CLEARWATER COUNTY COUNCIL AGENDA
September 26, 2017
9:00 AM
Council Chambers
4340 – 47 Avenue, Rocky Mountain House, AB

9:30 am Delegation: Sgt. Kurtis Pillipow, RCMP Rimbey Detachment Commander
9:45 am Delegation: Wade Colwell, Alberta Agriculture & Forestry Wildfire Technologist
10:00 am Delegation: Roger Smolnicky, Town of Rocky Mountain House Recreation Director

A. CALL TO ORDER

B. AGENDA ADOPTION

C. CONFIRMATION OF MINUTES
1. September 12, 2017 Regular Meeting Minutes

D. CLEARWATER REGIONAL FIRE RESCUE SERVICES
1. Summary of Clearwater Regional Fire's Deployment for the 2017 BC Wildfires
2. Town of Sundre Fire Services Agreement

E. DELEGATION
1. 9:30 am RCMP Rimbey Detachment Report
2. 9:45 am Alberta Agriculture & Forestry – Trail Projects/FireSmart Program Update
3. 10:00 am Rocky Mountain House Region Recreation Master Plan Final Report

F. COMMUNITY & PROTECTIVE SERVICES
1. Town of Rocky Mountain House's 'Rocky Mountain House Region Recreation Master Plan Final Report'
2. Central Alberta Economic Partnership (CAEP) Broadband Report and SuperNet Request for Proposal Update
3. Fall 2017 High School Awards Ceremonies

G. INFORMATION
1. CAO's Report
2. Public Works Director's Report
3. Councillor's Verbal Report
4. Committee Minutes:
    i. Clearwater Regional Fire Rescue Services
    ii. Rocky Mountain Regional Solid Waste Authority
5. Accounts Payable Listing
6. Councillor Remuneration

H. IN CAMERA*

* For discussions relating to and in accordance with: a) the Municipal Government Act, Section 197 (2) and b) the Freedom of Information and Protection of Privacy Act, Section 39 (1)(a) and Section 40

1. Labour – Verbal Report

I. MUNICIPAL

1. Brownlee LLP – Verbal Report

J. ADJOURNMENT

TABLED ITEMS

Date	Item, Reason and Status
06/13/17	**213/17 identification of a three-year budget line for funding charitable/non-profit organizations' operational costs pending review of Charitable Donations and Solicitations policy amendments.**
06/13/17	**227/17 commenting and/or recommending amendments on the revised preliminary draft Clearwater – North Rocky Major Area Structure Plan pending Councillors individual review.**
08/22/17	**321/17 first reading of Bylaw 1031/17 to amend the Land Use Bylaw for Application #02/17, pending further information from the Development Officer and/or Applicant, as per Land Use Bylaw #931/11, Section 12.2 'Amending Bylaw Process', Item 2(d).**

AGENDA ITEM

PROJECT: Summary of Clearwater Regional Fire's Deployment for the '2017 BC Wildfires'		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: **Regional Fire Rescue**	**WRITTEN BY:** **Steve Debienne**	**REVIEWED BY:** **Ron Leaf, CAO**
BUDGET IMPLICATION: ☒ N/A ☐ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite)		
STRATEGIC PLAN THEME: **Well Governed and Leading Organization** **Community Well-Being**	**PRIORITY AREA:**	**STRATEGIES:** **2.4.3** **3.2.2**
ATTACHMENT(S): '2017 BC Wildfires' PowerPoint Presentation		
RECOMMENDATION: **1) That Council accept this report for information purposes.** **2) That the development of a Clearwater Regional Wildland Urban Interface program be reflected in 2018 budget presentation**		

BACKGROUND:

Summer 2017 posed to be a very challenging one for the Prairie Provinces. Wildland Urban Interface (WUI) fires impacted all of the western Prairie Provinces resulting in large scale, simultaneous evacuations. This pushed resources to the max. During mid-July, British Colombia was in the beginning of what would become the most extensive wildfire season in recorded history. On July 17th, 2017, Clearwater Regional Fire Rescue Services received a call from Alberta's Office of the Fire Commissioner asking for resource availability to deploy and assist with a Structural Protection Unit (SPU) into BC's Caribou District. A Hazard Risk assessment was completed in consultation with CREMA, approvals were granted and within 2 hours of the deployment notice a 4-person crew, a command unit, and support trailer were inbound to Williams Lake. The original deployment request was for 7-14 days however it was extended after 10 days of being on the ground. Over the next 5 weeks, 5 Regional Fire Crews were challenged as they conducted operations on multiple wildfires protecting nearly 2500 homes. Some of these wildfires include:

Wildwood Fire (Williams Lake),
White Lake Fire (Williams Lake),

Soda Creek Fire (Williams Lake),
Elephant Hill Fire (Clinton/Cache Creek),
East Quesnel Complex, originally totaling 13 separate fires (Quesnel),
West Quesnel Complex, originally totaling 11 separate fires (Quesnel),
Both of these complexes ended up burning into each other and becoming BC's Largest Wildfire in history knows as the Plateau Fire.

Due to the operational work load crews were deployed on 7-day intervals. This allowed 5 crews to be transitioned through the operational areas during this deployment. We allowed members to extend no greater than 14 days if available, which provided us an overlap ensuring continuity and easier transitions as crews were continually being re-deployed to new locations.

Crew 1
Asst. Chief (HQ)
Lieutenant from Station (10)
Lieutenant from Station (60)
Fire Fighter from Station (60)

Crew 2
Captain from Station (60)
Lieutenant from Station (50)
Fire Fighter from Station (10)
Fire Fighter from Station (60)

Crew 3
Fire Chief (HQ)
Lieutenant from Station (10)
Fire Fighter from Station (60)
Fire Fighter from Station (10)

Crew 4
Asst. Chief (HQ)
Lieutenant from Station (60)
Fire Fighter from Station (60)
Fire Fighter from Station (60)

Crew 5
Lieutenant from Station (50)
Fire Fighter from Station (60)
Fire Fighter from Station (60)
2 Members from Sylvan Lake Fire Rescue

During week 4, Clearwater Regional Fire Rescue members: The Fire Chief, Assistant Chief, and a Captain were explicitly asked due to our leadership, knowledge, and professionalism, to act as Structural Protection Specialists (SPS) to the British Columbia Office of the Fire Commissioner. Assistant Chief Stewart was tasked with being the SPS on 11 fires (West Quesnel Complex), while Fire Chief Steve Debienne was tasked with SPS duties on 13 (East Quesnel Complex). Captain Jared OpdenDries was brought in as a replacement for Chief Debienne during the last week and was effectively the final member of CRFRS to return home from BC.

Throughout this deployment Clearwater Regional Fire Rescue Crews under the direction of the Fire Chief, quickly became one of the go to teams as no challenge was too great for these crews of Professionals. The experience these crews obtained is truly a once in a life time experience, in which will pay dividends to our Region and Regional Partners. The topography, fuel types, and demographics were all similar to our own. Many of the crew members commented that the education and experience gained could not have been paid for and will have direct benefit to the defense of our own area of responsibility in the event of similar or worse situations.
We are very proud of our accomplishments and we believe to date no primary structures in which our crews protected were lost. With these operations going on in British Columbia, we continually monitored the conditions and situations within Clearwater County. Open continuous dialoged was maintained with Alberta Office of the Fire Commissioner, County Administration, Ag & Forestry, and ongoing Risk Assessments by CREMA which allowed us to valid our response readiness. During the deployment HQ staff were able to maintain coverage by a one of the Chiefs Officers.

Over the past couple of weeks, the members who deployed have been working on an After-Action Report (AAR). This will provide a strategic path forward for our own WUI program. We have been working on the development of a Regional program, which would mirror that of the British Columbia model. Our goal is to implement a Regional standard in 2018, this will be reflected on during the upcoming Council & Committee Orientations, as well as in the 2018 budget deliberations.

BC Deployment Model

Structural Protection Units

Background
As an integral part of fulfilling the Filmon report recommendations on "Firestorm 2003", UBCM partners with the BC Wildfire Service (BCWS) and the Office of the Fire Commissioner (OFC) to provide a Structural Protection Program (SPP) and Structure Protection Units (SPUs).

UBCM owns the SPUs, which include Type 1 semi-trailers and a Type 2 cargo trailer. These trailers are normally stored and maintained at the BCWS depot in Chilliwack and are moved around the province during fire season based on fire hazard ratings. Type 1 SPUs can provide protection for 30-50 structures, while a Type 2 SPU can provide protection 20-30 structures. As these are trailer units, they are easily moved anywhere in the province within 12 hours of dispatch.
The OFC manages the SPP and resources including Structure Protection Specialist (SPS), SPU and Structure Protection Crews, training and public education.

Purpose
SPUs and crews are deployed during interface fires where structures or infrastructures may be at risk. Each property that is threatened is triaged and appropriate measures are undertaken. The SPUs contain equipment to create a humidity bubble and to wet roofs and areas surrounding structures in order to mitigate the damage from sparks and approaching wildfire.

Deployment
In the event of a Wildland-Urban Interface event SPUs are deployed by the OFC, with at least one SPS and a five-person crew, upon receiving a resource request from local government or

the BCWS. The reimbursement rates for the crews and SPUs are provided by EMBC for fires within a fire protection district and BCWS for areas outside of a fire protection district.

Summary:

The above information was shared with the Regional Fire Committee at their September 7, 2017 meeting. Headquarters staff recommended that the development of a Clearwater WUI program be included as a component of the 2018 workplan. As per the Regional Fire Agreement the development of the program will occur with the guidance of the CAO Team and the Regional Fire Committee.

2017 BC Wildfires

Clearwater Regional Fire Rescue

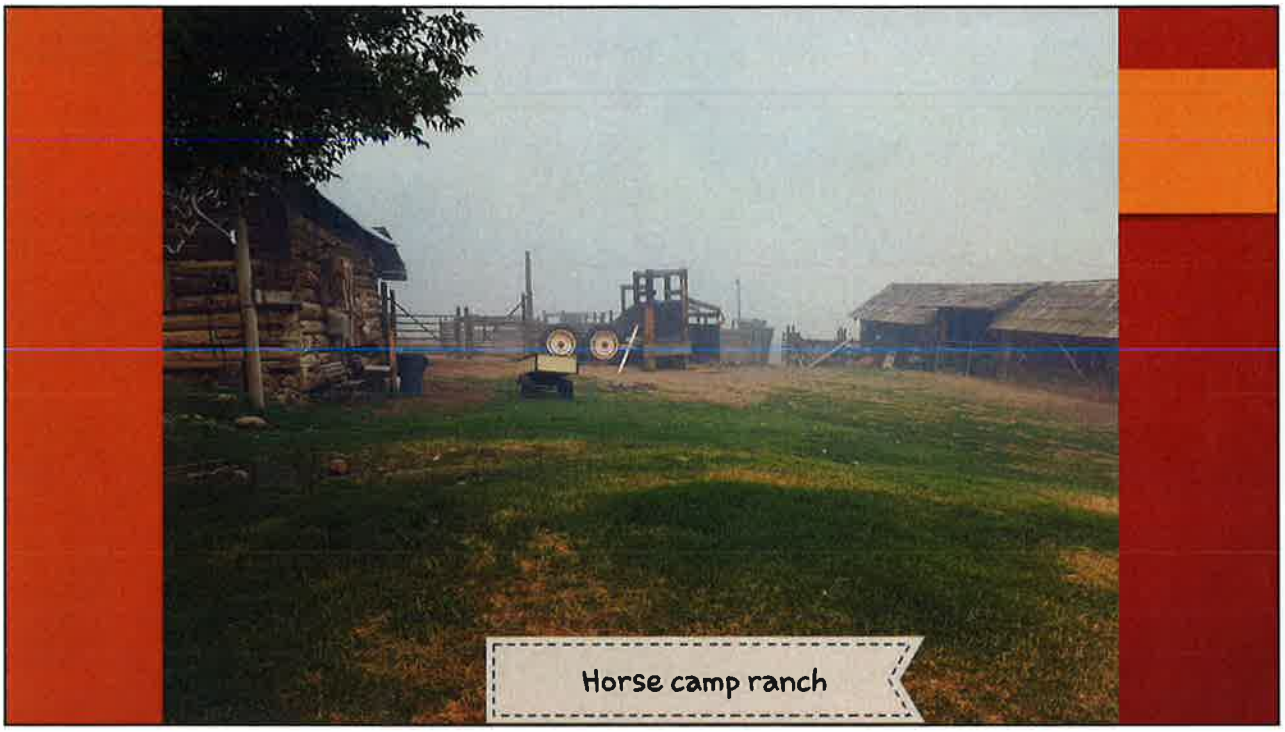
Williams Lake, White Lake Fire
Wildwood Fire

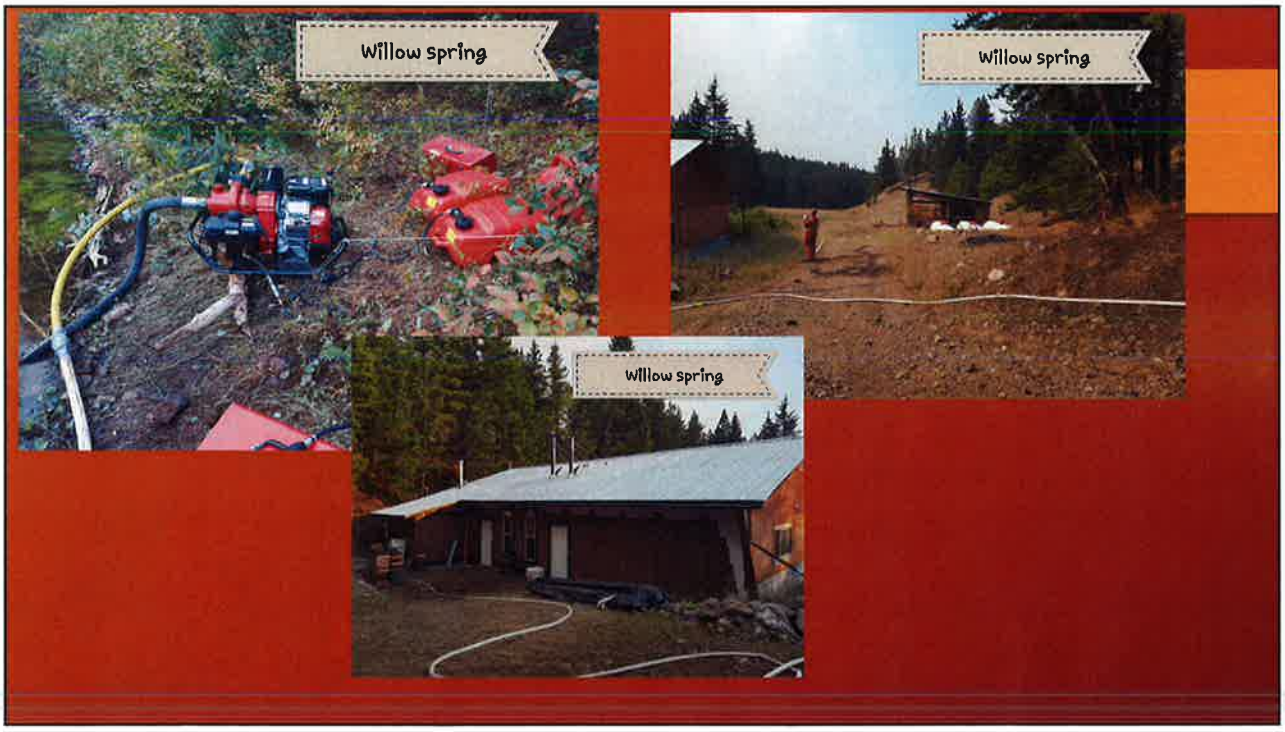

C
D
The Power of Partnership
ORICA
BUICK

Clinton, Elephant Hill Fire


Assistant Chief


Horse camp ranch


Horse camp ranch


Willow spring
Willow spring
Willow spring

Aftermath

Operations

AGENDA ITEM

PROJECT: Town of Sundre - Fire Services Agreement		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: **Regional Fire Rescue**	**WRITTEN BY:** **Steve Debienne**	**REVIEWED BY:** **Rodney Boyko, Acting CAO**
BUDGET IMPLICATION: ☐ N/A ☒ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite)		
STRATEGIC PLAN THEME: Well governed and leading organization	**PRIORITY AREA:** Provide service levels that balance the community needs with organizational capacity	**STRATEGIES:** Implement a strategic evidence based approach for the provision of services
RECOMMENDATION: That Council re-instate the Fire Services Agreement with the Town of Sundre with the amendment that Clearwater County Duty Officer will make the determination in regards to the time sensitivity and whether or not to dispatch Sundre Fire Rescue or a Clearwater Regional Station		

BACKGROUND:

Historically, the Town of Sundre Fire Department has provided emergency fire and rescue first response to areas within the southern portions of Clearwater County. Up until 2015 this service was provided under a good faith agreement with no formal agreement in place to reflect roles, responsibilities, or commitments to the southern boundary of Clearwater County. In 2015 a Fire Services Agreement was developed highlighting Clearwater County's commitment towards reducing the response times. This was achieved by dispatching the closest Fire Service, ensuring a best possible and sustainable provision of emergency services to the residents of the County.

In late 2016 a recommendation came forward from the Regional Fire Committee which stated "That Council accepts the Regional recommendation to transfer Sundre First Due area to Clearwater Regional Fire & Rescue Services Station 30 (Caroline). This recommendation was based on the ability for Station 30 to have a timely response to these areas. During the December 13, 2016 Council meeting Council voted in favor of this recommendation.

With the change in administration within Regional Fire, administration has been reviewing levels of service and response. It has been determined that the change in response areas has had a negative result and have come to the conclusion that Station 30 at this time does not have the

capacity to provide timely response into these areas. Over the past 6 months on numerous occasions, we have had to either dispatch Sundre Fire Rescue or other Clearwater Stations impacting the response times . We have developed a strategic plan to address the increased response times but the full scope of implementation will take some time. We have initiated a recruitment program in the area however this process will take time to complete and to bring the capacity of Station 30 to full compliment.

During the September Fire Service Committee meeting a motion was made “to recommend that Clearwater County Council re-instate the previous Fire Service Agreement with the amendment that Clearwater County Duty Officer will make the determination in regards to the time sensitivity and whether or not to dispatch Sundre Fire Rescue or a Clearwater Regional Station”. This would allow us an opportunity to continue to build up Station 30’s capacity, and this agreement should be revised at a later date.

AGENDA ITEM

PROJECT: Delegation – RCMP Rimbey Detachment Report, Sgt. Kurtis Pillipow, Detachment Commander		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: **Community and Protective Services**	**WRITTEN BY:** **Sgt. Terri Miller**	**REVIEWED BY:** **Ron Leaf**
BUDGET IMPLICATION: ☒ N/A ☐ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite)Bylaw: _____Policy:_____		
STRATEGIC PLAN THEME: **3: Community Well-Being**	**PRIORITY AREA:** **3.2. Create a safer community through building a sense of belonging and community pride.**	**STRATEGIES:** **3.2.1 Evaluate and plan the current public safety and emergency services needs within the broader Rocky/Caroline/Clearwater Community.** **3.2.4 ….support partnership(s) with the RCMP….**
RECOMMENDATION: That Council receives the RCMP Rimbey Detachment Report for information as presented.		

BACKGROUND:

Sergeant Kurtis Pillipow, Rimbey Detachment Commander will provide updates and policing reports.

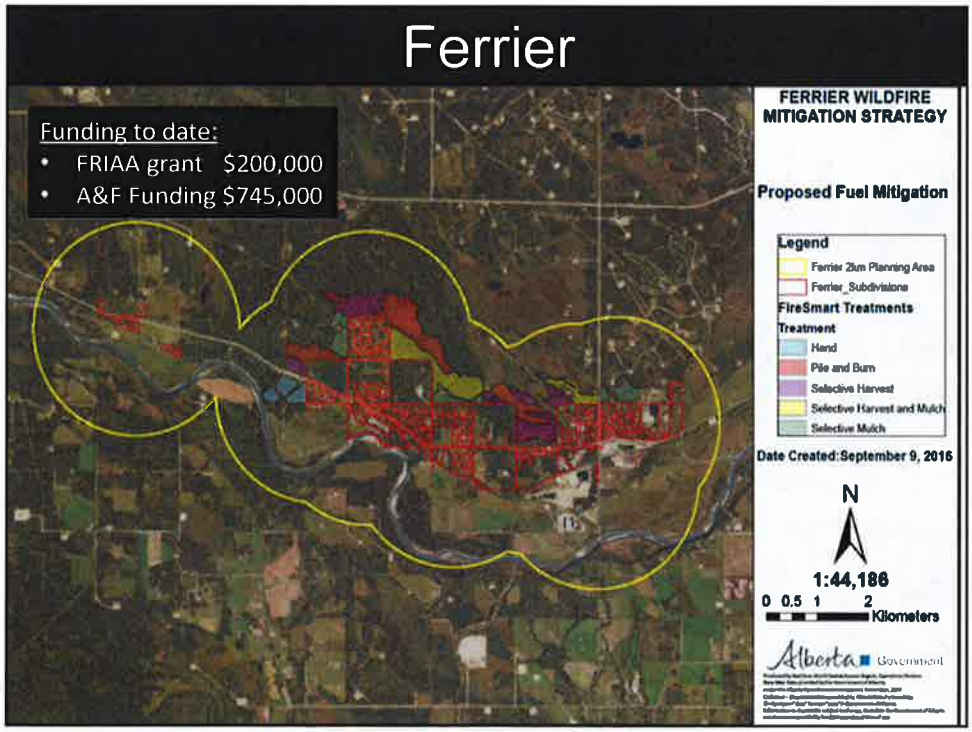
AGENDA ITEM

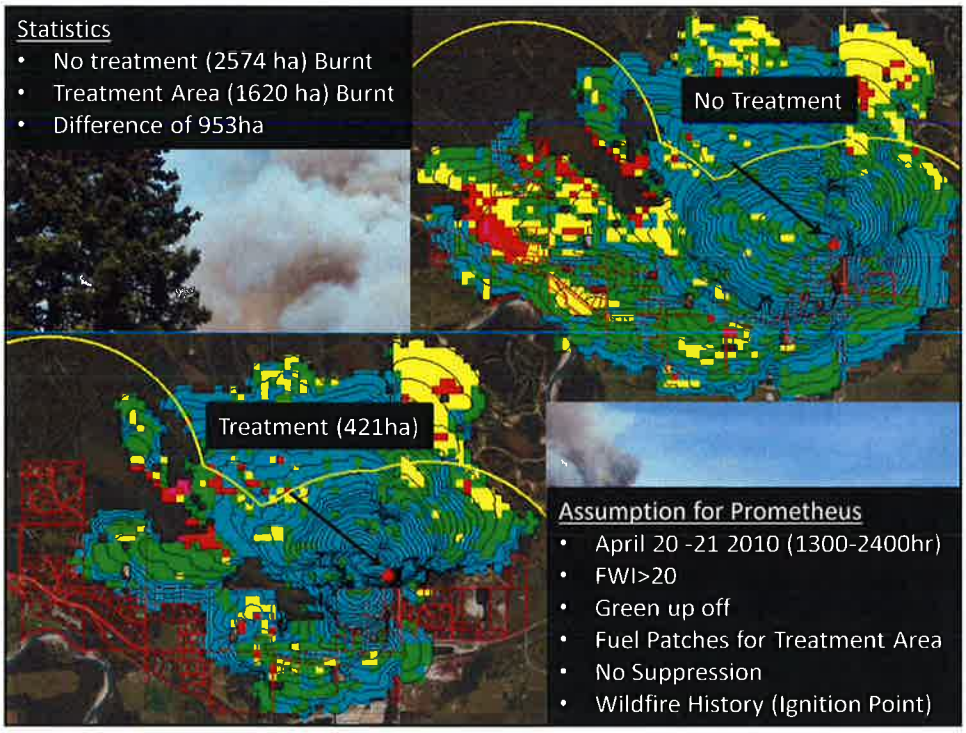
PROJECT: Alberta Agriculture and Forestry – Trail Projects/FireSmart Program Update		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: **MUNICIPAL**	**WRITTEN BY:** **Christine Heggart**	**REVIEWED BY:** **Rodney Boyko, Acting CAO**
BUDGET IMPLICATION: ☒ N/A ☐ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒ N/A		
STRATEGIC PLAN THEME: Managing our Growth	**PRIORITY AREA:** Value and protect the natural environment for future generations.	**STRATEGIES:** Continue to encourage Alberta Environment and Parks and Alberta Agriculture and Forestry to develop trail and recreation areas in West Country.
ATTACHMENT(S): RMH Wildfire Management Area PowerPoint Presentation		
RECOMMENDATION: 1. That Council accepts Alberta Ag & Forestry's Trail Projects and FireSmart Program update, as information.		

BACKGROUND:

Wade Colwell, Wildfire Technologist from Alberta Agriculture and Forestry - Rocky Mountain House Wildfire Management Area - will provide Council with an update regarding trails projects (Goldeye, Raven Brood) and FireSmart programs (Ferrier, Nordegg) that have been completed in the region.

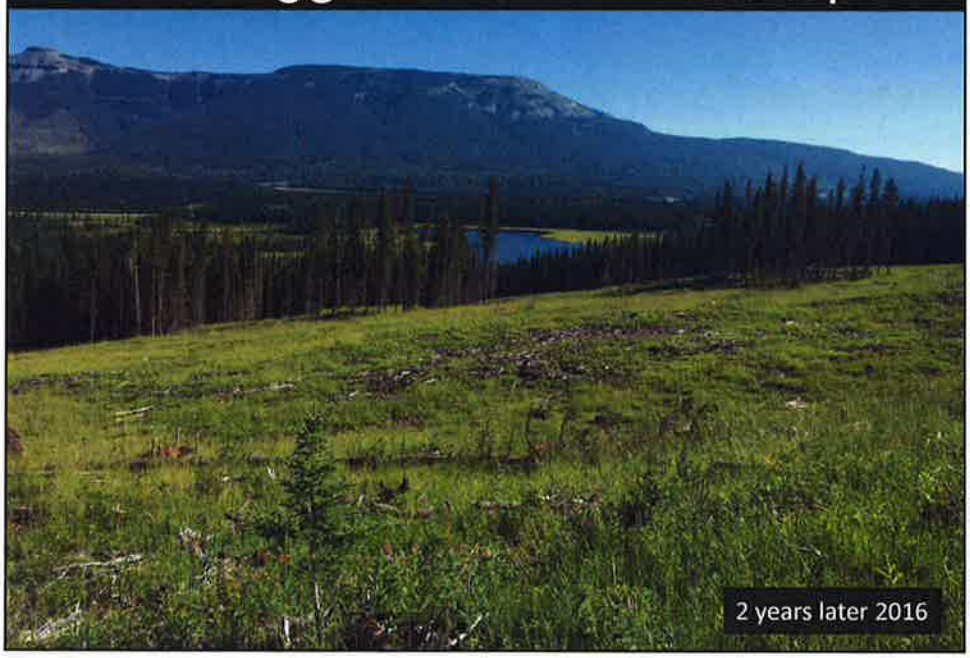

Rocky Mountain House Wildfire Management Area
Updates On:
• Ferrier
• Nordegg
• Goldeye
• Raven Brood
FireSmart
Safer Communities | Healthier Forests
FireSmart
Safer Communities | Healthier Forests


Ferrier
Funding to date:
• FRIAA grant $200,000
• A&F Funding $745,000
FERRIER WILDFIRE MITIGATION STRATEGY
Proposed Fuel Mitigation
Legend
Ferrier 2km Planning Area
Ferrier_Subdivisions
FireSmart Treatments
Treatment
Hand
Pile and Burn
Selective Harvest
Selective Harvest and Mulch
Selective Mulch
Date Created:September 9, 2016
N
1:44,186
0 0.5 1 2
Kilometers
Alberta Government


Statistics
• No treatment (2574 ha) Burnt
• Treatment Area (1620 ha) Burnt
• Difference of 953ha
No Treatment
Treatment (421ha)
Assumption for Prometheus
• April 20 -21 2010 (1300-2400hr)
• FWI>20
• Green up off
• Fuel Patches for Treatment Area
• No Suppression
• Wildfire History (Ignition Point)


Nordegg Blowdown Cleanup
Before Treatment

Nordegg Blowdown Cleanup



Goldeye FireSmart Ecology Trail (17km)

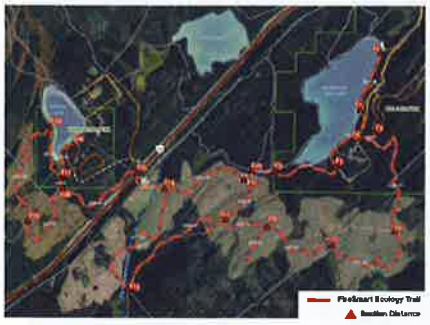
Enjoy the FireSmart Ecology Trail System

Pass through time and witness dynamic forest growth.

The Government of Alberta has developed over 17 kilometres of new FireSmart trail so present and future generations can witness the growth of a diverse ecosystem resulting in a safer community and a healthier forest. Visitors will witness dynamic forest growth and experience firsthand the changes that come seasonally and yearly.

Special thanks to our many contributors:

- Big Horn Heritage ATV Society
- Clearwater County
- Centre for Outdoor Education (COE)
- Frontier Lodge
- Goldeye Conference Centre
- West Fraser




Bridge over Black Canyon Creek (2017)


Goldeye Aspen Trial
FRIAA Grant $69,100 for 2018
Legend
ViaPoints
Possibly visible from points 1-5
Alberta
Government


Goldeye Aspen Trial
11,600 Aspen Seedlings Planted (2017)
60,000 more scheduled for (2018).


Raven Brood FireSmart Trail (3km)
Completed (2017)


Questions?

AGENDA ITEM

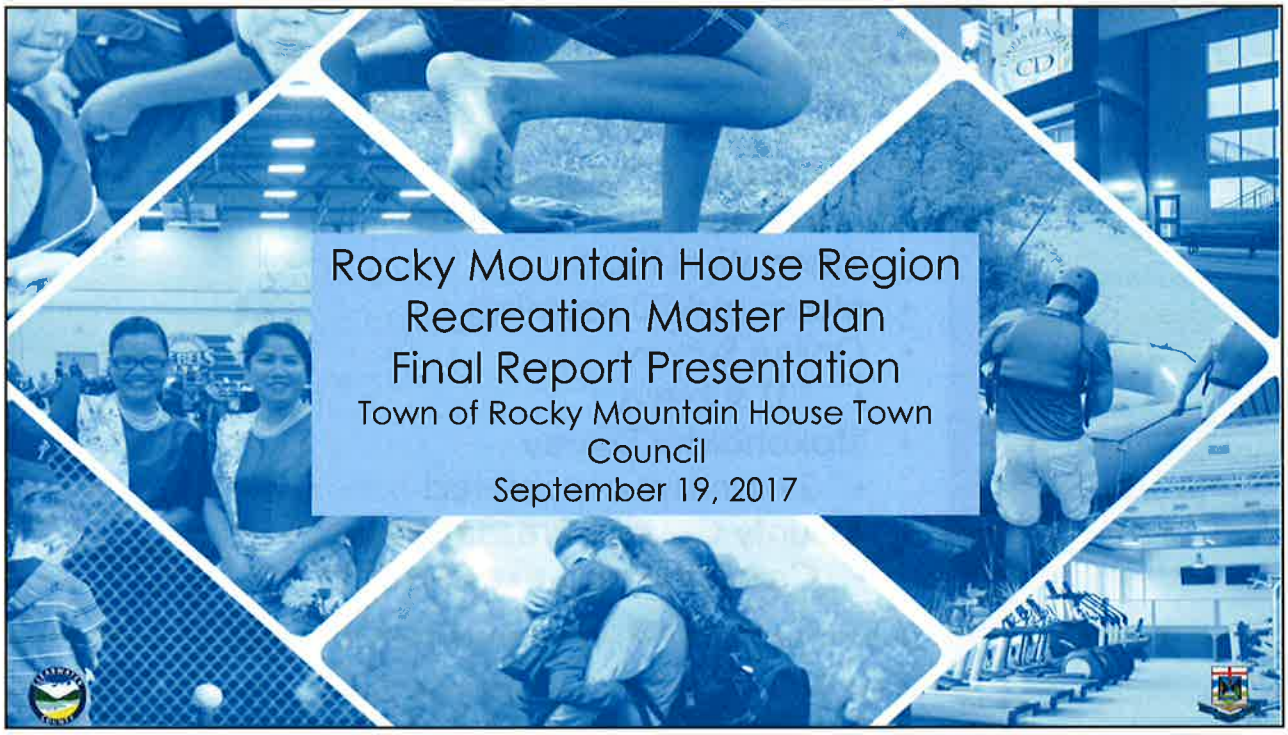
PROJECT: Delegation – Roger Smolnicky, Town of Rocky Mountain House Recreation Director, Rocky Mountain House Region Recreation Master Plan Final Report		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: CPS / Recreation	**WRITTEN BY: Ted Hickey**	**REVIEWED BY: Rodney Boyko, Acting CAO**
BUDGET IMPLICATION: ☐ N/A ☒ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite)		
STRATEGIC PLAN THEME: 3. Community Well Being	**PRIORITY AREA: 3.1 Sustain the recreation, cultural and quality of life needs of the community.**	**STRATEGIES: 3.1.2 Facilitate active life styles through provision of range of services by continuing to evaluate, plan and support the recreation, cultural and leisure needs within the Rocky/Caroline/ Clearwater community.**
ATTACHMENT(S): ***Rocky Mountain House Region Recreation Master Plan Final Report (link below)*** https://dl.mcelhanney.com/2017/09/12_vVdU/12_N3SutG8/RMHRreportSeptember12017.pdf **PowerPoint Presentation 'Rocky Mountain House Region Recreation Master Plan – September 19, 2017'**		
RECOMMENDATION: **That Council receives the Delegation's *Town of Rocky Mountain House Master Recreational Plan Final Report* for information as presented.**		

BACKGROUND:

The Town of Rocky Mountain House engaged consultants to assist with the development and completion of the *Rocky Mountain House Region Recreation Master Plan Final Report – September 2017* (link above). Many community stakeholders were consulted, along with the Rocky Mountain House Parks, Recreation and Community Services Board and municipal councils. All have had varying degrees of input into the processes to date and the completion of the report.

Mr. Roger Smolnicky, Director of Recreation for the Town of Rocky Mountain House, has requested an opportunity to make a presentation on the new Master plan to Council. The completed Recreation Master Plan is to assist in identifying and prioritizing a 10-year capital projects list for annual review during the municipal budget process.

Clearwater County contributes to various recreation related endeavors throughout the community. Specific agreements with the Town of Rocky Mountain House provide the framework and funding to provide specific recreation programs and infrastructure for use by Clearwater County tax payers and their families.

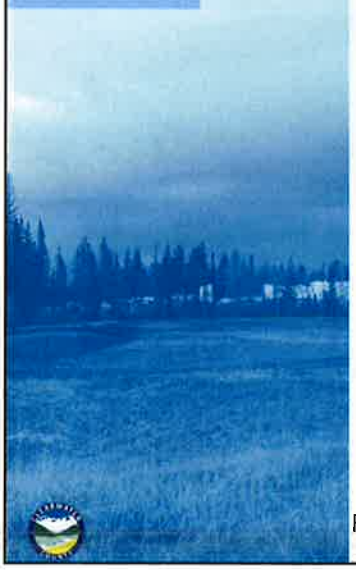

Rocky Mountain House Region
Recreation Master Plan
Final Report Presentation
Town of Rocky Mountain House Town Council
September 19, 2017


Agenda
1
Where We Have Come From
2
Strategies
3
Other Opportunities
4
Key Changes
5
Implementation Plan
ROCKY MOUNTAIN HOUSE REGION RECREATION MASTER PLAN

1. Where We Have Come From

- Town Council Workshop
- Recreation, Parks and Community Services Board Vision Workshop
- Museum/VIC meeting
- Online Survey
  - 331 surveys
- Stakeholder Survey
  - 29 surveys completed
- County Council Presentation
  - Card Storming exercise

1. Where We Have Come From



- Open House Summary
  - Over 35 attendees
- Second Open House
  - Over 45 attendees
- FB album
  - Reached 513 people
    - 5 likes and 1 comment about how impressive the plan is
- Presentation of Draft Plan for PRCSB
- Presentation of Final Plan for PRCSB

2. Outdoor Recreation Strategy

- RHMR has many outdoor assets:
  - Crimson Lake, Mountain Bike Trails, access to crown lands, campgrounds, NSRP, day use areas, both cultural and historical areas, and natural points of interest.
- Promotion and Economy Creation
  - Diversification of economy, potential for outfitters, dealerships, and tours operators will be inline with the economic development for the RMHR.
- Nine point strategy

Inventory
Develop Terms of Reference
Key Challenges
Delivery Model
Execute
Steering Committee
Communication Plan
Action Plan
Prioritize outcomes

ROCKY MOUNTAIN HOUSE REGION RECREATION MASTER PLAN

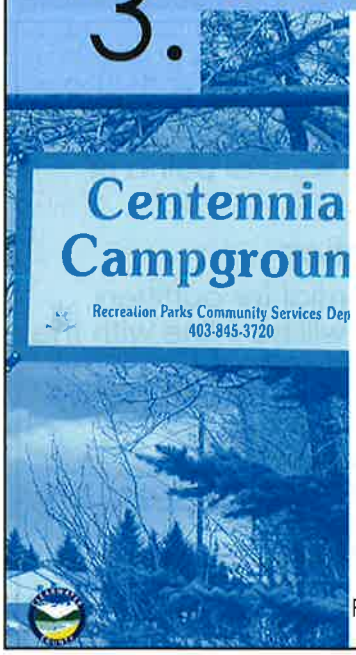
2. Sport Tourism Strategy

- Sport tourism - *specific travel where sport is the prime motivational reason for travel and the touristic or leisure element may act to reinforce the overall experience.*
- Current facility mix-allows for both multivenue and single sport opportunities
- Unique venues like:
  - North Saskatchewan River Park
  - Clearwater and North Saskatchewan River
  - Christenson Sports & Wellness Centre
- Eight point strategy

Steering Committee
Inventory
Delivery Model
Creation of Grant
Develop Terms of Reference
Communication Plan
Prioritize Outcomes
Execute

ROCKY MOUNTAIN HOUSE REGION RECREATION MASTER PLAN

3. Other Opportunities



Trail Town

-is a proven method to create an outdoor recreation market of cycling:
https://www.trailtowns.org

-opportunities it addresses:

Lodging
Photo-ops
Bike parking
Bike Shops
Restaurants
Gift Shops

Maps and safety signage

Uploading map information into Trailforks.com / Alltrails.com/ Strava

4. Key Changes

- *Created an integrated centre for the indoor facility needs*
- *Added some additional groups who provide services*
- *Dog Park – Quinn Lands*
- *North Saskatchewan River Park-Discussions with users*
- *Implementation Plan:*
  - *Indoor Gymnasium Space & Indoor Soccer Facility (name change & goal move)*
  - *Ag-Rec Centre (name change)*
  - *Communication Strategy (goal move)*
  - *Gymnastics Facility (goal move)*
  - *Outdoor Washroom/Changerooms (name change)*
  - *Pump track (goal move)*
  - *Special events space (combined with Ag-rec Centre*

5. Implementation Plan

		Immediate 1-3 Capital Investment
Community Development for Programming	A	
Increase Senior Programming	A	
Indoor Climbing Wall		
Larger Dog Park	C	$ 25,000.00
More Arts Programming	A	
Pottery Guild	A	
Spontaneous Activity	A	
Upgrade the indoor pool	C	$ 60,000.00
Youth Engagement Strategy	A	
Adoption of 2009 Parks Standards	A	
New Playground at VIC	C	$ 250,000.00
Outdoor Washrooms/ Changerooms	C	$ 65,000.00
Playground Redevelopment Plan	C	$ 45,000.00
Splash Park	C	$ 350,000.00
Mountain Bike Terrain Park	C	$ 250,000.00
Covered Bleachers at NSRP	C	$ 450,000.00
Communication Strategy	A	
Rental awareness	A	
Volunteer Plan	A	
Crimson Lake Trail	A	
Trail Amenities	C	$ 10,000.00
Trail Development	C	$ 150,000.00
Trail lighting	C	$ 45,000.00
Wayfinding trail signage plan	A	
Total		$1,700,000.00

Goal Rocky Mountain House Region will:
1. Have the highest participation rates in province.
2. Be a destination for outdoor recreation.
3. Be a destination for sport tourism.
4. Be a destination for special events.
5. Empower its citizens.
6. Create a multi-model trail system that connects the county's vast recreational opportunities.

5. Implementation Plan

		Mid-Range 3-5 Capital Investment
Indoor Climbing Wall	C	$60,000.00
Redevelopment of the old arts space	C	$15,000.00
Seniors Facility	C	$500,000.00
Food services at Museum/VIC site	C	$10,000.00
Outdoor Washrooms/ Changerooms	C	$150,000.00
Playground Redevelopment Plan	C	$45,000.00
Pump Track	C	$175,000.00
Redevelopment plan for the NSRP site plan	C	$50,000.00
Enhanced Skateboard Park	C	$400,000.00
Sport Facility Maintenance	A	
Sport Tourism Plan	A	
Ag-Rec Centre	C	$9,500,000.00
Crimson Lake Trail	C	$1,100,000.00
Trail Amenities	C	$10,000.00
Trail Development	C	$150,000.00
Total		**$12,165,000.00**

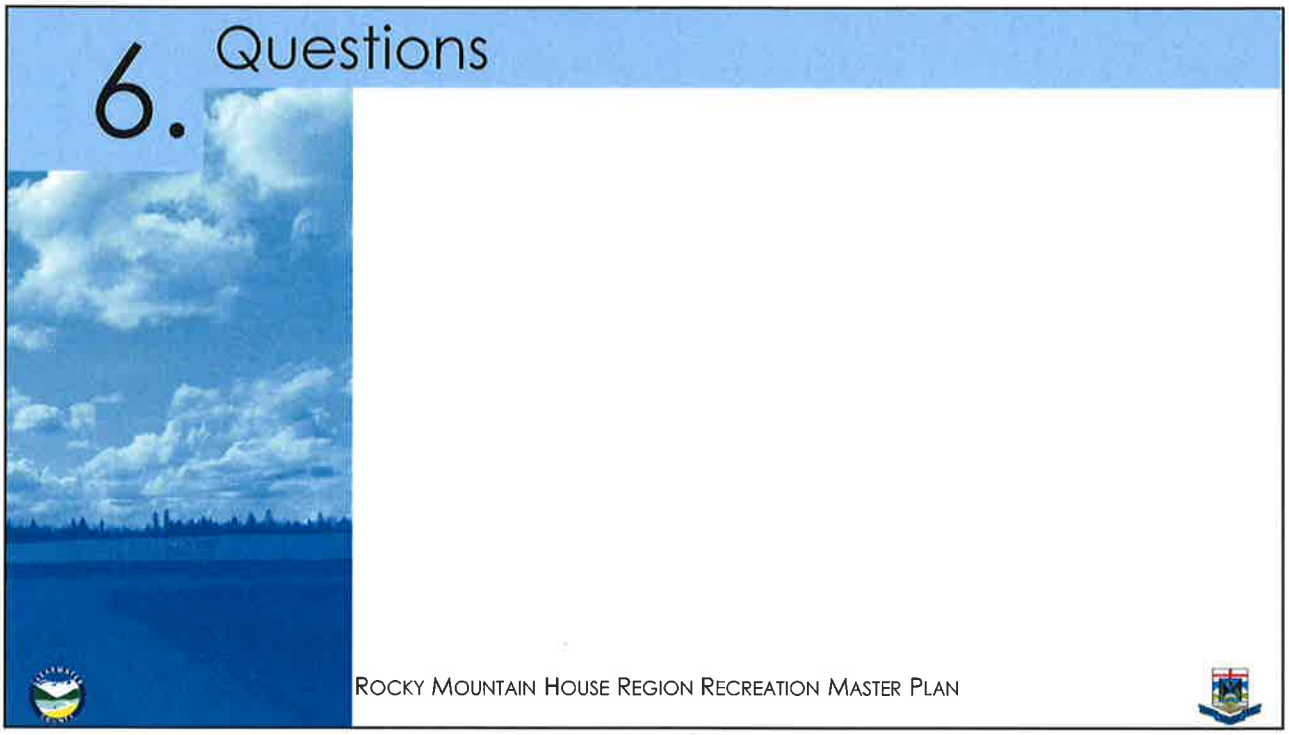
5. Implementation Plan

		Long Range 5-10 Capital Investment
Indoor Adventure Park	C	$500,000.00
Upgrade the indoor pool	C	$60,000.00
Outdoor Programming Space/ Amphitheater	C	$15,000.00
Picnic Area	C	$65,000.00
Playground Redevelopment Plan	C	$45,000.00
Change Facility for Outdoor Sporting Facilities	C	$65,000.00
Create a Gymnastics Facility	C	$5,000,000.00
Indoor Gymnasium Space & Indoor Soccer Facility	C	$22,000,000.00
Town Monument	C	$35,000.00
Ag-Rec Centre	C	$7,500,000.00
Concert Hall/ Performance Theater	C	$8,000,000.00
Trail Amenities	C	$10,000.00
Trail Development	C	$150,000.00
Trail lighting	C	$45,000.00
Total		**$43,490,000.00**

5. Implementation Plan

Immediate 1-3 Years Capital Investment	Mid-Range 3-5 Years Capital Investment	Long Range 5-10 Capital Investment	**Total Capital to Achieve Goals**
$1,700,000.00	**$12,165,000.00**	**$43,490,000.00**	**$57,355,000.00**

ROCKY MOUNTAIN HOUSE REGION RECREATION MASTER PLAN


6. Questions
ROCKY MOUNTAIN HOUSE REGION RECREATION MASTER PLAN

AGENDA ITEM

PROJECT: Town of Rocky Mountain House's 'Rocky Mountain House Region Recreation Master Plan Final Report'		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: Community and Protective Services	**WRITTEN BY: Ted Hickey**	**REVIEWED BY: Rodney Boyko, Acting CAO**
BUDGET IMPLICATION: ☐ N/A ☒ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite)		
STRATEGIC PLAN THEME: 3. Community Well Being	**PRIORITY AREA: 3.1 Sustain the recreation, cultural and quality of life needs of the community.**	**STRATEGIES: 3.1.2**
RECOMMENDATION:		

1. **That Council directs the Administration to complete an analysis of the document and a report provided back to Council in December of 2017. This analysis should include the proposed changes to programming and the subsequent operational and capital funding implications.**

BACKGROUND:

The Town of Rocky Mountain House completed the Rocky Mountain House Region Recreation Master Plan Final Report. The plan was developed by Town administration with the assistance of a consultant and the Rocky Mountain House Parks, Recreation and Community Services Board.

The master plan details a 10-year list of projects with total costs of approximately $57 million. Historically Clearwater County has had a major part in determining priorities and has been a major contributor. Confirmation of funding sources are not detailed in the new master plan.

As this document may have significant budget implications, Administration recommends that Council direct Administration to complete an analysis of the document and a report provided back to Council in December of 2017. This analysis should include the proposed changes to programming and the subsequent operational and capital funding implications.

AGENDA ITEM

PROJECT: **Central Alberta Economic Partnership (CAEP) Broadband Report and SuperNet Request For Proposal (RFP) Update**		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: **Economic Development / CPS**	**WRITTEN BY: Ted Hickey**	**REVIEWED BY:** **Ron Leaf, CAO**
BUDGET IMPLICATION: ☒ N/A ☐ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite)		
STRATEGIC PLAN THEME: **Managing Growth**	**PRIORITY AREA:** **Local Economy**	**STRATEGIES:** **1.3.4**

ATTACHMENT(S):

- **Regional Broadband Preparedness Study Municipal & Regional Opportunities & Options in the CAEP Region 2017, *Taylor Warwick***
- **Service Alberta Provides Update on SuperNet Operating Agreement, September 6 2017, *Alberta Association of Municipal Districts and Counties (AAMDC) Member Bulletin***

RECOMMENDATION:

That Council:

1) **Accepts the CAEP and AAMDC reports as information; and**
2) **That the CAEP report and SuperNet RFP process be included in the October 31 – November 2 Council orientation session.**

Councillor John Vandermeer has requested the CAEP Regional Broadband Preparedness Study be discussed at the September 26th Council Meeting and indicated that he will speak to the report as a member of the CAEP Executive.

BACKGROUND:
Central Alberta Economic Partnership (CAEP)

Earlier this year, CAEP enlisted Craig Dobson of Warwick-Taylor Consulting Ltd. to conduct a regional broadband preparedness study for the CAEP region to identify future options and opportunities on the local, sub-regional and regional levels. CAEP members participated by providing input at four separate meetings held in Lacombe, Sundre, Stettler, and Sylvan Lake. The CAEP report was released on September 15, 2017.

The AAMDC's September 6, 2017 Newsletter included information from Services AB with respect to the SuperNet Request for Proposal process. The closure for the RFP is October 12, 2017 with an eight (8) week review period (although that may be extended). Of note is the reference to maintaining service to

municipalities as well as the statement: "*We are also looking at ways to positively impact rural connectivity as part of SuperNet's future direction."*

Staff have not had the opportunity to fully review the CAEP document or consider the recommendations outlined in the report. Neither have staff had opportunity to discuss with AAMDC or Services AB how the SuperNet might "positively impact rural connectivity". Staff intends on following up with both the AAMDC and Services AB and will provide an update on the CAEP report and the SuperNet contract during the Council Orientation session.

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Regional Broadband Preparedness Study

Municipal & Regional Opportunities & Options in the CAEP Region

caep
CENTRAL ALBERTA ECONOMIC PARTNERSHIP

Prepared for the Central Alberta Economic Partnership
by Craig Dobson – Taylor Warwick Consulting Limited

Edited by
Jennifer Massig – Magna Engineering Services Inc.

August 31, 2017

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1 Executive Summary

The Internet and related technologies are causing the world to transition to more complex economic systems built around *knowledge*.[1] As a foundational cornerstone of these emerging systems of wealth creation, access to information and communications technology (ICT) has become critical to sustainable economic development in virtually every community and society on the planet.

The majority of Alberta communities have shifted from *Why is this Important*? to *Given this is critical civic infrastructure, how and when can we make it happen?*. In general, the "How" is via the provisioning of fibre-based infrastructure where possible on a utility basis. "When" depends on the financing in relation to other civic priorities.

In spite of the foundational nature of the required underlying connectivity infrastructure, Canada has yet to develop meaningful related technology policy and the results show. Canada, for instance, now ranks 14th in Broadband and in Innovation and whereas at most locations in Canada one may have the option of two wire-line providers, in Västerås, Sweden, there are over thirty.

Accessible, affordable, and reliable high-speed broadband services, provided in a coordinated and interconnected system, is seen as foundational to supporting economic prosperity locally and regionally, enabling greater social connectedness and well-being of the region's population. High-speed broadband services provide foundational infrastructure for community prosperity, resiliency and quality of life – not unlike roads, electricity, water and wastewater and other essential utilities that support economic activity and community life.

For the benefit of all communities within the region, the Central Alberta Economic Partnership (CAEP) has elected to face and deal with the issues head-on. In this report, a view of the issues, options, and opportunities from both municipal and regional perspectives is brought forward.

As shown in the next table, CAEP is a regional economic development alliance (REDA) covering west central Alberta and consisting of eight counties, three cities, eighteen towns, thirteen villages and forty-two hamlets. Of the 309,062 residents, 40.8% live in the three cities and 31.4% live in the towns and villages. That leaves 86,215 or 27.9% dispersed throughout the rural areas of the partnership.

As is evident in premise density chart on page 2, densities across the region vary widely – from a low of 0.29 homes per square kilometer (or 1 home per 3.45 km^2) in Clearwater County to 705 homes/km^2 in Red Deer. As the cost of providing enhanced broadband services increases substantially with lower premise density, the quality and availability of these services in these lower density areas decreases. As shown in the service level chart on page 3, service levels meeting the new Canadian Radio-television and Telecommunications Commission (CRTC) objective of 50 Mb/s down (toward the client) and 10 Mb/s up (to the network)[2] are available in only two of the Alliance's 38 municipalities (including hamlets).

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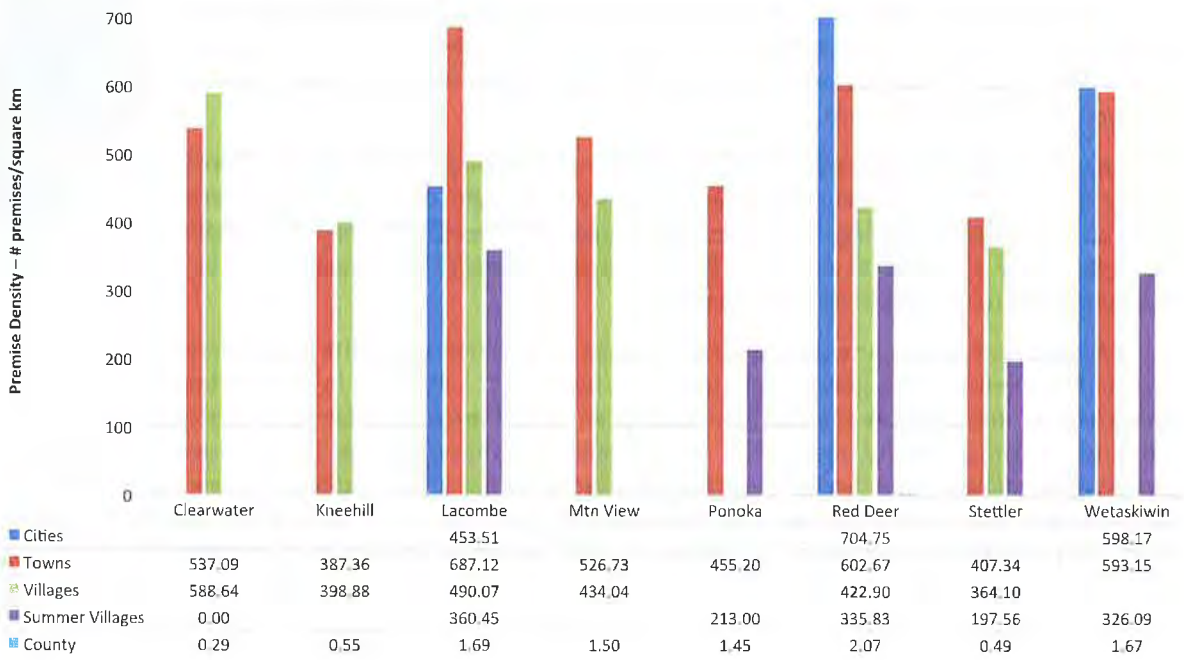
[1] Toffler, A&H; Revolutionary Wealth; Knopf; 2006-04-25.

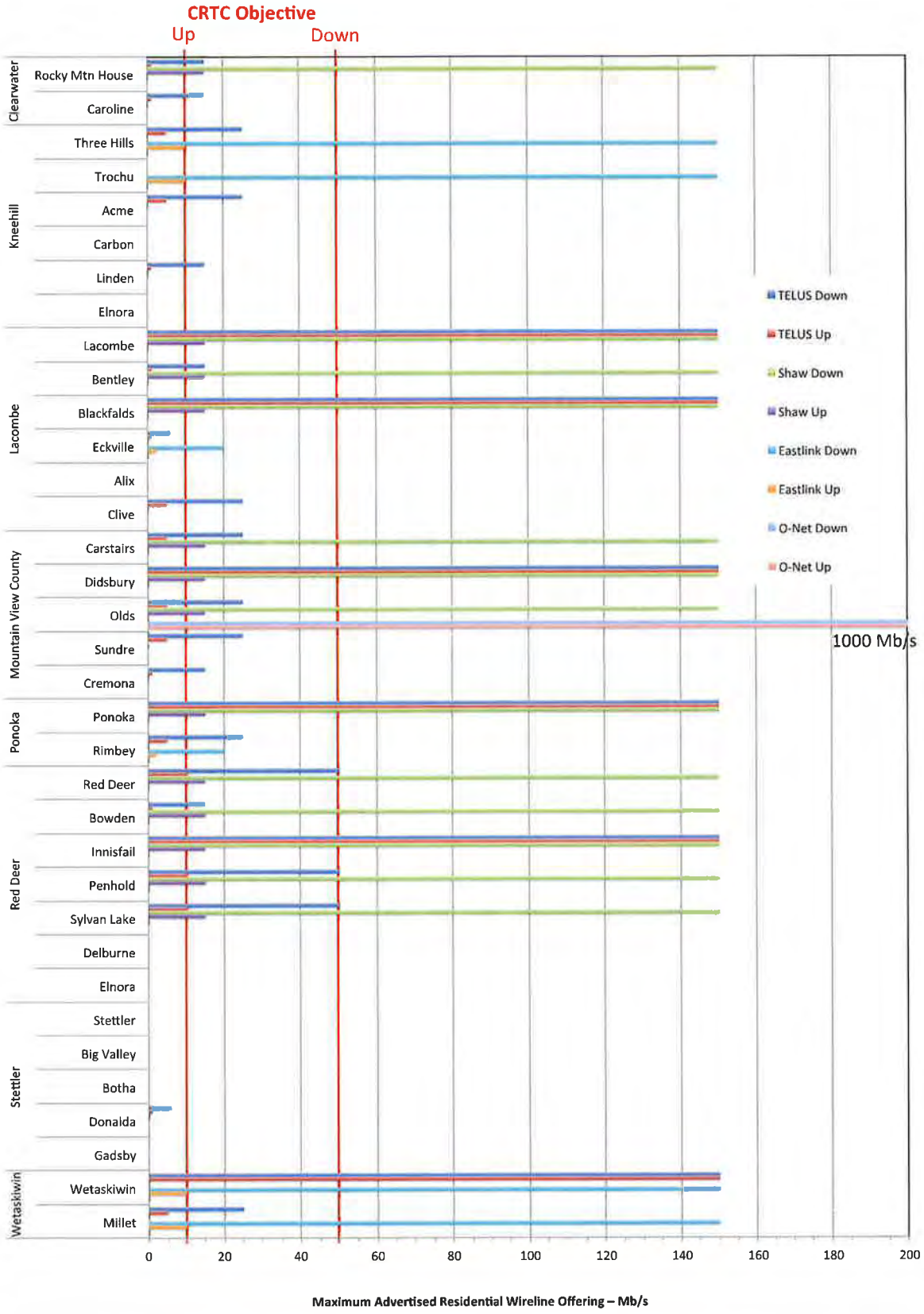
[2] CRTC; *Telecom Regulatory Policy CRTC 2016-496*; 2016-12-21.

	Cities	Towns	Villages	Summer Villages	Hamlets	Population	% of CAEP
Clearwater County		Rocky Mountain House	Caroline	Burnstick Lake	Alhambra Nordegg Condor Withrow Leslieville	19,094	6.2%
Kneehill County		Three Hills Trochu	Acme Carbon Linden		Bircham Swalwell Hesketh Torrington Huxley Wimborne Sunnyslope	11,206	3.6%
Lacombe County	Lacombe	Bentley Blackfalds Eckville	Alix Clive	Birchoff Gull Lake Half Moon Bay Sunbreaker Cove	Haynes Tees Joffre Mirror Morningside	36,796	11.9%
Mountain View County		Carstairs Didsbury Olds Sundre	Cremona			34,776	11.3%
Ponoka County		Ponoka Rimbey		Parkland Beach	Bluffton Leedale Hoadley Maskwaskis	19,755	6.4%
Red Deer County	Red Deer	Bowden Innisfail Penhold Sylvan Lake	Delburne Elnora	Half Moon Bay Jarvis Bay Norglenwold	Ardley Lousana Benalto Markerville Dickson Springbrook Linn Valley Spruce View	148,857	48.2%
Stettler County		Stettler	Big Valley Botha Donalda Gadsby	Rochon Sands White Sands	Byemoor Nevis Endiang Red Willow Erskine	12,289	4.0%
County of Wetaskiwin	Wetaskiwin	Millet		Argentia Beach Norris Beach Crystal Springs Poplar Bay Grandview Silver Beach Ma-Me-O Beach	Alder Flats Mulhurst Bay Buck Lake Village at Pigeon Falun Westerose Gwynne Winfield	26,289	8.5%
86,215 27.9%	126,130 40.8%	88,567 28.7%	6,339 2.1%	1,811 0.6%		309,062 100.0%	100.0%



	Clearwater	Kneehill	Lacombe	Mtn View	Ponoka	Red Deer	Stettler	Wetaskiwin
Cities			453.51			704.75		598.17
Towns	537.09	387.36	687.12	526.73	455.20	602.67	407.34	593.15
Villages	588.64	398.88	490.07	434.04		422.90	364.10	
Summer Villages	0.00		360.45		213.00	335.83	197.56	326.09
County	0.29	0.55	1.69	1.50	1.45	2.07	0.49	1.67

Premise Density in the CAEP Region


CRTC Objective
Up
Down
Clearwater
Rocky Mtn House
Caroline
Kneehill
Three Hills
Trochu
Acme
Carbon
Linden
Elnora
Lacombe
Lacombe
Bentley
Blackfalds
Eckville
Alix
Clive
Mountain View County
Carstairs
Didsbury
Olds
Sundre
Cremona
Ponoka
Ponoka
Rimbey
Red Deer
Red Deer
Bowden
Innisfail
Penhold
Sylvan Lake
Delburne
Elnora
Stettler
Stettler
Big Valley
Botha
Donalda
Gadsby
Wetaskiwin
Wetaskiwin
Millet
TELUS Down
TELUS Up
Shaw Down
Shaw Up
Eastlink Down
Eastlink Up
O-Net Down
O-Net Up
1000 Mb/s
0
20
40
60
80
100
120
140
160
180
200
Maximum Advertised Residential Wireline Offering – Mb/s

To improve the level of broadband services available, a range of options, from simply accelerating any currently planned broadband initiatives to negotiating with the incumbents and potentially subsidizing private operators, to municipal, do-it-yourself (DIY) initiatives as exemplified by O-Net in Olds and Q-Net in Coquitlam, are available to communities.

Every municipality is tasked with protecting their future when addressing critical utility infrastructure. Should CAEP communities consider capable broadband infrastructure to be critical infrastructure, then whether a community or sub-regional area elects to take an incremental longer term or more aggressive shorter term approach, taking the time to establish both a vision and a plan will prove helpful. Two components are key:

- First, each community needs to establish a vision, even if the timeline is long-term, that can be relied upon to guide community decisions regarding broadband.
- Second, the community should work to establish a Broadband Facilities or Technology Master Plan or the equivalent[3].

The process of developing a master plan can help educate elected officials and administration on future required infrastructure such as backhaul connections and internal feeder networks. Such a plan enables municipalities to leverage cost-saving measures prior to full community broadband deployment, should they eventually decide to go that way[4]. The plan can then be used as a guide for including fibre conduit when planning new developments and linear infrastructure projects, providing relevant community facility needs information when working with service providers, and/or collaborating with regional partners. It helps municipalities protect their right-of-ways (ROWs) and leverage potential development dollars, grant funding, use of works agreements, and/or cost-sharing opportunities when they arise.

The DIY options have two components – access options with which communities may undertake fibre-to-the-premise (FTTP) deployments within their communities and sub-regional/regional connectivity options that both enable enhanced broadband wireless services and provide the backbone connectivity required to help facilitate sustainable fibre operations within individual or partnering communities. To be most effective, collaboration needs to include both distribution and access networks within municipalities as well as the backhaul networks that link the communities together – an issue that typically blurs the more traditional REDA modus operandi in which their role is solely focused on coordination between communities and not on what each community elects to do itself.

While municipal, sub-regional, and regional DIY options do involve more hassle and risk than simply transferring responsibility to private enterprise such as TELUS or Axia, both hassle and risk can be reduced with collaboration. More importantly, the DIY options come with significant community advantages. Potential sub-regional working groups for part of the CAEP region going forward might be:

- Kneehill Regional Partnership (KRP)
- Lacombe County
- Red Deer County

Delburne, Elnora, and Big Valley expressed significant interest. Should Red Deer County proceed and not Stettler, Big Valley would do well to approach the Paintearth Economic Partnership Society (PEPS) or

[3] In Olds, these requirements were incorporated into the Town's Municipal Access Agreement and engineering guidelines.

[4] While deploying a town-wide fibre network tomorrow might be expensive, leveraging linear infrastructure and other civil development initiatives to incrementally deploy the network over the longer term can reduce the costs by up to 70%. (The community does, though, forego the benefits of the network during the interim period.)

KneeHill County. Should neither of their home Counties proceed with a regional plan, the three might consider working together.

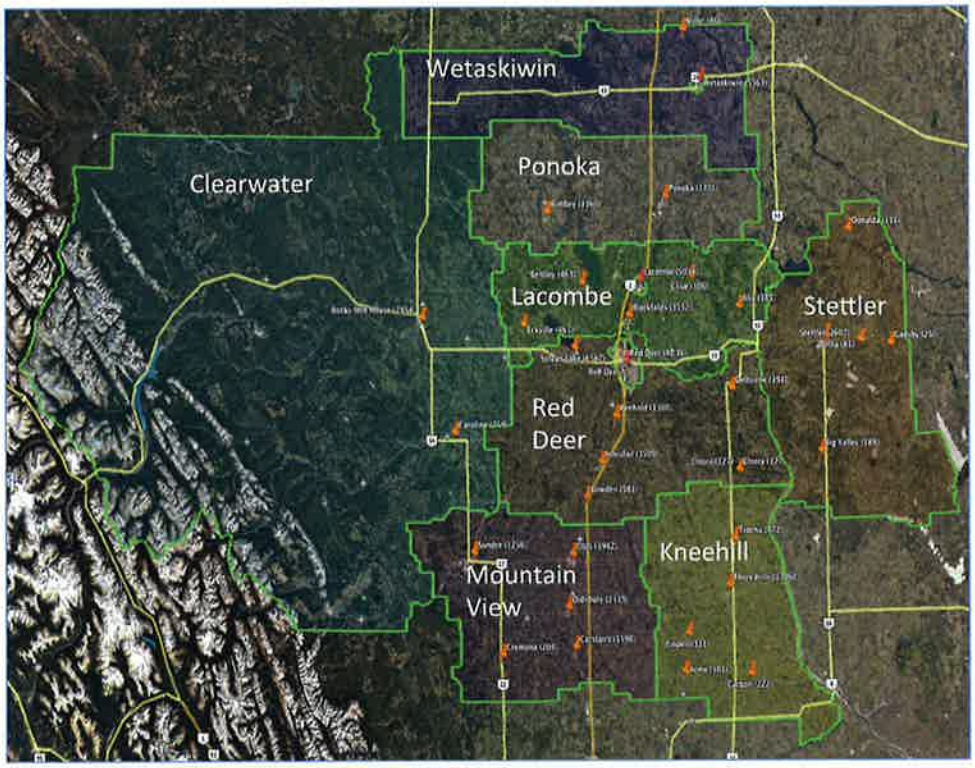
Though CAEP communities were approached both via several emails and follow-up phone calls, responses from a number of the potentially significant players in the region were not received by the time of writing. Some may simply not be interested due to other priorities; some may have just had staff on holidays. None-the-less, other potential partnerships are likely possible and may indeed develop as the awareness of broadband and its potential for the region develops.

In the broadband infrastructure game, a land-grab of sorts is currently underway and time is of the essence. The longer it takes communities to debate their options and assemble the required resources, the more time the traditional telecom and cable service providers have to replace aging infrastructure in their most profitable markets with fibre – which then removes valuable cashflow from more inclusive community-wide plays. To move forward quickly, CAEP will likely need to take an active role with those communities most interested in moving ahead. As momentum develops and the issues are resolved, other communities could come onboard.

2 Problem Definition

Recognizing both the opportunity and challenge associated with facilitating advanced fibre optic-based broadband infrastructure and services within the CAEP region, CAEP partnered with the Battle River Economic for Economic Development (BRAED) and commissioned this study to qualitatively evaluate the options available to enhance broadband infrastructure within each of the two regions. Its overall purpose is to document current broadband availability throughout each region, identify and explore key strategic opportunities, and, ultimately, inform stakeholders around the types of choices they might consider at local and region-wide levels to strengthen the delivery and affordability of high-speed broadband services across the region.

CAEP Region



Realizing the importance of being inclusive, for the purposes of this study, CAEP has invited all incorporated entities in the region to participate – both Partnership members and non-members alike. The study therefore incorporates the aggregated issues and wisdom encompassing the 3 cities, 18 towns, 13 villages, and 8 counties.

In-line with the traditional strategy development process, the study proceeded in three phases: *Current State* – determine where things stand and the assets that can be drawn upon; *Desired State* – determine the requirements that need to be met, and then *Opportunities* – determine and evaluate the opportunities available to move from the current to the desired state.

3 Recommendations

Municipalities at both the community and sub-regional levels should establish a Vision, decide which of the opportunities and options presented best fits within their requirements, priorities, and budget and then move to create a basic business case to comprehensively evaluate the opportunities that best align with their needs and priorities, and then establish a Master Plan to guide and coordinate broadband initiatives going forward. Recommendations follow.

1. *Strategic Vision*

- Establish a Vision – each community should work to establish a Vision, even if the timeline is long-term, that can be relied upon to guide community decisions regarding broadband.

2. *Sub-regional Business Case*

- Actively engage – to the extent that CAEP resources can be made available or secured – with the motivated sub-regions to guide the development of a business case for each of them. Business case development helps ensure that the proposed undertaking makes business and financial sense and help guide the development of a Master Plan. Whereas the financials developed during the strategy work are based on averages, the capital estimates used to develop financials for the business case rely on pre-conceptual designs.
- Developing the business case and obtaining consensus will require support from financial, IT, marketing, and possibly other resources across engaged municipalities. Peer support groups might be established to pool resources and share learnings relevant to issues that arise in each specific area of expertise.

3. *Strategic Visioning and Broadband Facilities Master Plan*

- Protect your Future – Each community should work to establish a Broadband Facilities or Technology Master Plan or the equivalent[5]. Such a plan enables municipalities to leverage cost-saving measures prior to full community broadband deployment, should they eventually decide to go that way[6]. The master plan process helps educate elected officials and administration on future required infrastructure such as backhaul connections and

[5] In Olds, these requirements were incorporated into the Town's Municipal Access Agreement and engineering guidelines.

[6] While deploying a town-wide fibre network tomorrow might be expensive, leveraging linear infrastructure and other civil development initiatives to incrementally deploy the network over the longer term can reduce the costs by up to 70%. (The community does, though, forego the benefits of the network during the interim period.)

internal feeder networks. This information can then be used as a guide for including fibre conduit when planning new developments and linear infrastructure projects, providing relevant community facility needs information when working with service providers, and/or collaborating with regional partners. It helps municipalities protect their right-of-ways (ROWs) and leverage potential development dollars, grant funding, use of works agreements, and/or cost-sharing opportunities when they arise

4. External Collaboration & Partnerships

- Develop and pursue collaborative opportunities – create a common table for on-going partnership; joint planning; ISP negotiations; funding applications
- Build and strengthen external partnerships – with public sector (health, education, tourism); private sector (incumbents, ISPs); First Nations; oil and gas; financial; operational; other

5. Advocacy

- Provincial Perspective – as a direct result of the 2016-2017 Pilot Funding for Regional Broadband Projects from the Alberta Ministry of Economic Development and Trade, broadband initiatives are being undertaken by most REDAs in the Province. As the various studies complete, CAEP should work with the other REDAs to integrate the results and create a more comprehensive provincial perspective on broadband than has heretofore been possible.
- Influence Policy – the perspective and learnings should then be used to help inform telecom and related policy at both the Provincial and Federal level.

4 Landscape Issues

4.1 Take-away Points from the CRP Landscape Report

The rationale justifying capable broadband networks is extensive and compelling. A detailed overview of both the rationale and the overall context within which enhanced broadband services play is available in the Landscape document released by the Calgary Regional Partnership in September, 2016.[7] . The key take-away points from that report appear below.

- ***Our system of wealth is changing*** – Compounding the impacts of both the Industrial and the current Information & Telecommunications revolutions is the fact that they ushered in a new system of wealth. With a change in the wealth system, what made communities successful in the 20th century no longer works today. We are moving from a world in which scalable efficiency generated the most value to one in which scalable peer learning does.
- ***Transitioning to higher skilled workforce*** – While the 'hollowing out' of the middle class is not as evident in Canada as it is in the US, the number of medium and low skilled jobs is declining relative to those requiring higher skill levels. From both the perspective of retraining the folks displaced and creating higher skilled jobs for them, broadband is key.
- ***Canada is losing ground*** – As of early 2016, Canada ranked 14th in terms of mean available download bandwidth, 18th in terms of cost, and 23rd in terms of fibre penetration. Whereas in Korea, the average download bit rate of 23.6 Mb/s is available for $ 1.77/mo. (13.3 Mb/s/$), in Canada, one can only expect 9.7 Mb/s for $8.00/mo. (1.21 Mb/s/$).
- ***Alberta is not keeping up*** – Alberta ranks 11th out of 13 provinces and territories based on download speed – and Alberta has the *SuperNet*. Alberta's two largest cities do not fair well either – Calgary and Edmonton are respectively ranked 11th and 21st out of 25.
- ***Everyone could win*** – Economic development is not a zero-sum game in which the winning community takes all. Together, the CRP members and non-members can raise the 'tide' of prosperity across the region so that all can benefit.
- ***Accomplish more together*** – The municipalities, municipal districts, and counties can accomplish more together than separately, ensuring that none are left behind.
- ***Too important to miss!*** – As the required infrastructure upgrades represent a once in a century opportunity, it is worth getting this right.
- ***Fibre as a utility*** – Scalable broadband connectivity is critical civic utility infrastructure and should be treated as such. In the US, 25 of the 48 states reporting have a broadband office.
- ***Reduced rates as a long-term investment*** – As municipalities and regions can fund fibre infrastructure over 20+ year periods, they can provide the infrastructure much less expensively than can a private interest firm intent on recouping its capital in, say, five years. Monthly payments by a community on a $1M infrastructure loan over 20 years at 2.602% from the Alberta Capital Finance Authority (ACFA) are $5,349 versus the $18,417/month payments required of a private firm paying 4% on the same amount over a five year term.
- ***Update Provincial and Federal Frameworks*** – Both federally and provincially, funding and debt limit policies need to be updated to help enable municipalities to deploy the required infrastructure; regions are an important voice for change.

[7] Dobson, C.; Landscape Issues; Regional Broadband Investigation; CRP / Taylor Warwick Consulting; 2016-09-28. The report may be downloaded from:

https://www.dropbox.com/s/i4m68awenkb546d/CRP-Regional%20Broadband%20Investigation-Landscape%20Issues-FINAL.pdf?dl=0

- ***Promoting services-based competition*** – Federally, the Canadian Radio-television and Telecommunications Commission's (CRTC's) options are inhibited by the facilities-based framework under which it operates. Moving to a services-based framework in which the required underlying fibre infrastructure is provided on an open basis as a fourth utility over which all providers can compete on services would enable ubiquitous deployment and help eliminate the existing digital divide. Under a services-based model, private providers would get access to infrastructure superior to that which they themselves could afford to deploy and could then re-direct the capital saved to innovate and compete on services.
- ***Independent triple-play service providers are now available*** – As independent triple-play service providers such as O-Net, VMedia, and Novus are now available, the options available to underserved communities wishing to deploy their own fibre-based networks are expanding.
- ***Enhancing broadband is a largely social enterprise*** – It has been said that community fibre endeavours are likely 80% social and 20% technical and the Olds' experience supports this from several perspectives.
- ***Required Internet capacity continues to grow geometrically*** – Both Internet and mobile traffic growth remains robust at a compound rate of 21% and 69% annually. The video portion of that traffic is increasing at 64% and 55% respectively – and not all of this is Netflix.
- ***Wireless has limits; fibre does not*** – The trade-off between fibre and wireless tends to change over time and depends on available capital, local priorities, and the relative importance of off-balance benefits. A common misconception is that wireless systems are less expensive. While they may be so over a 3 to 5 year period, their ability to expand is limited and over a ten year timeframe when capacity expansion is considered, can prove to be even more expensive than fibre networks.

Since the CRP document was released, the broadband landscape has continued to evolve. The material that follows is focused on both updating the material presented in the CRP report and providing additional material relevant to the CAEP region. A key aspect of the rationale arises from the impact on so-called off-balance items. An overall study of these positive externalities is underway as part of the Northern Alberta Study and the results will become available later this summer.

4.2 Political

4.2.1 Federal

4.2.1.1 CRTC

After close to two years of study and hearings, on Dec. 21, 2016, the CRTC declared Broadband Internet a basic telecommunications service.[8] Prior to the ruling, only voice services were 'basic' and existing universal service frameworks will now shift from voice to broadband. The basic universal service objective was set to 50 Mb/s download and 10 Mb/s upload, with the option of

CRTC rules high-speed Internet a basic service, sets targets

CHRISTINE DOBBY - TELECOM REPORTER
The Globe and Mail
Published Wednesday, Dec. 21, 2016 4:26PM EST
Last updated Wednesday, Dec. 21, 2016 9:11PM EST

[8] Telecom Regulatory Policy CRTC 2016-496; 2016-12-21.

unlimited data. Penetration targets were set at 90% of Canadian households by 2021 and 100% by 2031. Interestingly, the ruling also set an objective to have the latest generally deployed mobile wireless technology (currently LTE) deployed not only in homes and businesses but along as many major transportation corridors as possible.

With the shift from voice to Internet as a basic service, the current voice subsidy pool will be phased out and replaced by a fund to support Internet provisioning in areas where the minimum service level objectives are not met. Telecom providers will contribute 0.53% of their voice/broadband revenue into this fund and the fund is expected to grow to $250M in five years. A further proceeding in 2017 will examine the preliminary fund guidelines established in this ruling.

At this point, neither affordability criteria nor requirements for providers to, in fact, improve service in areas not meeting the objectives have been established. Funds from the pool will not likely begin to be dispersed until 2019.

4.2.1.2 Connect to Innovate (CTI) Program

The application window for the $500 million federal Connect to Innovate program ran from January 16 to April 20, 2017. While the window has closed, the government tends to run a funding program every 18 months or so. As the short application window favoured applications from those with established plans, communities and providers would be well advised to develop their plans as fully as possible prior to the next funding window being announced.

4.2.2 Provincial

4.2.2.1 Community and Regional Economic Support (CARES) Program

The CARES program is a two-year initiative that runs to 2018. The program funds initiatives from Alberta municipalities, communities, and regions that enhance economic conditions, leverage regional economic development resources, and build local and regional capacity for sustainable economic development delivery. Focused on planning and program initiatives, grants start at $10,000 and funds must be matched 1:1. Broadband projects qualify. While the first application window has closed, a second intake will run from October 1 to November 30, 2017.

With a similar focus and no matching requirements, funds up to $100,000/year for two years are also available to regional economic development alliances.

4.2.2.2 SuperNet

Details on the government's plan for SuperNet 2.0, which would come into effect upon the expiry of the current agreements at midnight, June 30, 2018 are expected to the released later this fall.

4.3 Economic

4.3.1 Wealth Creation

Whereas wealth creation in the industrial era required significant physical resources, access to raw materials, manpower, and efficient transportation, wealth creation in knowledge-based economies is largely independent of place, local resources, and physical assets. In contrast, wealth now arises from human ingenuity, intellectual property, and novel business models. With growth and development timeframes in the new economy largely unconstrained by the building of physical infrastructure and the movement of goods and services, knowledge-based businesses often grow exponentially.

Consider Instagram:

On April 9, 2012, after 13 folks worked for 18 months developing Instagram, they sold it to Facebook for a billion US dollars.

Note that:

- The 13 folks could be located anywhere Internet access was available. The 13 did not even need to be in the same place.
- With the availability of cloud computing resources like Amazon Web Services (AWS), not local server farms were required and the service could rapidly scale globally.
- Returns from this venture went to 13 individuals plus a few investors. Returns to labour, via salaries, were effectively zero.

Hence, with capable broadband to enable the first two items, Instagram could have been developed in Consort or Bow Island. Considering the third point, there is more to be gained from nurturing entrepreneurs than in creating traditional employment.

Similarly, with 3D printing, folks in the Palliser Region could set up a farm implement (toy, boat, parts, ...) manufacturing facility in an old barn. Alternatively, car enthusiasts in the region might sign on to Local Motors[9] and help design cars in their spare time. For ~US$20k, PEP could send a high performance person to Singularity University[10] (SU) and have him/her trained in how to establish a billion dollar business in 5 years. Ten years ago, this prospect would have been a joke. Today, it is not and SU is serious.

From this perspective, the correlation between economic development and local capabilities and assets will likely decrease with time. If so, then perhaps what is more important than economic development premised on a local SWOT analysis,[11] is the ability of the community to be able to recognize, utilize, and leverage the types of capabilities and opportunities that digital technologies and networks are making possible. A small sampling of the resources available in key categories appears in the next table.

4.3.2 Digital Adoption

Two years ago, a study by the McKinsey Global Institute (MGI) estimated the potential impact the adoption of digital technologies could yet make on business productivity in various economic sectors. Examples include decreasing the costs of service delivery for education, healthcare, land and resource management, and every other service you can imagine. This also enables the virtual workplace – where a company can work with employees from anywhere and, equally important, enables local residents to freelance instead of join a particular company and market their capabilities globally. Scaling MGI's estimates to Canada, they estimated the potential impact of a wider adoption of digital technologies by Canadian industry could boost Canadian GDP by some CAD$330 billion dollars.[12]

Over the past 200 years, automation has eliminated 99% of the farming jobs. Advancing technology, however, has created far more jobs than it displaced and, as a result, society as a whole has moved forward. With the maturing of many digital related technologies, society is at the cusp of a profoundly new era and an era in which the possibilities are limited only by our imaginations.

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[9] https://localmotors.com

[10] https://su.org

[11] A SWOT analysis is a traditional business tool that first evaluates one's Strengths and Weaknesses and then uses the results as context o complete a set of Opportunities and Threats.

[12] Manyika, J., et al; *Digital America: A Tale of the Haves and Have-Mores*; MGI; 2015-12

Computing Resources	Intelligence on demand	https://www.ibm.com/communities/analytics/watson-analytics/
	Unlimited computing power	https://aws.amazon.com/ec2/
	Quantum computing	https://aws.amazon.com/ec2/
Education	Tailoring skills to employment requirements	https://www.coursera.org https://www.khanacademy.org
Employment / Hiring	Contingent work	https://www.freelancer.com/
	Matching individuals to traditional jobs	http://www.careerbuilder.ca https://www.linkedin.com https://www.monster.ca
Product Development	Design	https://99designs.ca
	Invention platform	https://www.quirky.com
Venture Funds		https://grow.indiegogo.com https://www.kickstarter.com

Two examples to consider are the impacts to education and agriculture. Olds College is prime example of how the benefits of gigabit networking can be leveraged in an educational environment. An overview is available in the video produced for the College's 100th anniversary:

https://www.youtube.com/watch?v=55iJvk57nrQ&list=PL-Ua1K2KRZdmaXPIqEv-Is1c51ykrib3I&index=4

While there are many futuristic videos available to highlight the potential for agriculture, a more currently grounded view is available at:

https://www.youtube.com/watch?v=Fr29UKzm2CI, may be start at 1:48 in.

4.3.3 Entrepreneurship

Three generations ago, the opportunity was to electrify everything: take manual product X (say, a manual pump), add electricity, and obtain new, enhanced, and more valuable product Y (electrical pump). Now, the opportunity is to add intelligence to everything: take dump product X (laundry), add intelligence, and obtain a new, enhanced, and more valuable product Y (clothes that tell a washing machine how to wash them).[13] Likewise for many other services:

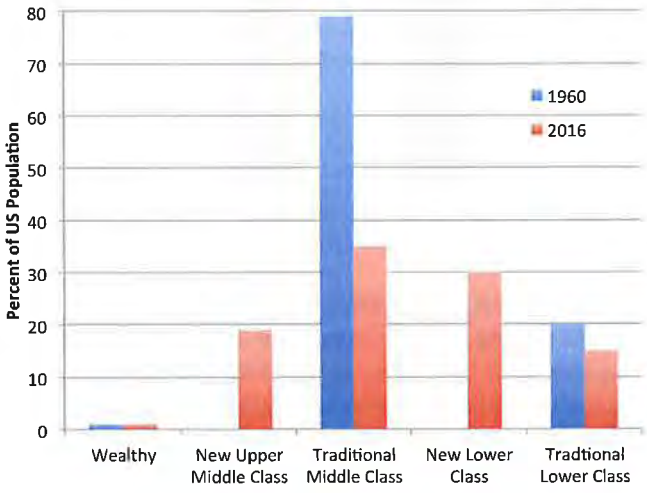
- Medical: after winning Jeopardy in 2011, Watson was repurposed to do medical diagnoses. It's since moved to the cloud and variations are being developed to provide the services to medical practitioners world-wide.[14]
- Stock Portfolios: manage stock indices and currency exchanges to optimize and balance portfolios in real time vs once a year.
- Real Estate: match buyers and sellers and suggest optimal financing packages .
- Project Management: take into account change orders, weather, traffic, currency exchange rates, and so on.
- Law: sift through mountains of evidence and legal arguments and suggest lines of defense.

As discussed earlier, all the tools one needs are at scale, online – and are virtually free. All you need is a capable network.

***More people than ever can now compete and collaborate on more things, for less money, with more ease and equality than ever before.*– Thomas Friedman**

4.4 Social – Employment

Within this changing environment, the days of good, stable, middle-class jobs and the age-old advice, '*go to college, get a job, get married, buy a house, raise kids, and retire on a good pension*' are over. Of the jobs left, 1 in 3 will be converted to software, robots, and smart machines within eight years, half will be susceptible within 20, and both high and low skilled members of the workforce will be affected.[15] To thrive, it's becoming more about '*go create a job*' than the traditional '*go find a job*'.[16] The good news is, that the tools required to do so are available online, at scale, and are essentially free (see Table in Sub-sec. 3.3.1).



[13] Kelly, K.; The Inevitable: Understanding the 12 Technological Forces That will Shape Our Future; Penguin; 2016-06-07.

[14] Watson has also been made available as a general purpose artificial intelligence (AI) engine that can be harnessed by going to: https://www.ibm.com/communities/analytics/watson-analytics/

[15] Trends, *The Americans We've Left Behind*, 2016-03.

[16] Friedman, T.L., Thank you for Being Late; Farrar, Strauss, and Giroux; 2016-11-22.

5 Current State

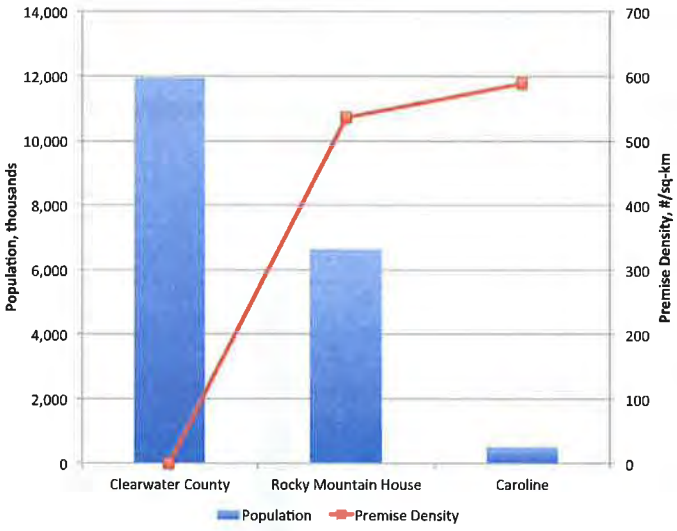
5.1 Clearwater County

5.1.1 Regional Profile

Clearwater County encompasses one town, one village, a summer village and five hamlets. As of 2016, the County is home to 19,094 residents, of which 6,635 live in Rocky Mountain House and 512 in the Village of Caroline – leaving 11,947 dispersed throughout the rest of the county with a premise density of 0.29 homes/km^2. The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets	
Clearwater County		Rocky Mountain House	Caroline	Burnstick Lake	Alhambra Condor Leslieville	Nordegg Withrow

With the low densities, the County and the municipalities will need to collaborate to pursue the more resource intensive broadband options..



5.1.2 Civil Works

Currently, there are no infrastructure projects over $5M planned for the area.

5.1.3 Service Availability

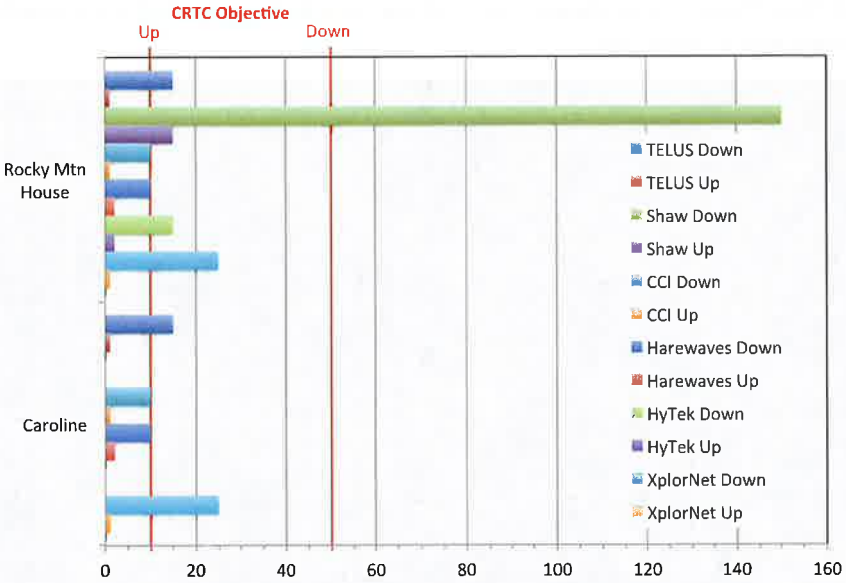
5.1.3.1 Populated Areas

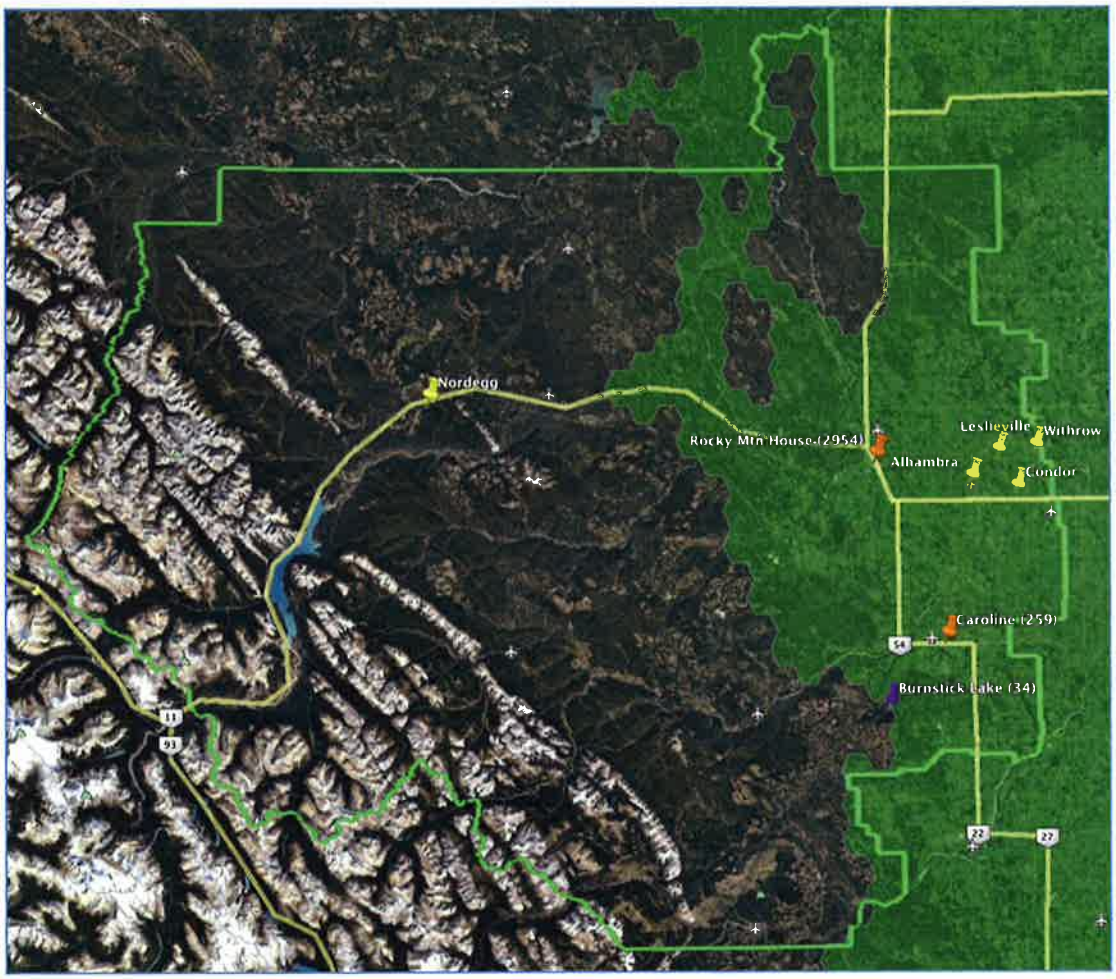
A chart showing the maximum advertised residential downstream (toward the client) service offerings in the populated areas of Clearwater County appear in the next chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less – Shaw more so than TELUS due to the way the aggregation is implemented. In both cases, the offerings are highly asymmetric – upload and download bit rates differ significantly. While the service levels provided by Shaw in Rocky Mountain House meet the new CRTC guideline of 50 Mb/s down by 10 Mb/s up, the best service available elsewhere in the County is the 25/1 Mb/s service provided by Xplornet.

5.1.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are available from CCI, Harewaves, HyTek, and XplorNet. According to the CRTC website[17], the composite fixed wireless coverage from the three providers appears on the map, *Fixed Wireless Coverage* on the next page. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.

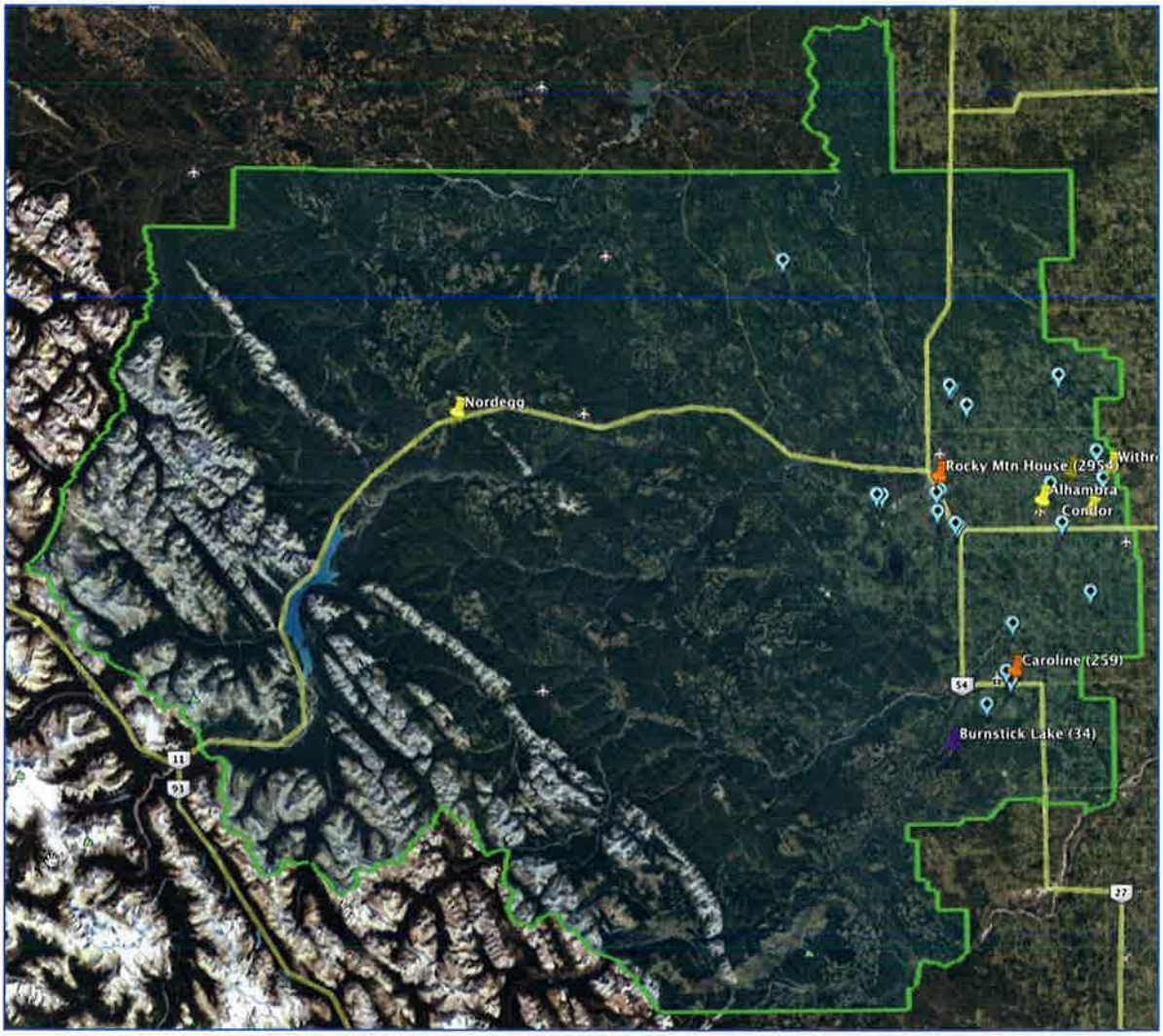
[17] http://www.crtc.gc.ca/eng/internet/internetcanada.htm





Fixed Wireless Coverage

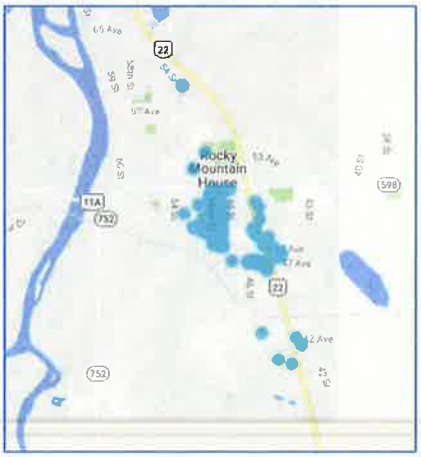
The *Fixed Wireless Towers* map shows the fixed wireless towers located in Clearwater County – the towers are marked with blue balloons.



Fixed Wireless Towers

5.1.3.3 Wi-Fi Services

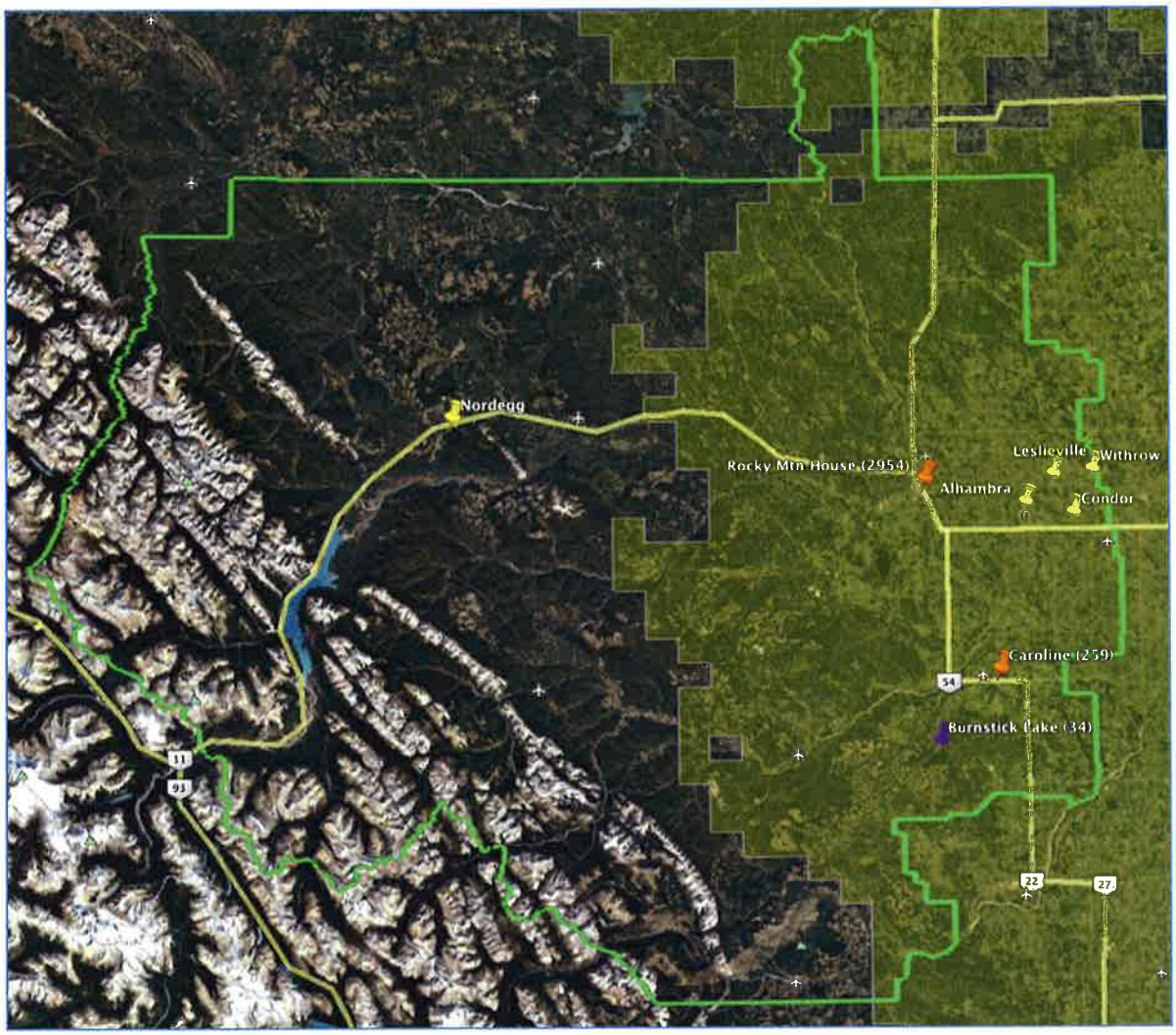
Shaw Go WiFi services are only available in Rocky Mountain House and are shown on the *Shaw Go WiFi Locations* map to the right. Each dot represents a Shaw Go Wifi location.



Shaw Go Wifi Locations

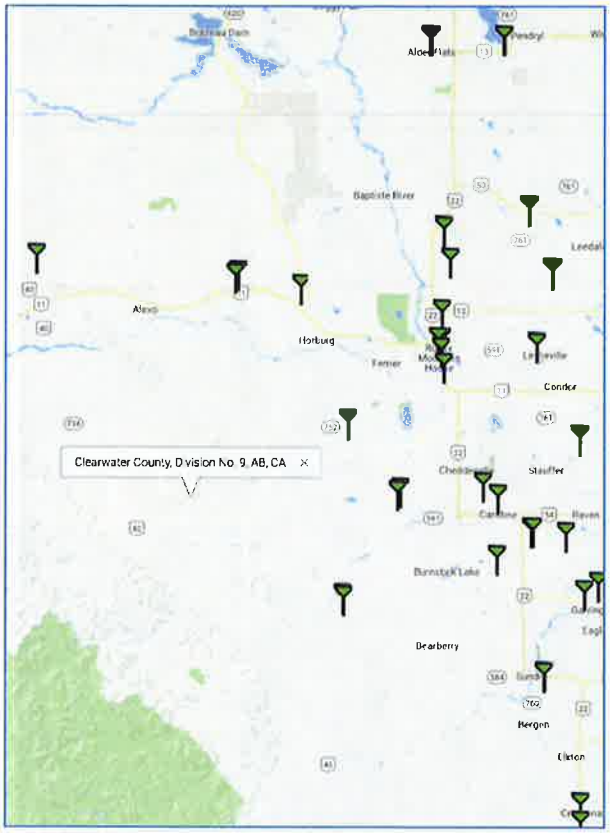
5.1.3.4 Mobility

For completeness, the CRTC view of the LTE mobility coverage throughout the county appears below on the *Cellular LTE Coverage* map. If their view is accurate, there is a significant coverage gap in the western areas of the County.



Cellular LTE Coverage

The availability of the mobility towers in Cypress County appears on the two maps below, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.



TELUS/Bell Mobility Towers

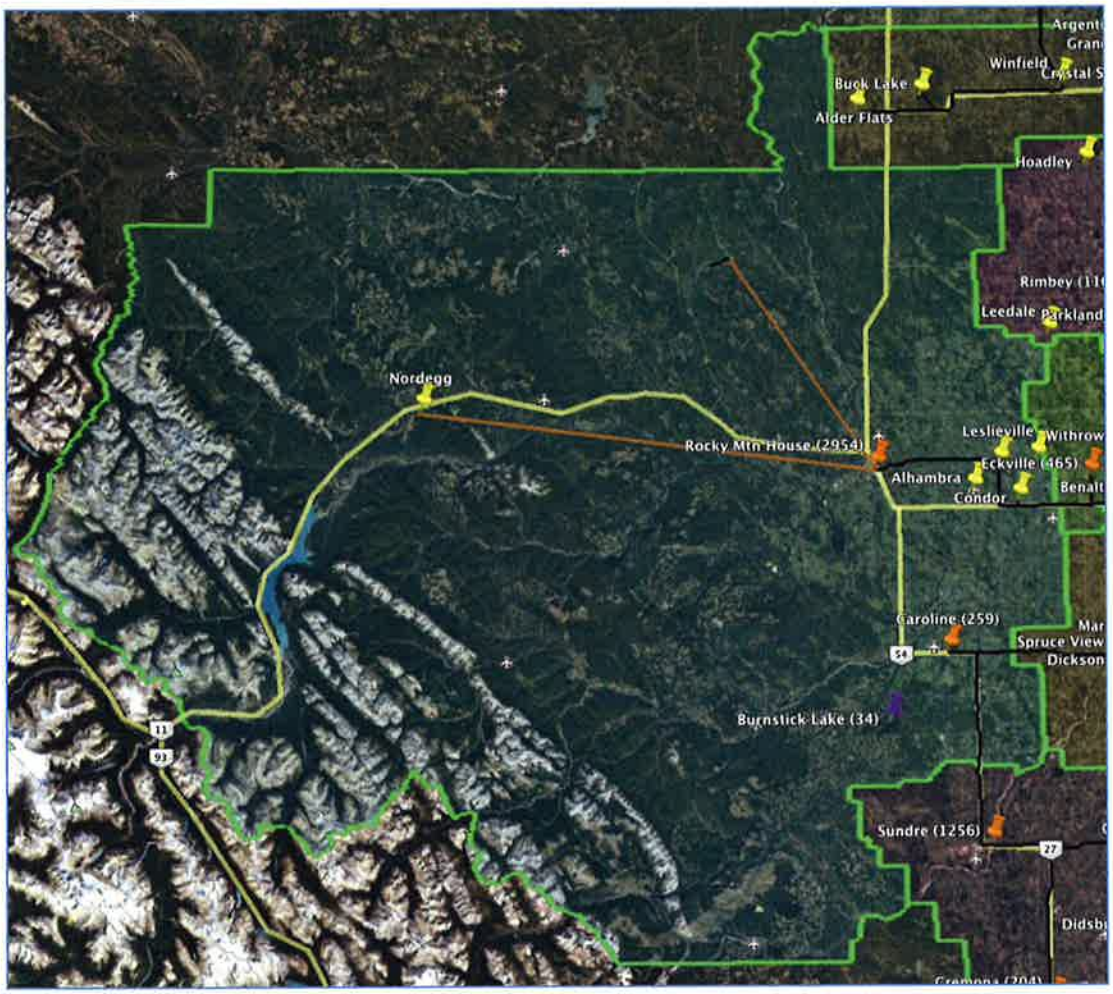
Rogers Mobility Towers

5.1.3.5 Backhaul Service Availability

As mentioned, there are two parts to deploying a functional network – the backhaul or transit services piece and access. Transit services enable the interconnection of community networks to each other and to a gateway services at a peering point – in this case, the YYCIX Internet Exchange in Calgary.

Wholesale lit backhaul services are available from the Alberta SuperNet, Shaw, and TELUS. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black and brown represent the Axia operated Extended Area Network (EAN) segments – the brown segments are wireless.

Given the uncertainty associated with the next iteration of the *SuperNet* contract by June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary may wish to approach Shaw, Bell, or TELUS.



Alberta SuperNet

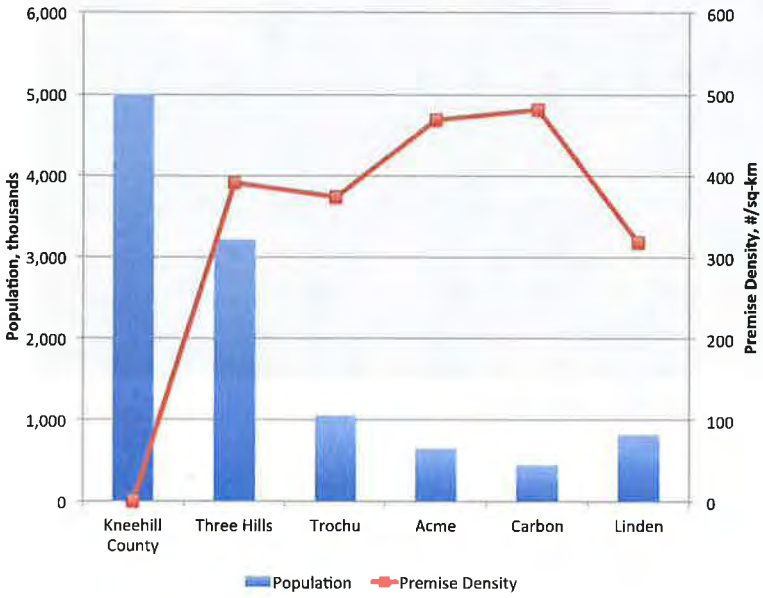
5.2 Kneehill County

5.2.1 Regional Profile

Kneehill County encompasses two towns, three villages, and seven hamlets. The region is home to 11,206 residents, of which 6,205 live in the towns and villages – leaving 5,001 dispersed throughout the rest of the county with a premise density of 0.55 homes/km^2 (2016). The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets	
Kneehill County		Three Hills Trochu	Acme Carbon Linden		Bircham Hesketh Huxley Sunnyslope	Swalwell Torrington Wimborne

Given their small size, the municipalities and more rural areas will need to collaborate to pursue the more resource intensive broadband options.



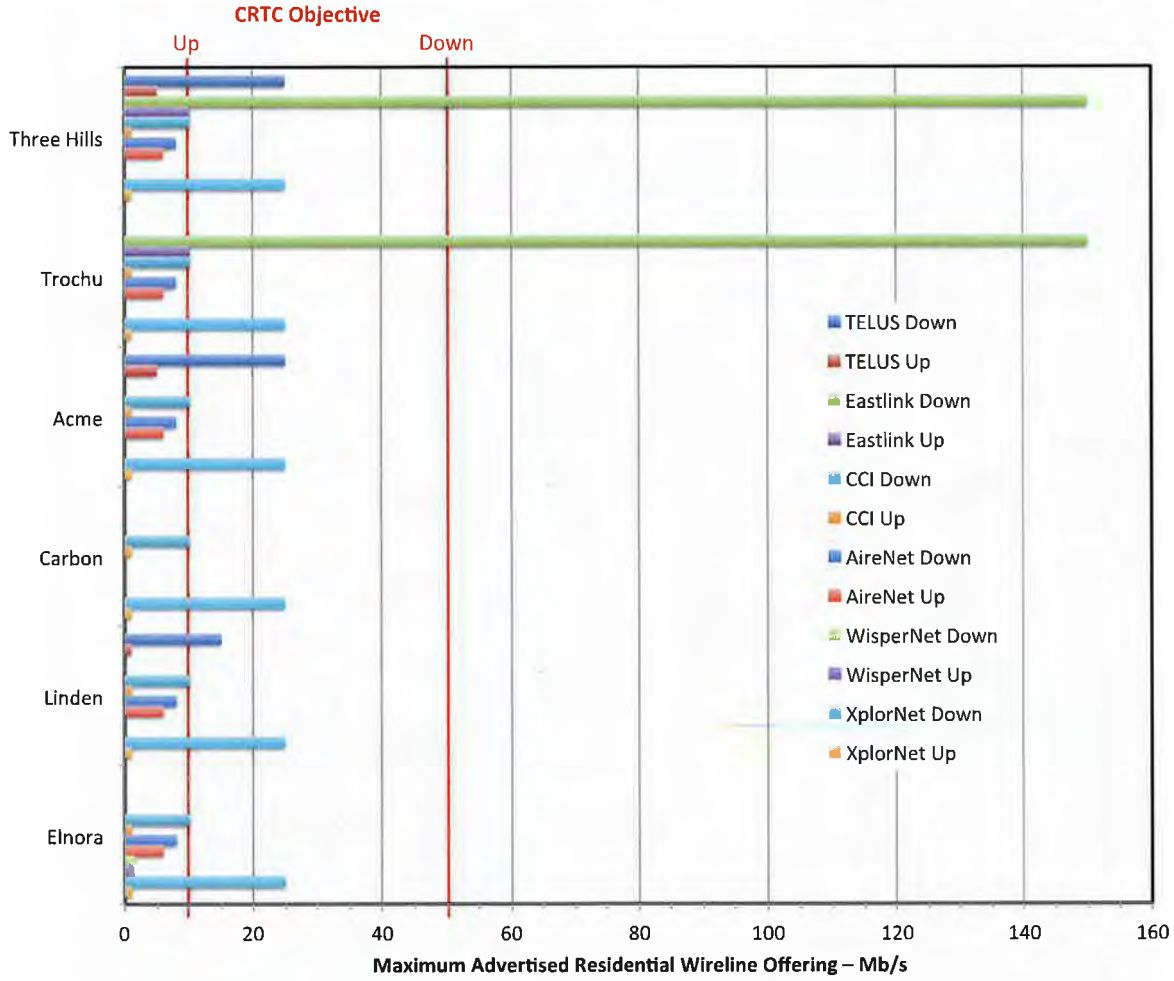
5.2.2 Civil Works

Currently, there are no infrastructure projects over $5M planned for the area.

5.2.3 Service Availability

5.2.3.1 Populated Areas

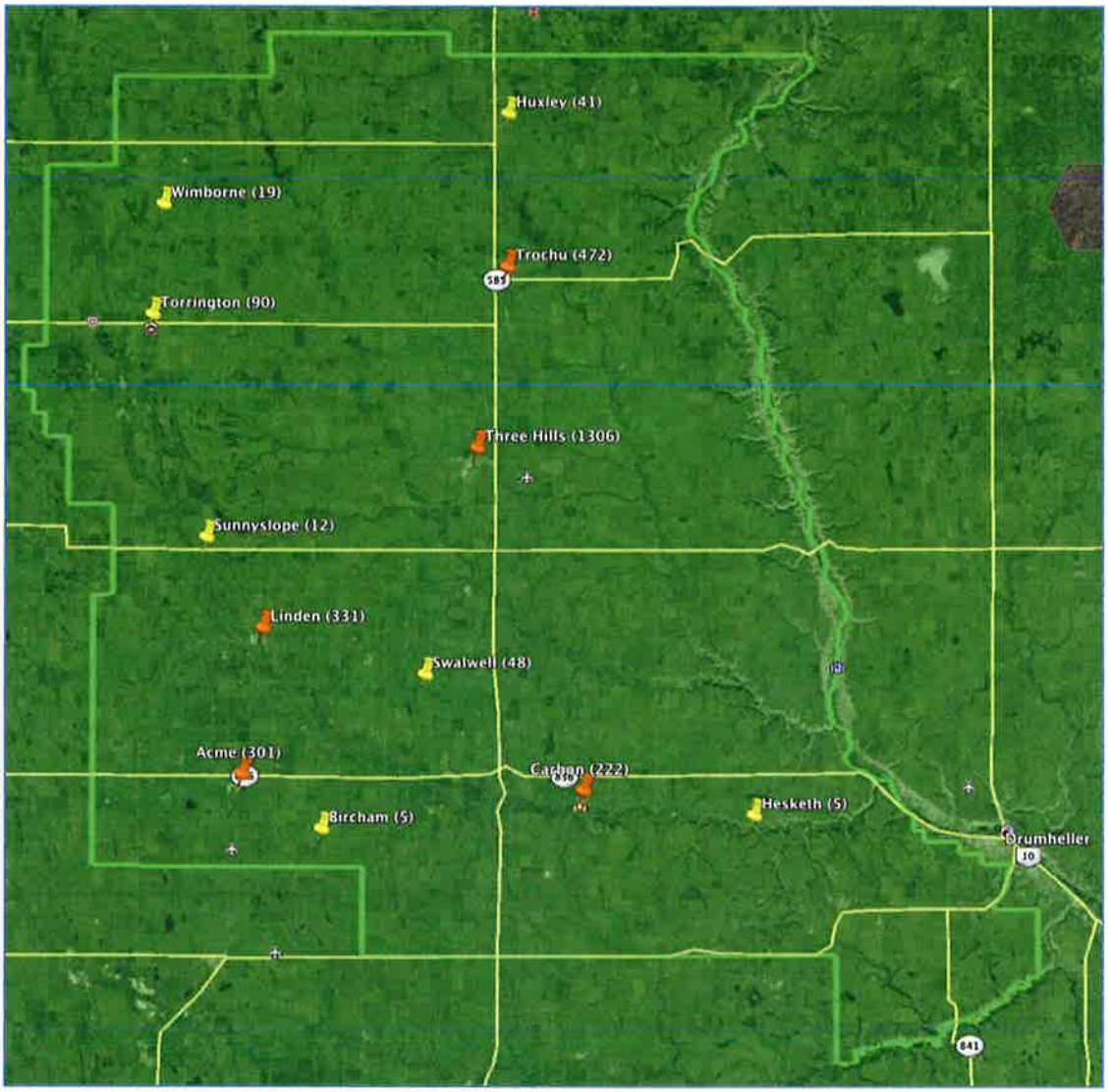
A chart showing the maximum advertised residential downstream (toward the client) service offerings in the populated areas of the County appear in the next chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less – Shaw more so than TELUS due to the way the aggregation is implemented. In both cases, the offerings are highly asymmetric – upload and download bit rates differ significantly. Except for the Eastlink services in Three Hills and Trochu – which meets the new CRTC guideline of 50 Mb/s down by 10 Mb/s up, services throughout the county are uniformly poor.



5.2.3.2 Rural Areas – Fixed Wireless Services

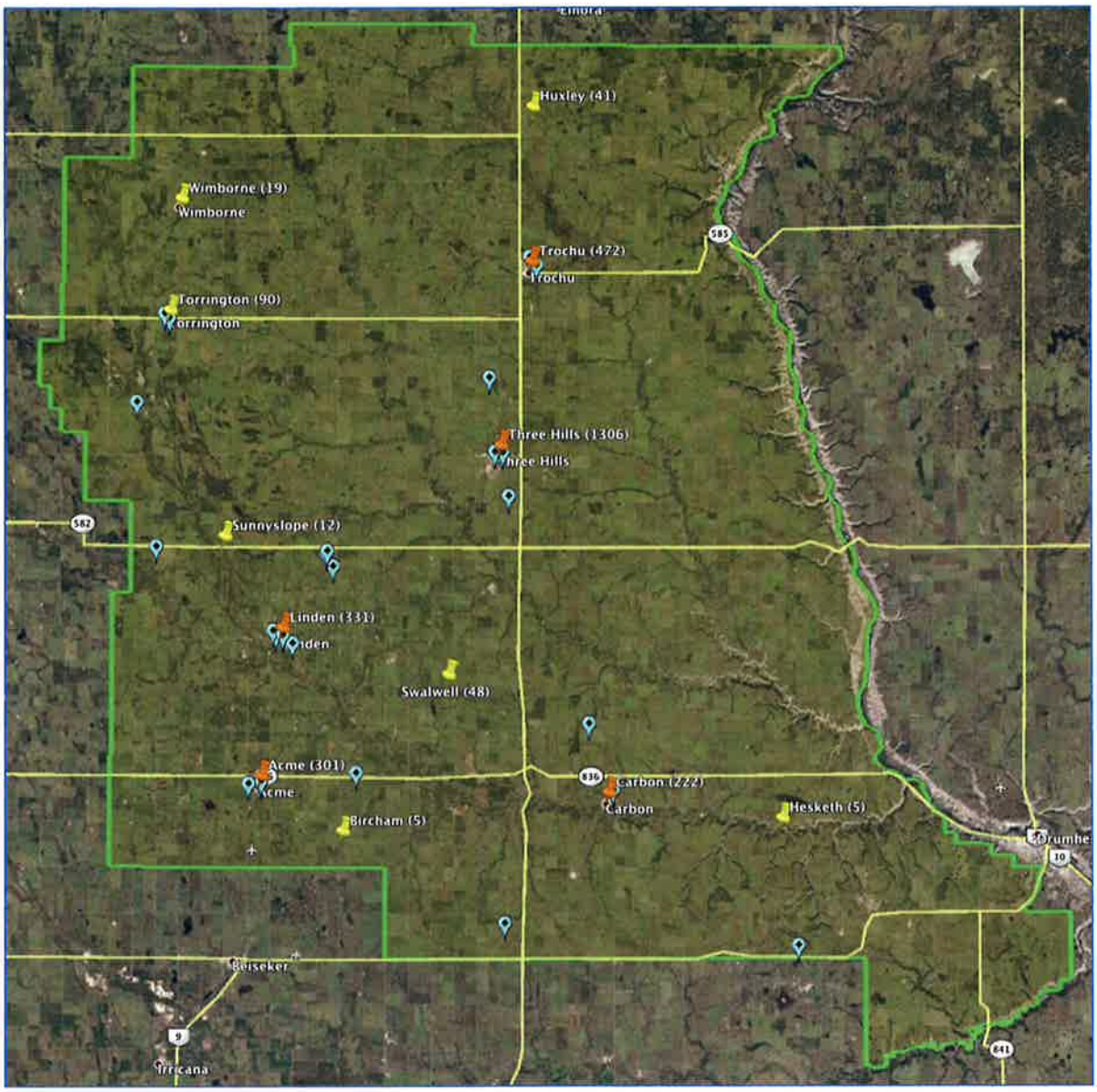
Wireless services in the County are available from CCI, AireNet, WisperNet, and XplorNet. According to the CRTC website[18], the composite fixed wireless coverage from the three providers appears on the following map, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.

[18] http://www.crtc.gc.ca/eng/internet/internetcanada.htm



Fixed Wireless Coverage

The following *Fixed Wireless Towers* map shows the fixed wireless towers located in Kneehill County – the towers are marked with blue balloons.



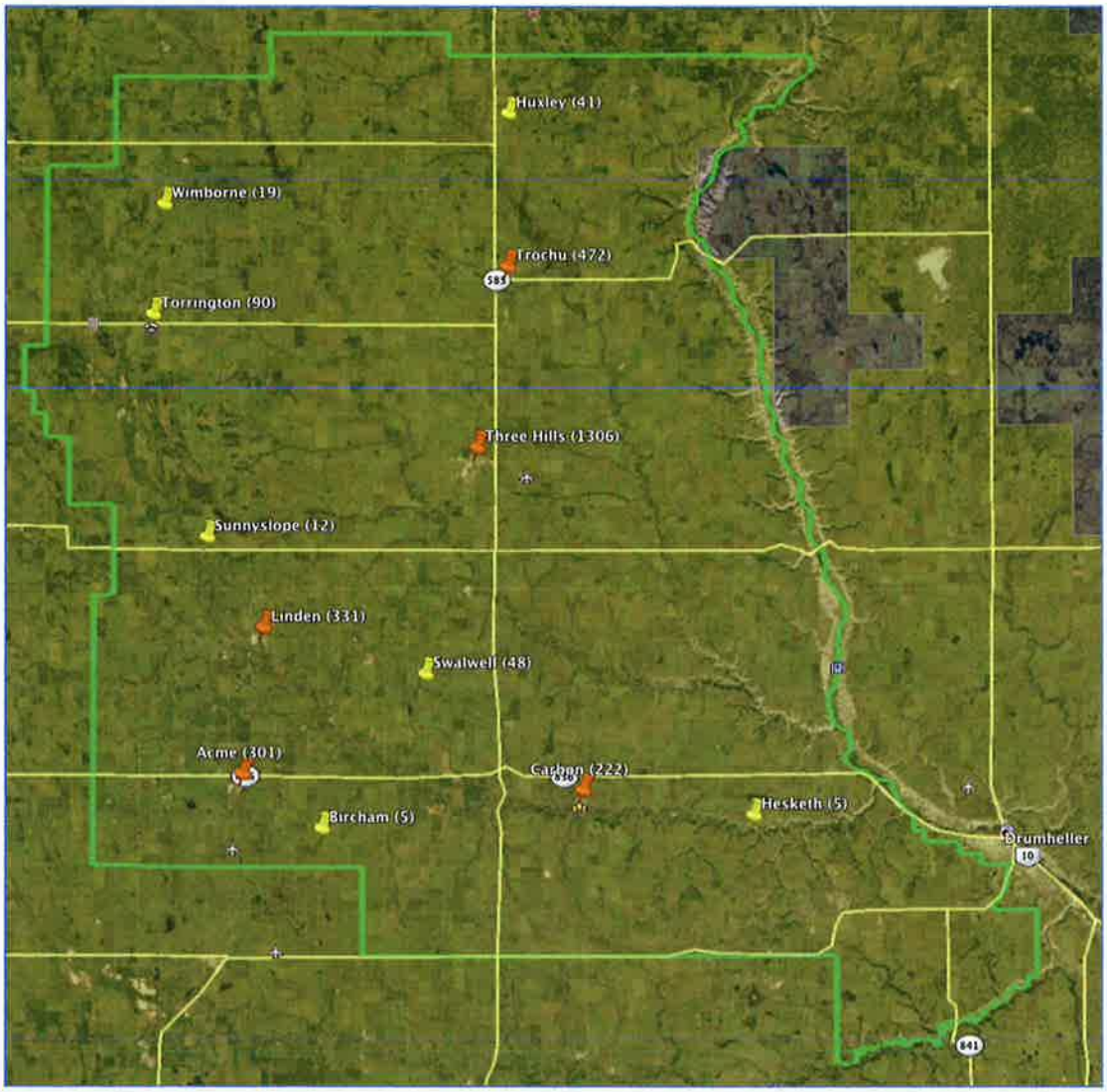
Fixed Wireless Towers

5.2.3.3 Wi-Fi Services

No Shaw Go WiFi services are available in the Kneehill area.

5.2.3.4 Mobility

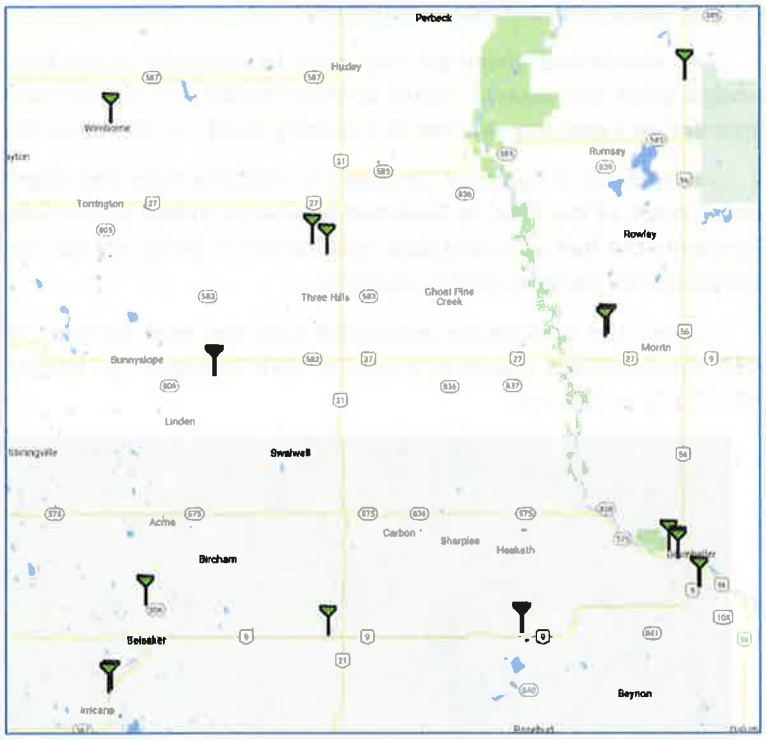
For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the map below, *Cellular LTE Coverage*. If their view is accurate, coverage is good throughout most of the County. Again, in this context, availability is based on the CRTC minimum bit rates of 5 Mb/s downstream by 1 Mb/s upstream.



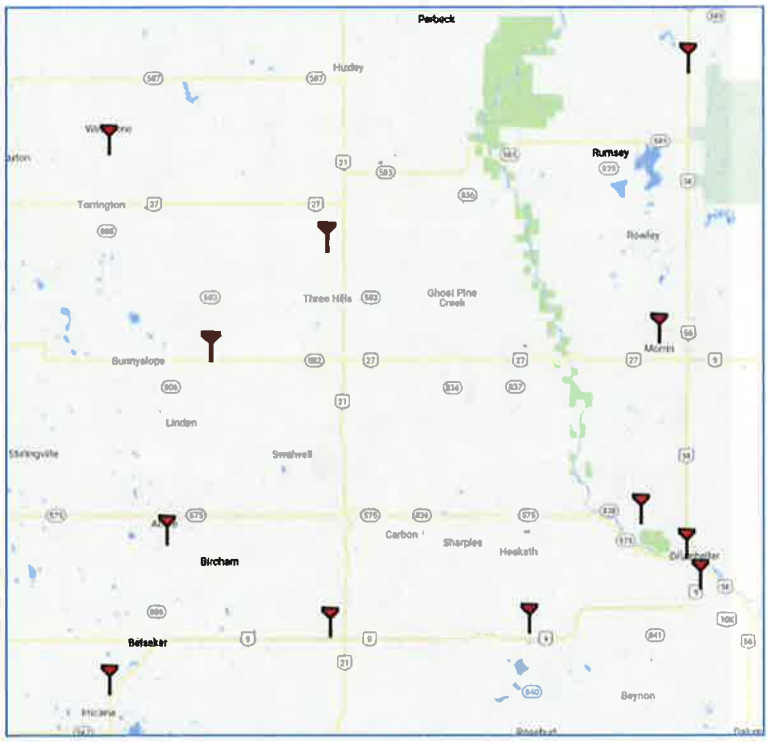
Cellular LTE Coverage

The availability of the mobility towers in the County of Forty Mile appears in the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.

TELUS/Bell Mobility Towers



Rogers Mobility Towers

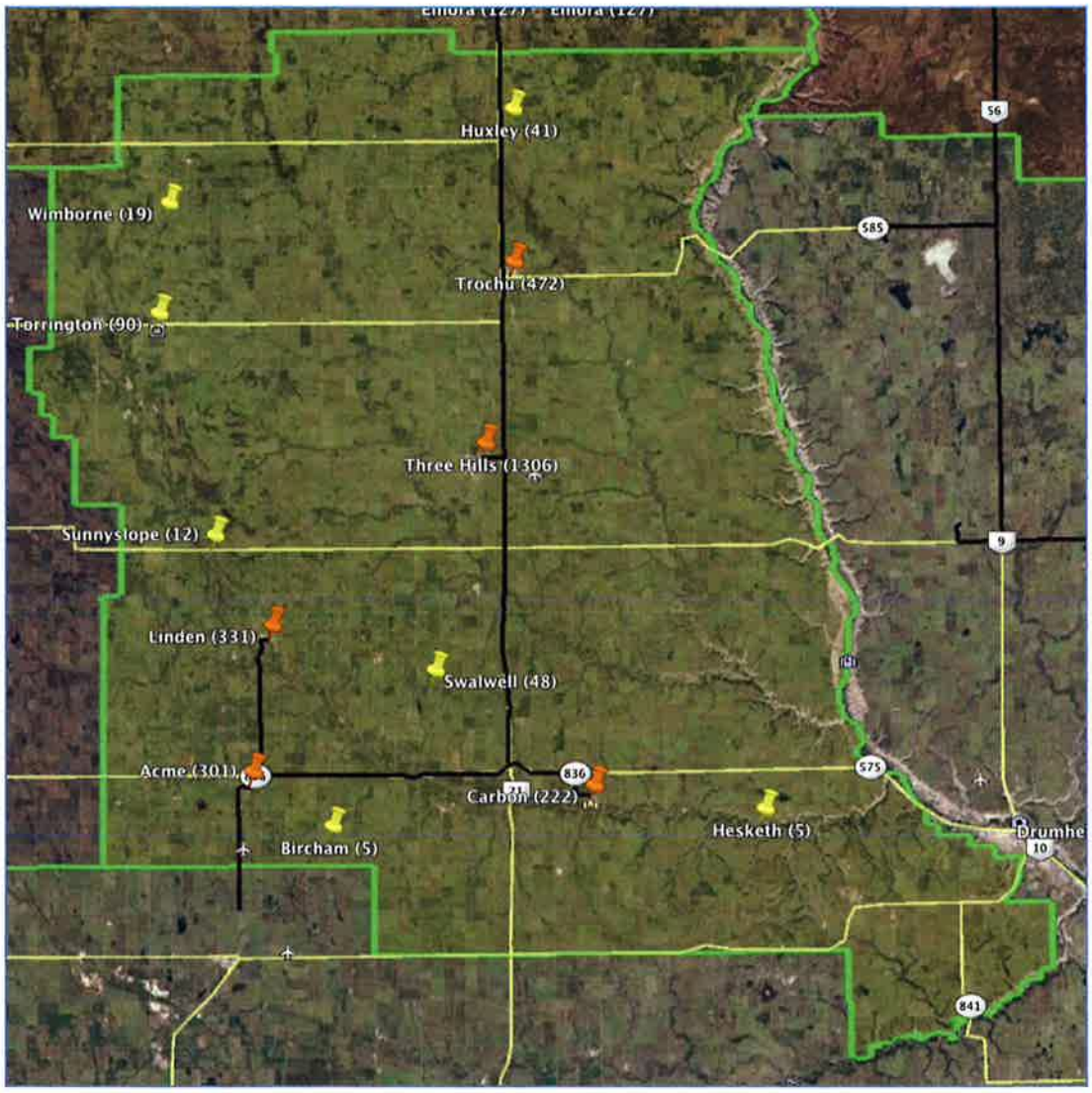


5.2.3.5 Backhaul Service Availability

As mentioned, there are two parts to deploying a functional network – the backhaul or transit services piece and access. Transit services enable the interconnection of community networks to each other and to a gateway services at a peering point – in this case, the YYCIX Internet Exchange in Calgary.

Wholesale lit backhaul services are available from the Alberta SuperNet, Eastlink, and TELUS. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.

Given the uncertainty associated with the next iteration of the *SuperNet* contract by June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary may wish to approach, Bell, TELUS, or Eastlink.



Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

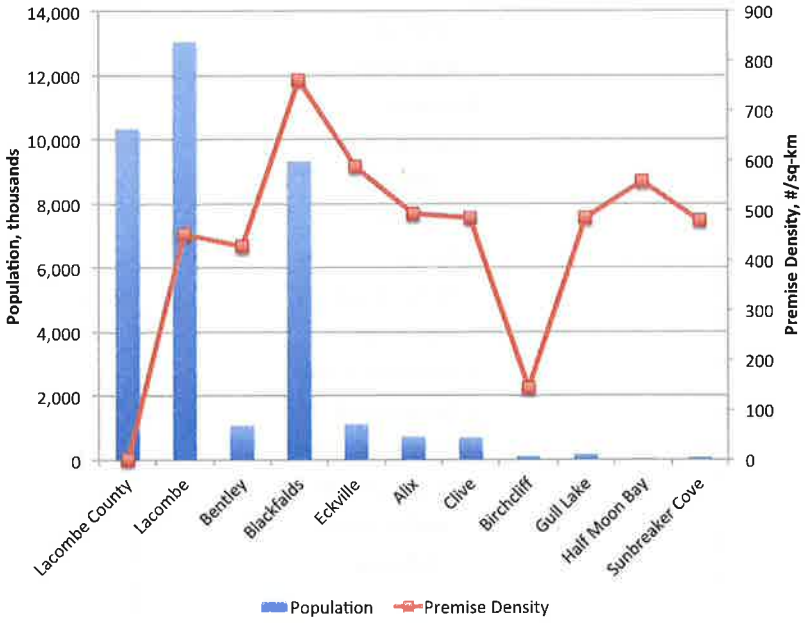
5.3 Lacombe County

5.3.1 Regional Profile

Lacombe County encompasses one city, three towns, two villages, four summer villages, and five hamlets. The region is home to 36,796 residents, of which 13,057 live in Lacombe, 9,328 in Blackfalds, and 4,068 in the towns and villages – leaving 10,343 dispersed throughout the rest of the county with a premise density of 1.69 homes/km^2 (2016). The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets	
Lacombe County	Lacombe	Bentley Blackfalds Eckville	Alix Clive	Birchoff Gull Lake Half Moon Bay Sunbreaker Cove	Haynes Joffre Mirror	Morningside Tees

Whereas Brooks has sufficient resources to unilaterally pursue whatever opportunities it wishes, the smaller towns, villages, and more rural areas will need to collaborate with their neighbours to pursue the more resource intensive broadband options.



5.3.2 Civil Works

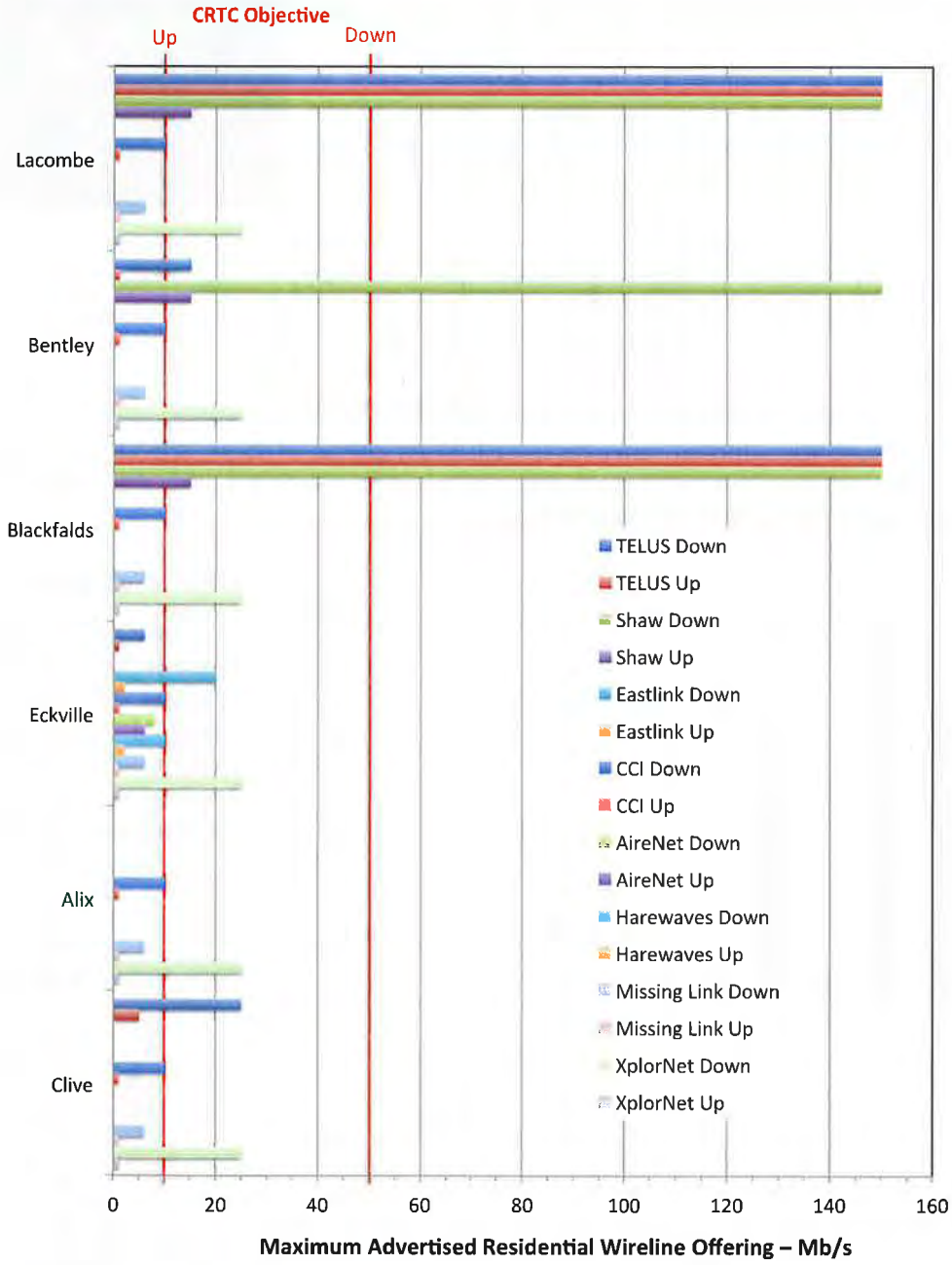
One capital project in excess of $5M that might be leveraged to reduce costs associated with a potential deployment of fibre infra-structure in the County is the $71M water/wastewater project running from Red Deer to Lacombe. As it's currently underway, it may be too late for the portions of the line being deployed this year. It may, however, be possible to leverage the remaining build in 2018.

5.3.3 Service Availability

5.3.3.1 Populated Areas

A chart showing the maximum advertised residential downstream service offerings in the populated areas of the County appear in the chart below. As these are 'up to' bit rates, during high

usage periods, actual bit rates will be less – Shaw and Eastlink more so than TELUS due to the way the aggregation is implemented. Outside of TELUS fibre services in Lacombe and Blackfalds and the Shaw service in Bentley, services on par with the new CRTC 50 by 10 Mb/s objectives are not available.

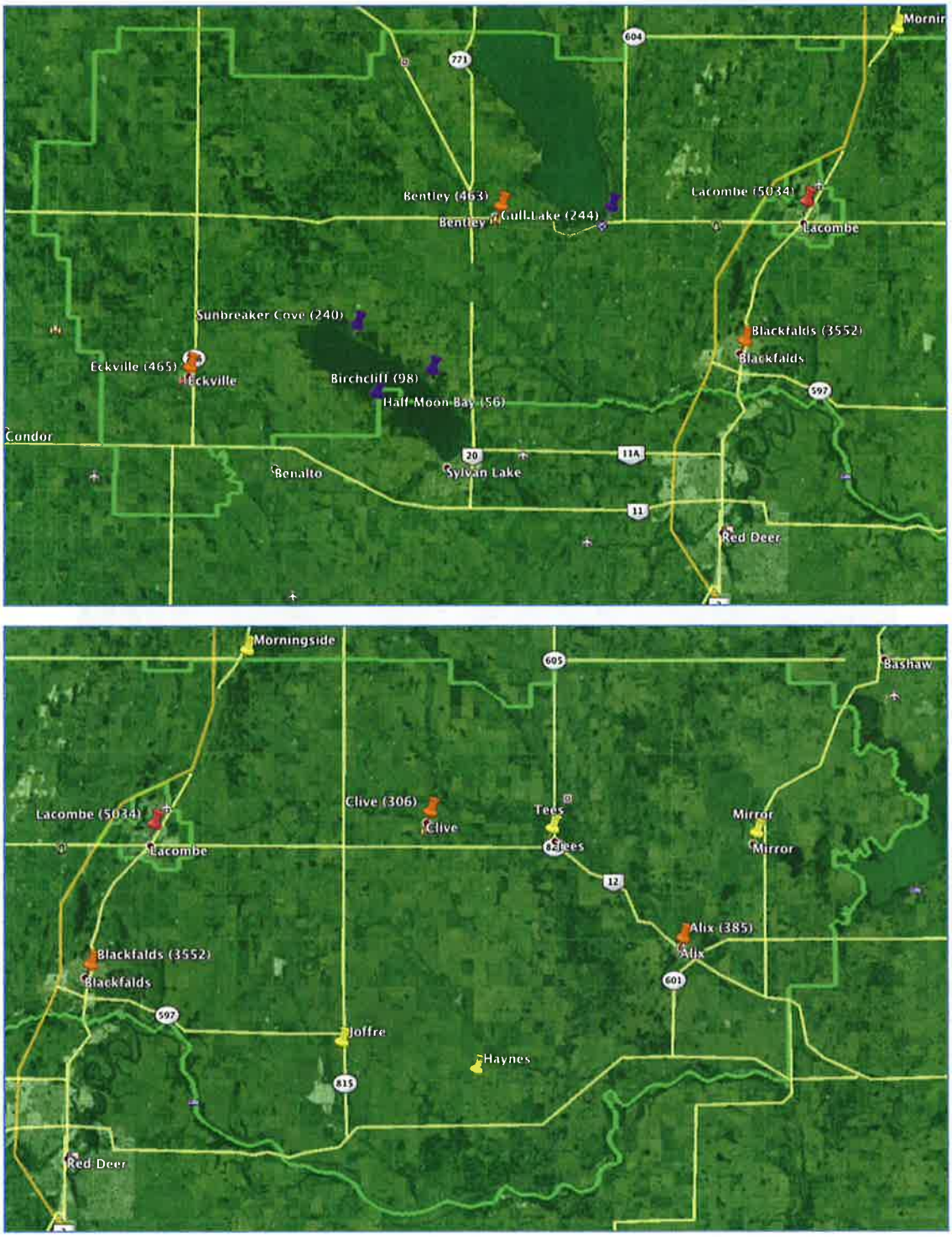


5.3.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are largely available only from CCI, AireNet, Harewaves, Missing Link, and XplorNet. According to the CRTC website[19], the composite fixed wireless coverage from these

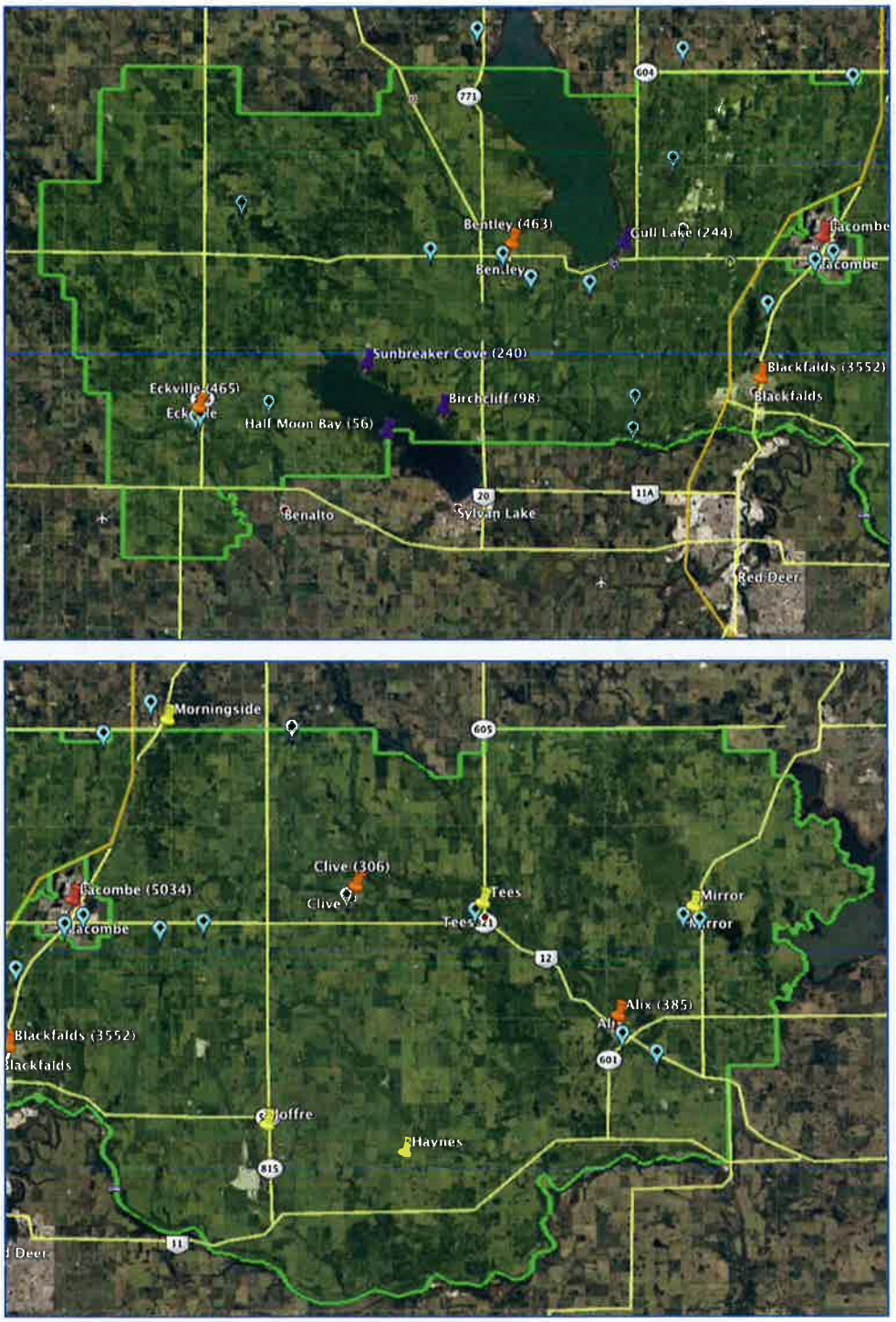
[19] http://www.crtc.gc.ca/eng/internet/internetcanada.htm

providers appears on the following map, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.



Fixed Wireless Coverage

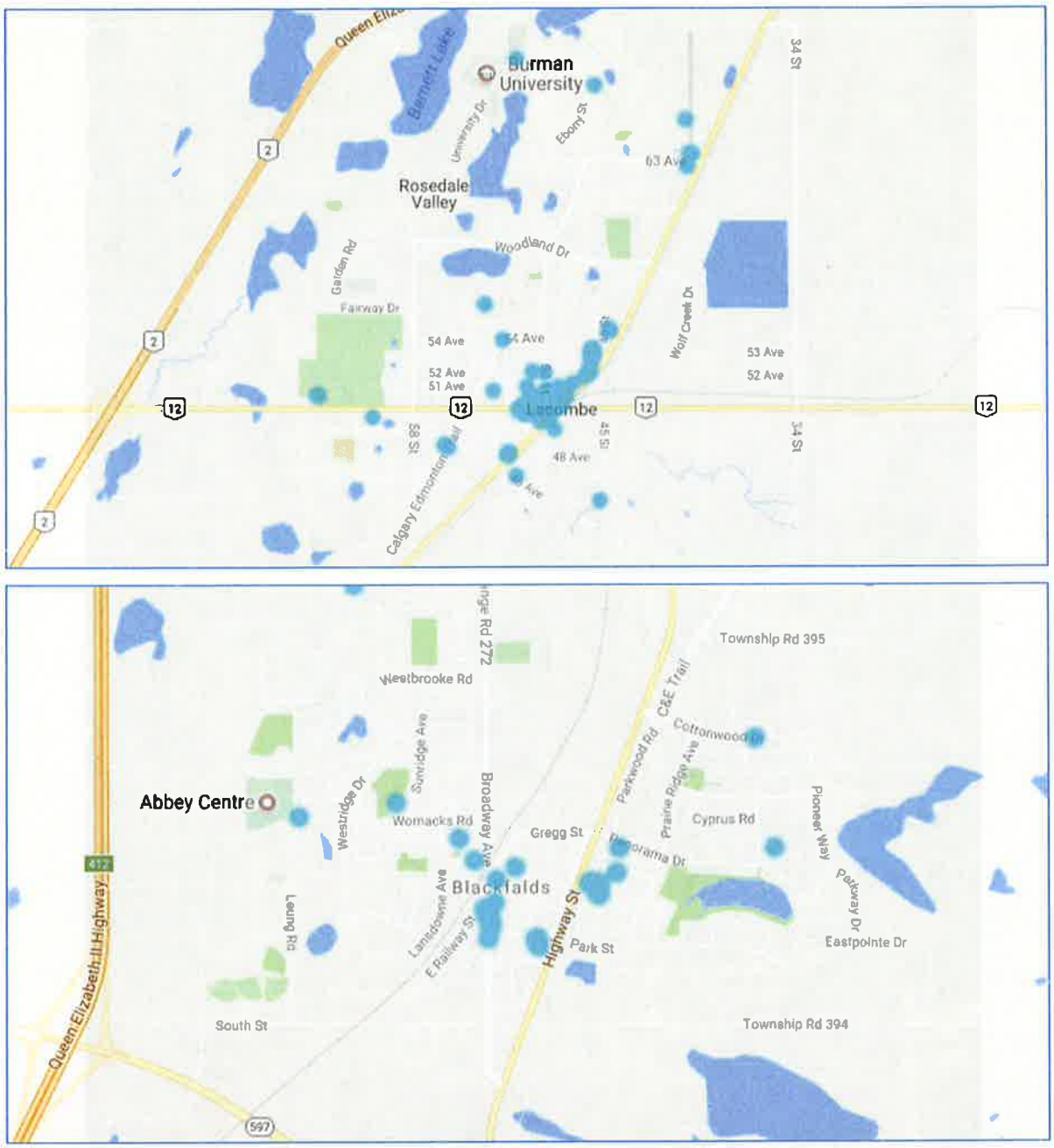
The following *Fixed Wireless Towers* map shows the fixed wireless towers located in Lacombe County – the towers are marked with blue balloons.



Fixed Wireless Towers

5.3.3.3 Wi-Fi Services

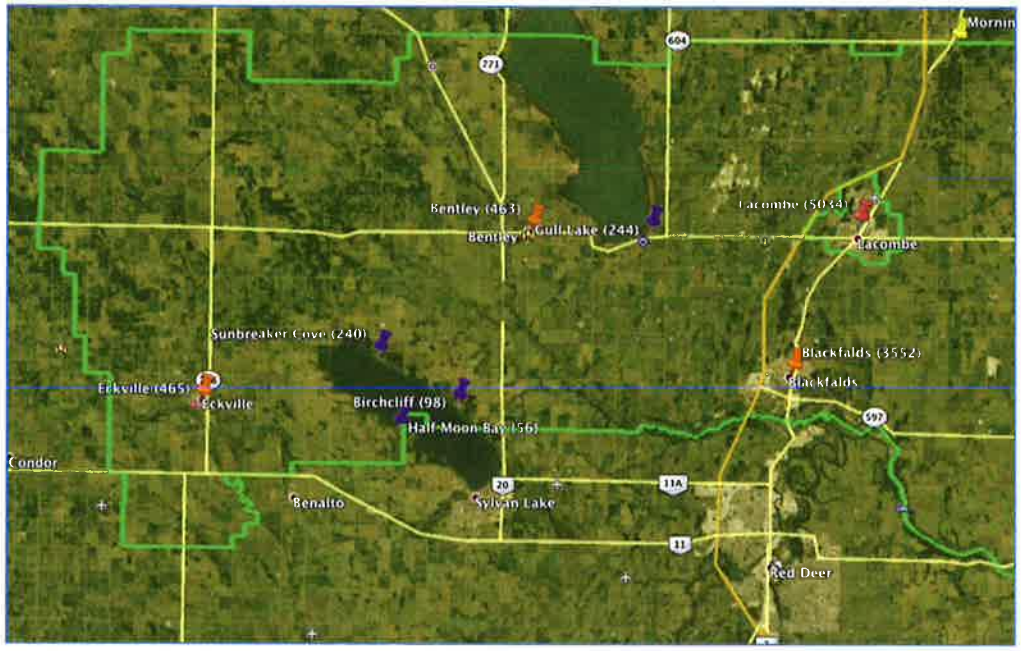
Shaw Go WiFi services are available in Lacombe and Blackfalds and are shown on the *Shaw Go WiFi Locations* maps. Each dot represents a Shaw Go Wifi location.



Shaw Go WiFi Locations

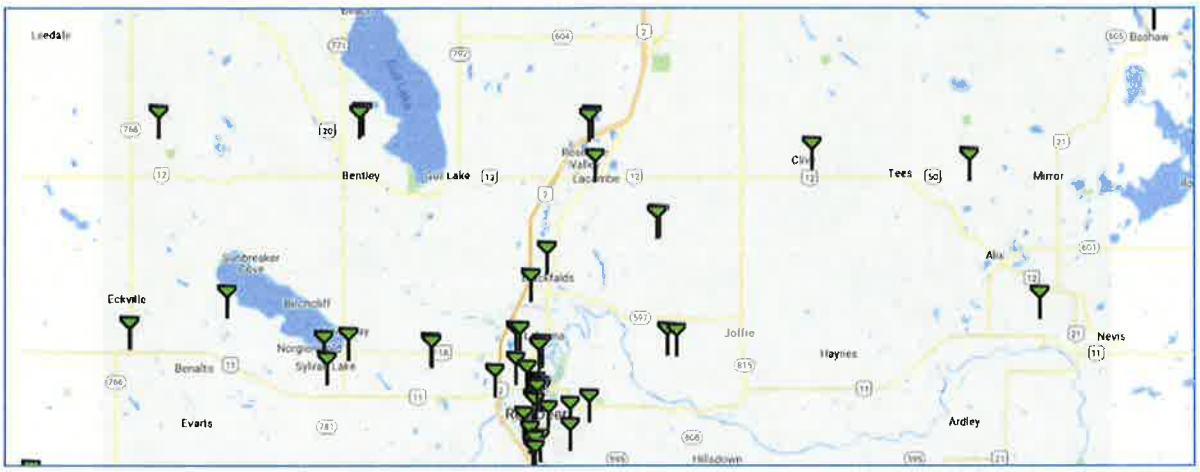
5.3.3.4 Mobility

For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the map below, *Cellular LTE Coverage*. If their view is accurate, coverage is excellent and covers the entire County.

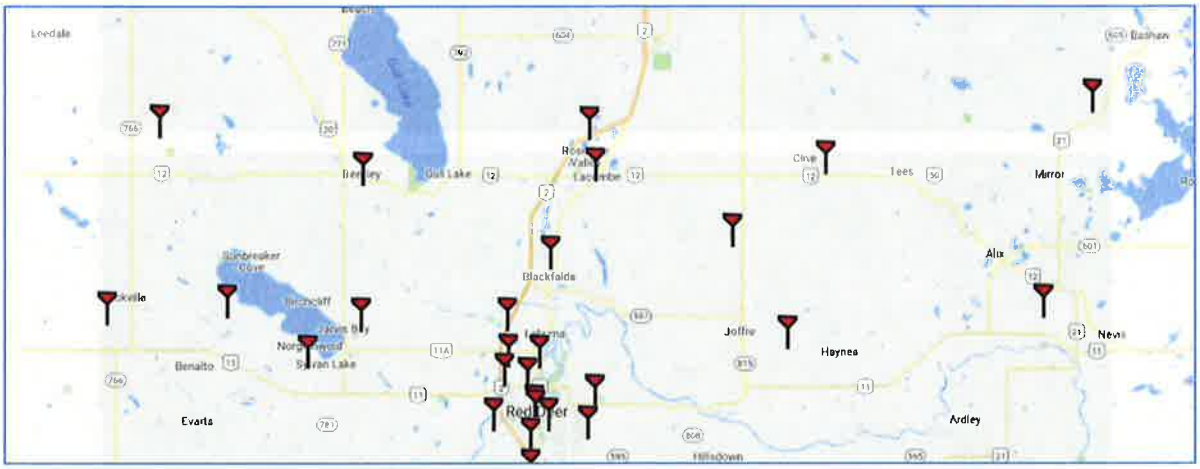


Cellular LTE Coverage

The availability of the mobility towers in the County of Newell appears in the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.



TELUS/Bell Mobility Towers

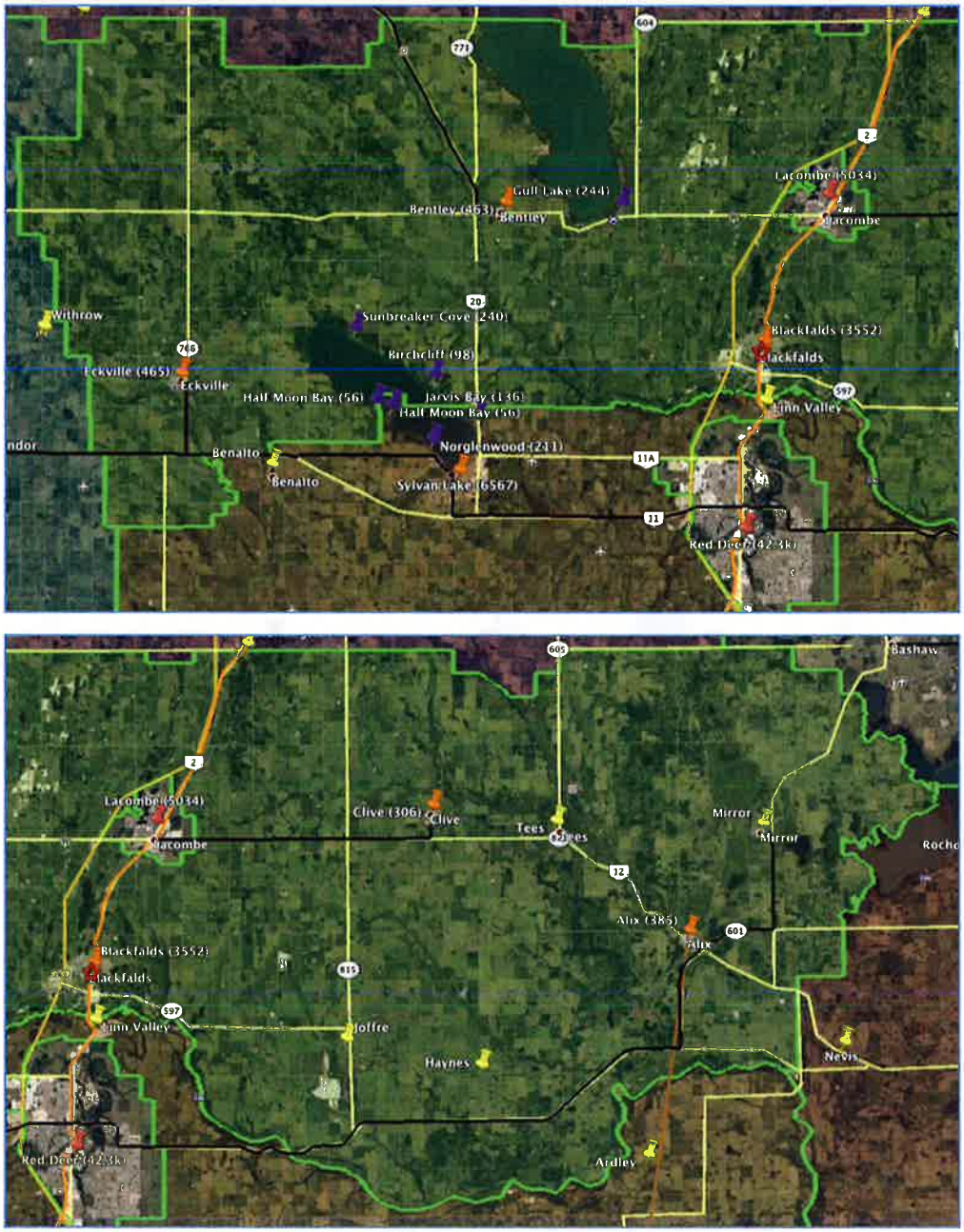


Rogers Mobility Towers

5.3.3.5 Backhaul Service Availability

As mentioned, there are two parts to deploying a functional network – the backhaul or transit services piece and access. Transit services enable the interconnection of community networks to each other and to a gateway services at a peering point – in this case, the YYCIX Internet Exchange in Calgary.

Wholesale lit backhaul services are available from the Alberta SuperNet, Bell, TELUS, and Eastlink. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet.* Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.



Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

Given the uncertainty associated with the expiration of the current *SuperNet* contract at midnight June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary (or Edmonton) may wish to approach Bell, TELUS, or Shaw.

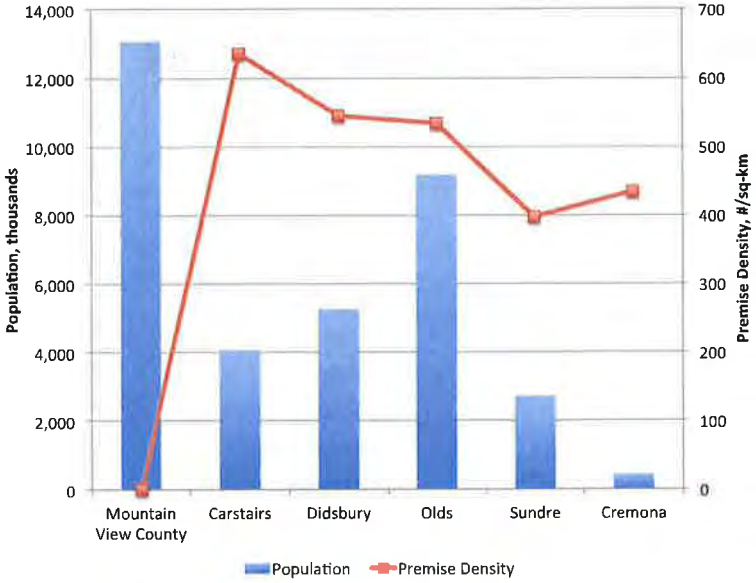
5.4 Mountain View County

5.4.1 Regional Profile

Mountain View County encompasses four towns and one village. As of 2016, the region was home to 34,776 residents, of which 9,184 live in Olds, 5,268 in Didsbury and 7,250 in the remaining the towns and village – leaving 13,074 dispersed throughout the rest of the county with a premise density of 1.5 homes/km^2 (2016). The population and density distributions appear in the chart.

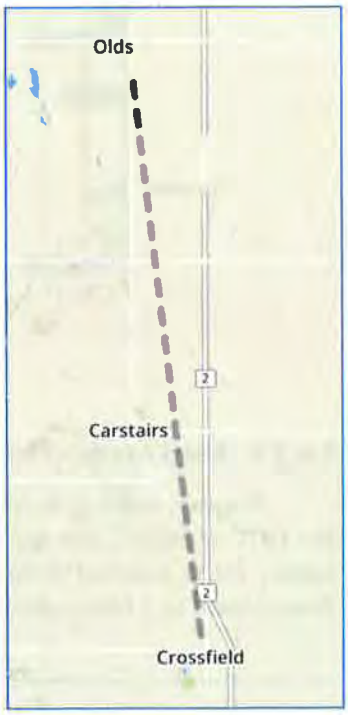
	Cities	Towns	Villages	Summer Villages	Hamlets
Mountain View County		Carstairs Didsbury Olds Sundre	Cremona		

Olds has established fibre services on its own and Sundre is evaluating options to do so as well. Didsbury has TELUS fibre. Given their smaller size, Carstairs, Cremona, and the more rural areas will need to collaborate to pursue the more resource intensive broadband options.



5.4.2 Civil Works

The project to twin the waterline running between Crossfield and Olds may be a good opportunity to place fibre conduit. Deployment is scheduled for the 2018/19 timeframe.

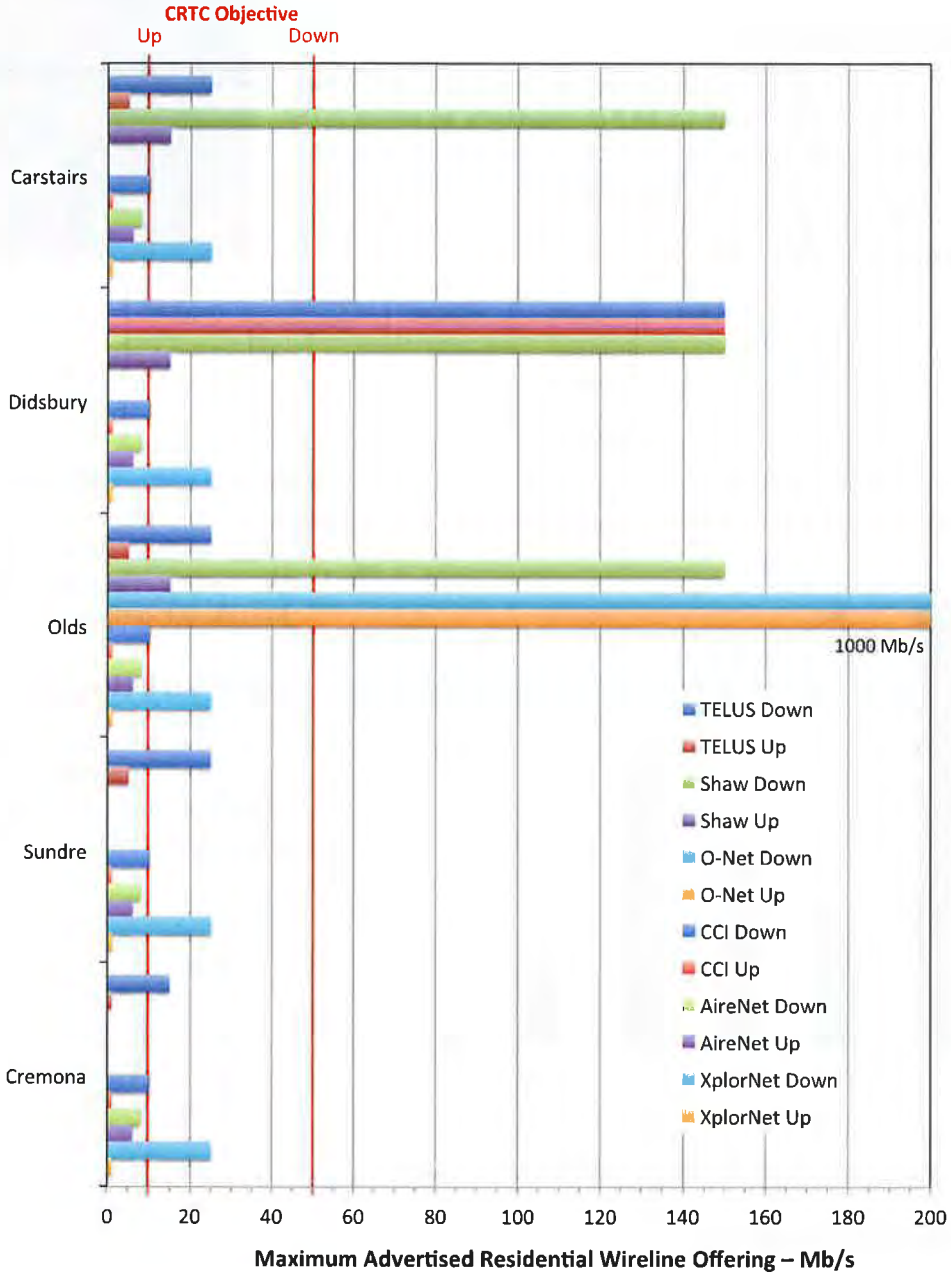


5.4.3 Service Availability

5.4.3.1 Populated Areas

A chart showing the maximum advertised residential downstream service offerings in the populated areas of the County appear in the next chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less – Shaw more so than TELUS due to the way the aggregation is implemented. Outside of Didsbury and Olds, the offerings are highly asymmetric – upload and download bit rates differ signify-cantly. Except for the TELUS' fibre service in Didsbury and O-Net's services in Olds, each of which clearly exceeds the new CRTC guideline of

50 Mb/s down by 10 Mb/s up, services throughout the rest of the region do not.



5.4.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are available only from CCI, AireNet, and XplorNet. According to the CRTC website[20], the composite fixed wireless coverage from these providers appears on the map below, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.

[20] http://www.crtc.gc.ca/eng/internet/internetcanada.htm

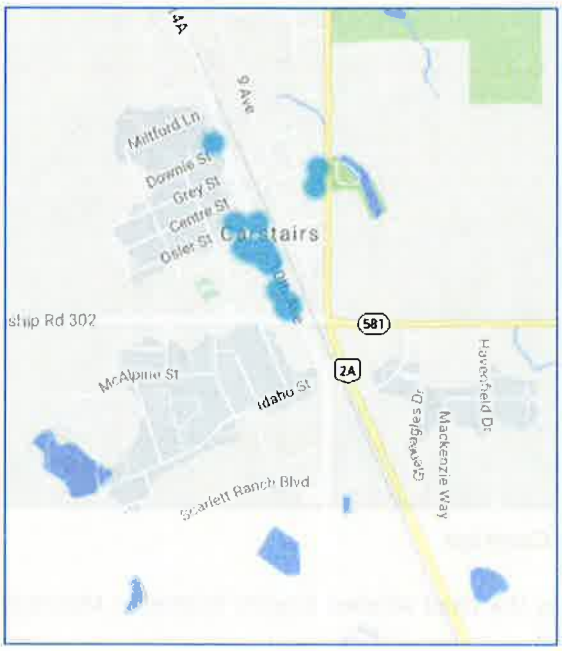
Fixed Wireless Coverage

The following map, *Fixed Wireless Towers* shows the fixed wireless towers located in Mountain View County – the towers are marked with blue balloons.

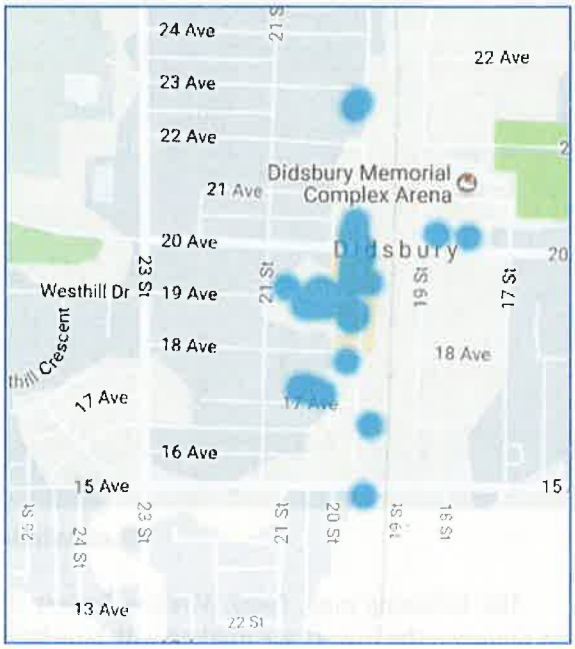
Fixed Wireless Towers

5.4.3.3 Wi-Fi Services

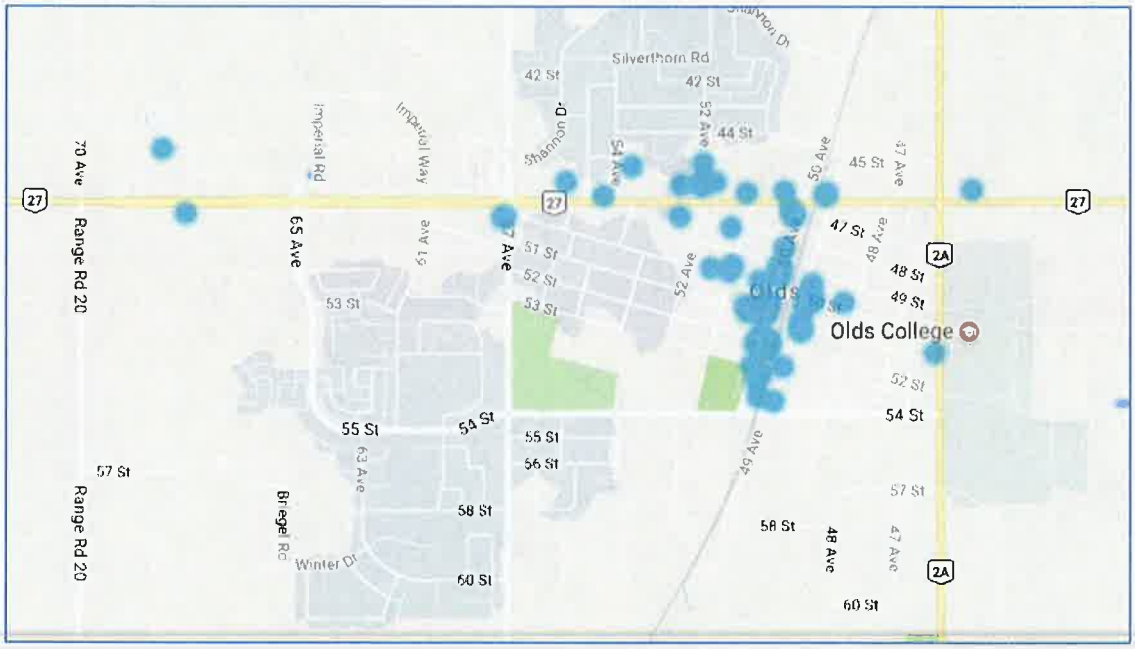
Shaw Go WiFi services are available in Carstairs, Didsbury, and Olds as show on the following maps, *Shaw Go WiFi in Carstairs, Shaw Go WiFi in Didsbury,* and *Shaw Go WiFi in Olds.* Wi-Fi services in Olds are also available from O-Net under a sponsorship agreement with Mountain View Power and are shown on the *Mountain View Power Sponsored WiFi in Olds* map. Each blue dot represents a Shaw Go WiFi location.



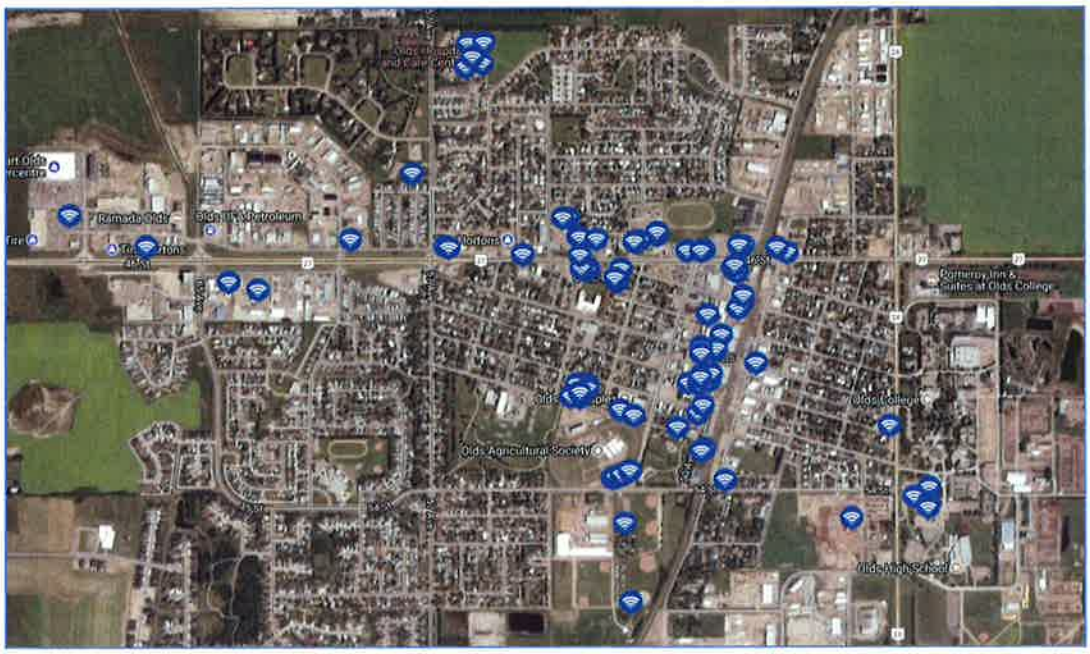
Shaw Go WiFi in Carstairs



Shaw Go WiFi in Didsbury



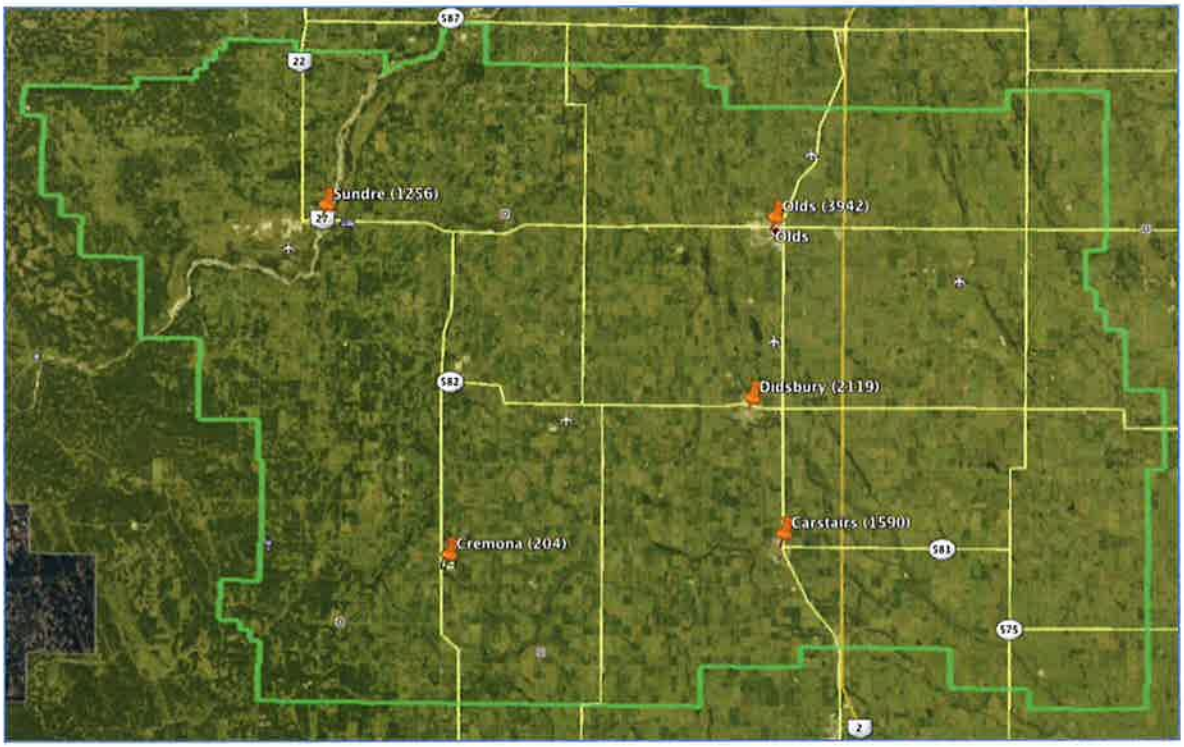
Shaw Go WiFi in Olds



Mountain View Power sponsored WiFi in Olds

5.4.3.4 Mobility

For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the below map, *Cellular LTE Coverage*. If their view is accurate, coverage is excellent and covers the entire County.

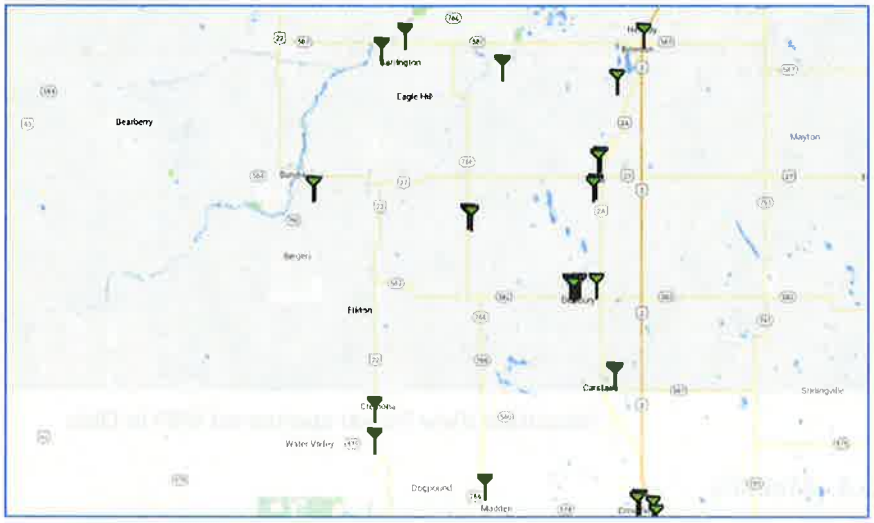


Cellular LTE Coverage

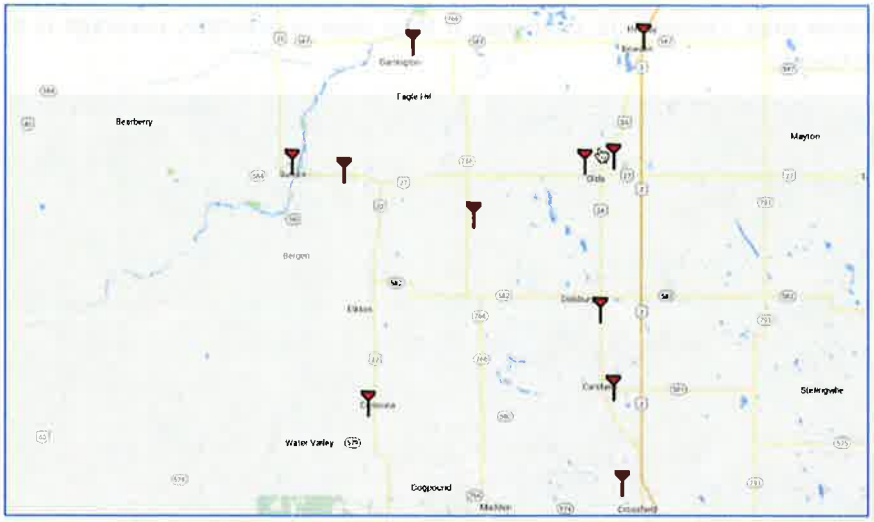
Again, in this context, availability is based on the CRTC minimum bit rates of 5 Mb/s downstream by 1 Mb/s upstream.

The availability of the mobility towers in Mountain View County appears on the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.

TELUS/Bell Mobility Towers



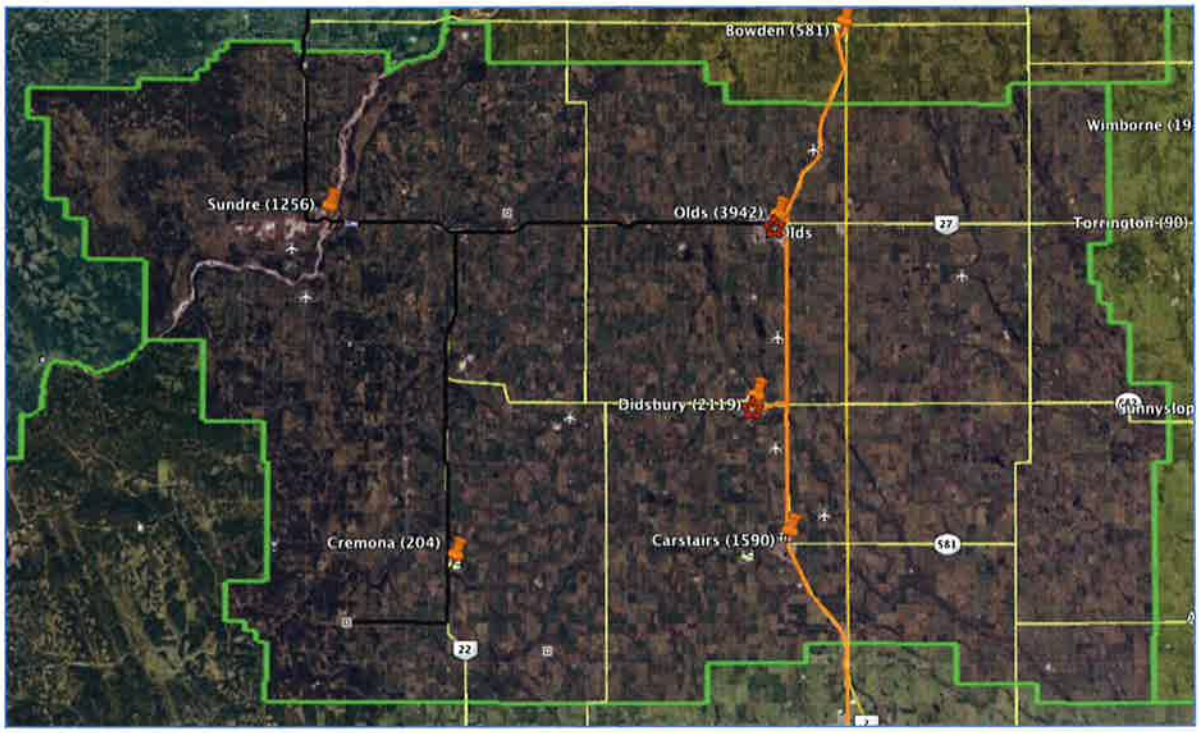
Rogers Mobility Towers



5.4.3.5 Backhaul Service Availability

As mentioned, there are two parts to deploying a functional network – the backhaul or transit services piece and access. Transit services enable the interconnection of community networks to each other and to a gateway services at a peering point – in this case, the YYCIX Internet Exchange in Calgary.

Wholesale lit backhaul services are available from the Alberta SuperNet, Bell, and TELUS. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.



Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

Given the uncertainty associated with the expiration of the current *SuperNet* contract at midnight June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary (or Edmonton) may wish to approach Bell, TELUS, or Shaw.

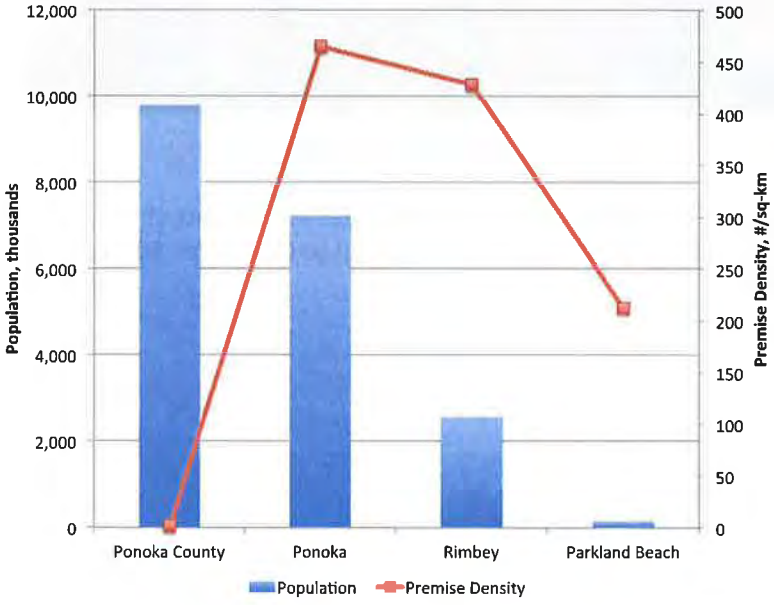
5.5 Ponoka County

5.5.1 *Regional Profile*

Ponoka County encompass two towns, a summer village, three hamlets and the Maskwaskis First Nation. As of 2016, the region is home to 19,755 residents, of which 7,229 live in Ponoka and 2,567 live Rimbey – leaving 9,806 dispersed throughout the rest of the county with a premise density of 1.45 homes/km^2. The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets	
Ponoka County		Ponoka Rimbey		Parkland Beach	Bluffton Hoadley	Leedale Maskwaskis

Given their small size of the communities outside of Ponoka, the municipalities and more rural areas will need to collaborate to pursue the more resource intensive broadband options.



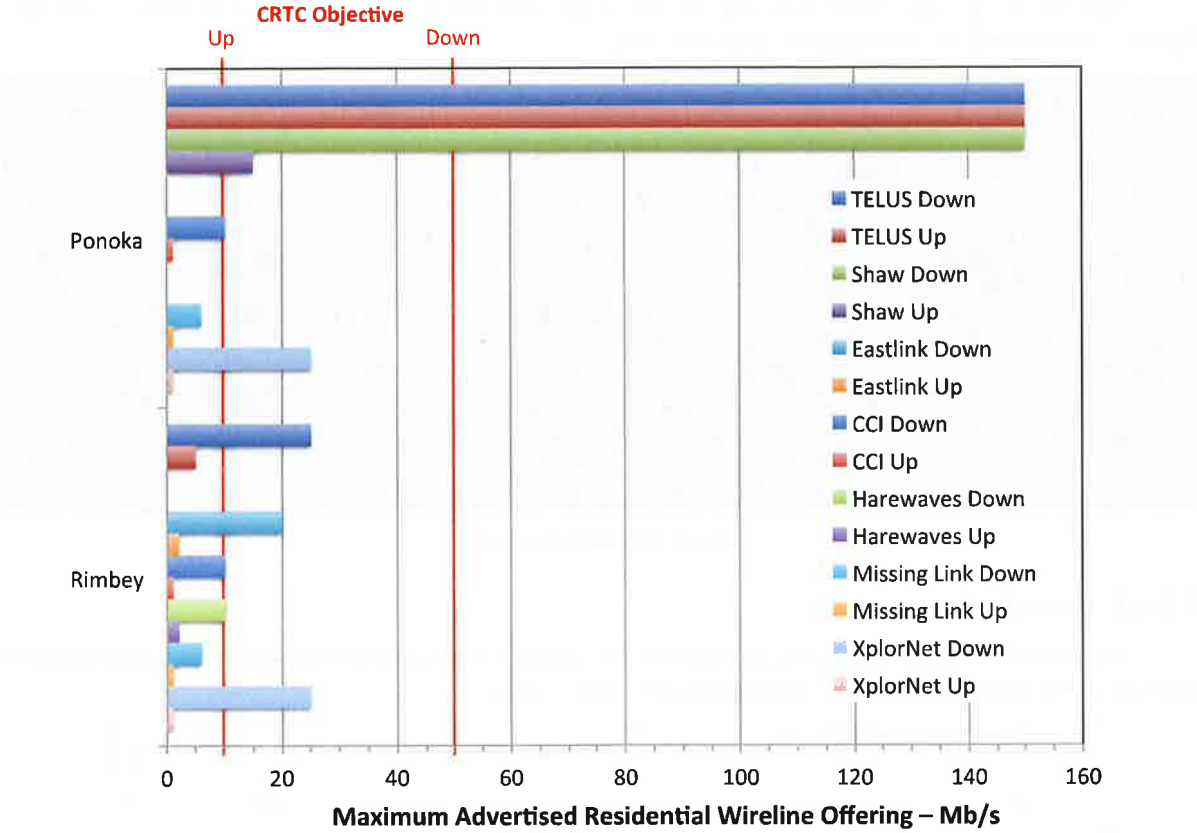
5.5.2 *Civil Works*

Currently, there are no infrastructure projects over $5M planned for the area.

5.5.3 *Service Availability*

5.5.3.1 Populated Areas

A chart showing the maximum advertised residential downstream service offerings in the populated areas of the County appear in the next chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less – Shaw more so than TELUS due to the way the aggregation is implemented. In both cases, the offerings are highly asymmetric – upload and download bit rates differ significantly. Except for the TELUS' fibre service in Ponoka, services within the county do not meet the new CRTC guideline of 50 Mb/s down by 10 Mb/s up.



5.5.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are available only from CCI, Harewaves, Missing Link, and XplorNet. According to the CRTC website[21], the composite fixed wireless coverage from these providers appears on the below map, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.

Fixed Wireless Coverage

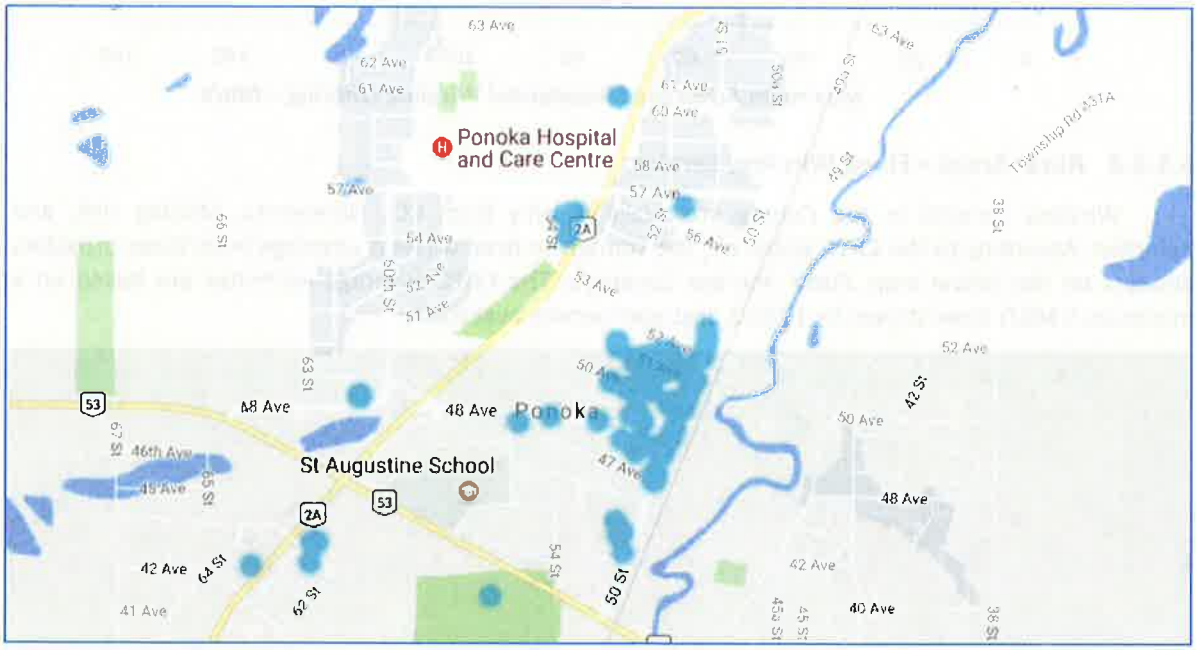
[21] http://www.crtc.gc.ca/eng/internet/internetcanada.htm

The following map *Fixed Wireless Towers* shows the fixed wireless towers located in Ponoka County – the towers are marked with blue balloons.

Fixed Wireless Towers

5.5.3.3 Wi-Fi Services

Shaw Go WiFi services are only available in Ponoka as shown on the following map, *Shaw Go WiFi Services in Ponoka*. Each blue dot represents a Go WiFi location.



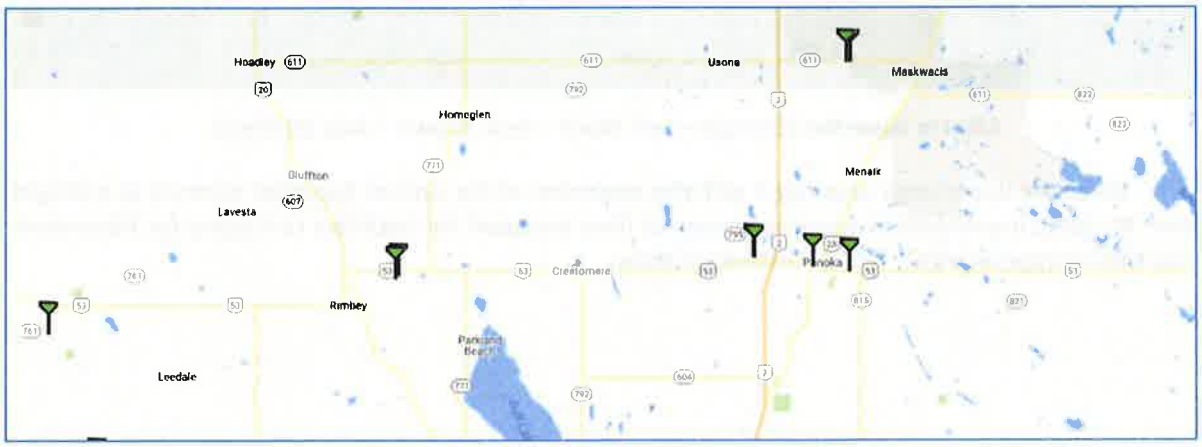
Shaw Go Wi-Fi Services in Ponoka

5.5.3.4 Mobility

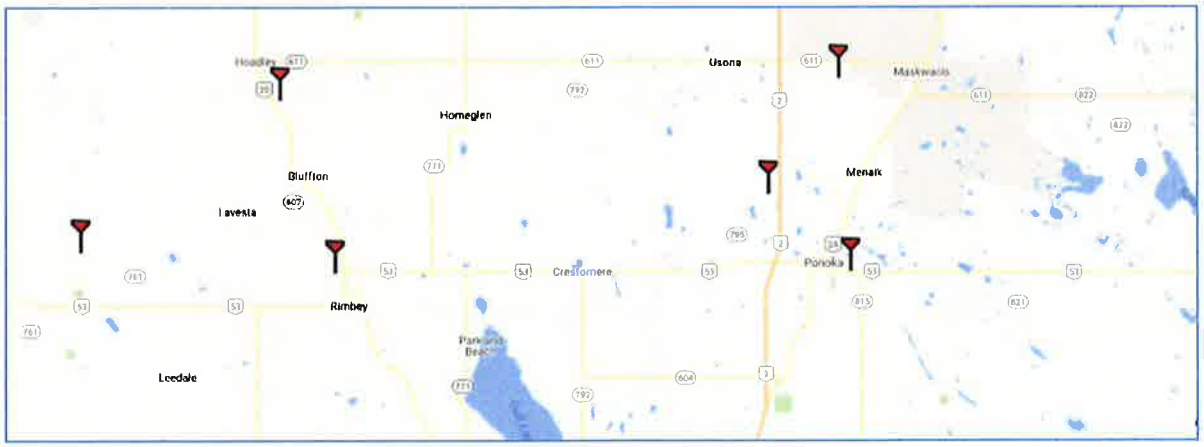
For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the below map, ***Cellular LTE Coverage***. If their view is accurate, the County is mostly well served. Again, in this context, availability is based on the CRTC minimum bit rates of 5 Mb/s downstream by 1 Mb/s upstream.

Cellular LTE Coverage

The availability of the mobility towers in Ponoka County appears in the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.



TELUS/Bell Mobility Towers



Rogers Mobility Towers

5.5.3.5 Backhaul Service Availability

As mentioned, there are two parts to deploying a functional network – the backhaul or transit services piece and access. Transit services enable the interconnection of community networks to each other and to a gateway services at a peering point – in this case, the YYCIX Internet Exchange in Calgary.

Wholesale lit backhaul services are available from the Alberta SuperNet, Bell, TELUS, Eastlink, and Shaw. The service reach of the Alberta SuperNet services is shown on the below map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.

Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

Given the uncertainty associated with the expiration of the current *SuperNet* contract at midnight June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary (or Edmonton) may wish to approach Bell, TELUS, Eastlink, or Shaw.

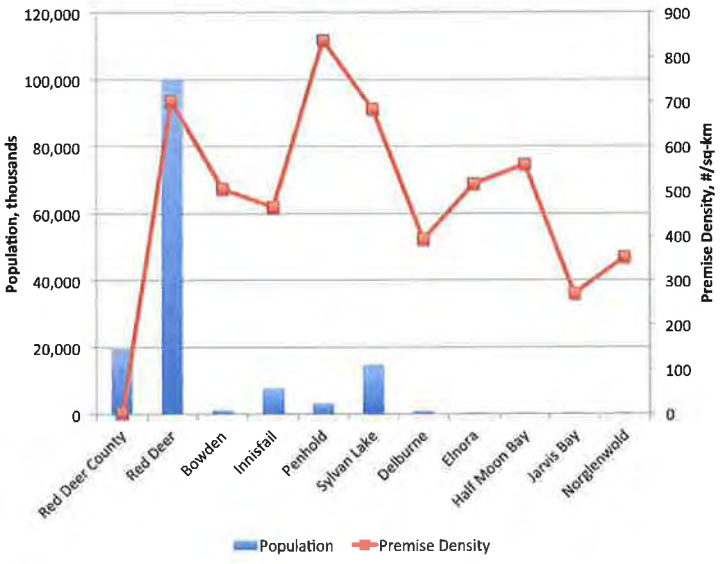
5.6 Red Deer County

5.6.1 Regional Profile

Red Deer County encompass one city, four towns, two villages, three summer villages, and eight hamlets. The region is home to 148,857 residents, of which 100,418 live in Red Deer, 14,816 live in Sylvan Lake, 7,847 live in Innisfail, and 6,235 live in the remaining towns and villages – leaving 19,541 dispersed throughout the rest of the county with a premise density of 2.07 homes/km^2 (2016). The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets	
Red Deer County	Red Deer	Bowden Innisfail Penhold Sylvan Lake	Delburne Elnora	Half Moon Bay Jarvis Bay Norglenwold	Ardley Benalto Dickson Linn Valley	Lousana Markerville Springbrook Spruce View

Given their small size, the municipalities and more rural areas will need to collaborate to pursue the more resource intensive broadband options.



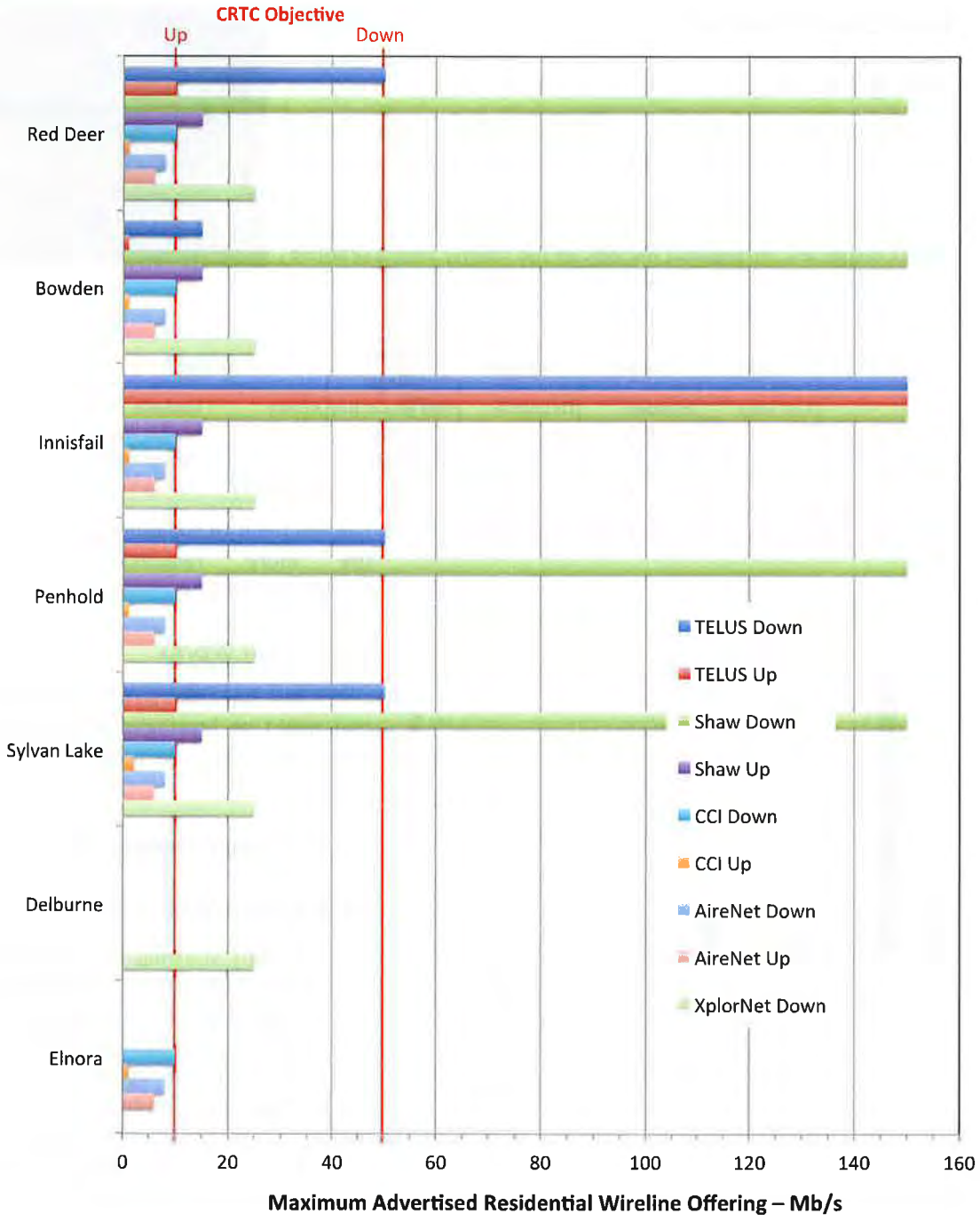
5.6.2 Civil Works

The one infrastructure project that might be leveraged is the $71M water pipeline project mentioned in Sub-sec. 5.3.2.

5.6.3 Service Availability

5.6.3.1 Populated Areas

A chart showing the maximum advertised residential downstream service offerings in the populated areas of the County appear in the next chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less – Shaw more so than TELUS due to the way the aggregation is implemented. Given the presence of TELUS and Shaw, the five major centres in Red County have services exceeding the new CRTC guideline of 50 Mb/s down by 10 Mb/s up. Services throughout the rest of the region do not.



5.6.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are available only from CCI, AireNet, and XplorNet. According to the CRTC website[22], the composite fixed wireless coverage from these providers appears on the next

[22] http://www.crtc.gc.ca/eng/internet/internetcanada.htm

map, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.

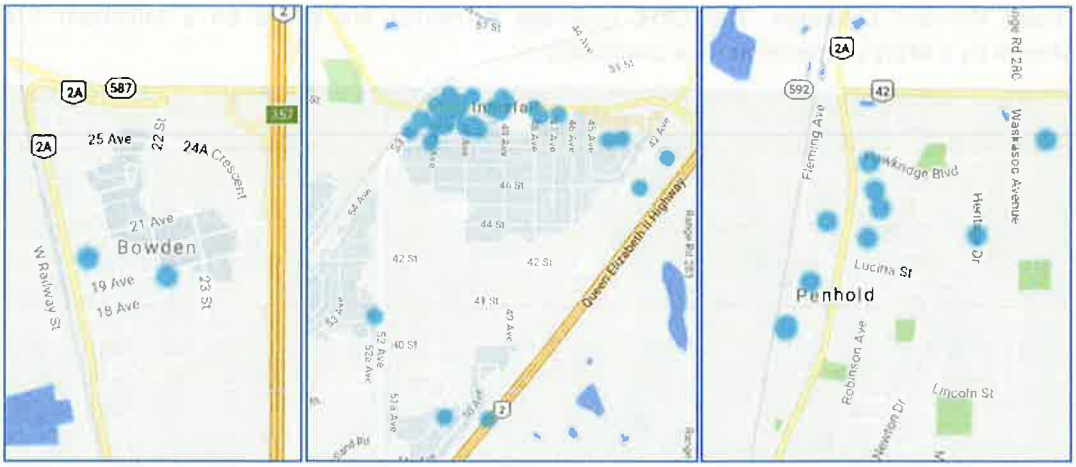
Fixed Wireless Coverage

The following map *Fixed Wireless Towers* shows the fixed wireless towers located in Red Deer County – the towers are marked with blue balloons.

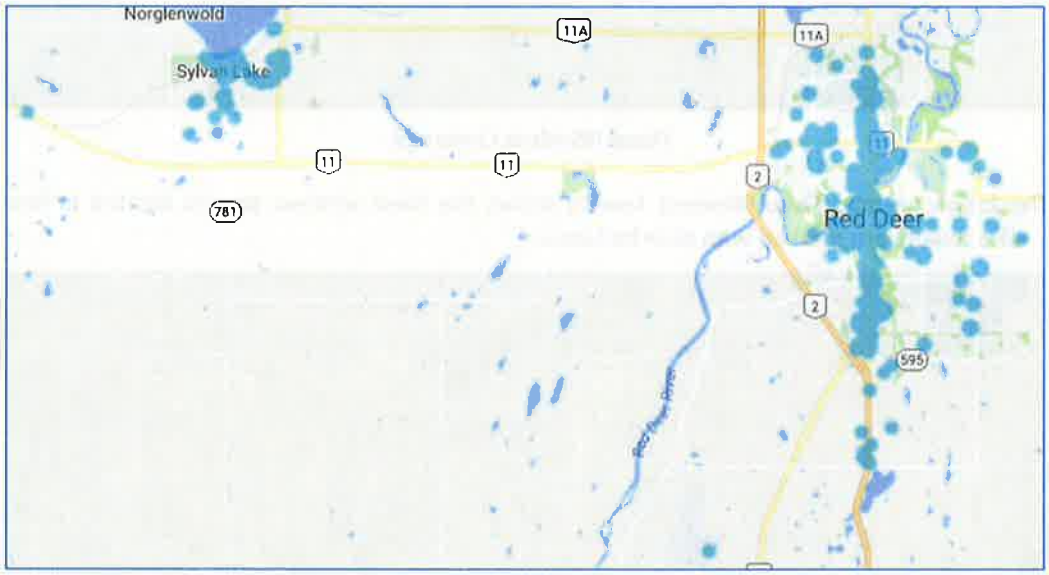
Fixed Wireless Towers

5.6.3.3 Wi-Fi Services

Shaw Go WiFi services are available in Bowden, Innisfail, Penhold, Red Deer, and Sylvan Lake as shown on the following maps, *Go WiFi In Bowden, Go WiFi in Innisfail, Go Wifi in Penhold,* and *Go WiFi in Red Deer and Sylvan Lake*. The blue dots represent a Shaw Go WiFi location.



ShawGo WiFi in Bowden **Shaw Go WiFi in Innisfail** **Shaw Go WiFi in Pehold**



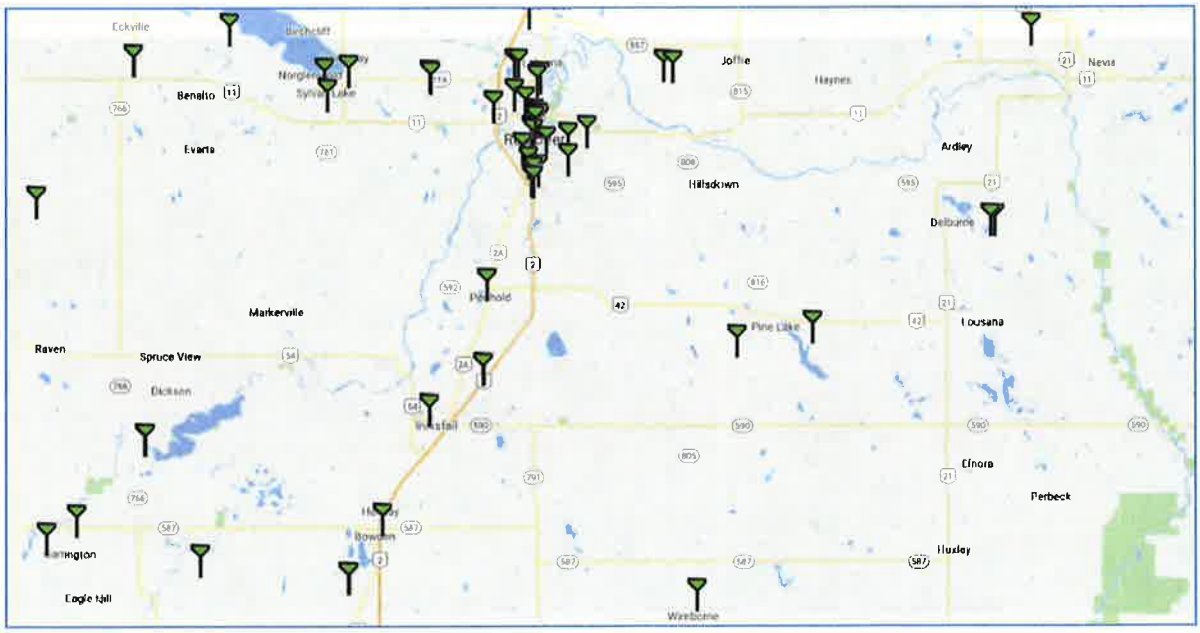
Shaw Go Wi-Fi Services in Red Deer and Sylvan Lake

5.6.3.4 Mobility

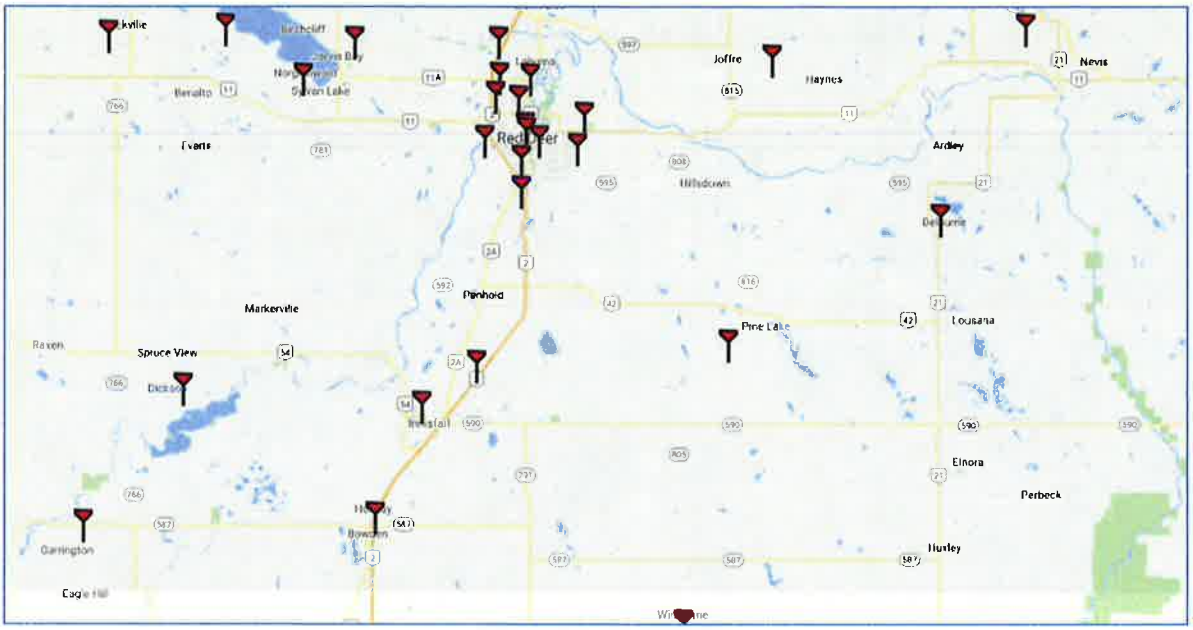
For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the below map, *Cellular LTE Coverage*. If their view is accurate, the County is well served. Again, in this context, availability is based on the CRTC minimum bit rates of 5 Mb/s downstream by 1 Mb/s upstream.

Cellular LTE Coverage

The availability of the mobility towers in the Red Deer County appears in the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.



TELUS/Bell Mobility Towers



Rogers Mobility Towers

5.6.3.5 Backhaul Service Availability

Wholesale lit backhaul services are available from the Alberta SuperNet, Bell, and TELUS. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.

Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

Given the uncertainty associated with the expiration of the current *SuperNet* contract at midnight June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary (or Edmonton) may wish to approach Bell, TELUS, or Shaw.

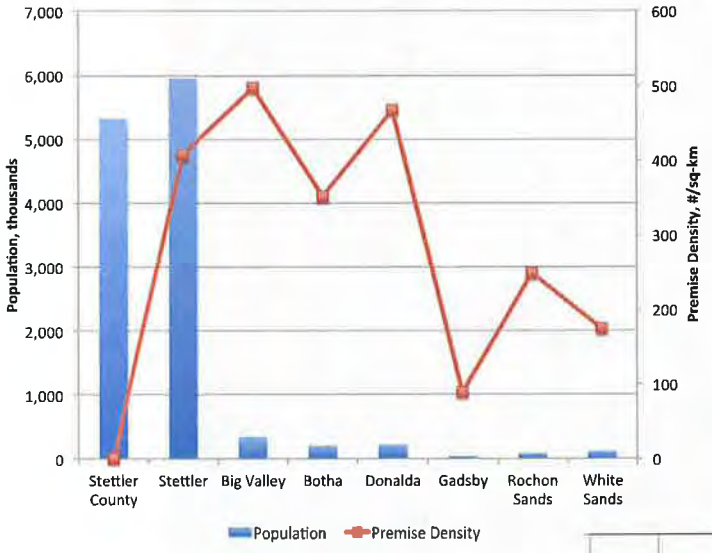
5.7 County of Stettler

5.7.1 Regional Profile

The County of Stettler encompass one towns, four villages, two summer villages, and five hamlets. The region is home to 12,289 residents, of which 5,952 live in Stettler and 1,015 live in the villages – leaving 5,322 dispersed throughout the rest of the county with a premise density of 0.49 homes/km^2 (2016). The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets	
Stettler County		Stettler	Big Valley Botha Donalda Gadsby	Rochon Sands White Sands	Byemoor Endiang Erskine	Nevis Red Willow

Given their small size, the municipalities and more rural areas will need to collaborate to pursue the more resource intensive broadband options.



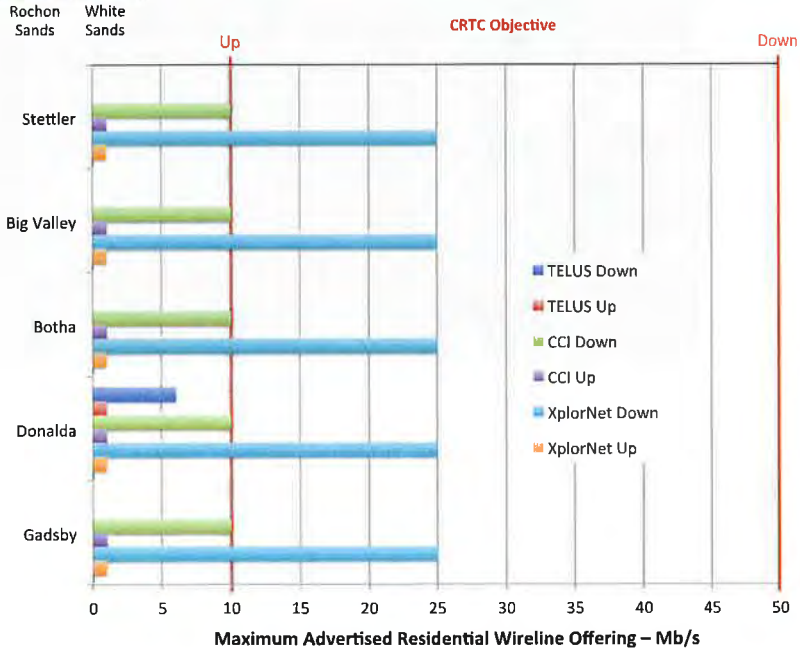
5.7.2 Civil Works

Currently, there are no infrastructure projects over $5M planned for the area.

5.7.3 Service Availability

5.7.3.1 Populated Areas

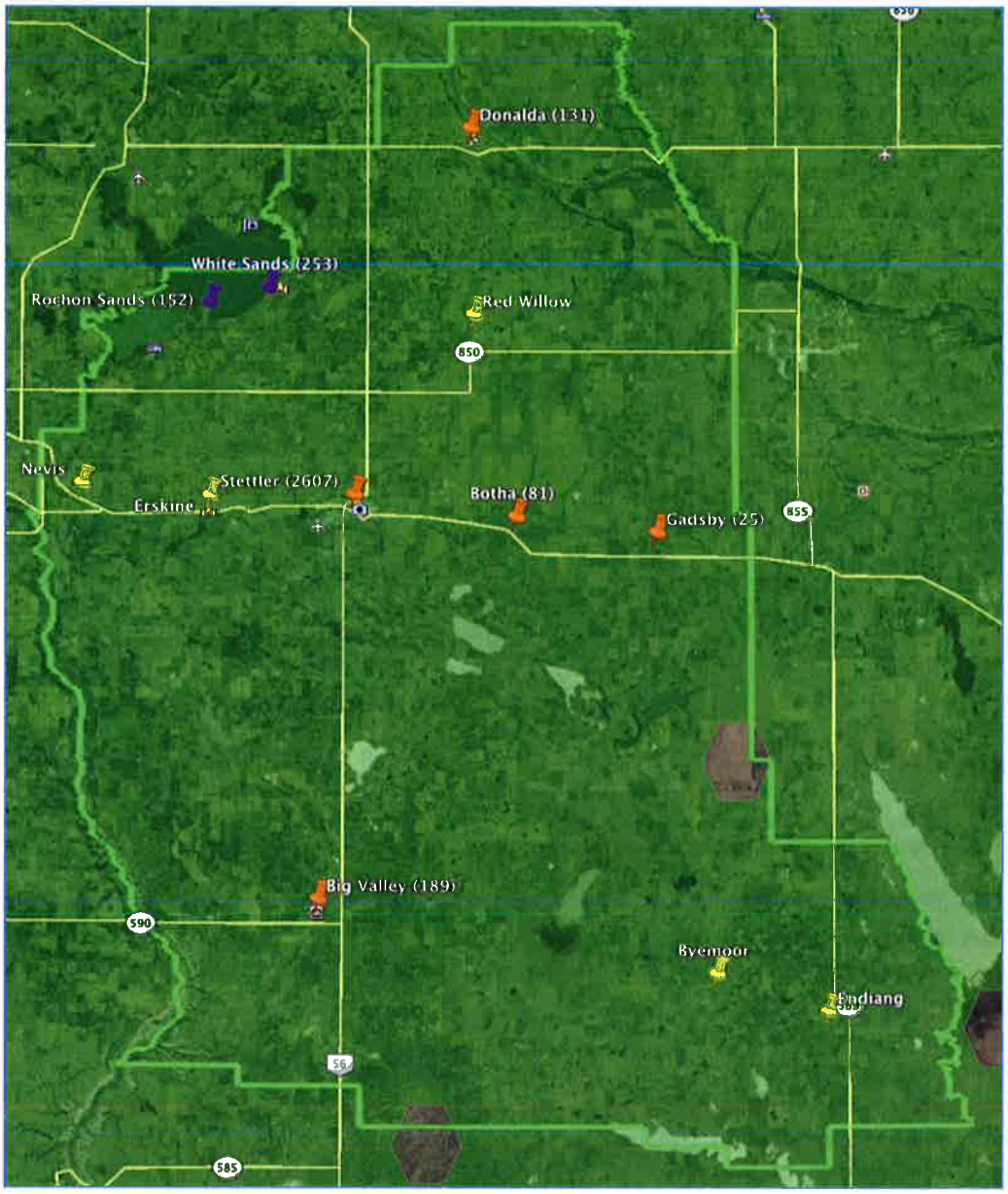
A chart showing the maximum advertised residential downstream service offerings in the populated areas of the County appear in the chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less. All offerings are highly asymmetric – upload and download bit rates differ significantly – and none meet the new CRTC guideline of 50 Mb/s down by 10 Mb/s up.



5.7.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are available only from CCI and XplorNet. According to

the CRTC website[23], the composite fixed wireless coverage from these providers appears on the below map, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.



Fixed Wireless Coverage

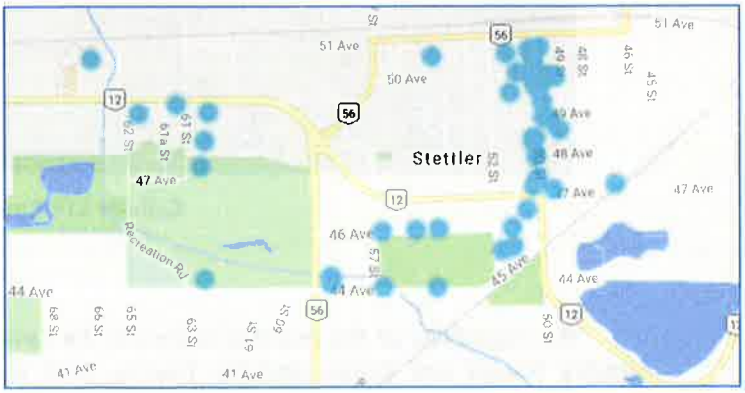
The following map *Fixed Wireless Towers* shows the fixed wireless towers located in Stettler County – the towers are marked with blue balloons.

[23] http://www.crtc.gc.ca/eng/internet/internetcanada.htm

Fixed Wireless Towers

5.7.3.3 Wi-Fi Services

Shaw Go WiFi services are only available in Stettler as show on the *Shaw Go WiFi Locations* map. Each blue dot represents a Shaw Go WiFi location.



Shaw Go WiFi Locations

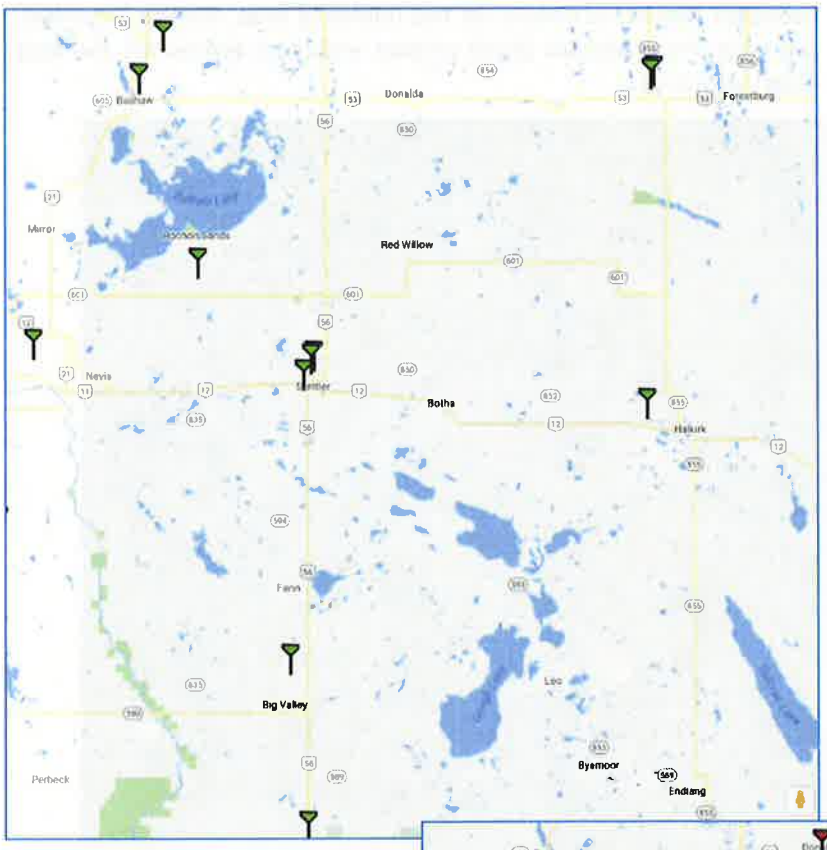
5.7.3.4 Mobility

For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the below map, *Cellular LTE Coverage*. If their view is accurate, there is a significant coverage gap in the southern part of the County. Again, in this context, availability is based on the CRTC minimum bit rates of 5 Mb/s downstream by 1 Mb/s upstream.

Cellular LTE Coverage

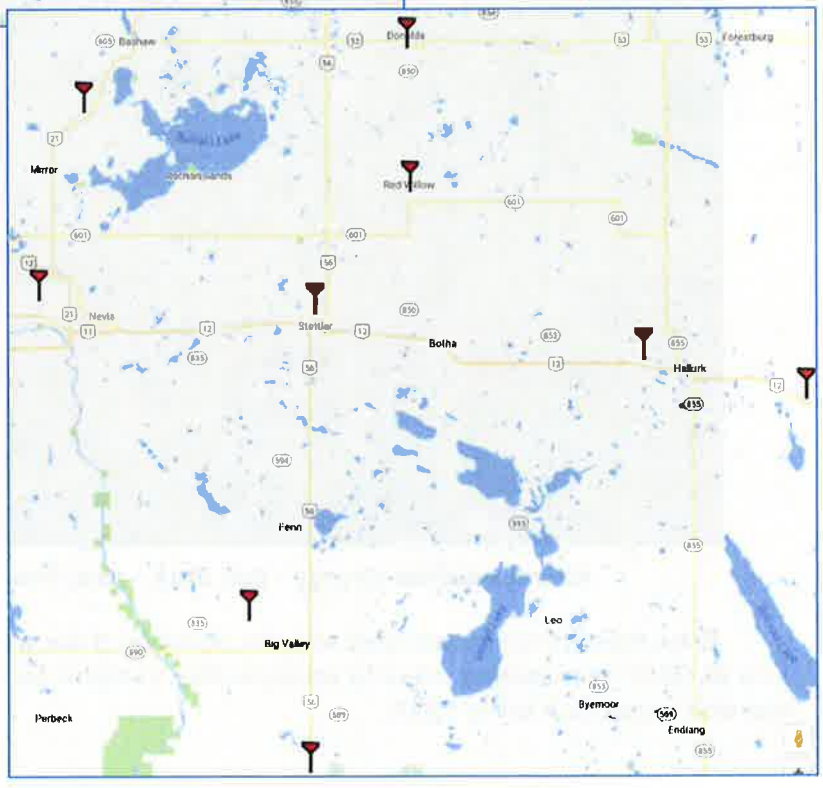
The availability of the mobility towers in the County appears on the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility

services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.



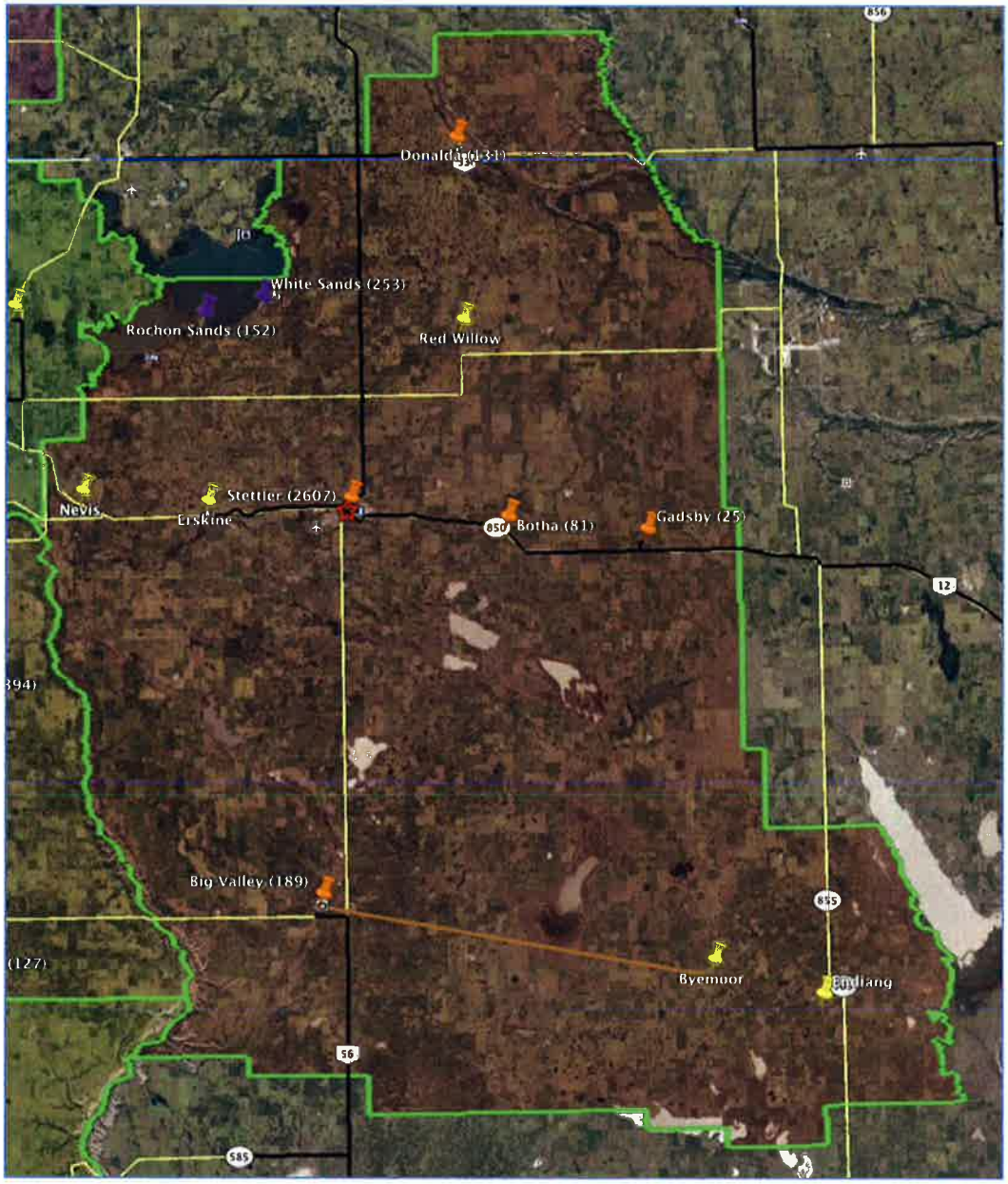
TELUS/**Bell Mobility Towers**

Rogers Mobility Towers



5.7.3.5 Backhaul Service Availability

Wholesale lit backhaul services are available from the Alberta SuperNet, Bell, TELUS, and Eastlink. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.



Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

Given the uncertainty associated with the expiration of the current *SuperNet* contract at midnight June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary (or Edmonton) may wish to approach Bell or TELUS.

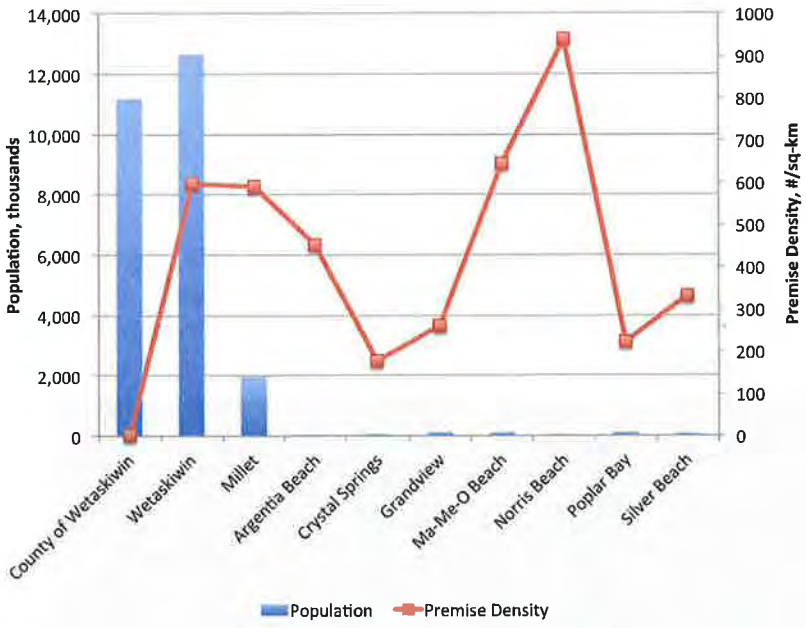
5.8 County of Wetaskiwin

5.8.1 Regional Profile

The County of Wetaskiwin encompasses one city, one town, seven summer villages, and eight hamlets. The region is home to 26,289 residents, of which 12,655 live in Wetaskiwin, 1,945 in Millet, and 508 in the summer villages – leaving 11,181 dispersed throughout the rest of the county with a premise density of 1.67 homes/km^2 (2016). The population and density distributions appear in the chart.

	Cities	Towns	Villages	Summer Villages	Hamlets
County of Wetaskiwin	Wetaskiwin	Millet		Argentia Beach Crystal Springs Grandview Ma-Me-O Beach Norris Beach Poplar Bay Silver Beach	Alder Flats Buck Lake Falun Gwynne Mulhurst Bay Village at Pigeon Lake Westerose Winfield

Given the small size of the communities outside of Wetaskiwin, the municipalities and more rural areas will need to collaborate to pursue the more resource intensive broadband options.



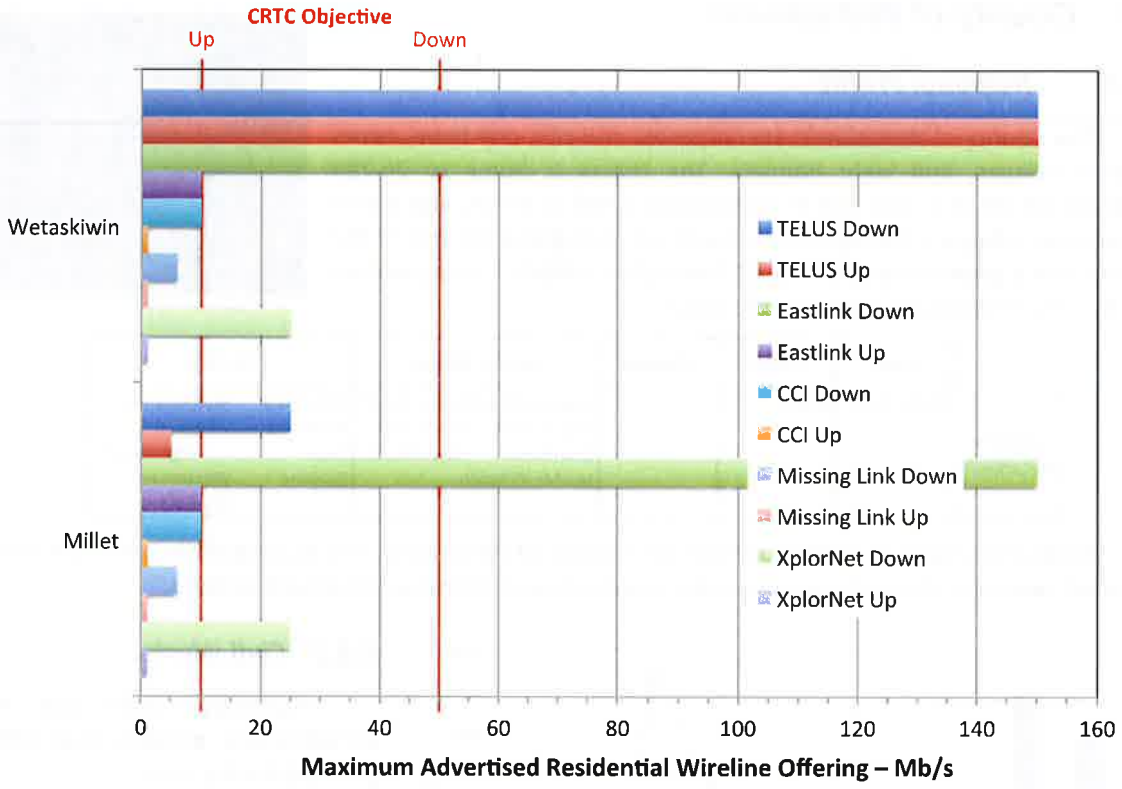
5.8.2 Civil Works

Currently, there are no infrastructure projects over $5M planned for the area.

5.8.3 Service Availability

5.8.3.1 Populated Areas

A chart showing the maximum advertised residential downstream service offerings in the populated areas of the County appear in the next chart. As these are 'up to' bit rates, during high usage periods, actual bit rates will be less – Eastlink more so than TELUS due to the way the aggregation is implemented. Except for the TELUS fibre service in Wetaskiwin and Eastlkink services in Millet, each of which meets the new CRTC guideline of 50 Mb/s down by 10 Mb/s up, services throughout the region do not.



5.8.3.2 Rural Areas – Fixed Wireless Services

Wireless services in the County are available only from CCI, Missing Link, and XplorNet. According to the CRTC website[24], the composite fixed wireless coverage from these providers appears on the below map, *Fixed Wireless Coverage*. The CRTC coverage estimates are based on a minimum 5 Mb/s downstream by 1 Mb/s upstream service availability.

Fixed Wireless Coverage

The following map *Fixed Wireless Towers* shows the fixed wireless towers located in the County of Wetaskiwin – the towers are marked with blue balloons.

[24] http://www.crtc.gc.ca/eng/internet/internetcanada.htm

Fixed Wireless Towers

5.8.3.3 Wi-Fi Services

Shaw Go WiFi services are not available anywhere in the region.

5.8.3.4 Mobility

For completeness, the CRTC view of the LTE mobility coverage throughout the county appears on the below map, *Cellular LTE Coverage*. If their view is accurate, there is a significant coverage gap in the west central part of the County. Again, in this context, availability is based on the CRTC minimum bit rates of 5 Mb/s downstream by 1 Mb/s upstream.

Cellular LTE Coverage

The availability of the mobility towers in the County appears on the next two maps, *TELUS/Bell Mobility Towers* and *Rogers Mobility Towers*. Note that wired/fixed wireless services and mobility services are not interchangeable due to performance, scalability, and cost. Dealing with coverage issues on the mobility side is beyond the scope of this work.

5.8.3.5 Backhaul Service Availability

As mentioned, there are two parts to deploying a functional network – the backhaul or transit services piece and access. Transit services enable the interconnection of community networks to each other and to a gateway services at a peering point – in this case, the YYCIX Internet Exchange in Calgary.

TELUS/Bell Mobility Towers

Rogers Mobility Towers

Wholesale lit backhaul services are available from the Alberta SuperNet, Bell, TELUS, and Eastlink. The service reach of the Alberta SuperNet services is shown on the following map, *Alberta SuperNet*. Orange represents the Bell operated Base Area Network (BAN) portion and black represents the Axia operated Extended Area Network (EAN) segments.

Alberta SuperNet (Orange – Bell; Black – Axia; Brown – Axia Wireless)

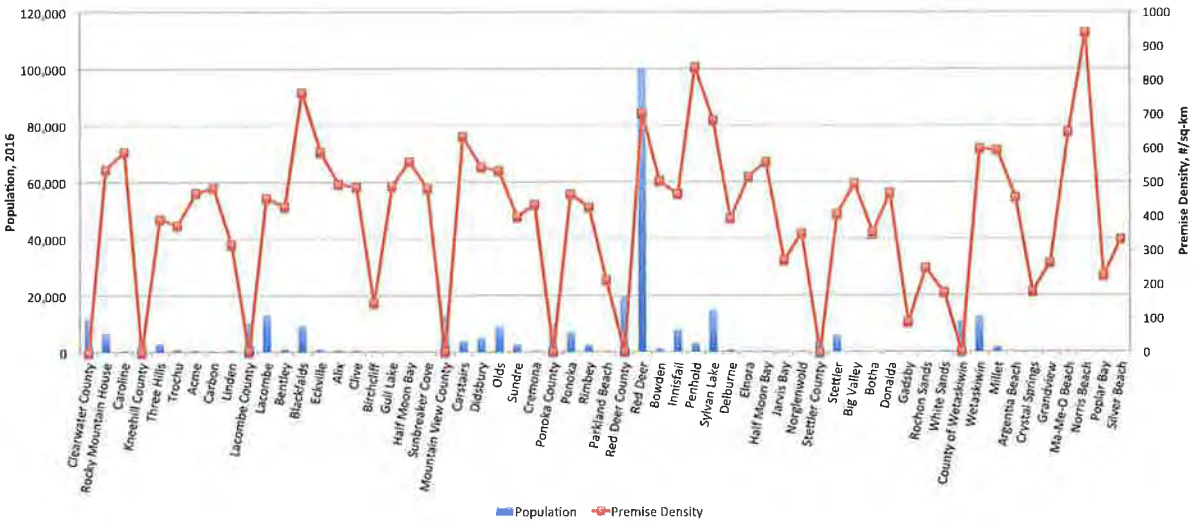
Given the uncertainty associated with the expiration of the current *SuperNet* contract at midnight June 30, 2018, municipalities requiring access to fibre transport for backhaul to Calgary (or Edmonton) may wish to approach Bell, TELUS, or Eastlink.

5.9 Regional Summary

CAEP is a regional economic development alliance (REDA) covering west central Alberta and consisting of eight counties, three cities, eighteen towns, thirteen villages and forty-two hamlets. Of the 309,062 residents, 40.8% live in the three cities and 31.4% live in the towns and villages. That leaves 86,215 or 27.9% dispersed throughout the rural areas of the region.

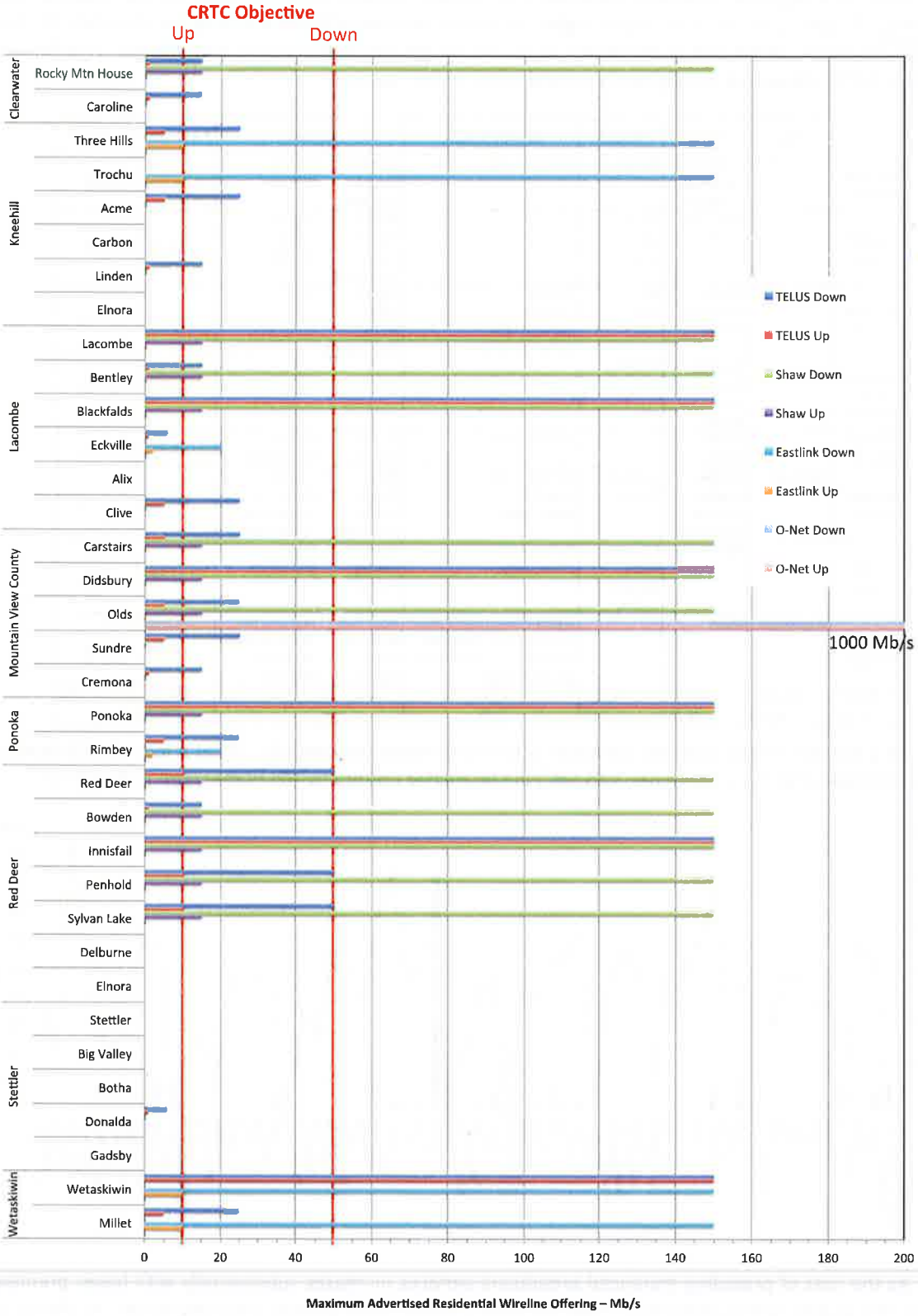
	Cities	Towns	Villages	Summer Villages	Hamlets	Population	% of CAEP
Clearwater County		Rocky Mountain House	Caroline	Burnstick Lake	Alhambra Nordegg Condor Withrow Leslieville	19,094	6.2%
Kneehill County		Three Hills Trochu	Acme Carbon Linden		Bircham Swalwell Hesketh Torrington Huxley Wimborne Sunnyslope	11,206	3.6%
Lacombe County	Lacombe	Bentley Blackfalds Eckville	Alix Clive	Birchoff Gull Lake Half Moon Bay Sunbreaker Cove	Haynes Tees Joffre Mirror Morningside	36,796	11.9%
Mountain View County		Carstairs Didsbury Olds Sundre	Cremona			34,776	11.3%
Ponoka County		Ponoka Rimbey		Parkland Beach	Bluffton Leedale Hoadley Maskwaskis	19,755	6.4%
Red Deer County	Red Deer	Bowden Innisfail Penhold Sylvan Lake	Delburne Elnora	Half Moon Bay Jarvis Bay Norglenwold	Ardley Lousana Benalto Markerville Dickson Springbrook Linn Valley Spruce View	148,857	48.2%
Stettler County		Stettler	Big Valley Botha Donalda Gadsby	Rochon Sands White Sands	Byemoor Nevis Endiang Red Willow Erskine	12,289	4.0%
County of Wetaskiwin	Wetaskiwin	Millet		Argentia Beach Norris Beach Crystal Springs Poplar Bay Grandview Silver Beach Ma-Me-O Beach	Alder Flats Mulhurst Bay Buck Lake Village at Pigeon Falun Westerose Gwynne Winfield	26,289	8.5%
86,215 27.9%	126,130 40.8%	88,567 28.7%	6,339 2.1%	1,811 0.6%		309,062 100.0%	100.0%

As is evident below, premise densities across the region vary widely – from a low of 0.29 homes per square kilometer (or 1 home per 3.45 km^2) in Clearwater County to 705 homes/km^2 in Red Deer.



As the cost of providing enhanced broadband services increases substantially with lower premise density, the quality and availability of these services in these lower density areas decreases. As shown in

the service level chart below, service levels meeting the new CRTC objective of 50 Mb/s down and 10 Mb/s up are available in only seventeen of the 76 municipalities (including hamlets) in the region.



6 Desired State

6.1 Overview

Over the next ten years, participation in the knowledge economy will become mandatory. To participate, fibre will be required either to directly connect to homes and business or to interconnect high bandwidth wireless access systems. During this period, current telecommunications infrastructure will largely be replaced with fibre, whether constructed on a private, public/private partnership, or on a public fibre utility basis and whether it's done with or without CAEP involvement. CAEP municipalities and the region therefore have the option to be involved, shape their future, and ride the wave – or be drowned by it. Either way, the existing copper and coaxial cable infrastructure is about to be replaced and, depending on how that takes place, broader public benefits may be widely achieved or more limited as a result. While progress is exponential, infrastructure deployment is not. To stay ahead of the curve, the decision time is now.

The range of interest in broadband varies considerably throughout the region, but even the most gung-ho of the municipalities are still in the early stages of deciding which options to pursue and how. Nearly all communities, however, either expressed an interest in working on a community broadband solution or were interested in continuing to be part of the conversation.

6.2 Clearwater County

Clearwater County is highly interested and also highly sceptical. Rocky Mountain House is content with their services, but is highly interested in being part of the regional plan as they would expect to be part of the backbone for getting higher quality, reliable internet access to the surrounding County. Caroline is very interested in expanding community broadband, but is currently relying on their current service providers.

Given that several grassroots efforts focused on improving broadband throughout the County have arisen over the past few years, the understanding of and interest in broadband is there. Until both these efforts and those of the County align and a sustainable community plan developed, progress will likely remain slow and the reliance on current private providers will continue.

Geographically, Eckville may also be a potential regional collaboration partner for Clearwater County.

6.3 Kneehill County

Kneehill County sees the importance of community broadband initiatives and that a broadband utility may be needed to address the issues. Such a utility, though, would differ from the traditional municipality's utilities for water and power. Carbon and Acme are very interested in moving a plan forward, but know that they will need financial support from the County if they are able to do this. Three Hills and Linden did not provide a response, but have historically been very supportive of regional discussions. Trochu is happy with current service levels.

Further, there are municipalities outside of the County, such as Delburne, Elnora, and Big Valley, whose geographical location and willingness to move forward with a regional broadband initiative make them great options for larger regional collaboration. Elnora is already a member of the KRP.

6.4 Lacombe County

The City and the County are both highly interested in a regional solution and potentially a community-based system, similar to Olds. The business case would need to be positive and it would need to be part of a regional partnership in order to help with the financial resourcing. Clive, Alix, and Eckville have already taken steps toward community broadband initiatives and would be very interested in a regional partnership that would help with resourcing through financial, staff capacity, and information sharing. Blackfalds is a TELUS fibre community and Bentley is content with the current service levels. Depending on the level of regional interest, proximity-wise, Eckville may pair better with the Clearwater County broadband initiatives.

6.5 Mountain View County

With gigabit services available throughout the town, Olds is the poster child for community broadband in Canada. Sundre is well on their way with a community broadband initiative and has funding in place to start deploying fibre throughout the community. Cremona is interested in fibre and has been in discussions with Axia. The County is hesitant to get government involved in what they see as a private industry responsibility. Didsbury is satisfied with the fibre provided by TELUS and Carstairs did not respond.

6.6 Ponoka County

As the Town of Ponoka is a TELUS fibre community, the development of a regional plan will largely fall to the County. Without a response from either the County or the Town of Rimbey, however, it is difficult to suggest options for the area. Maskwacis is very interested in helping with a regional plan should the County be interested in partnering on a community broadband initiative.

6.7 Red Deer County

The County is very interested in a regional broadband initiative as is Delburne. Both would be very interested in working either in partnership within the County or with the neighbouring Kneehill County. Innisfail has TELUS fibre, Penhold and Sylvan Lake did not respond, and both Innisfail and Red Deer are

satisfied with current service levels. The City of Red Deer does, though understand their role in the region and continue to be interested in being part of the conversation.

6.8 County of Stettler

Donalda, Big Valley, and Stettler are very interested in learning more about a regional community broadband plan. The County did not respond. Given Stettler is a TELUS fibre community, however, without County support a regional plan will be difficult to achieve, leaving Donalda and Big Valley with the opportunity to partner with surrounding, out of county communities – Donalda with Camrose County or the Flagstaff Intermunicipal Partnership (FIP) and Big Valley with PEPS or Kneehill County. Most of the municipalities are looking for a 5 to 10 year implementation.

6.9 County of Wetaskiwin

The only municipality that responded to the desired state survey was the summer village of Crystal Springs and, for them, broadband is not currently a priority.

7 Areas of Opportunity

7.1 Overview

The CAEP Region and its constituents have many options available to facilitate enhanced, more inclusive, and more affordable broadband infrastructure within its environs. Indeed, the options range from simply accelerating any currently planned broadband initiatives to negotiating with the incumbents and potentially subsidizing private operators, to DIY initiatives as exemplified by O-Net in Olds and Q-Net in Coquitlam.

In considering the options outlined below, note that in the broadband infrastructure game, a land-grab of sorts is currently underway and time is of the essence. The longer it takes communities to debate their options and assemble the required resources, the more time the traditional telecom and cable service providers have to replace aging infrastructure in their most profitable markets – the cities and towns – with fibre, which then removes valuable cashflow from more inclusive community-wide plays. To move forward quickly, CAEP will likely need to take an active role with those communities most interested in moving ahead. As momentum develops and the issues are resolved, other communities could come onboard.

To be most effective, collaboration will also need to include both distribution and access networks within municipalities as well as the backhaul networks that link the communities together – an issue that will blur the more traditional CAEP modus operandi in which their role is solely focused on coordination between communities and not on what each community elects to do itself.

7.2 Status Quo

For reasons ranging from a lack of resources, more important priorities, a belief that municipalities should not be in the infrastructure game, or satisfaction with current service levels, communities may elect to leave broadband to the existing players and not get involved. While this approach may work well for those in the more populated areas, experience to date suggests that those in the more rural areas could be waiting a long time.

Given the CRTC's recent framework decision, money to support infrastructure upgrades in the most rural areas will become available over the next fifteen years.[25] Indeed, the objective is to enable ubiquitous 50 by 10 Mb/s services by 2031. Proposed funding levels in support of this program are insufficient and affordability criterion has yet to be established.

7.3 Baseline Provision

Should the Region or its constituents not have the support to *'jump in with both feet'*, but wish to position for a possible broadband play later, interim straightforward and inexpensive approaches include:

- Broadband Facilities Master Plan:
  - Carry out high-level boundary connections assessment to potential future back-haul locations.
  - Carry out high-Level Feeder Network assessment for development, re-development, and capital project inclusion of conduit/fibre/tower locations and/or ROW protection and agreements.
  - Use as informed decision support when working with service providers, development community, and/or regional partners.
- Municipal Planning:
  - Work with CAEP and your neighbours to leverage staff capacity and resources
  - Develop a Broadband Services Strategic plan specific to your community
  - Embed fibre network requirements in internal IT planning processes
  - Accelerate currently planned IT infrastructure deployment
- Leverage Planned Civil Works:
  - Develop a policy for including installation of fibre conduit as part of applicable and appropriate town and county linear infrastructure projects, such as road (re)construction and water / wastewater projects.
- Position for the future
  - Require that the inclusion of fibre conduit be a mandatory requirement in all applications for new residential and businesses development permits.
  - Adopt an inside wiring standard with Cat-5 wiring as the minimum standard. It does not make any sense for a house builder to use Cat-3 wiring when fibre is available at the curb.

As the civil construction accounts for some 70% of the cost of buried infrastructure deployment, leveraging civil works can reduce the deployment costs significantly. The only catch is that an overall plan is required upfront, thus the baseline need for a Broadband Facilities Masteplan, particularly if the work is to take place over a number of years – fibre ducting must be appropriately sized, have breakout points in suitable locations, and, mesh with other components deployed.

[25] http://www.crtc.gc.ca/eng/internet/internet.htm

7.4 Negotiate with Current Providers

7.4.1 Work with the Carriers and Seek their Investment

Over the past few years, both TELUS and Axia have been interested in and indeed installing fibre-to-the-premise (FTTP) networks in communities throughout Alberta. As shown in the adjacent summary slide of TELUS deployments, since 2014 and at a cost of $430M, TELUS' fibre has been deployed to 107,000 Alberta premises.[26] TELUS plans to spend another $1.2 billion by year-end 2019.

TELUS fibre in the selected communities is deployed at no cost to the municipality. Home and property owners are under no obligation to obtain services when granting permission for TELUS to place the fibre drop directly to their premises. While Axia does offer symmetric 1 Gb/s business and 100 Mb/s residential services together with an option for other service providers to lease fibre access lines, as yet, TELUS has not yet seen a market need for these services. On the other hand, the CRTC will require TELUS to provide wholesale access to their fibre on some yet to be determined basis, whereas Axia will not be so encumbered.

Community	Premises	Community	Premises
Blackfalds	3.1k	Peace River	3.3k
Bonnyville	1.3k	Ponoka	0.9k
Calgary	33.3k	St. Paul	2.7k
Coaldale	2.8k	Stettler	2.6k
Didsbury	1.7k	Taber	3.6k
Drumheller	2.9k	Vegreville	3.1k
Edmonton	17.5k	Wainwright	3.3k
Edson	3.4k	Westlock	2.0k
Hinton	5.0k	Wetaskiwin	5.3k
Innisfail	3.2k	Misc Communities	13k

At this point, TELUS does not provide their retail service sets over community fibre networks, even in smaller centres in which TELUS has not upgraded their plant to fibre, and in which community networks could offer significantly more capacity than TELUS' aging copper plant and would save TELUS significant capital. Given the momentum for community approaches that is developing within the province, though, TELUS' appears to be revisiting their approach and has recently expressed a renewed interest in working with communities to find an arrangement that works for both. Generally speaking, though, their approaches involve maintaining control of the infrastructure.

On the other hand, in return for access to a municipality's rights-of-way, Axia is offering to deploy fibre infrastructure throughout individual communities and offer Internet services at up to 100 Mb/s for residential subscribers and 1 Gb/s for businesses should 30% of the addressable premises in the town show interest in Axia's services. The offer is contingent on due diligence by Axia and the towns of Barnwell, Hanna, Fort Macleod, Nanton, Nobleford, Stirling, Raymond, and Vulcan now have town-wide FTTP service. Axia has also announced FTTP services for Fairview, Magrath, and Pincher Creek.

While merits of an essentially hassle-free and free, fibre infrastructure are self-evident, the Axia offer is neither without cost nor risk. All revenues from the network would accrue to Axia's shareholders and once deployed, Axia would have monopoly control over critical civic infrastructure. No infrastructure would be deployed into the surrounding MD and the network would not be open in the traditional sense of the term.

[26] Mawji, Zainul; *Expanding Broadband Networks*; 2016-09-12.

7.4.2 Establish a Private-Public Partnership (PPP)

While there is a lot of merit to PPP arrangements, care must be taken to ensure ongoing alignment of private and public interests. The two largest broadband deployments to date are in Ontario – the Eastern Ontario Regional Network (EORN) and the SouthWest Integrated Fibre Technology (SWIFT) initiative are both PPP arrangements. While in both cases, significant public money was/is involved, in both cases, the infrastructure ownership may revert to the private partners after seven years or so – which carries the risk of the communities losing many of the gains made while they retained some measure of control.

A second more subtle concern is that of minimizing conflict of interest and ensuring a level playing field when the focus of the PPP arrangement is to deploy infrastructure on an open access basis and the partners are vertically integrated players wishing to utilize the network to deliver their own service portfolios. To some extent, the potential issues are analogous to those currently plaguing the Alberta SuperNet.

7.4.3 Subsidize a Private Partner

The traditional market driven, private sector led business model is not providing many CAEP municipalities with the infrastructure they desire due to a lack of financial incentives. By directly subsidizing a private operator, municipalities could provide that operator with adequate incentive. Given that this approach in essence anoints a select supplier, it does provide the supplier with a market advantage in an area where market forces do not prevail and municipalities need to carefully consider the terms under which these arrangements are made. On the plus-side, the arrangement keeps the infrastructure deployment and operations in the hands of private sector players and minimizes Council involvement and resources. On the other hand, the selected supplier will end up with a defacto monopoly in the areas of the municipality covered by the incentive.

When the arrangements involve fixed wireless players, additional issues arise from the fact that the infrastructure does not scale well. While an upfront subsidy may result in infrastructure adequate for current requirements, additional capital infusions will likely be required to meet ever increasing capacity demands over time.

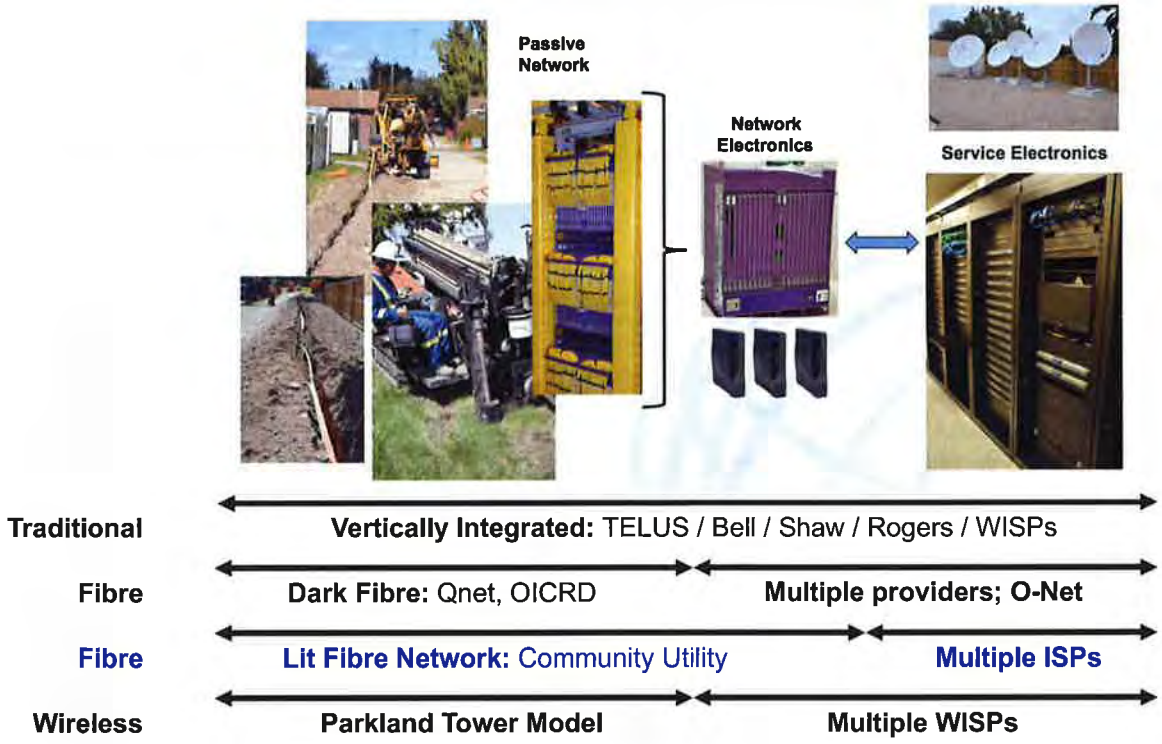
In lieu of a direct subsidy, some counties elected to reduce of the cost of services deployment in rural areas by providing tower infrastructure for Internet Service Providers (ISPs) to use. The Special Areas Board adopted this approach and then contracted a single provider, Netago, to provide services. With input into where the towers were located, the arrangement has been a successful one. Parkland County, on the other hand, wished to promote competition amongst ISPs in the County and operate the tower infrastructure on an operating cost recovery basis. To attract mobility and the Alberta First Responders Radio Communications System (AFRRCS) equipment onto the towers to help cashflow, robust (expensive) towers were constructed at sites which were a compromise amongst the requirements of the mobility, ISP, and AFRRCS providers. Few liked the locations, competition amongst the ISPs did not materialize, and the County is now struggling to find a way to make things work.

7.5 Develop a Community or Regional Fibre Network

Given the lack of interest from the incumbent telecom and cable operators to serve areas outside of the fibred communities of Blackfalds, Didsbury, Innisifail, Lacombe (partial), Ponoka, Stettler, and Wetaskiwin and the cabled communities of Three Hills, Trochu, Bentley, Carstairs, Red Deer, Bowden, Pehhold, Sylvan Lake, and Millet, municipalities and counties in the CAEP region may wish to consider establishing their own community and/or regional fibre network. Indeed, with an appropriate and sustainable business model, individual municipalities and/or sub-regions could establish, either on their

own or in partnership, a fibre-based community and/or regional broadband network and operate it as a fourth utility. Indeed, inclusive, county-wide initiatives are currently being established Big Lakes County, the County of Vermilion River, and the County of Grande Prairie.

As proven by deployments throughout Europe and the Far East, utility infrastructure could enable a municipality to provide competitive service providers equal access to unmatched symmetric bandwidth capabilities and thereby enable the delivery of a variety of novel community-based intelligent community services (as well as entertainment services such as HD-TV) to its residents and businesses.



Should a municipality wish to consider this option, a number of the more common business model, financing, and governance options available to help make it happen appear in the table below. Common models are outlined in more detail in Appendix 13.1. Should either a community or group of communities elect to move forward, these options are typically evaluated as part of the business case / business planning process.

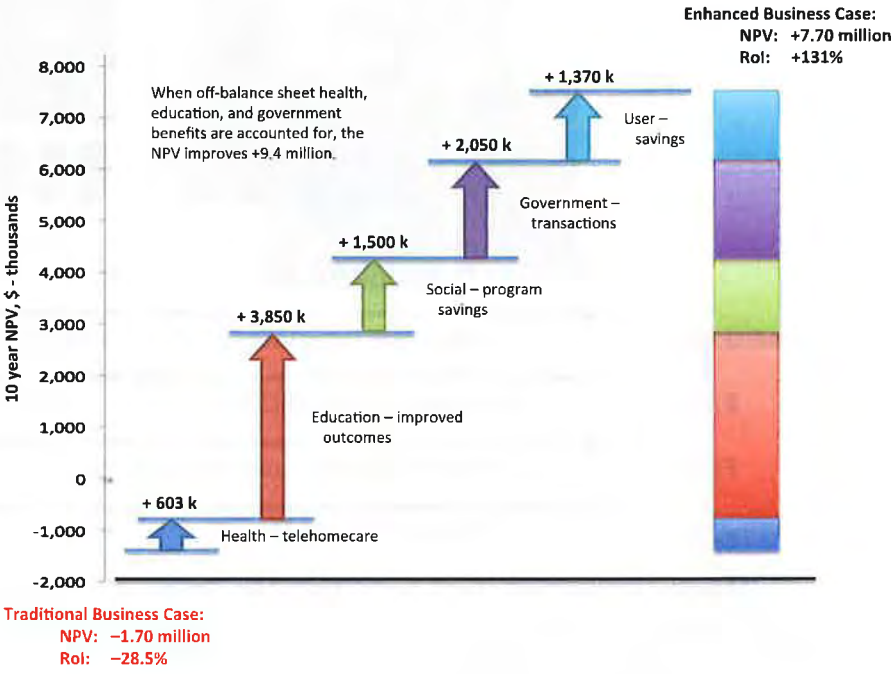
Business Model	Funding	Governance
• Conduit only • Wholesale fibre: dark or lit • Retail: open or closed and with or without service partners	• Debt financed via ACFA • MSI or ACP Funding / Grants • Co-operative • Utility/Power • Private-public partnership (PPP) • Private Equity • Hybrid	• Commission • Municipality • Municipal Services Corporation • Co-operative • Not-for-profit • Private

While community options do involve more hassle and risk than simply transferring responsibility to private enterprise such as TELUS or Axia, they come with significant advantages. As well, to minimize the hassle-factor, close to turn-key options do exist and can be easily incorporated into regional or community deployment programs – once the municipality has decided upon the business and governance structure, operational arrangements, and financing.

8 Financial Considerations

8.1 Off-balance Sheet Considerations

Whereas traditional business case numbers only consider direct revenues generated by the provisioning of triple-play services in the community, when it comes to Council considerations, a community may wish to capture broader community (off-balance sheet) benefits such as positive impacts on the community's quality of life, youth retention, business attraction, and competitiveness. At the Council level, the debate as to whether this new infrastructure will focus largely on private benefits (broadband fibre as a market commodity) or public benefits (broadband fibre as a utility to achieve purposeful public benefits) will be decided. The results will help dictate who should own and control the fibre assets, should a community elect to go that way, and how well the assets will achieve broader public benefits.



In more rural settings, by quantifying and including broader community benefits, fibre can be justifiably deployed far deeper into rural areas than generally realized based on a simple 'internet-only' case. For a set of First Nations communities in the Wood Buffalo area, for example and as is evident in the chart below, including tangible, broader community benefits turned a marginal case for fixed-wireless into a strong case for fibre. In that business case, the educational benefits would only be realized with fibre – the wireless alternatives at that time could not provide the required capacity or performance.

8.2 Public versus Private Financing

Private enterprise cannot compete with municipalities when financing long-term infrastructure. To see this, consider a $1M fibre deployment project. With twenty year financing from the Alberta Capital Finance Authority (ACFA) at the mid-2017 interest rate of 2.711%, municipality payments come in at $5,425/mo – $10.85/subscriber/mo with 500 subscribers. Private enterprise looking to finance this over 5 years at 2% would face payments of $17,528/mo – $35.06/subscriber/mo with 500 subscribers.

8.3 Aerial versus Buried Deployment

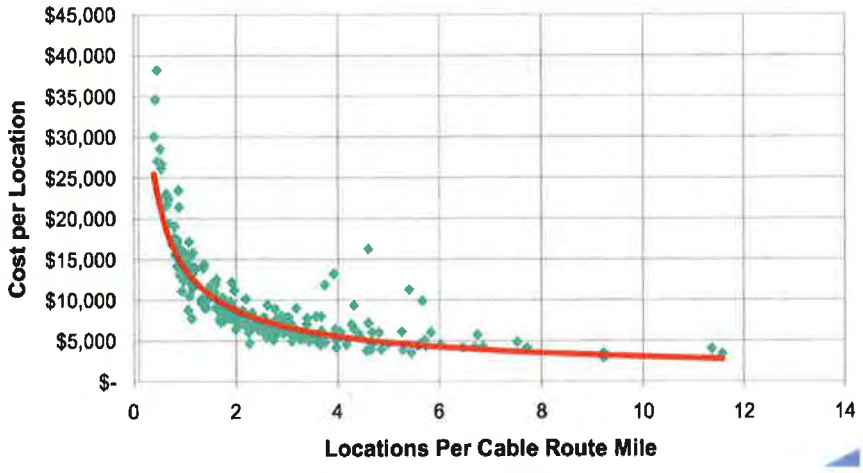
If a deployment area receives its power aerially – i.e., via power pole infrastructure – and the poles can take the additional weight and there is sufficient clearance, fibre can be deployed aerially at about a third of the cost of a buried deployment. On the other hand, if the pole infrastructure must be upgraded, then the buried deployment is likely the least expensive. Should a community with a sizeable portion of aerial infrastructure elect to move forward, due diligence to determine the suitability of the poles will be required.

Though buried infrastructure is more secure on a long-term basis, if the lower cost of an aerial deployment can be realized, the reduced capital requirements increases the possibility of attracting private equity.

8.4 Wireless versus Wired

Though wireless solutions may initially be less expensive to deploy, they are both capitally and operationally more expensive over terms exceeding ten years. As home and business Internet usage tends to increase at rates exceeding 20%/yr and has done so for over a decade, to meet this increasing demand, capacity requirements must be increased over five-fold per decade. As scaling fixed wireless systems to keep pace with these demands becomes increasingly expensive, fibre/wireless cost comparisons are more properly done on a minimum ten year total cost-of-ownership basis. On a total cost of ownership basis, fibre is generally found to be the least expensive technology to deploy.

In community settings, wireless can be an inexpensive way to improve Internet services quickly. As the first step in a community fibre deployment program, wi-fi access points can be rolled out with the initial feeder network. As fibre access in the community becomes more ubiquitous, the wi-fi system migrates to an overlay that can be used when one is *'out and about'* in the community.



In more rural settings, however, if Internet revenue is being used to justify a network build, client density matters. Specifically, as the number of premises in a given area decreases, the deployment cost per premise increases substantially. The impact of this can be seen in the above chart from VantagePoint.[27] While the cost impact remains relatively small down to about 4 premises/mile, below that, it increases sharply. By one premise per mile, the cost has increased to US$14k/premise.

In a sample design for a 200 mi^2 rural area in Chamberlain, S.D., Vantage Point Consult-ing found that whereas the least expensive wireless deployment came in at $370 per Mb/s per client, fibre came in at

[27] Thompson, L., *Highly Demanding FTTH Deployments*; VantagePoint Consulting; BB Properties Summit; 2011-04-27.

$9. In this comparison, the wireless network was designed to support 4 Mb/s per client whereas the fibre network could support 1 Gb/s.[28]

8.5 Cherry-Picking

In general, *Cherry-picking* refers to a provider going after the so-called low-hanging fruit – the premises, businesses, and areas with the highest margin potential first. If the provider is private, then, once picked, the remaining less profitable areas may be permanently left out. If a public provider, then the resulting cashflow from the high margin areas/customers can help fund further deployment into less profitable areas. The more cherry-picking that is done by a private provider in a target community, the more difficult it becomes for that community to fund the deployment to the higher cost premises and subdivisions. Examples include:

- AxiaConnect deploying FTTP to a town, in a regional context
- TELUS and Shaw providing custom builds to provide fibre to the large businesses and institutions, which are then unavailable as contributors to a larger public network.

Though all of the above represent legitimate and potentially profitable business strategies, from an inclusive community utility fibre perspective, each removes potentially valuable customers and cashflow. Removing business revenue strands a community's residential areas. Removing a community's cashflow from that available to the region strands the more rural areas outside the town's boundary.

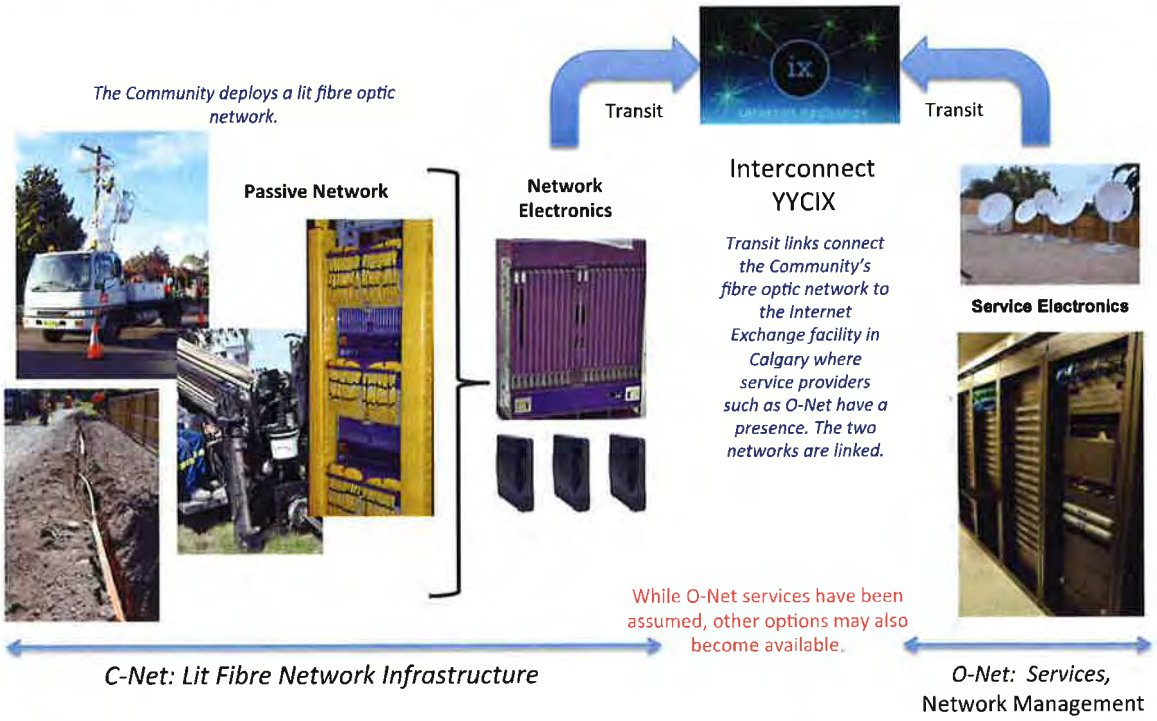
Given that a land-grab of sorts is underway and that outside the larger centres only one fibre network is likely to be deployed, community's interested in inclusive fibre as a fourth utility play need to move quickly before aggressive cherry-picking by private providers leaves their area with an untenable business case.

9 Community Access Networks

9.1 A Lit Network Example

Referring to the figure below, a Community could arrange to design, finance, and deploy a lit home-run fibre network – say, C-Net – for the benefit of its local businesses and residents. For services, either a direct connection to a local ISP or a backhaul connection from C-Net to the YYCIX Internet Exchange in Calgary would be needed. At YYCIX, C-Net could connect to either an ISP or a gateway service.

[28] Thompson, L., et al; *Comparing Wired and Wireless Broadband;* Vantage Point; 2015 05/06.



Though the Community's intent may be to establish C-Net on an open access, level playing field basis to all television, Internet, and telephone service providers interested in using the network to deliver broadband services throughout the Community, the underlying services ecosystem needed to facilitate this in Canada is not sufficiently developed. While several ISPs can provide Internet, and possibly voice, services, over community network infrastructure, at present, O-Net is the only 'local' provider that can provide the full suite of triple play services necessary to compete in an area currently serviced by TELUS and Shaw or Eastlink.

Assuming a triple-play services slate is required, O-Net would be contracted to (1) manage the network and (2) at either the wholesale or retail level, be the service provider of choice, for at least the initial, say, five year period. In so doing, the Community would make available world-class connectivity infrastructure to every home and business and facilitate, over time, full competition in the services space. The fibre infrastructure will cost-effectively scale to meet all foreseeable bandwidth requirements, minimize cost to all potential clients, and enable to the Community to maintain control of critical civic infrastructure. As a bonus, the operation would likely reduce the Community's operational costs and may provide the Community with an additional revenue stream. Over time, the community may wish to take many of the network management functions in-house.

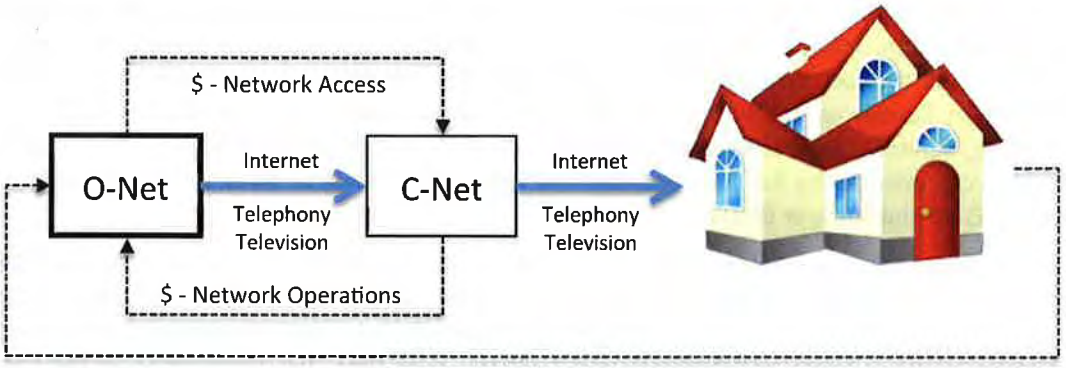
To assist community plays, O-Net can provide services on either a wholesale or retail basis, in which case the Community could respectively approach a municipal fibre operation as a retail service or wholesale network operator. The differences are significant as in the retail arrangement, the Community would need to establish local service operations (say, Comm-Net) and assume the market risk associated with selling the services and achieving sustainable revenue levels. In the wholesale case, as the service provider, it would be up to O-Net (or another ISP) to establish local retail operations and assume the market risk associated with achieving revenue levels sufficient to cover both the costs of using C-Net as well as its operations in the Community. With the retail option, O-Net receives regular monthly revenue based on the pricing levels of O-Net's wholesale services suites. In both cases, the network entity, C-Net, receives a regular income stream based on the cost of wholesale access to its network from the retail

service provider – it the first instance, its revenue would be coming from Comm-Net, while in the second instance, it would be coming from O-Net (or another ISP).

In either case, the Community would arrange to design, finance, and deploy a home-run fibre network that will pass all homes and businesses – C-Net. Opto-electronics will be deployed to both light the network and connect to a backhaul link to the Internet Exchange in Calgary (YYCIX). Backhaul from C-Net to YYCIX would be arranged and paid for by the Community. The Community would then leverage O-Net's capabilities, either via their wholesale ISP-in-a-Box service or by engaging them as a retail service provider. As a utility play, the latter option makes the most sense.

9.2 The Wholesale Network Option – C-Net

A schematic showing service delivery and money-flows with the wholesale network option appears in the next figure. Here, O-Net becomes the (initial) retail services operator and pays to use C-Net to connect with and deliver their services to residential, commercial, and industrial clients in the Community. For convenience, C-Net will outsource network operations to O-Net. Network operations includes arranging for client connections (client yard surveys, drops, and opto-electronics) to the network as well as network monitoring, operations, locating, and repair services. Contractor charges for drop installations and cable-cut repairs as well as costs for the optical network terminals (ONTs) required in client premises to connect to the fibre optic cable, including installation, will be billed back to C-Net. Monthly costs for the software required to maintain the network and premise gateways (ONTs) will be C-Net's responsibility as well.



$ - Internet, Telephony, & Television Services

As the ISP, all marketing, sales, home installations beyond the ONT, client support/help desk, services, and service delivery responsibilities and risk reside with O-Net.

A variation on this is the dark fibre option in which the Community deploys a dark fibre network and then leaves the network electronics to the ISP(s). While less expensive and operationally simpler from both network and service provider perspectives, in smaller communities, once one service provider comes in and lights the network, others may not.

9.3 Financial Resourcing Considerations

Business cases for fibre deployments tend to be interesting for two reasons. First, significant upfront capital is required to finance deployments and, second, the capital required increases with both the initial take-up rates (due to the costs to connect clients) and the intensity of the competition in the community (which decreases revenue). To offset these effects, initial deployments typically target more densely populated business districts to initiate revenue streams, dmove on to the residential areas, and

then to the outlying areas. Service uptake is typically higher for businesses, and margins on voice and Internet services are higher than those for television services. In essence, the strategy is to use cashflow from the more profitable areas to help finance deployments in the less profitable areas.

Strategies to reduce capital requirements include:

- Finance the project over as long a term as possible (e.g. a 30+ year fibre asset with a 30 year debt repayment term) to lower the monthly bill to customers
- Use aerial deployment where pole infrastructure is satisfactory to reduce overall costs
- Leverage planned civil works wherever possible (e.g., laying conduit whenever trenches and roadways are opened-up for repair or made available due to work on water, power, gas or telecom utilities in new development areas). In buried builds, civil works (i.e. "the trench") account for ~70% of the deployment costs.
- Require conduit deployment and cat-5 wiring in all new developments
- Leverage the additional cashflow available from the business, commercial, and greenfield areas (in some ways, the low-hanging fruit) to offset the less dense/lower revenue areas of the community or region
- Allocate a portion of expected municipal operational savings to the project
- Use a tax levy for, say, the drop portion of the build
- In lower density areas, provide fibre-to-the-tower to enable higher bit rate, higher capacity wireless services to the surrounding area.
- Go with wi-fi first – build a community/customer base first

Incredibly, some smaller communities cannot even raise the ¼ M dollars an aerial deployment might cost them. As this is a trivial amount to larger communities with, say, a $15M build, larger communities might consider including the smaller communities in their plans. The additional scale their inclusion brings to the table, combined with the added municipal participation, can help leverage their operational costs, enhance grant applications, and enhance the sub-region's connectivity and capacity generally.

10 Sub-regional Networks

10.1 Context

Whereas larger municipalities have the option to go it alone and smaller centres are constrained by operational expenses, more rural areas are constrained by both. Due to significant variations in density and geography, deployment costs in rural areas vary significantly. Until such time as broadband connectivity is deemed as essential utility infrastructure, below some threshold density, fixed wireless solutions will be required to provide services in a sustainable fashion. The threshold will vary from county to county based on financial strength and priorities as well as over time, as technology matures and capacity requirements increase.

The approach in rural areas then, is to note that premises are not evenly distributed; indeed, many are in close proximity, especially in hamlets and rural subdivisions. Excluding mobilization costs to move a crew and the required materials to a rural community, and assuming a backhaul connection to a major centre is available, the costs to deploy fibre within these clustered communities is similar to that in larger centres. The issue, then, is backhaul.

For the rural areas in the CAEP region therefore, the DIY approach will likely involve laying fibre to key ISP towers (towers that the ISPs would upgrade if their connected bandwidth could be increased) but routing the conduit/fibre in such a way as to pass through every town, village, and hamlet in the area and to select routes that pass as many farmhouses as possible. With upgrades to the wireless

equipment on the ISP towers, an immediate improvement in services within the coverage area of the towers can be realized. With access points in each town, village, and hamlet, any having the where-with-all to move forward, can deploy fibre within their community and be assured of affordable backhaul connectivity. Similarly, farmhouses adjacent to the routes then have the opportunity to connect and receive service as well. Inclusive County/Municipality approaches along these lines are currently being developed in the County of Big Lakes, the County of Vermilion River, and the County of Grande Prairie. When complete, these studies may help inform the options available in the CAEP region.

While municipal, sub-regional, and regional DIY options do involve more hassle and risk than simply transferring responsibility to private enterprise such as TELUS or Axia, both hassle and risk can be reduced with collaboration. More importantly, the DIY options come with significant community advantages. Potential sub-regional working groups for part of the CAEP region going forward might be:

- Kneehill Regional Partnership
- Lacombe County
- Red Deer County

Delburne, Elnora, and Big Valley expressed significant interest. Should Red Deer County proceed and not Stettler, Big Valley would do well to approach the Paintearth Economic Partnership Society (PEPS) or KneeHill County. Should neither of their home Counties proceed with a regional plan, the three might consider working together.

Though CAEP communities were approached both via several email and follow-up phone calls, responses from a number of the potentially significant players in the region were not received by the time of writing. Some may simply not be interested due to other priorities; some may have just had staff on holidays. None-the-less, other potential partnerships are likely possible and may indeed develop as the awareness of broadband and its potential for the region develops.

Should the remaining Counties be interested in learning more about the options available to them, it may be best to start with a workshop to address the basics, including why broadband is important and the options that are available to enhance service levels across the region should current or projected service levels be inadequate relative to sub-regional requirements.

10.2 Kneehill Regional Partnership

The following recommendations are based on the community discussions with KRP municipalities and the Areas of Opportunity presented in Sec. 7:

- Vision – establish a Broadband Vision for the Kneedhill Regional Parternership.
- Business Case – establish a business case for an inclusive, couny-wide, fibre broadband deployment program. Business case development helps ensure that the proposed undertaking makes business and financial sense and helps guide the development of a Business or Master Plan.
- Business Plan – should the business prove compelling and KRP elects to move forward, then a more detailed Business Plan for the undertaking should be developed. Whereas a Business Case provides sufficient information for evaluating various business model and governance frameworks, as well as for a go/no-go, decision, the Business Plan goes to the next level of detail and provides a detailed template and guidance for implementation.
- Broadband Facilties Master Plan – should KRP decide upon a more incremental approach, then a Broadband Facilities Master Plan should be developed for each of the municipalities in the region. The Master Plan can then be used as a guide for including fibre conduit when planning new developments and linear infrastructure projects, providing relevant

community facility needs information when working with service providers, and/or collaborating with regional partners. It helps municipalities protect their right-of-ways (ROWs) and leverage potential development dollars, grant funding, use of works agreements, and/or cost-sharing opportunities when they arise.

- Municipal Documents – Update municipal strategy, planning, policy, and engineering documents to align with the master plan. Going forward, leverage civil works across the Partnership based on the Plan.

10.3 Lacombe County

The following recommendations are based on the community discussions with the Flagstaff County municipalities and the Areas of Opportunity presented in Sec. 7:

- Vision – establish a Broadband Vision for the Lacombe County region.
- Business Case – establish a business case for an inclusive (mostly), couny-wide, fibre broadband deployment program. Business case development helps ensure that the proposed undertaking makes business and financial sense and helps guide the development of a Master Plan.
- Business Plan – should the business prove compelling and the County, et al elects to move forward, then a more detailed Business Plan for the undertaking should be developed. Whereas a Business Case provides sufficient information for evaluating various business model and governance frameworks, as well as for a go/no-go, decision, the Business Plan goes to the next level of detail and provides a detailed template and guidance for implementation.
- Broadband Facilties Master Plan – should the County decide upon a more incremental approach, then a Broadband Facilities Master Plan should be developed for each of the municipalities in the region. The Master Plan can then be used as a guide for including fibre conduit when planning new developments and linear infrastructure projects, providing relevant community facility needs information when working with service providers, and/or collaborating with regional partners. It helps municipalities protect their right-of-ways (ROWs) and leverage potential development dollars, grant funding, use of works agreements, and/or cost-sharing opportunities when they arise.
- Municipal Documents – Update municipal strategy, planning, policy, and engineering documents to align with the master plan. Going forward, leverage civil works across the Partnership based on the Plan.

10.4 Red Deer County

The following recommendations are based on the community discussions with Red Deer County municipalities and the Areas of Opportunity presented in Sec. 7:

- Vision – establish a Broadband Vision for the County.
- Business Case – establish a business case for an inclusive (mostly), couny-wide, fibre broadband deployment program. Business case development helps ensure that the proposed undertaking makes business and financial sense and helps guide the development of a Master Plan.
- Business Plan – should the business prove compelling and the County elects to move forward, then a more detailed Business Plan for the undertaking should be developed. Whereas a Business Case provides sufficient information for evaluating various business model and governance frameworks, as well as for a go/no-go, decision, the Business Plan

goes to the next level of detail and provides a detailed template and guidance for implementation.

- Broadband Facilties Master Plan – should the County, et al, decide upon a more incremental approach, then a Broadband Facilities Master Plan should be developed for each of the municipalities in the area. The Master Plan can then be used as a guide for including fibre conduit when planning new developments and linear infrastructure projects, providing relevant community facility needs information when working with service providers, and/or collaborating with regional partners. It helps municipalities protect their right-of-ways (ROWs) and leverage potential development dollars, grant funding, use of works agreements, and/or cost-sharing opportunities when they arise.
- Municipal Documents – Update municipal strategy, planning, policy, and engineering documents to align with the master plan. Going forward, leverage civil works across the Partnership based on the Plan.

11 Next Steps

Many of the initial steps can be low cost planning changes to development policy and strategic planning initiatives. These elements, at a minimum, are required if Alberta communities plan to grow and remain sustainable within the next 5 years and beyond. Preliminary cost-saving measures, such as updated development policies and capital project planning that include ROW and conduit infrastructure for future use can be fairly simply and quickly implemented into a community's strategic planning process. In combination with a high-level Broadband Facilities Master Plan, municipalities can be armed with valuable insight when working with service providers and/or regional partners.

While regional and municipal options do involve more hassle and risk than simply transferring responsibility to private enterprise, they come with significant community advantages. As well, to minimize the hassle-factor, close to turn-key options do exist and can be easily incorporated into regional, sub-regional, and community deployment programs once the community has decided upon the business and governance structure, operational arrangements, and financing.

In this document, a range of options to enhance broadband services have been presented for consideration. Municipalities at both the community and the county/MD and sub-regional levels will need to decide which might best fit within their requirements, priorities, and budget.

12 Conclusions

The Internet and related technologies are causing the world to transition to more complex economic systems built around *knowledge*.[29] As a foundational cornerstone of these emerging systems of wealth creation, access to information and communications technology (ICT) has become critical to sustainable economic development in virtually every community and society on the planet.

In the broadband infrastructure game, a land-grab of sorts is currently underway and time is of the essence. The longer it takes communities to debate their options and assemble the required resources, the more time the traditional telecom and cable service providers have to replace aging infrastructure in their most profitable markets with fibre – which then removes valuable cashflow from more inclusive community-wide utility plays. To move forward quickly, CAEP will likely need to take an

[29] Toffler, A&H; Revolutionary Wealth; Knopf; 2006-04-25.

active role with those communities most interested in moving ahead. As momentum develops and the issues are resolved, other communities could come onboard.

To be most effective, collaboration will also need to include both distribution and access networks within municipalities as well as the backhaul networks that link the communities together – an issue that will blur the more traditional CAEP modus operandi in which their role is solely focused on coordination between communities and not on what each community elects to do itself.

13 Acronyms

ACFA	Alberta Capital Finance Corporation
ACP	Alberta Community Partnership
AFRRCS	Alberta First Responder Radio Communication System
BAN	base area network
BRAED	Battle River Alliance for Economic Development
CAD$	Canadian dollars
CAEP	Central Alberta Economic Partnership
CRP	Calgary Regional Partnership
CRTC	Canadian Radio-television and Telecommunications Commission
DIY	do it yourself
EAN	extended area network
FIP	Flagstaff Intermunicipal Partnership
EORN	Eastern Ontario Regional Network
FTTH	fibre-to-the-home
FTTP	fibre-to-the-premise
GB	gigabyte, where 1 B = 8 bits (b)
Gb/s	gigabits (10^9 bits) per second (1000 Mb/s)
GPON	gigabit passive optical network
ICE	Irma, Chauvin, and Edgerton
ICT	information and communications technology
ISP	Internet Service Provider
km^2	square kilometer
KRP	Kneehill Regional Partnership
LTE	long term evolution
M	mega, million (10^6)
Mb/s	megabits (10^6 bits) per second
MD	Municipal District
mo	month
PEP	Palliser Economic Partnership
PEPS	Paintearth Economic Partnership Society
PPP	public, private partnership
OICRD	Olds Institute for Community & Regional Development
ONT	optical network unit

SWIFT	SouthWest Integrated Fibre Technology
US	United States (of America)
yr	year
YYCIX	Calgary (YYC) Internet Exchange (IX)

14 Appendix

14.1 Business Model Options

Dark Fibre	Conduit	***E.g:*** Montreal ***Open access*** can be provided via conduit sharing or subducting, but is limited by the size of the existing conduit.
		Pro's: Simple operationally, can be handled by traditional utility departments. Takes 50-60% of the deployment expense off the table for service providers if well designed. ***Con's:*** Typically only includes feeder and some distribution routes; Limited breakout points; May restrict fibre architecture
	Fibre	***E.g:*** Stokab in Stockholm, Qnet in Coquitlam, OICRD in Olds, Calgary ***Open access*** is typically provided via home-run architecture and by provisioning multiple fibres per premise. If fibre counts are limited, a community may opt for first-come, first-served arrangements.
		Pro's: Simple operationally, but considerably more helpful than a conduit-only play. Takes 50-75% of the deployment expense off the table for service providers. Reduces disruption due to civic construction. Enables efficient conduit/fibre design and can be optimized for connectivity. Over-provisioning is required to ensure sufficient fibre and space for multiple sets of network equipment. ***Con's:*** Potential service providers must also deploy network equipment to light the fibres they wish to lease prior to providing services. In large metropolitan areas, this works, but in smaller communities, it will limit the number of service providers available to you. O-Net, for instance, is not likely to play, and if one does come in, it's likely that no-one else will, due to the limited market – giving them a defacto monopoly.

Lit Fibre		***E.g:*** *SuperNet* in Alberta (backbone only). Common in Europe and would work well here. ***Open access*** can be provided via an independent network operator and a well-managed routing centre.
		Pro's: Facilitates unencumbered services-based competition amongst pure-play

		service providers and thus opens up services innovation to all players. ***Con's:*** Goes against long standing (if not antiquated) federal policy of facilities-based competition. A services-based eco-system has not yet developed in Canada and current incumbents will boycott your network.
Integrated		***E.g:*** Bell, Rogers, Shaw, TELUS; Traditional business model. All incumbents.
		Pro's: Good for single-purpose networks and universal service. ***Con's:*** Inhibits competition and innovation is only with permission from the network operators. Results in defacto monopoly control of critical civic infrastructure. Interests of the incumbent shareholders do not align with the needs of the communities they serve.

14.2 Municipal Information – Clearwater

14.2.1 Clearwater County

Desired State Response – Quoted:

Our region's population is shrinking and aging, in large part due to the decline in oil/gas industry jobs, although we actually didn't grow during the boom of 2009 – 2014. We are now looking at ways to diversify and grow the economy in other industries. The County believes that broadband access would remove one of the barriers to growth in our area for businesses, and could help with residential attraction and education as well. It has been a topic on Clearwater Council's Agenda for three years, but Council has not made any firm decisions. Council is hesitant to try and influence what has been a private market, and they do not want to risk tax dollars into a project where the technology could be outdated within just a few years. Council does see this as an investment in the future, but the local aging population may not support a large investment that they won't use. For the community at large, residents would love better access to broadband if they don't have to pay directly for infrastructure. There is a concern tax funds would be used primarily for entertainment and not for education, medical purposes, or economic development. This really boils down to how many resources Council needs to put into what they see as a private industry solution. They are risk averse, and to Council there are far more risks associated in investing in broadband assets that could be quickly outdated than not investing and slowly losing populations and losing investment opportunities.

Available Services:

	Fixed Point-to-Multipoint Wireless											
	CCI			Harewaves			HyTek			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Clearwater County												
Residential												
Option 1	49.99	up to 2	up to 0.75	49.95	up to 3	up to 1	50.00	up to 5	up to 1	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	70.99	up to 5	up to 1	100.00	up to 10	up to 2	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	104.95	up to 10	up to 2	150.00	up to 15	up to 2	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	200.00	up to 6	up to 2	200.00	up to 6	up to 5	100.00	up to 10	up to 2	74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	260.00	up to 8	up to 5	150.00	up to 15	up to 2	84.99	up to 25	up to 1
Option 3				365.00	up to 10	up to 6	250.00	up to 25	up to 5	109.99	up to 25	up to 1
Option 4				600.00	up to 15	up to 10						
Option 5												

14.2.2 Town of Rocky Mountain House

Desired State Response:

The local community is content with the level of service provided by TELUS/Shaw, however the Town recognizes and are very open to being part of a plan for backbone infrastructure for the surrounding County. Rocky Mountain House continues to be very interested in sitting at the table for the regional discussions and aid the plan/project in getting connectivity to their neighbours. The Town would like to see all of the residents of the surrounding County with affordable access to reliable internet.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Clearwater County						
Rocky Mountain House t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3				75.00	up to 30	up to 5
Option 4				100.00	up to 150	up to 15
Option 5						
Business						
Option 1	60.00	up to 15	up to 1			
Option 2						
Option 3						
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless											
	CCI			Harewaves			HyTek			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Clearwater County												
Rocky Mountain House t												
Residential												
Option 1	49.99	up to 2	up to 0.75	49.95	up to 3	up to 1	50.00	up to 5	up to 1	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	70.99	up to 5	up to 1	100.00	up to 10	up to 2	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	104.95	up to 10	up to 2	150.00	up to 15	up to 2	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	200.00	up to 6	up to 2	200.00	up to 6	up to 5	100.00	up to 10	up to 2	74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	260.00	up to 8	up to 5	150.00	up to 15	up to 2	84.99	up to 25	up to 1
Option 3				365.00	up to 10	up to 6	250.00	up to 25	up to 5	109.99	up to 25	up to 1
Option 4				600.00	up to 15	up to 10						
Option 5												

14.2.3 *Village of Caroline*

Desired State Response – Quoted:

As higher levels of government tighten up on availability of infrastructure grant funding, it is becoming harder and harder to complete infrastructure repairs on a limited tax base and tax dollars. Another aspect is a higher demand with an aging population and employment with changing economic times from industrial growth to green growth. Third party staffing and broadband monitoring systems can help to alleviate lack of qualified staff. Better Internet allows for easier access for online payments, education, etc. Internet can allow more people to work from home and may extend the life of the road infrastructure. Council worked with a private company to bring a type of high speed internet that is fibre to towers located within strategic locations around the community to provide faster line of site service to residents. With a population of 514 residents made up of low to middle income and a small municipal office staff of three and a limited tax base, it is hard to get the community to buy in with any tax payer financial contribution when there is aging infrastructure in need of replacement or enhancement if the community was to grow. Caroline would need a huge financial source to complete the 22 million of infrastructure that is or will need to be replaced. For Caroline the vision would be that within three years the current provider will be able to continue to upgrade its technology in a timely manner to continue to provide increased speeds in the service of broadband and for the federal government to provide better oversight and enforcement with the regulations.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	TELUS (copper)			CCI			Harewaves			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Clearwater County												
Caroline v												
Residential												
Option 1	63.00	1.5 to 6	up to 1	49.99	up to 2	up to 0.75	49.95	up to 3	up to 1	64.99	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	74.99	up to 5	up to 1	70.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3				94.99	up to 10	up to 1	104.95	up to 10	up to 2	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	60.00	up to 15	up to 1	200.00	up to 6	up to 2	200.00	up to 6	up to 5	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	260.00	up to 8	up to 5	84.99	up to 25	up to 1
Option 3							365.00	up to 10	up to 6	109.99	up to 25	up to 1
Option 4							600.00	up to 15	up to 10			
Option 5												

14.3 Municipal Information – Kneehill

14.3.1 Kneehill County

Desired State Response:

Kneehill County sees community broadband as a relevant item to addressing and supporting their priorities and are currently in discussions around this topic. Kneehill has some possible financial roadblocks and are looking for more information about community broadband in Kneehill County and what this looks like. Within three years, Kneehill would like to see industry take up the opportunity to facilitate broadband capability due to rapid changes in technology and infrastructure needed to provide service. Traditional utilities tend not to have such a rapid change in technology. In traditional utility expansion, it is usually the need to expand the utility network to accommodate future growth, which is usually covered by developers. In the case of broadband, it could potentially be overhauls of the entire system to accommodate demand, even without growth. Kneehill does not see community broadband as a traditional utility design because the fundamentals are so vastly different.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Kneehill County									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.3.2 Town of Three Hills

Desired State Response:

Contact was made with Three Hills; however formal input was not obtained prior to the time of writing. Historically Three Hills has been an advocate for regional collaboration around community broadband initiatives and therefore has been included as such.

Available Services:

	Wireline Providers					
	TELUS (copper)			Eastlink (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Kneehill County						
Three Hills t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.95	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	78.95	up to 30	up to 3
Option 3	73.00	5 to 25	up to 5	83.95	up to 50	up to 5
Option 4				88.95	up to 150	up to 10
Option 5						
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3						
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Kneehill County									
Three Hills t									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.3.3 Town of Trochu

Desired State Response:

Trochu already has great broadband and as such has no future plans for a community broadband initiative.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	Eastlink (coaxial cable)			AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Kneehill County												
Trochu t												
Residential												
Option 1	55.95	up to 5	up to 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	78.95	up to 30	up to 3	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	83.95	up to 50	up to 5	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	88.95	up to 150	up to 10	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5				149.00	up to 8	up to 6						
Business												
Option 1							200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2							249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.3.4 Village of Acme

Desired State Response:

The Village of Acme feels very strongly that a community-wide broadband system is important in an overall strategy to meet all of their current priorities. Council has been engaged in the discussions; however, there has not been a clear path forward. The community could not carry the necessary plan forward unilaterally, therefore assistance through regional partnership and/or future grant funding would be a first step requirement. Acme's primary, short-term goal would be a system available to all that is also affordable. Acme is actively working with the region and also looking for help from the region, provincial, or other stakeholder groups to help them reach this goal.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	TELUS (copper)			AireNet Internet Solutions			CCI			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Kneehill County												
Acme v												
Residential												
Option 1	63.00	1.5 to 6	up to 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	73.00	5 to 25	up to 5	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4				99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5				149.00	up to 8	up to 6						
Business												
Option 1	60.00	up to 15	up to 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2	85.00	up to 25	up to 5				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.3.5 Village of Carbon

Desired State Response:

Carbon has an aging population and needs to be attracting more young families. The option to work from home could open these types of opportunities. Previous work was done on moving forward a community broadband initiative, but hit a wall. Carbon feels strongly that the County needs to provide support and partner with them in order for a community broadband to even be a possibility. This could not happen soon enough for Carbon.

Available Services:

	Fixed Point-to-Multipoint Wireless					
	CCI			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up
Kneehill County						
Carbon v						
Residential						
Option 1	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4				109.99	up to 25	up to 1
Option 5						
Business						
Option 1	200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3				109.99	up to 25	up to 1
Option 4						
Option 5						

14.3.6 Village of Linden

Desired State Response:

No community broadband survey response received, however Linden has historically been an active member of regional discussions.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	TELUS (copper)			AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Kneehill County												
Linden v												
Residential												
Option 1	63.00	1.5 to 6	up to 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3				79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4				99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5				149.00	up to 8	up to 6						
Business												
Option 1	60.00	up to 15	up to 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2							249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.4 Municipal Information – Lacombe

14.4.1 Lacombe County

Desired State Response:

Economic development and critical infrastructure are some of Lacombe County's main priorities. The need for water and sewer on the west side of highway 2 and 12 grows in order to facilitate growth in the area. Community broadband is needed in order to get better high speed internet into the rural areas. Broadband is not currently in the County's strategic planning documents, but it has been in the past. The County had to return $500,000 because of lack of partners in internet service. The County would like to see a plan within the next three years, but see financial and Council buy-in as their main potential obstacles.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.4.2 City of Lacombe

Desired State Response:

The City of Lacombe believes broadband could help with investment attraction and possible service delivery, which would further support both Infrastructure and social issues. The City has service from TELUS and Shaw within the community which has been seen as providing a good baseline service. In general the City is satisfied with business as usual, but would be interested in more information. There has been some interest in pursuing an Olds type fiber network – however, the costs seem to be prohibitive, therefore further information and pros and cons could be beneficial to the discussion. The City within three years would like to be able to determine the gaps that exist and review if there is a role

for the municipality in service delivery. Within five years the City would like to see a targeted plan to address previously identified gaps if Council supported and within ten years that all residents and businesses would have CRTC level access at a minimum.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County						
Lacombe c						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5	85.00	up to 150	up to 150			
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3	100.00	up to 50	up to 10			
Option 4	125.00	up to 100	up to 20			
Option 5	150.00	up to 150	up to 150			

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County									
Lacombe c									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.4.3 Town of Bentley

Desired State Response:

Bentley feels there is no need at this time. Bentley residents have access to TELUS or Shaw and the community has fibre to the library and schools.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County						
Bentley t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3				75.00	up to 30	up to 5
Option 4				100.00	up to 150	up to 15
Option 5						
Business						
Option 1	60.00	up to 15	up to 1			
Option 2						
Option 3						
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County									
Bentley t									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.4.4 Town of Blackfalds

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County						
Blackfalds t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5	85.00	150	150			
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3	100.00	up to 50	up to 10			
Option 4	125.00	up to 100	up to 20			
Option 5	150.00	up to 150	up to 150			

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County									
Blackfalds t									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.4.5 Town of Eckville

Desired State Response:

Eckville sees that there is definitely a role for broadband in supporting and addressing their priorities. Council realizes that Eckville needs a strong broadband system in order to compete and grow in this world based economy and actually compete economically in this high pace world. If Eckville is to survive and thrive in the future a strong high speed internet service will be required for residents of all

ages and walks of life, especially for Eckville residents to be able to work from home and compete in this very competitive internet based world. Eckville is also embarking on a new internet based mapping and data system which will require a dependable high speed internet connection to allow the Town quick access to their infrastructure data information. Council has been working with a local Entrepreneur who is attempting to construct a high speed / superNet based service in Eckville. Council also met with a representative of AXIA to investigate the possibility of becoming one of their FIBRE TOWNS. The main obstacles for the Town are financial and staff capacity. The Town does not have sufficient funds to move ahead on this type of project on their own and also do not have the staff capacity to build or operate a high speed broadband system independently. Eckville would like to continue to move their plans forward and are very open to any and all potential partners and regional collaboration discussions. Within the next one or two years, Eckville would hope to have a high speed internet service up and running. There is a strong feeling that the Town cannot afford to wait more than that for reliable, cost-efficient community-wide broadband. The Eckville Town Council feels that a good solid broadband / high speed internet service is an essential requirement for Eckville to grow, compete, and indeed to survive, in the future.

Available Services:

	Wireline Providers						Fixed Point-to-Multipoint Wireless		
	TELUS (copper)			Eastlink (coaxial cable)			AireNet Internet Solutions		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Lacombe County									
Eckville t									
Residential									
Option 1	63.00	1.5 to 6	up to 1	77.00	up to 20	up to 2	49.00	up to 1.5	up to 0.5
Option 2							59.00	up to 2.5	up to 1
Option 3							79.00	up to 3.5	up to 1.5
Option 4							99.00	up to 5	up to 2.5
Option 5							149.00	up to 8	up to 6
Business									
Option 1									
Option 2									
Option 3									
Option 4									
Option 5									

	Fixed Point-to-Multipoint Wireless											
	CCI			Harewaves			Missing Link Internet			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Lacombe County												
Eckville t												
Residential												
Option 1	49.99	up to 2	up to 0.75	49.95	up to 3	up to 1	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	70.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	104.95	up to 10	up to 2	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	200.00	up to 6	up to 2	200.00	up to 6	up to 5				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	260.00	up to 8	up to 5				84.99	up to 25	up to 1
Option 3				365.00	up to 10	up to 6				109.99	up to 25	up to 1
Option 4				600.00	up to 15	up to 10						
Option 5												

14.4.6 Village of Alix

Desired State Response:

The village of Alix is very interested in a community broadband initiative and sees the importance of broadband in meeting the village's priorities. Financial resourcing and community buy-in will be their major obstacles, however with the poor service and service options for residents and businesses there is opportunity for overcoming the community buy-in piece. A regional collaboration effort to aid with the financial resources around capital and staff resources would be of great benefit to the Village of Alix and moving forward the initial steps towards community broadband.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County									
Alix dsf									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.4.7 Village of Clive

Desired State Response:

Internet capability will allow residents in Clive to be employed in high skill jobs without having to move to the large urban centres. Broadband allows for sharing and collaborating with others across vast distances. Community broadband is not part of Clive's strategic planning as they already include it in by providing allowances for future fibre by considering as part of the planning process for road improvement projects. Clive is interested and looking for more information and potential collaboration around community broadband. Financial demands and staff capacity would be Clive's main potential roadblocks. Clive would like to see within five years that businesses and institutions have high quality, affordable high-speed gigabit-capable up and downstream broadband service and coverage. Further, that within ten years, all residents have high quality, affordable high-speed gigabit-capable up and downstream broadband service and coverage.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	TELUS (copper)			CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Lacombe County												
Clive v												
Residential												
Option 1	63.00	1.5 to 6	up to 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	73.00	5 to 25	up to 5	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	60.00	up to 15	up to 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	85.00	up to 25	up to 5	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.5 Municipal Information – Mountain View County

14.5.1 Mountain View County

Desired State Response – Quoted:

Mountain View County has had on-going discussions and Council is interested in doing what is needed to help residents get the services they need. Obstacles that have stood in the way would be financial, a lack of perceived need, and a lack of desire to compete with private industry. The County has seen local level government sponsored initiatives not go well, and if urban municipalities cannot afford

to provide these services to a higher-density area, it is difficult to see such an initiative be sustainable in a rural, low-density situation. Further, wireless is providing various levels of service, which has mixed results. It is questionable whether government should step in and compete with these businesses. The County is interested in more information and would like to see within three years 70% of residents/businesses have access to 50Mb. Within five years, that speed increased to 100Mb, and within ten years 90% of residents have access to the speed of internet deemed necessary at the time.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Mountain View County									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.5.2 Town of Carstairs

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Mountain View County						
Carstairs t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4				100.00	up to 150	up to 15
Option 5						
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3						
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Mountain View County									
Carstairs t									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.5.3 Town of Didsbury

Desired State Response:

Didsbury continues to grow and expects that there may be challenges with the rising number of seniors looking for assisted living. The Town also continues to focus on economic development and expects this focus for the foreseeable future. Didsbury knows that advanced technology can certainly assist with addressing issues and challenges, however, the Town currently has Fibre Internet throughout the community offered by the private sector that is meeting their community needs and therefore is not interested at this time in allocating staff resources.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up
Mountain View County						
Didsbury t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5	85.00	up to 150	up to 150			
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3	100.00	up to 50	up to 10			
Option 4	125.00	up to 100	up to 20			
Option 5	150.00	up to 150	up to 150			

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Mountain View County									
Didsbury t									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.5.4 Town of Olds

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers								
	Olds (fibre)			TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Mountain View County									
Olds									
Residential									
Option 1	90.00	50	50	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	100.00	100	100	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	125.00	1,000	1,000	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4							100.00	up to 150	up to 15
Option 5									
Business									
Option 1	90.00	50	50	60.00	up to 15	up to 1			
Option 2	100.00	100	100	85.00	up to 25	up to 5			
Option 3	125.00	1,000	1,000						
Option 4									
Option 5									

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Mountain View County									
Olds									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.5.5 Town of Sundre

Desired State Response:

Sundre is well on the path to community broadband development. Sundre has a dedicated webpage to share the project progress and includes their recent 2017 Broadband Demand Study. Sundre started the process in 2015 when the Town investigated becoming a gigabit community via broadband fibre optics. Using the premise that broadband is an important economic driver, the Town was provided with enough funding to assess the feasibility of installing a broadband fibre optic network. Sundre recently completed the 2017 Broadband demand study, of which results suggest that the majority of the community suggested they would support spending public dollars on a Broadband Fibre Optic Network Infrastructure.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	TELUS (copper)			AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Mountain View County												
Sundre												
Residential												
Option 1	63.00	1.5 to 6	up to 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	73.00	5 to 25	up to 5	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4				99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5				149.00	up to 8	up to 6						
Business												
Option 1	60.00	up to 15	up to 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2	85.00	up to 25	up to 5				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.5.6 Village of Cremona

Desired State Response:

Cremona understands the importance of community broadband to addressing their priorities and currently have this in their strategic planning. Cremona would like to have within 3 years every property and parcel be connected with fibre.

Available Services:

	Wireline Providers		
	TELUS (copper)		
	Cost	Bandwidth - Mb/s	
	$/mo	Down	Up
Mountain View County			
Cremona v			
Residential			
Option 1	63.00	1.5 to 6	up to 1
Option 2	68.00	3 to 15	up to 1
Option 3			
Option 4			
Option 5			
Business			
Option 1	60.00	up to 15	up to 1
Option 2			
Option 3			
Option 4			
Option 5			

	Fixed Point-to-Multipoint Wireless											
	AireNet Internet Solutions			CCI			Velocity Networks			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Mountain View County												
Cremona v												
Residential												
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	60.00	up to 4	up to 1	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	80.00	up to 8	up to 2	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	100.00	up to 12	up to 3	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				198.00	up to 25	up to 3	109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6									
Business												
Option 1				200.00	up to 6	up to 2	200.00	up to 15	up to 5	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	300.00	up to 30	up to 5	84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.6 Municipal Information – Ponoka County

14.6.1 Ponoka County

Desired State Response:

No community broadband survey response received.

Available Services:

	Fixed Point-to-Multipoint Wireless											
	Arrow Technology Group			CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Ponoka County												
Residential												
Option 1	65.00	up to 5	na	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2				74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3				94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	250.00	up to 1.5	up to 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	500.00	up to 3	up to 1.5	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.6.2 Town of Ponoka

Desired State Response:

Economic development, financial sustainability, critical infrastructure, and recreation opportunities for all ages are the main priorities today in the Town of Ponoka. The Town sees broadband of highest importance in reference to economic development and they are fortunate to have TELUS fibre optic available to about 95% of homes and businesses. The only remaining piece for the Town is for the properties on the periphery that are currently not serviced, however, the plan would be for future land development to bring service to these areas also.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Ponoka County						
Ponoka t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5	85.00	up to 150	up to 150			
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3	100.00	up to 50	up to 10			
Option 4	125.00	up to 100	up to 20			
Option 5	150.00	up to 150	up to 150			

	Fixed Point-to-Multipoint Wireless											
	Arrow Technology Group			CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Ponoka County												
Ponoka t												
Residential												
Option 1	65.00	up to 5	na	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2				74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3				94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	250.00	up to 1.5	up to 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	500.00	up to 3	up to 1.5	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.6.3 Town of Rimbey

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Eastlink (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Ponoka County						
Rimbey t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	77.00	up to 20	up to 2
Option 2	68.00	3 to 15	up to 1			
Option 3	73.00	5 to 25	up to 5			
Option 4						
Option 5						
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3						
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless											
	CCI			Harewaves			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Ponoka County												
Rimbey t												
Residential												
Option 1	49.99	up to 2	up to 0.75	49.95	up to 3	up to 1	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	70.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	104.95	up to 10	up to 2	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	200.00	up to 6	up to 2	200.00	up to 6	up to 5				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	260.00	up to 8	up to 5				84.99	up to 25	up to 1
Option 3				365.00	up to 10	up to 6				109.99	up to 25	up to 1
Option 4				600.00	up to 15	up to 10						
Option 5												

14.6.4 Maskwacis First Nation

Desired State Response:

Social Issues, critical infrastructure, strategic visioning, and economic development are a few of Maskwacis top priorities. The community has very little for local broadband infrastructure and only private industry service providers. The community would love to have a local, First Nation owned, utility that would enable them to have full control and of this important civic infrastructure. Bruce Buffalo, the local community broadband champion, has approached council and they have agreed to support his efforts. He has been tasked with coming up with a draft plan/budget proposal. One suggestion was the start of a local non-profit to get the ball rolling; thereby potentially making it easier to acquire funding as a community project. The main obstacles for Maskwacis are a lack of information, financial resources, and council buy-in. They are very interested in moving a plan forward, however are in need of a substantial amount of planning. Bruce would like to see within three years that all residents have access to broadband technologies and the skills to use them regardless of socio-economic status. Within five years residents, businesses, and institutions have high quality, affordable, high-speed broadband service and coverage, and within ten years fibre broadband infrastructure deployment has been accelerated so that over 90% of homes and businesses have access to gigabit-capable internet.

Available Services:

	Fixed Point-to-Multipoint Wireless											
	Arrow Technology Group			CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Ponoka County												
Maskwacis fn												
Residential												
Option 1	65.00	up to 5	na	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2				74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3				94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	250.00	up to 1.5	up to 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	500.00	up to 3	up to 1.5	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.7 Municipal Information – Red Deer County

14.7.1 Red Deer County

Desired State Response:

The County sees internet as crucial to running a business. This is especially important to the outlying communities. The County is very interested in more information and planning and sees financial and staff capacity as the major obstacles. The vision for the County would be to have reliable, high speed internet access to the internet for all residents and businesses in the next five years.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.7.2 City of Red Deer

Desired State Response – Quoted:

Red Deer has a very good quality of life and is a desirable place to live. Economic Development and financial sustainability are key for Red Deer, similar to most Cities in Alberta, Red Deer is actively trying to diversify its economy and retain and grow the business that it has. Like most Alberta municipalities, Red Deer is continually reconciling provincial downloading and its municipal taxation and assessment practices for the good of its citizens. Red Deer has also made environmental sustainability a priority, as is reflected in the City's Environmental Master Plan. The City believes broadband has historically played a role related to the priorities and continues to support community broadband, as can be seen by Red Deer's forward thinking in the implementation of its Red Net broadband program that has connected much of the critical nodes of the municipality, including Schools, Colleges, Municipal Buildings, Fire and Police, with over 80 kms in existing infrastructure. Presently, Red Deer is placing fibre in new road

construction projects and will continue to do so. Red Deer recognizes that additional access to broadband is continually being requested and could have significant influence in supporting economic development which is one of the council's and City's priorities. Red Net already provides an avenue for their community broadband initiative. The City continues to be very interested in being part of the discussion locally, regionally, and provincially. Red Deer would like to see within three years an assessment of the current state of existing Broadband in the community and determine what next steps are needed to expand the network. Within five years, expansion of the network to those areas that are most easily developed and determine longer term strategies to enable all residents access to broadband technologies and within ten years implement an updated broadband technology strategy.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County						
Red Deer c						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5						
Business						
Option 1	55.95	6	1	51.95	up to 5	up to 0.5
Option 2	60.00	up to 15	up to 1	60.95	up to 20	up to 1.5
Option 3	85.95	up to 25	up to 5	78.95	up to 30	up to 5
Option 4				102.95	up to 60	up to 6
Option 5				119.95	up to 150	up to 15

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County									
Red Deer c									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.7.3 Town of Bowden

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County						
Bowden t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3				75.00	up to 30	up to 5
Option 4				100.00	up to 150	up to 15
Option 5						
Business						
Option 1	60.00	up to 15	up to 1			
Option 2						
Option 3						
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County									
Bowden t									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.7.4 Town of Innisfail

Desired State Response:

Two years ago TELUS Fibre came into Innisfail and provided services for all businesses and even businesses outside of the community. Broadband is not on Innisfail's radar anymore because of this. Innisfail is totally satisfied with their current LOS.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County						
Innisfail t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5	85.00	up to 150	up to 150			
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3	100.00	up to 50	up to 10			
Option 4	125.00	up to 100	up to 20			
Option 5	150.00	up to 150	up to 150			

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County									
Innisfail t									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.7.5 Town of Penhold

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County						
Penhold t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5						
Business						
Option 1	55.95	1.5 to 6	up to 1			
Option 2	60.00	up to 15	up to 1			
Option 3	85.95	up to 25	up to 5			
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless								
	AireNet Internet Solutions			CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County									
Penhold t									
Residential									
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5				109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6						
Business									
Option 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.7.6 Town of Sylvan Lake

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Shaw (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County						
Sylvan Lake t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5
Option 4	80.00	20 to 50	up to 10	100.00	up to 150	up to 15
Option 5						
Business						
Option 1	55.95	1.5 to 6	up to 1			
Option 2	60.00	up to 15	up to 1			
Option 3	85.95	up to 25	up to 5			
Option 4						
Option 5						

	Fixed Point-to-Multipoint Wireless											
	AireNet Internet Solutions			CCI			Harewaves			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County												
Sylvan Lake t												
Residential												
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	49.95	up to 3	up to 1	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1	70.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1	104.95	up to 10	up to 2	84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5							109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6									
Business												
Option 1				200.00	up to 6	up to 2	200.00	up to 6	up to 5	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3	260.00	up to 8	up to 5	84.99	up to 25	up to 1
Option 3							365.00	up to 10	up to 6	109.99	up to 25	up to 1
Option 4							600.00	up to 15	up to 10			
Option 5												

14.7.7 *Village of Delburne*

Desired State Response – Quoted:

Delburne understands the importance of community broadband. Economic Development cannot move forward without it. The community has collected information from conferences and was inspired by Nobleford's economic development story, where they have seen a major increase in population and the business community since bringing in Broadband. Delburne is looking for a story like this. Currently, it is one of their top priorities, with only financial and community buy-in as their main obstacles. Community Buy-In or citizen engagement is the bigger of the two and this includes business buy-in. Although a motivated community can get the project up and in discussions, resources are needed to meet the financial requirements to actually give the program legs. Delburne is currently working with Axia and they came up with well over 50% pledges, however, based on information they have gathered they have concerns about over-subscription in the Province and understand there would be a need for a minimum of at least 70/80% pledged, or communities run the risk of getting bumped. The school and library have SuperNet already, but when businesses have asked for access they have not been able to access it. The vision is set and really just looking for a champion from within the community or even the region to get the ball further down the path. Delburne is hoping for some collaboration or partnerships such as Kneehill and Elnora, as these are in proximity and are also well on their way with community broadband. Their hope would be that within three years there would be infrastructure going in to support community broadband.

Available Services:

	Fixed Point-to-Multipoint Wireless		
	XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County			
Delburne v			
Residential			
Option 1	64.99	up to 5	up to 1
Option 2	74.99	up to 10	up to 1
Option 3	84.99	up to 25	up to 1
Option 4	109.99	up to 25	up to 1
Option 5			
Business			
Option 1	74.99	up to 10	up to 1
Option 2	84.99	up to 25	up to 1
Option 3	109.99	up to 25	up to 1
Option 4			
Option 5			

14.7.8 Village of Elnora

Desired State Response – Quoted:

No community broadband survey response received, however, Elnora has historically been an active member at the regional partnership table, therefore the purposes of this study they have been included as supportive of a regional broadband initiative.

Available Services:

	Fixed Point-to-Multipoint Wireless											
	AireNet Internet Solutions			CCI			Wispernet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Red Deer County												
Elnora v												
Residential												
Option 1	49.00	up to 1.5	up to 0.5	49.99	up to 2	up to 0.75	40.00	up to 1.5	up to 1.5	64.99	up to 5	up to 1
Option 2	59.00	up to 2.5	up to 1	74.99	up to 5	up to 1				74.99	up to 10	up to 1
Option 3	79.00	up to 3.5	up to 1.5	94.99	up to 10	up to 1				84.99	up to 25	up to 1
Option 4	99.00	up to 5	up to 2.5							109.99	up to 25	up to 1
Option 5	149.00	up to 8	up to 6									
Business												
Option 1				200.00	up to 6	up to 2	49.95	up to 1.5	up to 1.5	74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.8 Municipal Information – County of Stettler

14.8.1 County of Stettler

Desired State Response:

No community broadband survey response received.

Available Services:

	Fixed Point-to-Multipoint Wireless											
	CCI			NETAGO			Syban			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Stettler												
Residential												
Option 1	49.99	up to 2	up to 0.75	49.95	up to 5	up to 0.5	49.95	up to 3	na	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.95	up to 10	up to 1	64.95	up to 6	na	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	79.95	up to 15	up to 2	94.95	up to 15	na	84.99	up to 25	up to 1
Option 4				94.95	up to 20	up to 2				109.99	up to 25	up to 1
Option 5												
Business												
Option 1	200.00	up to 6	up to 2	74.95	up to 5	up to 0.5				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	119.95	up to 10	up to 2				84.99	up to 25	up to 1
Option 3				199.95	up to 15	up to 3				109.99	up to 25	up to 1
Option 4				299.95	up to 25	up to 5						
Option 5												

14.8.2 Town of Stettler

Desired State Response:

Stettler sees the value in a community broadband plan to allow residents to work from home and stay educated and informed. The main obstacles for them are financial and staff capacity. Stettler would like to see an affordable option possible within the next three years, broadband in the community in the next five years, and broadband well utilized within the next ten years.

Available Services:

	Wireline Providers						Fixed Point-to-Multipoint Wireless					
	TELUS (copper)			Shaw (coaxial cable)			CCI			XplorNet		
	Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s		Cost	Bandwidth - Mb/s	
	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up	$/mo	Down	Up
Stettler												
Stettler t												
Residential												
Option 1	63.00	1.5 to 6	up to 1	55.00	up to 5	up to 0.5	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	66.00	up to 15	up to 0.5	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	73.00	5 to 25	up to 5	75.00	up to 30	up to 5	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4	80.00	20 to 50	up to 10							109.99	up to 25	up to 1
Option 5	85.00	up to 150	up to 150									
Business												
Option 1	60.00	up to 15	up to 1				200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2	85.00	up to 25	up to 5				249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3	100.00	up to 50	up to 10							109.99	up to 25	up to 1
Option 4	125.00	up to 100	up to 20									
Option 5	150.00	up to 150	up to 150									

14.8.3 Village of Big Valley

Desired State Response:

Economic development and financial sustainability are top priorities in Big Valley, therefore staying current with services and infrastructure is extremely important to remain competitive in relation to other comparable municipalities. The vision for broadband over the next 10 years would be within five years, integrate broadband into municipal planning and then within ten years, implement plans and have a community wide access to broadband.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	CCI			NETAGO			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Stettler									
Big Valley v									
Residential									
Option 1	49.99	up to 2	up to 0.75	49.95	up to 5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.95	up to 10	up to 1	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	79.95	up to 15	up to 2	84.99	up to 25	up to 1
Option 4				94.95	up to 20	up to 2	109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2	74.95	up to 5	up to 0.5	74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	119.95	up to 10	up to 2	84.99	up to 25	up to 1
Option 3				199.95	up to 15	up to 3	109.99	up to 25	up to 1
Option 4				299.95	up to 25	up to 5			
Option 5									

14.8.4 Village of Botha

Desired State Response:

No community broadband survey response received.

Available Services:

	Fixed Point-to-Multipoint Wireless					
	CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Stettler						
Botha v						
Residential						
Option 1	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4				109.99	up to 25	up to 1
Option 5						
Business						
Option 1	200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3				109.99	up to 25	up to 1
Option 4						
Option 5						

14.8.5 Village of Donalda

Desired State Response:

For Donalda their main community challenges are lack of growth, an aging population, and that most travel out of town for work. Administration is waiting on the fall election to set out plan with new council. Hopefully this will include adding a priority around community broadband plan. For obstacles, the only major one is financial; however, it is a fairly big obstacle. Currently, the library in the municipal building has SuperNet (Parkland library) which the municipal building uses with only a maximum of about 9/10 Mbps. It would be of interest to them to open discussions with the Province about upscaling the connection for broader and higher quality usage. The question was posed wondering how many of these smaller rural communities have fibre already in their libraries and schools and the opportunity for municipalities to access this.

Available Services:

	Wireline Providers			Fixed Point-to-Multipoint Wireless								
	TELUS (copper)			CCI			Syban			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Stettler												
Donalda v												
Residential												
Option 1	63.00	1.5 to 6	up to 1	49.99	up to 2	up to 0.75	49.95	up to 3	na	64.99	up to 5	up to 1
Option 2				74.99	up to 5	up to 1	64.95	up to 6	na	74.99	up to 10	up to 1
Option 3				94.99	up to 10	up to 1	94.95	up to 15	na	84.99	up to 25	up to 1
Option 4										109.99	up to 25	up to 1
Option 5												
Business												
Option 1	60.00	up to 15	up to 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2				249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3										109.99	up to 25	up to 1
Option 4												
Option 5												

14.8.6 *Village of Gadsby*

Desired State Response:

No community broadband survey response received.

Available Services:

	Fixed Point-to-Multipoint Wireless					
	CCI			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Stettler						
Gadsby v						
Residential						
Option 1	49.99	up to 2	up to 0.75	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	84.99	up to 25	up to 1
Option 4				109.99	up to 25	up to 1
Option 5						
Business						
Option 1	200.00	up to 6	up to 2	74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3	84.99	up to 25	up to 1
Option 3				109.99	up to 25	up to 1
Option 4						
Option 5						

14.9 Municipal Information – County of Wetaskiwin

14.9.1 *County of Wetaskiwin*

Desired State Response:

No community broadband survey response received.

Available Services:

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Wetaskiwin									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.9.2 City of Wetaskiwin

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Eastlink (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Wetaskiwin						
Westaskiwin c						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.95	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	78.95	up to 30	up to 3
Option 3	73.00	5 to 25	up to 5	83.95	up to 50	up to 5
Option 4	80.00	20 to 50	up to 10	88.95	up to 150	up to 10
Option 5	85.00	up to 150	up to 150			
Business						
Option 1	60.00	up to 15	up to 1			
Option 2	85.00	up to 25	up to 5			
Option 3	100.00	up to 50	up to 10			
Option 4	125.00	up to 100	up to 20			
Option 5	150.00	up to 150	up to 150			

	Fixed Point-to-Multipoint Wireless								
	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Wetaskiwin									
Westaskiwin c									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

14.9.3 Town of Millet

Desired State Response:

No community broadband survey response received.

Available Services:

	Wireline Providers					
	TELUS (copper)			Eastlink (coaxial cable)		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Wetaskiwin						
Millet t						
Residential						
Option 1	63.00	1.5 to 6	up to 1	55.95	up to 5	up to 1
Option 2	68.00	3 to 15	up to 1	78.95	up to 30	up to 3
Option 3	73.00	5 to 25	up to 5	83.95	up to 50	up to 5
Option 4				88.95	up to 150	up to 10
Option 5						
Business						
Option 1	55.95	1.5 to 6	up to 1			
Option 2	60.00	up to 15	up to 1			
Option 3	85.95	up to 25	up to 5			
Option 4						
Option 5						

	CCI			Missing Link Internet			XplorNet		
	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up	Cost $/mo	Bandwidth - Mb/s Down	Up
Wetaskiwin									
Millet t									
Residential									
Option 1	49.99	up to 2	up to 0.75	44.95	up to 1.5	up to 0.5	64.99	up to 5	up to 1
Option 2	74.99	up to 5	up to 1	64.99	up to 4	up to 0.75	74.99	up to 10	up to 1
Option 3	94.99	up to 10	up to 1	88.99	up to 6	up to 1	84.99	up to 25	up to 1
Option 4							109.99	up to 25	up to 1
Option 5									
Business									
Option 1	200.00	up to 6	up to 2				74.99	up to 10	up to 1
Option 2	249.99	up to 7	up to 3				84.99	up to 25	up to 1
Option 3							109.99	up to 25	up to 1
Option 4									
Option 5									

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Member Bulletin

September 6, 2017

Service Alberta Provides Update on SuperNet Operating Agreement

At the August 2017 AAMDC Board of Directors Meeting, Service Alberta representatives provided an update on the progress of selecting a new operator and the development of a new operating agreement for the **Alberta SuperNet**. As this process is not yet complete, the information that may be shared publicly is limited. With this in mind, Service Alberta has provided the AAMDC with the following update to share with members:

SuperNet: The Way Forward

As part of Service Alberta's commitment to ongoing communications with respect to SuperNet: The Way Forward, we would like to update you on our progress to-date. As you are aware, the current SuperNet operating agreement expires on June 30, 2018, and Service Alberta has been actively completing an open and competitive procurement process to enable government's direction for SuperNet 2.0. This has included:

- *A competitively tendered vendor prequalification in 2016 that has resulted in three SuperNet Pre-Qualified Respondents: Axia (Consortium), Bell Canada, and Telus Communications Inc.;*
- *A series of stakeholder engagements, most recently beginning in the summer of 2016;*
- *A Confidential Pre-Qualified Respondent Meeting process - running from the spring of 2016 through to summer 2017 - to explore the technical and service delivery requirements for future SuperNet services and, based on government direction, help inform a final SuperNet Request for Proposal (RFP); and*
- *Government of Alberta (GoA) review and approval of the direction for SuperNet 2.0.*

Following this extensive work, and government decisions on direction for SuperNet, an RFP was released to our three Pre-Qualified Respondents on August 17, 2017.

The RFP is scheduled to close on October 12, 2017 following which we will be undergoing a thorough evaluation process prior to contract award. While the RFP release period is currently set at 8 weeks, there is a possibility that extension requests may keep the procurement open for a longer period of time. That said, Service Alberta's intention is to have a new contract in place before the end of 2017.

The GoA's number one job continues to be ensuring service continuity for our public sector, including municipal offices using SuperNet across the province. We are also looking at ways to positively impact rural connectivity as part of SuperNet's future direction. While we cannot openly discuss this procurement or direction while the RFP is open, we will be providing additional updates as we complete the procurement and move forward with SuperNet 2.0 later this year. We have greatly appreciated the engagement of the Alberta Association of Municipal Districts and Counties (AAMDC) throughout our work on the future of SuperNet, including the joint survey of your member communities, and look forward to continuing this open communication channel.

> *Our government also shares municipal views regarding the importance of broadband connectivity and its role in making life better for Albertans. As part of our mandate, Service Alberta has worked extensively with other jurisdictions, internet service providers (ISPs), the federal government, and the Canadian Radio-television and Telecommunications Commission (CRTC) to communicate the need for a national broadband strategy, while also assisting Alberta community leaders and ISPs with applications for federal Connect to Innovate grants. We have also communicated our support for AAMDC's 2017 resolutions regarding the need for a national broadband plan and further municipal engagement with respect to broadband connectivity. In that light, and in addition to the time constrained work needed to meet our deadlines for SuperNet 2.0, the GoA will be working with both the AAMDC and the Alberta Urban Municipalities Association (AUMA) to gather input towards broadband options for Alberta.*

The AAMDC will continue to work with Service Alberta on this issue and share further information with members as it becomes available.

Enquiries may be directed to:

Wyatt Skovron
Policy Analyst
780.955.4096

Kim Heyman
Director, Advocacy & Communications
780.955.4079

AGENDA ITEM

PROJECT: Fall 2017 High School Awards Ceremonies		
PRESENTATION DATE: September 26, 2017		
DEPARTMENT: **Community and Protective Services**	**WRITTEN BY:** **Ted Hickey**	**REVIEWED BY:** **Rodney Boyko, Acting CAO**
BUDGET IMPLICATION: ☒ N/A ☐ Funded by Dept. ☐ Reallocation		
LEGISLATIVE DIRECTION: ☒None ☐ Provincial Legislation (cite) ☐ County Bylaw or Policy (cite) Bylaw: _____ Policy:_____		
STRATEGIC PLAN THEME: **Well Governed and Leading Organization**	**PRIORITY AREA:** **Advocate in the best interests of our community and region.**	**STRATEGIES:** **2.5.4**
ATTACHMENT(S): Clearwater County Post-Secondary Scholarship Program Policy		
RECOMMENDATION: That Council selects and authorizes members of Council to attend each ceremony and present the County's Post-Secondary Scholarship certificate and cheque.		

BACKGROUND:

Under the "Post-Secondary Scholarship Program" Policy, Clearwater County Council budgets $4000 annually to provide a $1000 scholarship to one student from each of the four high schools located in the County. The recipient must be attending a recognized post-secondary institution in a full-time capacity. The policy, attached for Council's review, states that: "A county councillor shall attend the relevant High School award ceremony to present the award (i.e. the cheque) on behalf of the County".

The four ceremonies are scheduled as follows, with each being held at the respective school's gym:

- Caroline School: November 10th at 6:30 pm
- David Thompson High School: October 6th at 7:00 pm
- St. Dominic's High School: October 5th at 2:00 pm
- West Central High School: October 5th at 6:30pm

The recommendation is that Council authorizes members of Council to attend each ceremony, to present the scholarship to the respective recipient.

Clearwater County

CLEARWATER COUNTY POST SECONDARY SCHOLARSHIP PROGRAM

EFFECTIVE DATE: May 2008

SECTION: Administration

POLICY STATEMENT:

To recognize the importance of youth achievement in the area of community service and to encourage academic advancement, the County will offer an annual scholarship to worthy high school graduates.

DURATION: 5 years (may be extended upon evaluation by the Council in 2013)

VALUE: $4,000 given annually - $1,000 to one student graduating from each of the 4 High Schools in Clearwater County including West Central High School, St. Dominic High School, David Thompson High School and Caroline High School.

ELIGIBILITY:

- Any graduating student from a County High School registered and attending a post-secondary school in a full time capacity;
- Must have been a resident of Clearwater County at the time of graduation from high school (note: this does not include Town or Village residents);
- Citizenship is the primary consideration for eligibility and includes involvement in the community or school in a voluntary and/or leadership capacity while attending high school. The scholarship recipient will be seen and recognized by other students as an individual who continually demonstrated care and respect for fellow students and the community;
- A student, upon receiving this $1,000 scholarship once, is ineligible to receive another award under this program.

APPLICATION PROCESS:

- All graduating county high school students will be notified of this scholarship;
- Interested applicants may apply in writing identifying:
  - o Citizenship involvement while attending high school;
  - o County residence legal location while attending high school;
  - o Name of post-secondary institution and the full time program enrolled in; o Any reference letters the applicant feels are helpful in confirming citizenship activities.

REVIEW AND SELECTION PURPOSE:

- Applications will be received and reviewed by the respective high school principal (or his/her designate) considering the contents of the written application, the observations of school staff through the time the applicant attended high school, and any other community references the principal deems appropriate to consult.
- The respective high school principal shall select the winning applicant and advise the county administrator for purposes of preparing a check.

AWARD:

- A county councillor shall attend the relevant High School award ceremony and present the award (i.e. the check) on behalf of the County.

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Clearwater County

Councilor and Board Member Remuneration Statement

For the Year of ...2017.....

Name of Councilor / Board Member .Jim.Duncan.....

Payment Periods

January	**February**	**May**	**June**
March	**April**	**July**	***August***
September	**October**	**November**	**December**

Supervision Rate – $550.00 Monthly
Reeve Supervision Rate - $850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours $159.00	Next 4 Hours $126.00	Next 4 Hours $126.00	Regular Council Meeting $288.00	Lunch $16.00	Mileage @ $0.54 / km
Aug 8	Regular Couincil				X		40
Aug 17	Headwaters Tour- Rural Caucus	X	X	X			40
Aug 21	CTI- Meadows project	X					40
Aug 22	Regular Council				X		40
Aug 23	MPC	X	X				40
Aug 28	Canada 150	X					40
Aug 29	CTI – ATV Tour/ speak at UPC retreat	X	X				170
Aug 31	ASB Cairmen/Fieldmen meeting	X	X				130

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Remuneration Calculation

6	Meetings @ $159.00=	954.00	540	Kms @ $0.54=	291.60
5	Meetings @ $126.00=	630.00	0	Lunch @ $16.00=	0
2	Meetings @ $288.00=	576.00			
	Supervision=	550.00			
	TOTAL=	2710.00		**TOTAL=**	291.60

Signature {Councilor / Board Member} Jim Duncan.....

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Clearwater County
Councilor and Board Member Remuneration Statement

For the Year of ...2017.....

Name of Councilor / Board Member Kyle Greenwood

Payment Periods

January	**February**	**May**	**June**
March	**April**	**July**	**August**
September	**October**	**November**	**December**

Supervision Rate – $550.00 Monthly
Reeve Supervision Rate - $850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours $159.00	Next 4 Hours $126.00	Next 4 Hours $126.00	Regular Council Meeting $288.00	Lunch $16.00	Mileage @ $0.54 / km
May 1	Physician R&R	X					30
May 4	DTRB	X					30
May 9	CWC-Council				X		30
May 10	CCPAC	X					30
May 11	CCTA						
May 19	May Long Weekend Taskforce	X					30
May 20	Caroline Parade	X					80
May 23	CWC-Council				X		30
May 25	Parkland Regional Library	X					150

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Remuneration Calculation

6	Meetings @ $159.00=	954.00	410	Kms @ $0.54=	221.40
0	Meetings @ $126.00=	0	0	Lunch @ $16.00=	0
2	Meetings @ $288.00=	576.00			
	Supervision=	550.00			
	TOTAL=	2080.00		**TOTAL=**	221.40

Signature {Councilor / Board Member} Kyle Greenwood

G6

Clearwater County
Councilor and Board Member Remuneration Statement

For the Year of ...2017.....

Name of Councilor / Board Member Kyle Greenwood

Payment Periods

January	**February**	**May**	**(June)**
March	**April**	**July**	**August**
September	**October**	**November**	**December**

Supervision Rate – $550.00 Monthly
Reeve Supervision Rate - $850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours $159.00	Next 4 Hours $126.00	Next 4 Hours $126.00	Regular Council Meeting $288.00	Lunch $16.00	Mileage @ $0.54 / km
June 9	DARE Grad- Pioneer School	X					30
June 10	Rocky Parade	X					30
June 13	CWC- Council				X		30
June 14*	RSHC*	*					*
June 14	SRO @ WRSD		X				15
June 19	CWC- A&P	X	X				30
June 21	CCPAC- Ferrier	X					50
June 23	CWC- ASB	X					30
June 27	CWC- Council				X		30
June 28	Tri-Council	X					15
June 28	Rocky Library		X				15
June 30	St. Dominic Graduation	X					30

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Remuneration Calculation

1 Westview at 79 = 79.00

7	Meetings @ $159.00=	1113.00	305	Kms @ $0.54=	164.70
3	Meetings @ $126.00=	378.00	0	Lunch @ $16.00=	
2	Meetings @ $288.00=	576.00			
	Supervision=	550.00			
	TOTAL=	2696.00		**TOTAL=**	164.70

Signature {Councilor / Board Member} Kyle Greenwood

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Clearwater County
Councilor and Board Member Remuneration Statement

For the Year of ...2017.....

Name of Councilor / Board Member Kyle Greenwood.....

Payment Periods

January	**February**	**May**	**June**
March	**April**	**(July)**	**August**
September	**October**	**November**	**December**

Supervision Rate – $550.00 Monthly
Reeve Supervision Rate - $850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours $159.00	Next 4 Hours $126.00	Next 4 Hours $126.00	Regular Council Meeting $288.00	Lunch $16.00	Mileage @ $0.54 / km
July 1	Voyageurs Rendezvous Launch	X					40
July 11	CWC- Council				X		30
July 12*	RSHC*	*					*
July 21	Rocky Library- Personnel Comm.	X					30
July 25	CWC- Council				X		30

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Remuneration Calculation

1 Westview @ 79.00 = 79.00

2 Meetings @ $159.00= 318.00

0 Meetings @ $126.00= 0

2 Meetings @ $288.00= 576.00

Supervision= 550.00

TOTAL= 1523.00

130

0

Kms @ $0.54= 70.20

Lunch @ $16.00= 0

TOTAL= 70.20

Signature {Councilor / Board Member} Kyle Greenwood.....

G6

Clearwater County
Councilor and Board Member Remuneration Statement

For the Year of ...2017.....

Name of Councilor / Board Member Kyle Greenwood.....

Payment Periods

January	**February**	**May**	**June**
March	**April**	**July**	**August**
September	**October**	**November**	**December**

Supervision Rate – $550.00 Monthly
Reeve Supervision Rate - $850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours $159.00	Next 4 Hours $126.00	Next 4 Hours $126.00	Regular Council Meeting $288.00	Lunch $16.00	Mileage @ $0.54 / km
August 8	CWC- Council				X		30
Aug. 16	RSHC*	*					*
Aug. 17	MLA Summer Headwaters Tour	X	X				30
Aug. 22	CWC- Council				X		30
Aug. 23	Rocky Library- Finance Comm.	X					30
Aug. 24	WCAT						
Aug. 31	Rocky Library- Market on Main						

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Remuneration Calculation

1	Westview @ 79.00 =	79.00			
2	Meetings @ $159.00=	318.00	120	Kms @ $0.54=	64.80
1	Meetings @ $126.00=	126.00	0	Lunch @ $16.00=	0
2	Meetings @ $288.00=	576.00			
	Supervision=	550.00			
	TOTAL=	1649.00		**TOTAL=**	64.80

Signature {Councilor / Board Member} Kyle Greenwood.....

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Clearwater County

Councilor and Board Member Remuneration Statement

For the Year of ....2017.....

Name of Councilor / Board Member .....Curt Maki.....

Payment Periods

January	**February**	**May**	**June**
March	**April**	**July**	**August** (circled)
September	**October**	**November**	**December**

Supervision Rate – $550.00 Monthly
Reeve Supervision Rate - $850.00 Monthly

Date	Type of Meeting Attended	First 4 Hours $159.00	Next 4 Hours $126.00	Next 4 Hours $126.00	Regular Council Meeting $288.00	Lunch $16.00	Mileage @ $0.54 / km
Aug 8	Council				✓		70
11	AAMDC District 2	✓	✓				70
22	Council				✓		70
23	MPC	✓	✓				70

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Remuneration Calculation

2	Meetings @ $159.00=	318.00	280	Kms @ $0.54=	151.20
2	Meetings @ $126.00=	252.00	0	Lunch @ $16.00=	0
2	Meetings @ $288.00=	576.00			
	Supervision=	550.00			
	TOTAL=	1696.00		**TOTAL=**	151.20

Signature {Councilor / Board Member} .....Curt M.....