultants and Task Force in the development of policies for each of the Policy Areas.

When reviewing each of the priority issues and supporting statements ask yourself the following:

- Is the supporting statement relevant to the issue?
- Does the supporting statement address the substance of the issue?
- Is further clarification of the supporting statement required?
- What other related issues should be addressed?

Sample responses are provided below.
Protect natural living systems and environmental assets. We will practice wise environmental stewardship and promote the health of the regional ecosystem by protecting watersheds and environmentally sensitive areas.

**Policy Area: Natural Living Systems**

**What are we trying to achieve?**

- Thriving natural living systems and their environmental assets, including healthy land base and watershed, abundant wildlife (Only wildlife? All living things – Crouse), clean air and water
- A healthy environment with connected regional natural systems to enhance liveability in the region
- A balance that supports a healthy environment, agriculture and recreational uses
- A strategy to anticipate and address climate change and promote resiliency at the regional scale
- **People - Crouse**

**What are the priority issues the Growth Plan Update needs to address?**

1. Value, protect and enhance natural ecosystems including regionally significant natural areas and their regional connectivity

<table>
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<tr>
<th>Member</th>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>No additional comment</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
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</table>
| David Mackenzie, City of Leduc         | *Reinforce the protection of natural systems in relation to growth and resiliency (ability to adapt to changes in the climate and economy)*  
|                                        | *Focus on environmental stewardship – a regional understanding, policy approach and means of implementation*  
|                                        | *Consider cumulative impacts of growth on natural systems*               |
|                                        | Agree with all of the above. Protecting and enhancing our natural ecosystems should become a higher priority to ensure future generations can enjoy a healthy environment. The environment does not have local boundaries, so an integrated regional approach would be beneficial for a more comprehensive solution.  
|                                        | *Look at incentives to retain and manage natural areas on private lands*  
|                                        | Incentives may be an effective way to help manage natural areas on private lands, but is this strategy appropriate at the intended level of this plan?  
|                                        | *Create a policy framework that support up to a provincial level – baseline of protection at a regional level*  
|                                        | We will need more details on this topic before we can comment.          |
| Nolan Crouse, CRB Chair                 | No comment                                                              |
2. Plan development that promotes clean air, land and water, reduces energy consumption and greenhouse gas emissions, and remediates and reuses brownfield lands

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<tr>
<td>Clay Stumph, Leduc County</td>
<td>No additional comment</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>Through promotion of clean air, land and water future generation will have less health issues because of poor environment previously</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Not sure how we will “plan” this type of development. Would we be better off using the word “promote” given that it's difficult to plan for development that achieves those goals outside of public transit.</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc | - Explore opportunities to enhance the resiliency of communities and infrastructure networks  
                                  - Consider impact of severe weather events in assessing infrastructure needs and investment  
                                  - Link land use policies with environmental policies to consider cumulative impacts on natural systems and the environment  
                                  - Create a regional adaptation and resiliency strategy  
                                  Perhaps there are two or even three separate policy topic areas here: 1) promoting the health/preservation of the environment through prevention of environmental degradation, and 2) addressing the effects of existing environmental impacts of climate change on our communities.  
                                  “Remediates and reuses brownfield lands” is not directly addressed in the sub-topics and needs more detail. |
| Nolan Crouse, CRB Chair     | “reduces energy consumption” – Really?                                                                                                  |

3. Protect and conserve the North Saskatchewan River watershed

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<th>Member</th>
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<tr>
<td>Clay Stumph, Leduc County</td>
<td>No additional comment</td>
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<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Add in “while promoting access for education and recreation opportunities.”</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc | - Ensure growth protects the region's watershed for next 30-50 years  
                                  - Confirm sufficient water supply to accommodate the region's projected employment and population growth  
                                  It would be helpful to have more information on this topic. Water licensing is under provincial jurisdiction. How does the CRB envision its role in studying and managing our water supply? What are the projected impacts on member municipalities? |
| Nolan Crouse, CRB Chair     | Only North Saskatchewan?                                                                                                               |
4. Manage conflict between natural living systems, natural resource extraction, solid waste, and energy corridors to minimize fragmentation of natural systems

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<th>Member</th>
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<tr>
<td>Clay Stumph, Leduc County</td>
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<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc  | - Integrate and align policies related to natural systems across the region/municipalities  
                                  | - Explore the impacts of planned energy corridors on natural systems    
                                  | - Understand the solid waste impacts related to the natural living system 
                                  | - Look at energy corridors and resource extraction through sustainability lens |
|                                | These topics are generally regulated at the provincial level. Is the intent to develop a framework for the CRB to collaborate and align with the Province? |
| Nolan Crouse, CRB Chair         | No comment                                                              |

5. Align regional policies with provincial and federal policies, standards and regulations, including the North Saskatchewan Regional Plan

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<th>Member</th>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>No additional comment</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>All levels need to be on the same page in order to collectively preserve and maintain all the types of land and their uses</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>No comment</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>Land use Provincial policy alignment</td>
</tr>
</tbody>
</table>
Promote economic competitiveness and regional prosperity. We will foster a diverse and innovative economy that builds upon our existing strengths, infrastructure and employment areas to achieve sustained economic growth and prosperity.

**Policy Area: Economic Competitiveness & Employment**

**What are we trying to achieve?**

- An excellent quality of life to attract and retain workers and live - Crouse
- The efficient use of existing infrastructure and investment in future infrastructure to support economic growth
- Growth and expansion of existing employment clusters to compete on a global scale
- A diverse and resilient regional economy to remain competitive in a changing global economy
- People - Crouse

**What are the priority issues the Growth Plan Update needs to address?**

1. Define and foster existing employment clusters

<table>
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<tr>
<th>Member</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Replace the word ‘define’ with ‘recognize’. Note that Nisku/Leduc is the largest energy industrial park in Canada (source).</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>- Grow and distinguish existing employment areas and regional economic drivers</td>
</tr>
<tr>
<td></td>
<td>A lot of importance seems is being placed on existing employment areas, which is important for reducing unnecessary sprawl and reducing incompatible uses. However, let’s not forget about the importance of fostering new and emerging markets and employment clusters. In order for future diversification of the economy to be sustained, new lands to grow new sectors should be understood and identified as well, especially areas that are contiguous to existing employment clusters and regional infrastructure (e.g. supporting new and emerging “Aerotropolis” clusters around the Edmonton International Airport).</td>
</tr>
<tr>
<td></td>
<td>- Focus on regional employment clusters – cluster things together where they have existing and potential relationships, leverage assets and infrastructure and related economic activities</td>
</tr>
<tr>
<td></td>
<td>- Provide direction on any future employment lands</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>Hard to do; impossible</td>
</tr>
</tbody>
</table>
2. Plan for a full range of employment from heavy industrial to office and institutional and government uses in the region

<table>
<thead>
<tr>
<th>Member</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>This is too onerous a task for the CRGP to address and not useful to the regional perspective needed in the growth plan. Rather than attempt to define land use breakdowns across the region, the growth plan should plan for/recognize regionally significant industry clusters.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>Support post secondary institutions to provide future employees in the workforce, wherever that may be.</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc | • Provide direction on managing job growth in a range of employment types: heavy to light industrial, commercial, major retail, office  

The prospect of the CRB providing direction on managing job growth creates concerns. Prescriptive policies should be avoided, in order to ensure clustering and market innovation is fostered and the high-level nature of the CRB Growth Plan is maintained.

• Recognize employment areas and other concentrations of employees such as in downtowns

Agreed. But let’s remember that there are numerous important employment nodes aside from downtown areas. For example, supporting a variety industrial employment areas is equally important (both inside and outside of the City of Edmonton) will be critical to the region’s economic sustainability.

• Define employment areas/uses with potential to achieve higher employee densities and access to transit  
• Define employment land supply and capacity for next 30-50 years

When we talk about “defining” in a 30-50 year context, we should be careful, and remember that employment and job growth responds to rapidly changing market demands and technological shifts. Long-range perspective policies that cannot account for technological and shifts could be counterproductive.

• Promote economic sectors with relevance on regional scale that contribute to regional economic growth and global competitiveness

Nolan Crouse, CRB Chair | Home base business is huge; cannot include |
3. Plan and coordinate infrastructure to foster and support employment clusters and economic competitiveness

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<tr>
<th>Member</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>The transportation prioritization project has been a useful initiative (even if results have not yet become apparent). Similar processes should be investigated for other infrastructure to coordinate with land use.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc  | • **Focus on goods and people movement in and out of the region**  

Agreed. While public transit is suitable for moving a certain ratio of workers, especially knowledge-based professions, a thriving economy will continue to rely on strong and well connected road and highway systems, cargo rail, air transport to ensure the efficient movement of goods into, out of, and throughout region.

• **Address infrastructure needs for next 30-50 years to support growth of employment clusters**
• **Identify mechanism for 3-5 year infrastructure planning to coordinate and align regional infrastructure investment**

The CRB Growth Plan is supposed to be a high level regional plan, and can be used to guide provincial decisions on infrastructure investment over the long term. However, a new definitive approval mechanism would be inappropriate and inefficient at the CRB level.

• **Align land use, infrastructure and capital planning horizons at the regional and provincial levels**

Our understanding that this would be to obtain the necessary buy-in from the Province for the updated CRGP. If that is not the case, then we request further clarification and discussion.

• **Set servicing and intensification standards**

Engineering and planning standards vary from municipality to municipality, creating diversity amongst our unique communities. Exploring unification of these types of standards may be worth exploring, but may prove to be onerous and lead to overly homogeneous built forms throughout the region.

• **Plan for infrastructure, energy and utility corridors**
• **Identify economic clusters, define distinct roles and infrastructure**

To a point. However, it is also important to understand that markets will evolve and new clusters will arise. We want to promote innovation. Employment clusters are very subtle entities requiring a diverse array of upstream and downstream inputs and outputs. The CRGP should remain high level guide to planning our region and be careful of being overly prescriptive at the local level, so that employment areas are able to evolve over time.

| Nolan Crouse, CRB Chair         | “support employment clusters” – really?                                                                                                                                                                                                                                                                                                                                                                                                                                  |
4. Promote liveability and plan for the needs of a changing population and workforce

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<tr>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Promotion of infill and higher density in mixed use developments should promote these principles while reducing pressures on infrastructure and agricultural land.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>Address the issue of transient workers who call another town, province, home</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc   | **Address liveability factors including quality of life, housing and transportation to attract and retain workers**  
Yes. Retaining and attracting skilled workers is, and will continue to be, a major issue to address in order to ensure the region continues to be competitive and can provide the supply of skilled labour needed to grow our economy. An example would be supporting the expansion of post-secondary campuses through satellite campuses in the region.  
It is important to protect and promote a diverse range of lifestyle options to ensure a diverse, healthy and competitive region.  
**Develop a regional transportation network to support mobility and access to jobs** |
| Nolan Crouse, CRB Chair          | Revise “changing” to “evolving”                                          |

5. Recognize that diversification of energy sector is necessary to respond to future economic opportunities

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<tr>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>As noted in the ‘Choose to Lead’ report, leveraging our region’s relative strength in the energy industry to promote diversification is necessary to achieve this goal. The Growth plan should not attempt to artificially impose diversification; instead, it should look to nurture opportunities to build upon the strengths of our existing energy sector by applying its existing considerable knowledge and assets to new opportunities in order to enable a more diversified economy.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>No comment</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>No comment</td>
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</table>
6. Position the region to leverage future economic drivers, emerging markets and potential growth sectors

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<tr>
<th>Member</th>
<th>Comment</th>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>As noted above, it is important to build on our existing strengths to enable growth into emerging markets and future opportunities/economic drivers. This applies to the energy sector, but also to the agricultural sector, the transportation sector and so on.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>Aerotropolis (airport integrated development) is a great example of promoting regional economic diversification and innovation in the short and long-term future. It is also a good example of how a percentage of knowledge-based office jobs will emerge, a large portion will continue to be in high value manufacturing and distribution jobs.</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>?? what does this mean?</td>
</tr>
</tbody>
</table>

- **Position the region to leverage opportunities presented by emerging markets**

  Yes. Keep the CRBGP at a high enough level to avoid prescriptive policies to avoid stifling innovation and growth.

- **Identify and advance current and potential growth sectors: health and education, innovation; knowledge economy; waste management**

  Ensure that we include other emerging markets that align with the realities of our region’s economy (i.e. not only the knowledge-based professions). We suggest adding Advanced Manufacturing, Agri-Business, Aerospace & Aviation, and Transportation/Logistics & Distribution to this list.

- **Promote innovation in oil and gas sector (for example: oil and gas recycling etc.)**

  Yes. Therefore, flexibility and allowing for creativity around future new employment typologies and locations will be important. We should avoid a “one size fits all” model to ensure overregulation does not impede creativity and diversification of emerging employment nodes.

- **Promote diversification**
7. Address funding models and cost and revenue sharing

<table>
<thead>
<tr>
<th>Member</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Boundary security needs to be addressed in conjunction with cost and revenue sharing.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Not sure revenue sharing will go very far but cost sharing for regionally significant infrastructure projects is important.</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc| - Create win-wins through regional joint venture model  
- Address funding models to allow for success – revenue sharing as model  
- Share non-residential wealth  
- Link employment clusters to the potential for ‘wealth sharing’  
These suggested strategies will require a more robust description and discussion so that all of the implications, costs and benefits, can be better understood. |
| Nolan Crouse, CRB Chair       | No comment                                                                                                                                 |

We need to add in some points about the coordination of infrastructure investments with the economic drivers in Alberta. Economic development should not be thought of separately from infrastructure - Katchur

8. People - Crouse.
Achieve compact growth that optimizes infrastructure investment. We will make the most efficient use of our infrastructure investments by prioritizing growth where infrastructure exists and optimizing use of new and planned infrastructure.

Policy Area: Integration of Land Use & Infrastructure

What are we trying to achieve?

- A clear definition of where and how to grow over the next 30 years (50 years – Crouse) to guide both residential and job growth
- Logical, efficient and financially sustainable regional growth patterns
- Contiguous and compact development and redevelopment patterns to minimize the development footprint, and optimize existing and new infrastructure
- An excellent quality of life within the region, with access to amenities and services
- Coordination and logical phasing of regionally significant infrastructure planning and investment
- A growth strategy to minimize the cumulative impacts on the environment and reduce greenhouse gas emissions
- Reduce leapfrog development and the start up of new urban areas in rural districts - Katchur

What are the priority issues the Growth Plan Update needs to address?

1. Establish a development pattern that is compact and contiguous by defining criteria for urban, rural and hamlet growth.

<table>
<thead>
<tr>
<th>Member</th>
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</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>The concept of “defining criteria for urban, rural and hamlet growth” is problematic as there is no common definition for ‘urban’, ‘rural’ or ‘hamlet’. For example, Sherwood Park can be defined as at least two of these terms, even within Leduc County itself the term ‘hamlet’ has a very broad definition as it applies to areas such as the former Village of New Sarepta and the Hamlet of Looma – these have significantly different built forms. Likewise, the term ‘rural’ can apply to a type of municipality, a type of landscape/built-form, a level of service provision, and so on. It is important that the CRGP focus on built-form and not attempt to dictate responsibilities to its member-municipalities.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Eliminate the potential for country cluster development.</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>• Apply density targets to both employment and residential growth. The CRBGP’s residential density targets has created a number of major issues since the original growth plan was released. Residential density targets should be reviewed and tested carefully with communities throughout the region. PGAs and residential density targets need to be reviewed. It will be advantageous to explore a minimum, but no ceiling for urbanized areas in order to promote sustainability, reduce sprawl and avoid homogeneity.</td>
</tr>
</tbody>
</table>
When reviewing residential density targets, each municipality’s unique typology should be considered. A principle of proportional increases could be considered (e.g. achieving a certain percentage above and beyond existing densities, with consideration for each municipality’s unique context).

Defining appropriate density targets for employment would be far more complex and impactful than residential targets, and could be detrimental to the region’s economy if the targets are inaccurate. We suggest ensuring any residential density targets are appropriate in this version of the CRBGP, before attempting employment targets.

For example, number of employees per hectare does not necessarily provide an appropriate criteria or value for employment areas. In some cases, a “low density” (i.e. lower proportion of employees per hectare) industrial or agricultural land uses can prove to be high-value land uses in terms of production/GDP generation.

Nolan Crouse, CRB Chair

Why not city and county

2. Identify mixed-use and higher density centres and areas to concentrate people and jobs

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<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>More details will be required to understand the implications, especially for smaller centers and industrial/business park areas.</td>
</tr>
<tr>
<td></td>
<td>• Increase density in built-up areas through redevelopment</td>
</tr>
<tr>
<td></td>
<td>Yes, where possible and a market exists. But, we need to make sure that each municipality’s unique context is understood. For example Edmonton’s core mature neighbourhoods can support much higher density infill than smaller communities on the periphery.</td>
</tr>
<tr>
<td></td>
<td>• Consider mixed use centres as places to promote compact growth</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>Including infill</td>
</tr>
</tbody>
</table>

3. Promote the use of under utilized infrastructure through redevelopment and intensification of existing built-up areas

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<thead>
<tr>
<th>Member</th>
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</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>This should be a primary focus of the growth plan.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>• Redvelopment is a priority and important to optimize existing infrastructure and limit development footprint</td>
</tr>
<tr>
<td></td>
<td>• Need for explicit support for redevelopment at regional level given opposition at community-level</td>
</tr>
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</table>
Again, we need to make sure that each municipality’s unique context is understood in terms of redevelopment.

Nolan Crouse, CRB Chair  No comment

4. Prioritize investment and funding of regional infrastructure to support planned growth

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>This investment should also prioritize redevelopment and intensification of existing built-up areas. A hierarchy should be established to prioritize infrastructure funding to redevelopment and intensification of existing built-up areas first, then to planned Greenfield developments.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>No comment</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>No comment</td>
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</table>

5. Identify mechanisms for integrating and coordinating growth and infrastructure plans at the municipal and regional levels, including a regional evaluation framework, to approve regionally significant infrastructure projects

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Collaborative intermunicipal planning should be the key mechanism for integrating and coordinating regional and municipal plans. Intermunicipal development plans are subject to REF. Therefore, it would be more efficient to require comprehensive IDP’s that address land use and infrastructure for priority growth areas. These could be evaluated against the Growth Plan and regional infrastructure priorities as discussed above.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc| • Create a mechanism to coordinate and review infrastructure plans at regional level  
• Adapt REF process to approve infrastructure with regional significance  
We disagree with developing such a mechanism. The CRBGP should continue to be a high-level guiding document to help guide regional growth. While it can be used to influence provincial decisions around infrastructure, a new definitive approval mechanism at this level would be inappropriate and inefficient for the CRBGP, and would take too much autonomy away from independent municipalities. |
| Nolan Crouse, CRB Chair       | • Adapt REF process to approve infrastructure with regional significance  
Great! |
6. **Harmonize regionally significant infrastructure policies and standards across the region**

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<tr>
<td>Clay Stumph, Leduc County</td>
<td>It is important to allow for differentiation without enabling a ‘race to the bottom’ between communities. Suggest that this be reworded to ‘Establish minimum standards for regionally significant infrastructure’ or similar.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
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<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>Encourage harmonization – yes. But to predetermine through a new REF decision making process is inappropriate at the CRB level.</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>What does Harmonize mean in this context?</td>
</tr>
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<td></td>
<td>• Standards would stop race to the bottom for development and resolve price equity issues</td>
</tr>
<tr>
<td></td>
<td>“stop race to bottom” – change this</td>
</tr>
</tbody>
</table>

7. **Ensure infrastructure investment enables the maximization of economic employment clusters for movement of goods and people.** - Katchur

8. **Address the implications of the annexation process as it relates to the priority growth nodes to create efficient growth and minimize conflict.** - Katchur
Ensure the wise management of prime agricultural resources. In the context of metropolitan growth, we will ensure the wise management of agricultural resources to continue a thriving agricultural sector.

Policy Area: Agriculture

What are we trying to achieve?

- A prosperous and growing agricultural sector and a thriving regional food system
- A strategy for where and how communities grow in way that protects and conserves prime agricultural lands
- Direction on where and when agricultural lands can develop for non-agricultural uses and rural residential development (What do we mean by “rural residential development”? We have an issue with that statement. Why are we promoting that at all? The word “rural” should be replaced with “urban”. – Katchur)
- A strategy that minimizes fragmentation of prime agricultural lands and reduces conflicts between adjacent non-agricultural and agricultural uses

What are the priority issues the Growth Plan Update needs to address?

1. Sustain prime agricultural lands at the regional level

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>There needs to be clear policy that allows for the identification and long-term protection of key agricultural lands within the region. There is a growing understanding of the importance of agriculture to the Capital Region’s future has the opportunity to capitalize on this opportunity for the future of the area.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Should this read “Designate areas as “agricultural preservation”. We don’t like this wording as it implies all current ag lands are to be sustained.</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc| • Address staging of future growth, policy approach to respond to pressure on the land relative to its tier  
  • Identify future land requirements for residential, commercial, industrial uses as relates to 30 year planning horizon  
  • Major impact of land speculation on agricultural viability - need to provide certainty in terms of agricultural producers return on investment and sustaining agricultural uses in the region for the future  
  • Explore Agricultural Impact Statements, Density Transfer, Ecological Goods and Services and other conservation tools  
  • Explore direction for a regional agricultural master plan to provide regional perspective on value of agricultural sector, land and its role in sustaining rural communities and rural economic development |
| Nolan Crouse, CRB Chair       | “Sustain” – can’t do                                                                                                                                                                                   |

2. Manage near neighbour impacts on agriculture operations
3. Address pressures for non-agricultural development in rural areas on prime agricultural lands [e.g., new agricultural acreage, multi-lot country cluster residential, rural residential, all types of industrial] and fragmentation of agricultural lands

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<tr>
<td>Clay Stumph, Leduc County</td>
<td>Clear policy identifying and protecting prime agricultural lands enables policy development to manage near neighbor impacts.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>How the quality of the land may be affected by an industry within a certain radius</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc  | Agreed in principle with exploring these important yet sensitive policy areas/strategies, while being inclusive and sensitive to the input of our rural members’ and agricultural producers.  
   - Define near urban/neighbour areas and related policy responses to minimize impacts on agricultural activities  
   - Consider if land use conflicts in terms of noise, dust, odour, transportation require regional policy in addition to provincial policy  
   - Address fragmentation of agricultural lands from non-agricultural uses including urban development and infrastructure  
   - Explore interface between urban and rural – hard edge or transition edge?  
   We need to define growth direction for every municipality. Let’s discuss and better understand the interface today, and where it should be tomorrow.  
   - Define compatible agriculture and non-agricultural development uses in proximity to urban areas  
   - Address infrastructure investment in support of/with minimal impact on agricultural production |
| Nolan Crouse, CRB Chair         | “Manage” – no, we don’t manage                                           |

   - Consider if land use conflicts in terms of noise, dust, odour, transportation require regional policy in addition to provincial policy  
   “dust” – really? Regional dust? |

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>This should be expanded to address pressures from urban development as well</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Can we be more bold here and instead of addressing the pressures, we can designate some areas for country cluster residential and be done with that type of development?</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc  | - Policy direction on acreage developments (subdivisions for residential and non-agricultural use/densification of residential uses on large agricultural parcels)  
   - Explore provisions related to location, scale and impact of multi-lot country cluster residential and rural residential development  
   - Review viability of Multi-lot Country Cluster Residential  
   - Understand and address impact of rural industrial development on agricultural lands |
4. Promote growth of the region’s agricultural sector, including food production and processing, as a key regional economic driver

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Agriculture and agri-food appears to be a key economic opportunity for the region moving forward. This should be recognized through the long-term protection of agricultural land, and fostering agri-business development clusters.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc         | • Support long-term agricultural sector (for example: food production and processing)  
• Foster viable agricultural operations – plan and coordinate infrastructure required for production, processing, distribution, value-added production activities  
• Recognize agriculture/local food production and processing as a key economic driver and contributor to the region’s economy |
| Nolan Crouse, CRB Chair                | No comment                                                                                                                                                                                            |

5. Plan and coordinate infrastructure to support and enhance the agricultural sector

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<tr>
<td>Clay Stumph, Leduc County</td>
<td>The meaning of this statement is unclear. One example of infrastructure that supports and enhances the agricultural sector is the Food Processing Development Centre in Leduc. Establishing agri-business clusters in proximity to this piece of infrastructure while protecting agricultural lands would be an example of how to plan and coordinate infrastructure to support and enhance the agricultural sector.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc         | • Address infrastructure needs to support agricultural sector growth: food production, processing, distribution, logistics, warehousing etc.  
• Recognize the roles and contributions of rural and urban communities in providing this chain of infrastructure to support agriculture  
• Coordinate regional-scale marketing and promotion of the agricultural sector |
| Nolan Crouse, CRB Chair                | No comment                                                                                                                                                                                            |
6. Define mechanisms, in partnership with the Province of Alberta, to wisely manage agricultural lands

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Many of the counties in the Capital region have recently developed/are currently developing agricultural strategies. The mechanisms defined in partnership with the Provincial Government should build on the work being completed through these initiatives. The phrase “wisely manage agricultural lands” is ambiguous and should be clearly defined.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc   | • Ensure collaboration and coordination with the Province  
• Demonstrate leadership at the regional level and advocate on behalf of the region at the provincial level  
This may be a viable strategy to explore. However, more detail is required and our rural partners need to be included in discussions. |
| Nolan Crouse, CRB Chair          | “manage” – help?                                                                                                                       |

Doesn’t address farm economic development; processing of beef, pork, grains, etc. - Crouse
Ensure effective regional mobility. Recognizing the link between efficient movement of people and goods and regional prosperity, we will work towards an (improving our – Crouse) integrated multi-modal regional transportation system.

**Policy Area: Transit & Mobility**

**What are we trying to achieve?**

- An efficient, cost-effective and integrated regional transportation network to support (economic and social - Katchur) growth and connect the region
- Coordination of land use and transportation networks to support the efficient movement of people, goods and services through the region and beyond
- A mode shift towards transit, active transportation and shared auto use at levels that recognize the urban and rural contexts within the region

**What are the priority issues the Growth Plan Update needs to address?**

This section appears written strictly for big urban context - Crouse

1. Encourage a mode shift to transit, high-occupancy vehicles and active transportation options appropriate to the scale of the community

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>intermunicipal transit should also be prioritized (eg. HOV lanes on commuter routes)</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>Need to move away from auto-oriented transportation</td>
</tr>
<tr>
<td></td>
<td>Link to liveable communities, economic competitiveness and environment</td>
</tr>
<tr>
<td></td>
<td>Integrate land use and transit/transportation to promote transit use and active transportation</td>
</tr>
<tr>
<td></td>
<td>Focus on alleviating traffic congestion by improving non-automobile options</td>
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<tr>
<td></td>
<td>Explore opportunities for active transportation/trails at regional scale</td>
</tr>
<tr>
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<td>Relate the cost of transit to roadway infrastructure investment</td>
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</tbody>
</table>

*This is an important strategy, particularly in relation to knowledge-based employment areas (e.g. Downtown Edmonton). Also, we recommend discussing dedicated rapid bus/HOV lanes on major corridors as a cost-effective way to reduce commuter congestion.*

However, we must not ignore that the Capital region is also largely an industrial/agriculture-based economy requiring the efficient movement of both people and goods. These employment areas require efficient transportation systems for day-to-day employment and economic activities, not only commuting. Therefore, ensuring a high level of connectivity for all types of vehicles (both conventional and alternative) is necessary for a sustainable economy.

| Nolan Crouse, CRB Chair                     | Add “and location of people.”                                          |
2. Coordinate land use and transportation to support the efficient and safe movement of people, goods and services

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<tr>
<td>Clay Stumph, Leduc County</td>
<td>Goods movement routes are integral to the economic health of the region. Emphasis needs to be placed on the protection of existing goods movement corridors and the strategic/efficient expansion of this network.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>• Focus on goods movement and full range of modes – rail, air, road</td>
</tr>
<tr>
<td></td>
<td>The movement of goods through well connected high-volume rail/air/road transportation systems is vital to our region’s economy. We look forward to more detail and discussion.</td>
</tr>
<tr>
<td></td>
<td>• Improve connections and movement within Capital Region to other regions</td>
</tr>
<tr>
<td></td>
<td>• Create better integration of land use and transportation at the community scale</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>Replace “the” with “more”</td>
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</table>

3. Develop and maintain municipal and inter-municipal transit systems to create an integrated and seamless inter-municipal transit network

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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Transit and intermunicipal transit systems should be supported as realistic alternatives to single occupancy vehicles</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>• Integrate systems to improve transit connections across the region</td>
</tr>
<tr>
<td></td>
<td>• Examine opportunities to create interconnections between municipal transit systems</td>
</tr>
<tr>
<td></td>
<td>• Improve transit options to Core from outlining areas and within and across region</td>
</tr>
<tr>
<td></td>
<td>Yes. These are important principles that should be discussed in further detail while developing the CRBGP.</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>At beginning add “Further”</td>
</tr>
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</table>

4. Establish transit funding priorities and a long-term investment strategy with regional and provincial alignment

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<td>No comment</td>
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<tr>
<td>David Mackenzie, City of Leduc</td>
<td>No comment</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>At beginning add “Better”</td>
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</tbody>
</table>
5. Explore long-term potential for regional commuter rail service

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<td>No additional comment</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>Tracks utilized for both people and products</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>No comment</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>No comment</td>
</tr>
</tbody>
</table>

6. Movement of people with special needs. - Crouse

- HOV
- rural needs
- village needs
- park & ride needs
- carpooling
- shoulders
- Crouse
Recognize and celebrate the diversity of communities and promote an excellent quality of life across the region. In planning for growth, we will recognize and respond to the different contexts and scales of communities and provide a variety of housing choice with easy access to transportation, employment, parks and open spaces, and community and cultural amenities.

Policy Area: Communities & Housing Choice

What are we trying to achieve?

- (“More” – Crouse) Complete communities to meet people’s needs for daily living at all ages and provide convenient access to a mix of jobs, local services, community infrastructure and multi-modal transportation choices, appropriate to the scale of the community (this says we have none of this – Crouse)
- (“More” – Crouse) Sustainable and resilient communities across the region
- A region of (“More” – Crouse) inclusive communities that is supportive of seniors and vulnerable members of the population
- A (“higher” – Crouse) diversity of affordable housing options to meet evolving regional demographics and needs to accommodate the projected growth to 2044
- (“Improve” – Crouse) Housing options in proximity to services, employment and transit serviced areas, with multi-modal mobility choices to major employment areas

What are the priority issues the Growth Plan Update needs to address?

This section appears written strictly for urban context. It is written as a city writer. - Crouse

1. Plan communities to respond to changing demographics over the next 30 years

<table>
<thead>
<tr>
<th>Member</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>No additional comment</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>Plan for changing demographics and life cycle of the population over the next 30 years</td>
</tr>
<tr>
<td></td>
<td>Identify and define areas for mixed-use development and higher density forms of housing linked to transit and active transportation routes</td>
</tr>
<tr>
<td></td>
<td>Promote housing options in proximity or with transportation choice to employment areas</td>
</tr>
<tr>
<td></td>
<td>Consider housing options for aboriginal communities, the vulnerable and seniors.</td>
</tr>
</tbody>
</table>

Yes. Shifts in age, family structure, ethnicity and tenure affect how and where we live. It is important to examine current and future demographic trends, and to plan for long-term demographic changes in the coming 30 years.

- Examine transitional housing for non-permanent labour force

Examining transitional housing for non-permanent labor force may be beneficial, but should be considered carefully within the context of creating...
2. Provide a range of housing options throughout the region in a form appropriate to the scale and context of each community

<table>
<thead>
<tr>
<th>Member</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Densification will require a change in the composition of housing forms across the region. Targets should be set to accelerate a shift away from the predominance of single family dwellings.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>• Support the sustainability and resiliency of older urban communities through redevelopment and renewal.</td>
</tr>
<tr>
<td></td>
<td>Yes, where appropriate to the scale and context of each community.</td>
</tr>
<tr>
<td></td>
<td>• Promote multi-family housing with access to services and amenities rather than clustering all multi-family and non-market housing within the Core</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>Provide a “wider” range…</td>
</tr>
</tbody>
</table>

3. Recognize the distinct character of each community in the region while promoting diversity of amenities, services and housing within all communities

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>No additional comment</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>Quite often smaller communities need to realize the services they are not able to offer, but a neighbouring community can</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>No comment</td>
</tr>
<tr>
<td>Nolan Crouse, CRB Chair</td>
<td>No comment</td>
</tr>
</tbody>
</table>

4. Encourage transit-supported higher density residential growth through the renewal and intensification of existing communities and development of compact greenfield neighbourhoods

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>Greenfield development should be located to take advantage of existing infrastructure and in areas of lower agricultural potential. There needs to be clear policy that prioritizes renewal and intensification of development to maximize the region’s use of existing infrastructure over Greenfield development.</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>No comment</td>
</tr>
<tr>
<td>David Mackenzie, City of Leduc</td>
<td>• Focus on redevelopment opportunities and neighbourhood renewal and reinvestment</td>
</tr>
<tr>
<td></td>
<td>• Identify intensification targets, appropriate to the scale and context of communities</td>
</tr>
<tr>
<td></td>
<td>• Encouraging range of housing types and forms of development and</td>
</tr>
</tbody>
</table>
5. Address implications of rural residential and country residential development and the level of service required to support the residential forms in a metropolitan area context

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Clay Stumph, Leduc County</td>
<td>The intent of this item is unclear. Collaborative intermunicipal planning should be the key mechanism for mitigating near-neighbour impacts</td>
</tr>
<tr>
<td>Patricia Lee, Bruderheim</td>
<td>No comment</td>
</tr>
<tr>
<td>Gale Katchur, Ft. Sask</td>
<td>Why is this even here? I don’t see the applicability and why we should be supporting this form of development.</td>
</tr>
</tbody>
</table>
| David Mackenzie, City of Leduc| • **Consider country residential development and alternate housing forms in rural areas**  
  • **Review feasibility of country residential redevelopment and reconsider CCRA policy and criteria through feasibility lens**  
  • **Provide clear direction on residential development in rural areas**  
  This is an important but complex issue that will require further discussion with our rural partners, especially in the longer-term context. |
| Nolan Crouse, CRB Chair       | No comment                                                                                                                                                                                              |

People – Crouse

Overall Comments

I really find this written by city people living in cities, planning cities. Not balanced enough recognizing the diversity we have in communities in CRB – Crouse
## Proposed 2016/17 Land Use & Planning Work Plan

<table>
<thead>
<tr>
<th>#</th>
<th>Project</th>
<th>Description</th>
<th>Approx. Start</th>
<th>Rationale for project</th>
<th>Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/17-1</td>
<td>Recreation Corridors Study</td>
<td>Inventory recreation corridors in the region and identify missing links.</td>
<td>Q2 - 2016</td>
<td>Identified as future work in the December 2009 Addendum.</td>
<td>$50,000</td>
</tr>
<tr>
<td>2016/17-2</td>
<td>Transportation Prioritization Report annual update</td>
<td>Review and update of Regional Transportation priorities of the Board.</td>
<td>Q2 - 2016</td>
<td>The IRTMP includes a list of 10 year investment priorities for the region. The list was further refined into a short-term 3 year list of priorities that supports current growth and development objectives consistent with the CRGP. Annual review of the priorities will ensure that the list reflects, and is responsive to, changing circumstances in the Capital Region.</td>
<td>$50,000</td>
</tr>
<tr>
<td>2016/17-3</td>
<td>Sustainable Development Index – Target Setting</td>
<td>Develop an index to understand the effectiveness of the implementation of the GP through achievement of targets.</td>
<td>Q4 - 2016</td>
<td>Efforts are now underway to develop baseline measures of GP policies. The next step is to develop targets to strive for and measure our progress.</td>
<td>$50,000</td>
</tr>
</tbody>
</table>