

CITY COUNCIL

AGENDA

Monday, January 20, 2014 – Council Chambers, City Hall

Call to Order:	2:30 PM
Recess:	5:00 PM to 6:00 PM
Public Hearing(s):	6:00 PM

1. IN CAMERA MEETING

1.1. Committee Appointment

2. MINUTES

2.1. Confirmation of the Minutes of the January 6, 2014 Regular Council Meeting

(Agenda Pages 1 – 4)

3. POINT OF INTEREST

4. UNFINISHED BUSINESS

4.1. Urban Chicken Pilot Project

(Agenda Pages 5 – 8)

5. REPORTS

5.1. 2019 Canada Winter Games Bid Update

(Agenda Pages 9 – 17)

5.2. Comments on Draft South Saskatchewan Regional Plan
(Refer to Attachments A & B at the end of this agenda for a copy of the Draft South Saskatchewan Regional Plan 2014 - 2024 and Stepping Back from the Water)

Documents)

(Agenda Pages 18 – 30)

- 5.3. Amendment to Council Policy EL-D-2.5 Parking Fine Revenue Sharing
(Agenda Pages 31 – 34)

- 5.4. Youth Representative Appointment to Greater Downtown Action Plan Steering Committee
(Agenda Pages 35 – 35)

- 5.5. 2013 Municipal Election Report
(Agenda Pages 36 – 115)

6. BYLAWS

- 6.1. Business Revitalization Zone Bylaw Amendment 3196/A-2014
Consideration of First Reading of the Bylaw
(Agenda Pages 116 – 119)

- 6.2. Supplementary Assessment Bylaw 3513/2014
Consideration of First Reading of the Bylaw
(Agenda Pages 120 – 122)

- 6.3. Borrowing Bylaw 3507/2013
System Wide Intelligence Software
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 123 – 127)

6.3.a. Consideration of Second Reading of the Bylaw

6.3.b. Consideration of Third Reading of the Bylaw

- 6.4. Borrowing Bylaw 3508/2013
Timberlands 209S Substation and Transmission Lines

Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 128 – 132)

6.4.a. Consideration of Second reading of the Bylaw

6.4.b. Consideration of Third Reading of the Bylaw

6.5. Borrowing Bylaw 3509/2013
Sanitary Offsite Project
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 133 – 137)

6.5.a. Consideration of Second Reading of the Bylaw

6.5.b. Consideration of Third Reading of the Bylaw

6.6. Borrowing Bylaw 3510/2013
Storm Offsite Project
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 138 – 142)

6.6.a. Consideration of Second Reading of the Bylaw

6.6.b. Consideration of Third Reading of the Bylaw

6.7. Borrowing Bylaw 3511/2013
North Highway Connector (NHC) Phase 1B
Northland Drive/30 Avenue Extension (Gaetz Avenue to 67 Street)
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 143 – 147)

6.7.a. Consideration of Second Reading of the Bylaw

6.7.b. Consideration of Third Reading of the Bylaw

6.8. Borrowing Bylaw 3512/2013
Transmission Line/Power Line Relocation
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 148 – 152)

6.8.a. Consideration of Second Reading of the Bylaw

6.8.b. Consideration of Third Reading of the Bylaw

6.9. Borrowing Bylaw 3489/A-2013
Amendment to Borrowing Bylaw 3489/2012
53 Avenue N. of Riverlands - Sani Trunk
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 153 – 158)

6.9.a. Consideration of Second Reading of the Bylaw

6.9.b. Consideration of Third Reading of the Bylaw

7. PUBLIC HEARINGS

7.1. Land Use Bylaw Amendment 3357/CC-2013
Rezoning Phase 4 of Laredo
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 159 – 163)

7.1.a. Consideration of Second Reading of the Bylaw

7.1.b. Consideration of Third Reading of the Bylaw

- 7.2. Land Use Bylaw Amendment 3357/EE-2013
Proposed Rezoning for 7429-49 Avenue – To Allow a Security Suite
Consideration of Second and Third Reading of the Bylaw
(Agenda Pages 164 – 173)

- 7.2.a. Consideration of Second Reading of the Bylaw

- 7.2.b. Consideration of Third Reading of the Bylaw

8. IN CAMERA MEETING

- 8.1. Legal Matter (*FOIP - Section 25*)

9. CORRESPONDENCE

10. PETITIONS AND DELEGATIONS

11. NOTICES OF MOTION

12. ADJOURNMENT

13. ATTACHMENTS

- 13.1. Attachment A:
Draft South Saskatchewan Regional Plan 2014 - 2024
(Agenda Pages 174 – 337)

- 13.2. Attachment B:
Stepping Back from the Water:
A Beneficial Management Practices Guide for New Development Near Water
Bodies In Alberta's Settled Region
(Agenda Pages 338 – 426)



U N A P P R O V E D M I N U T E S

**of the Red Deer City Council Regular Meeting
held on Monday, January 6, 2014
commenced at 2:30 p.m.**

Present:

Mayor Tara Veer
Councillor Buck Buchanan
Councillor Tanya Handley
Councillor Paul Harris
Councillor Ken Johnston
Councillor Lawrence Lee
Councillor Lynne Mulder
Councillor Frank Wong
Councillor Dianne Wyntjes

City Manager, Craig Curtis
Director of Community Services, Greg Scott
Director of Corporate Services, Elaine Vincent
Director of Planning Services, Kim Fowler
Director of Human Resources, Kristy Svoboda
Director of Corporate Transformation, Lisa Perkins
City Clerk, Frieda McDougall
Deputy City Clerk, Jackie Kurylo
Corporate Meeting Coordinator, Christine Kenzie



I. MINUTES

Moved by Councillor Lawrence Lee, seconded by Councillor Ken Johnston

Resolved that Council of The City of Red Deer, hereby agrees to lift from the table consideration of the Monday, December 2, 2013 Regular Council Meeting Minutes.

IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION TO LIFT FROM THE TABLE CARRIED

I.1. Confirmation of the Minutes of the Monday, December 2, 2013 Regular Council Meeting

Moved by Councillor Ken Johnston, seconded by Councillor Lynne Mulder

Resolved that Council of The City of Red Deer hereby approves the Minutes of the December 2, 2013 Regular Council Meeting as transcribed.

IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION CARRIED

I.2. Confirmation of the Minutes of the Monday, December 16, 2013 Regular Council Meeting

Moved by Councillor Lynne Mulder, seconded by Councillor Tanya Handley

Resolved that Council of The City of Red Deer hereby approves the Minutes of the December 16, 2013 Regular Council Meeting as transcribed.



IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION CARRIED

2. REPORTS

Amanda Gould, Executive Director, Downtown Business Association, was present to answer questions from Council.

2.1. Downtown Business Association's 2014 Budget

Moved by Councillor Lawrence Lee, seconded by Councillor Buck Buchanan

Resolved that Council of The City of Red Deer having considered the report from the Legislative Services Department, dated December 30, 2013, Re: Downtown Business Association's 2014 Budget, hereby approves the Downtown Business Association's 2014 Budget as presented to Council on January 6, 2014.

IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION CARRIED

3. IN CAMERA MEETING

Moved by Councillor Ken Johnston, seconded by Councillor Buck Buchanan

Resolved that Council of the City of Red Deer agrees to enter into an In Camera Meeting on Monday, January 6, 2014 at 3:07 p.m. and hereby agrees to exclude the following:

All members of the Media; and

All members of the Public.



IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION CARRIED

Moved by Councillor Ken Johnston, seconded by Councillor Lawrence Lee

Resolved that Council of the City of Red Deer agrees to revert to an open meeting of Council on Monday, January 6 2014 at 3:44 p.m.

IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION CARRIED

4. ADJOURNMENT

Moved by Councillor Lynne Mulder, seconded by Councillor Buck Buchanan

Resolved that Council of The City of Red Deer hereby agrees to adjourn the January 6, 2014 Regular Meeting of Red Deer City Council at 3:46 p.m.

IN FAVOUR: Mayor Tara Veer, Councillor Buck Buchanan, Councillor Tanya Handley, Councillor Paul Harris, Councillor Ken Johnston, Councillor Lawrence Lee, Councillor Lynne Mulder, Councillor Frank Wong, Councillor Dianne Wyntjes

MOTION CARRIED

MAYOR

CITY CLERK



January 6, 2014

Urban Chicken Pilot Project

INSPECTIONS & LICENSING DEPARTMENT

Report Summary & Recommendation:

That Council of the City of Red Deer further extend the pilot project for Urban Chicken operation from March 31, 2014 to June 30, 2014, and the report back to Council be extended from before February, 2014 to before May 31, 2014.

City Manager Comments:

I support the recommendation of Administration that Council extend the pilot project for the Urban Chicken operation to June 30, 2014 with a report back to Council before May 31, 2014.

Craig Curtis
City Manager

Proposed Resolution

Resolved that Council of The City of Red Deer having considered the report from the Inspections and Licensing Department, dated January 3, 2014, re Urban Chickens hereby agrees to extend the pilot project for the Urban Chicken operation from March 31, 2014 to June 30, 2014 and a report back to Council to be extended from before February, 2014 to before May 31, 2014.



Report Details

Background:

At the Governance & Policy Committee meeting on October 24, 2011 urban chickens were discussed in response to an article that appeared in the October 10, 2011 *Red Deer Advocate*. The following resolution was passed:

Resolved that the Governance & Policy Committee recommend a bylaw amendment to include chickens as a permitted use under the Land Use Bylaw and direct administration to bring back a Land Use Bylaw amendment within three months.

A subsequent notice of motion was submitted at the Council Meeting on January 9, 2012 with the following resolution:

Resolved that the City of Red Deer request administration to explore other options for the regulation and control of urban chickens and other livestock through a licensing system such as those used in other jurisdictions as such a system would also allow for the proper regulation of urban chickens and for revocation of licenses for non-compliance with regulations.

On February 21, 2012, the following resolution was passed by City Council:

Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated February 8, 2012 re: Urban Chickens, hereby directs administration to undertake:

- a pilot project that includes current urban chicken operations to assess the issues/impacts of urban chickens; and*
- a public engagement opportunity to hear from the community with respect to the level of support for chickens and identify other concerns within the community; with a report and bylaw to be brought back within 12 months for Council's future direction.*

On February 19, 2013, the following resolution was passed by City Council:

Resolved that Council of The City of Red Deer having considered the report from the Inspections and Licensing Department, dated January 24, 2013, re: Urban Chickens, hereby agrees to extend the current pilot project of urban chicken operations to March 31, 2014 and make it a formal pilot project with the following requirements to be undertaken by administration:

- 1. During this pilot the keeping of a maximum of six backyard chickens will be deemed permitted and no person shall own a rooster.*
- 2. Require all persons who currently own chickens to register with The City of Red Deer Inspections & Licensing Department. The information taken shall include the owners name, contact information, address, number of chickens and photos of the chicken coop.*



3. *Ensure there is a formal method to allow the owners to register the chickens within four months from the Council decision to extend the pilot. Unless registered with The City in this four month time frame, no other persons will be allowed to own chickens and failure to register will result in enforcement.*
4. *Keep engaged with the urban chicken community through the CLUCK club.*
5. *Continue to monitor, discuss strategies with the community and respond to complaints. Enforce problems such as noise, smells etc. through the regulations within the Community Standards Bylaw, Section 11, under the definition of "Nuisance".*
6. *Complete a site visit of each registrant, by someone experienced with urban chickens, to observe the operation.*
7. *Report back to Council before February, 2014 with the outcomes of the formal pilot project and for further direction from Council.*

Discussion:

While there have been discussions and visits with the urban chicken owners as outlined in the Administrative report, dated January 24, 2013, and the resolution of Council, dated February 19, 2013; Administration requires additional time to conduct the public engagement opportunity as indicated in the resolution of Council, dated February 21, 2012.

Analysis:

There are 40 Red Deerians who have registered their chicken operations with the City. All 40 applicants have been contacted; of which 5 did not respond back to the City, 5 chose not to get or keep their chickens, and 30 on site visits were conducted. Administration chose to delay the public consultation process in consideration of the severe weather that has occurred.

Administration recommends that the pilot be extended to June 30, 2014 with the report back to Council by May 31, 2014. This timeframe will allow Administration to complete the consultation at a time more conducive to the public.

Next Steps of the project:

- **Communication and Consultation:**

Prior to the report coming back to Council, a public communication and consultation process has been recommended by Communications & Strategic Planning. The communication and consultation process will involve input and feedback from:

- The urban chicken registrants.



- CLUCK (Canadian Liberated Urban Chicken Klub).
- Residents within 100 meters of the existing chicken owners. Letters will be sent out with a questionnaire.
- Respective audiences and groups, as well as the general public, to ensure that everyone will have the ability to offer their opinion and feedback. This will involve face to face, written and on-line communication.

- **Final report:**

The report will include:

- The outcome of the formal pilot project, including the public consultation.
- The home visit process and observations.
- Options and recommendations for Council's consideration



December 20, 2013

2019 Canada Winter Games Bid Update Information Report

RECREATION, PARKS & CULTURE

Report Summary & Recommendation:

This report is being provided for information only.

City Manager Comments:

This report is provided for Council's information at this time and coincides with the submission of Phase I: Technical Review documentation on January 20, 2014.

Craig Curtis
City Manager



Report Details

Background:

In the spring of 2012 City Council was approached by the community to consider a bid for the 2019 Canada Winter Games.

Council Report dated May 23, 2012: 2019 Canada Winter Games Bid Process, Council provided approval to conduct a basic assessment of Red Deer's capacity to host the Games based on the facility requirements.

Administration and community members conducted a preliminary assessment to determine the community's capacity to host the Games based on the sport facility requirements. The report indicated that Red Deer's current facilities could support 60% of the Games events with little to no enhancements required. For the remaining events, several strategies for the development of suitable or alternate facilities were presented.

Council Report dated November 13, 2012: 2019 Canada Winter Games Bid Process: Phase I Summary, Council provided approval to move forward to Phase II: to conduct a detailed technical and financial assessment related to Red Deer's ability to host the Games.

During this phase, a thorough gap analysis was conducted, alternative locations and facilities for each sport were examined, future facility plans within the community were considered, conceptual plans for temporary or permanent enhancement/upgrades and construction projects were developed and finally a cost benefit analysis was conducted. Two sport venue strategies were brought forward to Council for consideration. When developing the sport venue recommendations the group considered what would be the most effective, economically advantageous and financially sustainable options. (The strength of the recommended options included consideration of not only the venues to host the sporting events, but also potential options for the athlete's village, ancillary services, and cultural events, was based on the development of strong and diverse partnerships, the maximization of the athlete and community experience and the creation of long lasting legacies for the community.)

Council Report dated August 9, 2013: 2019 Canada Winter Games Bid: Phase II Summary, Council approved the submission of a letter of "Intent to Bid" for the 2019 Winter Games and the establishment of a Canada Winter Games Bid Planning Committee to proceed with the preparation of the bid based on hosting all sports locally with the exception of synchronized swimming. Synchronized swimming would be held in either Calgary or Edmonton with a secondary athletes village for the off-site athletes.

The Official Bid Launch occurred on October 1, 2013 at which the Bid Procedures and Hosting Standards were distributed to all interested Alberta communities.

The City of Red Deer has the capacity to host the 2019 Canada Winter Games through its facilities, hosting experience, and committed corporate partners, volunteers and sport organizations. The Canada Games provides significant economic impact to the host community and also provides extensive visibility for Red Deer from television, newspaper, and radio coverage broadcast across Canada during the Games. The Games is one of the largest multi-sport events in the world inspiring dreams, building champions, creating lasting legacies and celebrating Canadian culture.



The Games will take place in February 2019 and will be two weeks in duration encompassing 23 sport disciplines. A host community will be expected to accommodate:

- 3,600 Athletes, Coaches and Managers
- 1,500 Technical Representatives and Officials
- 450 Media and Broadcast personnel
- 25,000 visitors over the 17 days of competition

Sporting events have been confirmed for the 2019 Canada Winter Games and include the following:

- Alpine Ski	- Archery	- Biathlon
- Badminton	- Boxing	- Cross Country Ski
- Curling	- Figure Skating	- Freestyle Ski
- Gymnastics – Artistic and Trampoline	- Ice Hockey	- Judo
- Ringette	- Snowboard	- Speed Skating (Short and Long Track)
- Squash	- Synchronized Swimming	- Table Tennis
- Wheelchair Basketball		

Bid Process & Schedule

To participate in the Bid process, municipalities must ensure that the Canada Games Council receives their submissions no later than the specified deadline; and that it meets the minimum standards in each phase.

Letter of Intent to Bid: December 20, 2013

Letter and initial Bid Fee of \$12,500 was submitted.

Phase 1 Technical Review Submission: Due January 20, 2014

All Bid Cities to provide the Canada Games Council with the required Technical Review information as identified in the Bid Procedures and Hosting Standards document. This review will include all specifications for all sport venues, non-sport venues and the Games Village. The Canada Games Technical Review Committee will conduct site visits in February 2014 and a short list of Bid Cities will be confirmed shortly thereafter.

Phase 2 Comprehensive Host Community Bid Submission: Due May 30, 2014

Short-listed Bid Cities are to submit Bid Proposals including a signed Host City/Canada Games Council contract and City Resolution, as well as the balance of the Bid Fee. The Canada Games Bid Evaluation Committee will travel to the short listed Bid Cities to evaluate the bid submissions (June 2014). The Bid Evaluation Committee completes a final report and recommendations to be made to the Canada Games Council, who will in turn forward their recommendation to the Province of Alberta for final consideration. The selected host community is announced in September 2014.



The right to host the 2019 Canada Winter Games will bring many significant tangible and intangible benefits to our community including:

- Sport legacy: the Games play a major role in developing Canadian athletes, our future Olympic Champions. They are the impetus for increased sport participation, athlete, coach and officials development, as well as increase our pool of sport volunteers and enhance sport programming for all to enjoy. Red Deer boasts many athletes that started their careers with local sport organizations who then went on to become Olympians.
- Physical legacy: a unique opportunity to leverage federal and provincial capital contributions for the development of new and improved facilities within the community.
- Social legacy: the Games celebrate our culture and diversity. They create lasting friendships and memories, a sense of local and national pride, build stronger communities and promote volunteerism.
- Economic legacy: The 2011 Canada Winter Games in Halifax, Nova Scotia generated a \$131million economic impact. The Games has shown that it will create jobs, develop skills, increase tourism and hospitality, encourage future investments, business and residential growth and provide the perfect opportunity for the community to showcase itself locally and nationally.
- Environmental legacy: environmental initiatives and legacies include upgrades to facilities that improve energy efficiencies and green practices for Games operations (i.e. park and ride, recycling, repurposing of materials). They also provide opportunities to leverage additional funding opportunities.
- Partnerships: the Games connect partners from Games to Games, connect community and encourage corporate engagement and involvement along with the service industry.

Discussion:

The Bid Planning Committee was established in October 2013 and “hit the ground running”. The committee has met twice a month and has established subcommittees to help gather the information and develop the bid for their particular portfolio areas.

The letter of “Intent to Bid” was submitted along with the required deposit; signed by The Mayor and Bid Committee Chair (see attached).

Currently the Technical Review (or Phase I of the Bid Process) is under final revisions and getting ready for print. This phase required a detailed analysis of the venues including:

- Sport Venues: venue hosting capacity, proximity to services, field of play standards, practice and warm up standards, ancillary sport venue facilities
 - Non Sport Venues: airport, broadcast centre, media centre and hotel, potential cultural festival locations and activities, VIP hotel, major officials hotel, mission hotel
 - Games Village: accommodation specifications, medical area, food services, athlete services, mission services
 - Venue Development Summary (Class C estimates for any expenditure over \$25,000 related to upgrades on existing venues, permanent or temporary venues to be built for the purposes of The Games.
-



The Bid Planning Committee confirmed the sport venue framework supported by Council continues to provide the best strategies and options for the Bid. The only suggested change is the location of Squash, which has been moved to the G.H. Dawe Community Centre using temporary courts. The venues that have been assessed and included in the Technical Review for Phase I are at the end of this report.

The Bid Committee Chair along with City Administration have continued to meet with Red Deer College, School Board Administration, Sport and Cultural venue operators, First Nations and Francophone leaders and Local Sport Organizations, all of whom are extremely supportive of this endeavor.

The Bid Budget Implications:

Based on the work of Phase I – Technical Review, there is no change to the projected capital budget presented to Council in November 2013. Further refinement of both the capital and operating budget are required in Phase 2 – Comprehensive Host Community Bid.

Bidders have been asked to include the following Federal-Provincial/Territorial contributions to the Games:

Government of Canada:	Operating	\$8,120,000
	Capital	\$3,000,000
Government of Alberta	Operating	\$8,120,000
	Capital	\$3,000,000
Municipal Government	Capital	\$3,000,000 (minimum)

This does not preclude the three levels of government from further contributing to operating funding through cash contributions, value in kind or both; or committing to capital funding over and above the minimum contribution required.

There may be a change to the total Bid Fee required based on the confirmed number of communities submitting. The first bid fee installment of \$12,500 represented 50% of the \$25,000 bid fee, assuming a minimum of three competing bid communities. Should there be less than three competing bids, the bid fee will be adjusted, communities informed, and the final installment will need to be adjusted accordingly. Further information will be brought to Council prior to the submission of Phase 2.

Finally, it was confirmed at the Official Bid Launch meeting, that the successful community would be required to provide a \$400,000 Rights Fee along with a Transfer of Knowledge Fee (to be confirmed but estimated at \$400,000). These fees would become part of the Host Society’s budget however the first 25% would be paid by the Municipality upon award of the Games with the Municipality reimbursed by the Host Society once formed.

Next Steps:

In early January, Red Deer should receive its official Canada Games Candidate City logo. The Bid Planning Committee will begin to integrate this into all future communications. As well, all future communications must be in both official languages.



Within the next two weeks, the Bid Planning Committee will submit Phase I: Technical Review documentation. During the first week of February the Canada Games Technical Review Committee will come to Red Deer for a day and tour the core sport and non-sport venues. By the end of February those communities invited to move forward to Phase 2 will be notified.

In anticipation of being invited to continue (and cognizant of the tight timelines), the Committee will move forward with the preparation of Phase 2: Comprehensive Host Community Bid proposal submission. Key focus areas for Phase 2 include:

- Community Profile
- Vision, Mission and Goals
- Community Leadership, Capacity, Support and Engagement
- Unique Premium Nation-Building Event (Marketing and Communication Strategy)
- Revenue Generation and Expense Review
- Critical Games Areas (Games village plan, care and comfort, transportation framework, sustainability)
- Venue and Village modifications

Phase 2 documentation along with the balance of the Bid Fee is due May 30, 2014. In late June or early July the Canada Games Bid Evaluation Committee will travel to the short-listed communities to evaluate all bid submissions against pre-determined criteria. Red Deer will take advantage of this visit to showcase our community! The Bid Planning Committee will need the entire community to get involved and show their support of the Bid. We need to build excitement and support within the community. More information about this will come forward during Phase 2.

In the meantime, the community can begin to “tweet” about Red Deer’s Bid for the 2019 Canada Winter Games at: #CWGRDBD19



Venue Master Listing

SPORT	VENUE	SPORT	VENUE
Alpine Ski Freestyle Ski Snowboard	Canyon Ski Resort	Archery Boxing Ice Hockey	Westerner Park - Prairie Pavilion - Stockmans Pavilion - Enmax Centrum
Biathlon Cross Country Ski	River Bend	Ice Hockey	Red Deer Arena Kinex Arena
Squash	GH Dawe (temporary courts)	Badminton	Lindsay Thurber High School
Curling	Pidherney Centre	Wheelchair Basketball	Ecole Secondaire Notre Dame
Speed Skating - Long Track	Great Chief Park	Table Tennis	Hunting Hills High School
Gymnastics - Trampoline Gymnastics - Artistic Ringette Figure Skating	Collicutt Centre	Judo	St. Francis Assisi School
Ringette Figure Skating	Kinsmen Community Arena A & B	Speed Skating - Short Track	RDC Multiplex
Synchronized Swimming	Talisman Centre, Calgary		
RDC will serve as the Games Village including the following:			
Athlete Accommodations	Food Services		
Entertainment facilities	Polyclinic (Medical Services)		
Mission Centre			
Westerner will also host:			
Opening and Closing Ceremonies	Broadcast Centre		
Other venues assessed include:			
Airports (Red Deer, Calgary, Edmonton)	Media Centre	Potential Cultural and Festival Locations	Materials Management and Transportation Hub options
Various hotels: accommodations required for Media hotel, VIP hotel, Officials and Medical personnel hotel, Mission staff			



OFFICE OF THE MAYOR
December 16, 2013

**FRIENDS
OF THE GAMES**

Earl Dreeshan, MP Red Deer
Cal Dallas, MLA, Red Deer South
Mary Anne Jablonski, MLA, Red Deer North
Jim Wood, Mayor, Red Deer County
Red Deer Public School Board
Conseil scolaire Centre-Nord
Red Deer College
Aboriginal Elders Circle
Canyon Ski Resort
River Bend Golf and Recreation Area
Red Deer Regional Catholic Sch Brd
Westerner Park
Tourism Red Deer
Red Deer Chamber of Commerce
Red Deer Airport Authority
Red Deer Curling Club
Downtown Business Association
Sport Council of Red Deer
Alberta Sports Hall of Fame

Attention of the CGC Bid Evaluation Committee Chair
2019 Canada Winter Games Bid Evaluation Committee
2197 Riverside Drive, Suite #700/1
Ottawa, Ontario K1H 7X3

Dear Mesdames/Sirs;

It is with great excitement, energy and enthusiasm that we submit to you our intention to put forward a bid for the 2019 Canada Winter Games. We have not come to this decision lightly. Our letter today is the culmination of more than two years' worth of effort, conceived by a small group of citizens which has now morphed into a volunteer base numbering in the hundreds, led by a community leadership team of dedicated and committed individuals. While volunteers are key to a successful project, the City of Red Deer is unequivocally endorsing this bid and prepared to take the steps necessary to ensure it is an event that the Canada Games Council will be proud of.

Our community has a long, proud history of hosting provincial, national and world reaching sporting events, including;

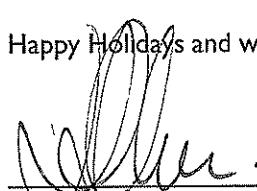
- Alberta Summer Games
- Scott Tournament of Hearts
- World Junior Hockey Championships
- Olympic Torch Relay

It's these events that bring our community together like no other and are a demonstration of our sense of involvement, commitment and community pride. In fact, over 50 percent of Red Deer citizens above the age of 15 engage in volunteer activities each year, well above provincial and national participation rates.

Located in the heart of Alberta and along Canada's second busiest urban corridor, Red Deer is "Where People Come Together" to compete, to collaborate and to do business. Not only do we have the facilities in our own backyard to support an event of this caliber, but the entrepreneurial spirit of our citizens will ensure the games deliver a premier experience for athletes, a warm and friendly environment for their families, and a world class image for the Canada Games Council.

Thank you for your consideration as we move forward in developing the key elements of our Phase I Technical Submission package.

Happy Holidays and we look forward to engaging with you more in the New Year!


Tara Veer
Mayor, The City of Red Deer
Bid Committee



Lyn Radford
Chair, 2019 Canada Winter Games

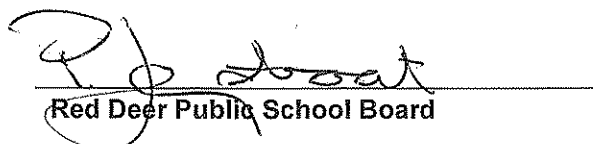
Encl: Bid Fee Installment

Hope you have a great Christmas. We look forward to working with you in New Year.

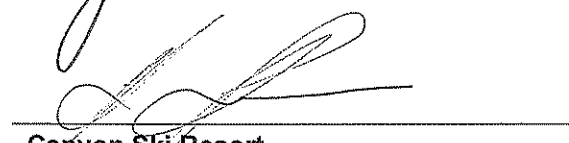
FRIENDS OF THE GAMES


Earl Dreeshan, MP Red Deer



Cal Dallas, MLA, Red Deer South

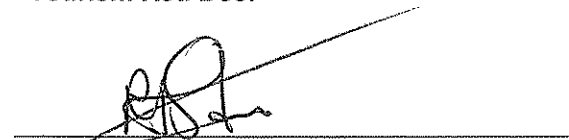

Red Deer Public School Board


Red Deer College


Canyon Ski Resort

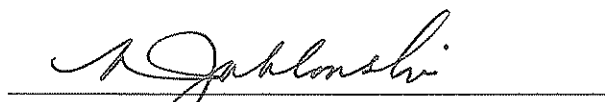

Red Deer Regional Catholic School Board

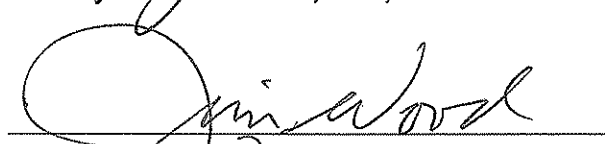

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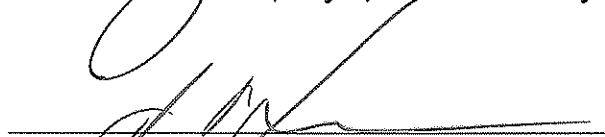

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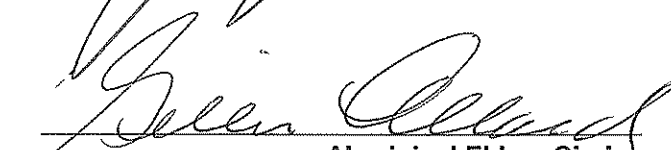

Downtown Business Association


Alberta Sports Hall of Fame

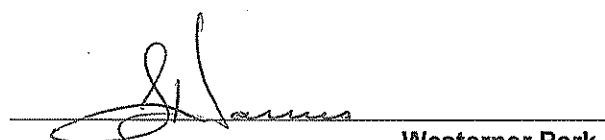

Mary Anne Jablonski, MLA, Red Deer North


Jim Wood, Mayor, Red Deer County

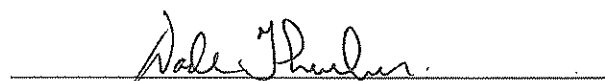

Conseil scolaire Centre-Nord


Aboriginal Elders Circle


River Bend Golf and Recreation Area


Westerner Park


Red Deer Chamber of Commerce


Red Deer Curling Club


Sport Council of Red Deer



January 7, 2014

Comments on Draft South Saskatchewan Regional Plan

PLANNING DEPARTMENT

Report Summary & Recommendation:

Administration has reviewed the Draft South Saskatchewan Regional Plan (Draft SSRP) to determine if there were any policies, either directly or indirectly, that could have an impact within the Red Deer Regional Plan boundary. The City's direct interest in the Draft SSRP is partly related to the fact that portions of the Red Deer River watershed, both upstream and downstream, are within the SSRP area.

Administration feels that a strong commitment needs to be made in the SSRP to develop a transportation and utility corridor strategy and to apply it to the area between Edmonton and Calgary. The long-term planning of this region would be enhanced if this corridor or corridors were defined at this time. This is supported on page 46 of the Land-use Framework as an immediate need. Secondly, Administration is recommending stronger wording in the plan within several watershed management policies.

Therefore Administration is recommending Council pass a resolution recommending the following changes or support for certain policies in the Draft SSRP as follows:

- A. Add a policy that requires the development of a transportation and utility corridor strategy for the area between Edmonton and Calgary within the next two years, which would be undertaken by Province of Alberta in consultation with the affected municipalities. Proposed Table 1: Regional Outcomes and Reporting Indicators should also be amended.
- B. On page 95, Policy a) under the subheading of Transportation should also be amended to provide that the Province of Alberta would be the lead agency.
- C. On page 105, Table 1: Regional Outcomes and Reporting Indicators should include the reporting to the Alberta Water Council on how the seven major water-using sections are doing in implementing their water conservation, efficiency, and productivity plans;
- D. On page 15, the revised sentence should read: "As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through



irrigation infrastructure to enhance productivity in this sector while recognizing the need to strategically provide water to other users;

- E. On page 81 watershed planning and advisory councils should be added to the sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others”.
- F. On page 89, Council strongly support the development and updating of flood hazard mapping;
- G. The management framework, when it is completed, for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers should be incorporated into the SSRP.
- H. On page 88, subsection f), there should be reference to “timber harvesting operators” **as** one of the groups that could develop source water protection plans;
- I. On page 89, the reference to the water opportunities study should reference South Saskatchewan River and the Milk River Basins and not the South Saskatchewan Region.
- J. On page 81, watershed planning and advisory councils be added to the following sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others” and
- K. To require municipalities to use the suggestions in Stepping Back from the Water.

City Manager Comments:

I support the recommendation of Administration that the above proposed changes to the Draft South Saskatchewan Regional Plan be endorsed by Council and forwarded to the Land Use Framework Secretariat and the Stewardship Minister.

Craig Curtis
City Manager



Proposed Resolution

Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated January 7, 2014, re: Comments on Draft South Saskatchewan Regional Plan, hereby recommends the following changes and /or support for certain policies within the Draft South Saskatchewan Regional Plan, as follows be forwarded to the Land Use Framework Secretariat and the Stewardship Minister:

- A. Add a policy that requires the development of a transportation and utility corridor strategy for the area between Edmonton and Calgary within the next two years, which would be undertaken by Province of Alberta in consultation with the affected municipalities. Proposed Table 1: Regional Outcomes and Reporting Indicators should also be amended.
- B. On page 95, Policy a) under the subheading of Transportation should also be amended to provide that the Province of Alberta would be the lead agency.
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- D. On page 15, the revised sentence should read: “As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector while recognizing the need to strategically provide water to other users;”
- E. On page 81 watershed planning and advisory councils should be added to the sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others”.
- F. On page 89, Council strongly support the development and updating of flood hazard mapping;
- G. The management framework, when it is completed, for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers should be incorporated into the SSRP.
- H. On page 88, subsection f), there should be reference to “timber harvesting operators” **as** one of the groups that could develop source water protection plans;



- I. On page 89, the reference to the water opportunities study should reference South Saskatchewan River and the Milk River Basins and not the South Saskatchewan Region.
- J. On page 81, watershed planning and advisory councils be added to the following sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others” and
- K. To require municipalities to use the suggestions in Stepping Back from the Water.

Report Details

Background:

Timeline

- Land-Use Framework, December 2008.
- October 2012 - Advice to the Government of Alberta for the South Saskatchewan Regional Plan released.
- December 20, 2012 - Letter from Mayor Morris (attached) outlining two concerns. No response was received from the Province.
- October 2013 - Draft South Saskatchewan Regional Plan (Draft SSRP) released (attached).
- November 28, 2013 - Workshop and open house in Red Deer to receive feedback on the Draft SSRP.

The Alberta Land Use Stewardship Act and the Land-Use Framework provides for seven regional plans within Alberta including the Red Deer Regional Plan area (see attached map). The draft land-use framework originally provided for a very large South Region. The City, Red Deer County, and others had provided feedback to the Province requesting that the South Region be divided into three sub-regions to reflect the major river basins. The Province decided to divide the area into two sub-regions: the Red Deer and the South Saskatchewan Regional Plans. Municipal boundaries, such as counties, were used to define these two plan areas. Therefore a sizable portion of the Red Deer River Watershed falls within the SSRP area such as lands within the Municipal District of Bighorn, which are headwaters.

Regional plans are approved by the Cabinet. All statutory plans such as Intermunicipal Development Plans and Municipal Development Plans must comply with the appropriate regional plan. The Lower Athabasca Regional Plan was approved on August 22, 2012. The Province has not provided a timetable for when



work on the other five regional plans including the Red Deer Regional Plan would begin.

The South Saskatchewan Regional Plan (SSRP) contains about 45 per cent of the population of the Province of Alberta. A series of 21 information sessions were held from November 5 to 28, 2013. Land-use Framework Secretariat staff have indicated that the intent is to have the SSRP effective April 2014.

Discussion:

As has been done in the past, Administration believes the most appropriate approach is to directly communicate Council's suggestions or concerns to the Land-use Framework Secretariat and the Stewardship Minister. This is more effective than Council jointly sharing their views and concerns through the workbook format. This was similar to the process followed previously except that it was done under the Mayor's signature due to time constraints.

The prior review of the Advice to the Government of Alberta for the South Saskatchewan Regional Plan raised two concerns. One related to water allocation and the other to transportation corridors. (See attached letter of December 20, 2012 from Mayor Morris Flewwelling). No response was received from that letter.

The SSRP proposes that an Air Quality Management Framework for the South Saskatchewan be developed. The framework is to describe what management actions may be taken if a target or limit has been exceeded. Administration will monitor the development of this framework and be involved in any consultations due to the potential for impact on the Red Deer Region.

The Draft SSRP also intends to develop a biodiversity management framework. Appendix F of the Draft SSRP indicates the proposed contents of this framework, which is to be completed by the end of 2014. Administration will monitor the development of this framework and participate, where appropriate, in the promised consultation and engagement. An area of interest is the connectivity of wildlife habitat, for example.

The South Saskatchewan Regional Plan policies will likely be used as models for the policies that will be proposed for the Red Deer Regional Plan. In addition, there are policies that could have a direct impact on The City of Red Deer or the Red Deer Regional Plan. The areas of concern are discussed below.



Analysis:

Multi-Use Corridors: The Draft SSRP defines, on page 155, a multi-use corridor as “a dedicated land area identified by Cabinet for the co-location of linear infrastructure that supports critical economic linages and is in the public interest.” According to Note 10 of the Draft SSRP multi-use corridor could include “high-speed rail and rail.” The City’s Strategic Direction 2012-2014 indicates when we are successful “We are promoting and planning for high-speed rail and light rail transit in all out community planning” (page 11). One of the provincial policy gaps identified in the Land –Use Framework was the need to develop a transportation and utility corridor strategy. One of the strategies reads as follows:

“Ensure that opportunities for future routes and siting for *pipeline gateways, transportation corridors and utility and electrical transmission corridors* are maintained in the region and in consideration of the needs of adjacent Land-use Framework regions and provinces” (emphasis added).

Administration feels that a commitment needs to be made in the approved SSRP to develop an Edmonton and Calgary transportation and utility corridor strategy within the next two years. The long-term planning of this region would be enhanced if this corridor or corridors were defined within this timeframe. This is identified as an immediate need on page 46 of the Land-use Framework. Therefore Council should recommend to the province that a policy be included in the SSRP that requires the development by the province in conjunction with the affected municipalities of an Edmonton-Calgary corridor transportation and utility corridor strategy within the next two years. It should also be listed as one of the outcomes listed in proposed Table 1: Regional Outcomes and Supporting Indicators.

In addition, the policy on page 95 under the Transportation Section of Outcome 5 needs to be re-worded to indicate that the responsibility for the identification of these corridors is the province instead of the municipalities. The presently proposed policy reads:

“Municipalities are encouraged to identify, in consultation with the Minister responsible for the *Highways Development and Protection Act*, the location, nature and purpose of key provincial transportation corridors and related facilities.”

Watershed Management: The Draft SSRP indicates, on page 45, that the Approved Water Management Plan for the South Saskatchewan River will provide: “important policy guidance for water management in the region.” Appendix B provides a more detailed overview of the Approved Water Management Plan for the South Saskatchewan River including that the Plan has resulted in the following decisions: “Establishment of water conservation objectives for the Red Deer River



that permits additional allocation.” These objectives may be established through the Red Deer Regional planning process or in another way. Administration is satisfied that the Draft SSRP in referencing the Approved Water Management Plan for the South Saskatchewan River which addressed earlier concerns expressed in the Letter of December 20, 2012 from the Mayor (attached).

However, The City should be concerned about the potential consequences for The Red Deer Regional area on overuse of water within the sub-basins of the South Saskatchewan River Basin that are within the SSRP. The seven major water-using sections, such as irrigation and urban municipalities, are presently working to produce regular reports to the Alberta Water Council on how the seven major water-using sections are doing in implementing their water conservation, efficiency, and productivity plans. This reporting requirement should also be included as one of the outcomes in proposed Table I: Regional Outcomes and Reporting Indicators.

As noted Draft SSRP, water conservation is an important theme as well as the balancing of competing demands. The discussion on page 15 on irrigation infrastructure would be enhanced by adding: “while recognizing the need to strategically provide water to other users.” The proposed revised sentence would read: “As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector *while recognizing the need to strategically provide water to other users.*”

The City has taken an active role in the Red Deer Watershed Alliance including the provision of funds. The Draft SSRP makes a number of references to continued collaboration with watershed planning groups and support for their work (see Strategy B on page 87, for example). The City encourages the Province to provide adequate funding for the operation of WPACS to enable the preparation of sound and meaningful watershed management plans, and then the means to follow-up on these plans through actions based on plan strategies and policies. To more clearly outline their role it is suggested that on page 81 watershed planning and advisory councils be added to the following sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups *such as watershed planning and advisory councils* and others”.

On page 89, the Draft SSRP supports the development and updating of flood hazard mapping. Administration certainly supports this policy and encourages that this be done as quickly as possible. It is also a need within The City of Red Deer and the



entire Red Deer River Basin. It is recommended that Council support the development and updating of flood hazard mapping

On pages 46, the Draft SSRP states: “a management framework for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers will be implemented . . .” One of the weaknesses of the Draft SSRP is that it does not include the details of strategic initiatives, such as the surface water quality management framework, which is highly important to users who withdraw and return waters to the rivers. This includes irrigation districts operating within the northern portions of the SSRP area which release water to the Red Deer River. It is recommended that management framework for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers strategic plan directions be incorporated into the SSRP when it is completed.

Source water protection, including headwaters, is addressed on pp. 69 and 88 of the Draft SSRP. Timber cutting operations take place in large significant areas of river and stream headwaters. Therefore it is recommended that there should be reference to “timber harvesting operators” as one of the groups that could develop source water protection plans in subsection f) on page 88.

On page 89 it is stated: “A water storage opportunities study for the South Saskatchewan Region that will be complete by the end of 2015 to explore the potential to develop additional water storage in the region and assess on-stream and off-stream storage sites.” This study should be restricted to the South Saskatchewan River and the Milk River Basins as portions of the SSRP area include lands, including headwaters, in the Red Deer River watershed. Therefore, it is recommended that the reference to the water opportunities study on page 89 should reference South Saskatchewan River and the Milk River Basins and not the South Saskatchewan Region.

The Draft SSRP suggests a voluntary approach be used in implementing Stepping Back from the Water, which provides guidelines for matters such as setbacks from water courses and wetland areas. Municipalities should be required to use the suggestions made in the Stepping Back from the Water (attached). Therefore Council should recommend that “encourage” should be replaced with “require” where the document is referenced in the Draft SSRP.

Attachments

Attachment A: Map of Seven Regional Planning Areas

Attachment B: Draft South Saskatchewan Regional Plan 2014-2024

Attachment C: Stepping Back from the Water

**OFFICE OF THE MAYOR**

December 20, 2012

The Honourable Diana McQueen
Minister of Environment and Sustainable Resource Development
204 Legislature Building
10800 - 97 Avenue
Edmonton, AB T5K 2B6

Dear Minister ~~McQueen~~, *Diana*

I am pleased to provide the following comments on the South Saskatchewan Regional Advisory Council's report: Advice to the Government of Alberta for the South Saskatchewan Regional Plan for The City of Red Deer. As I wrote to the then Minister of the of Sustainable Resource Development in January 2010, The City of Red Deer is very interested and supportive of regional planning and are hoping the Regional Advisory Council (RAC) for Red Deer will commence shortly.

After having read the draft policy in the Advice document we would like you to note and respond to the following two concerns:

1. Water Allocation:

"Policy 5.2.9.7 Enhance the development of water allocation transfer mechanisms to facilitate short- and long-term transfers and assignment of water in water-stressed basins".

Although this policy may, on the face of it, only speak to transfers within the South Saskatchewan Regional Plan area there could be consequences for the Red Deer River Basin. If more water was used in the sub-basins within, then the Red Deer River Basin could be accountable for a greater share of the water that must be provided to the Province of Saskatchewan under various agreements. Therefore, overuse of the South Saskatchewan Regional Plan area will have consequences for The City of Red Deer.

2. Transportation Corridor

"Policy 4.7.5.10 Multi-use corridors should be located east, not west of Highway 2."

December 20, 2012
Page 2

This could preclude the vision that Red Deer has that the high speed rail corridor would be to the west of The City.

While are waiting for our own RAC for the Red Deer River to commence we have been keeping informed of the plans for the South Saskatchewan. As the Red Deer River is the cleanest and healthiest river in the system and does have some allocation capacity, any determination through the SSRP of the water needs, and presumably allocation, would pre-determination matters such as population and economic growth in the Red Deer Regional Plan. Therefore, the broad framework of the Red Deer Region Plan area must be prepared before any decision can be made of water allocation within the South Saskatchewan.

Thank you for the opportunity to provide the feedback and I look forward to receiving your response.

Yours truly,

A handwritten signature in black ink, appearing to read 'Morris', with a stylized flourish extending from the end.

Morris Flewwelling
Mayor

- c. City Council
City Manager
Director of Corporate Transformation
MLA Red Deer North
MLA Red Deer South
AUMA



Date: November 21, 2012, 2012

To: Lisa Perkins, Corporate Strategist

From: Angus Schaffenburg, Major Projects Planner

Subject: Feedback on Advice from RAC on the South Saskatchewan Regional Plan

Background: The Province recently requested comments on the South Saskatchewan Regional Advisory Council's report: Advice to the Government of Alberta for the South Saskatchewan Regional Plan. The workbooks are to be completed by December 21, 2012.

This document had been previously released for comments early last year; however no public consultations were held due to the provincial election. I attended a workshop on November 6, 2012 in Red Deer.

The draft South Saskatchewan Regional Plan is expected to be available for comment in late spring of 2013. After review of all comments, the South Saskatchewan Regional Plan can be recommended for approval by Cabinet through an Order-in-Council.

Discussion: Planning administration's major concern with the South Saskatchewan Regional Plan process was on any direction on water allocation within the greater South Saskatchewan River Basin. The Terms of Reference (TOR) related to the South Saskatchewan Regional Plan (SSRP) on page 14, states:

*"The future for water management in the South Saskatchewan Region lies in using the existing pool of water allocations as efficiently and effectively as possible, mitigating impacts on aquatic ecosystems when possible and in being prepared with risk management strategies for water shortages of varying degrees of severity and duration. It should be noted that although the Red Deer Region is distinct from the South Saskatchewan Region for land use purposes, **water management policy for the Red Deer Region will be aligned and set within the overall context of the South Saskatchewan River Basin. The water needs of the Red Deer Region will therefore be considered in development of the South Saskatchewan Regional Plan**"*

The Mayor, in a letter dated January 14, 2010 wrote to the minister responsible about this approach indicating that this is unacceptable as it does not allow Central Albertans to fully develop their Red Deer Regional Plan. The Red Deer River is the cleanest and healthiest river in the system and does have some allocation capacity. A determination through the SSRP of the water needs, and presumably allocation, would pre-determination matters such as population and economic growth, for example, in the Red Deer Regional Plan. Therefore the broad framework of the Red Deer Region Plan area must be prepared before any decision can be made of water allocation within the SSRP. The Minister responded in a letter of February 8, 2010 (attached) indicating that there is a separate project underway to review and renew Alberta's water allocation system.

The draft policy in the Advice document states:

"5.2.9.7 Enhance the development of water allocation transfer mechanisms to facilitate short- and long-term transfers and assignment of water in water-stressed basins".

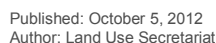
Although this policy may, on the face of it, only speak to transfers within the South Saskatchewan Regional Plan area there could be consequences for the Red Deer River Basin. If more water was used in the sub-basins within then the Red Deer River Basin could be accountable for a greater share of the water that must be provided to the Province of Saskatchewan under various agreements. Therefore, overuse of the South Saskatchewan Regional Plan area will have consequences for The City of Red Deer.

Alberta Water Council has also produced a report in 2009 entitled Recommendations for Improving Alberta's Water Allocation Transfer System. Apparently, the Ministry of Environment and Sustainable Resource Development will provide a forum in the future for stakeholders on the water allocation system.

A second concern is Policy 4.7.5.10 that states: "Multi-use corridors should be located east, not west of Highway 2." This could preclude the vision that Red Deer has that the high speed rail corridor would be to the west of The City. The rationale for locating specifically to the east should be pursued.

Recommendations

1. Ensure that we are aware and participate in any public process on the Water for Life Strategy including water allocation transfers. We may wish to officially ask where this process is at the present time; and
2. Provide comments in a letter to the Land Use Secretariat on these two issues:
 - a) Indicate that Policy 5.2.9.7 should be clarified so that it clearly refers only to transfers within the South Saskatchewan Regional Plan area and that it is not intended to impact the Red Deer River Basin; and
 - b) Seek clarification of Policy 4.7.5.10 to ensure it is not intended to speak to the issue of a corridor for high speed rail.



January 28, 2014

The Honorable Robin Campbell
Stewardship Minister
323 Legislature Building
10800-97 Avenue
Edmonton, AB T5K 2B6

Dear Honourable Campbell:

Re: Draft South Saskatchewan Regional Plan

The Council of The City of Red Deer thanks the Government of Alberta for the opportunity to provide feedback on the Draft South Saskatchewan Regional Plan. This is an important document for The City of Red Deer and the Red Deer Regional Plan area.

At the Regular Council meeting of Monday, January 20, 2014, City Council reviewed the Draft South Saskatchewan Regional Plan. The following resolution was passed at that meeting:

Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated January 7, 2014, re: Comments on Draft South Saskatchewan Regional Plan, hereby recommends the following changes and /or support for certain policies within the Draft South Saskatchewan Regional Plan, as follows be forwarded to the Land Use Framework Secretariat and the Stewardship Minister as follows:

- A. Add a policy that requires the development of a transportation and utility corridor strategy for the area between Edmonton and Calgary within the next two years, which would be undertaken by Province of Alberta in consultation with the affected municipalities. Proposed Table 1: Regional Outcomes and Reporting Indicators should also be amended;
- B. On page 95, Policy a) under the subheading of Transportation should also be amended to provide that the Province of Alberta would be the lead agency;
- C. On page 105, Table 1: Regional Outcomes and Reporting Indicators should include the reporting to the Alberta Water Council on how the seven major water-using sections are doing in implementing their water conservation, efficiency, and productivity plans;
- D. On page 15, the revised sentence should read: "As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector while recognizing the need to strategically provide water to users - municipalities, irrigation, agriculture, others;"

- E. On page 81, watershed planning and advisory councils should be added to the sentence as follows: "Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others."
- F. On page 89, Council strongly support the development and updating of flood hazard mapping;
- G. The management framework, when it is completed, for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers should be incorporated into the SSRP;
- H. On page 88, subsection f), there should be reference to "timber harvesting operators" as one of the groups that could develop source water protection plans;
- I. On page 89, the reference to the water opportunities study should reference South Saskatchewan River and the Milk River Basins and not the South Saskatchewan Region;
- J. To require municipalities to use the suggestions in Stepping Back from the Water; and
- K. To request clarity as to the purpose of the document (i.e. what is it for, who will use it); and

Further be it resolved that the document and Council's response be provided to the Environmental Advisory Committee so that they may consider submitting a response by the deadline of February 28, 2014.

Thank you for the opportunity to provide feedback and I look forward to receiving your response.

Sincerely,



Tara Veer
Mayor

c: Director of Corporate Services
Legislative Services Manager
Major Projects Planner, A. Schaffenburg

January 28, 2014

Land-use Framework Secretariat
9th Floor, 10035-108 Street
Edmonton, AB T5K 3E1

Dear Sir/Madam:

Re: Draft South Saskatchewan Regional Plan

The Council of The City of Red Deer thanks the Government of Alberta for the opportunity to provide feedback on the Draft South Saskatchewan Regional Plan. This is an important document for The City of Red Deer and the Red Deer Regional Plan area.

At the Regular Council meeting of Monday, January 20, 2014, City Council reviewed the Draft South Saskatchewan Regional Plan. The following resolution was passed at that meeting:

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- A. Add a policy that requires the development of a transportation and utility corridor strategy for the area between Edmonton and Calgary within the next two years, which would be undertaken by Province of Alberta in consultation with the affected municipalities. Proposed Table I: Regional Outcomes and Reporting Indicators should also be amended;
- B. On page 95, Policy a) under the subheading of Transportation should also be amended to provide that the Province of Alberta would be the lead agency;
- C. On page 105, Table I: Regional Outcomes and Reporting Indicators should include the reporting to the Alberta Water Council on how the seven major water-using sections are doing in implementing their water conservation, efficiency, and productivity plans;
- D. On page 15, the revised sentence should read: "As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector while recognizing the need to strategically provide water to users - municipalities, irrigation, agriculture, others;"

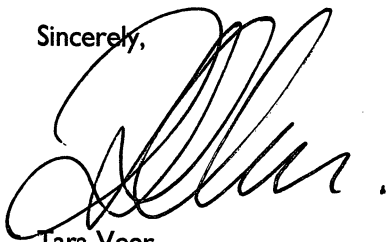
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- J. To require municipalities to use the suggestions in Stepping Back from the Water; and
- K. To request clarity as to the purpose of the document (i.e. what is it for, who will use it); and

Further be it resolved that the document and Council's response be provided to the Environmental Advisory Committee so that they may consider submitting a response by the deadline of February 28, 2014.

Thank you for the opportunity to provide feedback and I look forward to receiving your response.

Sincerely,



Tara Veer
Mayor

c: Director of Corporate Services
Legislative Services Manager
Major Projects Planner, A. Schaffenburg

**Council Decision – January 20, 2014**

DATE: January 23, 2014
TO: Tara Lodewyk, Planning Services
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Comments on Draft South Saskatchewan Regional Plan

Reference:

Planning Department, dated January 7, 2014

Resolution:

The following resolution was passed at the Monday, January 20, 2014 Regular Red Deer City Council meeting:

Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated January 7, 2014, re: Comments on Draft South Saskatchewan Regional Plan, hereby recommends the following changes and /or support for certain policies within the Draft South Saskatchewan Regional Plan, as follows be forwarded to the Land Use Framework Secretariat and the Stewardship Minister as follows:

- A. Add a policy that requires the development of a transportation and utility corridor strategy for the area between Edmonton and Calgary within the next two years, which would be undertaken by Province of Alberta in consultation with the affected municipalities. Proposed Table 1: Regional Outcomes and Reporting Indicators should also be amended;
- B. On page 95, Policy a) under the subheading of Transportation should also be amended to provide that the Province of Alberta would be the lead agency;
- C. On page 105, Table 1: Regional Outcomes and Reporting Indicators should include the reporting to the Alberta Water Council on how the seven major water-using sections are doing in implementing their water conservation, efficiency, and productivity plans;

- D. On page 15, the revised sentence should read: “As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector while recognizing the need to strategically provide water to users – municipalities, irrigation, agriculture, others;”
- E. On page 81 watershed planning and advisory councils should be added to the sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others.”
- F. On page 89, Council strongly support the development and updating of flood hazard mapping;
- G. The management framework, when it is completed, for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers should be incorporated into the SSRP;
- H. On page 88, subsection f), there should be reference to “timber harvesting operators” as one of the groups that could develop source water protection plans;
- K. On page 89, the reference to the water opportunities study should reference South Saskatchewan River and the Milk River Basins and not the South Saskatchewan Region;
- J. To require municipalities to use the suggestions in Stepping Back from the Water; and
- K. To request clarity as to the purpose of the document (i.e. what is it for, who will use it); and

Further be it resolved that the document and Council’s response be provided to the Environmental Advisory Committee so that they may consider submitting a response by the deadline of February 28, 2014.

Report back to Council: No

Comments/Further Action:

Administration to forward the recommended changes of the Draft South Saskatchewan Regional Plan to the Land Use Framework Secretariat and the Stewardship Minister. This office will forward a copy of the draft plan and Council's recommendation to the Environmental Advisory Committee for its consideration.



Frieda McDougall
Manager

c: Director of Planning Services
Major Projects Planner, A. Schaffenburg



Council Decision – January 20, 2014

DATE: January 23, 2014

TO: Andrea Pagee, Chair
Environmental Advisory Committee

FROM: Frieda McDougall, Legislative Services Manager

SUBJECT: Comments on Draft South Saskatchewan Regional Plan

Reference:

Planning Department, dated January 7, 2014

Resolution:

The following resolution was passed at the Monday, January 20, 2014 Regular Red Deer City Council meeting:

Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated January 7, 2014, re: Comments on Draft South Saskatchewan Regional Plan, hereby recommends the following changes and /or support for certain policies within the Draft South Saskatchewan Regional Plan, as follows be forwarded to the Land Use Framework Secretariat and the Stewardship Minister as follows:

- A. Add a policy that requires the development of a transportation and utility corridor strategy for the area between Edmonton and Calgary within the next two years, which would be undertaken by Province of Alberta in consultation with the affected municipalities. Proposed Table 1: Regional Outcomes and Reporting Indicators should also be amended;
- B. On page 95, Policy a) under the subheading of Transportation should also be amended to provide that the Province of Alberta would be the lead agency;
- C. On page 105, Table 1: Regional Outcomes and Reporting Indicators should include the reporting to the Alberta Water Council on how the seven major water-using sections are doing in implementing their water conservation, efficiency, and productivity plans;

- D. On page 15, the revised sentence should read: “As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to

enhance productivity in this sector while recognizing the need to strategically provide water to users - municipalities, irrigation, agriculture, others;”
- E. On page 81 watershed planning and advisory councils should be added to the sentence as follows: “Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups such as watershed planning and advisory councils and others.”
- F. On page 89, Council strongly support the development and updating of flood hazard mapping;
- G. The management framework, when it is completed, for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers should be incorporated into the SSRP;
- H. On page 88, subsection f), there should be reference to “timber harvesting operators” as one of the groups that could develop source water protection plans;
- I. On page 89, the reference to the water opportunities study should reference South Saskatchewan River and the Milk River Basins and not the South Saskatchewan Region;
- J. To require municipalities to use the suggestions in Stepping Back from the Water; and
- K. To request clarity as to the purpose of the document (i.e. what is it for, who will use it); and

Further be it resolved that the document and Council’s response be provided to the Environmental Advisory Committee so that they may consider submitting a response by the deadline of February 28, 2014.

Report back to Council: No

Comments/Further Action:

This resolution and the attached report are being submitted to the Environmental Advisory Committee for information.



Frieda McDougall
Manager

/attach

c: Committees Coordinator



January 6, 2014

Amendment to Council Policy EL-D-2.5 Parking Fine Revenue Sharing

Inspections and Licensing

Report Summary & Recommendation:

That Council approve a technical administrative wording correction to Council Policy EL-D-2.5 Parking Fine Revenue Sharing.

City Manager Comments:

I support the recommendation of Administration that Council approve the recommended change to Council Policy EL-D-2.5 Parking Fine Revenue Sharing.

Craig Curtis
City Manager

Proposed Resolution

Resolved that Council of The City of Red Deer having considered the report from the Inspections and Licensing Department, dated January 6, 2014, re: Amendment to Council Policy EL-D-2.5 Parking Fine Revenue Sharing, hereby agrees to amend Council Policy EL-D-2.5 – Parking Fine Revenue Sharing by changing the wording in Section 2.1 from “600 paid parking tickets... “ to “600 parking tickets issued....”



Report Details

Background:

At the September 30, 2013, Council passed the following resolution:

Resolved that Council of The City of Red Deer having considered the report from the Inspections and Licensing department, dated September 16, 2013, re: Council Policy – Parking Fine Revenue Sharing, hereby approves Council Policy – Executive Limitation – EL-D 2.5 - Parking Fine Revenue Sharing as presented to the Monday, September 30, 2013 Council Meeting with the revised Item I as shown below:

- I. Enter into parking fine revenue sharing agreements unless there is investment by the respective non-profit or public sector in complementary business operations.


Discussion:

A technical administrative wording correction is required.

Analysis:

Section 2.1 of this policy sets a minimum threshold required to qualify for parking fine revenue sharing ; and upon further review the reference to the number of parking tickets “paid” was intended to be the number of parking tickets ”issued”. This correction will ensure that potential applicants will not be unintentionally excluded.

The original policy and a red-line version are attached for reference.

	Council Policy	
	Parking Fine Revenue Sharing	
	Policy Type: EXECUTIVE LIMITATION	EL-D-2.5
Current Version		


The City Manager shall not inhibit The City's ability to realize and appropriately share parking fine revenues.

Further, without limiting the scope of the above statement by the following, the City Manager shall not:

1. Enter into parking fine revenue sharing agreements unless there is investment by the respective non-profit or public sector in complementary business operations.
2. Enter into agreements without considering the following:
 - 2.1. A minimum threshold to qualify and be maintained annually (per calendar year) of 600 paid parking tickets and \$15,000 in parking fines paid.
 - 2.2. Establishing set terms for the agreements of three (3) to five (5) years.
3. Establish parking fine revenue sharing percentage without regular analysis and evaluation including, but not limited to:
 - 3.1. The City's net operating cost calculation to include a risk/return factor.
 - 3.2. The revenue sharing percentage to be applied to actual parking fine payments paid directly to The City only.
 - 3.3. An annual review of the revenue sharing percentage; and adjusted if required, following the term of the agreement.
4. Share fine revenue from the Province.

Document History

Policy Adopted	September 30, 2013
Effective Date	January 1 st , 2014
Policy Reviewed	
Policy Revised and Approved	
Policy Revised and Approved	

	Council Policy	
	Parking Fine Revenue Sharing	
	Policy Type: EXECUTIVE LIMITATION	EL-D-2.5
Revised - Redlined Copy		

The City Manager shall not inhibit The City's ability to realize and appropriately share parking fine revenues.

Further, without limiting the scope of the above statement by the following, the City Manager shall not:

1. Enter into parking fine revenue sharing agreements unless there is investment by the respective non-profit or public sector in complementary business operations.
2. Enter into agreements without considering the following:
 - 2.1. A minimum threshold to qualify and be maintained annually (per calendar year) of 600 ~~paid~~ parking tickets ~~issued~~ and \$15,000 in parking fines paid.
 - 2.2. Establishing set terms for the agreements of three (3) to five (5) years.
3. Establish parking fine revenue sharing percentage without regular analysis and evaluation including, but not limited to:
 - 3.1. The City's net operating cost calculation to include a risk/return factor.
 - 3.2. The revenue sharing percentage to be applied to actual parking fine payments paid directly to The City only.
 - 3.3. An annual review of the revenue sharing percentage; and adjusted if required, following the term of the agreement.
4. Share fine revenue from the Province.

Document History

Policy Adopted	September 30, 2013
Effective Date	January 1 st , 2014
Policy Reviewed	
Policy Revised and Approved	
Policy Revised and Approved	

FILE COPY



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Howard Thompson, Inspections & Licensing Manager
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Amendment to Council Policy EL-D-2.5 Parking Fine Revenue Sharing

Reference:

Inspections & Licensing, dated January 6, 2014

Resolution:

The following resolution was passed at the Monday, January 20, 2014 Regular Red Deer City Council Meeting:

Resolved that Council of The City of Red Deer having considered the report from the Inspections and Licensing Department, dated January 6, 2014, re: Amendment to Council Policy EL-D-2.5 Parking Fine Revenue Sharing, hereby agrees to amend Council Policy EL-D-2.5 – Parking Fine Revenue Sharing by changing the wording in Section 2.1 from “600 paid parking tickets...” to “600 parking tickets issued....”

Report back to Council: No

A handwritten signature in blue ink, appearing to read 'F. McDougall'.

Frieda McDougall
Manager

c: Director of Planning Services
Policy Analyst, R. Lewis



December 20, 2013

Youth Representative Appointment to Greater Downtown Action Plan Steering Committee

Legislative Services

Report Summary & Recommendation:

That Council appoint a youth representative, for a two year term, to the Greater Downtown Action Plan Steering Committee. The names of the persons nominated are submitted to members of Council in confidence.

City Manager Comments:

Council's direction is requested.

Craig Curtis
City Manager

Proposed Resolution

That Council appoint a youth representative, for a two year term, to the Greater Downtown Action Plan Steering Committee as presented to the Monday, January 20, 2014 Regular Council Meeting.

FILE COPY



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Greater Downtown Action Plan Steering Committee
Attn: Jordan Furness, Staff Liaison
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Youth Representative Appointment 2014 – 2016 to Greater
Downtown Action Plan Steering Committee

Reference:

Legislative Services, dated December 20, 2013

Resolution:

The following resolution was passed at the Monday, January 20, 2014 Regular Red Deer City Council meeting:

Resolved that Council of The City of Red Deer, hereby appoints the following to serve as youth representative on the Greater Downtown Action Plan Steering Committee for a term to expire as follows:

David Huberdeau

Youth Representative
(term to expire at the Organizational Meeting of 2015)

Report back to Council: No

Comments/Further Action:

This office will advise Mr. Huberdeau of his appointment and ask that your office advise him of meeting dates and times.

A handwritten signature in blue ink that reads 'McDougall'.

Frieda McDougall
Manager

c: Director of Planning Services
Committees Coordinator

DM 1468853



January 7, 2014

2013 Municipal Election

Legislative Services

Report Summary & Recommendation:

The purpose of this report is to provide an administrative overview and highlights of the 2013 Municipal Election and that Council receive the 2013 Election report as information.

City Manager Comments:

This report is provided for Council's information.

Craig Curtis
City Manager



Report Details

Background:

This report is presented to Council after each election for review and information.

Discussion:

Enclosed are a variety of appendices that provide background to the analysis of election processes, as follows:

- Appendix 1: Election Highlights
- Appendix 2: Analysis of Candidates Elected in Relation to Name Location on Ballot
- Appendix 3: Election 2013 City of Red Deer Communications and Promotions
- Appendix 4: Election Forum 2013 –Red Deer Public Library Website
- Appendix 5: Ballot Counting Technology
- Appendix 6: Student Involvement in the Election
- Appendix 7: Representation of Council in City
- Appendix 8: Candidate Survey - Results
- Appendix 9: Election Workers Survey – Results

The review of election activities and processes provides a framework for planning for the next election. In addition to implementing any strategies / changes contained within this report a future report will be brought back for Council's consideration with respect to Campaign Contributions and Expenses.

While many recommendations / ideas will be advanced for Council's consideration prior to the 2017 Election, following is an overview of some of the higher-level issues identified.

Advance Vote Location

The Red Deer & District Museum proved to be an ideal location for the Advance Vote as this location provides ample parking, street level access and full accessibility.

Scanner Technology

This election, scanning technology was used which not only counts the votes on each ballot, it also scans and retains a digital copy of each ballot counted. Additional voting machines were added to some voting station locations to provide a more streamlined approach to accommodate the higher voter turnout subdivisions.

***Voting Station Congestion***

In most subdivisions, the Returning Officer seeks to establish voting stations within a school, church or community facility such as a Community Association building. However, more and more subdivisions are being developed without such amenities. In the new Timberstone and Clearview North subdivisions there were no facilities at present and residents were diverted to adjacent subdivisions to vote. Anders subdivision was divided into two divisions - north and south with voters from Anders South voting at Mt. Calvary Church. With the anticipated opening of new schools in the south east, it is expected additional space will be available for future elections.

Role of Returning Officer

The role of the Returning Officer is a legislated role set out in the Local Authorities Election Act. The Returning Officer's responsibilities include the unbiased conduct of the election.

In this Election, the Returning Officer took on the role of coordinating the election forums for all candidates and posting the information on The City's webpage. This function provided a coordinated approach to calendar bookings, and eliminated any potential duplication of forums. It also provided a point of contact for the public and the candidates. There were, however, challenges when groups changed dates, and/or locations and failed to update information.

Voter Identification

For the 2013 Election, the Province required voters to provide identification to verify voter identity, name and current address in order to vote in the municipal election. An extensive advertising campaign was undertaken to advise voters of this change. Overall, this new requirement seemed to be well understood and accepted by electors.

Election Signs

Election signs continue to be a matter of much debate each election. Prior legal advice has indicated that The City can regulate, but cannot prohibit, election signage. As such, questions arise each election with regard to the length of time (currently permitted 6 weeks prior to the election) election signs can be displayed, the number of locations, the number of signs permitted at each location, and the consequences for non-compliance. For the 2013 Election, Inspections and Licensing monitored sign regulations and complaints. Prior to the Election, they brought a report to the Governance and Policy Committee (GPC) outlining various options. The GPC chose to maintain status quo.

Respondents continue to agree that the placement of election signs should be on specific pre-selected public sites and on private property with permission. Inspections & Licensing will bring a subsequent report to Council outlining any issues and/or recommendations prior to the next election.

***Council Meetings during the Election Period***

Ancillary to the formal election processes addressed in this report is the impact of an election on current Council members and administration of The City. A recommendation proposed has been that there be no Council meetings between Nomination Day and Election Day in the year of a municipal election. For all candidates in a municipal election, this four week time period is very intense; however, for those already in office, the competing demands of their office and election campaign create an even higher intensity. A break in Council meetings would allow for members running for office to focus their attentions on their campaigns, citizen inquiries and election forums.

This issue will be brought for Council's consideration prior to the next election.

Analysis:

The conduct of the 2013 Election in Red Deer was undertaken in compliance with legislation and without bias.



December 2013

Appendix I

Election Highlights

Partnerships

The idea of having co-elections started at the turn of the last century. The first municipal elections for the Village of Red Deer were held on December 10, 1900 and the first Red Deer Public School Board elections were held on January 23, 1901. The Village was then incorporated as a Town and the first Town elections were held in July 1901. The next set of municipal elections were held in January 1902 in conjunction with the school board elections and joint elections have been conducted ever since with the Red Deer Separate (Catholic) School District being created in 1909. Joint elections were also conducted with the Red Deer Hospital after it was reorganized as a municipal hospital district in 1923; the hospital trustee elections took place along with the City Council, Public School Board and Catholic School Board. The last health board elections were held in October 2001.

As the Returning Officer for The City, the Legislative Services Manager is therefore responsible for the conduct of elections for the offices of Mayor, Councillor, Public School Trustee and Catholic School Trustee; and for adhering to legislation, employment of election workers, preparing communications regarding the election, and providing information to candidates and electors.

Over recent years, the expansion of the Red Deer Catholic Regional Division beyond The City's boundaries has presented new challenges. In the 2004 Election, this involved fostering further partnerships with the neighbouring municipalities of Blackfalds, Sylvan Lake, Rocky Mountain House, Innisfail, Bowden and Olds; in 2007 this was expanded to encompass Didsbury. In 2013, the Red Deer Catholic Regional Division asked that we expand the offering of voting stations within their jurisdiction to parallel all other voting stations offered within these areas. This would have resulted in us providing 13 more voting stations on Election Day and the related Advance and Institutional votes. Both of the areas (Highway 11 and QE II wards) outside of Red Deer experienced acclamation so this effort was not required.

An additional partnership introduced in the 2004 Election was with the Red Deer Public Library. In previous elections a need was identified for an 'election clearinghouse' that would allow candidates to post biographies and platforms and enter into discussion/debate with the electorate. The Library responded to this need through the development of an election forum area on their website. In 2007 the Library's site and capabilities were greatly expanded and included interactive blog pages and in 2010 streaming video on Election Day was added. The

Election Highlights

December 2013

Page 2 of 8

Red Deer Public Library has been a leader in election facilitation and staff has profiled these activities at international conferences. An overview of the Library activity relative to the 2013 Election is provided as Appendix 4.

Offices

In 2013, the following Offices were eligible to be placed on the ballot:

<u>Office</u>	<u># of Positions</u>	<u># of Candidates</u>
Mayor	1	5
Councillor	8	30
Public School Trustee	7	14
Catholic School Trustee (Red Deer Area Ward)	5	7
Catholic School Trustee – Hwy 11 Ward	1	1 (elected by acclamation)
Catholic School Trustee – QE II Ward	1	1 (elected by acclamation)

Additionally, a question was posted on the ballot as follows:

Do you want the City of Red Deer divided into wards?

No: 13,315

Yes: 5,240

Voter Turnout

The following table summarizes the voter turnout for Red Deer elections from the period of 1980 to 2013:

<u>Year</u>	<u>% Turnout</u>	<u>Year</u>	<u>% Turnout</u>
2013	31.81	1992	43.11
2010	24.80	1989	35.84
2007	22.04	1986	26.48
2004	27.27	1983	28.02
2001	22.10	1980	37.31
1998	36.70		
1995	25.80	Average	27.77

In 2013, out of the eligible 63,979 voters, 20,364 people cast their ballot.

Election Highlights

December 2013

Page 3 of 8

Note that the highest voter turnouts in the recent past occurred in 1998 when The City conducted the Senatorial selection vote for the province and had a question on the ballot regarding VLTs and in 1992.

Election Results

In order to keep the public informed, progress printouts of the results were produced and updated on our website following the counting of approximately every five voting stations. The following table shows the timing of these results over the previous five elections:

2013 (31.83% Voter Turnout)			2010 (24.8% Voter Turnout)			
Report #	Time (p.m.)	Ballots Counted Accumulated	Report #	Time (p.m.)	# Stations Reporting	Ballots Counted - Accumulated
1	8:34	6,110	1	8:07	1	2,205
2	8:42	9,020	2	8:17	13	2,455
3	8:55	13,560	3	8:31	17	3,039
4	8:59	19,480	4	8:42	18	3,055
5	9:07	26,012	5	8:55	20	3,997
6	9:12	12,909	6	9:04	25	6,507
7	9:26	32,251	7	9:12	28	8,267
8	9:30	38,049	8	9:29	39	16,682
9	10:45	39,836	9	9:40	42	18,734
10	10:29	41,000	10	9:57	47	22,936
11	10:31	41,001	11	10:25	49	24,201
			12	11:25	56	27,284
			13	11:35	58	30,221

2007 (22.04% Voter Turnout)				2004 (27.27% Voter Turnout)			
Report #	Time (p.m.)	# Stations Reporting	Ballots Counted - Accumulated	Report #	Time (p.m.)	# Stations Reporting	Ballots Counted - Accumulated
1	8:13	1	1,704	1	8:05	14	9,650
2	8:30	9	1,942	2	8:21	17	12,010
3	8:36	14	5,572	3	8:38	21	12,912
4	8:52	23	13,582	4	9:03	24	16,224
5	8:58	31	17,540	5	9:31	28	18,728
6	9:04	41	24,348	6	9:53	28	21,062
7	9:21	46	27,092	7	10:12	31	21,979

Election Highlights

December 2013

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8	9:34	50	26,829	8	10:32	33	23,724
9	9:53	55	27,094	9	12:04	36	26,204
				10	12:16	40	27,846
				11	12:33	40	29,250

2001 (22.1% Voter Turnout)				1998 (36.7% Voter Turnout)			
Report #	Time (p.m.)	# Stations Reporting	Ballots Counted - Accumulated	Report #	Time (p.m.)	# Stations Reporting	Ballots Counted - Accumulated
1	8:05	11	6,244	1	8:20	4	1,737
2	8:27	13	7,105	2	8:55	7	7,281
3	8:52	19	11,325	3	9:22	11	12,196
4	9:08	22	13,834	4	9:53	13	17,301
5	9:24	24	16,394	5	10:20	15	22,516
6	9:39	28	19,129	6	10:50	19	27,564
7	9:57	31	21,720	7	11:15	22	32,557
8	10:08	31	21,797	8	11:46	25	39,765
				9	12:20	28	47,382

Ballot Cards - Automated Ballot Counting

Various configurations of ballot cards have been presented over the years to electors. The type of ballot card has depended upon the races being run, for example:

In 1998 each City of Red Deer voter received three ballot cards which included:

- a) the Offices of Mayor and Councillors, and
- b) the Office of Public School Trustee or Catholic School Trustee, and
- c) the VLT question and the office of Senator in Waiting.

The VLT question and Senator selection could have been included on the Mayor and Councillor ballot card, however to more clearly separate provincial from municipal items, City Council directed that individual ballot cards be used.

Since 2001, each City of Red Deer voter received two ballot cards, which included:

- a) the Offices of Mayor and Councillors, and
- b) the Office of Public School Trustee or Catholic School Trustee.

Counting of the ballots was completed by the use of voter activated ballot counting machines located at each voting station. Consideration will be given for the next election with respect to

Election Highlights

December 2013

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eliminating one ballot card. This year resulted in three ballot cards, one which had the offices of Mayor, Councillor and the question and two others that includes the offices of Public and Catholic School trustee. Each elector received two ballots, the Mayor/Councillor/Question on one ballot and a second ballot for their choice of school board. People identified that this was cumbersome.

Advance Vote

In response to feedback provided following the 2001 election, Council agreed to increase the number of advance voting days from three to five. For the 2013 election, the first Advance Vote was held on Saturday, October 5, 2013 and the last Advance Vote on Saturday, October 18, 2013. Advance vote attendance represented 11.06% of voter turnout. Following is an overview of advance vote turnout in recent years:

2013:	2,230 people (5 day total)
2010:	1,104 people (5 day total)
2007:	852 people (5 day total)
2004:	746 people (5 day total)
2001:	204 people (3 day total)
1998:	295 people (3 day total)
1995:	172 people (3 day total)
1992:	330 people (3 day total)

As can be seen, voting at the Advance Vote is an increasingly popular option with voter turnout at the Advance Vote doubled in 2013 over 2010.

Blind Voter

A new initiative in 2004, which continued in subsequent elections, was the introduction of technology to accommodate the needs of visually and hearing impaired voters. This technology allowed blind voters to have their ballots marked for them by an automatic marking machine. This allowed their ballots to be counted by the same technology which counted all other voter ballots. The voter is able to make their selections independently by using either audio or braille features on the equipment.

Special Ballots

While the provision for Special Ballots was introduced in legislation for 2004, The City of Red Deer offered this service for the first time with the 2007 Election; and again in 2010 and 2013. Beginning July 1st, voters who knew they would be away could request a Special Ballot (basically a mail in ballot). After close of nominations on September 23, ballots were printed and made available to voters either by mail or pick up. In 2007, 17 voters requested special ballots and in

Election Highlights

December 2013

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2010, only 14 voters exercised this option. In 2013, 55 voters received special ballots. Special ballots comprised of 0.27% of votes cast.

Incapacitated Voters

The Local Authorities Election Act states that if the Returning Officer is satisfied that an elector is unable to attend a voting station or an advance voting station because of physical incapacity, election staff can go to the voter's home. In 2004 acknowledgement was made of the challenges to mobility many people experience, (e.g. inability to acquire short notice bookings through the Citizen's Action Bus, significant wait times for accessible transportation, etc.), and an expanded definition of electors eligible for the incapacitated electors service was used. This resulted in 16 electors accessing this service in 2004, three electors in 2007, 15 in 2010, and in 2013 18 electors requested an in-home vote. Institutional votes represented 0.58% of voter turnout.

Communications / Voter Outreach

Promotion and voter outreach activities are undertaken with the goal of communicating information about the election to electors. A Communication Strategy was developed and all media pieces including public service announcements, media releases, and backgrounders were prepared in conjunction with the Communication and Strategic Planning department of The City.

A summary of this activity is provided in the report from the Communications and Strategic Planning Department in Appendix 3.

Internet

The Internet was first used by The City of Red Deer in the 1998 Election. At that time it was one of only four cities in Alberta to post election results as the ballots were being counted. Candidate information, voting station locations, maps and a broad range of election related information was put on the site as soon as it was available. Currently, the Internet is one of the most common areas citizens and candidates go to for election information.

Performance Measures

The City's webpage received 19,059 'hits' on Election Day with 102,385 individual page views. Additionally, both the Advocate and the Red Deer Public Library were high disseminators of election information and saw page views of 67,869 and 113,700 respectively. Facebook was used to generate some election 'buzz' with the use of a countdown to the election which proved highly popular. Further use of this technology will be explored for future elections.

Election Highlights

December 2013

Page 7 of 8

The City's telephone system tracked a total of 243 calls on Election Day being responded to directly within the Legislative Services department and 390 by The City's main switchboard. Statistics for telephone calls are as follows:

2013: 633

2010: 408

2007: 456

2004: 455

2001: 344

Typical calls were inquiries about where to vote.

Questionnaires requesting feedback were sent to all candidates and election workers, immediately after the 2013 Election. Questionnaires related to the election process and election signs. These results gave us some valuable feedback on what went well and what we could do better and are provided in Appendices 8 and 9.

Election Costs

The gross cost of conducting the 2013 Election was \$345,381.00. As we conduct the election on behalf of other jurisdictions, we do recover some of the expenditure. In 2013, recoveries from the Red Deer Public and Catholic School Districts brought The City's cost to \$229,975.00.

**Legislative Services**

December 2013

Appendix 2**Analysis of Candidates Elected in Relation to Name Location on Ballot****History**

Prior to 1992 the names of candidates on ballots were rotated so consecutive voters would receive a ballot with a different name appearing first. This meant that the name of the first candidate would drop to the bottom on the second ballot and continued with each consecutive ballot. The Local Authorities Election Act provides for this practice or a municipality can choose to place the names the same on all ballots, alphabetically.

On January 6, 1992, Council approved the use of an “automated ballot counting system” for Red Deer municipal elections. The one drawback to this move is that the costs and complexity of printing ballots based on the practice of rotating names increased substantially. As a result, Council agreed that this practice be discontinued however a process to monitor any issues that may arise be put into place.

Also in moving to the automated ballot counting system there is an ability to determine the number of undervotes for each Office. An undervote is a vote that could have been cast but was not. For example, if a voter could vote for eight candidates and chose to vote for only six, this would result in two undervotes. This provides some indication that voters are strategic in voting and not checking off names in a random manner or based on ballot position.

Issue

Initially there was concern that some electors may select the candidates whose names appear at the top or in the upper portion of the ballot with greater frequency than those whose names appear in the lower portion of the ballot.

Objective

To provide a process that monitors the selection of candidates in relation to the placement of their names on the ballot by:

Analyzing the number of ballots cast for candidates based on the placement of names on the top and bottom half of the ballot,

Analyzing the number of undervotes in each race.

Analysis of Candidates Elected in Relation to Name Location on Ballot

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Findings

The monitoring of the 2013 Election is the eighth election analyzed based on the above objectives. The findings for the 2013 Election are consistent with the previous seven elections, in that:

The number of votes cast is distributed throughout the ballot. This indicates that one ballot style based on names of candidates appearing in alphabetical order for each ballot does not create an advantage for those names appearing on the top portion of the ballot. As shown in the following table, those elected are disbursed between the top and bottom half.

Office	Candidates Elected	
	Top Half of Ballot	Bottom Half of Ballot
Mayor	0	1
Councillor	4	4
Public School	4	3
Catholic School	3	2
Total:	13	8

Based on the number of undervotes:

It does not appear that voters randomly vote for candidates based on name position on the ballot.

It does appear that voters make strategic choices when they come to the voting stations.

For reference, the detailed analysis supporting this report are included as Attachment 1, and the results of the election as they appeared in The City of Red Deer's Statement of Official Results, included as Attachment 2.

Appendix 2 - Attachment I

Table A shows the number of votes cast for candidates based on the placement of names on the top and bottom half of the ballot:

Table A

Office	Top Half of Ballot					Bottom Half of Ballot				
	2013	2010	2007	2004	2001	2013	2010	2007	2004	2001
Mayor	9,126.5	8,100	3,411	7,578	1,139	11,118.5	6,219	9,871	8,059	9,399
Councillor	61,139	45,951	38,786	55,105	34,130	65,955	47,534	45,013	49,328	36,131
Public School	33,739	19,522	19,039	27,505.5	20,836	28,398	27,662	20,720	25,607.5	19,267
Catholic School	9,079.5	7,225	6,084	7,611	5,246	8,461.5	6,894	5,671	7,078	5,470
Total:	113,084	80,798	67,320	97,799.5	61,351	113,933	88,309	81,275	90,072.5	62,007

Office	Top Half of Ballot			Bottom Half of Ballot		
	1998	1995	1992	1998	1995	1992
Mayor	6,894	n/a	7,141	8,516	n/a	9,787
Councillor	44,890	34,137	52,762	52,581	34,615	55,278
Public School	28,094	20,870	30,810	27,648	17,719	27,753
Catholic School	7,686	4,800	6,897	6,368	4,179	6,060
Total:	87,564	59,807	97,610	95,113	56,513	98,878

NOTE: When there was an uneven number of candidates for an office, $\frac{1}{2}$ of the votes cast for the candidate whose name appeared at the centre were assigned to the top half, and the other $\frac{1}{2}$ to the bottom half.

Analysis of Candidates Elected in Relation to Name Location on Ballot
December 2013
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Table B indicates the total number of votes received by “Elected Candidates” based on the placement of names on the top and the bottom half of the ballot, and the total number of votes received by the “Non-Elected Candidates” based on the placement of names in the top and the bottom half of the ballot.

Table B

Total Votes Received by:	Top Half of Ballot					Bottom Half of Ballot				
	2013	2010	2007	2004	2001	2013	2010	2007	2004	2001
Elected Candidates	59,255	50,594	36,557	62,058.5	40,456	66,622	63,926	72,438	47,067.5	41,908
Non-Elected Candidates	54,934	30,204	30,763	35,741	20,093	46,202	24,383	8,837	43,005	29,160
Total:	114,189	80,798	67,320	97,799.5	61,351	112,824	88,309	81,275	90,072.5	62,007

Total Votes Received by:	Top Half of Ballot			Bottom Half of Ballot		
	1998	1995	1992	1998	1995	1992
Elected Candidates	66,815	40,368	85,909	69,279	36,906	72,003
Non-Elected Candidates	20,749	19,439	45,960	25,834	19,607	50,766
Total:	87,564	59,807	97,610	95,113	56,513	98,878

NOTE: When there was an uneven number of candidates for an office, ½ of the votes cast for the candidate whose name appeared at the centre were assigned to the top half, and the other ½ to the bottom half.

Table C indicates the 'average' number of votes received by Elected and Non-Elected Councillor candidates.

Table C

Average Number of Votes Received by:	Top Half of Ballot								Bottom Half of Ballot							
	2013	2010	2007	2004	2001	1998	1995	1992	2013	2010	2007	2004	2001	1998	1995	1992
Elected Candidates	7,205	5,326	5,222	2,955	1,122	6,074	3,669	6,136	8,651	5,559	5,572	2,241	1,848	6,927	4,613	6,000
Non- Elected Candidates	2,937	3,553	3,619	1,702	592	2,964	2,159	3,404	2,850	3,751	2,525	2,048	698	3,229	1,782	3,275

Analysis of Candidates Elected in Relation to Name Location on Ballot

December 2013

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Table D indicates the number of candidates **Elected** based on the placement of names on the top and the bottom half of the ballot:

Table D

Office	Top Half of Ballot					Bottom Half of Ballot				
	2013	2010	2007	2004	2001	2013	2010	2007	2004	2001
Mayor	0	1	0	1	0	1	0	1	0	1
Councillor	4	4	2	3.5	4	4	4	6	4.5	4
Public School	4	1.5	3	4.5	3.5	3	5.5	4	2.5	3.5
Catholic School	3	3	3	3	2.5	2	2	2	2	2.5
Total:	11	9.5	8	12	10	10	11.5	13	9	11

Office	Top Half of Ballot			Bottom Half of Ballot		
	1998	1995	1992	1998	1995	1992
Mayor	.5	n/a	0	.5	n/a	1
Councillor	4	4	4	4	4	4
Public School	3.5	4	4	3.5	3	3
Catholic School	3	3	3	2	2	2
Total:	11	11	11	10	9	10

Analysis of Candidates Elected in Relation to Name Location on Ballot

December 2013

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Table E indicates the number of candidates **not elected** based on the placement of names on the top and the bottom half of the ballot:

Table E

Office	Top Half of Ballot					Bottom Half of Ballot				
	2013	2010	2007	2004	2001	2013	2010	2007	2004	2001
Mayor	2.5	0	1.5	1	1.5	1.5	1	.5	2	.5
Councillor	11	4	5	9	5	11	4	1	8	5
Public School	3	4	1	1	2.5	4	0	0	3	2
Catholic School	.5	.5	1	2	2	1.5	1.5	2	3	2
Total:	17	8.5	8.5	13	11	18	6.5	3.5	16	9.5

Office	Top Half of Ballot			Bottom Half of Ballot		
	1998	1995	1992	1998	1995	1992
Mayor	1	n/a	1.5	1	n/a	.5
Councillor	3	6	7	3	6	7
Public School	2	3	3	2	4	4
Catholic School	1	0	1	2	1	2
Total:	7	9	12.5	8	11	13.5

Analysis of Candidates Elected in Relation to Name Location on Ballot

December 2013

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Table F indicates the number of candidates elected by the position placement of names on the ballot.

Table F

Number of Candidates Elected by Position on Ballot				
<u>2013 Results</u>	<u>2010 Results</u>	<u>2007 Results</u>	<u>2004 Results</u>	<u>2001 Results</u>
2 – first name on ballot	3 – first name on ballot	3 – first name on ballot	0 - first name on ballot	1 - first name on ballot
2 - last name on ballot	2 – last name on ballot	2 – last name on ballot	1 - last name on ballot	2 - last name on ballot
1 – second from the top	2 – second from the top	1 – second from top	3 - second from top	2 - second from top
0 – second from the bottom	2 – second from the bottom	3 – second from bottom	3 - second from bottom	2 - second from bottom
1 – third from the top	1 – third from top	2 – third from top	2 - third from the top	4 - third from the top
3 – third from the bottom	3 – third from bottom	2 – third from bottom	1 - third from the bottom	1 - third from the bottom

Number of Candidates Elected by Position on Ballot		
<u>1998 Results</u>	<u>1995 Results</u>	<u>1992 Results</u>
2 - first name on ballot	1 - first name on ballot	3 - first name on ballot
2 - last name on ballot	2 - last name on ballot	3 – last name on ballot
2 - second from top	2 - second from top	2 - second from top
3 - second from bottom	0 - second from bottom	2 - second from bottom
3 - third from the top	3 - third from the top	1 – third from top
1 - third from bottom	2 - third from bottom	2 – third from bottom

Table G indicates the total number of under votes for each office, e.g.: voters who did not vote for the full slate of candidates permitted, or who did not vote for any of the candidates in a given office.

Table G

Office	Under Votes							
	2013	2010	2007	2004	2001	1998	1995	1992
Mayor	127	551	257	216	331	368	n/a	161
Councillor	35,726	25,099	24,369	21,911	16,691	28,521	15,392	28,008
Public School	45,362	30,110	20,022	31,944	17,366	29,735	19,147	36,588
Catholic School	8,609	4,980	3,130	4,191	2,873	3,811	2,901	4,078
Total:	89,824	60,740	47,778	58,262	37,261	76,169	37,440	68,835

Table H indicates the total number of ballots on which “over votes” occurred, eg: voters who voted for more than the full slate of candidates permitted in a given office.

Table H

Office	Over votes							
	2013	2010	2007	2004	2001	1998	1995	1992
Mayor	9	8	8	14	0	16	n/a	26
Councillor	224	440	26	74	3	45	8	8
Public School	196	245	3	51	46	68	7	7
Catholic School	35	65	6	19	8	11	2	5
Total:	464	758	43	158	57	140	17	51

Analysis of Candidates Elected in Relation to Name Location on Ballot

December 2013

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Appendix 2 - Attachment 2

2013 Election Results

OFFICIAL RESULTS

ACCUMULATED TOTALS

	VOTES	PERCENT
VOTING STATIONS COUNTED (46 of 46)		100.00
ELIGIBLE VOTERS: 62,820		
BALLOTS CAST – TOTAL	41,002	

QUESTION:

DO YOU WANT THE CITY OF RED DEER DIVIDED INTO WARDS?

NO: 13,315 YES: 5,240

THE OFFICE OF THE OFFICE OF MAYOR

VOTE FOR 1

VEER, Tara	9,400	46.43
JEFFERIES, Cindy	7,971	39.37
TREPANIER, Dennis	1,514	7.5
HORN, William (Joe)	951	4.7
MASON, Chad	409	2.0
Total	20,245	
Over Votes	9	
Under Votes	127	

THE OFFICE OF THE OFFICE OF COUNCILLOR

VOTE FOR 8

WYNTJES, Dianne	9,841	7.74
BUCHANAN, S.H. (Buck).....	8,435	6.63
LEE, Lawrence	8,406	6.61
MULDER, Lynne	8,341	6.56
WONG, Frank	8,019	6.31
JOHNSTON, Ken	7,134	5.61
HARRIS, Paul	6,631	5.22
HANDLEY, Tanya	6,623	5.21
MOFFETT, Dennis.....	5,437	4.27
BALGOBIN, Terry	4,743	3.73

Analysis of Candidates Elected in Relation to Name Location on Ballot

December 2013

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GINGRAS, Serge	4,734	3.72
SPEARING, Janella	3,838	3.01
GOULET-JONES, Calvin	3,591	2.82
MOREY, Dawna	3,540	2.78
DIDRIKSON, Garry	3,517	2.76
YOUNG, Darren	3,470	2.73
YZERMAN, Calvin	3,452	2.71
HELM, David	3,298	2.60
BEVINS, Bob	3,139	2.47
ORDMAN, Ben	2,984	2.35
BAKER, Bettylyn	2,975	2.34
WIELER, Jonathan	2,747	2.16
MCKENNA, Dan	2,462	1.94
ANDERSON, Jerry	2,332	1.84
LASUITA, Tim	1,974	1.55
JOHNSON, Lloyd Erland	1,685	1.33
CHAPIN, Matt	1,163	0.92
COOP, Steve	1,139	0.89
MOBLEY, Victor	979	0.77
WAVRECAN, Troy	469	0.37
Total	127,098	
Over Votes	224	
Under Votes	35,726	

THE OFFICE OF THE OFFICE OF PUBLIC SCHOOL TRUSTEE

VOTE FOR 7

STUEBING, Bill	6,759	10.88
MANNING, Bev	6,754	10.87
CHRISTIE, Bill	5,833	9.40
PEACOCKE, Cathy	4,943	7.95
WATTERS, Jim	4,943	7.95
MACAULAY, Dianne	4,849	7.80
LEMKE, Dick	4,823	7.76
KRUGER, Lianne	4,442	7.15
HANSON, Shari	3,811	6.13
WILLIAMS, Milt	3,587	5.77
ORDMAN, Ben	3,299	5.31
KENWORTHY, Kerri	3,227	5.19
YAWORSKI, Raymond	2,553	4.11
SPADY, Kurt Victor	2,314	3.71
Total	62,137	

Analysis of Candidates Elected in Relation to Name Location on Ballot

December 2013

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Over Votes	196
Under Votes	45,362

THE OFFICE OF THE OFFICE OF CATHOLIC SCHOOL TRUSTEE - RED DEER AREA

VOTE FOR 5

LAGRANGE, Adriana	3,274
WATSON, Anne Marie	3,168
BOUCHARD, David F	2,845
PELLETIER, Guy	2,804
HOLLMAN, Murray.....	2,056
LITZENBURGER, Cory	1,809
TOWERS, Brandie	1,585
Total	7,541
Over Votes	35
Under Votes	8,609

THE OFFICE OF THE OFFICE OF CATHOLIC SCHOOL TRUSTEE - QE 11

VOTE FOR 1

MACKAY, Diane J	ACCLAMATION
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THE OFFICE OF THE OFFICE OF CATHOLIC SCHOOL TRUSTEE – HIGHWAY 11

VOTE FOR 1

MCNIFF, Liam	ACCLAMATION
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December 2013

Appendix 3

Election 2013 City of Red Deer Communications and Promotions

Municipal elections are held every four years in Alberta to elect the offices of Mayor and City Councillor in accordance with the Local Authorities Election Act (LAEA). The City of Red Deer is responsible for conducting and reporting results for municipal and school board elections and plebiscites. While this duty falls to Legislative Services, the Communications & Strategic Planning department aims to educate eligible voters and increase voter turnout.

A number of outside factors made this a particularly contentious election. First, a record number of candidates, 35 in total, were vying for the offices of Mayor and City Councillor. And with no incumbent, a mayoral race drew additional attention. Second, voters were asked to answer a question on the ballot in regards to at-large versus ward systems of representation. Finally, a group of like-minded individuals ran as a slate founded on the same platform – an innovative approach that made history in Red Deer politics.

Research into the target audience began in summer 2012 and the final communications plan was approved by Legislative Services in February 2013. Communications activities began immediately after and carried through until Election Day on October 21, 2013. All communications collateral including public service announcements, news releases, and backgrounders were prepared in conjunction with the Legislative Services department. Communication tactics included promotional items, website content, door-to-door publications, radio campaigns, advertising at Carnival Cinemas, and more.

As a result, voter turnout increased by seven percentage points over the last municipal election, for a total of 31.83 per cent. The City received 2,230 advance ballots and 55 requests for special ballots. Media relations proved to be invaluable during this time since all outlets were high disseminators of election information. For the most part, media coverage was accurate and timely. The landing page for the election, www.reddeer.ca/reddeervotes, received a total of 16,466 page views from September 21, 2013 to October 21, 2013. Highlighting The City's website and social media pages on all communications collateral clearly helped to establish The City of Red Deer as the source for official information.

On election day, a survey was conducted of voters requesting their feedback on how The City, in an unbiased manner, can increase awareness of the election. Overall, feedback suggested that voters feel The City did everything possible to support election awareness. Still, some suggestions include:

- Increase the frequency of advertising in the Red Deer Advocate.
- Start advertising for the election in spring 2017.
- Send addressed mail to all residences with the location of their voting station.



- Advertise on local television.
- Advertise and promote election forums.
- Involve Communications & Strategic Planning in website content development.
- Coordinate election day activities with Communications & Strategic Planning.
- Improve Web Map system for locating voting stations.

Communications for the 2013 municipal election was exciting and demanding to plan, execute, and evaluate. Throughout the year, both Communications and Strategic Planning and Legislative Services staff handled every issue with grace and poise. The communications budget for the election was \$31,307.43.

PROJECT OVERVIEW

The election communications plan focused on creating innovative and visually striking communications collateral to ensure stakeholders, including City of Red Deer staff and eligible voters, had access to information about the election and exercised their right to vote.

The overall theme of the election was:

Red Deer Votes October 21, 2013

Make this election yours.

The advertising slogan of the election was: There are no excuses. This allowed Communications to tailor each piece of collateral to a specific demographic group and pair it with appropriate advertising opportunities. Elements of the communications plan included:

Goal Increase voter participation in the 2013 municipal election.

*Strategy
&
Tactics*

Plan and implement a visually striking marketing campaign that eliminates common excuses for not voting specific to target demographic groups.

- Highlight The City's website and social media channels on all printed material and information distributed about the 2013 municipal election.
- Encourage an insightful conversation on The City's social media channels, including Facebook, Twitter, and YouTube, with www.reddeer.ca/reddeervotes as the hub for information about the election.
- Recognize that roughly 20% of Red Deerians are engaged in the voting process and tailor messaging to target audiences by pairing specific marketing collateral with advertising opportunities.
- Survey voters on election day to determine most effective methods of marketing communications for future elections.

Goal Inform voters about election day.



*Strategy
&
Tactics*

Provide eligible voters with clear, concise, and timely information about the election including the location of voting stations, opportunities for advance voting and special ballots, and the new requirement for voter identification prior to election day on October 21, 2013.

- Feature the unique and innovative involvement of youth in our community focusing on the benefit of knowledge gleaned from participating in a municipal election by arranging a mock election, and distributing news releases.
- Distribute easy to understand, large-print, printed notification to community support groups and ESL residents about the election with information about the advance vote and special ballot prior to election day.
- Issue news releases and public service announcements to update media on the election throughout the entire process, especially following major milestones.
- Increase signage around voting stations on election day.
- Use print, online communication, and technology to inform citizens of the election.
- Encourage City of Red Deer staff to get involved by voting or volunteering.

Audience

The primary audience was eligible voters within the city of Red Deer. This includes residents of the city of Red Deer who are at least 18 years old, are Canadian citizens, and have resided in Alberta for the last six consecutive months immediately preceding election day (since April 21, 2013). The secondary audience was City of Red Deer employees. Tertiary audiences included community groups, future voters, media, and both the Public and Catholic School Boards.

Budget

The communications budget for the election was \$31,307.43.

*Evaluation
Method*

The following objectives were chosen to assess both in-progress and outcome measures:

1. Increase the total voter turnout in 2010 by five percentage points, for a total of 30 per cent voter turnout during the 2013 municipal election.
2. Increase the number of advance ballots cast in 2010 by 76.05 per cent, for a total of 1500 advance ballots cast during the 2013 municipal election.
3. Increase the number of special ballots requested to 17 during the 2013 municipal election.
4. Drive traffic to www.reddeer.ca/reddeervotes for information about the election for a total of 14,000 page views on the landing page from September 21, 2013 to October 21, 2013.
5. Generate at least one accurately covered media article within seven days of distributing any news release or public service announcement pertaining to the 2013 municipal election.



6. Establish effective marketing communications strategies for future elections by surveying voters on election day.

COMMUNICATIONS PLANNING

Research

The first step in the research process was to conduct a thorough investigation into the culture, values, and attributes of the target audience. A number of low-cost research methods were employed recognizing that the majority of budget would be required for communications tactics.

For the election, the primary target audience was eligible voters within the city of Red Deer. Knowing that people within the primary target audience have specific attitudes, expectations, influences, and beliefs, the audience was narrowed to four main target demographic groups and created character profiles for each of the following: the traditionalists (age 65 – 85+), the baby boomers (age 50 – 64), generation x (age 30 – 49), and generation y (age 18 – 24).

Research Methods

1. Literature review
Through an informal literature review, was able to make certain assumptions about the attitudes, expectations, beliefs, influences, and needs of each demographic group.
2. Informal meetings with City of Red Deer staff
These assumptions were then tested by presenting draft visual elements and key messages tailored to each group to a small sample of City staff.
3. Consultation with neighbouring municipalities
With the favored visual elements and key messaging in mind, I started to review the work of other municipalities and consider best practices. Past work from municipalities including the City of Calgary, the City of Edmonton, and the City of Vancouver was accessed. Key learnings included:
 - Ensure significant communications prior to election day.
 - Give eligible voters fast access to important information.
 - Balance function with visual appeal.
 - Make connections to pop culture.
 - Encourage insightful conversation online.
 - Establish The City of Red Deer as the source for official information.

Analysis

Research into best practices and the important characteristics of all four demographic groups yielded valuable information that helped me to determine the best visual elements and key messaging to present. From there, a scan of internal and external strengths, weaknesses, opportunities, and threats was conducted to create clear communications strategies and tactics.

SWOT Analysis

Strengths	Opportunities
<ul style="list-style-type: none"> • The City's relationship with local media is positive. • The Legislative Services department is dedicated to coordinating the election 	<ul style="list-style-type: none"> • A new mayor will be elected. • Voters will answer a question on the ballot regarding at-large vs. wards representation.



according to the LAEA. • All City staff has a vested interest in the results of the election.	
Weaknesses	Threats
• Voter turnout in municipal elections is historically low with 24 per cent of eligible voters participating in 2010. • Inclusive communities and those with English as a second language may be challenged to fully understand the election process. • Voter eligibility requirements are strict.	• Citizens may question why they cannot vote online and choose not to participate because they see this as a barrier. • Some staff may show support for a candidate while carrying out City-related duties. • The original branding and visual identity proposed administratively included words used within specific candidate campaign slogans. This campaign was revised as to not align one way or another with an individual candidate.

Key Messages

The following key messages were used by all spokespersons in regards to the election:

KM1 We appreciate that Red Deerians are busy. Our theme: “There are no excuses” shows our commitment to making voting as easy as possible without compromising the process.

KM2 This is an important election: we will have a new mayor and for the first time, our Mayor and Councillors will represent Red Deer for four years instead of three. That’s why we’re asking all eligible voters to take a few minutes out of their day to vote on October 21.

KM3 New this year, voter identification must be shown prior to voting that establishes both the elector’s name and current address. A full list of authorized identification is available at www.reddeer.ca/reddeervotes.

KM4 You must vote at your assigned voting station. If you are unsure of your voting subdivision or voting station location, visit www.reddeer.ca/reddeervotes or call The City of Red Deer at 403-342-8132.



Appendix 3 - Attachment I

Red Deer Advocate

The Red Deer Advocate provided The City of Red Deer with a summary of their website activity during the election. It should be noted that the election provided The Red Deer Advocate with their 2nd highest daily page views. The following information shows page views for Election Day Monday, October 21, 2013 and on Tuesday, October 22, 2013:

Page views, Monday, October 21, 2013: **67,869**

Page views, Tuesday, October 22, 2013: **59,546**

For comparison, the average number of hits for page views for The Red Deer Advocate is approximately 43,000.



Legislative Services

December 2013

Appendix 4

Election Forum 2013 – Red Deer Public Library Website Completed by: Candice Marchand, Red Deer Public Library

Background:

During the 2004, 2007, and 2010 municipal elections, RDPL developed and managed a website, www.electionforum.ca where candidates were able to present their campaign platforms and communicate with Red Deer citizens. We still felt it was important to have candidate platforms available in one spot so that voters could read up on their candidates quickly and easily, but we decided to incorporate this information into our existing website, rather than managing a separate election-specific website.

In addition, since so much meaningful conversation occurs online on social networking websites, we opted to use our existing social media outlets (Twitter, Facebook, and Pinterest) to foster community engagement. We encouraged candidates, voters, and community groups to take part in conversations on these pages.

In conjunction with the 2004 Municipal Election, the Red Deer Public Library created a web based project to provide another avenue for political forums. In 2007, RDPL expanded this project to include an interactive component. The website, www.electionforum.ca hosted by the Library provided election candidates with a vehicle to announce their platforms and residents with the opportunity to pose their own questions directly to the candidate. For the 2010 Election, the website was a huge success as it received hits from across the globe.

Although the Election Forum project was presented in a different format this year, we still aimed to provide a “one-stop-shop” for all things related to the election, including candidate profiles, online debates and discussions, important dates, relevant links, news updates, election results, and more.

As we move forward in the multimedia world, the website will play an important role in future elections.

Candidate Platforms on RDPL’s Website

The Election Forum 2013 webpage was located under the “Services” tab on Red Deer Public Library’s website at www.rdpl.org/services/electionforum. In addition to this main landing page, there was a page with a complete list of all candidates (hyperlinked to each candidate’s profile), and separate pages for Mayor, Council, Public School Board, and Catholic School Board

Election Forum 2013 – Red Deer Public Library Website

December 2013

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candidates. These pages featured a photo of each candidate, brief candidate platforms/bios of 250 words or less, and links to candidates’ external websites via Pinterest. Photos were submitted by email, while candidate platforms and links were submitted using an online form. Since there were a large number of candidates for City Council (30), the Council platforms were spread over three pages. All candidate pages were organized alphabetically.

Statistics: September 23 -October 23
Between September 23rd (Nomination Day), and October 23rd, (two days after Election Day), there were **20,921** page views to the Election Forum pages on RDPL’s website. This constitutes approximately **48%** of total page views (**43,278**) on the **entire** website over the course of the month.



The Election Forum pages on RDPL’s website received 5127 pageviews on Election Day. This represents 84.66% of all pageviews on RDPL’s website that day (6056).



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What Do These Statistics Mean?

Quite simply, the statistics detailing site visits during the time leading up to and immediately following Election Day (Sept. 23-Oct. 23) as well as the statistics relating specifically to Election Day (Oct. 21) demonstrate that people were using Red Deer Public Library's website to research candidates.

Social Media Referrals:

Since much promotion was done via social media, it is important to take a look at the number of visits that came from social media sites. Between September 23 and October 23, RDPL's website received many referrals from our three main social networks. Note that it was not necessarily election-related content that brought users to our website, but that there were noticeable spikes that occurred on the day of our live Mayoral Debate (which streamed online), on Election Day (and the day before Election Day), and on some of the days that we held Twitter debates, all of which were days that our social media sites were heavy with election content.

Twitter:

Twitter was the main social media outlet used to share election-related information, promote our Election Forum website, and engage candidates and community members in meaningful conversations. The Red Deer election hashtag (as agreed upon by a number of organizations and individuals) was #RDvote. This hashtag was used to organize election-related tweets so that users could easily track election information and updates. @rdpl's first election-related tweet was made on September 5.

Twibates:

We hosted four Twibates (Twitter debates) on various "Hot Topics" related to this year's election, with one Twibate occurring each Wednesday between Nomination Day and Election Day. We strongly encouraged all candidates to sign up for a Twitter account and familiarize themselves with Twitter prior to the commencement of these Twibates. Each Twibate featured six questions for candidates and community members to respond to; one question was posted every ten minutes. Each question had its own unique hashtag (ex. #TIQ1 = topic one, question 1), and we also tagged each question with #RDvote.

Response to the Twibates was excellent. During our first Twibate, 18 candidates participated, sharing their vision for Red Deer. The second Twibate featured 14 candidates and dealt with the topic of transportation in Red Deer. The third Twibate was specifically aimed at School

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Board candidates, and saw 10 such candidates come out to participate, and the fourth and final Twibate received 12 participants. In total, **26 different candidates** participated in one or more Twibates.

There is no formal data available related to the number of new followers on our Twitter page; however, it was noted that on September 9 (shortly after the first election-related tweet was posted), @rdpl had 2234 followers. After the last election-related tweets were made on October 23, @rdpl had 2359 followers, indicating that there was an increase of 125 followers during this time.

Facebook:

Facebook was used more sporadically to post election-related information and refer users to our Election Forum website. Our Facebook users were not nearly as involved as our Twitter followers, so we did not want to overdo our election promotion and push away our existing users. We did, however, post a couple of “Community Polls” to users, accepted questions for our live Mayoral Debate, posted important election resources and updates, and linked to our other election sites (RDPL’s website, Twitter, and Pinterest). Here is an example of a post that did receive some response:

Pinterest:

We used Pinterest to present candidates for Mayor, Council, and both School Boards in an organized and visually-appealing manner. Each candidate had a photograph accompanied by a list of their campaign websites and social media sites for users to follow if they wanted to find out more about a specific candidate. The “Find out more about...” links on RDPL’s Election Forum website led to our Pinterest site.

Live Mayoral Forum:

On October 3, Red Deer Public Library hosted our very first live election forum for Mayoral Candidates in the Snell Auditorium at the Downtown Branch library. At the beginning of the forum, which was moderated by IT Librarian Nicole Charles, each of the five Mayoral Candidates had seven minutes to present their campaign platforms. Following this, we accepted questions both in-person from audience members and online via our social media channels (Twitter and Facebook). We also received some questions via email. Candidates then had approximately two minutes to respond to each question. The Red Deer Advocate covered this forum, and published an article about the issues discussed in their newspaper the next day.

The forum was attended by approximately **125** people, but given our small venue, we decided to stream the forum online so that users could tune in from home or from either of our over-

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flow rooms (Waskasoo-Kiwanis room at the Downtown Branch or the Program Room at the Dawe Branch). The highest number of people tuning in **simultaneously** was **75**.

Service Providers:

Shaw: 42

Telus: 26

Local: 6

WiFi: 1

Aggregate Location:

Red Deer: 71

Sylvan Lake 3

Sherwood Park: 1

Many people appreciated the ability to watch the forum in real-time without attending in-person. Following the forum, we received many requests via our social media channels to post a recording of the video online, so IT staff uploaded the video (in two parts) to YouTube. To date, there have been 124 views of part one of the forum and 53 views of part two.

General Recommendations:

It is impossible to imagine where society will be in 2017 in terms of technological advances, so it is difficult to make specific recommendations related to the use of technology for the next Election Forum Project. However, I do think it is important to continue to have candidate platforms available in one place online, whether right on the library's website or on an external site, and to engage voters and candidates in meaningful discussions via social media. It is also important to continue providing resources for those who do not frequently use social media and other Internet sources, so the brochure displays are an essential component of the Election Forum Project. Furthermore, should the library choose to host another live debate, it may be a good idea to host it in a larger venue so that more people can attend in-person. Lastly, as one of the emails recommended, an emphasis on promoting the project would be beneficial for everyone: voters, candidates, and the library.

**Legislative Services**

December 2013

Appendix 5**Ballot Counting Technology****Purpose**

The purpose of this report is to provide an overview of the ballot counting technology used for the 2013 Election.

Background

Prior to 1992, election results were tabulated manually. In 1992, The City moved to a central electronic ballot count system for tabulating election results as a manual count involves significant staffing, time, and a higher potential for error. Features of the electronic count system included a high degree of accuracy in counting the ballots, provision of results in a timely manner and a reduction in staffing requirements. This technology was acquired by The City and used for four elections at which time the model owned by The City was largely obsolete. For the 2004 Election The City's system was retired and an updated system was leased.

Following the 2004 Election, it was determined that other vote tabulation systems would also be explored – most notably, voter activated ballot counters. A voter activated ballot counting machine is located at each voting station and as the ballot is inserted in the tabulator, the votes are immediately counted. If an error has been made, the tabulator returns the ballot to the voter for correction and as a result, no determination needs to be made by election staff as to voter intent. At the close of voting stations, the machine is shut down and returned to the counting centre at which point the USB is removed and the already tabulated results are downloaded into a computer.

Since the 2007 Election, voter activated ballot counters were leased and located at each of the voting stations within the city of Red Deer. With the exception of institutional votes and the votes conducted on behalf of the Catholic Regional Division #39 in the areas outside of The City of Red Deer, no ballots needed to be tabulated at the close of voting stations.

Highlights

Each piece of equipment comes in a self-contained case and was able to be set up by voting station staff. The voter activated ballot scanners were easy to use by both election staff and voters. Voters were very receptive to the technology, particularly that they themselves could insert their ballot into the machine and had the ability to correct any errors identified.

All ballots are fed into tabulators by the voters themselves and election staff do not need to determine voter intent.



December, 2013

Appendix 6

Student Involvement in the Election

Background

It is important to engage students and youth in our City. An Election is an important tool in this because it also broadens understanding of the democratic process. In both the 2007 and 2010 Election High School students were recruited to act as Ballot Clerks, responsible for the voter activated ballot count machines on Election Day. While feedback was generally very positive, there were some drawbacks – particularly if the ballot count machine did not function properly. Unfortunately, in these instances the age of the Ballot Clerk(s) influenced the amount of respect given to them. For this reason, we chose not to pursue this in 2013.

Normally, Legislative Services provides tours of City Hall to grade 6 students (complementing their studies in local government). There is not enough staff capacity to provide this service in an Election year. We did however identify another area in which we could engage youth. We developed a 'Trial Election' with one goal = to simulate a real election as much as possible, engaging students and providing Election Officers with hands-on training.

Highlights

Central Middle School graciously donated the use of their gymnasium for 2 days (4 training sessions). Over 280 Election Officers were given an orientation to their role and then provided with all the material and equipment to conduct an election. Voting stations were set up, prepared and opened to receive electors. Grade 6 students assumed the role of electors and received the same ballots as used on Election Day (marked with a 'student' watermark). Over 600 students cast ballots. Election Officers then closed their stations and completed the appropriate reporting forms. Results of the Trial Election were as follows:

Should Red Deer Have a Ward System?	
Yes	132
No	295

MAYOR:	Results:
William (Joe) Horn	14
Cindy Jefferies	105
Chad Mason	58
Dennis Trepanier	38



Tara Veer	301
-----------	-----

COUNCILLORS:	
Jerry Anderson	196
Bettylyn Baker	130
Terry Balgobin	157
Bob Bevins	133
S.H. (Buck) Buchanan	113
Matt Chapin	110
Steve Coop	163
Garry I Didrikson	110
Serge Gingras	86
Calvin Goulet-Jones	114
Tanya Handley	150
Paul Harris	159
David Helm	122
Lloyd Erland Johnson	59
Ken Johnston	100
Tim Lasiuta	67
Lawrence Lee	218
Dan McKenna	86
Victor Mobley	76
Dennis Moffat	93
Dawna Morey	95
Lynne Mulder	87
Ben Ordman	95
Janella Spearing	104
Troy Wavrecan	71
Jonathan Wieler	60
Frank Wong	196
Dianne Wyntjes	157
Darren Young	106
Calvin Yzerman	170



PUBLIC SCHOOL TRUSTEE (7)	
Bill Christie	195
Shari Hanson	105
Kerri Kenworthy	165
Lianne Kruger	114
Dick Lemke	164
Dianne Macaulay	126
Bev Manning	125
Ben Ordman	106
Cathy Peacocke	171
Kurt Victor Spady	78
Bill Stuebing	115
Jim Watters	134
Milt Williams	138
Raymond Yaworski	122

CATHOLIC SCHOOL TRUSTEE (5)	
David Bouchard	124
Murray Hollman	116
Adriana LaGrange	101
Cory G. Litzenberger	92
Guy Pelletier	126
Brandie Towers	70
Anne Marie Watson	123



Summary:

Feedback from Teachers and Election Officers regarding the Trial Election was overall very positive (see Appendix 9 for a summary of Election Worker feedback). We asked teachers:

What can we do to make pre-trial election support more informative, comprehensive, and helpful?
Perhaps helping us connect with some of the candidates (although that is actually our problem); perhaps suggest a candidates forum during the school day that gr. 6 kids could attend.
Re-evaluate your handbook and make it more clear, as well as send out info on the candidates that are at a grade 6 level (most adults do not want to research that many candidates and it was extremely hard for grade 6); we want to encourage them to vote not discourage them. It would be helpful for the staff to state their roles to the students so they can relate to the material being covered in the classroom.
Make the teacher booklet more clear, have the workers identify their roles so the students can relate to the material they are learning and adapt the candidate information so the students can understand the platforms. With them looking up 49 candidates it is very overwhelming to them as it is to most adults.
Have material from the candidates that are student friendly; researching 50 candidates at this age is extremely hard when their reading levels are not at that level. Most adults do not want to research that many candidates. As well, the workers should identify their roles so the students can relate to the material they are learning. It would also be neat to see how each school voted as it makes for a good discussion topic.
I thought it was very engaging for the students and a valuable experience.
It was a very valuable experience for all of us. The kids loved it and learned a lot in short order.
I think this could be a very valuable learning tool for the grade 6 social curriculum if the city is willing to work with teachers to find out how to make it more engaging to the students.

100% of teachers indicated that they would participate in a trial election again. It is very likely that we will use the Trial Election concept again next election.



Legislative Services

December 2013

Appendix 7

Representation of Council in City

History

The City of Red Deer has traditionally run at-large elections where the electors of the whole municipality elect councillors for the whole municipality.

Objective

To provide information as to the representation of members of Council relative to their residential location within the city. For this purpose, three specific areas are identified as follows:

North:	north of the Red Deer River
Central:	Downtown, Parkvale, Waskasoo, Woodlea
South:	all areas south of the Red Deer River except those areas identified as Central

The tables below demonstrate Representation within the City based on the above noted areas for the 2013, 2010, 2007 and 2004 Elections:

2013 Representation in City				
Area	Population	Percentage of Population	Number of Representatives	Percentage of Representatives
North	32,139	33.10%	1	11.11%
Central	5,188	5.34%	0	0
South	59,782	61.56%	8	88.89%

2010 Representation in City				
Area	Population	Percentage of Population	Number of Representatives	Percentage of Representatives
North	29,672	32.94%	1	11.11%
Central	4,908	5.45%	1	11.11%
South	55,504	61.61%	7	77.78%



Legislative Services

Representation of Council in City

December 2013

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2007 Representation in City				
Area	Population	Percentage of Population	Number of Representatives	Percentage of Representatives
North	28,913	33.74%	2	22.22%
Central	5,308	6.19%	1	11.11%
South	51,484	60.07%	6	66.67%

2004 Representation in City				
Area	Population	Percentage of Population	Number of Representatives	Percentage of Representatives
North	25,615	33.7%	3	33.3%
Central	5,467	7.2%	1	11.1%
South	44,841	59%	5	55.5%

Note that until 2010, representation was fairly characteristic of population disbursement in the city. In 2010, the north area lost one representative which significantly alters the percentage of representation; in 2013 the central area lost one representative while the south area grew by one.



December 2013

Appendix 8

Candidate Survey Results

Background

Following each municipal election a survey is sent to all candidates to request their evaluation of the election process. This feedback assists in identifying successes and potential changes for future elections.

Findings

In support of the election process, survey responses indicate that candidates feel that the Returning Officers should have a more active role in coordinating / managing forums and there should be more advertising focused on “who” citizens can vote for versus just the rules.

The complete candidate survey and all responses are shown on the following pages.

APPENDIX 8**2013 Municipal Election - Candidate Survey****I. Prior to the 2013 municipal election, did you have experience as an election candidate?**



		Response Percent	Response Count
	Yes	55.2%	16
	No	44.8%	13

	answered question	29
	skipped question	0

2. Rate your agreement with the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Rating Count
Legislative Services department staff were courteous throughout the election process.	75.9% (22)	20.7% (6)	0.0% (0)	3.4% (1)	0.0% (0)	29
Legislative Services department staff were knowledgeable and helpful throughout the election process.	67.9% (19)	28.6% (8)	3.6% (1)	0.0% (0)	0.0% (0)	28
	answered question					29
	skipped question					0

3. Did you attend the pre-nomination day potential candidate information meeting on August 28?



		Response Percent	Response Count
Yes		69.0%	20
No		31.0%	9

If yes, what can we do to make the meeting more informative and helpful? What were the top 2 pieces of information most valuable to you? 15

- Signage regulations / sign booklets (x7)
- Opportunity to meet candidates (x2)
- Being able to ask questions
- Sharing information
- Great information

answered question	29
skipped question	0

4. Did you attend the post nomination day candidate information meeting on September 25?

		Response Percent	Response Count
Yes		72.4%	21
No		27.6%	8

If yes, what can we do to make the meeting more informative and helpful? What were the top 2 pieces of information most valuable to you? 14

- Signage regulations (x4)
- Campaign funding / disclosure (x3)
- Voting procedures (x2)
- Understanding role of Returning Officer and City Staff (x2)
- Description of campaign process (x2)
- All of it
- Voting demonstration
- Election Day etiquette



answered question 29

skipped question 0

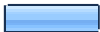
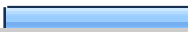


5. Rate the following in terms of usefulness to you as a candidate:

	Very useful	Somewhat useful	Not useful	No opinion	Rating Count
Candidate manual	58.6% (17)	41.4% (12)	0.0% (0)	0.0% (0)	29
Responses to candidate questions	44.8% (13)	41.4% (12)	10.3% (3)	3.4% (1)	29
Pre-nomination day potential candidate information meeting	42.9% (12)	32.1% (9)	3.6% (1)	21.4% (6)	28
Post-nomination day candidate information meeting	58.6% (17)	20.7% (6)	3.4% (1)	17.2% (5)	29
City of Red Deer's website	51.7% (15)	41.4% (12)	6.9% (2)	0.0% (0)	29
answered question					29
skipped question					0

6. Should election signs be used by candidates during their campaign?

		Response Percent	Response Count
Yes		75.9%	22
No		24.1%	7
answered question			29
skipped question			0




7. How far in advance should election signs be placed?

		Response Percent	Response Count
Six weeks prior to election day		13.8%	4
One month prior to election day		27.6%	8
On Nomination Day		37.9%	11
Other (please specify)		20.7%	6
answered question			29
skipped question			0

OTHER:

- Weekend prior to nomination day (x2)
- Never (x2)
- 2 weeks prior to election day


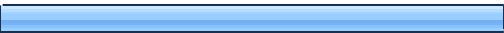
8. Where should election signs be permitted?

		Response Percent	Response Count
Anywhere on public property		3.4%	1
Specific pre-selected public sites		62.1%	18
Private property only		0.0%	0
Other (please specify)		34.5%	10
answered question			29
skipped question			0

Other:

- Specific selected areas, but fewer than current
- Public or private but not main street
- As is currently allowed but only one sign per candidate
- Reduce existing sites to 20 and restrict size to 16 x 20 inches
- Nowhere
- Less public sites so city does not look cluttered
- Limited pre-selected sites only
- Limit to 4 quadrants
- One or two selected areas
- Current plus trustees signs on school grounds


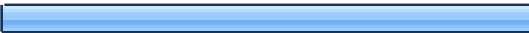
9. Should a permit and related permit fees be required to place election signs on public land?

		Response Percent	Response Count
Yes		20.7%	6
No		79.3%	23
answered question			29
skipped question			0

If yes, what size?



- Current (x5)
- 4' x 4' (x3)
- 4' x 8' for large signs (x3) and 16"x 24" in yards
- Small (x2)
- 2' x 4' (x2)
- 4' x 8' with maximum leg height of 12'
- 2' x 2'
- 8' width with 10' height
- Should not be allowed
- Remain same for one more term then change

10. Should the size of candidate signs be restricted to a maximum height and width?

		Response Percent	Response Count
Yes		75.9%	22
No		24.1%	7

answered question	29
skipped question	0

11. Should the number of candidate signs permitted per location be limited?

		Response Percent	Response Count
Yes		72.4%	21
No		27.6%	8

If yes, how many signs should be permitted per location?

- One (x11)
- One per _____ amount of meters
- One large or two small
- One large and one small
- Depends on location
- Five

12. Do you have any additional comments regarding election signs?


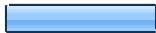
- They are a mess / distracting / don't have them (x6)
- Public does not want them / public does not like so many (x2)
- Candidates to pay into a fund to produce election awareness signs
- Make each sign say in small print 'authorized by.....'
- Limit the number of large signs per candidate
- Restrict size
- Restrict to one per location
- Signs should be allowed, they draw attention to the election
- No more 4' x 8'
- Less sites at major roadways only
- Start time to allow should be evening, not midnight
- Candidates not permitted to claim expenses for the cost of putting election together (re: sign permits)

answered question	18
skipped question	11

12. Rate your agreement with the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Rating Count
Voting stations were in accessible	55.6% (15)	40.7% (11)	3.7% (1)	0.0% (0)	0.0% (0)	27
Voting stations were well-advertised.	33.3% (9)	37.0% (10)	14.8% (4)	11.1% (3)	3.7% (1)	27
Election workers at the voting stations were courteous and	59.3% (16)	37.0% (10)	3.7% (1)	0.0% (0)	0.0% (0)	27
answered question						27
skipped question						2

13. Did you attend the election reception at the Golden Circle?

		Response Percent	Response Count
Yes		77.8%	21
No		22.2%	6

If yes, was the event well-coordinated? If no, how did you obtain election results?

- Well organized, smooth, excellent (x9)
- Got results online (x3)
- Seemed ok
- Eliminate catering, class it up by holding it at a hotel
- Healthy snacks needed
- Good location
- Too small
- Layout of room choppy
- Consider Westerner as venue
- Results a bit slow at times
- Trumpet call was great!

15. Do you have any additional comments regarding election day?

- Great day, went smooth (x2)
- Thanks for all your work, job well done (x2)
- Opportunity to visit sick friend in Calgary
- People unclear about voting station, website unclear
- Information not easily accessible by all generations
- Do mail out on voting stations to entire city
- Set up booth at malls week prior to election
- Good effort by all
- Remove signs 2 days prior to election day

answered question	8
skipped question	21

16. Do you have any additional comments regarding the overall election process?

	Response Count
--	---------------------------

- Implement nomination fee (x2)
- Online voting should be available (x2)
- Forums difficult due to number of candidates
- Not all forum questions were appropriate for Council candidates
- Too many forums
- Debates were not performed at forums
- Forums too small and limited
- Forums should be advertised more
- See you in 2017
- Thank you for the support
- Should have ward system
- Q & A questions- how much did this cost for research and time; was it the same people asking?
What will be done with them now?
- If a person has valid ID they should be able to vote at station of their choosing
- Engagement is pathetic – would be nice to represent / respond to only those that voted
- People overwhelmed by number of candidates
- You were knowledgeable, professional and courteous

answered question	13
skipped question	16



December 2013

Appendix 9

Election Workers Survey Results

Background

Following each municipal election a survey is sent to all election workers to request their evaluation of the election process. This feedback assists in identifying successes and potential changes for future elections.

Findings


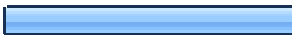
Every aspect of the election process as experienced from the election worker's perspective was seen as positive and helpful to their roles. This included the election worker's manual, training, staff support from Legislative Services, voting station location and set up, and Election Day activities and processes.

Feedback for changes included recommendations for more information on end of day processes and the suggestion for role-playing activities during training. All of the feedback provided will be considered in the planning process for the next municipal election.






The complete election workers survey and all responses are shown on the following pages.

2013 Municipal Election - Election Worker Survey



1. Prior to the 2013 municipal election, did you have experience as an election officer?

		Response Percent	Response Count
Yes		56.8%	125
No		43.2%	95

2. On election day, were you a ...

		Response Percent	Response Count
Voting Station Supervisor		2.8%	6
Presiding Deputy Returning Officer		18.3%	40
Deputy Returning Officer		60.1%	131
Ballot Clerk		11.5%	25
Other (ie. City of Red Deer employee as Supervisor)		7.3%	16
answered question			218
skipped question			5

3. Voting Station Supervisors (VSS): Were the Presiding Deputy Returning Officers (PDROs) clear on their role?

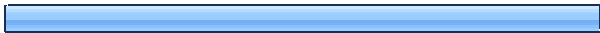

		Response Percent	Response Count
Yes		88.9%	8
No		11.1%	1
answered question			9
skipped question			214

4. What were the top 3 issues that you had to correct or troubleshoot? (ie. station set up, supplies, duties of officers, forms, etc).



	Response Count
	10
answered question	10
skipped question	213

- Voting station setup (x3)
- Forms / balancing at end of night (x3)
- Electors at wrong stations (x2)
- More training on roles (x2) – DRO's waiting to ask questions instead of calling immediately
- Station oversight / control
- No central supply table – forms divided up
- Voter ID requirements
- DRO's not filling in postal codes
- Officers not working ahead to fill in forms that could have been done ahead of time
- Explaining procedure to voters
- No time for breaks (time went by fast)
- Telling DRO's that hours of work are not negotiable
- Missing tabulator box
- More training on what to do when tabulator jams
- 2 out of 5 PDRO's wished for a calculator
- Tool to open plastic wrap appreciated by Officers
- Processes like making sure DRO's not leading electors when explaining to them
- Officers not giving out school ballots

5. Were the Deputy Returning Officers (DROs) and Ballot Clerks (BCs) clear about their role?

		Response Percent	Response Count
Yes		89.5%	34
No		10.5%	4
answered question			38
skipped question			185

6. Was the Voting Station Supervisor helpful and knowledgeable?

		Response Percent	Response Count
Yes		94.4%	34
No		5.6%	2
answered question			36
skipped question			187

7. What were your top 3 challenges as a PDRO?

**Response
Count**

36

answered question

36

skipped question

187

- Forms / balancing at end of night (x7)
- No real challenges / help was always available (x5)
- Keeping flow moving / high traffic (x4)
- Voters at wrong station (x4)
- Putting in time (x2) (one station had only 21 ballots)
- Not enough staff (x2), could have used 2 scanners
- Voters without ID (x2)
- Scanner problems (x2)
- Long day without breaks (x2)
- No help from staff at institutional – physically assisted seniors (x2)
- No VSS – worked institutional
- Institutional staff argued about signing attestation forms
- Accessibility issues
- Received a lot of questions about wards
- Ensuring no cell phone use by officers
- Poor record keeping of DRO
- Processing voters in timely manner from 5pm-8pm (station #30)
- Assisting electors in hospital to find ID – seems inappropriate
- Finding the voting station
- Space to set up enough screens
- Not enough training for DRO & BC's
- Voters attending station before opening / line ups at opening
- Resources: no tables, ballot box or DRO
- Inadequate training for those who had never worked election before
- Becoming familiar with terminology
- Temperature in station too cold
- Tabulator box flimsy
- Voters unable to see ovals
- DRO's should have filled in voter declarations at training
- Keeping pens at stations
- Showing voters on map where they needed to go
- Keeping the officers from visiting / too much laughter

8. Opinion of PDR: What were the top 3 challenges of the DRO? (ie: set up, voter ID requirements, etc)?

	Response Percent	Response Count
answered question		31
skipped question		192

- Voter ID requirements (x7)
- No ID (x5)
- Marking register for ballots and issuing correct ballot (x4)
- Few breaks / long day / tiring (x3)
- Maintaining sequence in register / keeping books up (x3)
- End of night count balance – school ballots (x3)
- Mentally / physically disabled voters who came alone and without ID (x2)
- End of night count balance (x2)
- High volume of voters
- Forgot postal code
- Institutions not aware of vote to be conducted in facility
- Not all officers had read the manual prior to training session – this caused problems
- Not trained enough
- Long explanation of how to vote
- Rushed by VSS when line up got long
- Voters at wrong station

9. PDRO Opinion: What were the top 3 challenges of the BC? (ie. speed of scanner, scanner box, etc.)

Response Count

28

answered question

28

skipped question

195

- Scanner box - fell apart, difficult to assemble (x5)
- Speed of scanner (x5) **comments indicate that the BC's were likely allowing the voter to insert the ballots
- Finicky scanner (x3)
- Keeping the voter until ballots scanned (x2)
- Not set up properly to begin with
- Received second scanner – improvement
- Staying at ballot box with only a few voters in station
- Keeping up, needed a second one (x2)
- Standing up all day
- She was incredible! Read manual in down time, explained process enthusiastically, efficient set up and take down
- Got scanner changed out
- Not enough training
- Dexterity to feed ballot into scanner
- Did not know what to do when scanner jammed

10. PDRO: Please give us your comments or suggestions on the process of picking up and dropping off supplies.

Response Count

34

answered question

34

skipped question

189


- Smooth and well organized (x21)
- Fast and effective, impressive (x5)
- Pick up would be better if using the ramp (advance out of town stations / institutional)
- Drop off was a dream, we almost cried when they unloaded the car for us, we had set up and taken down 3 x on election day (institutional) and could hardly carry our purses
- Blue tote extremely heavy
- We had great training and written instructions were clear, supervisors always available

- Did not realize lane would be blocked off for drop off at end of night

answered question	24
skipped question	199

- More training for PDRO's on end of day process needed
- Stations located at schools should not start at the same time as school, there is no way to get near the doors to drop off supplies
- Encountered line up at drop off – resulted in parking problems
- Drop off lane needs flashing lights in addition to pylons and barricade – was difficult to see

11. Ballot Clerk: Was the Presiding Deputy Returning Officer (PDRO) helpful and knowledgeable?

		Response Percent	Response Count
Yes		100.0%	23
No		0.0%	0
answered question			23
skipped question			200

12. What were your top 3 challenges as a Ballot Clerk?

	Response Count
--	---------------------------

- Ballot box assembly / malfunction (x6)
- Ballots jamming / rejected (x5)
- Volume of voters after 5pm / busy / line ups (x3)
- More training needed on scanner (x2)
- People not wanting school ballots
- Only having one ballot scanning machine
- No challenges only learning curves
- People feeding in own ballots – keeping ballots in secrecy sleeves and improper feeding
- Ballots sticking together
- Totals tape jammed at end of day
- Keeping people at the scanner until the ballots fed through / dealing with the voters
- PDRO condescending and demeaning
- End of day rush
- Long day / no breaks

13. Please give us your comments or suggestions on the process of picking up and dropping off supplies at the end of the night.

Response

Count

22

answered question

22

skipped question

201

- Drop off was smooth / a snap / smart thinking (x11)
- Need more staff for the traffic flow (x2)
- 'Strike' crew at City Hall helpful and efficient (x2)
- Drop off was 'amateurish' given ballots collected in the dark
- Drop off was chaotic – vehicles parked in manner that created unsafe conditions

14. Please give us your comments or suggestions on the process of closing the voting station.

Response Count

19

answered question



19

skipped question

204

- Close of station was smooth / went well (x7)
- Too much paperwork end of day (x2)
- Used buddy system to move election officer cars closer to station for pack up
- Need to ensure people are capable of doing their jobs
- Assembly of ballot transfer boxes more difficult than needed
- Need to pre-designate jobs at end of day
- Need training on what to do when totals tape jams

15. Deputy Returning Officer: Was the Presiding Deputy Returning Officer (PDRO) helpful and knowledgeable?

		Response Percent	Response Count
Yes		90.6%	115
No		9.4%	12
answered question			127
skipped question			96

16. What were your top 3 challenges as a DRO?

	Response Count
	119
answered question	119
skipped question	104

- Too much paperwork to fill out on declaration / ensuring information correct (x16)
- Volume of voters (x15)
- Balancing end of day (x11)
- Length of day / lack of breaks (x9)
- Lack of voter awareness for ID requirements (despite City doing good job of publicizing) (x8)
- Not enough secrecy sleeves (x6)
- Keeping warm / dressing appropriately(x5)
- Determining if voters in correct station (x5)
- Insisting voters take school ballot even when they did not want it (x5)
- Voter ID requirements – what is acceptable and what is not (x4) ***several comments about 'vouching' for neighbours
- Set up of station (x4)
- Traffic flow (x4)
- DRO's with more experience correcting the PDRO / PDRO not trained well enough (x4)
- Voters at wrong station (x3)
- Having enough time to pre-count ballots (x3)
- First time learning curve (x3)
- Explaining ballot without showing bias (x3)
- Great experience! Worked well as a team (x2)
- Determining correct form(s) to use (x2)
- Explaining which school ballot an elector is eligible to receive (x2)
- Being focused and cheerful all day (x2)

- Staying while others finished at end of day – nothing for me to do (x2)
- Voter questions about the question on the ballot (x2)
- Needed two ballot scanners (x2) – westpark identified
- Inappropriate space & lighting (institutional and regular stations)
- Institutional stations did not have form of attestation ahead of time
- Institutional set up and take down too much physical work
- Take down of station
- Assembling the ballot box
- Getting my lunch together
- These were much better chairs than the last time
- Mixed messages from VSS and PDRO regarding voting at an incorrect station
- Remembering to initial ballots
- Only 1 PDRO to buffer / prepare people – could have been 2
- Voters do not know how to form a line
- Voters trying to vote prior to station opening
- Ballot clerk did not seem trained
- Online training
- Voter complaints about ovals not easy to see
- Procedure for incapacitated voters
- Diverse voters, some under the influence of drugs / alcohol
- Lack of communication
- I was the only one who knew what was going on
- Instructions not clear – learned on the job (RDA Station)
- Voters frustrated by lack of communication about voting station
- Relying on people whose strengths are not organization

17. Please give us your comments or suggestions on the process of dropping off supplies at the end of the night.

Response Count	
	102
answered question	102
skipped question	121

DRO opinion of supply drop off:

- Went smoothly, efficient process, well organized (x35)
- Helpful team at city hall; much appreciated (x4)
- My hat off to the person who thought of the vehicle operator staying in the vehicle
- Felt a little disorganized but could have been time we arrived
- Did not know where to go so just looked for the most congested area and sure enough, there it was!

- City workers should have to sign off confirming that ballots delivered
- There should be a gas reimbursement or the city should pick up from the stations

Outside (City) worker opinion of supply drops:

- Good but ramp is designed for trucks, not foot traffic, people should not be walking down there
- Poorly lit, 2 out of 4 streetlights out, need more floodlights
- Needed more guys
- View sample of supplies prior to election night so know what to look for
- Walk through process and paperwork prior to election night
- Different instructions needed for City stations and RDA stations

18. Please give us your comments or suggestions on the process of closing the voting station.

Response Count

108

answered question

108

skipped question

115

- Smooth, worked well (x47)
- Good teamwork – rallied around each other (x14)
- Closing jobs need to be clearly assigned by PDRO (x4)
- Wish we could be in control of our own ballots – even if it just is in between 2 people in 1 table / each DRO should get own ‘balance sheet’ to give to PDRO for final #'s (x4)
- Consulted training manual – clear & helpful with words & pictures (x3)
- PDRO made us stay until balance complete – waste of time and pointless (x3)
- DRO's can help the PDRO balance by recounting books (x2)
- Need qualified PDRO; PDRO's make all the difference (x2)
- PDRO needs to be clear at beginning of day on how what is given impacts close / balance (x2)
- Needed a calculator with supplies (x2)
- Had a great leader and helped each other – that's what happens with an older crowd!
- Specific closing duties should be assigned at beginning of day
- Some DRO's left and they had information required to balance
- Need more than one PDRO
- All DRO's should be required to stay until after balancing
- PDRO seemed overwhelmed
- Instructions were easy and concise, we were given all training needed to do a good job
- Would be easier if forms were supplied together based on color rather than by form type
- More training needed on balancing

19. Rate your agreement with the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Rating Count
The election officer's manual was informative and helpful.	41.3% (81)	55.1% (108)	3.1% (6)	0.5% (1)	0.0% (0)	196
The online training was easy to use.	31.3% (60)	56.3% (108)	5.2% (10)	4.2% (8)	3.1% (6)	192
The online training helped me to understand what to expect working for a municipal election in Alberta.	32.3% (64)	53.5% (106)	7.6% (15)	6.6% (13)	0.0% (0)	198
The online training gave me a clear understanding of my job	26.8% (53)	48.5% (96)	11.1% (22)	12.6% (25)	1.0% (2)	198
The trial election gave me a clear understanding of my job duties (if applicable).	50.5% (98)	34.5% (67)	9.8% (19)	5.2% (10)	0.0% (0)	194
The hands on training at City Hall gave me a clear understanding of my job duties (if applicable).	21.8% (27)	24.2% (30)	49.2% (61)	3.2% (4)	1.6% (2)	124
Legislative Services department staff were courteous throughout the election process.	52.3% (101)	35.2% (68)	10.9% (21)	1.0% (2)	0.5% (1)	193
Legislative Services department staff were knowledgeable and helpful throughout the election process.	47.7% (92)	38.3% (74)	12.4% (24)	1.0% (2)	0.5% (1)	193
Overall, I felt prepared for my job on election day.	42.6% (84)	53.8% (106)	2.0% (4)	1.5% (3)	0.0% (0)	197
answered question						198
skipped question						25

20. Rate the following in terms of usefulness in completing your election day duties:

	Very Useful	Somewhat Useful	Not Useful	No Opinion	Rating Count
The election officer's manual.	70.1% (138)	23.9% (47)	1.5% (3)	4.6% (9)	197
The online training.	46.4% (90)	45.9% (89)	6.7% (13)	1.0% (2)	194
The PDRO binder (if applicable).	53.0% (61)	12.2% (14)	2.6% (3)	32.2% (37)	115
The trial election (if applicable).	68.1% (126)	24.9% (46)	2.2% (4)	4.9% (9)	185
The hands on training at City Hall (if applicable).	35.0% (36)	17.5% (18)	1.0% (1)	46.6% (48)	103



answered question	198
skipped question	25

How can we improve any of the above? 76

- Online training:
 - confusing, difficult to use, does not allow for questions (x7)
 - irrelevant (i.e. sorting names alphabetically), should be specific to Alberta and focused on local elections (x4)
 - too repetitive (x3)
 - Offer all training entirely online (x2)
 - not useful, mostly about good manners
 - I am not a computer person
 - Shorten, make more concise
 - Do online training in a classroom environment
 - Give date to have online training completed
- Trial Election:
 - Great! Highly encourage to do again (x8)
 - More 'voters' needed at the trial election (x5)
 - Do not fill out the voter declarations ahead of the trial election (x4)
 - stagger the 'voters' at the trial election (x3)
 - Require officers to read the manual prior to the trial election (x3)
 - Could have been more realistic / more scenarios (x3)
 - Don't rush it (x4)
 - Each voting station at trial election should have one staff member assigned to it (x2)
 - Too many people in one room at trial election (x2)
 - Staff needs consistent messaging at trial election (x2)
 - Need orientation prior to start / need roleplaying with staff first (x2)
 - Training this year was the worst / I prefer class training (x2)

- PDRO cannot be 2 places at one time (completing forms and closing scanner) (x2)
- Not needed
- Left me feeling like I may have missed something
- Confusion on what area of the city we were supposed to be serving
- Train PDRO prior to trial election - 'train the trainer'; give binder ahead of time (x8)
- Great job! Impressed (x7)
- Focus on end of night balance – provide DRO's with book at training and get them to balance (x5)
- Map on front door of voting station / large signs for doors / more signage (x5)
- More advertising of voting stations – newspaper too small / nothing in the mail (x5)
- More scanners (x5)
- DRO's need maps at tables (x5)
- Satisfied (x3)
- PDRO's should have prior experience (x2)
- Advise of role (PDRO, DRO, BC) before training (x2)
- Overkill at training (x2)
- More training for Supervisors / one pager on common issues or questions, what to expect (x2)
- Better online information on voting stations / clear maps / user friendly (x2)
- Manual is more useful than online training
- Clarify distribution of materials among officers at beginning of day
- Send declaration (oath of deputy returning officer) home ahead of time
- Would like training at City Hall followed by trial election (no online)
- More training needed on forms / provide samples of completed forms
- Best training (out of four that I attended)
- Ensure officers aware of time commitment needed for training and election day
- More advance notice of duties in LS / department wide notice of role assignments needed
- Include photo of scanner set up on ballot box in the manual
- Officers assigned to BC need to be comfortable with technology and able to stand for long durations
- Make sure all officers fully understand their jobs
- More preparation at voting stations to make sure they are aware of needs
- Line stanchions / floor stickers / free standing sign 'wait here please'
- Signs for tables 'register here'; 'vote here'; 'take completed ballots here'
- Signage to Balmoral Community Center not well displayed
- Stress the importance of accuracy in voter declarations
- Ballot clerk needed more help from 4:30 pm on
- Need calculator
- Include voting station hours on the 'vote here' signs
- Needed one more DRO
- Hire competent PDRO's

21. Did you receive enough information and training to prepare you for your job duties?



		Response Percent	Response Count
Yes		93.4%	183
No		6.6%	13

If no, what can we do to improve the training experience?
34

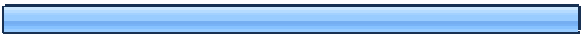

answered question	196
skipped question	27

- More end of night training (x8)
- Definitely keep the trial election / very best training ever! (x8)
- Training was awesome / best election training I ever received! (x7)
- Training was informative and useful (x7)
- Mock equipment failure / more training on scanner (x4)
- Smaller groups at training (x3)
- Working in the same teams at the trial and election day was very good (x3)
- The only thing that can make you feel fully prepared is experience (x3)
- Balance needed between theory and practice (training at City Hall and trial election) (x2)
- Video training would be excellent! (x2)
- Encourage DRO's to look over their books every 10 pages and to check (and initial) each other's books
- Each table should give totals to PDRO who then balances
- Provide some ideas of what to look for if you don't balance at the end of the night
- Assign roles prior to online training so you can focus on your role and don't have to do all the modules
- Staff did a great job
- Staff messaging inconsistent
- Provide a re-cap of online training at outset of trial election
- Provide consistent process for DRO's to process people
- More time at registration table during trial election
- Institutions were not prepared for us
- Online training not fair for seniors with minimal computer experience / access (took more time than it should)
- Explain roles clearly
- Go over all situations
- Demonstrations of how to set up etc. before doing hands on
- Hands on training is the only way to go
- Include information on voters who only have PO Box as address
- Manual needs more information on spoiled ballots
- Standby workers should train for each role



22. Did you attend the election briefing on October 18?

		Response Percent	Response Count
Yes		66.7%	10
No		33.3%	5
answered question			15
skipped question			208

23. Were your job duties clearly communicated?

		Response Percent	Response Count
Yes		86.7%	13
No		13.3%	2
answered question			15
skipped question			208

24. Did you have all of the necessary tools and information to complete your job?

		Response Percent	Response Count
Yes		86.7%	13
No		13.3%	2
answered question			15
skipped question			208



25 Rate your agreement with the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Rating Count
My voting station was in an accessible location.	59.5% (122)	33.2% (68)	3.9% (8)	2.9% (6)	0.5% (1)	205
Voting stations were well-advertised.	37.4% (76)	37.4% (76)	12.8% (26)	10.3% (21)	2.0% (4)	203
All the required materials were available to set up the voting station.	55.3% (114)	32.0% (66)	6.8% (14)	5.3% (11)	0.5% (1)	206
Electors knew where to go once inside the voting station.	43.2% (89)	46.1% (95)	5.8% (12)	4.4% (9)	0.5% (1)	206
Other election officers at the voting station were courteous.	65.4% (134)	29.3% (60)	5.4% (11)	0.0% (0)	0.0% (0)	205
Other election officers at the voting station were well prepared for their jobs.	49.5% (101)	36.8% (75)	6.9% (14)	5.9% (12)	1.0% (2)	204
The voting machines functioned correctly.	43.2% (86)	33.2% (66)	12.6% (25)	8.0% (16)	3.0% (6)	199
Overall, election day activities and tasks were well coordinated.	51.5% (104)	42.1% (85)	4.0% (8)	2.5% (5)	0.0% (0)	202

answered question	207
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skipped question	16
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26. Did electors attend the correct voting station?

		Response Percent	Response Count
Yes		57.8%	108
No		42.2%	79

answered question	187
skipped question	36

If no, what station were they supposed to attend?

- Voters assumed that they were supposed to go to the same station as last time (x3)
- Saw 'vote here' sign and assumed anyone could vote there (x6)
- Confusion because they vote at different places for federal and provincial (x6)
- Consider providing list of street names for each voting subdivision
- Balmoral CC (x2)
- Mount Calvary Lutheran Church / Anders (x12)
- Livingstones Church
- GH Dawe (x2)
- Johnstone (x4)
- Station 10
- Station 23
- Station 24 (x3)
- Clearview Community Center (x6)
- Joseph Welsh (x2)
- Hunting Hills (x5)
- Notre Dame High School (x3)
- Glendale (x5)
- Normandeau

27. Do you have any additional comments regarding election day?

Response Count



130

answered question	130
skipped question	93

- Great to work with friendly people / team / we had fun (x20)
- Well done again, City of RD! (x19)

- Good experience, will do it again (x12)
- Best. Election. Ever. (x3)
- PDRO's have a greater level of responsibility (x3)
- Training staff did a good job, I felt prepared (x3)
- Long and exhausting (x2)
- Would like to work advance station next election (x2)
- Should have voter list – faster at voting station & no confusion about correct voting station (x2)
- Sensitivity training needed to handle mentally / physically challenged people
- Ensure people are up to the physical demands of a long day
- Increase voter awareness of voting station
- We got a lot of comments about ID
- Need information on when / how we get paid
- Access to hot drinks should be made available
- It is against voters' rights to insist they take school ballot
- Election staff, especially Frieda and Gayle were excellent
- Kudos to Edith and the others
- We should be able to expense our meals
- It would be nice to accept voters not in their subdivision
- Joseph Welsh parking for disabled not convenient
- Voting station by construction with no disabled parking

28. Deputy Returning Officer: Was the Presiding Deputy Returning Officer (PDRO) helpful and knowledgeable?

		Response Percent	Response Count
Yes		90.6%	115
No		9.4%	12
answered question			127
skipped question			96

29. What were your top 3 challenges as a DRO?

	Response Count
	119
answered question	119
skipped question	104

- Too much paperwork to fill out on declaration / ensuring information correct (x16)
- Volume of voters (x15)
- Balancing end of day (x11)
- Length of day / lack of breaks (x9)
- Lack of voter awareness for ID requirements (despite City doing good job of publicizing) (x8)
- Not enough secrecy sleeves (x6)
- Keeping warm / dressing appropriately(x5)
- Determining if voters in correct station (x5)
- Insisting voters take school ballot even when they did not want it (x5)
- Voter ID requirements – what is acceptable and what is not (x4) ***several comments about ‘vouching’ for neighbours
- Set up of station (x4)
- Traffic flow (x4)
- DRO’s with more experience correcting the PDRO / PDRO not trained well enough (x4)
- Voters at wrong station (x3)
- Having enough time to pre-count ballots (x3)
- First time learning curve (x3)
- Explaining ballot without showing bias (x3)
- Great experience! Worked well as a team (x2)
- Determining correct form(s) to use (x2)
- Explaining which school ballot an elector is eligible to receive (x2)
- Being focused and cheerful all day (x2)
- Staying while others finished at end of day – nothing for me to do (x2)
- Voter questions about the question on the ballot (x2)
- Needed two ballot scanners (x2) – westpark identified
- Inappropriate space & lighting (institutional and regular stations)
- Institutional stations did not have form of attestation ahead of time
- Institutional set up and take down too much physical work
- Take down of station
- Assembling the ballot box
- Getting my lunch together
- These were much better chairs than the last time
- Mixed messages from VSS and PDRO regarding voting at an incorrect station
- Remembering to initial ballots
- Only 1 PDRO to buffer / prepare people – could have been 2
- Voters do not know how to form a line
- Voters trying to vote prior to station opening
- Ballot clerk did not seem trained
- Online training
- Voter complaints about ovals not easy to see
- Procedure for incapacitated voters
- Diverse voters, some under the influence of drugs / alcohol
- Lack of communication
- I was the only one who knew what was going on
- Instructions not clear – learned on the job (RDA Station)
- Voters frustrated by lack of communication about voting station
- Relying on people whose strengths are not organization

30. Please give us your comments or suggestions on the process of dropping off supplies at the end of the night.

**Response
Count**

102

answered question 108

skipped question 115

DRO opinion of supply drop off:

- Went smoothly, efficient process, well organized (x35)
- Helpful team at city hall; much appreciated (x4)
- My hat off to the person who thought of the vehicle operator staying in the vehicle
- Felt a little disorganized but could have been time we arrived
- Did not know where to go so just looked for the most congested area and sure enough, there it was!
- City workers should have to sign off confirming that ballots delivered
- There should be a gas reimbursement or the city should pick up from the stations

Outside (City) worker opinion of supply drops:

- Good but ramp is designed for trucks, not foot traffic, people should not be walking down there
- Poorly lit, 2 out of 4 streetlights out, need more floodlights
- Needed more guys
- View sample of supplies prior to election night so know what to look for
- Walk through process and paperwork prior to election night
- Different instructions needed for City stations and RDA stations

Please give us your comments or suggestions on the process of closing the voting station.

- Smooth, worked well (x47)
- Good teamwork – rallied around each other (x14)
- Closing jobs need to be clearly assigned by PDRO (x4)
- Wish we could be in control of our own ballots – even if it just is in between 2 people in 1 table / each DRO should get own 'balance sheet' to give to PDRO for final #'s (x4)
- Consulted training manual – clear & helpful with words & pictures (x3)
- PDRO made us stay until balance complete – waste of time and pointless (x3)
- DRO's can help the PDRO balance by recounting books (x2)
- Need qualified PDRO; PDRO's make all the difference (x2)

- PDRO needs to be clear at beginning of day on how what is given impacts close / balance (x2)
- Needed a calculator with supplies (x2)
- Had a great leader and helped each other – that's what happens with an older crowd!
- Specific closing duties should be assigned at beginning of day
- Some DRO's left and they had information required to balance
- Need more than one PDRO
- All DRO's should be required to stay until after balancing
- PDRO seemed overwhelmed
- Instructions were easy and concise, we were given all training needed to do a good job
- Would be easier if forms were supplied together based on color rather than by form type
- More training needed on balancing

31. Rate your agreement with the following statements:

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Rating Count
The election officer's manual was informative and helpful.	41.3% (81)	55.1% (108)	3.1% (6)	0.5% (1)	0.0% (0)	196
The online training was easy to use.	31.3% (60)	56.3% (108)	5.2% (10)	4.2% (8)	3.1% (6)	192
The online training helped me to understand what to expect working for a municipal election in Alberta.	32.3% (64)	53.5% (106)	7.6% (15)	6.6% (13)	0.0% (0)	198
The online training gave me a clear understanding of my job duties.	26.8% (53)	48.5% (96)	11.1% (22)	12.6% (25)	1.0% (2)	198
The trial election gave me a clear understanding of my job duties (if applicable).	50.5% (98)	34.5% (67)	9.8% (19)	5.2% (10)	0.0% (0)	194
The hands on training at City Hall gave me a clear understanding of my job duties (if applicable).	21.8% (27)	24.2% (30)	49.2% (61)	3.2% (4)	1.6% (2)	124
Legislative Services department staff were courteous throughout the election process.	52.3% (101)	35.2% (68)	10.9% (21)	1.0% (2)	0.5% (1)	193

Legislative Services department staff were knowledgeable and helpful throughout the election process.	47.7% (92)	38.3% (74)	12.4% (24)	1.0% (2)	0.5% (1)	193
Overall, I felt prepared for my job on election day.	42.6% (84)	53.8% (106)	2.0% (4)	1.5% (3)	0.0% (0)	197
answered question						198
skipped question						25

32. Rate the following in terms of usefulness in completing your election day duties:

	Very Useful	Somewhat Useful	Not Useful	No Opinion	Rating Count
The election officer's manual.	70.1% (138)	23.9% (47)	1.5% (3)	4.6% (9)	197
The online training.	46.4% (90)	45.9% (89)	6.7% (13)	1.0% (2)	194
The PDRO binder (if applicable).	53.0% (61)	12.2% (14)	2.6% (3)	32.2% (37)	115
The trial election (if applicable).	68.1% (126)	24.9% (46)	2.2% (4)	4.9% (9)	185
The hands on training at City Hall (if applicable).	35.0% (36)	17.5% (18)	1.0% (1)	46.6% (48)	103

How can we improve any of the above?

76



answered question	198
skipped question	25

- Online training:
 - confusing, difficult to use, does not allow for questions (x7)
 - irrelevant (i.e. sorting names alphabetically), should be specific to Alberta and focused on local elections (x4)
 - too repetitive (x3)
 - Offer all training entirely online (x2)
 - not useful, mostly about good manners
 - I am not a computer person
 - Shorten, make more concise



- Do online training in a classroom environment
- Give date to have online training completed
- Trial Election:
 - Great! Highly encourage to do again (x8)
 - More 'voters' needed at the trial election (x5)
 - Do not fill out the voter declarations ahead of the trial election (x4)
 - stagger the 'voters' at the trial election (x3)
 - Require officers to read the manual prior to the trial election (x3)
 - Could have been more realistic / more scenarios (x3)
 - Don't rush it (x4)
 - Each voting station at trial election should have one staff member assigned to it (x2)
 - Too many people in one room at trial election (x2)
 - Staff needs consistent messaging at trial election (x2)
 - Need orientation prior to start / need roleplaying with staff first (x2)
 - Training this year was the worst / I prefer class training (x2)
 - PDRO cannot be 2 places at one time (completing forms and closing scanner) (x2)
 - Not needed
 - Left me feeling like I may have missed something
 - Confusion on what area of the city we were supposed to be serving
- Train PDRO prior to trial election - 'train the trainer'; give binder ahead of time (x8)
- Great job! Impressed (x7)
- Focus on end of night balance – provide DRO's with book at training and get them to balance (x5)
- Map on front door of voting station / large signs for doors / more signage (x5)
- More advertising of voting stations – newspaper too small / nothing in the mail (x5)
- More scanners (x5)
- DRO's need maps at tables (x5)
- Satisfied (x3)
- PDRO's should have prior experience (x2)
- Advise of role (PDRO, DRO, BC) before training (x2)
- Overkill at training (x2)
- More training for Supervisors / one pager on common issues or questions, what to expect (x2)
- Better online information on voting stations / clear maps / user friendly (x2)
- Manual is more useful than online training
- Clarify distribution of materials among officers at beginning of day
- Send declaration (oath of deputy returning officer) home ahead of time
- Would like training at City Hall followed by trial election (no online)
- More training needed on forms / provide samples of completed forms
- Best training (out of four that I attended)
- Ensure officers aware of time commitment needed for training and election day
- More advance notice of duties in LS / department wide notice of role assignments needed
- Include photo of scanner set up on ballot box in the manual
- Officers assigned to BC need to be comfortable with technology and able to stand for long durations
- Make sure all officers fully understand their jobs
- More preparation at voting stations to make sure they are aware of needs
- Line stanchions / floor stickers / free standing sign 'wait here please'
- Signs for tables 'register here'; 'vote here'; 'take completed ballots here'
- Signage to Balmoral Community Center not well displayed

- Stress the importance of accuracy in voter declarations
- Ballot clerk needed more help from 4:30 pm on
- Need calculator
- Include voting station hours on the 'vote here' signs
- Needed one more DRO
- Hire competent PDRO's More end of night training (x8)
- Definitely keep the trial election / very best training ever! (x8)
- Training was awesome / best election training I ever received! (x7)
- Training was informative and useful (x7)
- Mock equipment failure / more training on scanner (x4)
- Smaller groups at training (x3)
- Working in the same teams at the trial and election day was very good (x3)
- The only thing that can make you feel fully prepared is experience (x3)
- Balance needed between theory and practice (training at City Hall and trial election) (x2)
- Video training would be excellent! (x2)
- Encourage DRO's to look over their books every 10 pages and to check (and initial) each other's books
- Each table should give totals to PDRO who then balances
- Provide some ideas of what to look for if you don't balance at the end of the night
- Assign roles prior to online training so you can focus on your role and don't have to do all the modules
- Staff did a great job
- Staff messaging inconsistent
- Provide a re-cap of online training at outset of trial election
- Provide consistent process for DRO's to process people
- More time at registration table during trial election
- Institutions were not prepared for us
- Online training not fair for seniors with minimal computer experience / access (took more time than it should) Explain roles clearly
- Go over all situations
- Demonstrations of how to set up etc. before doing hands on
- Hands on training is the only way to go
- Include information on voters who only have PO Box as address
- Manual needs more information on spoiled ballots
- Standby workers should train for each role

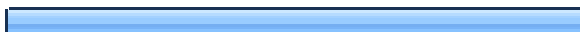

33. Did you receive enough information and training to prepare you for your job duties?

		Response Percent	Response Count
Yes		93.4%	183
No		6.6%	13

35. Were your job duties clearly communicated?

			Response Percent	Response Count
Yes			66.7%	86. 10
No			33.3%	13. 5
answered question				15
skipped question				208

36. Did you have all of the necessary tools and information to complete your job?

			Response Percent	Response Count
Yes			86.7%	13
No			13.3%	2
answered question				15
skipped question				208

37 Rate your agreement with the following statements:



	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	Rating Count
My voting station was in an accessible location.	59.5% (122)	33.2% (68)	3.9% (8)	2.9% (6)	0.5% (1)	205
Voting stations were well-advertised.	37.4% (76)	37.4% (76)	12.8% (26)	10.3% (21)	2.0% (4)	203
All the required materials were available to set up the voting station.	55.3% (114)	32.0% (66)	6.8% (14)	5.3% (11)	0.5% (1)	206
Electors knew where to go once inside the voting station.	43.2% (89)	46.1% (95)	5.8% (12)	4.4% (9)	0.5% (1)	206
Other election officers at the voting station were courteous.	65.4% (134)	29.3% (60)	5.4% (11)	0.0% (0)	0.0% (0)	205
Other election officers at the voting station were well prepared for their jobs.	49.5% (101)	36.8% (75)	6.9% (14)	5.9% (12)	1.0% (2)	204
The voting machines functioned correctly.	43.2% (86)	33.2% (66)	12.6% (25)	8.0% (16)	3.0% (6)	199
Overall, election day activities and tasks were well coordinated.	51.5% (104)	42.1% (85)	4.0% (8)	2.5% (5)	0.0% (0)	202

answered question	207
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skipped question	16
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38. Did electors attend the correct voting station?

111

		Response Percent	Response Count
Yes		57.8%	108
No		42.2%	79

answered question 187

skipped question 36

If no, what station were they supposed to attend?

- Voters assumed that they were supposed to go to the same station as last time (x3)
- Saw 'vote here' sign and assumed anyone could vote there (x6)
- Confusion because they vote at different places for federal and provincial (x6)
- Consider providing list of street names for each voting subdivision
- Balmoral CC (x2)
- Mount Calvary Lutheran Church / Anders (x12)
- Livingstones Church
- GH Dawe (x2)
- Johnstone (x4)
- Station 10
- Station 23
- Station 24 (x3)
- Clearview Community Center (x6)
- Joseph Welsh (x2)
- Hunting Hills (x5)
- Notre Dame High School (x3)
- Glendale (x5)
- Normandeau

39. Do you have any additional comments regarding election day?Response
Count

130

answered question	130
skipped question	93

- Great to work with friendly people / team / we had fun (x20)
- Well done again, City of RD! (x19)
- Good experience, will do it again (x12)
- Best. Election. Ever. (x3)
- PDRO's have a greater level of responsibility (x3)
- Training staff did a good job, I felt prepared (x3)
- Long and exhausting (x2)
- Would like to work advance station next election (x2)
- Should have voter list – faster at voting station & no confusion about correct voting station (x2)
- Sensitivity training needed to handle mentally / physically challenged people
- Ensure people are up to the physical demands of a long day
- Increase voter awareness of voting station
- We got a lot of comments about ID
- Need information on when / how we get paid
- Access to hot drinks should be made available
- It is against voters' rights to insist they take school ballot
- Election staff, especially Frieda and Gayle were excellent
- Kudos to Edith and the others
- We should be able to expense our meals
- It would be nice to accept voters not in their subdivision
- Joseph Welsh parking for disabled not convenient
- Voting station by construction with no disabled parking



December 23, 2013

Business Revitalization Zone Bylaw Amendment 3196/A-2014

Revenue and Assessment Services

Report Summary & Recommendation:

That City Council give first reading to the attached amendment of the Business Revitalization Zone Business Tax bylaw which establishes the BRZ rate at 0.99518%

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Business Revitalization Zone Bylaw Amendment 3196/A-2014. Second and third readings of the bylaw would then be considered by Council at the Monday, February 3, 2014 Council Meeting.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Business Revitalization Zone Business Tax Bylaw Amendment 3196/A-2014.



Report Details

Background:

Alberta Regulation 377/94 allows a municipal council to establish a Business Revitalization Zone (BRZ), which the City of Red Deer did in 1983. Annually, the Downtown Business Association presents and requires that their budget be approved by City Council. On January 6, 2014, Council approved the Downtown Business Association's budget.

Contained in the budget was the requirement for \$331,433 in revenue to be generated from the taxation of businesses operating within the boundaries of the BRZ zone. To generate the revenue as approved in their budget, the BRZ tax rate required is 0.99518%.

The tax rate and resulting tax impact to a specific business fluctuates from year to year due to a change in either the BRZ tax revenue requirement and/or the amount of total business assessment. Illustrated below is the BRZ tax impact on two sample properties.

Tax Year	Tax Rate %	BRZ Tax for Sample Property #1 2,200 sq. ft. Retail	BRZ Tax for Sample Property #2 5,121 sq. ft. Bank
2014	0.99518	\$219	\$1,019
2013	0.99451	\$218	\$1,018
2012	1.0087	\$ 221	\$ 929
2011	0.86	\$ 189	\$ 968
2010	0.89	\$ 195	\$ 911
2009	0.91	\$ 200	\$ 654

Discussion:

The approved Downtown Business Association budget is \$331,433 to be collected by the 2014 BRZ levy. To raise this amount based on the current total assessed value of \$31,542,200 the new rate for the BRZ tax is set at 0.99518%.

Business Revitalization Zone Summary Jan 1 2014

Current number of businesses on the roll.....497

Number of accounts with the minimum levy of \$155.....201



Number of businesses per tax range;

\$156 to \$200.....	43
\$201 to \$300.....	83
\$301 to \$400.....	29
\$401 to \$500.....	32
\$500 to \$1000.....	51
\$1000 to \$2000.....	36
Over \$2000.....	22

Current Top Ten Commercial Contributing Businesses

- Real Canadian Superstore
- Stantec Consulting Ltd.
- Red Deer Lodge
- Nova Chemicals Corp
- Canada Safeway
- Servus Credit Union Ltd
- Telus Communication Ltd
- BDO Dunwoody LLP
- ATB Financial
- Royal Bank of Canada

Total Contributions..... \$ 83,072

BYLAW NO. 3196/A-2014

Being a bylaw of The City of Red Deer in the Province of Alberta, to amend Bylaw No. 3196/98, the City of Red Deer's Business Revitalization Zone Business Tax Bylaw.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

That Bylaw No. 3196/98 is hereby amended as follows:

- 1 By deleting Section 5 in its entirety and replacing it with the following new Section 5:

Each Person carrying on Business within the boundaries of the Business Revitalization Zone established under Business Revitalization Zone Bylaw 2827/83 shall pay annually as a Business Tax a sum equal to 0.99518% of the Business Assessment of that Business or the sum of \$155.00, whichever is the greater sum.

READ A FIRST TIME IN OPEN COUNCIL this day of 2014.

READ A SECOND TIME IN OPEN COUNCIL this day of 2014.

READ A THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK

FILE COPY



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Joanne Parkin, Revenue & Assessment Services
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Bylaw Amendment 3196/A-2014
Business Revitalization Zone

Reference:

Revenue & Assessment Services, dated December 23, 2013

Bylaw Reading Resolution:

At the Monday, January 20, 2014 Regular Red Deer City Council meeting, Council gave first reading of Bylaw Amendment 3196/A-2014 – Business Revitalization Zone (an amendment to Section 5 of Business Revitalization Zone Bylaw 3196/98 – establish Business Revitalization Zone tax rate).

Report back to Council: Yes

Comments/Further Action:

This bylaw will be presented for Council's consideration of 2nd and 3rd reading at the Monday, February 3, 2014 Council Meeting.

A handwritten signature in blue ink, appearing to read 'F. McDougall'.

Frieda McDougall
Manager

c: Director of Corporate Services
City Assessor
Corporate Meeting Coordinator



December 27, 2013

Supplementary Assessment Bylaw 3513/2014

Revenue and Assessment Services

Report Summary & Recommendation:

That City Council give first reading to the annual Supplementary Assessment Bylaw 3513/2014 which authorizes the preparation of supplementary assessments within the City of Red Deer for 2014. Second and third readings of the bylaw would then be considered at the February 3, 2014 Council Meeting.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Supplementary Assessment Bylaw 3513/2014. Second and third readings of the bylaw would then be considered by Council at the Monday, February 3, 2014 Council Meeting.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Supplementary Assessment Bylaw 3513/2014 at this time.



Report Details

Background:

Section 313 of the Municipal Government Act, provides the opportunity for a municipality to implement supplementary assessments and taxation. To authorize the supplementary process, every year City Council must pass a supplementary assessment bylaw prior to May 1. City Council has authorized supplementary assessments since 2002.

The supplementary assessment is the assessment of newly constructed buildings, additions, and renovations that are occupied or completed during the 2014 year, but were not assessed at 100% of completion on the regular assessment notice mailed on January 17, 2014. The resulting supplementary tax is prorated, based on the number of months the improvement has been completed or occupied.

Supplementary assessment and tax provides for equity among property owners. At the time the owners occupy the new premise and receive municipal benefits, they pay their share toward the tax base to pay for those benefits.

Discussion:

The 2014 proposed budget includes estimated revenue of \$375,000 that will be generated from supplementary taxation.

BYLAW NO. 3513/2014

Being a bylaw to authorize the preparation of supplementary assessments within The City of Red Deer for 2014.

WHEREAS, The City of Red Deer wishes to require the preparation of supplementary assessments for improvements for the purpose of imposing a tax;

AND WHEREAS, the Municipal Government Act provides that this Bylaw must be passed before May 1 of the year that the Bylaw applies;

NOW THEREFORE Council enacts:

- 1 That a supplementary assessment shall be prepared for all improvements in 2014.

READ A FIRST TIME IN OPEN COUNCIL this	day of	2014.
READ A SECOND TIME IN OPEN COUNCIL this	day of	2014.
READ A THIRD TIME IN OPEN COUNCIL this	day of	2014.
AND SIGNED BY THE MAYOR AND CLERK this	day of	2014.

MAYOR

CITY CLERK

FILE COPY



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Joanne Parkin, Revenue & Assessment Manager
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Supplementary Assessment Bylaw 3513/2014

Reference:

Revenue & Assessment Services, dated December 27, 2013

Bylaw Reading:

At the Monday, January 20, 2014 Regular Red Deer City Council meeting, Council gave first reading to Supplementary Assessment Bylaw 3513/2014 (a bylaw to authorize the preparation of supplementary assessments within The City of Red Deer for 2014).

Report back to Council: Yes

Comments/Further Action:

This bylaw will be presented for Council's consideration of 2nd and 3rd reading at the Monday, February 3, 2014 Council Meeting.

A handwritten signature in blue ink, appearing to read 'Frieda McDougall'.

Frieda McDougall
Manager

c: Director of Corporate Services
City Assessor
Corporate Meeting Coordinator



December 17, 2013

Borrowing Bylaw 3507/2013

System Wide Intelligent Software

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw 3507/2013, System Wide Intelligent Software.

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw 3507/2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw 3507/2013 – System Wide Intelligent Software.

Borrowing Bylaw 3507/2013 provides for additional funding in the amount of \$3,560,000 to improve the reliability of transit planning data, passenger information, operational monitoring, system security and overall effectiveness for Transit services in Red Deer.

Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



Report originally presented to the
Tuesday, November 26, 2013
Capital Budget Council Meeting.

November 8, 2013

Borrowing Bylaw 3507/2013 – System Wide Intelligent Software

Transit

Report Summary & Recommendation:

A new Borrowing Bylaw is required for the above noted project.

We request that Council approve Borrowing Bylaw 3507/2013 for the System Wide Intelligent Software project for a total of \$3,561,000.

Council approved 1.9 million for System Wide Intelligent Software, during the 2012 Capital Budget and an additional \$1,661,000 is required in the 2014 Capital Budget after receiving more detailed and thorough cost estimates. The recommended funding source is long term tax supported debt of \$3,561,000.

As required by the MGA, Section 251, this bylaw will require advertisement.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3507/2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council Meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3507/2013.



Report Details

Background:

This project will expand and improve the reliability of transit planning data, passenger information, operational monitoring, system security, and overall system effectiveness. Approximately 61 regular buses will be equipped with Global Positioning Systems (GPS), Automated Passenger Counting (APC), security system and other transit technology components. There will also be 3 supervisory vehicles, one maintenance truck and one Police Officer vehicle that will be equipped with some aspects of the system to help in monitoring and supervision.

On conventional transit, accurate monitoring of ridership, schedule adherence data and real-time schedule information, is essential in helping us to determine where to deploy routes and service in the most effective and efficient manner, thereby maximizing ridership with minimum cost and ultimately reducing emissions. The ability to announce bus stops for the vision impaired customers will support accessibility. Electronic on-board signage will improve accessibility for the hearing impaired customers. Real time information will improve transit information for current and new customers.

BYLAW NO. 3507/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$3,560,000 for the purpose of financing the System Wide Intelligent Transit Technology project.

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 257 of the *MGA* to authorize the financing, undertaking and completion of the System Wide Intelligent Transit Technology project
- C. The total cost of the project is estimated to be \$3,560,000 and the Municipality estimates the following funding sources will be applied to the projects:

Reserves	\$ 0
Debenture(s)	<u>\$3,560,000</u>
Total Cost	\$3,560,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,560,000, for a period not to exceed 5 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 5 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the System Wide Intelligent Transit Technology project , the sum of THREE MILLION FIVE HUNDRED AND SIXTY THOUSAND DOLLARS (\$3,560,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the System Wide Intelligent Transit Technology project.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed FIVE (5) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 4%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



December 17, 2013

Borrowing Bylaw 3508/2013

Timberlands 209S Substation and Transmission Line

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw 3508/2013, a bylaw for the purpose of financing the Timberlands 209S Substation and Transmission Line in the amount of \$13,000,000.00.

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw 3508/2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw 3508/2013 – Timberlands 209S Substation and Transmission Line.

Borrowing Bylaw 3508/2013 provides for additional funding of \$13,000,000.00 for the purpose of financing the Timberlands 209S Substation and Transmission Line.

Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



Report originally presented to the
Tuesday, November 26, 2013
Capital Budget Council Meeting.

November 15, 2013

Borrowing Bylaw 3508/2013 – Timberlands 209S Substation and Transmission Line

Electric Light & Power

Report Summary & Recommendation:

A new Borrowing Bylaw is required for the above noted project.

The 2014 Capital budget is being considered for approval by Council on November 26, 2013. The Electric Light & Power department has submitted budget item #21 for the procurement and construction phases of a new transmission substation in the city's northeast. The recommended funding source is Utility Supported long term debt.

We request that Council approve borrowing Bylaw No. 3508/2013 for construction of the new Timberlands 209S Substation and Transmission Line for the total of \$13,000,000 in 2014 and 2015.

As required by the MGA, Section 251, this bylaw will require advertisement.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3508/2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3508/2013.



Report Details

Background:

The purpose of this bylaw is to borrow funds to construct a new substation transmission line in the northeast of Red Deer.

As outlined in EL&P's Transmission Master Plan approved by Council in April of 2012, the substation and transmission line are required to ensure adequate supply capacity and system reliability to meet the growing demand as Red Deer expands. While a portion of funding for this project will be provided through the utility's reserves, some debt funding is required to ensure appropriate management of the department's rates and reserves.

BYLAW NO. 3508/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$13,000,000 for the purpose of financing the Timberlands 209S Substation and Transmission Line.

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Timberlands 209S Substation and Transmission Line.
- C. The total cost of the project is estimated to be \$20,405,000 and the Municipality estimates the following funding sources will be applied to the projects:

Reserves	\$ 7,405,000
Debenture(s)	<u>\$13,000,000</u>
Total Cost	\$20,405,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$13,000,000, for a period not to exceed 20 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 30 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Timberlands 209S Substation and Transmission Line project the sum of THIRTEEN MILLION DOLLARS (\$13,000,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Timberlands 209S Substation and Transmission Line project.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TWENTY (20) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 6%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



December 17, 2013

Borrowing Bylaw 3509/2013

Sanitary Offsite Projects

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw 3509/2013, a bylaw for the Sanitary Offsite Levy Projects to include the East Hill Central, Timberlands Diversion and the North Highway Connector – 30th Avenue Sanitary Trunk.

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw 3509/2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw 3509/2013 – Sanitary Offsite Levy Projects.

Borrowing Bylaw 3509/2013 provides for funding of \$2,121,000.00 for the purpose of financing the Sanitary Offsite Levy Projects: East Hill Central, Timberlands Diversion (South Quarter line to 67 Street) and the North Highway Connector – 30 Avenue Sanitary Trunk (Northlands Drive to South Quarter Line).

Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



Report originally presented to the
Tuesday, November 26, 2013
Capital Budget Council Meeting.

November 14, 2013

Borrowing Bylaw 3509/2013 – Sanitary Offsite Projects

Engineering Services

Report Summary & Recommendation:

A new Borrowing Bylaw is required as noted above.

The 2014 Capital Budget is being considered for approval by Council on November 26, 2013. As part of the budget approval two sanitary offsite projects, East Hill Central – Timberlands Diversion – South Quarter Line to 67 St (50-52) - \$861,000 and North Highway Connector (East Hill North) – 30 Avenue Sanitary Trunk – Northland Drive to South Quarter Line (50-49) - \$1,260,000 are expected to be approved. The recommended funding source is Sanitary Offsite long term debt.

We request that Council approve Borrowing Bylaw No. 3509/2013 for a total of \$2,121,000 to construct the two projects described above.

As required by the MGA, Section 251, this bylaw will require advertisement.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3509/2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council Meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3509/2013.



Report Details

Background:

Projects identified are required to provide sanitary trunk service to new development and re-development areas in various parts of the city. The projects identified above have been scheduled in accordance with development growth plans.

BYLAW NO. 3509/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to incur indebtedness by the issuance of debenture(s) in the amount of \$2,121,000 for the purpose of financing the following Sanitary Offsite Levy Projects:

- **East Hill Central, Timberlands Diversion (South Quarter line to 67 St.)**
- **North Highway Connector – 30 Ave Sanitary Trunk (Northland Dr. to South Quarter line)**

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c.M-26 (the "MGA") provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Sanitary Offsite Levy Projects. Sanitary offsite projects are required to provide sanitary trunk service to new development and re-development areas in various parts of the City of Red Deer.
- C. The total cost of the project is estimated to be \$2,121,000 and the Municipality estimates the following funding sources will be applied to the projects:

Offsite Levies	\$ 0
Debenture(s)	<u>\$2,121,000</u>
Total Cost	\$2,121,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$2,121,000, for a period not to exceed 10 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this bylaw is equal to, or in excess of, 75 years.

- F. The principal amount of the outstanding debt of the Municipality as at the date of borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Sanitary Offsite Levy Projects, the sum of TWO MILLION ONE HUNDRED AND TWENTY ONE THOUSAND DOLLARS (\$2,121,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Sanitary Offsite Levy Projects.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TEN (10) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 5%.
4. The indebtedness is to be repaid by way of revenue raised through Sanitary Offsite Levies and the Municipality shall levy and raise in each year offsite levies sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



December 17, 2013

Borrowing Bylaw 3510/2013

Storm Offsite Levy Project

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw 3510/2013, a bylaw for the Storm Offsite Levy Project of the North Highway Connector (East Hill North) 30 Avenue Storm Trunk (Northland Drive to South Quarter line).

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw 3510/2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw 3510/2013 – Storm Offsite Project.

Borrowing Bylaw 3510/2013 provides for funding of \$3,570,000.00 for the purpose of financing the Storm Offsite Levy Project of the North Highway Connector (East Hill North) 30 Avenue Storm Trunk (Northlands Drive to South Quarter line).

Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



November 14, 2013

Borrowing Bylaw 3510/2013 – Storm Offsite Projects

Engineering Services

Report Summary & Recommendation:

A new Borrowing Bylaw is required as noted above.

The 2014 Capital Budget is being considered for approval by Council on November 26, 2013. As part of the budget approval, the North Highway Connector (East Hill North) 30 Avenue Storm Trunk from Northland Drive to South Quarter Line (81-84) is expected to be approved for \$3,570,000. The recommended funding source is Storm Offsite long term debt.

We request that Council approve Borrowing Bylaw No. 3510/2013 for a total of \$3,570,000 to construct the project described above.

As required by the MGA, Section 251, this bylaw will require advertisement.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3510/2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council Meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3510/2013.



Report Details

Background:

The 2014 project identified is required to provide storm trunk service to new development and re-development areas in various parts of the city. The project identified above has been scheduled in accordance with development growth plans.

BYLAW NO. 3510/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to incur indebtedness by the issuance of debenture(s) in the amount of \$3,570,000 for the purpose of financing the following Storm Offsite Levy Project(s):

- **North Highway Connector (East Hill North) 30 Avenue Storm Trunk– (Northland Dr. to South Quarter line)**

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c.M-26 (the "MGA") provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Storm Offsite Levy Projects. Storm offsite projects are required to provide storm trunk service to new development and re-development areas in various parts of the City of Red Deer.
- C. The total cost of the project is estimated to be \$3,570,000 and the Municipality estimates the following funding sources will be applied to the projects:

Offsite Levies	\$ 0
Debenture(s)	<u>\$3,570,000</u>
Total Cost	\$3,570,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,570,000, for a period not to exceed 10 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this bylaw is equal to, or in excess of, 75 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.

- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Storm Offsite Levy Projects, the sum of THREE MILLION FIVE HUNDRED AND SEVENTY THOUSAND DOLLARS (\$3,570,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Storm Offsite Levy Projects.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TEN (10) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 5%.
4. The indebtedness is to be repaid by way of revenue raised through Storm Offsite Levies and the Municipality shall levy and raise in each year offsite levies sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this day of 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



December 17, 2013

Borrowing Bylaw 3511/2013

North Highway Connector Phase 1B

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw 3511/2013, a bylaw for the purpose of financing the North Highway Connector Phase 1B.

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw 3511/2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw 3511/2013 – North Highway Connector Phase 1B.

Borrowing Bylaw 3511/2013 provides for funding of \$3,032,000.00 for the purpose of financing the North Highway Connector Phase 1B.

Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



Report originally presented to the
Tuesday, November 26, 2013
Capital Budget Council Meeting.

November 14, 2013

**Borrowing Bylaw 3511/2013 –
North Highway Connector (NHC) Phase 1B –
Northland Drive / 30 Avenue Extension
(Gaetz Ave to 67 St)**

Engineering Services

Report Summary & Recommendation:

A new Borrowing Bylaw is required as noted above.

The 2014 Capital Budget is being considered for approval by Council on November 26, 2013. As part of the budget approval the NHC 1B-1 – 30 Avenue 2 lanes – Northland Drive to 67 Street is expected to be approved for a cost of \$8,085,000. The recommended funding sources are \$2,021,000 Road Offsite funding, \$3,032,000 Basic Municipal Transportation Grant and \$3,032,000 Tax Supported long term debt.

We request that Council approve Borrowing Bylaw No. 3511/2013 for a total of \$3,032,000 to construct the project described above.

As required by the MGA, Section 251, this bylaw will require advertisement.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3511/2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council Meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3511/2013.



Report Details

Background:

The first phase of the overall project spans from the Gaetz Avenue/Hwy 11A intersection to 30 Avenue and includes the portion of 30 Avenue from Northland Drive to 67 Street. It also includes 3 new structures, approximately 6.0 km of new 2 lane expressway and the reconstruction of the existing 67 Street / 30 Avenue Intersection as a roundabout.

To support anticipated residential development north of 67 Street, construction of the 67 Street / 30 Avenue Intersection and 2 lanes of 30 Avenue from Northland Drive to 67 Street is required to start in 2014.

This bylaw is required to fund part of NHC IB-1 – 30 Avenue 2 lanes – Northland Drive to 67 Street.

BYLAW NO. 3511/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$3,032,000 for the purpose of financing the North Highway Connector Phase 1B

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the North Highway Connector Phase 1B.
- C. The total cost of the project is estimated to be \$8,085,000 and the Municipality estimates the following funding sources will be applied to the projects:

Offsite Levies	\$2,021,000
Grants	\$3,032,000
Debenture(s)	<u>\$3,032,000</u>
Total Cost	\$8,085,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,032,000, for a period not to exceed 20 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 75 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.

- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the North Highway Connector Phase 1B, the sum of THREE MILLION AND THIRTY TWO THOUSAND DOLLARS (\$3,032,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the North Highway Connector Phase 1B.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TWENTY (20) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 6%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



December 17, 2013

Borrowing Bylaw 3512/2013

Transmission Line / Power Line Relocation 80-L

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw 3512/2013, a bylaw for the purpose of financing the Transmission Line / Power Line Relocation (80-L) Project.

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw 3512/2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw 3512/2013 – North Highway Connector Phase 1B.

Borrowing Bylaw 3512/2013 provides for funding of \$3,200,000.00 for the purpose of financing the Transmission Line / Power Line Relocation (80-L) Project.

Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



Report originally submitted to
the Tuesday, November 26,
2013 Capital Budget Council
Meeting.

November 14, 2013

Borrowing Bylaw 3512/2013

Transmission Line/Power Line Relocation project

Planning Directorate

Report Summary & Recommendation:

We request that Council approve Borrowing Bylaw No. 3512/2013 for a total of \$3,200,000 for the Transmission Line/Power Line Relocation, located in the former West Yards.

The project was previously approved for \$11,311,000. The recommended funding sources are the Land Bank Reserve for \$8,111,000, and long term tax supported debt of \$3,200,000.

As required by the MGA, Section 251, this bylaw will require advertisement.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3512/2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council Meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3512/2013.



Report Details

Background:

The burial of the transmission line/power line is necessary to prepare City owned land for future development.

BYLAW NO. 3512/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$3,200,000 for the purpose of financing the Transmission Line/Power Line Relocation (80-L) project.

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Transmission Line/Power Line Relocation project.
- C. The total cost of the project is estimated to be \$11,311,000 and the Municipality estimates the following funding sources will be applied to the projects:

Debentures	\$3,200,000
Land Bank Reserves	<u>\$8,111,000</u>
Total Cost	\$11,311,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,200,000, for a period not to exceed 30 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 30 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Transmission Line/Power Line Relocation (80-L) project the sum of THREE MILLION TWO HUNDRED THOUSAND DOLLARS (\$3,200,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Transmission Line/Power Line Relocation (80-L) project.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed THIRTY (30) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 7%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



December 17, 2013

Borrowing Bylaw Amendment 3489/A-2013

Additional Funding for the 53 Avenue North of Riverlands Sanitary Trunk

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Tuesday, November 26, 2013 Capital Budget Council meeting.

Recommendation:

The Council consider giving second and third readings to Borrowing Bylaw Amendment 3489/A-2013, a bylaw for the purpose of additional funding for the 53 Avenue North of Riverlands Sanitary Trunk.

City Manager Comments:

I support the recommendation of Administration to proceed with second and third reading of Borrowing Bylaw Amendment 3489/A-2013.

Craig Curtis
City Manager

Report Details

Background:

At the Tuesday, November 26, 2013 Capital Budget Council Meeting, Council gave first reading to Borrowing Bylaw Amendment 3489/A-2013 – Additional Funding for the 53 Avenue North of Riverlands Sanitary Trunk.

Borrowing Bylaw Amendment 3489/A-2013 provides for additional funding in the amount of \$630,000.00 to a total of \$4,225,000.00 for the 53 Avenue North of Riverlands Sanitary Trunk.



Public Consultation Process

In accordance with Sections 221-226, 231, 251 and 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks and allow for a 15 day petition period. Advertisements were placed in the Red Deer Advocate on December 6 and December 13, 2013 with no comments being received.



Report originally submitted to the
Tuesday, November 26, 2013
Capital Budget Council Meeting.

November 14, 2013

Amendment to Borrowing Bylaw 3489/2012 – 53 Avenue N. of Riverlands – Sanitary Trunk Borrowing Bylaw Amendment 3489/A-2013

Engineering Services

Report Summary & Recommendation:

Borrowing Bylaw 3489/2012 is currently approved for a total of \$3,595,000.

The 2014 Capital Budget is being considered for approval by Council on November 26, 2013. As part of the budget approval, a budget increase in the amount of \$630,000 is expected to be approved for the 53 Avenue N of Riverlands Sanitary Trunk project. The recommended funding source is Tax Supported long term debt.

We request that Council amend Bylaw 3489/2012 to \$4,225,000 to reflect the \$630,000 budget increase.

Please note that this bylaw will require advertisement as the cost of the increase exceeds 15% of the original amount of the bylaw.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Borrowing Bylaw 3489/A-2013. The bylaw would come back for consideration of second and third readings at the Monday, January 20, 2014 Council Meeting to allow time for advertising.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Borrowing Bylaw 3489/A-2013.



Report Details

Background:

The sanitary trunk on 43 Avenue North of Riverlands, approved in 2013, is to provide services to the increased densification of Riverlands as identified in the 2011 Area Restructure Plan (ARP) and is being constructed as part of the Ross/Taylor Intersection Improvements. Further analysis has determined that original estimates need to be increased by \$630,000 (our 2014 budget request) to a total of \$4,225,000.

BYLAW NO. 3489/A-2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

Being a bylaw to amend Borrowing Bylaw No. 3489/2012 by increasing the borrowing authority by \$630,000 to a total of \$4,225,000.

Whereas:

- A. In 2012 The City passed Bylaw 3489/2012 to borrow the sum of \$3,595,000 to fund the 53 Ave North of Riverlands Sanitary Trunk.
- B. In order to complete the improvements to the 53 Ave North of Riverlands Sanitary Trunk, and because of estimated cost increases, the City needs to borrow an additional \$630,000.

Council of The City of Red Deer enacts as follows:

- 1. Preamble paragraphs B and C of Bylaw 3489/2012 are deleted and replaced with the following new preamble paragraphs:
 - B. "The total cost of the project is estimated to be \$4,225,000 which the City proposes to pay for as follows:

Reserves	\$0
Debentures	<u>\$4,225,000</u>
Total Cost	\$4,225,000
 - C. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$4,225,000, for a period not to exceed 20 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- 2. In paragraph 1, the words "THREE MILLION FIVE HUNDRED AND NINETY FIVE THOUSAND DOLLARS (\$3,595,000)" are deleted and replaced with the words "FOUR MILLION TWO HUNDRED AND TWENTY FIVE THOUSAND DOLLARS (\$4,225,000)".
- 3. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this day of 2014.

READ THIRD TIME IN OPEN COUNCIL this day of 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Dean Krejci, Chief Financial Officer
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Borrowing Bylaw Numbers 3507/2013, 3508/2013, 3509/2013, 3510/2013, 3511/2013, 3512/2013, and 3489/A-2013

Reference Report:

Legislative Services, dated December 17, 2013

Bylaw Readings:

At the Monday, January 20, 2014 Regular Council meeting, Council gave second and third reading to the following Borrowing Bylaws:

Borrowing Bylaw No. 3507/2013 System Wide Intelligent Software (a Borrowing Bylaw for the purpose of financing the System Wide Intelligent Transit Technology Project in the amount of \$3,560,000).

Borrowing Bylaw No. 3508/2013 Timberlands 209S Substation and Transmission Line (a Borrowing Bylaw for the purpose of financing the Timberlands 209S Substation and Transmission line in the amount of \$13,000,000).

Borrowing Bylaw No. 3509/2013 – Sanitary Offsite Project (a Borrowing Bylaw for the purpose of financing the financing Sanitary Offsite Levy Project in the amount of \$2,121,000).

Borrowing Bylaw No. 3510/2013 – Storm Offsite Project (a Borrowing Bylaw for the purpose of financing Storm Offsite Levy Projects in the amount of \$3,570,000).

Borrowing Bylaw No. 3511/2013 – (Borrowing Bylaw for the purpose of financing the North Highway Connector Phase 1B in the amount of \$3,032,000).

Borrowing Bylaw No. 3512/2013 – (Borrowing Bylaw for the purpose of financing the Transmission Line/Power Line Relocation (80-L) Project in the amount of \$3,200,000).

Borrowing Bylaw No. 3489/A-2013 (amend Borrowing Bylaw 3489/2012 by increasing the borrowing authority by \$630,000 to a total of \$4,225,000.

Copies of the Borrowing Bylaws are attached.

Report back to Council: No



Frieda McDougall
Manager

/attach

c: Director of Corporate Services

BYLAW NO. 3507/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$3,560,000 for the purpose of financing the System Wide Intelligent Transit Technology project.

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 257 of the *MGA* to authorize the financing, undertaking and completion of the System Wide Intelligent Transit Technology project
- C. The total cost of the project is estimated to be \$3,560,000 and the Municipality estimates the following funding sources will be applied to the projects:

Reserves	\$ 0
Debenture(s)	<u>\$3,560,000</u>
Total Cost	\$3,560,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,560,000, for a period not to exceed 5 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 5 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

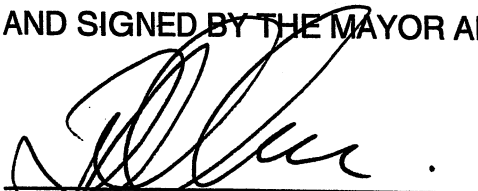
1. That for the purpose of the System Wide Intelligent Transit Technology project , the sum of THREE MILLION FIVE HUNDRED AND SIXTY THOUSAND DOLLARS (\$3,560,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the System Wide Intelligent Transit Technology project.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed FIVE (5) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 4%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.


MAYOR
CITY CLERK

BYLAW NO. 3508/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$13,000,000 for the purpose of financing the Timberlands 209S Substation and Transmission Line.

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Timberlands 209S Substation and Transmission Line.
- C. The total cost of the project is estimated to be \$20,405,000 and the Municipality estimates the following funding sources will be applied to the projects:

Reserves	\$ 7,405,000
Debenture(s)	<u>\$13,000,000</u>
Total Cost	\$20,405,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$13,000,000, for a period not to exceed 20 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 30 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Timberlands 209S Substation and Transmission Line project the sum of THIRTEEN MILLION DOLLARS (\$13,000,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Timberlands 209S Substation and Transmission Line project.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TWENTY (20) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 6%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.

MAYOR

CITY CLERK

BYLAW NO. 3509/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to incur indebtedness by the issuance of debenture(s) in the amount of \$2,121,000 for the purpose of financing the following Sanitary Offsite Levy Projects:

- **East Hill Central, Timberlands Diversion (South Quarter line to 67 St.)**
- **North Highway Connector – 30 Ave Sanitary Trunk (Northland Dr. to South Quarter line)**

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c.M-26 (the "MGA") provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Sanitary Offsite Levy Projects. Sanitary offsite projects are required to provide sanitary trunk service to new development and re-development areas in various parts of the City of Red Deer.
- C. The total cost of the project is estimated to be \$2,121,000 and the Municipality estimates the following funding sources will be applied to the projects:

Offsite Levies	\$ 0
Debenture(s)	<u>\$2,121,000</u>
Total Cost	\$2,121,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$2,121,000, for a period not to exceed 10 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this bylaw is equal to, or in excess of, 75 years.

- F. The principal amount of the outstanding debt of the Municipality as at the date of borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Sanitary Offsite Levy Projects, the sum of TWO MILLION ONE HUNDRED AND TWENTY ONE THOUSAND DOLLARS (\$2,121,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Sanitary Offsite Levy Projects.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TEN (10) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 5%.
4. The indebtedness is to be repaid by way of revenue raised through Sanitary Offsite Levies and the Municipality shall levy and raise in each year offsite levies sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

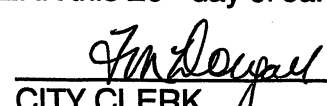
READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.


MAYOR


CITY CLERK

BYLAW NO. 3510/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to incur indebtedness by the issuance of debenture(s) in the amount of \$3,570,000 for the purpose of financing the following Storm Offsite Levy Project(s):

- **North Highway Connector (East Hill North) 30 Avenue Storm Trunk—(Northland Dr. to South Quarter line)**

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c.M-26 (the "MGA") provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Storm Offsite Levy Projects. Storm offsite projects are required to provide storm trunk service to new development and re-development areas in various parts of the City of Red Deer.
- C. The total cost of the project is estimated to be \$3,570,000 and the Municipality estimates the following funding sources will be applied to the projects:

Offsite Levies	\$ 0
Debenture(s)	<u>\$3,570,000</u>
Total Cost	\$3,570,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,570,000, for a period not to exceed 10 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this bylaw is equal to, or in excess of, 75 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.

- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:

1. That for the purpose of the Storm Offsite Levy Projects, the sum of THREE MILLION FIVE HUNDRED AND SEVENTY THOUSAND DOLLARS (\$3,570,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Storm Offsite Levy Projects.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TEN (10) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 5%.
4. The indebtedness is to be repaid by way of revenue raised through Storm Offsite Levies and the Municipality shall levy and raise in each year offsite levies sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.


MAYOR


CITY CLERK

- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:


1. That for the purpose of the North Highway Connector Phase 1B, the sum of THREE MILLION AND THIRTY TWO THOUSAND DOLLARS (\$3,032,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the North Highway Connector Phase 1B.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed TWENTY (20) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 6%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.


READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.



MAYOR



CITY CLERK

BYLAW NO. 3511/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$3,032,000 for the purpose of financing the North Highway Connector Phase 1B

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the North Highway Connector Phase 1B.
- C. The total cost of the project is estimated to be \$8,085,000 and the Municipality estimates the following funding sources will be applied to the projects:

Offsite Levies	\$2,021,000
Grants	\$3,032,000
Debenture(s)	<u>\$3,032,000</u>
Total Cost	\$8,085,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,032,000, for a period not to exceed 20 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 75 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.

BYLAW NO. 3512/2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

(the "Municipality")

This bylaw authorizes the Council of the Municipality to borrow monies by the issuance of debenture(s) in the amount of \$3,200,000 for the purpose of financing the Transmission Line/Power Line Relocation (80-L) project.

WHEREAS:

- A. Section 251 of the *Municipal Government Act*, R.S.A. 2000, c. M-26, (the 'MGA') provides that a municipality may only make a borrowing if the borrowing is authorized by a borrowing bylaw.
- B. The Council of the Municipality has decided to issue a by-law pursuant to Section 258 of the *MGA* to authorize the financing, undertaking and completion of the Transmission Line/Power Line Relocation project.
- C. The total cost of the project is estimated to be \$11,311,000 and the Municipality estimates the following funding sources will be applied to the projects:

Debentures	\$3,200,000
Land Bank Reserves	<u>\$8,111,000</u>
Total Cost	\$11,311,000

- D. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$3,200,000, for a period not to exceed 30 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- E. The estimated lifetime of the project financed under this by-law is equal to, or in excess of 30 years.
- F. The principal amount of the outstanding debt of the Municipality as at the date of the borrowing is \$209,696,043.79 and no part of the principal or interest is in arrears.
- G. All required approvals for the projects have been or will be obtained, and the projects are and will be in compliance with all *Acts* and *Regulations* of the Province of Alberta.

COUNCIL OF THE CITY OF RED DEER ENACTS AS FOLLOWS:


1. That for the purpose of the Transmission Line/Power Line Relocation (80-L) project the sum of THREE MILLION TWO HUNDRED THOUSAND DOLLARS (\$3,200,000) be borrowed from the Alberta Capital Finance Authority or another authorized financial institution by way of debenture on the credit and security of the Municipality at large.
2. The proper officers of the Municipality are hereby authorized to issue debenture(s) on behalf of the Municipality for the amount and purpose as authorized by this bylaw, namely the Transmission Line/Power Line Relocation (80-L) project.
3. The Municipality shall repay the indebtedness according to the repayment structure negotiated with the lender which shall be equal semi-annual or annual payments of combined principal and interest installments not to exceed THIRTY (30) years calculated at the interest rate fixed by the Alberta Capital Finance Authority or another authorized financial institution on the date of the borrowing and not to exceed 7%.
4. The indebtedness is to be repaid by way of revenue raised through Municipal property tax and the Municipality shall levy and raise in each year municipal taxes sufficient to pay the indebtedness.
5. The indebtedness shall be contracted on the credit and security of the Municipality.
6. The net amount borrowed under the bylaw shall be applied only to the projects specified by this bylaw.
7. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.



MAYOR



CITY CLERK

BYLAW NO. 3489/A-2013
OF THE CITY OF RED DEER
IN THE PROVINCE OF ALBERTA

Being a bylaw to amend Borrowing Bylaw No. 3489/2012 by increasing the borrowing authority by \$630,000 to a total of \$4,225,000.

Whereas:

- A. In 2012 The City passed Bylaw 3489/2012 to borrow the sum of \$3,595,000 to fund the 53 Ave North of Riverlands Sanitary Trunk.
- B. In order to complete the improvements to the 53 Ave North of Riverlands Sanitary Trunk, and because of estimated cost increases, the City needs to borrow an additional \$630,000.

Council of The City of Red Deer enacts as follows:

- 1. Preamble paragraphs B and C of Bylaw 3489/2012 are deleted and replaced with the following new preamble paragraphs:
 - B. "The total cost of the project is estimated to be \$4,225,000 which the City proposes to pay for as follows:

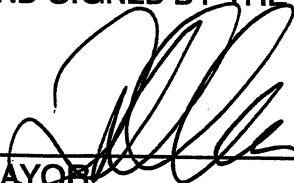
Reserves	\$0
Debentures	<u>\$4,225,000</u>
Total Cost	\$4,225,000
 - C. In order to complete the projects it will be necessary for the Municipality to borrow the sum of \$4,225,000, for a period not to exceed 20 years, from the Alberta Capital Finance Authority or another authorized financial institution, by the issuance of debentures and on the terms and conditions referred to in this bylaw.
- 2. In paragraph 1, the words "THREE MILLION FIVE HUNDRED AND NINETY FIVE THOUSAND DOLLARS (\$3,595,000)" are deleted and replaced with the words "FOUR MILLION TWO HUNDRED AND TWENTY FIVE THOUSAND DOLLARS (\$4,225,000)".
- 3. This bylaw comes into force on the date it is passed.

READ FIRST TIME IN OPEN COUNCIL this 26th day of November 2013.

READ SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.



MAYOR



CITY CLERK

**CITY OF RED DEER CAPITAL PROJECTS
Borrowing Bylaws**

DESCRIPTION: Capital Borrowing Bylaws: 33507/2013, 3508/2013, 3509/2013,
3510/2013, 3511/2013, 3512/2013 and 3489/A-2013 --

FIRST READING: November 26, 2013

FIRST PUBLICATION: December 6, 2013

SECOND PUBLICATION: December 13, 2013

PUBLIC HEARING & SECOND READING: January 20, 2014

THIRD READING: January 20, 2014 ✓

LETTERS REQUIRED TO PROPERTY OWNERS: YES ☐ **Yes**

DEPOSIT: YES ☐ \$ _____ NO ☒

COST OF ADVERTISING RESPONSIBILITY OF: **CITY OF RED DEER**

ACTUAL COST OF ADVERTISING:

\$ _____ X 2

TOTAL: \$ _____

MAP PREPARATION: \$ _____

TOTAL COST: \$ _____

LESS DEPOSIT RECEIVED: \$ _____

AMOUNT OWING/ (REFUND): \$ _____

INVOICE NO.: _____

BATCH NO.: _____

(Advertising Revenue to 180.5901)

CITY OF RED DEER CAPITAL PROJECTS Borrowing Bylaws

Red Deer City Council proposes to pass the following bylaws to provide for debenture borrowing in the amount of \$29,113,000 to finance development and construction of capital projects listed below. The public may inspect the proposed bylaws at Legislative Services 2nd Floor of City Hall during regular office hours.

BYLAW Number	Additional Capital Projects	Borrowing Amount
3507/2013 (System Wide Intelligent Transit Technology)	None	\$3,560,000
3508/2013 (Timberlands 209S Substation and Transmission Line)	None	\$13,000,000
3509/2013 (Sanitary Offsite Project)	- East Hill Central, Timberlands Diversion, - North Highway Connector – 30 Ave Sanitary Trunk	\$2,121,000
3510/2013 (Storm Offsite Projects)	North Highway Connector (East Hill North) 30 Ave Storm Trunk	\$3,570,000
3511/2013 (North Highway Connector Phase 1B)	None	\$3,032,000
3512/2013 (Transmission Line / Power Line relocation 80-L)	None	\$3,200,000
3489/A-2013** (53 Ave North of Riverlands Sanitary Trunk)	None	\$630,000

****Bylaw 3489/A-2013:** Amends Borrowing Bylaw for the 53rd Ave North of Riverlands Sanitary Trunk. The projects estimated cost has increased. The electors may submit a separate petition with respect to each advertised bylaw calling for a vote of the electors to determine whether the proposed bylaw should be passed. The petition must meet the formal requirements of Sections 221-226 of the Municipal Government Act and be filed with the Manager, Legislative Services within 15 days after the last date the proposed bylaws are

advertised. The last date of advertisement for these bylaws is **December 13, 2013**. Any petition will be public information. If you have any questions regarding the petition process or the use of the petition please contact the Manager, Legislative Services at 403-342-8132.

Bylaws going to Council November 26th, 2013 (Capital Budget)
Bylaws to be advertised for December 6 and December 13, 2013 in the Red Deer Advocate.



January 6, 2014

Land Use Bylaw Amendment 3357/CC-2013

Rezoning of Phase 4 of Laredo

Consideration of Second and Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Monday, December 16, 2013 Council Meeting.

Recommendation:

That Council consider giving second and third readings to Land Use Bylaw Amendment 3357CC-2013.

City Manager Comments:

Council's consideration of second and third reading for Land Use Bylaw Amendment 3357/CC-2013, rezoning of Phase 4 of Laredo, is requested.

Craig Curtis
City Manager

Background

At the Monday, December 16, 2013 Council Meeting, Council gave first reading to Land Use Bylaw Amendment 3357/CC-2013, a bylaw amendment to rezone the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan from AG-Agricultural District to R1-Residential (Low Density), R1N-Residential (Narrow Lot) and R3-Residential (Multiple Family) Districts. The rezoning covers 10.69 hectares in the neighbourhood marketed as Laredo.

In accordance with Section 606 of the *Municipal Government Act*, this bylaw is required to be advertised for two consecutive weeks. Advertisements were placed in the Red Deer Advocate on January 3 and January 10, 2014 with no comments being received. A Public Hearing will be held on Monday, January 20, 2014 at 6:00 P.M. during Council's regular meeting. Letters were sent to the owners of properties in the affected areas.



Report Originally Submitted to the
Monday, December 16, 2013 Council
Meeting

November 21, 2013

Rezoning Phase 4 of Laredo

Land Use Bylaw Amendment 3357/CC-2013

Consideration of First Reading

Planning Department

Report Summary & Recommendation:

Bylaw 3357/CC-2013 proposes to rezone the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan (NASP) for a variety of residential uses. The developer markets the neighbourhood as Laredo.

As the rezoning complies with the adopted NASP, the Planning Department recommends Council support Bylaw 3357/CC-2013.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Land Use Bylaw Amendment 3357/CC-2013, rezoning the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan (NASP) known as the Laredo neighbourhood.

If Council passes first reading a Public Hearing will be scheduled to be held on Monday, January 20, 2014 at 6:00 p.m. in Council Chambers.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Land Use Bylaw Amendment 3357/CC-2013.



Report Details

Background:

The Lancaster/Vanier NASP was adopted by Council in June 2011 and sets out the future development of two quarter sections of land for a variety of residential, commercial and open space uses. Rezoning of this phase is required to facilitate subdivision and development of the land.

Discussion:

The rezoning includes the following land use districts:

RI – Residential (Low Density)

RIN – Residential (Narrow Lot)

R3 – Residential (Multiple Family)

This rezoning covers 10.69 ha and will allow subdivision to be considered by the Municipal Planning Commission.

Currently, the land is zoned AG – Agriculture District which was the district in place when the City annexed the subject lands from Red Deer County.

Analysis:

The proposed rezoning conforms to the adopted NASP for the area and no objections were received from any City departments or external agencies. The rezoning application was not required to be referred to adjacent landowners as it does not deviate from the approved NASP.

BYLAW NO. 3357/CC - 2013

Being a Bylaw to amend Bylaw No. 3357/2006, the Land Use Bylaw of The City of Red Deer as described herein.

COUNCIL OF THE CITY OF RED DEER, ALBERTA, ENACTS AS FOLLOWS:

Bylaw No. 3357/2006 is hereby amended as follows:

1. The land shown cross hatched in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1 (Residential – Low Density) District
2. The land shown by vertical lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1N (Residential – Narrow Lot) District
3. The land shown in by horizontal lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R3 (Residential – Multiple Family) District
4. The “Land Use District Map R11” contained in “Schedule A” of the Land Use Bylaw is hereby amended in accordance with the Land Use District Map 26-2013 attached hereto and forming part of the bylaw.

READ A FIRST TIME IN OPEN COUNCIL this 16th day of December 2013.

READ A SECOND TIME IN OPEN COUNCIL this day of 2014.

READ A THIRD TIME IN OPEN COUNCIL this day of 2014.

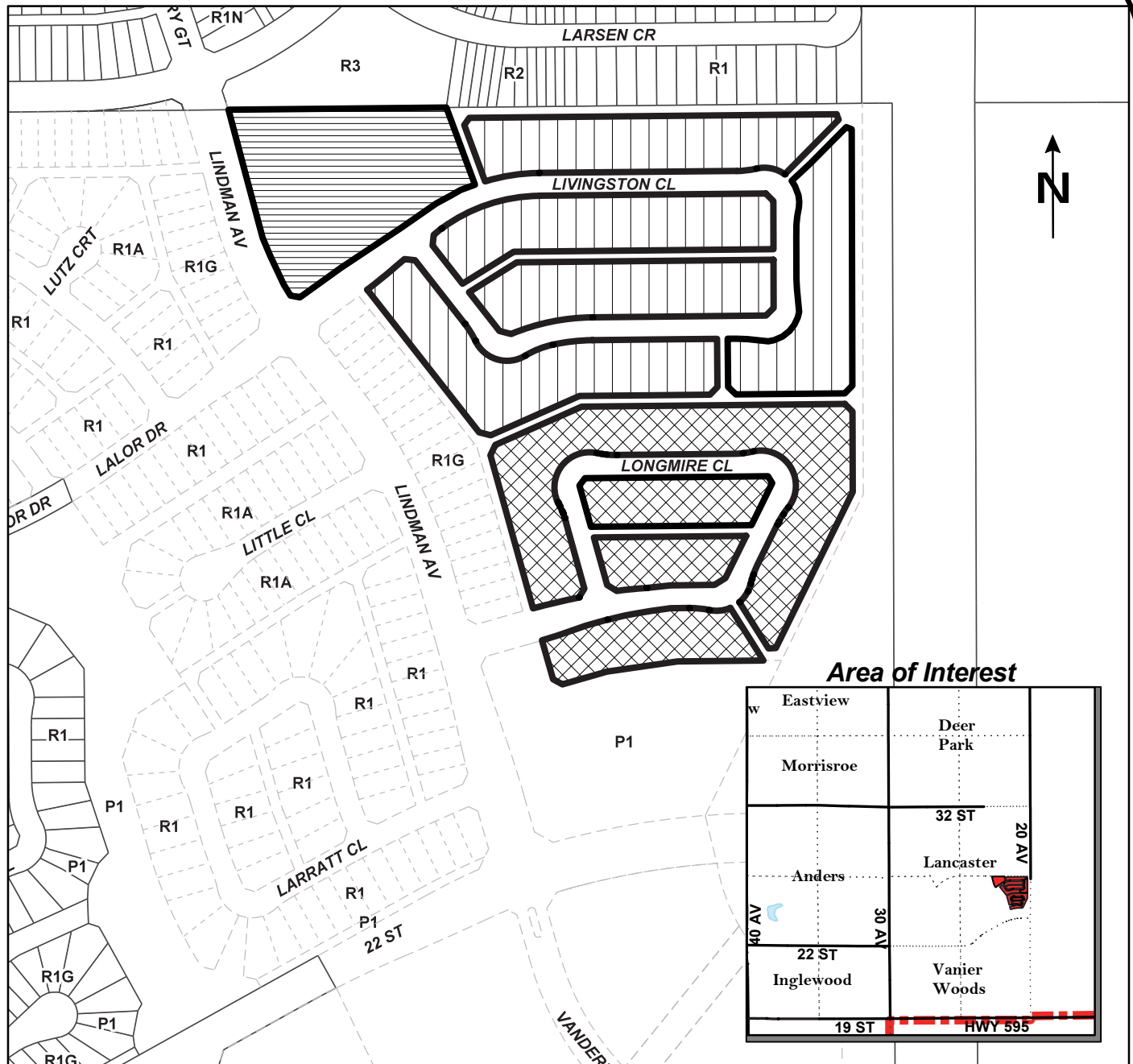
AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR




CITY CLERK



Proposed Amendment to Land Use Bylaw 3357/2006



Change District from:

-  AG to R1 - Residential (Low Density) District
-  AG to R1N - Residential (Narrow Lot) District
-  AG to R3 - Residential (Multiple Family) District

Affected District:

AG - County Agricultural

Proposed Amendment
 Map: **26 / 2013**
 Bylaw: **3357 / CC-2013**
 Date: **Oct. 21, 2013**

LEGISLATIVE SERVICES

January 24, 2014

Mr. Shane Stafford
c/o Stantec Consulting
1100, 4900-50 Street
Red Deer, AB T4N 1X7

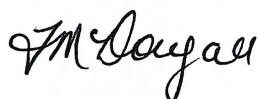
Dear Mr. Stafford:

**Re: Council Decision
Land Use Bylaw Amendment 3357/CC-2013
Rezoning of Phase 4 of Laredo**

Red Deer City Council gave second and third reading to Land Use Bylaw Amendment 3357/CC-2013 at the Monday, January 20, 2014 Regular Council Meeting. The Land Use Bylaw Amendment 3357/CC-2013 proposes to rezone the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan from AG-Agricultural District to R1-Residential (Low Density), R1N-Residential (Narrow Lot) and R3-Residential (Multiple Family) Districts. The rezoning covers 10.69 ha in the neighbourhood marketed as Laredo. A copy of the bylaw is attached for your records.

If you require any further information, please feel free to contact Planning Services at 403.406.8700.

Sincerely,



Frieda McDougall
Legislative Services Manager

c: Planning Services

BYLAW NO. 3357/CC - 2013

Being a Bylaw to amend Bylaw No. 3357/2006, the Land Use Bylaw of The City of Red Deer as described herein.

COUNCIL OF THE CITY OF RED DEER, ALBERTA, ENACTS AS FOLLOWS:

Bylaw No. 3357/2006 is hereby amended as follows:

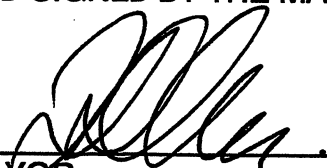
1. The land shown cross hatched in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1 (Residential – Low Density) District
2. The land shown by vertical lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1N (Residential – Narrow Lot) District
3. The land shown in by horizontal lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R3 (Residential – Multiple Family) District
4. The “Land Use District Map R11” contained in “Schedule A” of the Land Use Bylaw is hereby amended in accordance with the Land Use District Map 26-2013 attached hereto and forming part of the bylaw.

READ A FIRST TIME IN OPEN COUNCIL this 16th day of December 2013.


READ A SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ A THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

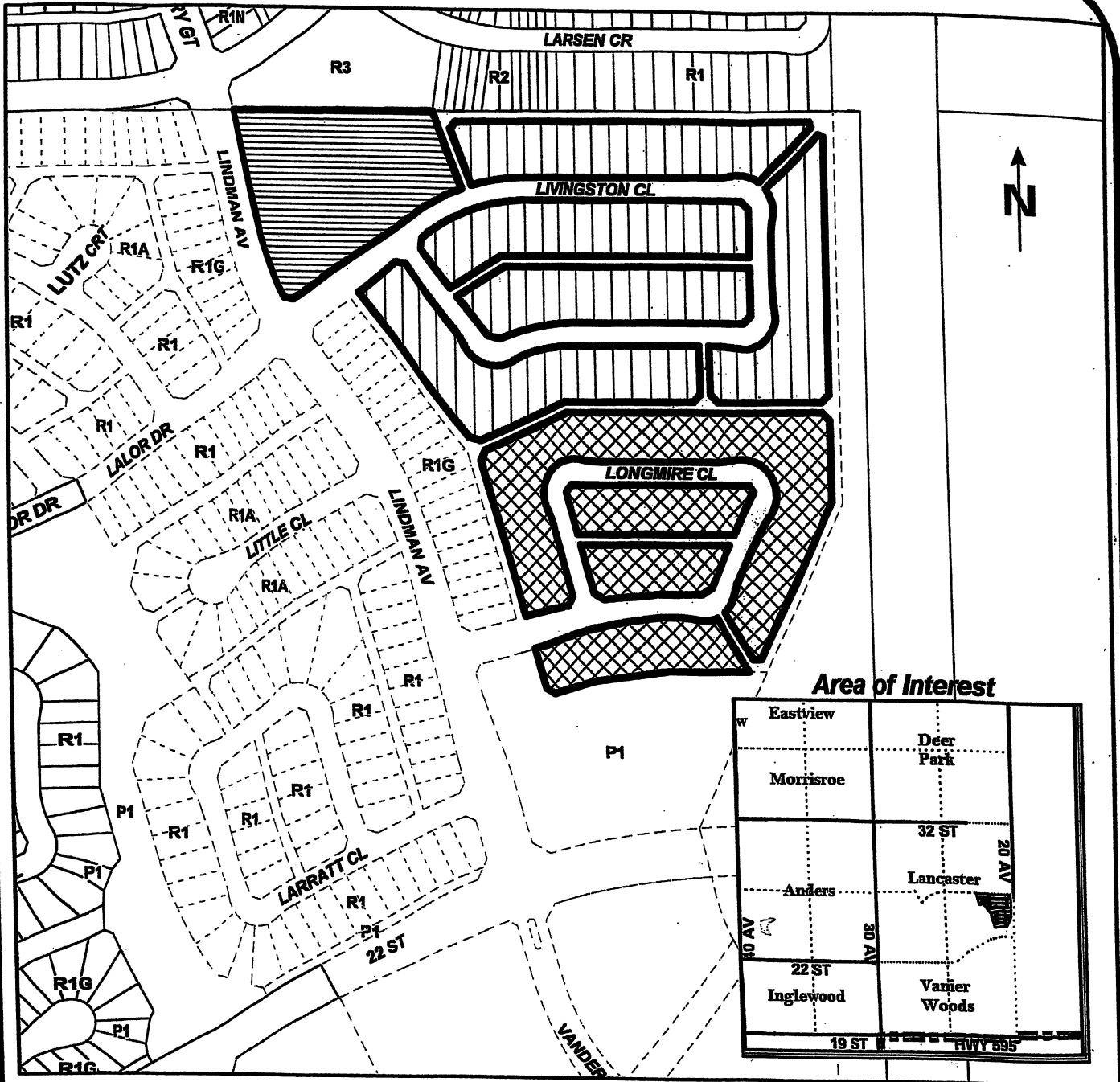
AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.



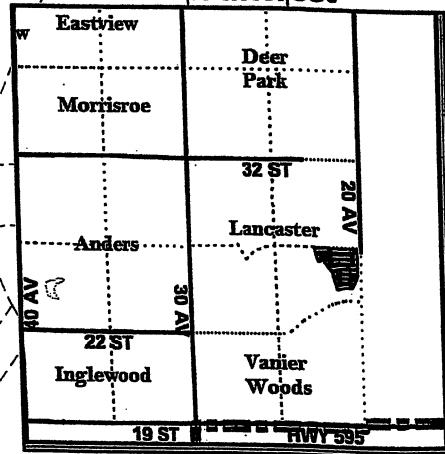
MAYOR



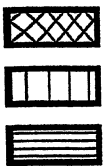
CITY CLERK



Area of Interest



Change District from:



- AG to R1 - Residential (Low Density) District
- AG to R1N - Residential (Narrow Lot) District
- AG to R3 - Residential (Multiple Family) District

Affected District:

AG - County Agricultural

Proposed Amendment
Map: 26 / 2013
Bylaw: 3357 / CC-2013
Date: Oct. 21, 2013

FILE COPY



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Tara Lodewyk, Planning Services Manager
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Land Use Bylaw Amendment 3357/CC-2013 - Rezoning of Phase 4 of Laredo

Reference:

Planning Department, dated November 21, 2013

Bylaw Reading:

At the Monday, January 20, 2014 Regular Council meeting, Council gave second and third reading of Land Use Bylaw Amendment 3357/CC-2013, rezoning the northeast part of NE 2-38-27-W4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan (NASP) known as the Laredo neighbourhood. A copy of the bylaw is attached.

Report back to Council: No

Comments/Further Action:

This office will amend the Land Use Bylaw and distribute copies in due course.

A handwritten signature in blue ink, appearing to read 'Frieda McDougall'.

Frieda McDougall
Manager

c: Director of Planning Services
Corporate Meeting Coordinator

BYLAW NO. 3357/CC - 2013

Being a Bylaw to amend Bylaw No. 3357/2006, the Land Use Bylaw of The City of Red Deer as described herein.

COUNCIL OF THE CITY OF RED DEER, ALBERTA, ENACTS AS FOLLOWS:

Bylaw No. 3357/2006 is hereby amended as follows:

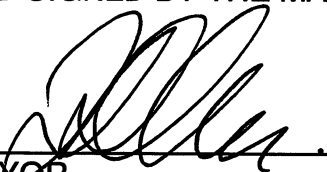
1. The land shown cross hatched in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1 (Residential – Low Density) District
2. The land shown by vertical lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1N (Residential – Narrow Lot) District
3. The land shown in by horizontal lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R3 (Residential – Multiple Family) District
4. The “Land Use District Map R11” contained in “Schedule A” of the Land Use Bylaw is hereby amended in accordance with the Land Use District Map 26-2013 attached hereto and forming part of the bylaw.

READ A FIRST TIME IN OPEN COUNCIL this 16th day of December 2013.

READ A SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

READ A THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

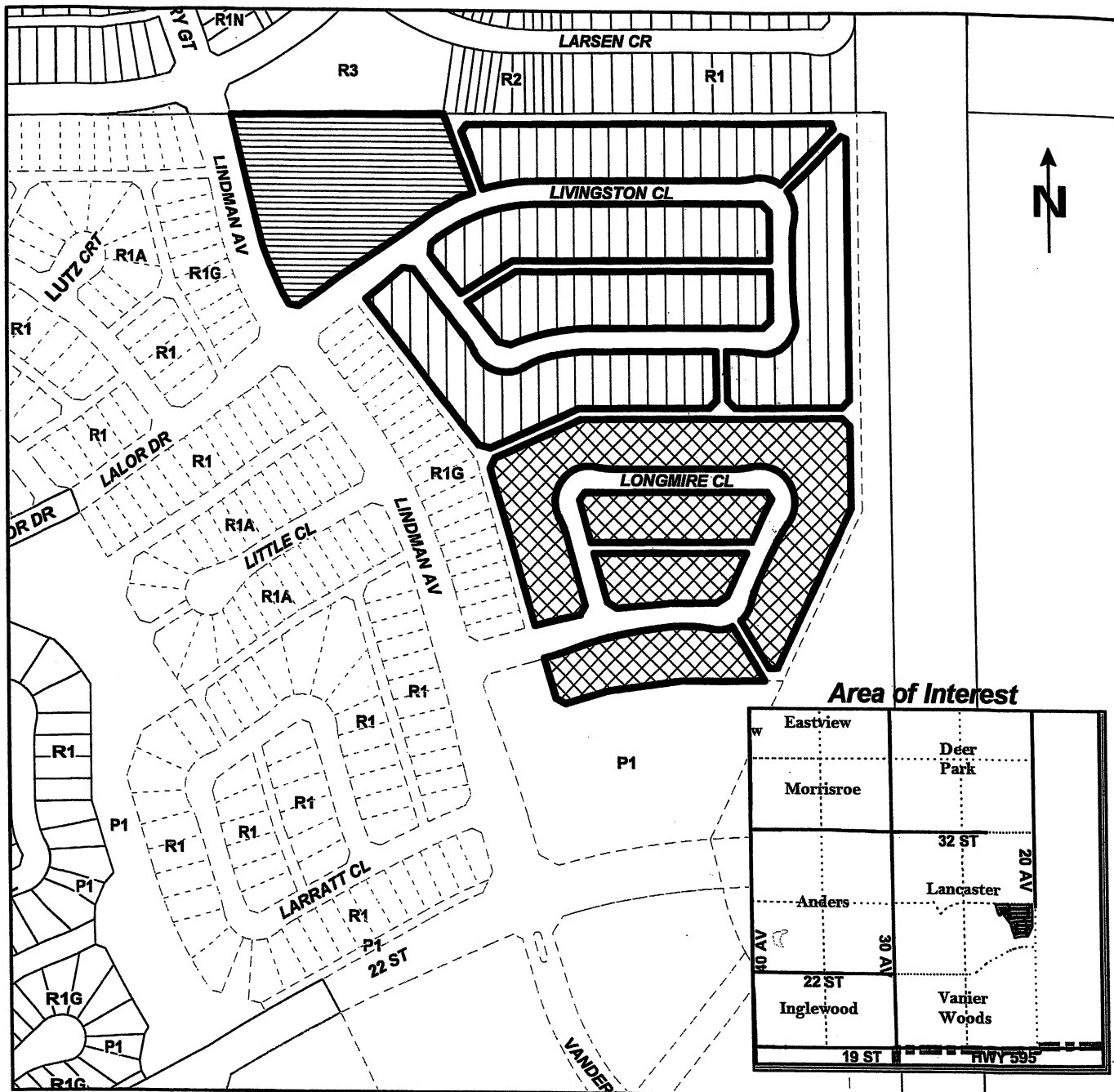
AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.



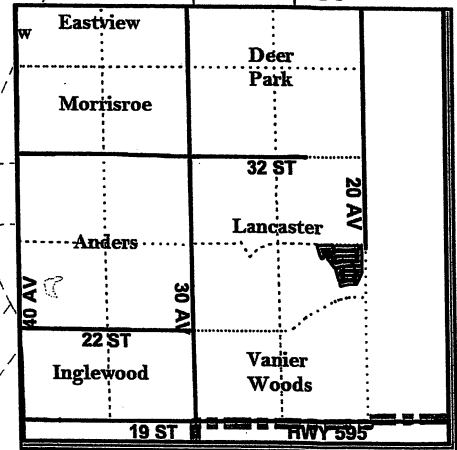
MAYOR



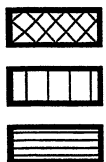
CITY CLERK



Area of Interest



Change District from:



AG to R1 - Residential (Low Density) District

AG to R1N - Residential (Narrow Lot) District

AG to R3 - Residential (Multiple Family) District

Affected District:

AG - County Agricultural

Proposed Amendment
Map: **26 / 2013**
Bylaw: **3357 / CC-2013**
Date: **Oct. 21, 2013**

**REZONING OF PHASE 4 OF LAREDO
LAND USE BYLAW AMENDMENT 3357/CC-2013**

DESCRIPTION: Rezoning of Phase 4 of Laredo, rezoning of the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan from AG-Agricultural District to R1-Residential (Low Density), R1N-Residential (Narrow Lot) and R3-Residential (Multiple Family) Districts. The rezoning cover 10.69 hectares in the neighbourhood marketed as Laredo.

FIRST READING: December 16, 2013

FIRST PUBLICATION: January 3, 2014

SECOND PUBLICATION: January 10, 2014

PUBLIC HEARING & SECOND READING: _____

THIRD READING: January 20, 2014

LETTERS REQUIRED TO PROPERTY OWNERS: YES ☒ NO ☐ **Yes**

DEPOSIT: YES ☐ \$ _____ NO ☒

COST OF ADVERTISING RESPONSIBILITY OF:

ACTUAL COST OF ADVERTISING:

\$ 375.24 X 2

TOTAL:

\$ 750.48

MAP PREPARATION: \$ _____

TOTAL COST: \$ _____

LESS DEPOSIT RECEIVED: \$ _____

AMOUNT OWING/ (REFUND): \$ _____

INVOICE NO.: 327519

BATCH NO.: 1376522

(Advertising Revenue to 180.5901)

Land Use Bylaw Amendment 3357/CC-2013
Rezoning of Phase 4 of Laredo

City Council is considering amending the Land Use Bylaw by rezoning the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan from AG-Agricultural District to R1- Residential (Low Density), R1N-Residential (Narrow Lot) and R3-Residential (Multiple Family) Districts. The rezoning covers 10.69 ha in the neighbourhood marketed as Laredo.

(Insert Map here – DM #1451931)

The proposed bylaw may be inspected at Legislative Services, 2nd Floor City Hall during regular office hours or for more details, contact City of Red Deer Planning Services at 403-406-8700.

City Council will hear from any person claiming to be affected by the proposed bylaw at the Public Hearing on **Monday, January 20, 2014** at 6:00 p.m. in Council Chambers, 2nd Floor at City Hall. If you want your letter included in the Council agenda you must submit it to the Manager, Legislative Services by **Friday, January 10, 2014**. You may also submit your letter at the Public Hearing, or you can simply tell Council your views at the Public Hearing. Council's Procedure Bylaw indicates that each presentation is limited to 10 minutes. Any submission will be public information. If you have any questions regarding the use of this information please contact the Manager, Legislative Services at 403-342-8132.

(Publication Dates: January 3 and January 10, 2014)

LEGISLATIVE SERVICES

December 18, 2013

«Prime_Owner_Name»
«Owner_Address_1»
«Owner_Address_2», «Owner_Address_3»
«Owner_Address_4_»

Dear Sir/Madam:

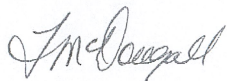
Re: Land Use Bylaw Amendment 3357/CC-2013
Rezoning of Phase 4 of Laredo
Your property at «Owner_Address_5_»

Red Deer City Council is considering amending the Land Use Bylaw to rezone the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan from AG-Agricultural District to R1- Residential (Low Density), R1N-Residential (Narrow Lot) and R3-Residential (Multiple Family) Districts. The rezoning covers 10.69 ha in the neighbourhood marketed as Laredo.

As a property owner in the area of the proposed changes you have an opportunity to ask questions about the intended use and to let Council know your views. The proposed Bylaw may be inspected at Legislative Services, 2nd Floor of City Hall or for more information contact City of Red Deer Planning Services at 403.406.8700.

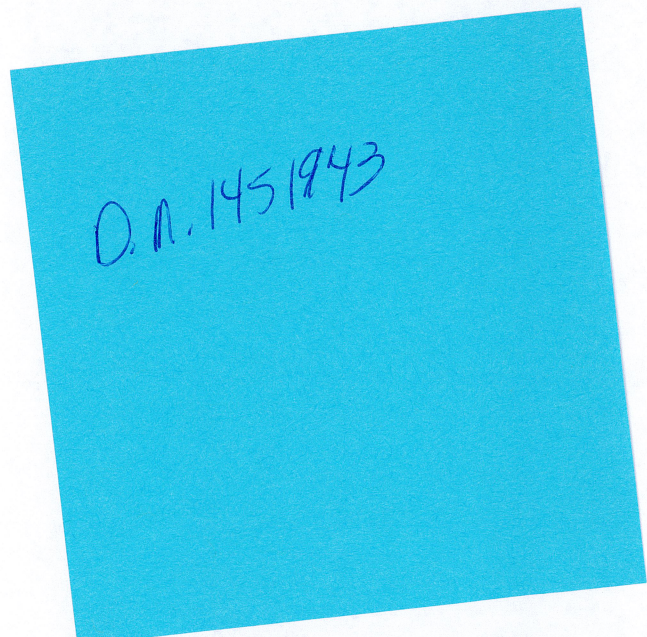
City Council will hear from any person claiming to be affected by the proposed bylaw at a Public Hearing on Monday, January 20, 2014 at 6:00 p.m. in Council Chambers, 2nd Floor of City Hall. If you would like a letter included on the Council agenda it must be submitted to our office by Friday, January 10, 2014. You may also submit your letter at the Public Hearing, or you can simply tell Council your views at the Public Hearing. Council's Procedure Bylaw indicates that each presentation is limited to 10 minutes and any submission will be public information. If you have any questions regarding the use of this information, please contact Legislative Services at 403.342.8132.

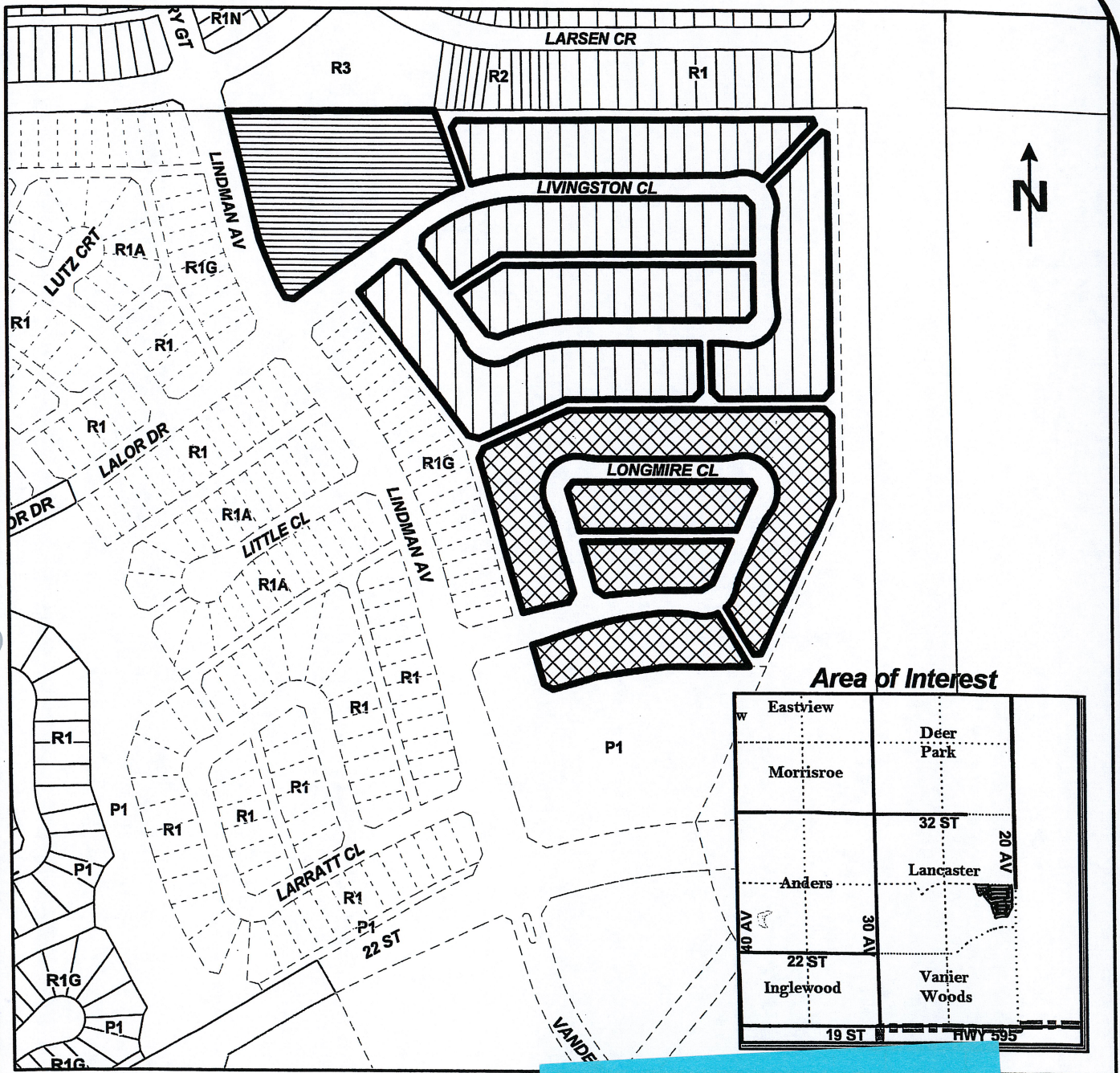
Yours truly,



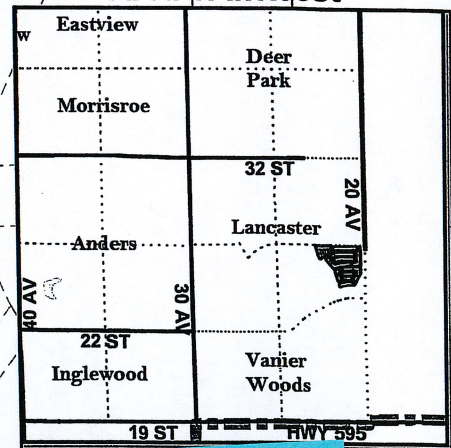
Frieda McDougall
Legislative Services Manager

attach.

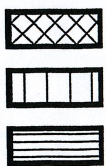




Area of Interest

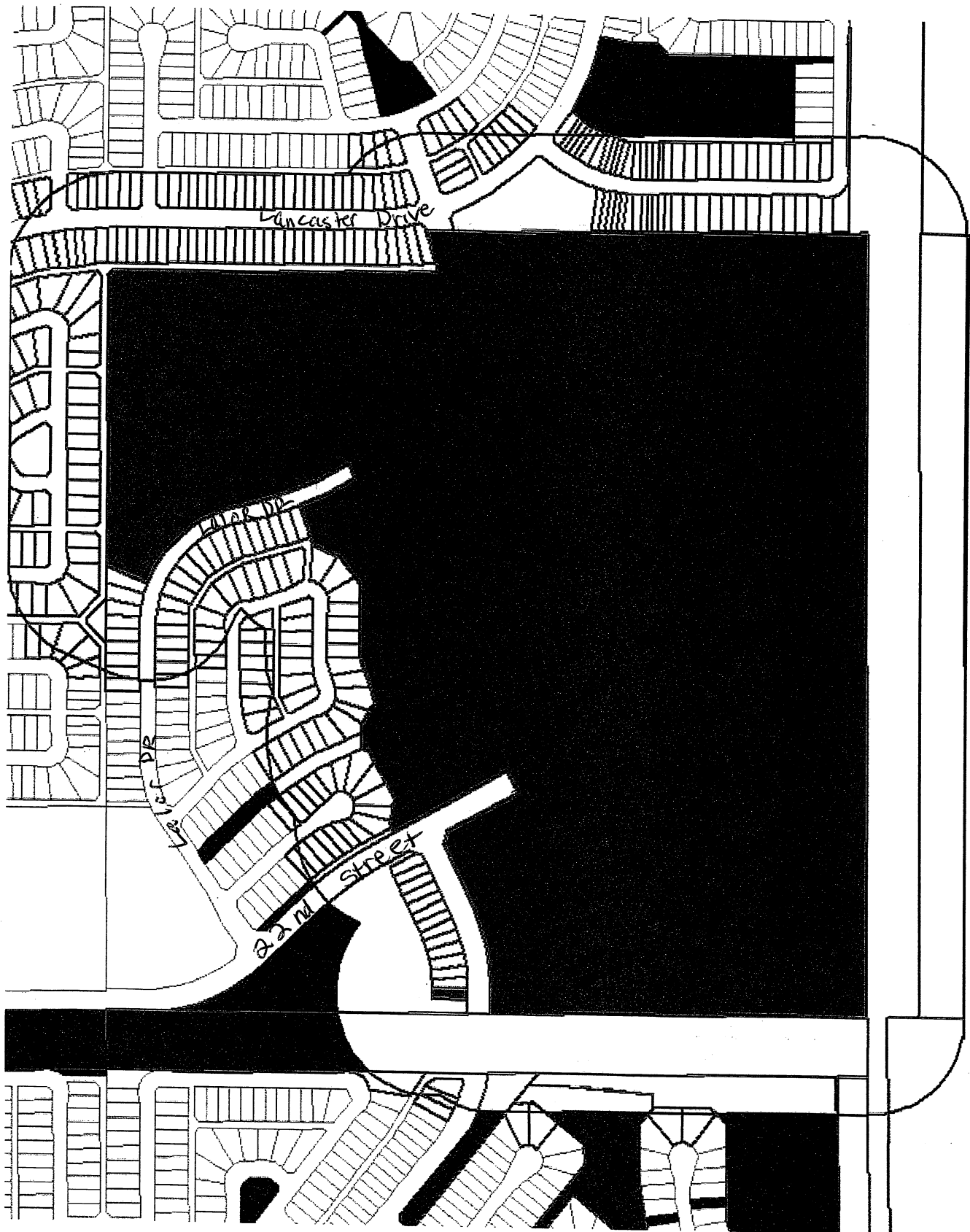


Change District from:



- AG to R1 - Residential (Low Density) District
- AG to R1N - Residential (Narrow Lot) District
- AG to R3 - Residential (Multiple Family) District

D.M. 1451931



 [Export Data To Excel](#)

Parcels Touching The Buffer Zone - 100 Metres Around ROLL 8700090

Address	Prime Owner Name	Owner Address 1	Owner Address 2	Owner Address 3	Owner Address 4
342 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
109 LARSEN CR	MARIDEL TABUCOL	109 LARSEN CRES	RED DEER, AB T4R 0J2		
113 LARSEN CR	ANDREW ARTHUR PHILLIPS	113 LARSEN CRES	RED DEER, AB T4R 0J2		
114 LARSEN CR	STEVE & KELLY ROSLINSKY	114 LARSEN CRES	RED DEER, AB T4R 0J2		
122 LARSEN CR	MICHAEL DIEP	122 LARSEN CRES	RED DEER, AB T4R 0J2		
125 LARSEN CR	DEVON RICHARD & MELISSA JENNIFER SNIDEMAN	125 LARSEN CRES	RED DEER, AB T5R 0J3		
126 LARSEN CR	JASON D RYAN	126 LARSEN CRES	RED DEER, AB T4R 0J3		
137 LARSEN CR	RANDY RICHARD & ANGELA DAWN RABENA	137 LARSEN CRES	RED DEER, AB T4R 0J3		
138 LARSEN CR	JIE CHI WU & XIAO QING JIANG & JING	YI JIANG & LI YAN KUANG	138 LARSEN CRES	RED DEER, AB T4R 0J3	
141 LARSEN CR	CHERYL L CONNOLLY	141 LARSEN CRES	RED DEER, AB T4R 0J3		
142 LARSEN CR	DYLAN SVEDERUS	142 LARSEN CRES	RED DEER, AB T4R 0J3		
143 LARSEN CR	BONNY LYNN DOWNTON	143 LARSEN CRES	RED DEER, AB T4R 0J3		
144 LARSEN CR	SEOUNGMIN RIM & YOUNGJOO HAN	144 LARSEN CRES	RED DEER, AB T4R 0J3		
145 LARSEN CR	AQUILES RAMIREZ	145 LARSEN CRES	RED DEER, AB T4R 0J3		
146 LARSEN CR	DARICK GUSTAV RAMMINGER & ELLIE MAY	ROBERTSON & SHAWNE CHESTER	ADAMS	146 LARSEN CRES	RED DEER, AB T4R 0J3
359 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
264 LANCASTER DR	TAMMY LEER	264 LANCASTER DR	RED DEER, AB T4R 2S6		
85 LARSEN CR	MICHAEL W & NANCY LYN BOWNES	85 LARSEN CRES	RED DEER, AB T4R 0J2		
88 LARSEN CR	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
94 LARSEN CR	STEVEN W & KATHRYN J TRITTER	94 LARSEN CRES	RED DEER, AB T4R 0J2		
97 LARSEN CR	KIM E & PAMELA M JACOBS	97 LARSEN CRES	RED DEER, AB T4R 0J2		
314 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
352 LANCASTER DR	JERSON A & NEMIA E BARNEDO	352 LANCASTER DR	RED DEER, AB T4R 3S4		
356		356 LANCASTER	RED DEER, AB		

LANCASTER DR	LESLIE S MORRISON	DR	T4R 3S4		
360 LANCASTER DR	ROB & JANE WHITE	BOX 25017	RPO DEERPARK	RED DEER, AB T4R 2M2	
372 LANCASTER DR	KHALID SULTAN & HUSNARA RIAZ	372 LANCASTER DR	RED DEER, AB T4R 3S4		
376 LANCASTER DR	CHRISTINE FREHLICH	376 LANCASTER DR	RED DEER, AB T4R 3S4		
388 LANCASTER DR	SHARON & MICHAEL POOLE	388 LANCASTER DR	RED DEER, AB T4R 3S4		
127 LOUGHEED CL	ELLEN G WALTON	127 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
135 LOUGHEED CL	GHOLAN-ABBAS & RASOOL MOHAMMADI	135 LOUGHEED CL	RED DEER, AB T4R 3L9		
159 LOUGHEED CL	MELVILLE TIMOTHY & TANYA NICOLE SWEET	159 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
171 LOUGHEED CL	DEAN MCGONIGLE	171 LOUGHEED CL	RED DEER, AB T4R 3G7		
174 LOUGHEED CL	PHILIP ROBERT & LINDA A MACZUGA	174 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
106 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
103 LOUGHEED CL	MARLENE VANHAREN	103 LOUGHEED CL	RED DEER, AB T4R 3L9		
106 LOUGHEED CL	DEAN MILES & LORRAINE DORA STEINKE	106 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
110 LOUGHEED CL	DOUGLAS SMITH & JEANETTE COUNTRYMAN-SMITH	110 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
119 LOUGHEED CL	BRENT W KEYLOCK & CARRIE A TALERICO	119 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
57 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
7 LANDRY GATE	SHELLEY LYNN WOHLGEMUTH	7 LANDRY GATE	RED DEER, AB T4R 0H3		
86 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
B 247 LANCASTER DR	MADDISON A CADMAN	247 LANCASTER DR	RED DEER, AB T4R 2R4		
53 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
59 LAZARO CL	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		

65 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
69 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
78 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
34 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
101 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
109 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
113 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
140 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
149 LARSEN CR	KENT BAUMBACH	149 LARSEN CRES	RED DEER, AB T4R 0J3		
310 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
130 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
126 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
121 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
346 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
347 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
219 LANCASTER DR	JOHN STEVEN & JEANNETTE WILHELMINA DUNN	219 LANCASTER DR	RED DEER, AB T4R 2R4		
231 LANCASTER DR	JAMES M & DEANA R HOLLETT	231 LANCASTER DR	RED DEER, AB T4R 2R4		
252 LANCASTER DR	LESZEK & MARIA MAJOR	252 LANCASTER DR	RED DEER, AB T4R 2S6		
260 LANCASTER DR	MICHAEL G CARON	260 LANCASTER DR	RED DEER, AB T4R 2S6		
64 LOUGHEED CL	DWIGHT R & IMEE R ABAYA	64 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
72 LOUGHEED CL	ROBERT ALLAN & GLENDA ROSE KELLER	72 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
55 LOWDEN CL	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
202 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
181 LALOR	MELCOR	502-4901 48 ST	RED DEER, AB		

DR	DEVELOPMENTS LTD		T4N 6M4		
50 VISTA CL	TRUE-LINE CONTRACTING LTD	PO BOX 161	RED DEER, AB T4N 5E8		
287 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
498 LANCASTER DR	ADRIAN K DEAN	498 LANCASTER DR	RED DEER, AB T4R 0H1		
105 LARSEN CR	BRIAN & GILLIAN ROGERS	105 LARSEN CRES	RED DEER, AB T4R 0J2		
121 LARSEN CR	GLENN Y & LORENA C HERRERA	121 LARSEN CRES	RED DEER, AB T4R 0J2		
133 LARSEN CR	GEOFFREY WARREN NORRIS & JANIS HATALEY	133 LARSEN CRES	RED DEER, AB T4R 0J3		
134 LARSEN CR	JIHUA QIU & YAN ZHAO	134 LARSEN CRES	RED DEER, AB T4R 0J3		
116 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
274 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	900-10310 JASPER AVE	EDMONTON, AB T5J 1Y8		
323 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
98 LARSEN CR	MANNY P & CORAZON P DE GUZMAN	98 LARSEN CRES	RED DEER, AB T4R 0J2		
384 LANCASTER DR	WILLIAM ANTHONY PURVIS	384 LANCASTER DR	RED DEER, AB T4R 3S4		
158 LARSEN CR	JASON WILD & RACHELLE NEILSON	158 LARSEN CR	RED DEER, AB T4R 0J3		
160 LARSEN CR	CHAD P & EMMA J NIXON	160 LARSEN CRES	RED DEER, AB T4R 0J3		
161 LARSEN CR	TIM & PEGGY & HEATHER MITCHELL	PO BOX 6983	DRAYTON VALLEY, AB T7A 1S3		
162 LARSEN CR	AARON & REBECCA VISOTTO	162 LARSEN CRES	RED DEER, AB T4R 0J3		
166 LARSEN CR	JOSHUA M RUNDELL	166 LARSEN CRES	RED DEER, AB T4R 0J3		
170 LARSEN CR	DION J FEHR	170 LARSEN CRES	RED DEER, AB T4R 0J3		
172 LARSEN CR	JANELLE GULLETT	172 LARSEN CRES	RED DEER, AB T4R 0J3		
176 LARSEN CR	SANDY BOODRAM	176 LARSEN CRES	RED DEER, AB T4R 0J3		
139 LOUGHEED CL	MICHAEL DAVID & SANDRA ROSE ELEFSON	139 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
163 LOUGHEED CL	YURI ALEXANDER & LARISSA NSHANOVNA ROMANOV	163 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
170 LOUGHEED	GORDON DOUGLAS & ALANNA ROSALIE	170 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		

CL	MURCHIE				
107 LOUGHEED CL	RYAN & MICHELLE MCCABE	107 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
114 LOUGHEED CL	MICHAEL RODNEY & DEBRA LEE MEAGHER	114 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
41 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
334 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
314 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
266 VISCOUNT DR	JEREMY & JENNIFER ROOKES	266 VISCOUNT DR	RED DEER, AB T4R 0G6		
157 LARSEN CR	PATRICIA & MICHAEL HAMM	157 LARSEN CRES	RED DEER, AB T4R 0J3		
279 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
324 LANCASTER DR	MATHIEU BERTRAN BESSETTE & RANDY KING	324 LANCASTER DR	RED DEER, AB T4R 3S4		
490 LANCASTER DR	AARON & SHAUNA MARTIN	33 THOMAS PLACE	RED DEER, AB T4P 0L7		
169 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
173 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
33 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
37 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
61 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
82 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
85 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
77 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
53 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
354 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
73 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
60 VIENNA CL	TYLER M & KATHRYN L JUNCK	60 VIENNA CLOSE	RED DEER, AB T4R 0P1		
117 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
121 LAZARO	MELCOR	502-4901 48 ST	RED DEER, AB		

CL	DEVELOPMENTS LTD		T4N 6M4		
125 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
133 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
136 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
137 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
335 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
76 LARSEN CR	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
107 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
223 LANCASTER DR	DELFIN & SUSAN AQUINO	223 LANCASTER DR	RED DEER, AB T4R 2R4		
227 LANCASTER DR	BRIAN & MIRANDA GALWAY	227 LANCASTER DR	RED DEER, AB T4R 2R4		
244 LANCASTER DR	GERALDINE DAWN & NOEL ROBERT URQUHART	244 LANCASTER DR	RED DEER, AB T4R 4R4		
83 LOUGHEED CL	KAREN DAWN & TODD COREY FLETCHER	83 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
87 LOUGHEED CL	HAROLD JAMES & ENGELBERTHA MARIA LAINCHBURY	87 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
283 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
42 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
248 LANCASTER DR	ROBERT FRANCIS MACDONALD & CINDY MACNEIL	248 LANCASTER DR	RED DEER, AB T4R 2S6		
315 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
268 LANCASTER DR	ERZSEBET RABA	268 LANCASTER DRIVE	RED DEER, AB T4R 2S6		
89 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
275 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
237 VAN SLYKE WY	THE CITY OF RED DEER	PO BOX 5008	RED DEER, AB T4N 3T4		
494 LANCASTER DR	NATHAN PRICE & JENNIFER SHORTT-PRICE	494 LANCASTER DR	RED DEER, AB T4R 0H1		
502	SHANE CHRISTIAN &	502 LANCASTER	RED DEER, AB		

LANCASTER DR	ANNA LAURA RAMONES BERKE	DR	T4R 0H1		
106 LARSEN CR	KENT SAUNDERS	106 LARSEN CRES	RED DEER, AB T4R 0J2		
110 LARSEN CR	GWEN GANSKE	110 LARSEN CRES	RED DEER, AB T4R 0J2		
117 LARSEN CR	RYAN MURRAY & TARA C CAMERON	117 LARSEN CRES	RED DEER, AB T4R 0J2		
118 LARSEN CR	JIAN BO WU & XIAO YAN HE	118 LARSEN CRES	RED DEER, AB T4R 0J2		
129 LARSEN CR	STEVE BONTJE	129 LARSEN CRES	RED DEER, AB T4R 0J3		
147 LARSEN CR	MARCIA DENSON	147 LARSEN CRES	RED DEER, AB T4R 0J3		
148 LARSEN CR	HEATHER-LYNN ROBERTS	148 LARSEN CRES	RED DEER, AB T4R 0J3		
223 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
224 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
123 LOUGHEED CL	GARRY & GLENDA MAY DARR	123 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
321 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
322 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
295 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
90 LARSEN CR	RYLAN G BOON	90 LARSEN CRES	RED DEER, AB T4R 0J2		
93 LARSEN CR	STEVE GEORGE & TARYNE MUNRO	93 LARSEN CRES	RED DEER, AB T4R 0J2		
164 LARSEN CR	TERI ANNE MEIER	164 LARSEN CRES	RED DEER, AB T4R 0J3		
124 LOUGHEED CL	CITY OF RED DEER	C/O LAND & ECONOMIC DEV	PO BOX 5008	RED DEER, AB T4N 3T4	
134 LOUGHEED CL	WILLIAM & EDITH OKADA	134 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
146 LOUGHEED CL	TERRY ALLAN & KIMBERLY ANN MILLS	146 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
147 LOUGHEED CL	JOHN J & DIANE M KULMATYCKI	147 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
151 LOUGHEED CL	DARCY WALTER ZENKAWICH &	TAMMY MARIE SCHICK	151 LOUGHEED CLOSE	RED DEER, AB T4R 3G7	
155 LOUGHEED	RICHARD & DEBORAH CZAINSKI	155 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		

CL					
166 LOUGHEED CL	DAVID BRADLEY PHILLIPS & SHAUNA LYNN PEDDLE	166 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
167 LOUGHEED CL	WILLIAM & DONNA PETRUSHKA	167 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
102 LOUGHEED CL	ALLAN MICHAEL & CHARLAINE LEE RAUSCH	102 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
111 LOUGHEED CL	JEAN-GUY GEORGES TURCOTTE	111 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
115 LOUGHEED CL	PATRICIA K POTTS	115 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
343 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
214 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
101 LARSEN CR	MARK V ANDREW & NICOLE MACLELLAN	101 LARSEN CR	RED DEER, AB T4R 0J2		
157 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
102 LARSEN CR	ROLAND WILLIAM & ROSE LEANNE GOSSE	102 LARSEN CRES	RED DEER, AB T4R 0J2		
49 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
66 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
81 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
319 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
291 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
33 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
50 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
57 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
350 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
358 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
271 14 HWY 595	HOM FARMS LTD	6-5202 FARRELL AVE	RED DEER, AB T4N 7B5		
106 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
206 475	LONSDALE		EDMONTON,		

LANCASTER DR	APARTMENTS LTD	201-4220 98 ST	AB T6E 6A1		
46 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
486 LANCASTER DR	NELSON HERTZ	486 LANCASTER DR	RED DEER, AB T4R 0H1		
233 LANCASTER DR	JASON & HEIDI BERNARD	233 LANCASTER DR	RED DEER, AB T4R 2R4		
235 LANCASTER DR	MARTIN & VALERIE SANDRA BURNS	235 LANCASTER DR	RED DEER, AB T4R 2R4		
239 LANCASTER DR	TAMMY L STERLING	88 VANSON CLOSE	RED DEER, AB T4R 0G9		
243 LANCASTER DR	YEKATERINA OVCHAROVA	243 LANCASTER DR	RED DEER, AB T4R 2R4		
95 LOUGHEED CL	ROBERT ALEXANDER & ANN LOUISE MUNN	95 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
45 LOWDEN CL	LANDMARK HOMES (RED DEER) INC	200-6700 76 ST	RED DEER, AB T4P 4G6		
89 LARSEN CR	SHAUN W & JILLIAN IVAN	89 LARSEN CRES	RED DEER, AB T4R 0J2		
338 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
102 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
122 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
355 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
129 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
211 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
167 VOISIN CL	NEIL T & GWENDOLEN M AUVIGNE	167 VOISIN CLOSE	RED DEER, AB T4R 0M7		
62 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
79 LYONS CL	CITY OF RED DEER	C/O LAND & ECONOMIC DEV	PO BOX 5008	RED DEER, AB T4N 3T4	
85 LYONS CL	GARY LEE & ANDREA JOY MCLEAN	85 LYONS CLOSE	RED DEER, AB T4R 3P5		
220 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
251 VISCOUNT DR	CITY OF RED DEER	C/O LAND & ECONOMIC DEV	PO BOX 5008	RED DEER, AB T4N 3T4	
311	MELCOR		RED DEER, AB		

LANCASTER DR	DEVELOPMENTS LTD	502-4901 48 ST	T4N 6M4		
73 LYONS CL	CYRIL & MARIA TERESA NAVARRA	73 LYONS CLOSE	RED DEER, AB T4R 3P5		
101 VIENNA CL	THE CITY OF RED DEER	PO BOX 5008	RED DEER, AB T4N 3T4		
150 LARSEN CR	VALARIE ANDERSON	150 LARSEN CRES	RED DEER, AB T4R 0J3		
423 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
424 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
37 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
108 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
118 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
207 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
217 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
319 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
105 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
137 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
324 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
402 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
405 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
409 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
412 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
413 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
417 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		

79 LANDRY BEND	DIANA GRAALMAN	79 LANDRY BEND	RED DEER, AB T4R 3S4		
11 LANDRY GATE	MURRAY & DEBORAH DAVIS	10 PRITCHARD CLOSE	SYLVAN LAKE, AB T4S 1W3		
292 LANCASTER DR	MELODY LYNN REEVES	292 LANCASTER DR	RED DEER, AB T4R 3R7		
296 LANCASTER DR	AARON MARTIN	89 ARCHIBALD CLOSE	RED DEER, AB T4R 2X4		
304 LANCASTER DR	FELICITAS M ALBERTO	96 DAWSON ST	RED DEER, AB T4R 1V8		
308 LANCASTER DR	TREVOR WALLS	308 LANCASTER DR	RED DEER, AB T4R 3R7		
95 LANDRY BEND	JAMES W WALTON & COLLEEN S VON KROGH WALTON	95 LANDRY BEND	RED DEER, AB T4R 0H3		
306 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
110 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
113 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
120 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
259 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
30 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
222 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
38 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
62 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
113 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
101 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
129 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
265 LANCASTER DR	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
420 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
421 475	LONSDALE		EDMONTON,		

LANCASTER DR	APARTMENTS LTD	201-4220 98 ST	AB T6E 6A1		
161 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
119 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
216 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
303 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
310 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
311 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
318 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
70 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
117 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
406 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
410 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
ROLL 8700090	MELCOR DEVELOPMENTS LTD	502 PARKLAND SQ	4901 48 ST	RED DEER, AB T4N 6M4	
114 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
221 475 LANCaster DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
141 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
75 LANDRY BEND	JAMALUDDIN A JAHLIL & SIMAH ABDULBASIR	75 LANDRY BEND	RED DEER, AB T4R 3S4		
99 LANDRY BEND	COLIN M & NATASHA A DOYLE	99 LANDRY BEND	RED DEER, AB T4R 0H3		
272 LANCaster DR	BRENDAN & LORI RENSBURG	272 LANCaster DR	RED DEER, AB T4R 2S6		
276 LANCaster DR	AARON & SHAUNA MARTIN	33 THOMAS PLACE	RED DEER, AB T4P 0L7		
280 LANCaster	BRETT ZAZULAK & LEE-ANN ZACHARKOW	280 LANCaster DR	RED DEER, AB T4R 3R7		

DR					
300 LANCASTER DR	LYNETTE CARLSON	300 LANCASTER DRIVE	RED DEER, AB T4R 3R7		
312 LANCASTER DR	ALEXEI A SAMOILOV	312 LANCASTER DR	RED DEER, AB T4R 3R7		
316 LANCASTER DR	WARREN GRANT RUDD & ANGELA JEAN OVERS	316 LANCASTER DR	RED DEER, AB T4R 3S4		
54 VISTA CL	DANA & DELLA NOLAN	54 VISTA CLOSE	RED DEER, AB T4R 0N8		
45 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
160 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
31 LALOR DR	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
105 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
367 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
49 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
152 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
344 LANCASTER DR	RYAN PERRY LEDENE & SUSIE KASAWAL	15 O'CONNOR GREEN	RED DEER, AB T4C 0C8		
112 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
219 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
312 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
69 LYONS CL	KIM ANNETTE DESJARDINS & LORRIE & BETTY MORTIMER	69 LYONS CLOSE	RED DEER, AB T4R 3P5		
3 LANDRY GATE	RYAN MORLEY & PAMELA MICHELLE SHUMSKI	3 LANDRY GATE	RED DEER, AB T4R 0H3		
320 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
326 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
330 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
145 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
58 LOWDEN	MELCOR	502-4901 48 ST	RED DEER, AB		

CL	DEVELOPMENTS LTD		T4N 6M4		
201 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
130 LARSEN CR	CINDY CORAH	16 MULDREW CRES	RED DEER, AB T4R 1R4		
307 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
364 LANCASTER DR	SHANTI R ACHARJEE	364 LANCASTER DR	RED DEER, AB T4R 3S5		
368 LANCASTER DR	IAN FRANCIS PHILPOTT	368 LANCASTER DR	RED DEER, AB T4R 3S4		
380 LANCASTER DR	LUIS MEDINA-LOPEZ & MARGARITA M FUENTES-ZULETA	380 LANCASTER DR	RED DEER, AB T4R 3S4		
392 LANCASTER DR	WAYNE MARTIN & DEE-ANNA REBRYNA	392 LANCASTER DRIVE	RED DEER, AB T4R 3S4		
159 LARSEN CR	JAMES ROBERT & MARTELLA FAY BOULTON	5129 45 AVE	RED DEER, AB T4N 3L2		
168 LARSEN CR	JANICE COLLINS	168 LARSEN CR	RED DEER, AB T4R 0J3		
174 LARSEN CR	EVA VANDEWERFHORST	136-38254 RANGE RD 265	RED DEER COUNTY, AB T4E 0A2		
131 LOUGHEED CL	WILSON H & TERESA BORCHERS	131 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
138 LOUGHEED CL	DANIEL ANDREW & ANGELA MARY BELL	138 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
142 LOUGHEED CL	SCOTT R & DEANNA L JANES	142 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
143 LOUGHEED CL	IAN L & TINA D MCALARY	143 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
175 LOUGHEED CL	MARK & MARCY SMITH	175 LOUGHEED CLOSE	RED DEER, AB T4R 3G7		
307 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
215 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
134 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
ROLL 8700096	ALTALINK MANAGEMENT LTD.	C/O AEC INTERNATIONAL	100 SHEPPARD AVE E, SUITE 760	TORONTO, ON M2N 6N5	
165 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		

177 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
74 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
93 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
97 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
303 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
54 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
318 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
322 VISCOUNT DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
270 VISCOUNT DR	ROBERT GEORGE & TERESA LYNNE DONALDSON	270 VISCOUNT DR	RED DEER, AB T4R 0M7		
339 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
105 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
132 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
304 VISCOUNT DR	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
110 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
163 LARSEN CR	SIMON LONGCHAMPS	163 LARSEN CRES	RED DEER, AB T4R 0J3		
118 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
102 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
441 LANCASTER DR	CITY OF RED DEER	C/O LAND & ECONOMIC DEV	PO BOX 5008	RED DEER, AB T4N 3T4	
482 LANCASTER DR	JOHN H & ADRIANA H RUBIO	482 LANCASTER DR	RED DEER, AB T4R 0H1		
237 LANCASTER DR	TAMMY L STERLING	88 VANSO CLOSE	RED DEER, AB T4R 0G9		
247 LANCASTER DR	MADDISON A CADMAN	247 LANCASTER DR	RED DEER, AB T4R 2R4		
60 LOUGHEED CL	BARBARA LYNN SIM	60 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
68 LOUGHEED	TYLER & JENNIFER GOULDIE	68 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		

CL					
71 LOUGHEED CL	ALAN J & SHARI L STECYK	71 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
75 LOUGHEED CL	STELLA MCCAFFREY	75 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
79 LOUGHEED CL	RONALD ALAN & DEBBIE GALE SALOMONS	79 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
91 LOUGHEED CL	SHAUN PEESKER & STACI PORTER	91 LOUGHEED CLOSE	RED DEER, AB T4R 3L8		
99 LOUGHEED CL	KENNETH JOHN & SHERRY ANN MILLER	99 LOUGHEED CLOSE	RED DEER, AB T4R 3L9		
141 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
419 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
203 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
204 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
205 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
154 LARSEN CR	TERRY & LINA WEDDERBURN	16-38146 RANGE ROAD 280	RED DEER COUNTY, AB T4S 2C9		
25 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
263 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
104 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
29 LOWDEN CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
267 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
271 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
299 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
371 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
251 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		

327 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
213 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
255 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
81 LYONS CL	CHRIS & SHELLEY L BOWER	81 LYONS CLOSE	RED DEER, AB T4R 3P5		
210 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
212 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
305 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
313 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
103 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
77 LYONS CL	MATTHEW & JANIS O'NEILL	77 LYONS CLOSE	RED DEER, AB T4R 3P5		
309 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
125 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
133 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
323 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
403 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
404 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
407 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
414 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
416 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
ROLL 8700175	MELCOR DEVELOPMENTS LTD	900-10310 JASPER AVE	EDMONTON, AB T5J 1Y8		
41 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		

331 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
71 LANDRY BEND	BLAINE TILLACK	71 LANDRY BEND	RED DEER, AB T4R 3S4		
87 LANDRY BEND	MUHAMMAD KHAN	87 LANDRY BEND	RED DEER, AB T4R 0H3		
144 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
114 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
328 LANCASTER DR	ZHONGLIANG LAN & CHUNTAO LI	GENERAL DELIVERY	25 PALISADES ST	BLACKFALDS, AB T0M 0J0	
340 LANCASTER DR	AARON & SHAUNA MARTIN	33 THOMAS PLACE	RED DEER, AB T4P 0L7		
304 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
122 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
59 VIENNA CL	JESSE LEE & CHERDEL LYNN TARNEY	59 VIENNA CLOSE	RED DEER, AB T4R 0P1		
151 LARSEN CR	JUDY BOUSQUET	151 LARSEN CRES	RED DEER, AB T4R 0J3		
152 LARSEN CR	SAMANTHA GIBSON	152 LARSEN CRES	RED DEER, AB T4R 0J3		
153 LARSEN CR	DAAN & IRINA PETERS	153 LARSEN CRES	RED DEER, AB T4R 0J3		
155 LARSEN CR	CHARLES COLIN HAGGARTY	939 WADEY DR	REGINA, SK S4N 7J9		
156 LARSEN CR	TREVOR WICKAM & GAIL WRIGHT	156 LARSEN CRES	RED DEER, AB T4R 0J2		
422 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
351 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
109 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
208 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
218 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
301 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
302 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
316 475	LONSDALE		EDMONTON,		

LANCASTER DR	APARTMENTS LTD	201-4220 98 ST	AB T6E 6A1		
317 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
109 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
401 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
408 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
411 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
415 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
418 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
ROLL 8700020	FARM AIR PROPERTIES INC	210-5324 CALGARY TRAIL	EDMONTON, AB T6H 4J8		
ROLL 8700085	JOHN PATRICK BRETT	RR 3	RED DEER, AB T4N 5E3		
117 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
67 LANDRY BEND	JASON JAMES MURRAY	67 LANDRY BEND	RED DEER, AB T4R 3S4		
91 LANDRY BEND	ABDULAH & SHAHEEN KHAN	91 LANDRY BEND	RED DEER, AB T4R 0H3		
284 LANCASTER DR	KYRA-LEE M SOLES	284 LANCASTER DR	RED DEER, AB T4R 3R7		
320 LANCASTER DR	WADE RICHARD GERO & ANNETTE LORELLE STRETTON	320 LANCASTER DR	RED DEER, AB T4R 3S4		
148 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
156 LAZARO CL	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
332 LANCASTER DR	JOEY WHITBREAD	332 LANCASTER DR	RED DEER, AB T4R 3S4		
336 LANCASTER DR	SANTOS LEIVA RECINOS & VILMA RIVERA AYALA	336 LANCASTER DR	RED DEER, AB T4R 3S4		
111 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
209 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
348 LANCASTER	MIHALY S & DENISE G CSORDAS	348 LANCASTER DR	RED DEER, AB T4R 3S4		

DR					
308 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
115 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
315 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
1 LALOR DR	THE CITY OF RED DEER	C/O PO BOX 5008	RED DEER, AB T4N 3T4		
153 LALOR DR	LANDMARK HOMES (RED DEER) INC	200-6700 76 ST	RED DEER, AB T4P 4G6		
149 LALOR DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		
121 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
123 475 LANCASTER DR	LONSDALE APARTMENTS LTD	201-4220 98 ST	EDMONTON, AB T6E 6A1		
363 LANCASTER DR	MELCOR DEVELOPMENTS LTD	502-4901 48 ST	RED DEER, AB T4N 6M4		



FILE COPY

LEGISLATIVE SERVICES

December 18, 2013

Mr. Shane Stafford
c/o Stantec Consulting
1100, 4900 – 50 Street
Red Deer, AB T4N 1X7

Dear Mr. Stafford:

**Re: Proposed Land Use Bylaw Amendment 3357/CC-2013
Rezoning of Phase 4 of Laredo**

Red Deer City Council gave first reading to *Land Use Bylaw Amendment 3357/CC-2013* at the Monday, December 16, 2013 Regular Council Meeting. Land Use Bylaw Amendment 3357/CC-2013 proposes to rezone the northeast part of NE 2-38-27-4 within the Lancaster/Vanier East Neighbourhood Area Structure Plan from AG-Agricultural District to R1- Residential (Low Density), R1N-Residential (Narrow Lot) and R3-Residential (Multiple Family) Districts. The rezoning covers 10.69 ha in the neighbourhood marketed as Laredo.

Council will now hold a Public Hearing before giving second and third readings to Land Use Bylaw Amendment 3357/CC-2013. This office will advertise for the Public Hearing to be held on Monday, January 20, 2014 at 6:00 p.m. in Council Chambers during Council's regular meeting.

The Municipal Government Act requires The City to advertise for Public Hearings. As the developer bringing forward this amendment, you are responsible for the advertising costs which we estimate to be approximately \$800.00. If you have any concerns related to these charges, or have other questions or require additional information, please contact me at your earliest convenience at 403.356-8978.

Sincerely,

Christine Kenzie
Corporate Meeting Coordinator

/attach.

DN. 1451925

BYLAW NO. 3357/CC - 2013

Being a Bylaw to amend Bylaw No. 3357/2006, the Land Use Bylaw of The City of Red Deer as described herein.

COUNCIL OF THE CITY OF RED DEER, ALBERTA, ENACTS AS FOLLOWS:

Bylaw No. 3357/2006 is hereby amended as follows:

1. The land shown cross hatched in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1 (Residential – Low Density) District
2. The land shown by vertical lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R1N (Residential – Narrow Lot) District
3. The land shown in by horizontal lines in the sketch attached as Schedule A to this Bylaw is superseded from AG (Agriculture (Red Deer County) District to R3 (Residential – Multiple Family) District
4. The “Land Use District Map R11” contained in “Schedule A” of the Land Use Bylaw is hereby amended in accordance with the Land Use District Map 26-2013 attached hereto and forming part of the bylaw.

READ A FIRST TIME IN OPEN COUNCIL this 16th day of December 2013.

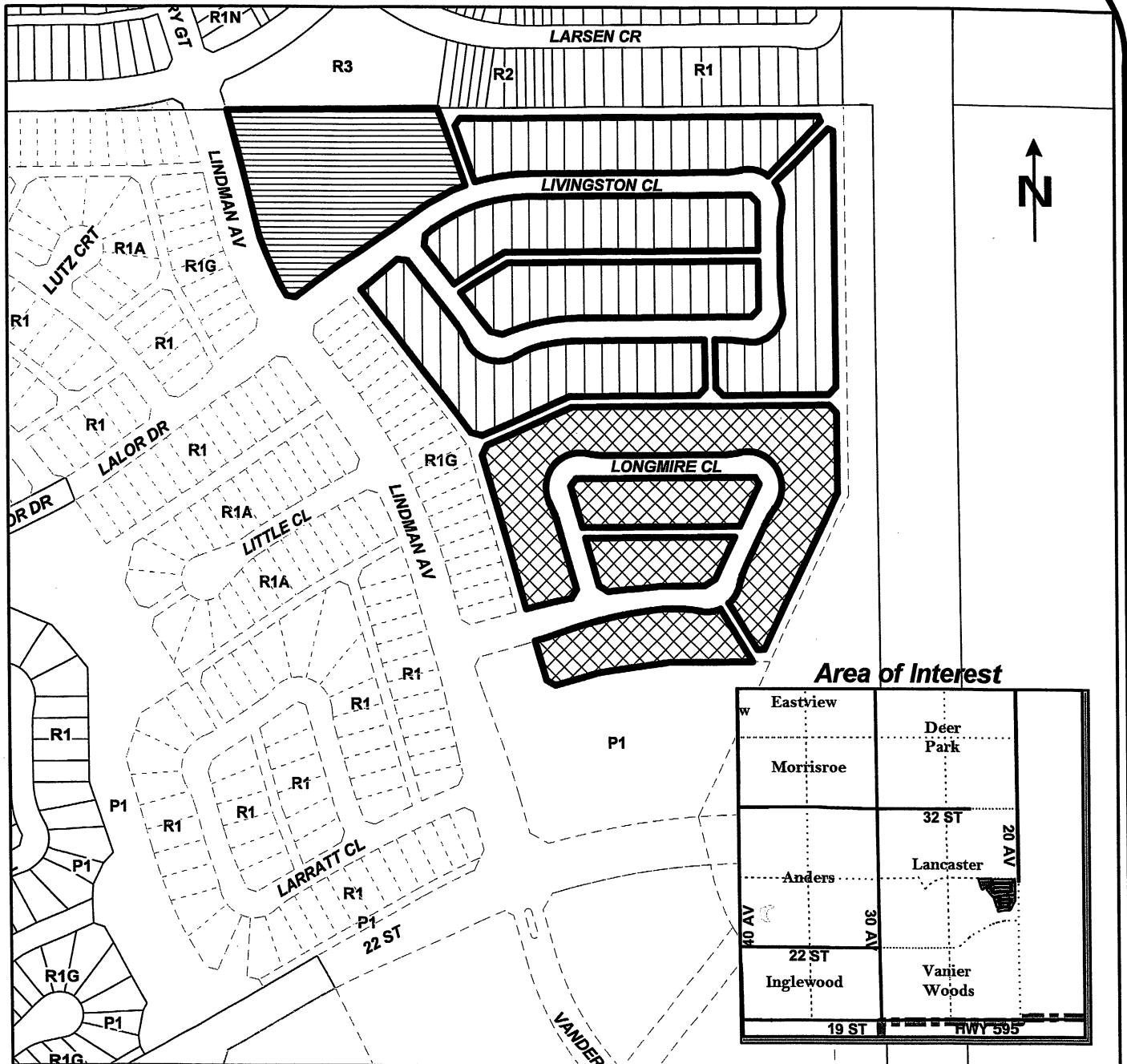
READ A SECOND TIME IN OPEN COUNCIL this day of 2014.

READ A THIRD TIME IN OPEN COUNCIL this day of 2014.

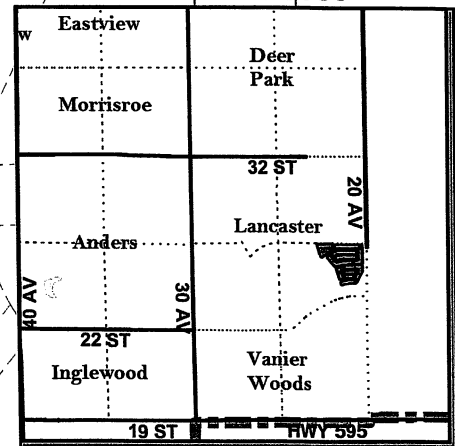
AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



Area of Interest



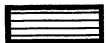
Change District from:



AG to R1 - Residential (Low Density) District



AG to R1N - Residential (Narrow Lot) District



AG to R3 - Residential (Multiple Family) District

Affected District:

AG - County Agricultural

Proposed Amendment
Map: **26 / 2013**
Bylaw: **3357 / CC-2013**
Date: **Oct. 21, 2013**



January 6, 2014

Land Use Bylaw Amendment 3357/EE-2013

Proposed Rezoning for 7429 49 Avenue – To allow a Security Suite

Consideration of Second & Third Reading

Legislative Services

Report Summary & Recommendation:

Summary:

The attached report is being brought forward from the Monday, December 2, 2013 Regular Council meeting. At that meeting Council also passed the following resolution:

“Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated November 18, 2013, re: Proposed Rezoning for 7429 – 49 Avenue to allow a Security Suite, Land Use Bylaw Amendment 3357/EE-2013, hereby directs administration to consider the broader inclusion of security suites in all I1 (Light Industrial) areas and bring back a report for Council’s consideration in 2014.”

Recommendation:

The Council consider giving second and third readings to Land Use Bylaw Amendment 3357/EE-2013.

City Manager Comments:

Council’s consideration of second and third reading for Land Use Bylaw Amendment 3357/EE-2013, an amendment for a proposed rezoning for 7429 49 Avenue to allow for a security suite, is requested.

Craig Curtis
City Manager

Report Details

Background:

At the Monday, December 2, 2013 Regular Council Meeting, Council gave first reading to Land Use Bylaw Amendment 3357/EE-2013. Land Use Bylaw Amendment 3357/EE-2013 proposes to rezone Lot UNT 29, Block CDE, Plan 762 1172 (7429 49 Avenue) to allow for a security suite.

In accordance with Section 606 of the Municipal Government Act, this bylaw is required to be advertised for two consecutive weeks. Advertisements were placed in the Red Deer



Advocate on January 3 and January 10, 2014 with no comments being received. A Public Hearing will be held on Monday, January 20, 2014 at 6:00 p.m. during Council's regular meeting. Letters were sent to the owners of properties in the affected area.



Report originally submitted to
the Monday, December 2, 2013
Council Meeting.

November 18, 2013

Proposed Rezoning for 7429-49 Avenue – To Allow a Security Suite

Land Use Bylaw Amendment 3357/EE-2013

Planning Department

Report Summary & Recommendation:

It is recommended that City Council approve a rezoning application to add a 'Security Suite' as a discretionary use within the existing II Industrial (Business Service) District at Bay II, 7429-49 Avenue.

The amendment will facilitate an on-site suite which would be used for security and surveillance purposes.

Planning administration recommends Council support first reading of Land Use Bylaw 3357/EE-2013.

Planning administration also recommends that administration consider the broader inclusion of security suites in the LUB and bring a report for Council's consideration in 2014.

City Manager Comments:

I support the recommendation of Administration that Council consider first reading of Land Use Bylaw Amendment 3357/EE-2013, approval of a rezoning application to add a 'security suite' as a discretionary use at 7429 – 49 Avenue. A Public Hearing would then be scheduled to be held on Monday, January 20, 2014 at 6:00 p.m. during Council's Regular Meeting.

Consideration of the broader inclusion of security suites in all II (Light Industrial) areas will be considered by administration in conjunction with the Riverside Light Zoning Study and other planning priorities.

Craig Curtis
City Manager

Proposed Resolution

That Council consider first reading of Land Use Bylaw Amendment 3357/EE-2013.

Resolved that Council of The City of Red Deer having considered the report from the Planning Department, dated November 18, 2013, re: Proposed Rezoning for 7429 – 49



Avenue to allow a Security Suite, Land Use Bylaw Amendment 3357/EE-2013, hereby directs administration to consider the broader inclusion of security suites in all II (Light Industrial) areas and bring back a report for Council's consideration in 2014.

Report Details

Background:

An application was received to allow a security suite at Bay II, 7429-49 Avenue. The business, Stirling Auto provides automotive repair and often stores customer vehicles and parts outdoors. The property is located in the Pines Industrial area as indicated in Figure 1: Site Location. It is currently zoned II – Industrial (Business Service). The II District allows for the operation of businesses that do not create or emit noises, odours, dust, fumes or other factors which are regarded as nuisances. Surrounding land uses are shown in Figure 2: Surrounding Land Uses.

The applicant is proposing a security suite to provide living accommodations for personnel providing surveillance and/or security on the site. The applicant states that within recent months there has been an increase of break-ins and criminal activity in the surrounding area, therefore the applicant is concerned over the safety of customer's vehicles while stored outside as well as parts and used materials stored outside. The suite itself would not be the primary use of the property, but will complement the primary use of an auto repair shop. The site currently contains two separate bay buildings and a large storage shop. Site photos are attached as Figure 3: Site Photos.

There is no area structure or redevelopment plan covering the subject property.

Discussion:

Approval of security suites is not new to the Land Use Bylaw. In the past, site specific Land Use Bylaw amendments were approved by Council for security suites.

The security suite will be used to provide on-site security of customer's vehicles and property located in the rear yard. The suite will be limited to one adult employee or owner whose primary responsibility is to provide surveillance and/or security to the site, only one sleeping area will be permitted. The amendment is written to include these restrictions.

The Municipal Development Plan supports industrial development and other land uses in close proximity as long as minimum separation distances are maintained (Policy I3.4). Under the Alberta Building Code residential occupancy in industrial areas may be permitted subject to the type of industry located within the building and the building construction itself. Any specifics dealing with the Alberta Building Code will be dealt with at the time of development permit and occupancy permit applications. In terms of appearance, the security suite will be completely undetectable from outside traffic.



No comments were received within 100 metres of the current site exception application. Landowners within 100 metres of the site will be circulated to again prior to the public hearing.

Analysis:

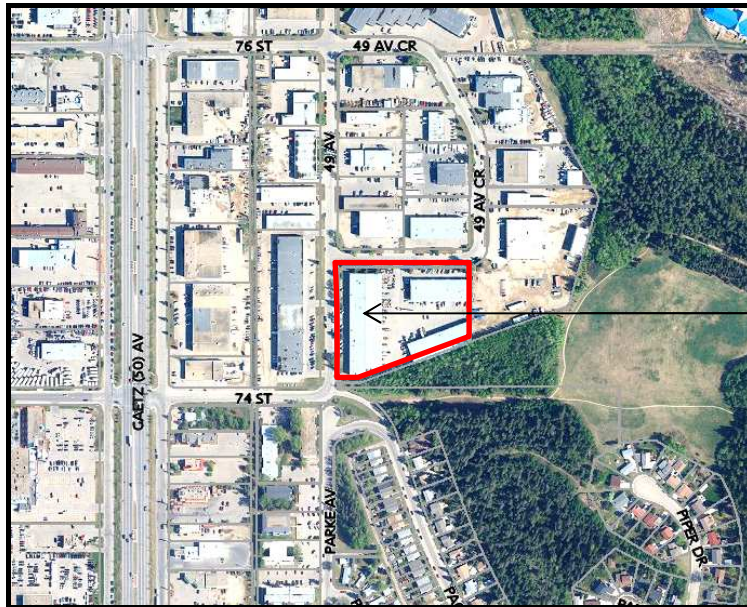
Planning administration supports the proposed amendment for the following reasons:

1. It is supported by policies in the Municipal Development Plan.
2. It will be compatible with existing onsite and adjacent land uses.
3. No objections were raised by City administration.

There have been several inquiries over the last year in regards to security suites in industrial areas. Planning administration is recommending that administration consider the broader inclusion of security suites in the LUB and bring a report for Council's consideration in 2014.

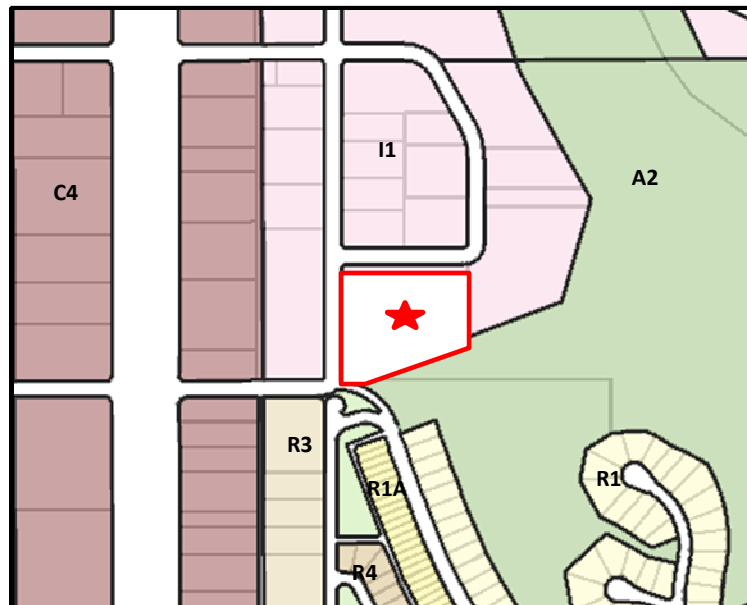


Figure 1: Site Location



Site Location: 7429 74 Avenue,
Lot UNT 29, Block CDE, Plan 762
1172

Figure 2: Surrounding Land Uses



Lengend:

- ★ Subject site
- C4 Commercial (Major Arterial)
- I1 Industrial (Business Service)
- A2 Environmental Preservation
- R1 Residential (Low Density)
- R1A Residential (Semi-Detached Dwelling)
- R3 Residential (Multiple Family)
- R4 Residential (Relocatable Dwelling Unit)



Figure 3: Site Photos

Front of building along 49 Avenue



Rear of building



BYLAW NO. 3357/EE-2013

Being a Bylaw to amend Bylaw No. 3357/2006, the Land Use Bylaw of The City of Red Deer as described herein.

COUNCIL OF THE CITY OF RED DEER, ALBERTA, ENACTS AS FOLLOWS:

Bylaw No. 3357/2006 is hereby amended as follows:

- 1 The following new subsection is added to Section 8.22, 1 (e):
 - (vi) Security Suite on Lot UNT 29, Block CDE, Plan 762 1172 (7429 49 Avenue) subject to the following:
 - (1) The security suite:
 - (a) shall be located within the principal building on the site;
 - (b) shall not be occupied by more than one (1) person dwelling in the suite;
 - (c) shall be occupied by the owner or his employee whose primary responsibility is to provide surveillance, maintenance and/or security for the site; and
 - (d) shall not contain more than one sleeping area
 - (2) In addition to the number of parking stalls required for the principal use under Part 3 and 4 of this Bylaw, one additional parking space shall be designated for the security suite.
 - (3) Development permits issued for security suites cease to be valid if the principal use on the site ceases or is removed.
- 2 The "Land Use District Map M19" contained in "Schedule A" of the Land Use Bylaw is hereby amended in accordance with the Land Use District Map 27-2013 attached hereto and forming part of the bylaw.

READ A FIRST TIME IN OPEN COUNCIL this 2nd day of December 2013.

READ A SECOND TIME IN OPEN COUNCIL this day of 2014.

READ A THIRD TIME IN OPEN COUNCIL this day of 2014.

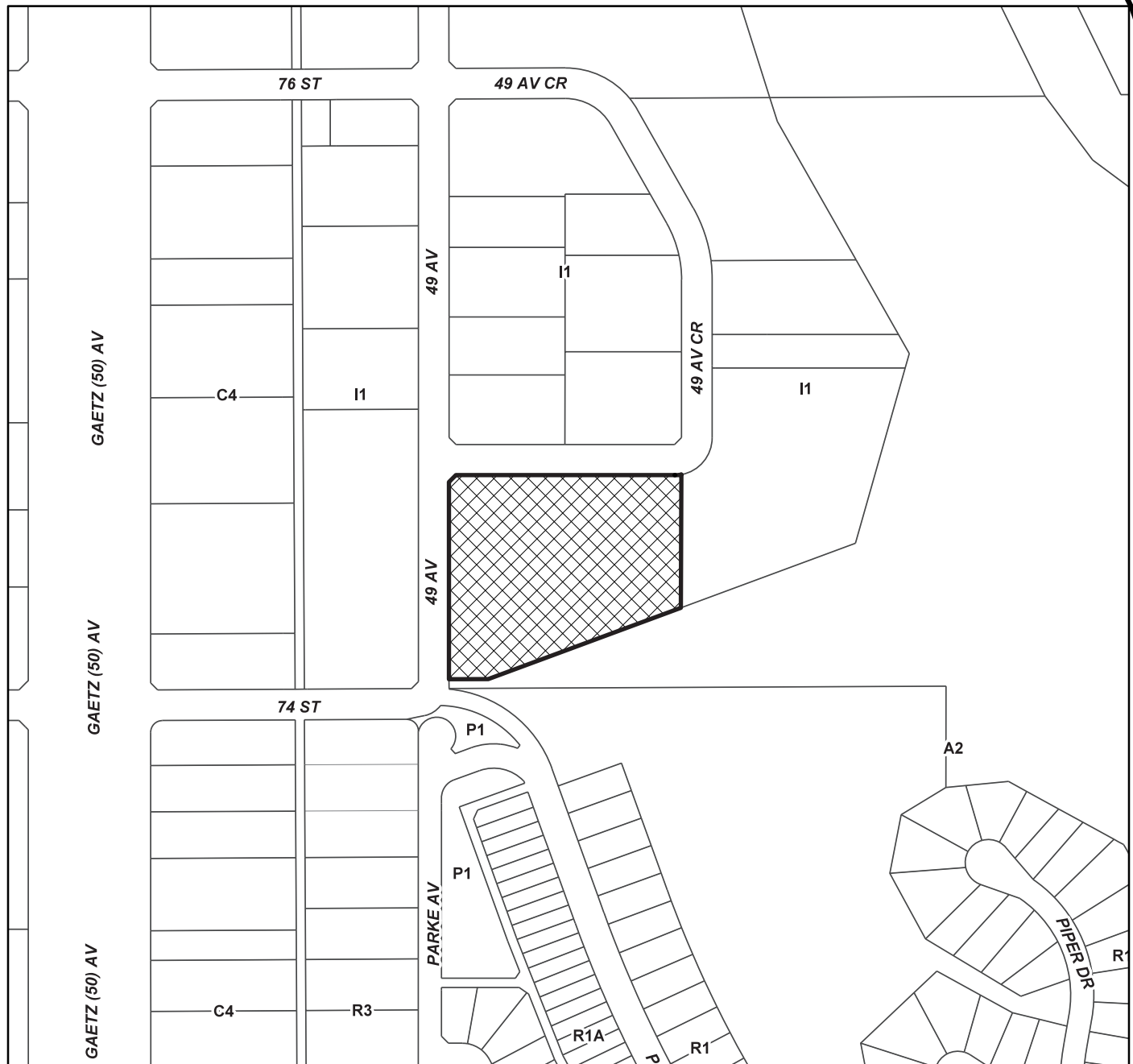
AND SIGNED BY THE MAYOR AND CITY CLERK this day of 2014.

MAYOR

CITY CLERK



Proposed Amendment to Land Use Bylaw 3357/2006



Change District from:



I1 to I1 (e) (vi)

Affected District:

I1 - Industrial (Business Service) District

Proposed Amendment

Map: **27 / 2013**

Bylaw: **3357 / EE-2013**

Date: **Nov. 12, 2013**

FILE COPY



Council Decision – January 20, 2014

DATE: January 23, 2014
TO: Tara Lodewyk, Planning Services Manager
FROM: Frieda McDougall, Legislative Services Manager
SUBJECT: Land Use Bylaw Amendment 3357/EE-2013
Proposed Rezoning for 7429-49 Avenue – to allow a Security Suite

Reference:

Planning Department, dated November 18, 2013

Bylaw Reading:

At the Monday, January 20, 2014 Regular Council meeting, Council gave second and third reading to Land Use Bylaw Amendment 3357/EE - 2013 – (an amendment to add an on-site suite to be used for security and surveillance purposes). A copy of the bylaw is attached.

Report back to Council: No

Comments/Further Action:

This office will amend the Land Use Bylaw and distribute copies in due course.

A handwritten signature in blue ink, appearing to read 'Frieda McDougall'.

Frieda McDougall
Manager

/attach

c: Director of Planning Services
Client Services Support, Legislative Services

DM 1468853

BYLAW NO. 3357/EE-2013

Being a Bylaw to amend Bylaw No. 3357/2006, the Land Use Bylaw of The City of Red Deer as described herein.

COUNCIL OF THE CITY OF RED DEER, ALBERTA, ENACTS AS FOLLOWS:

Bylaw No. 3357/2006 is hereby amended as follows:

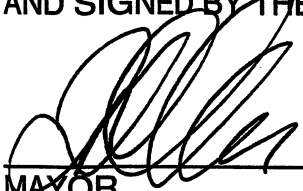
- 1 The following new subsection is added to Section 8.22, 1 (e):
 - (vi) Security Suite on Lot UNT 29, Block CDE, Plan 762 1172 (7429 49 Avenue) subject to the following:
 - (1) The security suite:
 - (a) shall be located within the principal building on the site;
 - (b) shall not be occupied by more than one (1) person dwelling in the suite;
 - (c) shall be occupied by the owner or his employee whose primary responsibility is to provide surveillance, maintenance and/or security for the site; and
 - (d) shall not contain more than one sleeping area
 - (2) In addition to the number of parking stalls required for the principal use under Part 3 and 4 of this Bylaw, one additional parking space shall be designated for the security suite.
 - (3) Development permits issued for security suites cease to be valid if the principal use on the site ceases or is removed.
- 2 The "Land Use District Map M19" contained in "Schedule A" of the Land Use Bylaw is hereby amended in accordance with the Land Use District Map 27-2013 attached hereto and forming part of the bylaw.

READ A FIRST TIME IN OPEN COUNCIL this 2nd day of December 2013.

READ A SECOND TIME IN OPEN COUNCIL this 20th day of January 2014.

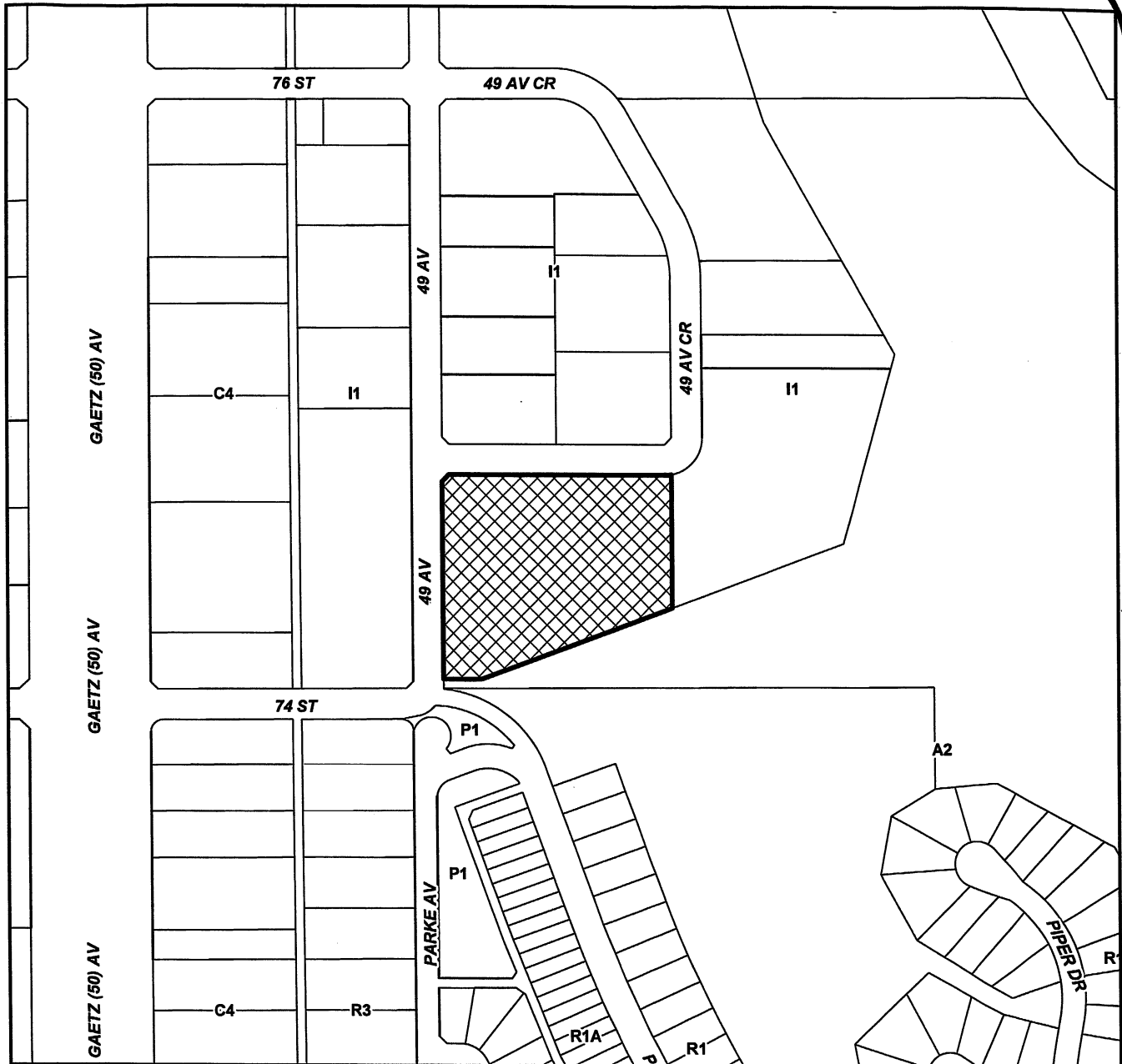
READ A THIRD TIME IN OPEN COUNCIL this 20th day of January 2014.

AND SIGNED BY THE MAYOR AND CITY CLERK this 20th day of January 2014.



MAYOR

CITY CLERK



Change District from:



I1 to I1 (e) (vi)

Affected District:

I1 - Industrial (Business Service) District

Proposed Amendment
Map: 27 / 2013
Bylaw: 3357 / EE-2013
Date: Nov. 12, 2013



Council Meeting of January 20, 2014

PUBLIC ATTACHMENT "A"

DOCUMENT STATUS: Public

REFERS TO: Comments on Draft South Saskatchewan
Regional Plan:

Draft South Saskatchewan Regional Plan
2014 - 2024

Draft South Saskatchewan Regional Plan 2014 - 2024



Report

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Introduction

Background

Alberta's Land-use Framework (LUF), released in December 2008, sets out a new approach to managing our province's land and natural resources to achieve Alberta's long-term economic, environmental and social goals. The LUF establishes seven new land-use regions and calls for the development of a regional plan for each. The *Alberta Land Stewardship Act* supports the LUF and establishes the legal basis for the development of regional plans. Regional plans reconcile provincial policies and set explicit regional outcomes and objectives.

Regional planning is part of the Government of Alberta's Integrated Resource Management System (IRMS). The IRMS supports responsible development of the province's resources and realization of its desired outcomes. The system is founded on setting and managing to clear policies and cumulative outcomes (through regional plans), providing assurance and a monitoring and measurement system to measure the achievement of outcomes. The system is dynamic and adaptive as necessary to reflect new information and also collaborative – achieving desired outcomes requires working with stakeholders and partners.

Contributions from the South Saskatchewan Regional Advisory Council, aboriginal peoples, stakeholders, municipalities and the public have informed the development of the draft South Saskatchewan Regional Plan (SSRP). Development of the draft SSRP utilized input and feedback received through two phases of public consultation:

- input on the region's issues; and
- feedback on the advice from the South Saskatchewan Regional Advisory Council.

Prior to approving the SSRP, the government will review and consider the feedback received during phase three consultations for the draft SSRP.

Purpose

The SSRP sets the stage for robust growth, vibrant communities and a healthy environment within the region over the next 50 years.

With that long-term horizon in mind, the SSRP identifies strategic directions for the region over the next 10 years. The regional plan will be assessed and, if necessary, updated every five years to maintain its relevance and effectiveness while maintaining certainty, stability and commitment to regulatory intent. Any subsequent revisions to the plan require consultation with Albertans.



Elements of a Cumulative Effects Management System

Outcome-based:

Driven by clearly defined outcomes for the desired quality or state of the environment now and in the future, while recognizing the economic, environmental and social implications of meeting those outcomes. Activities will be managed to achieve outcomes.

Place-based:

Different regions may have different needs and outcomes.

Knowledge-based:

The foundation of the system is a sound knowledge base and performance management regime, composed of information and evaluation to determine if outcomes are being met or management actions required.

Adaptive:

The system can adapt to change when performance results are not achieving outcomes, or there is a risk of not achieving outcomes in the future or when circumstances change.

Shared stewardship:

A collaborative process to inform development of outcomes and build commitment for the shared responsibility to achieve outcomes.



The SSRP:

- Establishes a long-term vision for the region;
- Aligns provincial policies at the regional level to balance Alberta's economic, environmental and social goals;
- Reflects ongoing commitment to engage Albertans, including aboriginal peoples, in land-use planning;
- Uses a cumulative effects management approach to balance economic development opportunities and social and environmental considerations;
- Sets desired economic, environmental and social outcomes and objectives for the region;
- Describes the strategies, actions, approaches and tools required to achieve the desired outcomes and objectives;
- Establishes monitoring, evaluation and reporting commitments to assess progress; and
- Provides guidance to provincial and local decision-makers regarding land-use management for the region.

Through regional planning, as well as other initiatives, Alberta is shifting to a more effective and efficient management system that considers the cumulative effects of all activities and improves integration across the economic, environmental and social pillars. This system must adapt to place-based challenges and opportunities as well as allow decision-makers to see the bigger picture.

This direction is a foundation of the Land-use Framework, where the Government of Alberta is committed to manage the cumulative effects of development on air, water, land and biodiversity, and ensuring the value and benefit of these are sustained at the regional level and contributes to provincial outcomes. Cumulative effects management focuses on achievement of outcomes, understanding the effects of multiple development pressures (existing and new), assessment of risk, and collaborative work with shared responsibility for action and improved integration of economic, environmental and social considerations.

Outcomes and objectives are established, along with the strategies and actions that will be used to achieve them. Integrated monitoring, evaluation and reporting systems are essential as they are used to assess progress in achieving outcomes and objectives.

Land-use Planning in Alberta

Planning and decision-making in Alberta are carried out under various provincial legislation and policies. These are applied by a range of decision-makers – including Government of Alberta departments, boards and agencies, and municipal governments – responsible for making decisions about activities in the region.

The SSRP applies to Crown and private lands in the region.

Private Lands

Planning on private lands is primarily governed by the *Municipal Government Act* (MGA) and instruments made under its authority such as the Subdivision and Development Regulation. Private landowners make decisions about how to use and manage their land consistent with existing provincial legislation and municipal bylaws. The SSRP does not change this or alter private property rights.

Municipal governments under Part 17, Planning and Development of the MGA, with few exceptions (such as Sections 618 and 619) are delegated with the responsibility and authority for local land-use planning and development on all lands within their boundaries. This includes the creation of municipal development plans, area structure plans and land-use bylaws. This delegated authority remains with municipalities. Municipal planning and development decisions will, however, have to be in alignment with the regional plan to achieve the regional outcomes established in the plan.

The SSRP, including sub-regional plans, does not rescind land title or freehold mineral rights. Any decisions that may affect private landowners or freehold owners will occur through existing legislation and processes, and private landowners and freehold owners remain entitled to due process. Private landowners and freehold owners may be entitled to compensation under those laws.

Freehold mineral rights underlie about 40 per cent of the region, mainly in the settled area. Freehold mineral rights are private property and are subject to the *Land Titles Act*, the *Law of Property Act* and common law. The Government of Alberta has the power to acquire freehold minerals by expropriation if it is of the opinion that any or any further exploration for the development of those minerals is not in the public interest (Section 8(1) (b), *Mines and Minerals Act*). In cases where the Government of Alberta denies opportunity to develop freehold minerals, the owner of the freehold minerals can apply for compensation to the Land Compensation Board which determines the compensation payable under the *Expropriation Act* (that is, market value, damages attributable to disturbance, value of any special economic advantage, damages for injurious affection). The *Alberta Land Stewardship Act* treats freehold mineral and surface land title holders similarly.

In February 2013 the Property Rights Advocate's office was opened to provide Alberta landowners with accurate information on property rights and help them work through property rights processes.



Crown Lands

Crown lands include lands that are administered as public lands under the *Public Lands Act*, parks under the provincial parks legislation and highways under the *Highways Development and Protection Act*. Crown lands are owned by the Crown and managed for the benefit of all Albertans. The Government of Alberta often allows individuals and businesses to use public lands through statutory consents that grant permission to do certain activities on public land – such as livestock grazing, timber harvesting, energy development or recreational use. In addition, the Government of Alberta grants statutory consents related to the use of, or impacts on, public resources (like water) to allow or support specific development, industrial activity, conservation or other activities.

On public lands, direction under the SSRP will be delivered through existing legislation such as the *Public Lands Act*, the *Forests Act* and the provincial parks legislation and through existing tools such as integrated landscape management plans, access management plans and forest management planning. These further define access to and use of provincial Crown land, and focus on operational activities that reflect the regional priorities and direction.

A Policy for Resource Management of the Eastern Slopes (Revised 1984) has been an enduring guidance tool for the Government of Alberta. The policy provides the foundation for the province's Integrated Resource Plans at sub-regional and local levels within the eastern slopes and sets watershed management as the highest priority in the overall management of the eastern slopes. The natural resources are to be developed, managed and protected in a manner consistent with principles of conservation and environmental protection.

This regional plan incorporates the principles and directions of the Eastern Slopes Policy and replaces it in this region.

The following integrated resource plans will remain in effect and will be reviewed for their relevance and incorporated as appropriate under the implementation strategies in the SSRP or future sub-regional or issue-specific plans developed within the region:

- Bow Corridor Local Integrated Resource Plan
- Castle River Sub-regional Integrated Resource Plan
- Crowsnest Corridor Local Integrated Resource Plan
- Eden Valley Integrated Resource Plan
- Ghost River Sub-regional Integrated Resource Plan
- Kananaskis Country Sub-regional Integrated Resource Plan
- Poll Haven Integrated Resource Plan
- Livingstone Porcupine Hills Sub-regional Integrated Resource Plan
- Eastern Irrigation District Integrated Resource Plan



These plans represent the Government of Alberta's resource management policy for public lands and resources within the defined area and are intended to be a guide for decision-makers. Development decisions on Crown lands will have to be in alignment with the regional plan to achieve the regional outcomes established in the plan.

Informing Land-use Decisions

The SSRP will be implemented by those who already make land-use decisions. Decision-makers are those having legal authority to grant some form of statutory consent, such as a development permit, a water licence or a project approval. Decision-makers include municipal governments and Government of Alberta departments, boards and agencies and other organizations. Local government bodies and decision-making bodies will be required to ensure their regulatory instruments comply with the SSRP. They must also use the regional plan to inform their policies.

The implementation of regional plans must follow the laws of Alberta. All decisions that implement regional plans will be made through existing laws. All rights to appeal, requirements for due process and rights to compensation enjoyed by landowners and rights holders under these laws are not changed by the SSRP.

Compliance with the regional plan does not remove each decision-maker's duty (to the extent that it otherwise would apply) to ensure that its decision making complies with the constitution: for example, regarding consideration of impacts of its anticipated decision on the constitutionally protected rights of aboriginal peoples.

Aboriginal Peoples

Alberta recognizes that those First Nations that hold constitutionally protected rights are uniquely positioned to inform land-use planning. Consulting aboriginal communities on regional planning, particularly those aspects that have the potential to adversely impact their constitutionally protected rights, and reconciling interests are essential to achieving the regional vision. In accordance with applicable government policy as it may be from time to time, the Government of Alberta will continue to consult with aboriginal peoples when government decisions may adversely affect the continued exercise of their constitutionally protected rights, and the input from such consultations continues to be considered prior to the decision.

Other Jurisdictions and Regions

Coordination with other jurisdictions, such as the federal government, provinces and other Land-use Framework regions, will be required to ensure alignment of regional outcomes, and that objectives and strategies are achieved.



Plan Structure

The SSRP has four key components:

- **Introduction** – includes the purpose of the regional plan, land-use planning and decision-making in Alberta, and how the regional plan will inform land-use decisions.
- **Strategic Plan** – includes the vision for the future of the region along with desired regional outcomes. It builds on existing policies and initiatives by establishing a set of strategic directions that help achieve the regional vision and outcomes.
- **Implementation Plan** – includes regional objectives, strategies and actions that will be undertaken to support achievement of the regional vision and outcomes and indicators to measure and evaluate progress.
- **Regulatory Details Plan** – enables achieving the strategic direction and strategies and actions.



Regulatory Details Plan - Part 1 General

Definitions

1 In this regional plan,

- (a) “Act” means the *Alberta Land Stewardship Act*;
- (b) “SSRP Digital Map” means the map attached as Schedule “D” to the SSRP Implementation Plan;
- (c) “SSRP Implementation Plan” means that portion of this regional plan identified by the subtitle “Implementation Plan” and includes the Tables, Appendices and Schedules, but does not include those portions of the SSRP Regulatory Details Plan found among and set apart from the provisions of the SSRP Implementation Plan;
- (d) “SSRP Introduction” means that portion of this regional plan identified by the subtitle “Introduction,” but does not include those portions of the SSRP Regulatory Details Plan found among and set apart from the provisions of the SSRP Introduction;
- (e) “SSRP Regulatory Details Plan” means those portions of this regional plan identified by the following subtitles:
 - (i) **“Regulatory Details Plan Part 1 General”,**
 - (ii) **“Regulatory Details Plan Part 2 Conserved Lands”,**
 - (iii) **“Regulatory Details Plan Part 3 Conservation Areas”,**
 - (iv) **“Regulatory Details Plan Part 4 Air Quality”,**
 - (v) **“Regulatory Details Plan Part 5 Surface Water Quality”,**
 - (vi) **“Regulatory Details Plan Part 6 Recreation and Tourism”,**
 - (vii) **“Regulatory Details Plan Part 7 Monitoring and Reporting”**
- (f) “SSRP Strategic Plan” means that portion of this regional plan identified by the subtitle “Strategic Plan”;
- (g) “planning region” means the South Saskatchewan Integrated Planning Region.

Application of regional plan

2(1) Subject to subsections (2) and (3), this regional plan applies to

- (a) the Crown,
- (b) decision-makers,
- (c) local government bodies, and
- (d) subject to section 15.1 of the Act, all other persons

in respect of land, activities, effects, the environment, species and thresholds in the planning region.



(2) If, in the opinion of the Designated Minister responsible for the following portions of this regional plan:

- (i) “Regulatory Details Plan Part 4 Air Quality”,
- (ii) “Regulatory Details Plan Part 5 Surface Water Quality”,

an activity or proposed activity in respect of land in another planning region is directly or indirectly contributing to the exceedance of a limit or trigger within the meaning of those Parts, the Designated Minister may, by order, declare that the relevant Part applies to one or more of the following entities outside the planning region:

- (a) the Crown,
- (b) a decision-maker or decision-makers,
- (c) a local government body or local government bodies, or
- (d) subject to section 15.1 of the Act, any other person or all other persons, in respect of the activity or proposed activity.

(3) Whether or not a statutory consent has been issued for the activity or proposed activity, if the Designated Minister issues an order referred to in subsection (2), the entity or entities referred to in the order shall, in respect of the activity or proposed activity, comply with the provisions of the relevant Part specified in the order until the earlier of

- (a) the time specified in the order,
- (b) the order is repealed, or
- (c) a regional plan comes into force with respect to the activity, proposed activity or entity.

SSRP Introduction not binding

3 The provisions of the SSRP Introduction are not intended to have binding legal effect, and are statements of provincial policy to inform the Crown, decision-makers, local government bodies and all other persons in respect of this regional plan and the planning region.

SSRP Strategic Plan not binding

4 Except as otherwise provided in this SSRP Regulatory Details Plan, the provisions of the SSRP Strategic Plan are not intended to have binding legal effect, and are statements of provincial policy to inform the Crown, decision-makers, local government bodies and all other persons in respect of the following activities in the planning region:

- (a) identifying the objectives of the Province of Alberta;
- (b) planning for the future;
- (c) managing activities to meet the reasonably foreseeable needs of current and future generations of Albertans, including aboriginal peoples;



- (d) considering future proposals for land use and development;
- (e) setting priorities in the co-ordination of decisions by decision-makers and local government bodies;
- (f) monitoring the cumulative effect of human endeavour and other events;
- (g) responding to the cumulative effect of human endeavour and other events;
- (h) generally in respect of carrying out their respective powers, duties and responsibilities.

SSRP Implementation Plan not binding

5 Except as otherwise provided in this SSRP Regulatory Details Plan, the provisions of the SSRP Implementation Plan are not intended to have binding legal effect, and are statements of provincial policy to guide the Crown, decision-makers and local government bodies in respect of the following activities in the planning region:

- (a) managing activities to meet the reasonably foreseeable needs of current and future generations of Albertans, including aboriginal peoples;
- (b) enforcing compliance with any provision of this Regulatory Details Plan or any other enactment;
- (c) setting priorities in the co-ordination of decisions by decision-makers and local government bodies;
- (d) monitoring the cumulative effect of human endeavor and other events;
- (e) responding to the cumulative effect of human endeavour and other events;
- (f) generally in respect of carrying out their respective powers, duties, and responsibilities.

SSRP Regulatory Details Plan binding on the Crown and others

6 The SSRP Regulatory Details Plan is enforceable as law, and, despite the location of Parts of it within this regional plan, the provisions of the SSRP Regulatory Details Plan bind

- (a) the Crown,
- (b) decision-makers,
- (c) local government bodies, and
- (d) subject to section 15.1 of the Act, all other persons.

Functions and decisions based on regional plan

7(1) After the coming into force of this regional plan, a decision-maker shall, before carrying out any function in respect of the decision-maker's powers, duties and responsibilities in the planning region, consider the SSRP Strategic Plan and the SSRP Implementation Plan.



(2) After the coming into force of this regional plan, a local government body shall, before carrying out any function in respect of the local government body's powers, duties and responsibilities in the planning region, consider the SSRP Strategic Plan and the SSRP Implementation Plan.

(3) Notwithstanding subsections (1) and (2), a decision-maker or local government body must not adjourn, defer, deny, refuse, or reject any application, proceeding or decision-making process before it by reason only of

- (a) the Crown's non-compliance with a provision of either the SSRP Strategic Plan or SSRP Implementation Plan, or
- (b) the incompleteness by the Crown or anybody of any direction or commitment made in a provision of either the SSRP Strategic Plan or SSRP Implementation Plan.

(4) A statutory consent issued after the coming into force of this regional plan cannot be set aside or amended by reason only of a replacement or amendment to this regional plan unless the replacement or amendment complies with section 11 of the Act.

Delegated authorities

8 The Designated Minister responsible for any element or provision of this regional plan may, by order, establish delegated authorities and the delegation to one or more delegated authorities of the performance of any of the Designated Minister's duties or functions or the exercise of any of the Designated Minister's powers under this regional plan and make any provision with respect to any such delegation that is made with respect to the Labour Statutes Delegation in Schedule 10 to the *Government Organization Act* or that may be made by regulations under section 2 of that Schedule.

Reporting requirements

9(1) The Designated Minister responsible for any element or provision of this regional plan shall report on the matters referred to in sections 15, 18, 22, 29(b) and (c), 36(b) and (c), 46, and 49

- (a) not less than once within the first 4 years following the coming into force of this regional plan, and
- (b) not less than once within the next following 5 years after the expiry of the period referred to in clause (a).

(2) A report referred to in subsection (1) must be in writing and be publicly available in its entirety in electronic and hard copy upon request by a person and posted on the Land Use Secretariat's website.

Compliance declaration

10(1) For the purposes of section 20(2) of the Act, the time within which a local government body must comply with that section is 5 years.

(2) For the purposes of section 21(2) of the Act, the time within which a decision-making body must comply with that section is 2 years.



Transitional provisions applicable to statutory consents

11(1) This regional plan applies to an application for a statutory consent whether the application is made before or after the date this regional plan comes into force.

(2) If at the time this regional plan comes into force, a statutory consent has been issued and this regional plan makes the activity in respect of which the statutory consent was issued inconsistent with or non-compliant with this regional plan, the statutory consent continues in effect despite the coming into force of this regional plan.

(3) For greater clarification, an inconsistent or non-compliant activity referred to in subsection (2) is subject to lawful directions of an official under sections 31 and 38 to a person responsible within the meaning of those sections.

(4) Subject to subsection (5), where an application is to be determined after the coming into force of this regional plan in respect of a statutory consent that a decision-maker reasonably believes is incidental to a statutory consent referred to in subsection (2), the decision-maker shall have due regard to the SSRP Strategic Plan, but the decision-maker shall render his or her decision in respect of the application notwithstanding the provisions of the SSRP Implementation Plan.

(5) For the purposes of subsection (4), a renewal of a statutory consent shall not be interpreted as being incidental to a statutory consent referred to in subsection (2).

Coming into force

12 This regional plan comes into force on April 1, 2014.

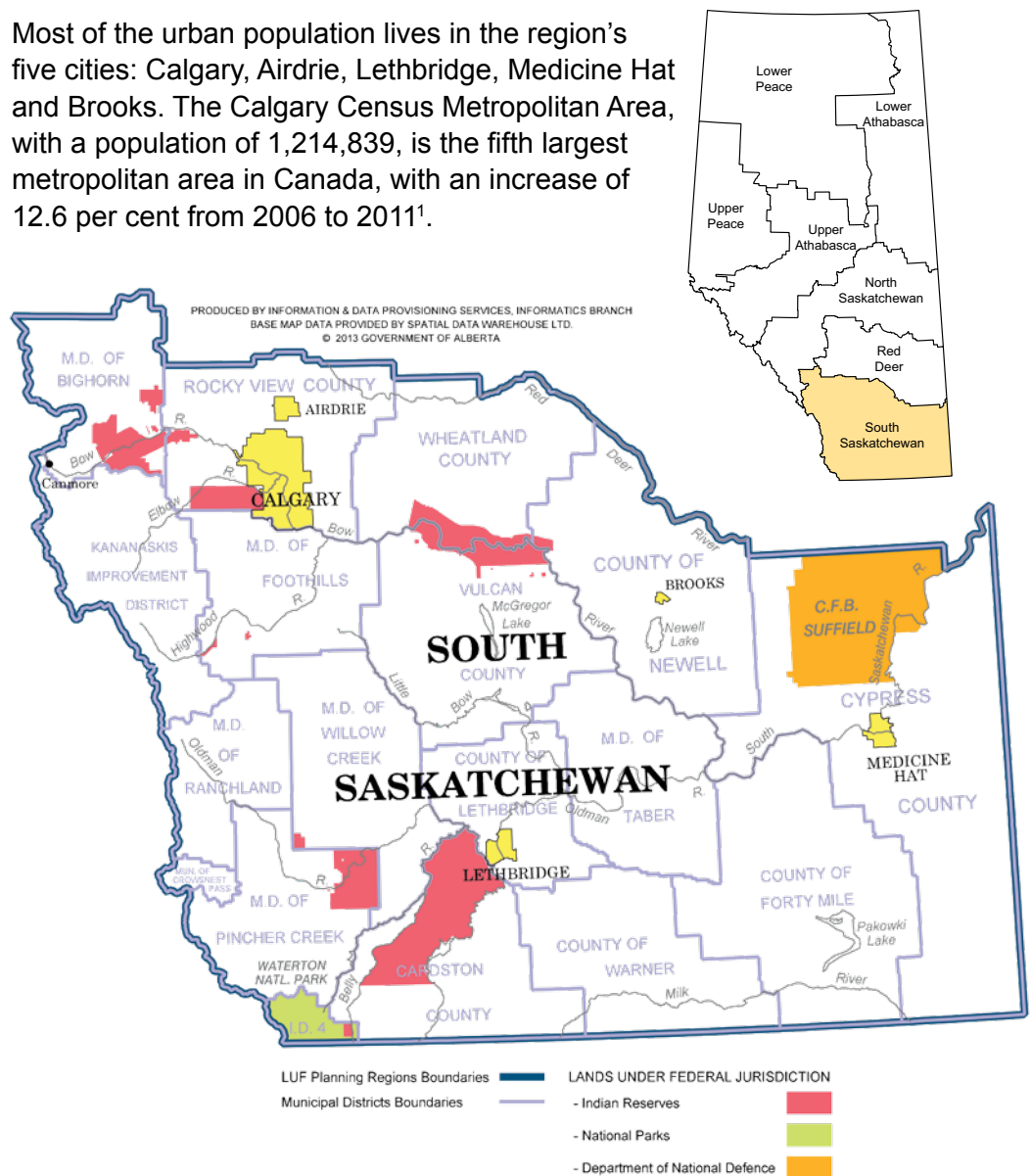
Strategic Plan



The Region Today

The South Saskatchewan Region includes the South Saskatchewan River Basin, the Milk River Basin and the Alberta portion of the Cypress Hills. The region includes 15 municipal districts, one specialized municipality, two improvement districts, five cities, 29 towns, 23 villages, two summer villages and seven First Nations. The South Saskatchewan Region covers 83,764 km² or about 12.6 per cent of the total area of Alberta. About 1.6 million people live in the region, or 45 per cent of the provincial population.

Most of the urban population lives in the region's five cities: Calgary, Airdrie, Lethbridge, Medicine Hat and Brooks. The Calgary Census Metropolitan Area, with a population of 1,214,839, is the fifth largest metropolitan area in Canada, with an increase of 12.6 per cent from 2006 to 2011¹.



¹ Statistics Canada

Economic Development

The South Saskatchewan Region has a diversified economy which contributes to the vitality and prosperity of communities within the region. In addition to a strong agricultural, tourism and forestry economy, the region is fast becoming a major international centre for innovation in the development of energy and mineral resources and environmental technologies to support more environmentally responsible resource development. It is anticipated that local manufacturing and services will continue to expand in support of increasing natural gas (including shale gas and coal bed methane) and conventional oil development in the region. These trends will continue to stimulate development of larger and more diverse retail centres, and growing commercial and professional services and facilities.

The Government of Alberta is taking steps to secure Alberta's economic future, which will benefit the South Saskatchewan Region. This effort is focused on education and entrepreneurship, which are the cornerstones of a dynamic economy, which Albertans build through knowledge, adaptability and an entrepreneurial spirit. Critical elements of this close the participation gap of under-represented groups in post-secondary institutions and increase high school graduation rates, as well as contribute to the conditions that increase business startups and the commercialization of technology.

Expanded market access contributes significantly to the sustainability of the province's export-driven technology. A key element is to develop new access (e.g. through pipelines and rail) to markets outside our traditional core trading partner, the United States.

Alberta has world-class infrastructure, a trained, skilled workforce, up-to-date technologies, legislated environmental protection, and social safety nets that makes the province a great place to live, work and raise a family. The Government of Alberta continues to create a policy and business climate that attracts investment and promotes diversification of the economy including in the agriculture, agri-food, tourism and industry sectors.

Aboriginal peoples' participation in the economy ranges from agriculture and energy (oil and gas, alternatives) to tourism, mines and minerals. Aboriginal people have contributed significantly in the formative years, both as producers and in management, marketing and sales.

Agriculture

The agricultural industry is one of the main economic drivers in the South Saskatchewan Region, with farm cash receipts amounting to \$4.5 billion in 2011, or 43 per cent of the provincial total of \$10.4 billion². The region also accounted for approximately half of the province's \$12.2 billion revenue in 2011 for sales in food and beverage manufacturing³. The economic success

² Alberta Agriculture and Rural Development

³ Alberta Agriculture and Rural Development



of the South Saskatchewan Region is driven in part by a combination of fertile grassland soils and irrigation development that has provided the necessary land base for crop production, livestock grazing, as well as land for the majority of Alberta's cattle feedlot capacity. Agri-food industries in the region include a significant beef processing sector, and processing facilities for poultry and dairy products, potatoes, sugar beets, canola and cereals (flour, feed and distilling).

Provincially, a competitive, self-reliant agriculture industry is ensured through policy development, advocacy, program and services provision, and collaboration with key partners that reinforce economic growth and build lasting prosperity in rural Alberta. There is renewed government effort to:

- enhance research and innovation;
- maximize opportunities in value-added agricultural products and services;
- develop local, national and international markets;
- overcome trade barriers to expand market access;
- attract investment; and
- position Alberta as the preferred global supplier of agriculture products and services.

Although the agriculture, agri-food and agri-product sectors are mainly focused on export markets, consumer demand for locally grown foods is increasing throughout Alberta. This increased demand partially stems from consumers who are increasingly considering factors such as human health and environmental impacts when purchasing food. As the demand for these locally grown food products continues to increase, opportunities for further diversification of the agricultural industry may arise.

The Federal-Provincial-Territorial agricultural policy framework (that is, Growing Forward 2) came into effect April 1, 2013, with various programs, projects and extension services to support the achievement of a profitable, sustainable, competitive, and innovative agriculture, agri-food and agri-products sector for the South Saskatchewan Region and Alberta as a whole. Through cost sharing with the federal government, significant strategic investments will be made in agricultural research, innovation, entrepreneurship, commercialization and market development.

The Government of Alberta is also exploring environmentally responsive solutions and opportunities while ensuring the agriculture industry remains competitive and continues to enjoy social licence to operate. Working with all levels of government, the Government of Alberta is developing integrated environmental policy and continues to facilitate the adoption of beneficial management practices that protect or enhance the environment while meeting climate change, land use, air and water objectives. This is accomplished through supporting extension programs and services, research-based information, and innovative business tools.



Almost 65 per cent of Canada's irrigated land is located in the South Saskatchewan Region. Irrigation of productive soils in an area with higher temperatures and a longer growing season will continue to provide a significant advantage for primary production and value-added opportunities. Beyond greatly increased crop yields, a reliable supply of quality water supplied through the region's irrigation infrastructure, also supports food, feed and bio-industrial processing plants in the region. This, along with proximity to meat packing facilities for both domestic and export markets, explains why much of Alberta's cattle finishing industry exist in the South Saskatchewan Region.

Although irrigated agriculture represents less than five per cent of Alberta's cultivated land base, areas under irrigation are highly diversified; growing more than 50 different crop types, and contributing between 18 to 20 per cent of the agricultural Gross Domestic Product for the province. As competing demands for water will only grow in the future, the irrigation districts, private irrigators and government agencies will continue to deliver advice, regulatory administration and strategic recommendations in order to facilitate the responsible management and use of water delivered through irrigation infrastructure to enhance productivity in this sector. Irrigation infrastructure also provides water to more than 50 towns and villages, and countless wildlife habitat and recreation facilities throughout the southern region.

Grazing on public rangelands has significant economic importance for the province's livestock industry. Within the South Saskatchewan Region there are a total of 2,515 public grazing dispositions that annually provide about 925,000 Animal Unit Months of grazing. This grazing provides significant economic value and supports the operational sustainability of many of the livestock producers in the region.

Energy

Alberta is Canada's largest producer of natural gas. In 2011, Alberta produced 71 per cent of Canada's total natural gas production⁴. For the 2011-12 fiscal year, natural gas and byproduct revenue was about \$1.3 billion, or approximately three per cent of revenues to the Government of Alberta⁵. A significant amount of this natural gas production occurs in the region and nearly half of all Alberta's natural gas wells are drilled there. The levels of employment in the region correlate directly with conventional oil and gas investment, as this region is host to a large share of the roughly 50,000 full-time and part-time jobs in 2012 in conventional oil and gas extraction generated by the province's natural gas and conventional oil industry.⁶

⁴ Alberta Enterprise and Advanced Education, 'Highlights of the Alberta Economy 2012' Energy

⁵ www.energy.alberta.ca/OurBusiness/Gas.asp Energy

⁶ Statistic Canada tables no 383-0030 and 282-0061



Conventional oil plays an important role in supporting the regional economy. For the fiscal year 2011-2012, conventional oil royalties accounted for approximately \$2.2 billion in revenues to the Government of Alberta⁷, with much of the conventional oil development occurring in the region. Significant oil reserves remain in Alberta that can be unlocked using innovative extraction techniques, such as the horizontal drilling of wells, which includes the use of multistage fracturing technology.

Enhanced oil recovery (EOR) using gas injection (such as nitrogen, carbon dioxide and/or natural gas) provides the opportunity to recover more oil from certain mature pools and reduces the amount of water used for injection. EOR largely leverages existing infrastructure rather than creating new surface disturbance, thus also reducing the need for new energy development and the associated disturbance.

Shale-related resource development for oil, natural gas liquids and natural gas also makes use of new horizontal drilling and multistage fracturing technology. The potential for shale development is widespread through the region and is comprised of extensive conventional plays.

The Government of Alberta is continuing to explore development opportunities for our abundant coal deposits. Given the current and anticipated future global demand for coal, particularly from Asian markets, maintaining opportunities for responsible development of coal resources is important to the region and the province. The mountains and foothills in the western part of the region, as well as the plains in the east, have significant coal fields with potential for development.

Mineral commodities being produced in the region include limestone and silica from the Front Ranges (primarily the Exshaw quarry and plant near Canmore) and sulphur. Most of the metallic mineral development potential will need to be extracted using in situ methods, including prospective uranium deposits in the south-southeastern part of the region. Other potential for mineral development include two magnetite deposits in the Crowsnest Pass area, with the main one being the Burmis magnetite project. The Alberta Geological Survey has identified lead, zinc, copper and silver mineralization in the region along the Alberta-British Columbia border as a potential for development. In the Medicine Hat area, several companies are actively exploring for potash. The exploration is currently focused on defining the grade and extent of the potash deposit.



The region is also home to several major industrial facilities that produce a variety of petrochemical and chemical products, including ammonia, methanol, ethylene glycol, alpha olefins, nitrogen/oxygen and ammonium nitrate.



⁷ Alberta Energy, Budget 2012-13

Access to electricity facilitates long-term economic development in the province, and a robust, reliable and efficient transmission system is required. Transmission infrastructure is a public good that must be available in advance of need and be able to accommodate the addition of new generation to meet the demands of, and provide support for Alberta's long-term growth. There are a number of transmission projects under development in southern Alberta with the most notable being the South Area Transmission Reinforcement and the Foothills Area Transmission Development. A number of these transmission projects are to connect current wind power projects to the power grid and to enable the continued development of wind energy in southern Alberta.

Renewable Energy

The region has a natural advantage for the development of renewable (wind, bioenergy, solar, hydro) energy sources. To enable integration of more renewable energy and reinforce the transmission system in the region, the *Electric Statutes Amendment Act* has set the framework for the Alberta Electric System Operator (AESO) to be responsible for the economic planning and the safe, reliable operation of the Alberta Interconnected Electric System (AIES). Provincial policy direction and programs related to renewable energy are provided through Alberta's Climate Change Strategy, the Provincial Energy Strategy, the Bioenergy Infrastructure Development Program and the Nine-Point Bio-Energy Plan. The Government of Alberta also focuses on renewable and alternative energy research, supporting the development and delivery of alternative and renewable energy sources through Alberta Innovates – Energy and Environment Solutions.

As of April 2013, Alberta had a total of 16 wind farms with 1,087 megawatts of wind capacity connected to the transmission system⁸ – enough capacity to serve over 970,000 homes⁹. Of these wind farms, 14 are located in the South Saskatchewan Region with a total estimated capacity of 855 megawatts.¹⁰ As well, approximately 13 new wind projects are under development or planned for the region.¹¹

Bioenergy is any renewable energy or fuel derived from biological sources. Alberta has several potential bio-feedstocks including agricultural products (such as wheat or canola), forestry waste and livestock waste. This biomass often requires expensive management practices to reduce their environmental impact; however, a suite of emerging and established technologies have the potential to convert this waste to renewable sources of energy, including renewable fuels.

⁸ Alberta Electrical System Operator Current Supply Demand Report, April 2013

⁹ Alberta Energy Wind Power Fact Sheet, August 2011

¹⁰ Alberta Electrical System Operator Current Supply Demand Report, April 2013

¹¹ Alberta Electrical System Operator Project List, March 2013



In the South Saskatchewan Region, a 66 million-litre biodiesel facility has recently been constructed in Lethbridge and is currently in the process of being commissioned. Currently, the province's standard requires an average of two per cent renewable diesel (that is, biodiesel) in diesel fuel and five per cent renewable alcohol (bioethanol) in gasoline sold in Alberta.

A 2.8 megawatt biogas facility is under construction in the County of Lethbridge and will be operational by the end of 2013. Once operational, the facility will create enough energy to power more than 2,500 homes. The capture of biogas from waste water treatment facilities, landfills and waste management lagoons is being used to help meet the energy requirements for the companies operating these facilities with excess energy being provided to the provincial energy grid.

Forestry

Forested lands in the Green Area make up 16 per cent of the South Saskatchewan Region. Of this, 48 per cent is actively managed for timber. The Government of Alberta allocates this production on public lands through timber permits, timber quotas and forest management agreements (FMAs). Under an FMA, forest companies have obligations for forest management planning keeping with the principles of sustainable forest management in considering a range of social, economic and environmental factors (watershed function, wildlife habitat). In addition, the Government of Alberta actively monitors, detects and manages any significant forest health issues that threaten values provided by the forest including timber and ecological functions.

Forestry is an important industry within the region, supporting economic activity and providing employment opportunities for local residents. In 2011, Alberta's shipments of forest products reached \$4 billion, and exports were \$2.1 billion¹². The forest industry also reduces risks to our forests from fires and pests, improves the health of our forests and maintains our watersheds through their forest management activities, including forest management planning, forest inventories, forest protection, timber extraction and reforestation. Within the South Saskatchewan Region there is one major FMA holder, two community timber programs and four coniferous timber quotas. There are also small manufacturing facilities in the region including sawmills, round-wood processing facilities, log home manufacturers and remanufacturing plants.

The continued economic viability and competitiveness of the forestry industry is a key economic driver in the region. Managing for a healthy forest is important in order to maintain ecosystem biodiversity and community stability over the long term. Forest management plans are developed using an integrated planning approach which incorporates watershed function,



¹² Alberta Enterprise and Advanced Education, 'Highlights of the Alberta Economy 2012'

esthetics, fisheries, wildlife, pest risk and damage, wildfire, recreation and grazing values. The long-term sustainability of a healthy forest is achieved with plans forecasting 200 years, or two harvest rotations. Also incorporated in these forest management plans are specific management objectives and strategies to carry out the required reforestation activities following timber harvest.

The Government of Alberta also actively promotes the diversification of the forest industry through implementation of the Alberta Forest Products Roadmap to 2020 which will ultimately identify opportunities to diversify the sector through new markets and products, including the bioenergy sector.

Transportation

Transportation systems are crucial to the movement of people and goods within and outside the South Saskatchewan Region to support the region's continued social and economic development. A key aspect of land-use planning is to ensure there are opportunities for all modes of transportation. The timely development of transportation infrastructure will be needed to accommodate changes in economic activity, regional demographics, lifestyles and technologies.

The Government of Alberta is committed to providing a safe, innovative and sustainable world-class transportation system that supports Alberta's economy and quality of life. For the South Saskatchewan Region, this means supplying the region with a transportation system that supports connecting Albertans to world-wide markets and enabling investment and job creation.

The Government of Alberta has three key transportation goals:¹³

- ensure that Alberta's provincial highway network connects communities and supports economic and social growth;
- that Alberta has the safest road system in Canada; and
- that Alberta has a well-connected road-rail-air-port transportation system that supports economic opportunities and the quality of life in all communities.

The Government of Alberta has a long-standing interest in maximizing the efficiencies of land development throughout Alberta. Beginning in the 1960s and 1970s the Government of Alberta began planning for transportation utility corridors around the cities of Calgary and Edmonton. These facilities, now nearly complete, are examples of how stakeholders have worked together to meet their individual needs while minimizing land disturbance through the co-location of linear infrastructure. The Government of Alberta will continue this efficient and progressive land-use planning practice as opportunities arise.

¹³ Alberta Transportation 2012-2015 Business Plan



Substantial investment in transportation infrastructure in the South Saskatchewan Region has contributed to the region's economic and social prosperity. Continued investment will be required to support key industries such as forestry, agriculture, energy, and recreation and tourism, as well as to provide linkages between and within rural and urban communities. The Government of Alberta, through its transportation planning process, has identified potential future capital projects totaling in the order of \$4 billion for the region. These projects include highway twinning, interchange development and bypasses (See Appendix A – Longer Term Transportation Initiatives). The development of these projects will be undertaken as needs arise and funding becomes available, demonstrating the Government of Alberta's ongoing commitment to the needs and safety of the travelling public in the region.

Tourism

The region accounts for approximately 34 per cent of annual tourism expenditures¹⁴ and is an anchor for Alberta's tourism industry. The economic impact associated with these tourism expenditures is \$2.9 billion in value-added income, and includes \$1 billion of direct income and \$1.9 billion of indirect and induced income¹⁵. These tourism expenditure amounts represent new money into the region that would not have occurred had tourists chosen to visit other locations.

Motorized recreation is a growing activity in Alberta for residents and visitors and recreationists spend a substantial amount of money on their recreational activities. The number of off-highway vehicles (OHV, including ATV-tracked, quads, motorcycles, snowmobiles) registered in Alberta rose from 37,042 in 1987 to 138,177 in 2010¹⁶. Additionally, 316,998 recreational vehicles were registered in Alberta in 2010, a 23 per cent increase from 2005. Providing areas for people to recreate is linked to the economic diversification of the region. In 2009 snowmobiling enthusiasts spent \$111.3 million on purchasing new snowmobiles, accessories, parts, and clothing and another \$254.7 million was spent on operating and maintaining these vehicles and on tourism-related activities¹⁷.

Three UNESCO World Heritage Sites are found in the region: Dinosaur Provincial Park, the Head-Smashed-In Buffalo Jump complex, and Waterton-Glacier International Peace Park. Other major nature-based tourism attractions include Kananaskis Country, the Canadian Badlands, Crown of the Continent, Cypress Hills, Writing-on-Stone and Peter Lougheed Provincial parks. There are staffed interpretive programs in Beauvais Lakes, Bow Valley, Writing-On-Stone, and in Kananaskis Country. Similar programs are provided in Waterton-Glacier International Peace Park.

Through tourism activity in the region, communities and Albertans benefit

¹⁴ The Economic Impacts of Tourism Expenditures in the LUF Regions of Alberta.

¹⁵ The Economic Impacts of Tourism Expenditures in the LUF Regions of Alberta (2010 Data)

¹⁶ Alberta Registries Registration System 1987 to 2010

¹⁷ Economic Impact of Snowmobiles in Alberta in 2009



from a range of economic, social and environmental benefits. Additionally, recreation infrastructure and tourism investment have been shown to be key for rural areas to retain residents and helps support economic diversification.

The growth and sustainability of existing tourism operations and innovative development of new tourism products, experiences and destinations are needed to retain vacation dollars within Alberta, and ensure the continued appeal of the province to existing and emerging international markets. The tourism industry in the south requires access to Crown land to facilitate a range of tourism development activities, from recreational trail development to four-season destination resorts. Access to Crown land also needs to be enhanced with policies that provide tenures that are attractive for tourism investors and developers (that is, longer lease terms).

A provincial tourism framework is being developed that will serve to integrate tourism planning, development and marketing activities at both the provincial and regional levels. The goal of this framework is to support significant growth in tourism expenditures from domestic and international markets, and ensure Alberta can effectively compete with other destinations.

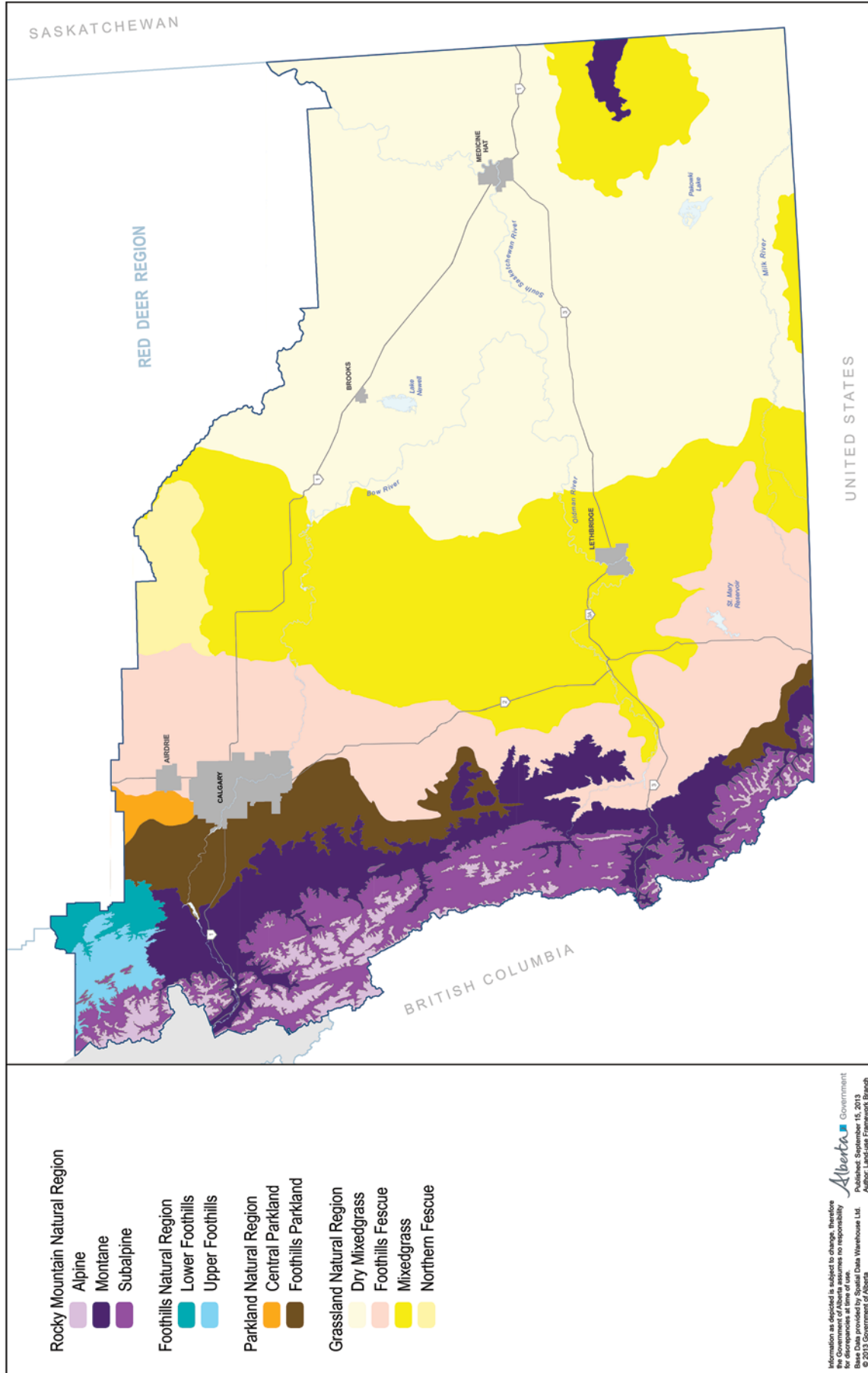
Ecosystems and Environment

Landscapes and Biodiversity

The South Saskatchewan Region contains diverse landforms, vegetation and species. The region spans four of Alberta's six Natural Regions including the Grassland, Parkland, Foothills and Rocky Mountains. The Grasslands are dominated by a diverse and unique native prairie, extensive riparian cottonwood forests and broad plateaus within the Cypress Hills and Milk River Ridge. The Parkland region in the north represents the transition area between grasslands and forests. A small portion of the Foothills lies within the South Saskatchewan Region along the eastern edge of the Rocky Mountains. The Rocky Mountain region that runs along the Continental Divide is characterized by grasslands, shrubs, forests and alpine areas above the tree line.

A wide range of fish, wildlife and plant species exist in the region, including: 17 sport fish species; over 700 vascular plant species; numerous songbirds, hawks, owls, waterfowl, and grouse; and mammals such as moose, deer, pronghorn, wolves, grizzly bears, cougars and lynx. The region also serves as breeding grounds and staging areas for birds during migration and over-wintering periods. The South Saskatchewan Region has more than 80 per cent of the province's species at risk as listed under the federal *Species at Risk Act* and the provincial *Wildlife Act*. Factors contributing to this high proportion include human settlement, disturbance from industrial, recreational and other uses, fragmentation, environmental contaminants, and introduction of invasive species.

South Saskatchewan: Natural Regions and Sub-Regions



The range of species and diversity of ecosystems across the region reflects the biodiversity found here, and means there is a broad range of ecosystem services provided. Biodiversity represents the assortment of life – including the variety of genetics and species, and the habitats in which they occur – all shaped by natural processes of change and adaptation. Biodiversity and ecosystem services are not the same thing but they are interdependent. Ecosystem services are the benefits humans, communities and society as a whole receive from healthy, functioning ecosystems and the biodiversity within them. Biodiversity underpins the supply of ecosystem services, so changes in biodiversity will affect the type and amount of those services available to humans.

All ecosystem services contribute to sustaining a healthy and prosperous way of life for all Albertans. Fish, wildlife, traditional medicinal plants, berries and less-developed spaces are also important for the cultural practices of First Nations peoples.

Water and Watersheds

The region spans the catchment areas of two major river basins: the South Saskatchewan River Basin and the Milk River Basin. These water basins are important over-wintering, spawning and rearing grounds for fish with the associated riparian habitats being major wildlife corridors.

The South Saskatchewan River Basin consists of four sub-basins including the Bow, Oldman, South Saskatchewan and Red Deer; along with their tributaries, these sub-basins drain 120,000 km² of the province. The eastern slopes of the South Saskatchewan Region contain the headwaters of the Bow and Oldman rivers which are critical to water supply and water quality in the region. Most of the Red Deer River sub-basin is not included in the region, and the remaining portion of the South Saskatchewan River Basin in the planning region is about 73,000 km².

The confluence of the Bow and Oldman rivers forms the South Saskatchewan River which flows east through the region eventually draining into Lake Winnipeg in Manitoba. A transboundary agreement is in place to ensure there is appropriate water sharing between all the Prairie provinces. The South Saskatchewan River Basin contains all major urban centres, including the cities of Calgary, Lethbridge, and Medicine Hat, as well as all 13 of Alberta's irrigation districts.

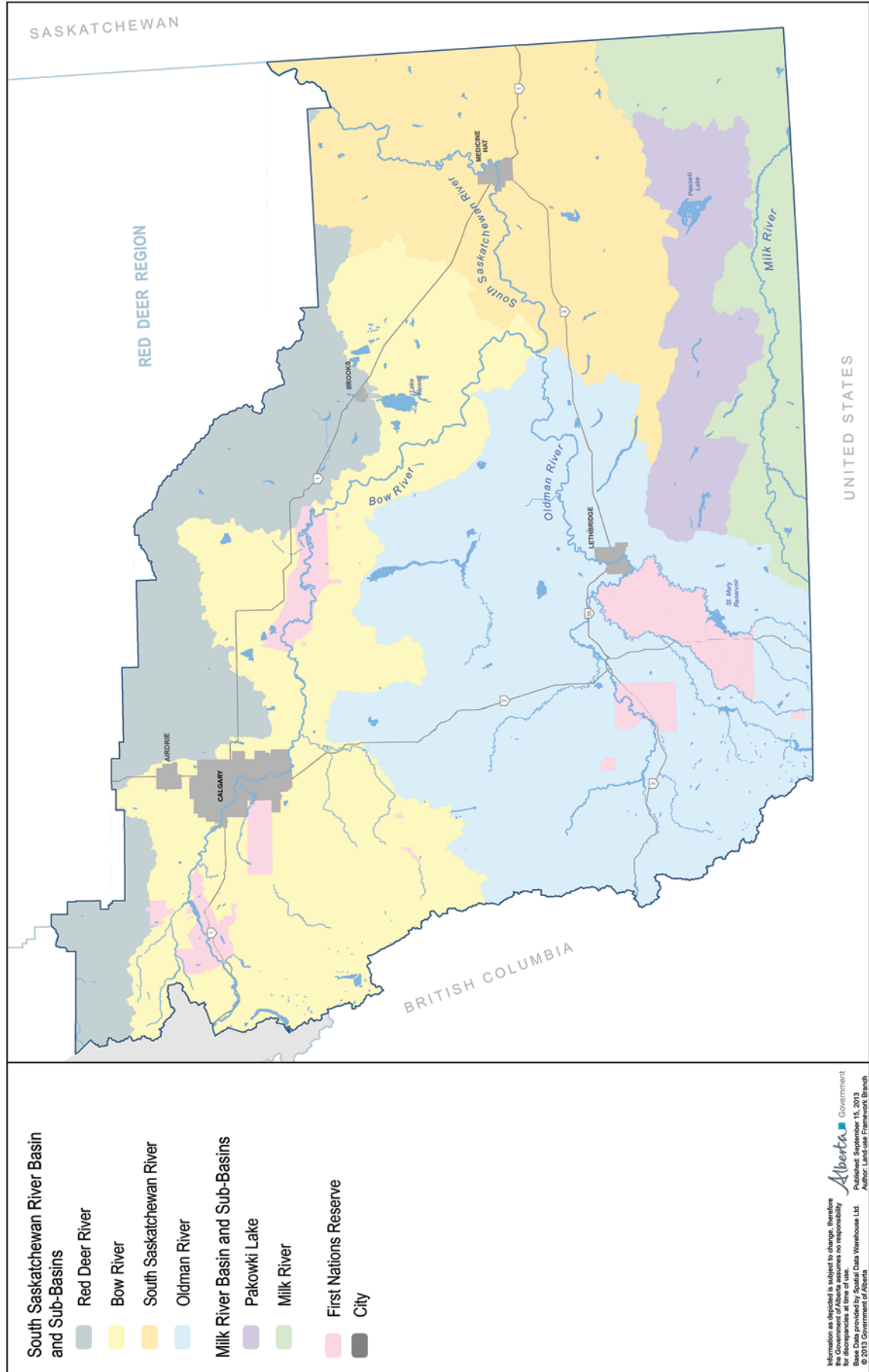
The Milk River originates in Montana; flows eastward through the southern portion of Alberta, and then loops back into Montana as part of the Missouri-Mississippi River Basin. A transboundary agreement with Montana establishes how much water must be shared for both the Milk River and the St. Mary River in Montana. The Alberta portion of the Milk River Basin is 6,500 km² and is the smallest of Alberta's river basins. There are no major urban centres or irrigation districts in the Milk River Basin; however, the irrigation sector remains the largest water user in the basin.

Ecosystem Services

The following are examples of ecosystem services, the benefits that come from healthy functioning ecosystems and the biodiversity found in them:

- food, fiber, fresh water (“provisioning” services)
- flood control, water and air purification (“regulating” services)
- spiritual, recreational, cultural benefits (“cultural” services)
- nutrient cycling, soil formation (“supporting” services)

South Saskatchewan: Major River Basins



Water quality is influenced in each basin and sub-basin by the unique features and land and water uses. All sub-basins are faced with contributions from both point and non-point sources. Generally, non-point sources are key considerations for water quality management in southern Alberta.

Overall, water quality in the Bow River is considered good; however, it is influenced by urban treated wastewater and storm runoff and often deteriorates downstream from Calgary. The Oldman River generally has good water quality with concentrations of nutrients, bacteria and pesticides only occasionally exceeding water quality guidelines. However, concerns exist regarding the health of riparian areas and the impact of withdrawals and altered flow regimes on aquatic ecosystems.

The South Saskatchewan River similarly has good water quality with occasional exceedances of nutrients, but is affected by negative impacts on riparian areas. Water quality in the Milk River is reported to be generally good (with the exception of certain tributaries) with the largest influence on water quality coming from enhanced water flows diverted through Alberta from the United States under the provisions of the Boundary Waters Treaty.

Pressures on water resources in the South Saskatchewan Region are significant. There are currently more than 20,000 water allocation licences and registrations, serving approximately 1.6 million people and a mix of institutions and industries. Among the major users is the agriculture industry, notably irrigation, which accounts for 75 per cent of total water allocation volumes in the region. This is supported by significant investments in water infrastructure. As actual water use accounts for only a portion of allocation (55 per cent and 66 per cent for the municipal and irrigation use, respectively), actual consumption can be expected to increase as existing allocations are more fully utilized to meet the demands of growth. This demand and the resulting pressure on water resources are compounded by periods of natural low flow and drought experienced periodically by the region.

Historic and current land uses have placed pressures on the watersheds within the South Saskatchewan Region. Degradation of riparian lands and loss of wetlands across the Prairies have been widespread leading to altered flow regimes and degraded water quality. Watershed planning and advisory councils and other stewardship groups have successfully undertaken collaborative work to improve watershed health.

Flooding of the major rivers and their tributaries in southern Alberta has resulted in large economic costs in recent decades. Major floods occurred in 1995, 2005, 2010 and most notably in 2013. Although flooding is a natural occurrence that can provide benefits to the environment, land-use development and infrastructure in flood hazard areas has resulted in significant damage when flooding occurs.

Point sources

Pollution that originates from one, easily identifiable cause or location.

Non-point sources

Pollution from diffuse points with no single point of origin.

Riparian Areas

Riparian areas are the lands adjacent to streams, rivers, lakes and wetlands where the vegetation and soils are strongly influenced by the presence of water. They are the place where water and land meet and interact. Riparian areas are critical in reducing the negative effects of various land uses on adjacent waters.

Wetlands

Lands that are saturated with water long enough to promote wetland or aquatic processes are indicated by poorly drained soils, water-loving vegetation and various kinds of biological activity which are adapted to a wet environment. Wetland areas provide clean water, wildlife viewing opportunities and other outdoor recreation activities. They also conserve soil and control erosion, retain sediments, absorb nutrients, degrade pesticides, store water and moderate impacts of floods and droughts, recharge aquifers and help to moderate climate change.



Air Quality

Volatile organic compound:

A large group of chemicals containing carbon and hydrogen atoms that can react quickly to form other chemicals in atmosphere.

Nitrogen oxides (NO_x):

A general term pertaining to compounds of NO, NO₂, and other oxides of nitrogen, typically created during combustion processes.

Sulphur dioxide (SO₂):

A strong smelling, colourless gas that is formed when fossil fuels, such as coal and natural gas, are burned.

Hydrogen sulphide (H₂S):

A colourless gas with a rotten egg odour emitted from both natural and industrial sources.

Fine particulate matter (PM_{2.5}):

Tiny particles in the atmosphere that are smaller than 2.5 microns, derived from both solid matter and liquid aerosols, that may form in the atmosphere or be emitted by any combustion source including automobiles, industrial and wood burning

Ozone (O₃):

A light blue gas with a sharp odour that is found in the upper atmosphere (ozone layer) and formed near the ground by a reaction involving oxides of nitrogen (NO_x) and volatile organic

compounds (VOCs) in warm, sunny conditions.



Compared to surface water, groundwater is presently not a major source of water in the South Saskatchewan Region; however, there may be growing pressure placed on groundwater resources in the Bow, Oldman and South Saskatchewan river sub-basins since new surface water allocations are no longer available. Pressures on groundwater quality exist in localized areas across the region, with the associated potential for contamination of the aquifers. Once an aquifer becomes contaminated, remediation is extremely difficult and expensive. Consequently, groundwater must be treated as a valuable resource that requires protection. Understanding recharge areas and the connection between surface water and groundwater is important for water management in southern Alberta.

Air Quality

An air zone that aligns with the South Saskatchewan Region boundaries has been delineated as part of Alberta's implementation of the national Air Quality Management System. Place-based management is central to the Air Quality Management System, and air zones for air quality reporting and management across the province have been delineated in alignment with the regional boundaries of the Land-use Framework.

Air quality in the region is influenced by climate and weather systems as well as activities occurring inside and outside of the region. Activities in the region – including those in the municipal, industrial and other sectors – are associated with emissions of a variety of substances, including greenhouse gases, volatile organic compounds, nitrogen oxides, sulphur dioxide, hydrogen sulphide, fine particulate matter, substances that lead to ground-level ozone and others.

The air quality in southern Alberta is generally rated as “low health risk,” according to the Alberta Air Quality Health Index (AQHI). Implemented in Alberta in 2011, the index is a tool designed to help people understand what ambient air quality means to their health and the health of others. In the South Saskatchewan Region, there are three communities where the AQHI is reported: Calgary, Lethbridge and Medicine Hat. In each of these communities, the AQHI is reported in real time and forecasted for the current day, evening and the next day.

Currently the largest source of greenhouse gas emissions in the province is coal-fired electrical generation facilities. Although the South Saskatchewan Region does not currently contain any of these facilities, the growing population of the region is contributing to the increased demand for electricity, much of which is generated by coal-fired facilities.

Human-caused greenhouse gas emissions are also generated from natural gas-fired electrical generation facilities and the production and burning of fossil fuels for activities such as transportation, heating and use by industry, all of which have increased with the rising population.

Historic Resources

The South Saskatchewan Region possesses a remarkably diverse natural and cultural history. The historic resources that embody this heritage are inextricably tied to the landscape. The South Saskatchewan Region contains a wealth of archaeological sites, the greatest concentration of palaeontological sites in Canada, a vibrant First Nations heritage, and diverse historic sites that define its unique character.

Increasing development and recreation are impacting these important historic resources. In order to preserve and protect historic resources, developers are required to submit, for review, their land-based development proposals for evaluation. Ensuring the integrity of historic resources before, during and after development allows future generations to continue to benefit from Alberta's rich past while realizing future potential.

Environmental Management

The cumulative effects of population growth and economic development in the region are placing increasing pressures on the region's air, water, land and biodiversity. The Government of Alberta is committed to responsible development and the province's current environmental management system is intended to reduce and minimize the impacts of development on the environment. This system is supported by provincial policy, legislation, regulations and codes of practice which are implemented using a full range of both regulatory and non-regulatory tools.

Provincial Legislation

- ***Environmental Protection and Enhancement Act*** – Provides for the assessment and regulation of activities to minimize their environmental impacts, based on principles that include continuous improvement and pollution prevention. Activities are designated based on their level of risk, with higher-risks activities subject to increasing levels of regulatory oversight.
- ***Water Act*** – Provides for the allocation and use of Alberta's water resources and the protection of rivers, streams, lakes and wetlands.
- ***Climate Change and Emissions Management Act*** – Provides for the management and reporting of emissions of carbon dioxide, methane and other specified gases, and requires measurable reductions in greenhouse gas emissions for specified activities.
- ***Provincial parks legislation (Provincial Parks Act and Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act)*** – Plays an important role in protecting natural diversity and intact habitat for supporting biodiversity, in addition to ensuring a wide range of recreation opportunities and tourism experiences.



- **Public Lands Act and Public Lands Administration Regulation** – Provides for the setting of land disturbance standards and land conservation tools in support of biodiversity management.
- **Forests Act** – Provides for the sustainable management of Alberta's forests, including a legislated requirement for reforestation.
- **Wildlife Act** – Provides for restrictions to protect as well as manage harvests of wildlife, addressing possession, sale and movement of wildlife and controlled animals, and designation and recovery of species at risk. Adds safety provisions addressing use of firearms and other weapons in hunting.
- **Fisheries (Alberta) Act** – Provides for the licensing of fishing activities as well as measures to protect fish health, provides licenses for aquaculture, fish import, fish stocking, research and commercial fish processing.
- **General Fisheries (Alberta) Regulation** – Provides for fish harvest quotas, fishing seasons and fishing methods, and addresses fish stocking and possession.
- **Responsible Energy Development Act** – Provides for a more efficient and effective system for landowners, industry and the environment through a single regulator for oil, gas, oil sands and coal development.
- **Mines and Minerals Act** – Governs the management of rights in Crown-owned minerals, including the levying and collecting of bonuses, rentals and royalties.
- **Historical Resources Act** – Responsible for the preservation, interpretation and promotion of the appreciation of Alberta's historical resources, as well as contributing to the regulation and approval of land development.
- **Soil Conservation Act** – Provides a framework for encouraging sound soil conservation practices, to preserve Alberta's agricultural land base and to ensure long-term productivity in the farming sector.
- **Agricultural Operation Practices Act** – Provides a process for managing nuisance complaints resulting from agricultural activities and establishes a system for regulating manure management and permitting of Confined Feeding Operations (CFOs). Regulations under the Act define siting and construction standards for CFOs and Seasonal Feeding and Bedding Sites as well as manure management requirements for all agricultural operations that handle manure.
- **Weed Control Act** – Regulates noxious weeds, prohibited noxious weeds and weed seeds through various control measures, such as inspection and enforcement. Additionally, it mandates the licensing of seed cleaning plants and mechanisms.
- **Irrigation Districts Act** – Provides for the formation, dissolution and governance of irrigation districts in order that the management and delivery of water in the districts occur in an efficient manner that provides for the needs of the users.



- **Alberta Land Stewardship Act** – Provides the legislative foundation for land-use planning in Alberta.
- **Municipal Government Act** – Provides the legislative framework to guide the operations of municipalities.

Provincial Strategies

In addition to legislation, a number of provincial strategies provide high-level direction on air, water, land, biodiversity and historic resource management goals and how Alberta will achieve these goals. More detailed operational policies take their direction from these higher level strategies and legislation, and translate them into more clearly defined expectations.

Alberta has a strong water management system in place. Since 2003, the Water for Life strategy has provided a roadmap to achieving provincial goals of a safe, secure drinking water supply, healthy aquatic ecosystems and reliable quality water supplies for a sustainable economy. To fulfill these goals, the strategy revolves around the three key directions of knowledge and research, partnerships and water conservation.

The Approved Water Management Plan for the South Saskatchewan River Basin (See Appendix B – Overview of the Approved Water Management Plan for the South Saskatchewan River Basin) recognizes that the limit of water resources has been reached in the Bow, Oldman and South Saskatchewan River sub-basins. This plan establishes water conservation objectives for the three sub-basins and prohibits new applications for surface water allocation; however, it authorizes the use of water allocation transfers to accommodate growth and development. In general, surface water allocations are also no longer available from the rest of the planning area (including the Milk River Basin, and the Many Island and Pakowki terminal basins). Water management and allocation in the South Saskatchewan Region must accommodate commitments made under water-sharing agreements.

The Clearing the Air: Alberta's Renewed Clean Air Strategy reaffirms Alberta's commitment to the wise management of Alberta's air quality for the benefit of all Albertans. The strategy and action plan outline the strategic directions needed for the Government of Alberta, its partners and the public over the next 10 years to enhance Alberta's existing air quality management system and to achieve the outcomes of the strategy.

The Government of Alberta recognizes the benefits and value of biodiversity and has worked with other provinces, territories and the Government of Canada to complete the Canadian Biodiversity Strategy. The province and other Canadian jurisdictions agreed to use the strategy as a guide for actions to conserve biodiversity and to use biological resources in a sustainable manner. A provincial biodiversity strategy is under development, and will support these national and international outcomes. The province delivers and supports many existing programs, initiatives and tools that benefit biodiversity and landscapes, often in partnership with individuals, organizations, the

Water conservation objectives

Established under the provisions of the *Water Act*. A designated official under the Act, a Director, can establish "the amount and quality of water necessary for the

- protection of a natural water body or its aquatic environment, or any part of them,
- protection of tourism, recreational, transportation or waste assimilation uses of water, or
- management of fish or wildlife."

Generally, a water conservation objective can be expressed in relation to a rate of flow needed or a water level needed.

Master Agreement on Apportionment

Establishes the terms and conditions regarding water sharing with Saskatchewan. The agreement covers both water quantity and water quality.

Boundary Waters Treaty

Establishes the terms and conditions regarding water sharing with Montana. The agreement covers water quantity.



private sector and other governments. Examples include species recovery plans, the Enhanced Approvals Process (EAP) which outlines oil and gas development requirements, the Landscape Analysis Tool, the Grazing Leaseholders Code of Practice, forest management plans, operating ground rules and existing Public Land Use Zones to manage public access and related impacts to biodiversity and ecosystem function. Wildland Provincial Parks and other conservation designations (Heritage Rangelands, Natural Areas) are tools for conserving key biodiversity components into the long term.

The Government of Alberta values its heritage and endeavours to protect these resources for future generations through a land-based regulatory system. Development proposals are assessed using a variety of criteria, such as the Listing of Historic Resources and professional review. The Listing of Historic Resources identifies lands, both public and private, which contain or have a high potential to contain historic resources. The listing is issued twice a year and provides industry and other developers with advance notification of possible historic resource concerns. If an historic resource may be impacted, the developer may be required to conduct a study or develop an avoidance strategy. Any studies conducted are evaluated and the developer may then be required to avoid the historic resource, or conduct additional studies prior to development occurring. Lands that contain important historic resources may also be designated as Provincial/Municipal Historic Resources, which provides them with protection from undue impacts.

Environmental Management Frameworks

The development and implementation of environmental management frameworks is a new approach being used by the Government of Alberta to accomplish cumulative effects management. Management frameworks establish outcomes and objectives along with the strategies and actions to achieve them. The frameworks are intended to provide context within which decisions about future activities and management of existing activities should occur. They confirm regional objectives and establish thresholds. They are intended to add to and complement, not replace or duplicate, existing policies, legislation, regulation and management tools.

Monitoring, Evaluation and Reporting

In order to understand the effectiveness of Alberta's environmental management tools, the region's air, water, land and biodiversity conditions are monitored, evaluated and reported on. Responding to the need for more rigorous environmental monitoring, the Government of Alberta is establishing an arm's-length environmental monitoring agency to oversee monitoring across the province. Its centrally coordinated system will integrate the monitoring, evaluation and reporting of air, land, water and biodiversity.



Human Development

The South Saskatchewan Region has experienced significant population growth in the past 10 years, especially in urban areas, where approximately 93 per cent of the population resides. Continued population growth is expected to be spurred on by the region's strong economic expansion in key sectors which will create employment opportunities for many Albertans. This growth, occurring in and around municipalities, is facilitated by a business-friendly environment and opportunities that benefit residents in the local jurisdictions.

Today and in the future, Alberta must compete in a rapidly changing global economy for resources, investment, markets and people. We must take a more deliberate and intentional approach to leveraging our advantages so that we can continue to be successful, and we must start today to create those future conditions. Success requires better collaboration and coordination between government, post-secondary institutions, the research, innovation and commercialization system and the province's business sector. Government will strengthen and focus these relationships by setting common strategic objectives and outcomes that are aligned around key current and emerging economic sectors. Success requires the right people with the right skills. We will create a more efficient and relevant post-secondary system in which our institutions work together to graduate students with the knowledge and skills that they need to excel in the economy of today and tomorrow. Success requires that we identify and foster research that creates ideas and discoveries that can be transformed into products, services and processes. We will bring research, innovation and commercialization together by aligning the research and innovation system and agenda in support of government's priorities. Finally, our success requires a climate where Alberta's businesses and workers are prosperous and productive and our diverse products, services and expertise can compete in the local and global economies. Government will take a more intentional approach to economic development by providing more strategic and responsive policies and tools that better connect and leverage Alberta's advantages.

Municipalities are responsible for the planning and development processes that ensure land is available for developments such as residential, commercial and industrial lands, municipal roads, and water and wastewater treatment facilities to accommodate population growth. Other important social infrastructure that contributes to sustainable communities such as schools, hospitals, seniors' facilities, and cultural facilities are also needed in order to contribute to the overall quality of life.



Alberta's Social Policy Framework's vision focuses on the creation of inclusive and welcoming communities, where every resident has opportunities to fulfill their potential and benefit from a thriving social, economic and cultural life.¹⁸ Decision-makers in the region will need to deliberately cooperate and coordinate their planning to meet the physical and social infrastructure needs of their communities, and to ensure the quality of life for all residents is enhanced in thriving urban and rural communities. The provision of both physical and social infrastructure, in response to growth, will require thoughtful planning in terms of how much land is needed to accommodate the region's needs over the lifespan of the regional plan. To this end, both local and provincial authorities, and other stakeholders, will have to consider how best to use the lands efficiently while minimizing conflicts, thus producing significant savings on infrastructure costs.

In the major metropolitan area surrounding Calgary, there are tremendous pressures as well as opportunities to balance the needs of population growth; namely, protecting the natural environment, regional servicing and transportation, accommodating industrial and residential growth, etc. In response to these pressures and opportunities the Calgary Regional Partnership, a volunteer organization of a number of municipalities, has been working on the Calgary Metropolitan Plan with a common goal of creating a plan to guide sustainable growth in the region.

A small percentage (approximately seven per cent) of the region's population is rural and small town. In response, resilient and sustainable rural communities need to be strengthened as population growth tends to be much greater in urban areas including Calgary (Rocky View County), Lethbridge (the County of Lethbridge), and Medicine Hat (Cypress County). The Government of Alberta supports rural strategies developed by local governments and rural community organizations that help build capacity, take advantage of new economic opportunities and enhance local innovation, connectivity and stewardship.

To enhance rural Alberta as a viable place to live, Government of Alberta programming helps to facilitate the supply of services such as high-speed Internet, electricity, and a safe, secure water supply to rural areas. Initiatives such as the Final Mile Rural Community Program provide funds for local government-led projects to provide access to high-speed Internet in unserved areas. Helping to reduce the high cost of conveying electricity for agricultural purposes, cost-share programs such as the Rural Electric Program provides grant assistance to those in rural areas.



¹⁸ Alberta's Social Policy Framework, February 2013, p. 22.

Long-term water supply is a growing concern for many rural residents in Alberta, particularly in areas where groundwater supplies are restricted. Building on the Water for Life strategy, water supply-related programs under federal-provincial-territorial shared funding arrangements provide and secure water supply for domestic use and future economic growth. Delivering such programs and services is a key requirement to a vibrant rural economy and population.

The continued vitality of rural Alberta is being affected by an aging farming population and a lack of young farmers and new entrants to the agriculture and agri-food industry. Young farmers and new entrants to the agriculture industry are often deterred by many factors such as high start-up costs, agricultural market risk, difficulty in transferring farm assets, and competing career opportunities for both farm owners and potential employees. A consequence of more farmers retiring than entering the industry is the consolidation of farms through the purchase and/or lease of farms from retirees. There are 43,234¹⁹ reporting farms in Alberta which is 13 per cent fewer than in 2006; this trend has been evident for a number of years. Offering a variety of programs and services such as financial loans, grants, and extension services to young farmers and new entrants may help attract new producers and decrease the growing gap between retirees and new entrants, as well as allow for succession and growth among agricultural producers, and lower the average age of producers.

Governed through the *Agricultural Societies Act*, Agricultural Societies also encourage improvements in both agriculture and in the quality of life of small agricultural communities throughout rural Alberta. These provincially funded societies operate approximately 700 facilities province-wide, including facilities such as riding arenas, hockey and curling rinks and local community halls, all in support of active and vibrant rural communities. As of 2012, there were 285 primary Agricultural Societies in Alberta that received significant provincial funding; approximately 60 of these are in the South Saskatchewan Region. In addition to the smaller community societies scattered throughout the region, there are two regional agricultural societies (the Lethbridge and District Exhibition and the Medicine Hat Exhibition and Stampede Company Ltd.), and one major agricultural society (the Calgary Stampede) that receive annual provincial funding. Along with the smaller community societies, these larger societies showcase Alberta's western and agricultural heritage and culture.

First Nations have a long relationship within the South Saskatchewan Region and beyond. Significant sites memorialize a way of life that continues today in songs and ceremony. Traditional alliances provide meaningful opportunities for the aboriginal peoples to continue their ways of life in an autonomous fashion. Treaty 7 is a foundation for relations between First Nations and governments.

¹⁹ 2011 Census of Agriculture



Along with all Albertans, climate, water and energy security are of particular concern for First Nations. On-going consultation, engagement and relationship building are needed to provide consistency and clarity on decisions. Alberta will work with First Nations to establish innovative outreach legacy programs and promote environmental education that is meaningful, relevant and sensitive to First Nations culture. Alberta will also explore mechanisms to allow the meaningful participation of First Nations communities in regional planning processes and implementation, with particular focus on input into the management frameworks.

Some urban communities, native grasslands and forested areas in the region are at risk from wildfires. Alberta will continue its program of wildfire prevention and Community FireSmart program to reduce wildfire hazards near communities. The FireSmart program includes education, vegetation management, legislation and planning, development considerations, interagency cooperation, cross-training and emergency planning.

Recreation, active living and sport are key components of the wellness of Albertans²⁰, their families and communities. Research shows that active living can help people live longer and enjoy a better quality of life as they age. There is also a growing body of research supporting the idea that access to nature is essential for the physical and emotional health of children and adults²¹. The Government of Alberta works with partners in municipalities, the not-for profit sector and the education system to provide recreation, active living and sport opportunities where people learn, live and work. These organizations are supported through various grants and special projects to continue their work and the valuable role they play in Albertans' lives. Thirteen provincial active living associations and 103 provincial sport and recreation associations are provided annual funding for this purpose.

The demand for outdoor recreational opportunities such as camping, hunting, fishing, ski touring, paddling and trail use is growing, and these forms of active living are a significant aspect of the quality of life in the region. The provincial parks system provides a wide variety of outdoor recreational and educational experiences to visitors and helps to conserve biodiversity of natural landscapes. Existing provincial park recreation amenities in the region are generally at or over capacity and demand will increase as the region's population grows.

The use of motorized recreation vehicles is popular within the region and ensures people of all ages and mobility can access the natural experiences the region offers. However, an increase in random use is contributing to environmental impacts, public safety issues and conflict among land users.



²⁰ Active Alberta, 2011

²¹ Active Alberta, 2011

Historic resources represent the natural and cultural history of a landscape that is valued for its ability to link Alberta's past with its present. Careful management and protection of these fragile and non-renewable resources in land-use development planning ensures they retain their conservation value for future generations. As an example, the region is home to 220 protected historic places and thousands of archaeological/palaeontological sites. Researching these sites and interpreting their history enhances the quality of life for the region's residents and all Albertans.

Governments and citizens share the important responsibility of safeguarding and enhancing culture for future generations. The restoration, preservation and protection of the tangible objects and intangible elements of our culture and identity are paramount to the sustainability of Alberta's strong and vibrant cultural heritage. The Government of Alberta recognizes and encourages the important role played by volunteers and non-profit organizations in governing, managing and supporting our cultural resources and continues to support provincial cultural facilities and its foundations.

The Future of the Region

Regional Vision

The vision for the South Saskatchewan Region reflects the Land-use Framework's vision of Albertans working together to respect and care for the land as the foundation of our economic, environmental and social well-being.

Vision for the South Saskatchewan Region

Southern Alberta is a diverse, healthy, vibrant and prosperous region where the natural beauty of the mountains, foothills, farmlands and prairies are managed so that citizens feel connected to the land and its history. The region is a thriving place that offers a wide range of opportunities to residents and visitors alike. Social, economic and environmental values are effectively achieved with shared stewardship and an integrated approach. The quality and integrity of the landscape is sustained through the use of science, innovative thinking, traditional aboriginal and community knowledge, recognizing the interests of all Albertans.

The South Saskatchewan Region has a diverse economy, with sectors including agriculture, energy production, manufacturing, forestry, tourism and recreation. It is one of the most populated regions in the province, containing approximately 45 per cent of Alberta's population, as well as the province's largest city, Calgary. The City of Calgary is home to a number of growing industries, including energy (conventional oil and gas as well as renewable energy), financial services, information and cultural industries, and transportation.



The region has consistently been a strong economic driver. Between 2000 and 2010, the economy grew by more than 28 per cent, the number of workers in the region grew by 29 per cent, and the population climbed by more than 28 per cent. As of March 31, 2013, more than 280 new projects are proposed or under construction, including over 30 projects in the agriculture, energy, forestry and tourism sectors worth more than \$21 billion dollars.

Effective management of water and watersheds will be critical to achieving a diverse, healthy, vibrant and prosperous region. The economy of southern Alberta will continue to rely on having secure water resources, as water is essential for human needs and ecosystem health, and directly supports quality of life. The effective management of biodiversity and sustainability of ecosystem health are also essential. While water will continue to be a centrepiece for the future of the region, entire watersheds must be managed through a cumulative effects management approach. This approach recognizes that airsheds, watersheds and landscapes have limited carrying capacity, and that air, water, land and biodiversity are all intimately connected.

It is also critical that Alberta attracts and retains a skilled workforce required to support the economic outcomes. By working together, governments and industry can go further to ensure the quality of life in the region meets the expectations of its residents. To support achieving this, deliberate steps must be taken to enhance recreation opportunities in the region.

Infrastructure to support economic development and sustainable communities also needs to be considered. In order to maximize the potential of the region, a new systematic and holistic way of looking at the impacts of development is required.

The successful development of a thriving community requires active volunteerism and a strong non-profit sector, solid partnerships and sharing of responsibility among the Government of Alberta, the private sector, community organizations, other government agencies and the general public.

Optimizing our human potential means cultivating Albertans' knowledge and skills throughout their lives and developing, attracting and retaining the talented workforce our economy demands. Government will provide strategic direction to align our post-secondary education system with the needs of students, entrepreneurs, business and communities, and continue to attract and retain talented workers.



How We Will Achieve the Vision

Successfully achieving the regional vision requires new and improved approaches and tools for managing our lands and natural resources. These shifts are already underway, as shown by major Government of Alberta policy frameworks and strategies including the Provincial Energy Strategy; Water for Life; Clearing the Air: Alberta's Renewed Clean Air Strategy; and the Plan for Parks. The SSRP translates these to the regional context and builds on them by setting out strategic directions that will support achievement of the vision and outcomes.

Strategic Directions for the Region

Strategic directions include:

- Conserving and maintaining the benefits of biodiversity;
- Advancing conservation and integrated management of Crown land;
- Supporting and enabling stewardship and conservation on private lands;
- Advancing watershed management;
- Managing air quality through continued collaboration;
- Strengthening communities;
- Providing recreation and tourism opportunities, active living and the preservation and promotion of the region's unique cultural and natural heritage; and
- Inclusion of aboriginal peoples in land-use planning.

The South Saskatchewan Region has a long history of strong economic growth, largely in the agriculture and oil and gas sectors, but with support from forestry, mining and tourism. It is expected that this trend will continue. The region's major cities are home to a range of education, business and financial services, as well as other industries that continue to contribute significant benefits to people living in the region and the rest of Alberta.

Economic growth is the key to future prosperity in the region, and a strong investment climate will allow for a productive and responsive economy. To support this, the Government of Alberta will enable a competitive marketplace through support for innovation, education, infrastructure, and efficient and effective regulation. Enhancing these factors will allow the region to diversify and develop employment opportunities across industry sectors.

The maintenance and enhancement of the region's natural resources is the platform for continued economic growth and success, which brings with it tremendous benefits to people in the region, the rest of Alberta and Canada.



The Government of Alberta will continue implementation of:

- Focusing on What Matters, the final report of the Red Tape Reduction Task Force;
- The Building and Educating Tomorrow's Workforce Strategy to develop the knowledge and skills of Albertans, attract and retain workers in our labour market, and improve workplace productivity;
- Energizing Investment: A Framework to Improve Alberta's Natural Gas and Conventional Competitiveness, which positions the province as one of the most competitive destinations for energy investment; and
- Enhancing Assurance: Report and Recommendations of the Regulatory Enhancement Task Force to the Minister of Energy to create an energy regulatory system that provides clarity, predictability, certainty and efficiency for Alberta's energy industry.
- The Property Rights Advocate Office.

Conserving and Maintaining the Benefits of Biodiversity

Understanding the complexity of biodiversity and functioning ecosystems across the different landscapes of the region is a challenge. The benefits we receive from biodiversity and healthy functioning ecosystems are critical components to the ongoing prosperity of all Albertans. However, these natural features are sensitive to the impacts of human development. Biological responses to human-caused changes on the landscape are complex and difficult to predict, monitor, and respond to. Alberta's historic development and more recent, rapid growth is impacting the province's natural biodiversity assets and ecosystems. The Government of Alberta is committed to using an integrated approach to address these changes and to manage the impacts of multiple land-use demands and pressures.

Objectives will be established for biodiversity in the region, and an appropriate suite of biodiversity indicators that can be measured to assess if those objectives are being achieved will be identified. This will be done under this regional plan through development of a biodiversity management framework. A secondary intent of the management framework will be to support assessment of the health of ecosystems and the ecosystem services they provide.

Cumulative effects are considered to be the combined effects of past, present and reasonably foreseeable future land-use activities on the environment. Although past cumulative effects are considered it is not the intention of the biodiversity management framework to return Alberta to the levels of biodiversity found prior to European settlement. Today's Alberta includes working landscapes, and the Land-use Framework acknowledges the need to balance environmental, social and economic considerations. The focus of the framework is from today into the future, where information from modeled predictions of the past conditions could inform decision-making about desired future conditions.



Linked to the maintenance of biodiversity is the conservation of landscapes. Conserving a range of landscape types representative of Alberta's natural diversity provides for habitat that will support and maintain species and other aspects of biological diversity that depend on these landscapes.

Alberta's Natural Regions Landscape Classification Framework identifies natural landscapes found in the province. Targets are in place for all natural landscape types within each of the province's six Natural Regions and 21 Natural Sub-regions (see Appendix C – Alberta's Natural Sub-regions).

Connectivity of wildlife habitat across landscapes is also an important factor in maintaining biodiversity. The southeast area of the region provides important connections for wildlife movement between Alberta, Montana and Saskatchewan. Additionally the southern Rocky Mountain areas are critical to the long-term survival of grizzly bears, wolverines and lynx which require habitat connectivity from Montana north and through Kananaskis.

Achieving the objectives for biodiversity, functioning ecosystems and natural landscapes will require a full range of management approaches and tools in order to address the complex mix of public lands and private land and how they can contribute to those objectives. This means further advancing conservation and integrated management of Crown land, and supporting and enabling voluntary stewardship and conservation on private land.

Advancing Conservation and Integrated Management of Crown Land

Conservation Areas

Conservation areas support the achievement of environmental objectives – especially those for biodiversity – by maintaining ecological systems and processes for biodiversity. They also provide benchmark areas for assessing ecological integrity.

In the eastern slopes, protection of headwaters and water security is a management priority. Key areas focusing on the prime protection zone described in the Eastern Slopes Policy, with sensitive upper headwaters, will be legislatively protected as Wildland provincial parks and will support watershed management values, maintain healthy ecosystems and conserve important habitats (e.g., grizzly bear recovery).

The Castle area borders Waterton National Park and is located within the Crown of the Continent (the area of the Rocky Mountains where Alberta, British Columbia and Montana meet) and is valued for its diverse ecosystems. A variety of conservation management approaches will be used in this area. A Wildland Provincial Park will be established for the prime protection zone. A Public Land Use Zone for conservation purposes will be established under the *Public Lands Act* in the adjacent lower valley areas of the Castle, to be referred to as the Castle Conservation Area. The management intent of these areas will be maintaining biodiversity and headwaters protection. Forestry practices which support this management

Conservation Areas

Definition:

A clearly defined geographical space dedicated and managed to achieve the long-term conservation of biological diversity and ecosystem process.

Management Intent:

Legally protect areas that are relatively undisturbed. They retain their natural character and influence and are areas for measuring ecological performance in relation to human development.

Key Criteria for Conservation Areas

- Areas with little to no industrial activity;
- Areas that support aboriginal traditional uses;
- Areas that are representative of the biological diversity of the area (e.g., landforms, species, vegetation); and
- Areas of sufficient size.



intent will be permitted in the Castle Conservation Area. Enhanced forestry practices may include winter only operations, restricted access, and enhanced buffer zones on riparian areas. Conservation of this area secures an important connection between the Alberta provincial parks system to the north, the British Columbia parks system to the west and Waterton-Glacier International Park to the south.

Currently, approximately 22 per cent of the region's eastern slopes are protected as provincial conservation areas. The new and expanded conservation areas add an additional 11 per cent – to a total of more than 33 per cent of the eastern slopes in the region to be managed as conservation areas (see Schedule C – SSRP Land Uses).

A new conservation area will be established in the Pekisko area on public lands to preserve and protect the natural features representative of Alberta's prairies, using grazing to maintain the grassland ecology. It will offer opportunities to provide important habitat and support maintenance of healthy ecosystems. Not only will the establishment of the Pekisko Heritage Rangeland double the legislative protection of the Foothills Parkland Sub-region from 42 per cent to 84 per cent of the target (that is, Foothills Parkland Sub-region - See Appendix C - Alberta's Natural Sub-region) it also responds to concerns about competing land-use impacts on important rangelands in the area and recognizes efforts of local stakeholders. Opportunities for further conservation management approaches will be explored with stakeholders in areas of grasslands where there are significant gaps in protection for grasslands Natural Sub-regions, and where there is important habitat.

Conservation areas will be managed to minimize or prevent new land disturbance. This means the land disturbance associated with oil and gas, mining, cultivated agriculture and commercial forestry operations are not considered compatible with the management intent of conservation areas. However, those with freehold rights will not be subject to this restriction. Existing grazing activities will continue as carefully managed cattle grazing and traditional ranching practices on long-term grazing leases continue to contribute to the ecological health of large tracts of the remaining native grasslands.

Petroleum and natural gas tenure will be honoured, consistent with current policy. The Government of Alberta will work cooperatively with companies that have existing commitments to ensure surface access impacts are minimized while still honouring commitments. New petroleum and natural gas tenure sold in a conservation area will include a restriction that prohibits surface access.

Conservation areas will be managed to provide low-impact backcountry recreation opportunities and nature-based tourism products and services. Recreational leases will be considered based on the management intent of conservation areas, and existing recreational leases will be honoured.



Hunting, fishing and trapping (including by aboriginal peoples) will continue in accordance with existing provincial laws governing such activities as such laws may be amended or replaced from time to time. Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use. The reduction in land disturbance is expected to enhance opportunities for these activities.

Where it is permitted off-highway vehicle use in Wildland Provincial Parks and the Castle Conservation Area will be managed to designated trails and areas to mitigate potential impacts to biodiversity associated with random motorized access. The Government of Alberta will engage with First Nations and stakeholders on initiatives to designate motorized access such as identification of trails or areas when developing the regional trail system plan.

Off-highway vehicle use is permitted on existing trails and areas or where a management plan, trails plan or regulation specifies. In areas where designation of trails has not yet occurred, use of existing access can continue, but no new trails or routes or access may be developed without an access management plan. No motorized access is permitted in wetlands and water courses. Off-highway vehicle use will continue to be prohibited in the beds and shores of permanent water bodies.

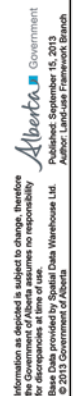
Eastern Slopes – Green Area Public Land

In the Green Area, public land is managed for timber production, watershed, resource development, wildlife and fisheries, recreation and other uses. Agricultural use is limited to grazing where it is compatible with other uses. Grazing on public land in the Rocky Mountain Forest Reserve (headwaters of the North and South Saskatchewan rivers) is administered under the *Forest Reserves Act*. The remainder of grazing in the Green Area is administered under the *Public Lands Act*.

Significant portions of the Green Area public lands are experiencing cumulative impacts on land, headwaters, watersheds, native fisheries, and important habitat that supports grizzly bear recovery and other aspects of biodiversity due to industrial development, recreation and other uses that increase linear footprint. Objectives for biodiversity and healthy ecosystem function will be incorporated as part of multiple objectives for the Green Area. A specific focus is on grizzly bear recovery – the priority species at risk in this portion of the region. A combination of approaches will be used to achieve the objectives and address cumulative impacts on the landscape.

There will be enhanced management of human footprint. Linear footprint disturbance will be minimized through linear footprint management planning with an initial focus on key headwater areas and core grizzly bear habitat areas. In conjunction with this, there will also be accelerated recreation planning in priority areas to address needs for access to recreational opportunities. A focus will be to collaboratively develop an integrated trail system, appropriate access and staging opportunities and a range of facilities to meet the range of needs and desires for recreational experiences. Existing

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access management plans will be expanded upon and stakeholder work used to support comprehensive and integrated recreation and access management planning. North Castle, Porcupine Hills, Livingstone and Willow Creek areas have been identified as priority locations for creating comprehensive and integrated recreation and access management plans.

There are a number of Integrated Resource Plans, a number of Public Land Use Zones, surface requirements under the *Public Lands Act*; subsurface restrictions on sales of mineral rights; and voluntary practices such as Integrated Land Management to support minimizing human footprint. An integrated planning approach is needed to meet multiple objectives and help reduce conflicts between various users.

The existing Integrated Resource Plans will be reviewed and incorporated as appropriate under the implementation strategies of this regional plan or future sub-regional or issues specific plans developed within the region. Public Land Use Zones (PLUZ) will be consolidated and expanded to provide the ability to more effectively manage public land across the Green Area and address priority issues such as protection of watercourses and sensitive areas. Existing surface and subsurface requirements will be assessed to ensure clarity and consistency and alignment with the direction of the regional plan.

Grasslands – White Area Public Land

In the White Area, public land is part of the agricultural landscape. It is managed for various uses including agriculture, recreation, soil and water conservation, resource development and fish and wildlife habitat. Some parts of the province have large tracts of public land while other parts have very few scattered parcels. Most of the public land in the White Area is under disposition or is otherwise committed. The unique aspect of the White Area in this region is that these lands contain native prairie which are grasslands with high ecological value for biodiversity and watershed protection. These lands are habitat for the majority of species currently designated at risk in Alberta. While the management intent for agriculture and infrastructure on these lands will not change, there will be additional clarification regarding multiple uses of the White Area public land, which is maintaining intact native grasslands and habitat as a high priority.

Existing grazing activities will continue as carefully managed cattle grazing and traditional ranching practices on long-term grazing leases contribute to the ecological health of large tracts of the continent's finest remaining native grasslands. A combination of approaches will be used to achieve the objectives and address cumulative impacts on the landscape. There will be enhanced management of linear footprint. Linear footprint disturbance will be minimized through linear footprint management planning in the White Area public land with an initial focus on the southeast corner of the region. This will be coordinated with other initiatives in the area including conservation offset pilots and species at risk conservation programs. Existing surface and subsurface requirements will be assessed to ensure clarity, consistency



and alignment with the direction of the regional plan. Conversion of native grasslands to other uses such as cultivation-based agriculture, tame pasture or facility developments will be minimized. Opportunities for further conservation in the future will be explored working with key stakeholders and the public. Through these collaborative efforts, gaps in the Grassland Natural Region under Alberta's Natural Region Landscape Classification Framework may be filled.

Partnerships

The Government of Alberta values and wants to strengthen the support and contributions it receives from partners in maintaining biodiversity on public land. Collaborative stewardship with many organizations such as grazing associations, conservation organizations, watershed planning and advisory councils, watershed stewardship groups, invasive plant management working groups and other local organizations and stewardship groups, as well as responsible individual users of provincial crown lands all contribute to maintaining the region's rich biodiversity.

The management of provincial Crown lands in the South Saskatchewan Region also includes stewardship efforts to protect historic resource values. Integrated decision-making related to the environment and historic resources will support achievement of mutually supportive environmental and cultural outcomes.

Supporting and Enabling Stewardship and Conservation for Private Lands

Alberta farmers and ranchers have a strong tradition of land stewardship and conservation – whether working alone, or in partnership with the Government of Alberta, local authorities, producer groups, watershed stewardship groups, conservation groups and various land trust organizations. The landscapes many Albertans value today are a result of their efforts.

However, Alberta's landscapes and the ecosystem services they provide are being strained from a combination of pressures such as population growth, climate change and industrial development which are impacting limited ecosystem resources. In addition, farmers and ranchers and their communities are dependent on the economic returns they earn from the land. Therefore, as part of a provincial approach for management of ecosystem services, new methods and strategies must be explored and developed to encourage the provision of a broad suite of ecosystem services by private landowners. These approaches may include voluntary opportunities that not only recognize the value of current contributions, but which explore opportunities that reward additional stewardship efforts by private landowners in the region. The Government of Alberta is committed to the exploration and facilitation of economic tools, such as financial incentives, as well as the development of market-based instruments for ecosystem services that are voluntary in nature and which provide business opportunities for private landowners.



The biodiversity management framework for the region will identify objectives and some key indicators related to grasslands which could be a focus for voluntary private land conservation efforts. The framework will also provide guidance to the Land Trust Grant Program which contributes to private land conservation by providing grants to land trust organizations for purchase of conservation easements and the administration and management of new conservation projects on private land.

Advancing Watershed Management

Southern Alberta has rich and varied landscapes with water playing an essential role across the region. The complex relationship between the water, the land and all those that live on it has been recognized and our collective knowledge, understanding and appreciation of this complexity has grown and improved significantly over time. With increasing pressures and demands, we must continue to advance an integrated view across water supply, water quality and aquatic ecosystems in the region. The province's existing system for management of water and watersheds will continue to be the foundation we work from, with enhancements made to support that integration. The 2013 water conversations will inform provincial policy on water and watersheds and will result in enhanced water management in this region.

To the west in the region, the eastern slopes of the Rocky Mountains provide the major headwaters for the region and more than 75 per cent of the region's water supplies. Recognizing the priority for headwaters management and protection, for both water supply and water quality, is a key element of this regional plan.

To the east and the south, southern Alberta must continue to meet its transboundary obligations under the Master Agreement on Apportionment and the Boundary Waters Treaty. Both of these transboundary water management agreements were developed in a spirit of cooperation which is the basis of our relationships with our neighbours.

It is important to continue to use collaborative approaches, and to maintain and build partnerships in the region. A key partnership under Water for Life strategy is with the watershed planning and advisory councils. These councils have demonstrated leadership in their contributions to watershed assessment and planning in the region, and the Government of Alberta is committed to enhancing its relationship with them.

The Approved Water Management Plan for the South Saskatchewan River Basin continues to provide important guidance for water management in the region. It establishes the limit of the water resource for the Bow, Oldman and South Saskatchewan River sub-basins; recommends an interim limit of the water resource for the Red Deer River sub-basin; and establishes water conservation objectives for instream flow. The Milk River does not currently have an approved water management plan, but the international



Boundary Waters Treaty has a significant influence on this basin through the identification of how the available water must be shared for both the Milk River and the St. Mary River in Montana.

Matching water supply and demand is a key challenge throughout the South Saskatchewan Region. Continued population growth and economic development will depend on using the existing water allocations as efficiently and effectively as possible. Alberta's Water for Life strategy has established a provincial target of 30 per cent improvement in water use efficiency and productivity by 2015, based on 2005 levels. This target will continue to be pursued in the region through implementation of water conservation, efficiency and productivity plans development by the seven major water-using sectors.

Significant investment in water management infrastructure has been made in the region. It is important that this investment continue to be protected so it can continue to provide a range of economic, environmental and social benefits into the future. On-and-off-stream storage that is part of the public infrastructure is one of the management tools that can contribute to the goals of conservation, productivity and efficiency. In addition, although existing storage infrastructure is not designed for flood attenuation, there can be some capacity for dampening the severity when managed for this intent.

Compounding the challenge of matching water supply and demand in the region are other factors that will alter the amount of available water in the future, such as climatic conditions. Planning to support climate change adaptation, and ensure preparedness for drought management and flood response are all essential to ensuring the region can be resilient and adapt to changing conditions over time.

Appropriate flood management contributes to long-term community sustainability and resiliency. Mitigating impacts from flooding reduces risk to public safety, developments and infrastructure, provides environmental benefits and results in savings in tax dollars for post-flood recovery costs. This can be achieved through enhancements to the existing flood management systems used by both the Government of Alberta and municipalities. This includes improved development practices and use of flood management tools and infrastructure, and by making better land-use decisions in flood hazard areas.

Currently water quality is managed in the region based on provincial policy, legislation and regulations, including ambient water quality guidelines and the use of beneficial management practices by landowners. The emphasis has been on ensuring effective regulation of point-source discharges. Under this regional plan, a management framework for surface water quality for the main stems of the Bow, Milk, Oldman and South Saskatchewan rivers will be implemented to add to and complement, not replace or duplicate the existing policies, legislation, regulations and management tools. This new approach will support management of the cumulative effects of all development.



The framework is a proactive and dynamic management approach that will help ensure negative trends are identified and assessed, regional limits are not exceeded and the environment remains healthy for the region's residents and ecosystems. Management responses provide opportunities for collaborative work with governments and stakeholders in the region to find options and solutions. Understanding and managing non-point sources using a combination of both non-regulatory and regulatory tools will be important to achieving water quality objectives in this region. The watershed planning and advisory councils and associated stewardship groups will be key contributors to implementation of the framework.

Groundwater is important in some local areas in the region and they are experiencing increasing pressure within those basins that have water allocation restrictions. Priority areas for groundwater management are being confirmed. A knowledge base is needed prior to selecting the most appropriate groundwater management approach to ensure groundwater quantity and quality are sustained.

The use of hydraulic fracturing is not new in Alberta. Currently oil and natural gas developments using hydraulic fracturing are regulated under the same regulatory framework as other oil and gas projects in the province. In recent years, advances in hydraulic fracturing technology have made it economical to produce oil and natural gas resources from formations which were previously unsuitable for development and this has introduced a new pressure on surface and groundwater in the region.

In addition to water supply and the water quality, the Government of Alberta is looking at aquatic ecosystems including management needs for riparian lands, wetlands and watersheds. Cumulative impacts from agriculture, resource development, tourism and recreation, forestry, wildfire and urban development affect water supplies, water quality, aquatic ecosystems and wildlife habitat. The environmentally significant areas assessment and mapping provides information on areas that significantly contribute to maintaining healthy aquatic ecosystems.

Riparian lands are important as they are highly productive, rich and resilient parts of the landscape. The Alberta Water Council is currently leading a collaborative initiative with the purpose of enhancing knowledge and providing recommendations for effective conservation and management of riparian land in support of goals in Water for Life. The Government of Alberta will consider the recommendations when this work is completed. Existing initiatives such as the Alberta Riparian Habitat Management Society program (better known as "Cows and Fish") highlight the stewardship commitment and positive contributions of landowners to riparian health. The continued implementation of voluntary approaches such as Stepping Back from the Water provide practices intended to assist local authorities and watershed groups with policy creation, decision-making and watershed management relative to structural development near water bodies.



Renewed Clean Air Strategy

Clearing the Air: Alberta's Renewed Clean Air Strategy articulates a shared Government of Alberta commitment to enhancing Alberta's air quality management. It is an expression of the Integrated Resource Management System and sets the Government of Alberta's focused agenda for air.

The strategy's goals are to assure that:

- the well-being of Albertans is supported by effective air quality management;
- air quality will maintain, protect and sustain healthy ecosystems; and
- air quality management will continue to support economic sustainability.

The four key areas for enhancements are:

1. regional air management including complementary management of point and non-point emission sources;
2. shared responsibility and partnerships;
3. integrated monitoring, evaluation and reporting; and
4. knowledge enhancement.



Wetlands are highly diverse and complex ecosystems and have long been recognized for the contributions they make to human and ecosystem health. They provide benefits including resiliency to drought and flood conditions, water purification, groundwater recharge, and recreational opportunities, and they are centres of high biodiversity. In southern Alberta approximately 64 per cent of wetlands have disappeared since the beginning of settlement. The Government of Alberta has approved the Alberta Wetland Policy which will replace the current interim wetland policy, Wetland Management in the Settled Area of Alberta – An Interim Policy, as it is implemented. Implementation of the Alberta Wetland Policy will take into consideration the regional context including the past and current pressures on these areas. The Government of Alberta is also committed to increasing knowledge and mapping of wetlands, including standardizing and updating the existing wetland inventory and working with partners where appropriate.

Aquatic invasive species are of concern for maintaining healthy aquatic ecosystems. The current focus is on preventing the establishment of the three most noxious aquatic invasive species: zebra mussels, quagga mussels and Eurasian water-milfoil. In addition to aquatic ecosystem impacts, there are high economic costs associated with affected water infrastructure. The Government of Alberta is committed to continued prevention and control work with multi-jurisdictional organizations such as the Crown Managers Partnership (Crown of the Continent).

Managing Air Quality through Continued Collaboration

The Renewed Clean Air Strategy enhances the existing provincial air quality management system by incorporating direction from the national Air Quality Management System. Alberta has endorsed the national Air Quality Management System as a comprehensive approach for improving air quality in Canada. It is the product of unprecedented collaboration by the federal, provincial and territorial governments and stakeholders.

Collaborative approaches through the Clean Air Strategic Alliance (CASA) and local airshed groups have been important in the province and the region for effective air quality management. As the national Air Quality Management System continues to be implemented in Alberta, it is important to continue to support and maintain effective partnerships and collaborative approaches in the region.

Currently, air quality is managed in the region based on provincial policy, legislation and regulations including ambient air quality objectives. The emphasis has been on ensuring effective regulation of point source emissions. A management framework for air quality will be implemented to add to and complement, not replace or duplicate, the existing policies, legislation, regulations and management tools. The new approach will support management of the cumulative effects of all development.

The framework is a proactive and dynamic management approach that will help ensure negative trends are identified and assessed, regional limits are not exceeded and the environment remains healthy for the region's residents and ecosystems. Management responses provide opportunities for collaborative work with government and stakeholders in the region to find options and solutions. Understanding and managing non-point sources using a combination of both non-regulatory and regulatory tools will be important to achieving air quality objectives in this region. It is expected that local airshed groups in the region will be contributors to implementation of the air quality framework in the region.

While the management framework deals with key substances of concern in the region, there are also some air quality issues in the region that are more localized in nature. Regulatory requirements will continue to be applied to ensure protection of human and ecosystem health. There will also be a need to use collaborative approaches to find solutions to some of the issues.

Specific to rural areas of the South Saskatchewan Region, local air issues are often associated with odour and dust from confined feeding operations (CFOs) and cultivated fields. The agricultural industry, as well as all levels of government, continues to collaborate on achieving effective air quality management in the region. There are regulations in place to deal with the management of manure and odour-related issues. Research continues to inform baselines and identify beneficial management practices. The implementation of many beneficial agricultural management practices has contributed to the reduction in ammonia emissions from CFOs and dust from cultivated fields.

Strengthening Communities

Alberta's success starts at the community level, those places Albertans call home. Communities are where life happens. The projected population growth in the South Saskatchewan Region, particularly in the urban centres will require thoughtful and intentional management of the landscape. There is a need to explore ways to engage communities that will help improve collaboration and processes for decisions that make wise use of land, air and water. To effectively address the challenges that increased future growth will bring to the South Saskatchewan Region, all decision-makers will require collaboration with stakeholders in order to achieve the regional outcomes.

Land-use planning is both a municipal and provincial activity. The province's responsibility, with certain exceptions, extends to managing air, water, and renewable and non-renewable natural and historic resources. Provincial legislation, policies and programs for land-use planning and resource management can affect municipal interests. Conversely, municipal decisions and actions affecting land-use and development can impact the success of provincial objectives designed for the benefit of all Albertans. It is therefore important that municipal and provincial planning efforts pursue a high level of collaboration, coordination and integration. This cooperation extends to

The National Air Quality Management System

The national Air Quality Management System includes:

- new Canadian Ambient Air Quality Standards for fine particulate matter and ground-level ozone;
- industrial emission requirements that set a base level of performance for major industries in Canada;
- a framework for air zone management within provinces and territories that enables action tailored to specific sources of air emissions in a given area;
- regional airsheds that facilitate coordinated action where air pollution crosses a border; and
- improved intergovernmental collaboration to reduce emissions from the transportation sector.



providing infrastructure linked to land use, such as transportation networks, municipal services, recreation, leisure and cultural facilities, and other institutional uses.

The Government of Alberta is committed to continuing to encourage and promote this collaborative approach in the South Saskatchewan Region. The Calgary Regional Partnership is an example of a voluntary partnership consisting of municipalities in the Calgary region working together to address issues of a regional nature in the Calgary Metropolitan area. In June 2012, the partnership submitted the Calgary Metropolitan Plan (CMP) to the Government of Alberta for approval. The Government of Alberta, upon reviewing the CMP, reinforced the importance of the participation of all municipalities (rural and urban) within the Calgary Metropolitan Region and therefore directed a process to do so. Other inter-municipal initiatives include inter-municipal development plans, regional services commissions, irrigation districts and watershed planning and advisory councils, to name a few.

Municipalities are considered to be in the forefront of building strong and sustainable communities. The Government of Alberta is committed to providing policy direction that:

- encourages communication, cooperation and collaboration for collective impact;
- gives people a sense of belonging through shared values;
- promotes participation and mutual responsibility;
- leverages resources from both inside and outside the community;
- fosters a stable, innovative local economy that provides employment opportunities and generates wealth; and
- protects and effectively manages the local environment.

In supporting the regional outcomes, municipal decisions in the region should aim to:

- make efficient use of land, infrastructure, public services and public facilities to establish land-use patterns that influence human activity, facilitate health and well-being, and promote social interaction and inclusion;
- promote resource conservation;
- protect, enhance and promote the historic and cultural integrity of an area;
- enhance economic development activities;
- minimize environmental impacts on land, air and water;
- protect significant natural environments;
- contribute to the development of healthy, safe and viable communities; and
- contribute to a safe, efficient and cost-effective provincial transportation network.



The cumulative footprint of communities will continue to grow to accommodate population increases as well as economic growth. There are many ways to use land efficiently; all require foresight, creativity and good planning. Ultimately the goal is the efficient and economical use of land by implementing the principles of best practice for planning, managing and minimizing the impacts of land-use on the environment and reducing the extent of the built environment, while utilizing our energy and natural resources wisely.

Regional planning is aimed at guiding and directing land-use decisions in Alberta, and the Government of Alberta recognizes there is a link between how land is used and the achievement of desired social and community outcomes. The Government of Alberta's Social Policy Framework includes two key outcomes that the South Saskatchewan Regional Plan (SSRP) will help to achieve: "Albertans are healthy," and "Albertans are active and engaged."²²

The air and surface water quality frameworks for the South Saskatchewan Region add to the province's existing environmental management system and will contribute to safeguarding the health of Albertans by helping to maintain air and water quality. In addition, by encouraging municipalities to coordinate land-use planning activities with health authorities on areas of mutual interest, SSRP will contribute to the provision of health care services in local communities.

New and expanded outdoor recreational spaces and conservation areas on public lands provide places for Albertans to actively participate in recreational activities and cultural experiences such as camping, hiking, bird-watching, berry picking, hunting, fishing and outdoor photography. Municipalities are encouraged to work with the Government of Alberta and other partners on planning for future infrastructure needs, including accessible recreational spaces, and on identifying and preserving significant historical resources. This will help provide Albertans with new opportunities for rich cultural experiences and new ways to become active and engaged members of their communities.

Providing Recreation and Tourism Opportunities

Recreational opportunities are important for residents and visitors and provide areas for people to visit, play and enjoy the natural beauty of Alberta. Providing access to nature is essential for the physical and emotional health of children and adults, and nature-based recreation activities promote the appreciation of natural and cultural features. Increasing recreational opportunities throughout the region by enhancing recreational and outdoor spaces will increase quality of life and active living.

²² Alberta's Social Policy Framework, February 2013



Areas on Crown land have been identified that provide diverse, safe, sustainable and enjoyable outdoor recreation opportunities that contribute to healthy lifestyles and a diversity of recreational opportunities. These areas consist of a combination of physical, biological, cultural, constructed and/or geographical factors that can provide recreation and tourism opportunities. These areas are intended to provide quality recreational experiences, attract tourism investment and provide security of land tenure for private and not-for-profit investment. Work will continue to occur with municipalities, recreational communities and other key stakeholders, such as industry, to better manage the recreational pressures and activities in these areas.

Existing recreational opportunities in the region were developed for a much smaller population and do not meet the full range of recreational experiences of today's growing population. The long-term vision is to establish new and expanded recreational areas (see Appendix D – Overview of New Conservation and Recreation and Parks Areas in the South Saskatchewan).

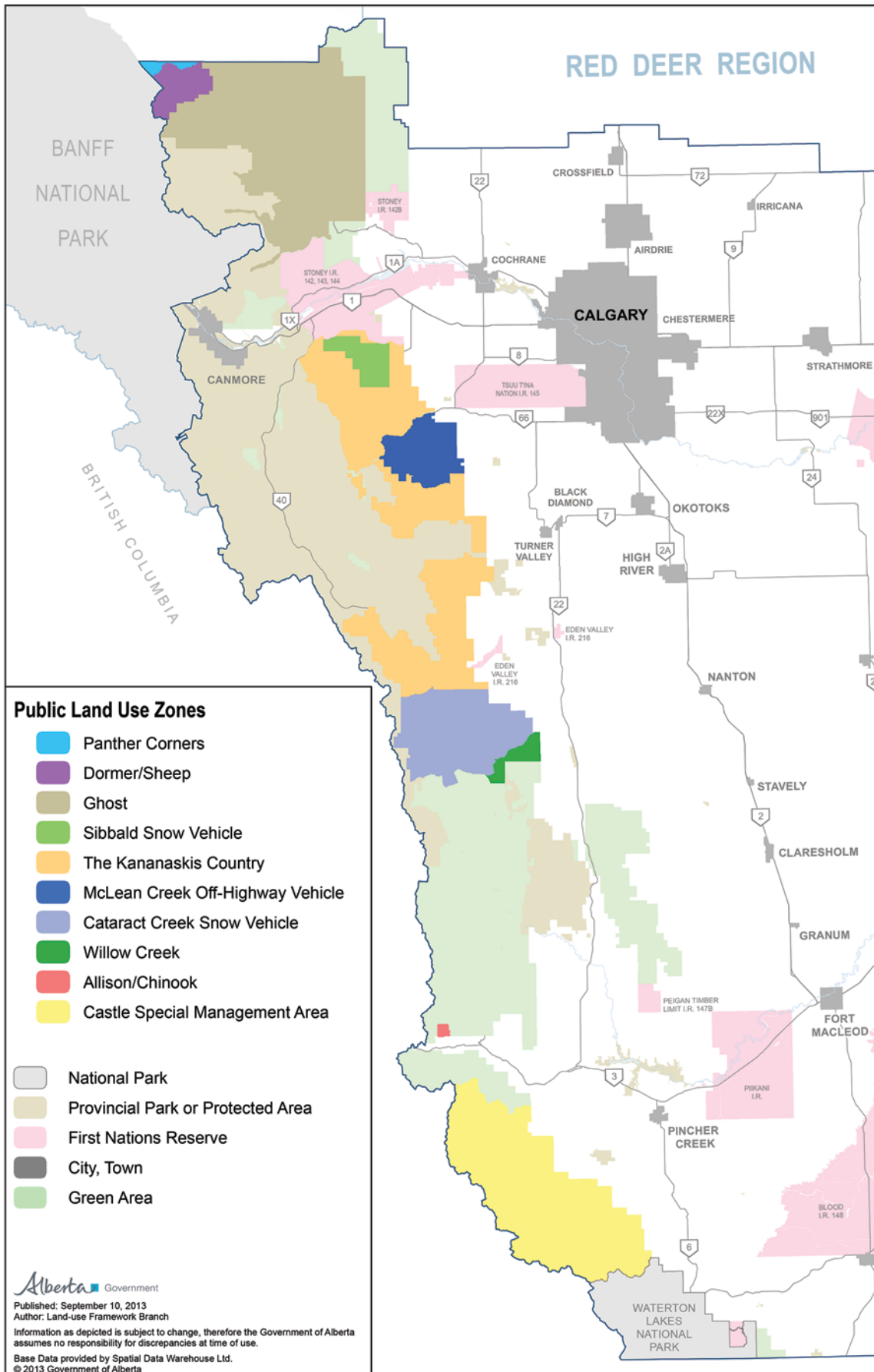
Over the next several decades, to meet growing demands, the focus will be on managing existing recreational areas and access management. Additional camping opportunities will be developed and key recreational areas will be enhanced through facilities re-investment. The flood of 2013 damaged a number of recreational areas in Kananaskis Country and along the Bow River. These areas will be reassessed and where appropriate re-developed to support recreational demand. Development and investment in recreational opportunities will occur over the next several decades as demand grows.

For many areas of Crown land, there are existing access management plans (e.g. Ghost Waiparous and Castle areas). These plans will be expanded upon and the work that stakeholders have already done will be used to support comprehensive and integrated recreational land access management planning. This will contribute to ensuring these areas are available for Albertans now and in the future, and there is a range of quality recreational experiences and nature-based recreation and tourism opportunities through the creation of a sustainable recreational access system. The access system should be sensitive to the environment and work to mitigate potential impacts to biodiversity associated with the multitude of land-use demands including recreation activities.

North Castle, Porcupine Hills, Livingstone and Willow Creek areas have been identified as priority locations for creating comprehensive and integrated recreation and access management plans. Areas will be managed to minimize impact of activities such as dumping of garbage and random campfires. To ensure these areas meet the preferences, diversity and expectations of residents and visitors, infrastructure enhancements will be needed, such as camping, staging areas, trail systems, and access to and within recreation and tourism areas.

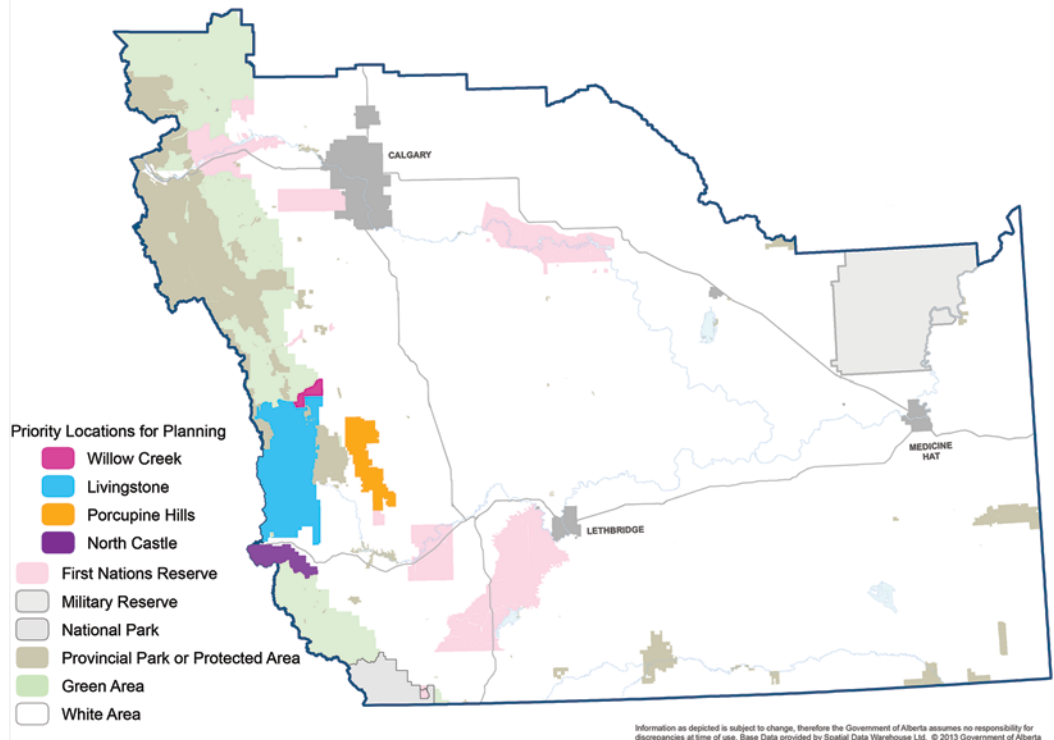


South Saskatchewan: Public Land Use Zones





South Saskatchewan: Priority Locations for Planning



Continued formalization of motorized and non-motorized trails with improvement to existing trails and development where needed will occur collaboratively. Planning for new tourism development such as recreation trails and associated amenities needs to address environmental concerns, in particular near watercourses, wetlands, and lakes with sensitive fisheries vulnerable to increased human access. Trails in sensitive source water or ecological areas will be assessed and may be relocated, closed or reclaimed. Designated staging areas will also play a role in the management of public lands and waters to enhance the recreation experience for users.

The Government of Alberta aims to provide a diversity of outdoor recreation and nature-based tourism opportunities for Albertans. Clustering use, improving safety for diverse users, reducing environmental damage and connecting to the surrounding designated trail system are important considerations. Some of the recreational activities that will be provided include serviced and unserviced campgrounds, day-use areas, boat launches, motorized and non-motorized staging areas, designated motorized, non-motorized and mixed-use trails, and special event and tourism opportunities. More specifically, the design of these camping areas will be in the spirit of coming together with family and friends in a natural setting. Intensively developed vehicle (motorized) access camping and day-use facilities will be expanded while keeping in mind the need to maintain the esthetics of the area and quality recreation and tourism experiences. Enhancements may need to occur across the region to help modernize existing facilities to better accommodate and manage increasing demands and changing expectations of visitors.



New Public Land Recreation Areas will be established in the eastern slopes to support random camping and access to trails. These sites are highly popular areas of random camping on public lands. They will be developed to include basic amenities such as fire rings and gravel pad and no fees will be charged. A Guardian program will be established to provide outreach and education. A program will be established to provide “on the ground” outreach and education regarding responsible use of public lands.

The recreation and parks areas will be managed to minimize industrial land disturbance and ensure quality recreation experiences. Petroleum and natural gas tenure will be honoured, consistent with existing policy. The Government of Alberta will work cooperatively with companies that have existing commitments to ensure surface access impacts are minimized while still honouring commitments. New petroleum and natural gas tenure sold in a recreation and parks area will include a restriction that prohibits surface access.

Hunting, fishing and trapping (including by aboriginal peoples) will continue in accordance with existing provincial laws governing such activities as such laws may be amended or replaced from time to time. Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use.

Recreation, tourism and industry must co-exist on the landscape outside the designated camping areas, industrial activity will continue (that is, petroleum and natural gas; coal, metallic and industrial minerals, grazing, and forestry) and new industrial tenures will continue to be granted. Impacts to identified recreation and tourism features and scenic values will need to be minimized where possible and practical. To contribute to tourism and recreational opportunities industrial access resource roads or developments and areas scheduled to be reclaimed may be deferred or amended for recreational uses.

Water-based recreation is highly valued within the region and the need to maintain or develop access to recreational water bodies is important for recreation and nature-based tourism opportunities. Support of current initiatives and other potential cooperative initiatives is needed to provide stable, long-term public access to these water bodies in order to enhance water-based recreational experiences. The Government of Alberta, irrigation districts, municipalities, communities and stakeholders will continue to work in collaboration to provide recreational opportunities while respecting the operation of water management infrastructure and the needs of other water users.

The region’s unique blend of cultural and aboriginal heritage, many attractive recreation and tourism features and an abundance of provincially unique and awe-inspiring areas have the potential to attract visitors and gain national and international recognition. One of these areas is Writing-on-Stone Provincial Park. The Government of Alberta has the intention of supporting the nomination of Writing-on-Stone Provincial Park for inscription on the



Water Sub-Table

At a Protocol Agreement meeting with the Premier of Alberta in 2009, the Grand Chiefs requested and later it was agreed that a Water Sub-Table be established to provide input on the province's water allocation management system. The province is committed to having meaningful conversations with Albertans to hear their input and advice. Discussions through the Water Sub-Table can contribute to these water conversations.

Given the unique regional dynamics and differing water issues between the northern, central and southern regions the Water Sub-Table consists of three sub-tables – one for each Treaty Area. The Government of Alberta and First Nations establish the strategic direction and identify the joint priorities for each water sub-table.

Treaty 7 was identified as the top priority largely due to issues of water scarcity in the South Saskatchewan River Basin. The joint priorities and goals of the Treaty 7 water sub-table include:

- working together to understand current and future water needs of First Nations, and
- working towards water agreements between individual

First Nations and Alberta to ensure First Nations water security.



UNESCO World Heritage site list. Writing-on-Stone is a site sacred to the Blackfoot and preserves native grasslands for future generations.

Work needs to occur with local communities to enhance and support current initiatives to offer a variety of quality, unique and appealing visitor experiences that contain a wide range of tourism opportunities in the form of accommodations, attractions, events, activities and amenities. The aim should be to develop areas to be attractive to tourism investors and help diversify the region's economy. These areas should have a community driven plan reflective of the unique features that fall within it.

Inclusion of Aboriginal Peoples in Land-use Planning

The Government of Alberta will continue to look for opportunities to engage aboriginal peoples and invite them to share their traditional knowledge to inform land and natural resource planning in this region. Aboriginal culture with its connection to the land and environment provides a unique opportunity for engagement in land-use planning, management and initiatives.

The Government of Alberta will look to collaborate with First Nations in the South Saskatchewan Region through the establishment of a Land Sub-Table as a mechanism for strategic consultation and continuing government-to-government relations. The Government of Alberta will continue to work with First Nations through the previously established Treaty 7 Water Sub-Table process to provide input to government on water issues. This will include discussions related to on-reserve water needs.

The Sub-Table process is participant driven and adapted to the unique requirements of each aboriginal community. Priorities established at the regional level, with Chiefs and Ministers, will guide the aspects of a water sub-table and land-use sub-table, how they relate, how they differ, and whether they continue as one. Opportunities for First Nation involvement in the collaborative work of watershed planning and advisory councils in the region will continue to be encouraged.

The Treaty 7 Tourism Development Initiative will inform on-going work to identify tourism and cultural experiences that may provide economic opportunities to aboriginal communities. Participation in the regional economy will be encouraged as well as maintaining and seeking opportunities for aboriginal traditional land-uses within the region.

In accordance with applicable government policy as it may be from time to time, the Government of Alberta will continue to consult with aboriginal peoples when government decisions may adversely affect the continued exercise of their constitutionally protected rights, and the input from such consultations continues to be considered prior to the decision.

Implementation Plan

Strategies and Outcomes

The SSRP is designed to help achieve the three desired province-wide outcomes of the Land-use Framework. The regional vision describes the desired future state of the South Saskatchewan Region, and is consistent with the outcomes and principles of the Land-use Framework.

To support achievement of the three province-wide outcomes and the regional vision, the SSRP identifies strategic directions and regional outcomes. These qualitatively describe what is wished to be achieved at the regional level.

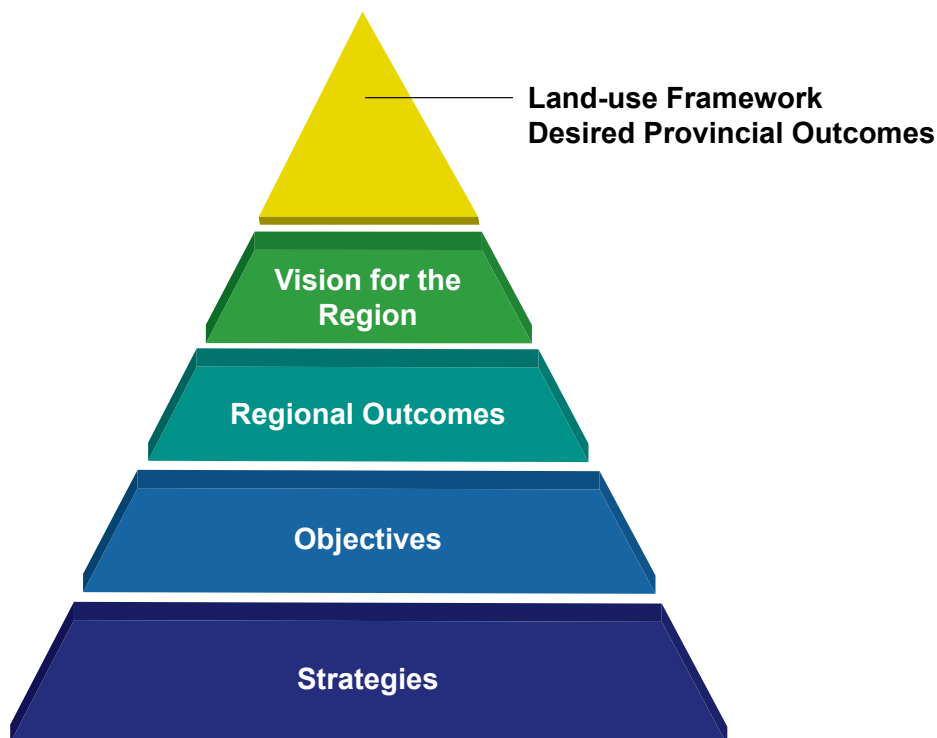
A number of objectives are identified for each regional outcome and they describe what must be done to achieve the outcome. Strategies describe regulatory and non-regulatory approaches that will be used to achieve each objective.

As a means of assessing whether regional outcomes and objectives are being achieved, a series of economic, environmental and social indicators will be regularly monitored, evaluated and reported.

Various governments, ministries and agencies will work together in an integrated manner to develop the required system and tools to support implementation of the regional plan. While the following strategies and actions each fall primarily into the mandate of one or more ministries, it is important to note that a government-wide approach will be taken to implement the strategies. This is part of the shift to a cumulative effects management system as envisioned by the Land-use Framework.

Land-use Framework – Provincial Outcomes

- Healthy economy supported by our land and natural resources;
- Healthy ecosystems and environment; and
- People-friendly communities with ample recreational and cultural opportunities.





Vision for the Region

Southern Alberta is a diverse, healthy, vibrant and prosperous region where the natural beauty of the mountains, foothills, farmlands and prairies are managed so that citizens feel connected to the land and its history. The region is a thriving place that offers a wide range of opportunities to residents and visitors alike. Social, economic and environmental values are effectively achieved with shared stewardship and an integrated approach. The quality and integrity of the landscape is sustained through the use of science, innovative thinking, traditional aboriginal and community knowledge, recognizing the interests of all Albertans.

Strategic Directions:

- Conserving and maintaining the benefits of biodiversity;
- Advancing conservation and integrated management of Crown Land;
- Supporting and enabling conservation and stewardship on private lands;
- Advancing watershed management;
- Managing air quality through continued collaboration;
- Strengthening communities;
- Providing recreation and tourism opportunities, active living and the preservation and promotion of the region's unique cultural and natural heritage; and
- Inclusion of aboriginal peoples in land-use planning.

Regional Outcomes

1. The region's economy is growing and diversified;
2. Biodiversity and ecosystem function are sustained with shared stewardship;
3. Air quality is managed to support healthy ecosystems and human needs through shared stewardship;
4. Watersheds are managed to support healthy ecosystems and human needs through shared stewardship;
5. Community development needs are anticipated and accommodated;
6. The quality of life of residents is enhanced through increased opportunities for recreation, active living and the preservation and promotion of the region's unique cultural and natural heritage; and
7. Aboriginal peoples are included in land-use planning.



Outcome 1:

The region's economy is growing and diversified

Energy (Petroleum and Natural Gas, Coal and Minerals)

Objective:

- Opportunities for the responsible exploration, development and extraction of energy resources are maintained.

Strategies:

- a) Ensure rules regarding **access to energy and processing and transportation of energy resources** are clear and ensure economic development opportunities are appropriately considered against other land uses and values.
- b) Maintain **physical access to freehold** (that is, privately owned) petroleum and natural gas, coal and minerals.

Growth of all energy sectors is crucial for the regional and provincial economies, and maintaining a positive investment climate is critical to the success of these industries. Securing long-term opportunities for development of the region's energy resources will support provincial and international sources of supply, and will help leverage our traditional energy commodities by accessing new and expanded markets for processed and refined products. This must be supported by the alignment of policy direction across planning regions which will facilitate access to and distribution of these resources.

Provincial legislation governing the energy, mineral and coal sectors include the *Responsible Energy Development Act*, the *Mines and Minerals Act*, the *Gas Resources Preservation Act*, the *Gas Utilities Act*, the *Oil and Gas Conservation Act*, the *Coal Conservation Act*, the *Coal Sales Act*, the *Environmental Protection and Enhancement Act*, the *Water Act*, the *Electric Utilities Act*, the *Hydro and Electric Energy Act*, the *Public Lands Act*, the *Surface Rights Act*, the *Freehold Mineral Rights Tax Act*, provincial parks legislation, and the *Alberta Land Stewardship Act*. Various other regulatory and non-regulatory requirements including policies, strategies and frameworks also apply.

Renewable Energy

Objectives:

- Opportunities for the responsible development of the region's renewable energy industry are maintained in support of Alberta's commitment to greener energy production and economic development.
- Value-added opportunities that enhance the sustainability of Alberta's industries and communities are created.



Strategies:

- a) Ensure policies are in place to promote and remove barriers to **new investments in renewable energy** (that is, wind, biofuels, solar, hydro) production.
- b) Invest in the development, demonstration and deployment of **renewable and alternative energy technologies** targeted to improve Alberta's overall energy efficiency. This will include support for the application of new technologies and support on-going research and development in partnership with other institutions.
- c) Ensure reinforcement of the **transmission system** to enable more renewable wind power in the region.

The South Saskatchewan Region has a natural advantage for renewables such as wind, solar, bio and hydro energy; exploring opportunities for renewable energy sources can contribute to reliability and security of the region's energy supply. The Government of Alberta continues to support a focus on renewable energy research through Alberta Innovates – Energy and Environmental Solutions, among others, to promote the stimulation and delivery of renewable energy sources to move directionally towards clean energy sources.

Corridors for the Co-location of Linear Infrastructure

Objective:

- The region's infrastructure is planned to facilitate economic and population growth and efficient use of land.

Strategies:

- a) Ensure that opportunities for future routes and siting for **pipeline gateways, transportation corridors and utility and electrical transmission corridors** are maintained in the region and in consideration of the needs of adjacent Land-use Framework regions and provinces.
- b) Work with municipalities, landowners and industry to explore **multi-use corridors** for co-location of linear infrastructure that supports **critical economic linkages** to markets for expanded access.

The Government of Alberta will continue to work with all stakeholders, including municipalities, First Nations, industry and other jurisdictions, to ensure long-range economic opportunities related to linear infrastructure continue. Where it is satisfied that it is in the public interest, the Cabinet may declare any area under its jurisdiction to be part of a multi-use corridor.



Agriculture

Objective:

- The region's agricultural industry is maintained and diversified.

Strategies:

- a) **Maintain an agricultural land base** by reducing the fragmentation and conversion of agricultural land.
- Municipalities are encouraged to **identify areas** where agricultural activities, including extensive and intensive agricultural and associated activities, should be the primary land use in the region.
 - Municipalities are encouraged to **limit the fragmentation** of agricultural lands and their premature conversion to other non-agricultural uses, especially within areas where agricultural has been identified as a primary land use in the region. Municipal planning, policies and tools that promote the efficient use of land should be used where appropriate to support this strategy.
 - Where possible, municipalities are encouraged to employ appropriate planning tools to direct non-agricultural subdivision and development to areas where such development will **not constrain agricultural activities**, or to areas of lower-quality agricultural lands.
 - Municipalities are encouraged to **minimize conflicts between intensive agricultural operations and incompatible land uses** by using appropriate planning tools, setback distances and other mitigating measures.
- b) Support a diverse, innovative and **value-added agriculture and agri-food sector** in the South Saskatchewan Region through implementation of [Alberta's Irrigation: A Strategy for the Future](#). Through research, programming (planning) and policy development, the roadmap will enhance both economic opportunities and contribute to vibrant rural communities in the region.
- Irrigated agriculture provides a reliable and high-quality product supply, attracting first stage processing as well as secondary and tertiary industries that benefit the local and provincial economy. The irrigation roadmap will ensure that Alberta's irrigation industry continues to be seen as a global leader in the efficient and productive use of water resources.
- c) Assist the agriculture and agri-food industry to **maximize opportunities for value-added agricultural products by focusing on workforce development, investment attraction, and domestic and international market development**.

The Government of Alberta will position the province as a competitive global supplier of agricultural products and services by enhancing and promoting Alberta's ability to provide safe and consistently dependable food in an environmentally and socially responsible manner. Toward achieving this goal, the Government of Alberta offers extension programs



and services, research-based information and innovative business tools. Productivity enhancements, workforce development and new product development will be supported through federal-provincial-territorial funding programs.

- d) Support a business climate, complementary production and marketing approach that **recognize local, domestic and international market opportunities** for Alberta's agriculture, agri-food and agri-product sectors.

Marketing is typically focused on international buyers; however, consumer demand for local and domestic products has created opportunities for the agricultural industry. Continued diversification of marketing opportunities is beneficial for the long-term sustainability of a successful agriculture, agri-food and agri-product sector in Alberta. Working with industry and non-governmental organizations, the Government of Alberta will continue to be engaged and collaborate across community and economic development, health, academic and agricultural supply chain disciplines to focus on multi-scale, commercially viable agricultural production.

- e) Support and enhance the **next generation of agricultural, food and rural entrepreneurs.**

Acting on advice from the 2013 "Next Generation Advisory Council," the Government of Alberta will work with relevant stakeholders and organizations to support the attraction of new entrants to the agriculture and agri-food sector. This will be accomplished through the development of programs and services specific to their needs, including initiatives such as ensuring that government-funded loan programs remain competitive and effective, that training and enhanced extension services are provided, and also through the continued provision of federal-provincial-territorial shared funding opportunities in the areas of business planning, transition planning, marketing, accounting, financial analysis and leadership development provided through online tutorials, seminars and one-on-one coaching.

Relevant provincial legislation governing the agriculture industry includes the *Municipal Government Act*, the *Agricultural Operation Practices Act* (AOPA and its regulations), the *Irrigation Districts Act* (including Regulations), the *Soil Conservation Act*, and both the *Forests Reserve Act* and the *Public Lands Act* with respect to grazing leases. In addition, the Natural Resources Conservation Board (NRCB) administers Part 2 of AOPA which deals with livestock and manure including permits for confined feeding operations.



Forestry

Objective:

- The region's forest industry is maintained and diversified.

Strategies:

- a) Promote diversification of the forest industry through implementation of **The Alberta Forest Products Roadmap to 2020** which will identify opportunities to diversify the sector through new markets and products, including the bioenergy sector.

- b) Deliver an effective **forest health management program to mitigate risk to timber supply and forest health.**

Invasive species and other forest health issues impacting timber supplies and other forest values will be addressed through programs to mitigate or control infestations of highest risk. Of primary concern is the mountain pine beetle. Existing policy tools and programs will be used including implementing the Mountain Pine Beetle Action Plan and Mountain Pine Beetle Management Strategy. Spruce budworm and fir defoliators are also significant forest health issues requiring continuous monitoring and control action as necessary.

- c) **Incorporate wildfire management planning** into forest management initiatives including the development of landscape wildfire risk assessments, landscape disturbance planning and FireSmart strategies. Forest Management activities – such as prescribed burning, thinning, and timber harvesting – will support meeting community and landscape-level FireSmart objectives.

Planning in the region must consider wildfire disturbances. The potential devastating impacts from wildfire can be reduced by increasing landscape resiliency. Although not all wildfires can be controlled under extreme conditions, integrated planning approaches can reduce the probability of large landscape fires over a long-term planning timeline.

Surface Materials

Objective:

- Opportunities for the responsible development of surface materials resources are maintained on public lands.

Strategies:

- a) **Allocate the surface materials** appropriately and monitor extraction operations to provide opportunities for sustainable development of the land.
- b) Municipalities, in collaboration with industry, provincial government and other stakeholders are encouraged to **identify areas of existing and future extraction of surface materials** (e.g., sand and gravel) and



mineral resources, and determine appropriate land use in the vicinity of these resources.

Surface materials are an essential component for development and maintenance of infrastructure throughout the region and province. Maintaining opportunities for surface materials resource extraction supports the increasing need for surface materials products to keep pace with the region and the province's population growth. Maintaining opportunities for the development of these resources is critical to the success of surface materials industries.

The main provincial statute governing surface materials extraction on public lands is the *Public Lands Act*. The regulation grants approvals for surface materials extraction activities through an application and lease and licensing system. The Alberta Aggregate (Sand and Gravel) Allocation Policy for Commercial Use on Public Lands provides a management framework to ensure there is fair and equitable use of Alberta's aggregate resources on public lands.

Tourism

Objective:

- The region is positioned as a world-class, year-round, tourism destination.

Strategies:

- Enhance **iconic tourism destinations** within the South Saskatchewan Region by engaging with aboriginal communities, municipalities and local stakeholders (See Appendix E – Iconic Tourism Destinations: Kananaskis, Canadian Badlands and Southern Rockies).
 - Develop **destination management strategies** that integrate planning, development, marketing and management, and **implement destination management plans** that provide direction for the sustainable development of tourism in the region in collaboration with all stakeholders for the identified destinations.
 - Identify and confirm existing and potential **tourism development nodes** in collaboration with all stakeholders, and designate and market nodes as appropriate.
 - Work collaboratively with local aboriginal communities, the private sector and provincial and local governments, interested private landowners and stakeholders to **enhance and expand the supply of tourism products, experiences and infrastructure** – including attractions, activities, amenities, accommodations and access.
- Work with municipalities, private investors and landowners to identify areas of high value for recreation and tourism, and to **encourage tourism investment and infrastructure development opportunities** on identified lands.

Iconic Tourism Destination:

An Iconic Tourism Destination is a provincially unique and awe-inspiring area that has the potential to attract visitors and gain national and international recognition. These destinations offer a variety of quality, unique and appealing experiences that contain a wide range of tourism products in the form of accommodations, attractions, events, activities and amenities.



- c) Work with municipal governments and other partners to identify, establish and promote scenic byways in and around areas with high-quality attractions and recreation and tourism features. This would include routes, trails and waterways to create distinctive travel experiences and showcase the region's unique scenic resources and cultural landscapes.
- d) Provide **long-term security** (that is, longer term leases) for tourism and recreation investment opportunities.

There is great potential for increased tourism development in the region, as it is home to diverse cultures, a rich heritage and other numerous tourism and recreation features. Additional tourism opportunities would increase the amount of tourism and recreational expenditures retained in Alberta, and would support economic diversification in the region. A competitive tourism industry depends on a sufficient supply of land where the integrity of attractive features, settings and scenery are maintained and long-term access is provided. Highway and air transportation also contributes to and supports the tourism industry and enhanced transportation access will continue to facilitate tourism activity in the region.

General Indicators:

- Gross Domestic Product
- Production volumes
- Business diversification
- Capital investments
- Building permits
- Employment
- Personal income
- Agricultural land conversion

Energy:

- Energy revenues
- Provincial royalties
- Cost of production

Agriculture:

- Farm cash receipts for major agricultural products
- Fragmentation and conversion of agricultural land to non-agricultural land uses
- New agricultural products to market
- Number of Alberta-approved farmers' market days
- Export-to-import ratio (trade balance) by product and aggregate
- The average age of Alberta farmers from the Agricultural Census
- Number of participants in beginning farmer loan programs



Forestry:

- Annual allowable cut versus timber production
- Wildfire risk

Tourism:

- Tourism receipts by visitor origin
- Tourism visitation
- Tourism visitor expenditures
- Tourism occupancy

Outcome 2:

Biodiversity and ecosystem function are sustained with shared stewardship.

Objectives:

- Terrestrial and aquatic biodiversity are maintained.
- Species at risk are recovered; and key grasslands habitat is sustained.
- Areas are added to the regional network of conservation areas.
- Biodiversity and healthy functioning ecosystems continue to provide a range of benefits to communities in the region and all Albertans.
- Long-term forest ecosystem health and resiliency are maintained.

Biodiversity and Ecosystems

Strategies:

- Complete the South Saskatchewan Biodiversity Management Framework** by the end of 2014. (See Appendix F – Overview of Biodiversity Management Framework.)

The biodiversity management framework is a new approach to support cumulative effects management of important elements of biodiversity that are affected by land uses in the region. It is not intended to address all aspects of biodiversity.

The framework will focus on indicators based on key species that represent the broad range of biodiversity in the region, important habitats where specific direction is provided in recovery plans (e.g., grizzly bears); and maintaining key landscapes (protection of headwaters, retaining existing intact public land grassland areas) important to sustaining long-term ecosystem health. Biodiversity targets for these selected indicators will provide guidance for



decisions about future and existing land-use activities. The framework will also provide guidance for integrated management approaches on public lands. While the objectives set in the framework will apply to the entire region (including private lands) it is recognized that any actions by landowners towards meeting objectives is voluntary and subject to availability and landowner interest to use tools such as conservation easements and other mechanisms described in the next section on Stewardship and Conservation on Private Lands. The biodiversity management framework will be implemented to add to and complement, not replace or duplicate, existing policies, legislation, regulations and management tools.

Monitoring of the indicators will be through the Alberta Biodiversity Monitoring Institute and other finer scale monitoring by the Government of Alberta and partners. By focusing on management actions for these indicators, it is expected that other indicators of biodiversity will benefit. Monitoring will be essential to validate this assumption.

- b) **Manage existing conserved lands** to achieve long-term conservation of biological diversity and ecosystem processes.
- c) Create **new conservation areas** on provincial Crown land. (See Schedule C – SSRP Land Uses and Schedule D – SSRP Digital Map.)
- d) Develop a **linear footprint management plan** for White and Green Area public lands in the region by the end of 2017. These plans will outline a system to minimize the extent, duration and rate of linear footprint development in order to meet objectives and targets established in the South Saskatchewan Biodiversity Management Framework.

Key features of this plan are listed below:

- Requirements related to linear footprint intensity, including limits where applicable, in specific areas such as species at risk habitat (for example, sage grouse habitat in the southeast portion of the region, areas of core grizzly habitat in eastern slopes).
- Required use of Integrated Land Management (ILM) tools to minimize the extent and duration of linear footprint including coordinated industry planning of major access corridors and associated development infrastructure; re-use of existing linear disturbances; and progressive and timely reclamation of linear disturbances.
- A practical system for monitoring, measuring and reporting on linear footprint.

White Area Public Land:

- Integration with other initiatives such as the Southeast Conservation Offset Pilot and MULTISAR (Multiple Species at Risk – a voluntary species-at-risk conservation program).
- An approach to voluntary conservation offsets for native grasslands, where public land linear footprint could be voluntarily offset through agreements with landowners for conservation of intact grasslands on private land. The approach would build off principles established in

Conservation Areas

Definition:

A clearly defined geographical space dedicated and managed to achieve the long-term conservation of biological diversity and ecosystem process.

Management Intent:

Legally protect areas that are relatively undisturbed. They retain their natural character and influence and are areas for measuring ecological performance in relation to human development.

Key Criteria for Conservation Areas

- Areas with little to no industrial activity;
- Areas that support aboriginal traditional uses;
- Areas that are representative of the biological diversity of the area (e.g., land forms, species, vegetation); and
- Areas of sufficient size.



Information Letter 2002-1 of the Alberta Energy Regulator (formerly the Energy Resources Conservation Board) entitled *Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas*.

Green Area Public Land:

- A management approach for motorized access or “open route density” – a key action identified in Alberta’s grizzly bear recovery plan.
- Integration with other planning initiatives such as the regional trail system plan for recreation, and initiatives led by partners such as watershed planning advisory councils.

Research and species recovery planning initiatives in the region (and other parts of Alberta) have shown that managing linear human footprint (linear footprint) is one of the most significant actions that can be taken to support biodiversity. The linear footprint management plan will have an initial focus on key headwaters, grizzly bear habitat and intact native prairie in the grasslands.

- e) Consolidate and expand **Public Land Use Zones for Green Area** public lands. (See Appendix G – Consolidation and Expansion of Public Land Use Zones.)

These areas provide important recreational opportunities including off-highway vehicle recreation. Public Land Use Zones are being consolidated and expanded to improve the province’s ability to more effectively manage public land across the Green Area, manage undesirable impacts, address priority issues, and increase the safety and enjoyment of recreationists throughout these areas. The steps that will be used for the consolidation and expansion are described in Appendix G.

The intention is to recognize Albertans’ wishes to have access for recreation including off-highway vehicle use and to provide opportunities for this while ensuring there is protection for watercourses, water bodies and wetland areas. Requirements in existing legislation continue and where necessary they have been reinforced through enhancements to regulations. Safety is also a priority. There are requirements to avoid camping and off-highway vehicle recreation on industrial facility areas, for example well sites.*

The Public Land Use Zones will be used in the implementation of other strategies of the regional plan, including recreation and access management plans, the linear footprint management plan and the Regional Trail Systems Plan.

* amendments will be made to the Public Lands Administration Regulation

- f) Review and incorporate the region’s **Integrated Resource Plans**.

Numerous sub-regional Integrated Resource Plans (IRPs) have been in place under the Eastern Slopes Policy, and new plans will be developed in this regional plan (linear footprint management, recreation and access management plans). A deliberate effort is needed to streamline and reduce the number of sub-regional-scale plans to ensure effective implementation of the regional plan. The review of IRPs will ensure that



provisions that are still relevant will be maintained and ensure clarity and consistency with the regional plan.

The Majorville Land Management Framework, an on-going, collaborative initiative to conserve significant natural and cultural resources in the Majorville area, will also be considered in this review. This collaborative initiative with external partners supports an area that is recognized for its heritage values, First Nations traditional use, and unique native prairie biodiversity within existing agricultural and industrial developments.

- g) Engage in collaborative **outreach and education programs** to promote responsible land use and shared stewardship on the eastern slopes. An “on the ground” program will be established including seasonal outreach staff with a field presence. Responsible use messaging will include providing information on requirements to avoid watercourses, water bodies and wetland areas as well as the need to avoid power line rights-of-way and other industrial facilities for safety purposes.

- h) **Manage forests** in the Green Area with headwaters protection and integrity (water storage, recharge, and release functions) as the highest management priority.

Other values such as biodiversity (grizzly bear, limber pine and whitebark pine recovery), forest ecosystem resiliency (natural disturbance patterns), and timber supply will be key secondary management priorities. Practices to manage wildfire risk to communities will be equal in priority to headwaters protection and integrity. This strategy for the region will form part of a provincial Alberta Forestry Strategy which is under development.

In the Green Area, forest management activities are guided by forest management plans and the timber harvest planning and operating ground rules. The plans for the Forest Management Unit C5 and Spray Lakes Sawmills Forest Management Agreement areas and associated ground rules will be adjusted to align with this strategy for the region.

- i) **Minimize conversion of intact native grasslands** through guidelines to avoid new sales of surface public land in areas of intact native grasslands. (See Appendix H – Conversion of Grasslands – White Area Public Land – Policy Guidelines.)

The native grasslands represent a diverse habitat containing many species not found elsewhere in Alberta. It is important to preserve this unique landscape.

Public Land Use Zones (PLUZ) are designed to facilitate a wide range of recreation activities and ecosystem services provision which are compatible with managed industrial activity, primarily forest management, livestock grazing, and also oil and gas and surface materials extraction.



- j) Continue to work with other government agencies, other levels of government, landholders, non-government organizations, industry, the research community, and other partners within and outside the province to **manage risk associated with invasive species**.

Invasive species already established will be controlled where environmental and economic impacts are at greatest risk. Invasive species not yet found in Alberta but with high environmental or economic risk will have programs developed and implemented to prevent establishment. In addition to terrestrial invasive species, a current focus is on the three most noxious aquatic invasive species: zebra mussels, quagga mussels and Eurasian water-milfoil. Preventing establishment of these species is important for both maintaining aquatic ecosystem health and to avoid the economic costs associated with affected water infrastructure.



Regulatory Details Plan: Part 2 Conserved Land

Designated Minister

13 For the purposes of this Part, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Surveys Act* is the Designated Minister.

Definitions

14 In this Part,

- (a) “conservation purposes,” in respect of land, means the purposes referred to in section 29(1) of the Act, but does not include the following agricultural purposes:
 - (i) cultivation;
 - (ii) clearing; and
 - (iii) range improvements within the meaning of regulations and rules under the *Public Lands Act*.
- (b) “conserved land” means
 - (i) wildland provincial parks designated under the *Provincial Parks Act*;
 - (ii) wilderness areas, ecological reserves, natural areas and heritage rangelands designated under the *Wilderness Areas, Ecological Reserves, Natural Areas and Heritage Rangelands Act*; and
 - (iii) Castle Conservation Area public land use zone designated under the *Public Lands Act*.

Conserved land

15 The Designated Minister shall establish and maintain programs

- (a) monitoring the total combined area of conserved land in the planning region, and
- (b) evaluating the ratio of conserved land referred to in clause (a) to the total area of land comprising the planning region.



Regulatory Details Plan: Part 3 Conservation Areas

Definitions

16 In this Part, “conservation area” means the lands identified as conservation areas and labeled “A” through “K” on the SSRP Digital Map Schedule “D”.

Designated Minister in respect of conservation areas – Wildland Provincial Parks

17 For the purposes of this Part in respect of conservation areas “A” through “I” as shown on the SSRP Digital Map, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Provincial Parks Act* is the Designated Minister.

Designated Minister in respect of conservation areas – Heritage Rangeland

18 For the purposes of this Part in respect of conservation area “J” as shown on the SSRP Digital Map, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Public Lands Act* is the Designated Minister.

Designated Minister in respect of conservation areas – Public Land Use Zone

19 For the purposes of this Part in respect of conservation area “K” as shown on the SSRP Digital Map, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Public Lands Act* is the Designated Minister.

Conservation objectives

20(1) The Designated Minister may take whatever steps those in the opinion of the Designated Minister are desirable for achieving the conservation objectives of the SSRP Strategic Plan and SSRP Implementation Plan and for implementing Schedule “C” to the SSRP Implementation Plan in respect of conservation areas.

(2) Subject to any other law, a statutory consent may be renewed in a conservation area if the statutory consent is, at the effective date of renewal, in good standing under the provisions of the enactment or enactments applicable to the statutory consent, and

- (a) if the statutory consent is consistent with this regional plan; or
- (b) if the statutory consent is inconsistent with or non-compliant with this regional plan, within the meaning of section 11(2), but
 - (i) is an agreement under the *Mines and Minerals Act* or a disposition under the *Public Lands Act* that is valid and subsisting at the time this regional plan comes in to force, or
 - (ii) if it is not an agreement or disposition referred to in subclause (i), but is, within the meaning of section 11(4), incidental to an agreement or disposition referred to in subclause (i).



Programs to manage objectives

21 In respect of the land use in a conservation area, the Designated Minister shall establish and maintain programs evaluating the effectiveness of the conservation area in meeting the relevant conservation objectives in the SSRP Implementation Plan.

Castle Conservation Area Public Land Use Zone

22(1) The land shown as “K” on the SSRP Digital Map Schedule “D” is designated as the Castle Conservation Area.

23(1) Subject to subsection (2), the Minister responsible for the *Public Lands Act* shall not, with respect to land that is included in the Castle Conservation Area Public Land Use Zone,

- (a) grant authority to construct an access road, or
- (b) grant a disposition under the *Public Lands Act*.

(2) Notwithstanding subsection (1), the Minister responsible for the *Public Lands Act* may

- (a) grant an authority or disposition referred to in subsection (1) for the purpose of the working, extraction or removal of subsurface minerals from land within the Castle Conservation Area Public Land Use Zone, if the rights to the subsurface minerals existed on the coming into force of the regional plan,
- (b) grant an authority or disposition referred to in subsection (1) for the purpose of the harvesting of timber from land included within the Castle Conservation Area Public Land Use Zone.
- (c) grant an authority or disposition referred to in subsection (1) if the authority pertains to land which has been designated as Multi-use Corridor.

24(1) The Minister responsible for the *Forest Reserves Act*, may grant a disposition allowing the grazing of livestock on land included in the Castle Conservation Area Public Land Use Zone.

25(1) The Minister responsible for the *Forests Act* may issue a timber license, timber permit or grant any other authority to harvest timber from land included within the Castle Conservation Area Public Land Use Zone.



Stewardship and Conservation on Private Lands

Objectives:

- The contributions of landowners for their stewardship and conservation efforts on private lands are recognized.
- The contribution and value of private land in supplying ecosystem services is recognized, and opportunities to support ecosystem services on private land are identified.
- The value of ecosystem services supplied by economic sectors reliant on private lands is recognized.

Strategies:

- Encourage and support the continued stewardship of Alberta's private lands through the development and **piloting of regionally appropriate conservation tools**. These tools may include exploring market-based options, voluntary conservation easements, and the provision of other government and/or private sector incentives that assist in achieving environmental outcomes. This will be done within the provincial approach for management of ecosystem services.
 - Acknowledge the voluntary contributions of private land owners in enhancing ecosystem services. Assess opportunities for achieving greater regional biodiversity on private agricultural lands through the development of new and/or expanded voluntary partnerships with private landowners.
 - Consider pilot studies with the goal of assisting development of a voluntary, privately operated, market-based system for ecosystem services valuation and payment.
 - Encourage local authorities or qualified organizations to explore the applicability and use of voluntary stewardship and conservation tools on private lands including conservation easements, conservation off-set programs and transfer of development credit schemes.
 - Explore innovative funding mechanisms to support stewardship and conservation on private lands.
- Complete development and evaluation of the **Southeast Conservation Offset Pilot** by the end of 2015.

The pilot will offset new industrial impacts on native prairie (such as oil and gas or power lines development) by contracting private landowners (through a third party) to convert fields from annual cropland to native range. The pilot will test aspects of voluntary conservation offsets including:

- A workable approach to quantify development site offset requirements;
- A market-based approach to target offset habitat project development on privately owned agricultural lands with the greatest benefit for biodiversity and species at risk;



- An open-price discovery approach to determine agricultural landowner costs; and
- The role for a third party to facilitate habitat development and associated conservation offset obligations (including contracts, verification and monitoring).

Experience gained through the pilot study will be used to educate and demonstrate the use of offsets to producers and to inform development of future market-based approaches for ecosystem services.

- c) Develop and facilitate the continued adoption of **environmentally beneficial management practices that demonstrate agriculture and agri-food sector commitment to environmental stewardship**.
- Implementation of programs will help encourage adoption of beneficial management practices that contribute to environmental health.
- d) Consider **intact native grasslands as the highest priority under the Land Trust Grant Program**.

Outcome 3:

Air quality is managed to support healthy ecosystems and human needs through shared stewardship.

Air Quality

Objective:

- Releases from various point and non-point sources are managed so they do not collectively result in unacceptable air quality.

Strategy:

- a) Implement the **Air Quality Management Framework for the South Saskatchewan Region**.

Implementation of the Air Quality Management Framework will serve as one of the ways that the provincial commitment to a comprehensive Air Quality Management System and cumulative effects management will be delivered at a regional scale. The ambient air quality limits and triggers in the framework are based on Canadian Ambient Air Quality Standards for fine particulate matter and ground-level ozone, and Alberta Ambient Air Quality Objectives for nitrogen dioxide.

If monitoring indicates that a trigger or limit has been exceeded, there will be a management response. The framework describes the kinds of management actions that may be required, such as the preparation of management plans (individual or collective) and further modeling and/

Land trusts are non-profit charitable organizations that seek to enable conservation of private lands.

The Government of Alberta established the **Land Trust Grant Program** in 2011 whereby proceeds from the sales of public lands are directed to the Land Stewardship Fund which provides funding to Alberta land trusts for:

- The acquisition of conservation easements
- Administrative costs associated with obtaining and managing a new conservation easement or donated land (legal fees, baseline surveys and stewardship endowments).

To be eligible to receive funding, the land trust must demonstrate that it has two-to-one leveraging of funds and alignment to the Government of Alberta's conservation initiatives (protecting large areas of intact native habitat, intact native grasslands).

From 2011 to 2013, the Land Trust Grant Program has granted approximately \$20 million for the conservation of approximately 43,400 acres of land.

Under a **conservation easement**, landowners can voluntarily restrict the use of their land to protect its natural, agricultural or cultural heritage. The landowner retains ownership of the land and the easement is registered on land title.

Conservation easements have been in place for over 15 years. Through the *Alberta Land Stewardship Act*, the provisions for easements were expanded to include agricultural lands.



or monitoring. Taking action to manage air quality in the region will involve the provincial government and a number of parties, including municipalities, partnership groups like local airshed groups, individual citizens and others. Finally, the framework establishes a commitment to ongoing monitoring, evaluation and reporting of ambient air quality conditions, and verification if triggers or limits are exceeded. This is described in more detail in the management framework.

The Government of Alberta will continue to work with local airshed groups within the South Saskatchewan Region. The local airshed groups have made important contributions and will continue to serve an important role in contributing to management of air quality issues.

There are some issues that are more local in nature in the region, including odour, dust, and issues related to emissions from individual industrial activities, such as sour gas plants, aggregate facilities and agricultural operations. As appropriate, the Government of Alberta will continue to monitor and assess these local issues and work collaboratively to determine appropriate place-based management actions and mitigation of effects. This will include the continued application of regulatory tools, such as regulation of industrial facilities under the *Environmental Protection and Enhancement Act* and requirements for Confined Feeding Operations under the *Agricultural Operation Practices Act*, and use of non-regulatory approaches such as beneficial management practices.

- b) Continue to support the implementation of the **Calgary Region Airshed Zone Particulate Matter and Ozone Management Plan** in alignment with implementation of the national Air Quality Management System and the air quality management framework for the South Saskatchewan Region.
- c) Encourage municipalities, industry and the public to be **proactive in addressing air quality issues** through voluntary programs and initiatives.

The relevant legislation includes the *Environmental Protection and Enhancement Act* and the *Agricultural Operation Practices Act* and regulations.

Indicators:

- Fine particulate matter ($PM_{2.5}$).
- Ground-level ozone (ozone or O_3).
- Nitrogen dioxide (NO_2).

Limits:

- Based on existing Canadian Ambient Air Quality Standards for fine particulate matter and ozone (see Schedule A – Air Quality Management Framework Limits and Triggers) and Alberta Ambient Air Quality Objectives for nitrogen dioxide.



- Apply at continuous air monitoring stations in the South Saskatchewan Region as reported through the Clean Air Strategic Alliance Data Warehouse.

Triggers:

- Based on existing Canadian Ambient Air Quality Standards for fine particulate matter and ozone, and the Alberta Ambient Air Quality Objectives for nitrogen dioxide. (See Schedule A – Air Quality Management Framework Limits and Triggers.)
- Apply at continuous air monitoring stations in the South Saskatchewan Region as reported through the Clean Air Strategic Alliance Data Warehouse.



Regulatory Details Plan: Part 4 Air Quality

Designated Minister

26 For the purposes of this Part, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Environmental Protection and Enhancement Act* is the Designated Minister.

Definitions

27 In this Part,

- (a) “framework” means the document referred to in this regional plan as the Air Quality Management Framework for the South Saskatchewan Region as amended or replaced from time to time;
- (b) “limit” means the applicable limit specified in Schedule “A” Tables 1 and 3 of the SSRP Implementation Plan;
- (c) “person responsible” has the same meaning as defined in the *Environmental Protection and Enhancement Act*;
- (d) “trigger” means the applicable trigger specified in Schedule “A” Tables 1, 2 and 3 of the SSRP Implementation Plan.

Designated Minister’s decision final and binding

28(1) The Designated Minister in the exercise of the Designated Minister’s powers and duties under this Part may determine

- (a) the measurements of substances of concern at monitoring stations established and maintained under a program referred to in section 29;
- (b) whether a trigger or limit has been exceeded for the purposes of this Part;
- (c) whether a trigger or limit exceeded in respect of one or more specific areas in the planning region is of concerning other areas of the planning region or the whole planning region; and
- (d) the duration of an exceedance of a trigger or limit determined by the Designated Minister.

(2) The Designated Minister’s determination is final and binding on the Crown, decision-makers, local government bodies, and, subject to section 15.1 of the Act, all other persons.

Programs to manage effects

29 In respect of the framework, the Designated Minister shall establish and maintain programs

- (a) managing ambient air quality limits and triggers for substances that in the opinion of the Designated Minister are indicators of the air quality effects of concern for the planning region;
- (b) monitoring and evaluating the ambient air quality in the planning region; and



- (c) evaluating the effectiveness of the framework in meeting the air quality objective stated in the SSRP Implementation Plan.

Notice respecting limits

30(1) If in the opinion of the Designated Minister, a non-point source or non-point sources are reasonably expected to have a significant direct or indirect effect on the limit or limits, the Designated Minister is not required to issue a notice pursuant to subsection (2).

(2) In respect of one or more limits that, in the opinion of the Designated Minister, has been exceeded, the Designated Minister shall issue a notice specifying:

- (a) an activity or activities or type, types, class or classes of activity or activities that in the opinion of the Designated Minister are reasonably expected to have a direct or indirect effect on the limit or limits;
- (b) the applicable limit or limits in respect of the activity or activities referred to in clause(a) that, in the opinion of the Designated Minister, has been exceeded;
- (c) the relevant area of the planning region affected by the limit or limits;
- (d) the decision-maker or decision-makers affected by the notice;
- (e) the local government body or local government bodies affected by the notice;
- (f) the anticipated duration of the effect of the exceedance of the limit or limits on the activity, type, types, class or classes of activity or activities, area, decision-maker, decision-makers, local government body or local government bodies;
- (g) action to be taken by affected decision-makers and affected local government bodies in response to the exceedance of the limit.

(3) All affected decision-makers and affected local government bodies referred to in (2)(d) and(e) shall be served with the notice by personal service, registered mail, or fax.

(4) Upon receiving a notice referred to in subsection (2) a decision-maker or local government body is bound by the notice.

(5) A notice referred to in subsection (2) shall be publicly available.

Management response

31(1) If the Designated Minister determines that a trigger or limit has been exceeded, an appropriate official or officials in the Designated Minister's government department must initiate a management response consistent with the framework.

(2) A person responsible shall comply with the lawful directions of an official in respect of a management response referred to in subsection (1).



(3) An official responsible for initiating a management response under this section shall as soon as practicable report to the Designated Minister in writing the details and the effect of the management response.

(4) A report referred to in subsection (3) shall be publicly available.

Designated Minister's considerations

32 For greater clarification, in reaching an opinion under sections 30 and 31, the Designated Minister may consider such information as in the Designated Minister's opinion is material to

- (a) a particular activity or activities or type or class of activity or types or classes of activities;
- (b) the relevant area or relevant part of the area in which the activity is to occur;
- (c) the relevant area or relevant part of the area in which an effect or effects of the activity or activities are reasonably expected to occur;
- (d) the reasonably expected, relevant period or duration of the effect or effects of the activity or activities;
- (e) any other matter that in the Designated Minister's opinion is advisable under a program referred to in Section 29.



Outcome 4:

Watersheds are managed to support healthy ecosystems and human needs through shared stewardship.

Surface Water Quality

Objective:

- Surface water quality in the Bow, Oldman, South Saskatchewan and Milk rivers is managed so current and future water uses are protected.

Strategies:

- a) Implement the **Surface Water Quality Management Framework for the South Saskatchewan Region.**

Implementation of the Surface Water Quality Management Framework will provide an important approach for the management of cumulative effects of development on ambient water quality. The surface water quality limits in the framework are based on provincially used water quality guidelines. They were chosen to protect the most sensitive water use such as agricultural, industrial, recreational and esthetics, drinking water and protection of aquatic life. The surface water quality triggers in the framework form an early warning system to signal change.

If monitoring indicates that a trigger or limit has been exceeded, there will be a regional management response. The framework describes the kinds of management responses that may be required, such as the preparation of management plans (individual or collective), further modeling and/or monitoring, development and the use of best management practices, and education and awareness programs. Taking action to manage surface water quality in the region will involve the provincial government and a number of parties, including the agricultural sector, municipalities, partnership groups and others. Finally, the framework establishes a commitment to ongoing monitoring, evaluation and reporting of ambient water quality conditions and verification if triggers or limits are exceeded.

A Phosphorus Management Plan for the Bow River has been initiated as a proactive management response to elevated phosphorus levels in the river. This multi-stakeholder collaborative project is a means to address point and non-point source phosphorus inputs using a cumulative effects management approach. As part of the implementation of the Surface Water Quality Management Framework for the South Saskatchewan Region, the work on the Phosphorus Management Plan will continue and will be ready for implementation by the end of 2013.

The relevant legislation includes the *Environmental Protection and Enhancement Act*, the *Water Act* and the *Agricultural Operations Practices Act*.



Indicators:

- Fifteen general water quality indicators have been selected. (See Schedule B – Surface Water Quality Management Framework Limits and Triggers); and
- Two metals and four pesticides have been selected as secondary indicators to be monitored, but triggers and limits are not yet established due to insufficient data.

Limits:

- Established from existing provincially accepted water quality guidelines where applicable; further risk-based limits are to be developed. (See Schedule B – Surface Water Quality Management Framework Limits and Triggers.)
- Apply at nine Long Term River Network monitoring stations as indicated in the management framework.

Triggers:

- Based on statistical deviation from historical ambient concentrations. (See Schedule B – Surface Water Quality Management Frameworks Limits.)
- Apply at nine Long Term River Network monitoring stations as indicated in the management framework.



[illegible]



Regulatory Details Plan: Part 5 Surface Water Quality

Designated Minister

33 For the purposes of this Part, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Environmental Protection and Enhancement Act* is the Designated Minister.

Definitions

34 In this Part,

- (a) “framework” means the document referred to in this regional plan as the Surface Water Quality Management Framework for the mainstem Bow, Milk, Oldman and South Saskatchewan River as amended or replaced from time to time;
- (b) “limit” means the applicable limit specified in Schedule “B” Tables 1 and 9 of the SSRP Implementation Plan;
- (c) “person responsible” has the same meaning as defined in the *Environmental Protection and Enhancement Act*;
- (d) “trigger” means the applicable trigger specified in Schedule “B” Tables 1 and 9 of the SSRP Implementation Plan;
- (e) “water” has the same meaning as defined in the *Water Act*.

Designated Minister’s decision final and binding

35(1) The Designated Minister in the exercise of the Designated Minister’s powers and duties under this Part may determine

- (a) the measurements of substances of concern at monitoring stations established and maintained under a program referred to in section 36;
- (b) whether a trigger or limit has been exceeded for the purposes of this Part;
- (c) whether a trigger or limit exceeded in respect of one or more specific areas in the South Saskatchewan Region is of concern, or its tributaries or distributaries, or other areas of the planning region or the whole planning region; and
- (d) the duration of an exceedance of a trigger or limit determined by the Designated Minister.

(2) The Designated Minister’s determination is final and binding on the Crown, decision-makers, local government bodies, and, subject to section 15.1 of the Act, all other persons.



Programs to manage effects

36 In respect of the framework, the Designated Minister shall establish and maintain programs

- (a) managing water quality limits and triggers for substances that in the opinion of the Designated Minister are indicators of the surface water quality effects of concern for the South Saskatchewan Region;
- (b) monitoring and evaluating the water quality in the South Saskatchewan Region; and
- (c) evaluating the effectiveness of the framework in meeting the water quality objective for the South Saskatchewan Region stated in the SSRP Implementation Plan.

Notice respecting limits

37(1) If in the opinion of the Designated Minister, a non-point source or non-point sources are reasonably expected to have a significant direct or indirect effect on the limit or limits, the Designated Minister is not required to issue a notice pursuant to subsection (2).

(2) In respect of one or more limits that, in the opinion of the Designated Minister, have been exceeded, the Designated Minister shall issue a notice specifying:

- (a) an activity or activities or type, types, class or classes of activity or activities that in the opinion of the Designated Minister are reasonably expected to have a direct or indirect effect on the limit or limits;
- (b) the applicable limit or limits in respect of the activity or activities referred to in clause(a) that, in the opinion of the Designated Minister, has been exceeded;
- (c) the relevant area of the planning region affected by the limit or limits;
- (d) the decision-maker or decision-makers affected by the notice;
- (e) the local government body or local government bodies affected by the notice;
- (f) the anticipated duration of the effect of the exceedance of the limit or limits on the activity, type, types, class or classes of activity or activities, area, decision-maker, decision-makers, local government body or local government bodies;
- (g) action to be taken by affected decision-makers and affected local government bodies in response to the exceedance of the limit.

(3) All affected decision-makers and affected local government bodies referred to in subsection (2)(d) and (e) shall be served with the notice by personal service, registered mail, or fax.

(4) Upon receiving a notice referred to in subsection (2) a decision-maker or local government body is bound by the notice.

(5) A notice referred to in subsection (2) shall be publicly available.



Management response

38(1) If the Designated Minister determines that a trigger or limit has been exceeded, an appropriate official or officials in the Designated Minister's government department must initiate a management response consistent with the framework.

(2) A person responsible shall comply with the lawful directions of an official in respect of a management response referred to in subsection (1).

(3) An official responsible for initiating a management response under this section shall as soon as practicable report to the Designated Minister in writing the details and the effect of the management response.

(4) A report referred to in subsection (3) shall be publicly available.

Designated Minister's considerations

39 For greater clarification, in reaching an opinion under sections 37 and 38, the Designated Minister may consider such information as in the Designated Minister's opinion is material to

- (a) a particular activity or activities or type or class of activity or types or classes of activities,
- (b) the relevant area or relevant part of the area in which the activity is to occur,
- (c) the relevant area or relevant part of the area in which an effect or effects of the activity or activities are reasonably expected to occur,
- (d) the reasonably expected, relevant period or duration of the effect or effects of the activity or activities, (e) any other matter that in the Designated Minister's opinion is advisable under a program referred to in section 36.



Enhanced Integrated Watershed Management

Objective:

- Regional approaches and tools support integrated management of water and aquatic ecosystems.

Strategies:

- a) Develop a comprehensive approach for **groundwater management**.
 - Confirm priority issues and areas of concern and accelerate monitoring at existing wells in the areas of concern in 2014.
 - Develop an enhanced regional monitoring strategy, to focus on priority issues, by the end of 2015.
 - Continue groundwater mapping in Southern Alberta under the Provincial Groundwater Inventory Program.
 - Develop policy direction related to the connectivity of groundwater to nearby surface water sources.
- b) Continue to support the work of the **watershed planning and advisory councils on watershed assessment and planning** under the Water for Life strategy, in alignment with regional planning. All stakeholders are encouraged to support the work of the watershed planning and advisory councils.
- c) Continue to increase knowledge and **improve management of wetland areas** within the region.
 - Establish regional wetland management objectives under the Alberta Wetland Policy.
 - Continue to facilitate the advancement of wetland knowledge, data systems, and science in the region. Current efforts in these areas include enhancement of the Alberta Wetland Inventory, development of the Alberta Wetland Classification System, and refinement of several wetland assessment tools.
- d) Continue to increase knowledge and **improve management of riparian areas** within the region.
 - Assess the feasibility and need for a regional riparian management strategy, building on the work of the Alberta Water Council's recommendations which are expected by the end of 2014.
 - Encourage municipalities to use **Stepping Back from the Water** to establish appropriate setbacks to maintain water quality, flood water conveyance and storage, bank stability and habitat.
 - Encourage landowners to maintain their riparian areas following beneficial management practices such as those developed by the Alberta Riparian Habitat Management Society (also known as "Cows and Fish").



- Continue to increase knowledge of riparian areas including continued work on mapping and inventories and working with partner organizations and First Nations as appropriate.
- e) Encourage the use of beneficial management practices for large scale land disturbances to **minimize sedimentation of waterways**.
- Encourage municipalities to work with land developers to develop and implement beneficial management practices and establish guidelines for erosion and sediment control.
- f) Encourage the development of **source water protection plans** and the use of **source water protection measures**. Source water protection plans may be developed by municipal water utilities, watershed planning and advisory councils and upstream stakeholders and include aboriginal participation where appropriate as a collaborative effort which is important for successful implementation.
- g) Continue to require the development of **drinking water safety plans** for all municipal waterworks systems as required under the current regulatory system. Municipalities are encouraged to work collaboratively with upstream stakeholders to identify and mitigate risks in watersheds.
- h) Encourage decision-makers and land managers to use the **available planning information**, including: riparian and wetland mapping and inventories, environmentally significant areas mapping and groundwater vulnerability mapping.

The province continues to be committed to integrated management considering water supply, water quality and aquatic ecosystems. In order to support successful integrated management of water and aquatic ecosystems, ongoing work is needed to ensure innovation and development of tools and approaches. Shared stewardship and collaboration will continue to be underlying principles.

Efficient and Resilient Water Supply

Objective:

- Water is used as efficiently as possible to meet the current and future human and ecosystem needs.
- There is resiliency in the ability of the water management system to adapt to change over time.

Strategies:

- a) Continue to develop an **optimized water management infrastructure system** in the region.

The provincial water management infrastructure will continue to be assessed for optimization and efficiencies to address periods of both low flows and drought conditions, and high flows and flooding conditions. This will build on completed work including:



- The **Water Supply Study** (2009) which assessed current and future water supply and demands.
- The South Saskatchewan River Basin Adaptation Project which takes a multi-stakeholder approach to identify opportunities for integrated management of the Bow, Oldman and South Saskatchewan river systems.
- The Bow River Project (2010) which will be used to determine options for managing existing flows and better achieving environmental, irrigation and municipal needs.
- A water storage opportunities study for the South Saskatchewan Region that will be complete by the end of 2015 to explore the potential to develop additional water storage in the region and assess on-stream and off-stream storage sites.

- b) Continue to work towards the Water for Life outcome with all sectors demonstrating best management practices, ensuring **overall water efficiency and productivity in Alberta improves by 30 per cent** from 2005 levels by 2015.

All seven major water-using sectors will implement their water conservation, efficiency and productivity plans, and produce regular progress reports to the Alberta Water Council. The irrigation and urban municipalities sectors were the first to complete their plans and are currently working on implementation. The Alberta Urban Municipalities Association is working with its members to improve water conservation measures and many of the urban municipalities in the region already have water saving programs in place.

The Alberta Irrigation Projects Association developed the irrigation sector plan. They have already reported improvements and are on track to meet their targets. As the largest water user in the region, the irrigation industry recognizes the need to promote technologies and practices that conserve water resources and only utilize the amount of irrigation water required for crop growth. Looking forward, the Government of Alberta will continue to support water conservation targets through efforts such as implementation of Alberta's Irrigation: A Strategy for the Future.

Progress across all water sectors is being assessed and future direction will be considered in 2015. This may include development of regionally based targets and other additional commitments to improve efficiency and productivity.

- c) Continue to develop approaches to address the **climate variability** found in the region.
- Support flood management planning and preparedness including assessment of flood risk through:
 - Continuing to develop and update **flood hazard mapping** in regions where flooding puts current and future development and infrastructure at risk. Flood hazard mapping will be used in decision-making and to determine appropriate limitations **for new developments and infrastructure**.

On-farm irrigation efficiencies

Irrigation efficiency is the amount of water available for crop growth relative to the amount of water diverted. Highly efficient irrigation minimizes water losses that result from seepage, evaporation and return flows. On-farm efficiency is influenced by the relative uniformity of water application to the field which differs by the type of irrigation system used. For example, a low pressure pivot is more efficient than a side roll wheel move system as water is applied more uniformly and with less evaporative loss.

Flood Hazard Mapping

Flooding can cause damage to property, hardship to people and, in extreme events, loss of life. To assist Albertans in mitigating potential flood losses, the Government of Alberta manages the production of flood hazard studies and mapping under the provincial Flood Hazard Identification Program. Flood hazard mapping delineates flood hazard areas along streams and lakes using design flood levels established as part of flood hazard studies. Flood hazards have not been identified in all communities and may exist in areas without flood hazard studies or mapping.



- Supporting development of **municipal flood hazard mitigation plans** to mitigate the threat from flooding to communities in the region.
- Continuing to work on modeling and data management.
- Supporting drought management planning and preparedness.
- Further develop climate adaptation tools and initiatives.

Indicators:

- Annual reported water use volumes by major licence holders.
- Water conservation holdback volumes through licence transfers for the Bow, Oldman and South Saskatchewan rivers.
- Annual water supply volumes for the Bow, Milk, Oldman and South Saskatchewan rivers.
- Percentage of time the water conservation objective targets are achieved annually for key reaches of the Bow, Oldman and South Saskatchewan rivers.
- On-farm irrigation efficiencies achieved with time.

Efficient use of water is an important underlying principle everywhere, but is especially important in the geographic and climatic setting of southern Alberta. This valuable resource cannot be wasted. Approaches and tools will vary across sectors but the overall conservation, efficiency and productivity goals apply to all. Linked to this is the role that the established water management infrastructure in the region plays in achieving those goals. The region must also be able to adapt to the challenges related to current and projected climate variability.

Headwaters

Objective:

- Headwaters in the region are managed to maintain recharge capabilities and support critical water quality, quantity and aquatic ecosystem requirements.

Strategies:

- a) **Headwaters are protected** through the establishment of conservation areas. (See Outcome 2.)
- b) Continue **collaboration with the watershed planning and advisory councils on headwaters management initiatives** such as development of headwaters integrity indicators.
- c) Review existing **water conservation objectives for headwaters tributaries** in support of the Approved Water Management Plan for the South Saskatchewan River Basin.



The aquatic environment and the water people in the region rely on cannot be sustained unless headwaters are protected. The importance of headwaters has been recognized in the unique geography of the eastern slopes. Headwaters in other parts of the region, although for smaller watersheds, are equally important. Collaboration and shared stewardship will be essential to achieving responsible management.

Outcome 5: Community Development Needs Are Anticipated and Accommodated

Planning Cooperation and Integration

Objectives:

- Cooperation and coordination are fostered among all land-use planners and decision-makers involved in preparing and implementing land plans and strategies.
- Knowledge sharing among communities is encouraged to promote the use of planning tools and the principles of efficient use of land to address community development in the region.

Calgary Regional Partnership

- Municipalities in the metropolitan plan areas are encouraged to work together to:
 - Plan for future growth.
 - Decide on the criteria and decision-making processes for local and regional development approvals to the collective satisfaction of all members within their mandate.

Strategies:

When making land-use decisions, municipalities, provincial departments, boards and agencies, and other partners are encouraged to:

- a) Consider working together to achieve the shared environmental, economic and social outcomes in the South Saskatchewan Regional Plan and minimize negative environmental cumulative effects.
- b) Address common planning issues, especially where valued natural features and historic resources are of interests to more than one stakeholder and where the possible effect of development transcends jurisdictional boundaries.



Provincial Land-Use Policies

Land-use policies established by Lieutenant Governor In Council pursuant to Section 622 of the *Municipal Government Act* Order in Council 522-96 – November 6, 1996, do not apply in any planning region within the meaning of the *Alberta Land Stewardship Act* (ALSA) where there is an ALSA regional plan in place. By incorporating updated broad land-use policy statements in the South Saskatchewan Regional Plan, the Province retains authority to provide guidelines to municipalities on expectations needed to promote cooperation and coordination in land-use planning to reflect the uniqueness of the region

- c) Coordinate and work with each other in their respective planning activities (such as in the development of plans and policies), and development approval processes to address issues of mutual interest.
- d) Work together to anticipate, plan and set aside adequate land with the physical infrastructure and services required to accommodate future population growth and accompanying community development needs.
- e) Utilize the minimum amount of land required for developments (new residential, commercial and industrial).
- f) Plan, design, and locate future development in a manner that utilizes existing infrastructure and minimizes the need for new or expanded infrastructure.
- g) Build awareness regarding the application of land-use planning tools that reduce the impact of residential, commercial, and industrial developments on the land, including approaches and best practices for promoting the efficient use of private and public lands.
- h) Build awareness regarding the application of land-use planning tools that reduce the impact of residential, commercial and industrial developments on the land.
- i) Pursue joint use agreements, regional service commissions and any other joint cooperative arrangements that contribute specifically to intermunicipal land-use planning.
- j) Consider the value of intermunicipal development planning to address land use on fringe areas, airport vicinity protection plans or other areas of mutual interest.
- k) Coordinate land-use planning activities with First Nations, irrigation districts, school boards and health authorities on areas of mutual interest.

Calgary Regional Partnership

- a) Continue to assist the Calgary Regional Partnership and the municipalities (rural and urban) in the region to finalize the Calgary Metropolitan Plan.

Building Sustainable Communities

Objectives:

Ensure provincial guidance is provided to municipalities and other stakeholders to:

- Promote healthy and sustainable communities.
- Foster the establishment of land-use patterns for an orderly, economical and beneficial development, as well as to maintain and improve the quality of the built environment.
- Support timely planning and provision of social infrastructure.



- Contribute to the “maintenance and enhancement” of a healthy natural environment.
- Foster preservation of historic resources through responsible land-use management.
- Contribute to a safe, efficient, and cost-effective transportation network.
- Minimize risks to health, safety and loss to property damage as a result of land-use decisions.

While the following strategies are mainly provided to municipalities for consideration in their planning and decision-making, provincial departments, boards and agencies, and other partners are also encouraged to participate, cooperate and facilitate in this community development process.

Strategies:

Land-use Patterns

Municipalities are encouraged to establish land-use patterns which:

- a) Provide an appropriate mix of agricultural, residential, commercial, industrial, institutional, public and recreational land uses; developed in an orderly, efficient, compatible, safe and economical manner.
- b) Contribute to a healthy environment, a healthy economy and a high quality of life.
- c) Provide a wide range of economic development opportunities, stimulate local employment growth and promote a healthy and stable economy. Municipalities are also encouraged to complement regional and provincial economic development initiatives.
- d) Feature innovative housing designs, range of densities and housing types such as mixed-use, cluster developments, secondary suites, seniors' centres and affordable housing.
- e) Minimize potential conflict of land uses adjacent to natural resource extraction, manufacturing and other industrial developments.
- f) Minimize potential conflict of land uses within and adjacent to areas prone to flooding, erosion, subsidence, or wildfire.
- g) Complement their municipal financial management strategies, thereby contributing to the financial viability of the municipality.
- h) Locate school and health facilities, transportation and other amenities appropriately, to meet increased demand from a growing population.



Water and Watersheds

Municipalities will:

- a) Utilize or incorporate measures which minimize or mitigate possible negative impacts on important water resources or risks to health, safety and loss to property damage due to hazards associated with water, such as flooding, erosion and subsidence due to bank stability issues, etc., within the scope of their jurisdiction.
- b) Incorporate measures in land-use decisions to mitigate the impact of floods through appropriate flood hazard area management, emergency response planning for floods, and appropriate development in the flood hazard area in accordance with provincial policy on development within flood hazard areas.

Municipalities are encouraged to:

- a) Identify and recognize the values of significant water resources and other water features, such as ravines, valleys, riparian areas, stream corridors, lakeshores, wetlands and unique environmentally significant landscapes, within their boundaries.
- b) Determine appropriate land-use patterns in the vicinity of these significant water resources and other water features.
- c) Consider local impacts as well as impacts on the entire watershed.
- d) Consider the protection of these water features, and protect sensitive aquatic habitat and other aquatic resources.
- e) Assess existing developments located within flood hazard areas for long-term opportunities for re-development to reduce risk associated with flooding, including human safety, property damage, infrastructure and economic loss.
- f) Facilitate public access and enjoyment of water features, to the extent possible.
- g) Use available guidance, where appropriate, from water and watershed planning initiatives in support of municipal planning.

Non-Renewable Resources

Municipalities are encouraged to:

- a) In collaboration with industry, provincial government and other stakeholders, identify areas of existing and future extraction of surface materials (e.g., sand and gravel) and energy resources, and determine appropriate land uses in the vicinity of these resources.
- b) Within the scope of their jurisdiction in regards to non-renewable resources development, utilize or incorporate measures which minimize or mitigate possible negative impacts, and minimize risks to health, safety and loss to property damage.



- c) Municipalities, in collaboration with industry, the Government of Alberta and other stakeholders are encouraged to identify areas of existing and future extraction of energy resources, and determine appropriate land use in the vicinity of these resources.

Historic Resources

Municipalities, in consultation with the Minister responsible for the *Historical Resources Act*, are encouraged to:

- a) Identify significant historic resources to foster their preservation and enhancement for use and enjoyment by present and future generations.
- b) Work toward the designation of Municipal Historic Resources to preserve municipally significant historic places.
- c) Formulate agreements for development referrals to assist in the identification and protection of historic resources within the scope of their jurisdiction.

Transportation

- a) Municipalities are encouraged to identify, in consultation with the Minister responsible for the *Highways Development and Protection Act*, the location, nature and purpose of key provincial transportation corridors and related facilities.
- b) Municipalities are encouraged to work with Transportation to minimize negative interactions between the transportation corridors and related facilities identified in accordance with (a) above and the surrounding areas and land uses through the establishment of compatible land-use patterns.
- c) If subdivision and development is to be approved in the vicinity of the areas identified in accordance with (a) above, the municipality is encouraged to employ appropriate setback distances and other mitigating measures relating to noise, air pollution and safety to limit access and enter into highway vicinity agreements with the Minister's department.



Outcome 6:

The quality of life of residents is enhanced through increased opportunities for recreation, active living, and the preservation and promotion of the region's unique cultural and natural heritage.

Objectives:

- A wide range of recreation experiences and tourism opportunities that meet the preferences of regional residents and visitors will be provided.
- The artifacts, fossils, historic places, and aboriginal heritage sites that define the region's distinctive character are identified and effectively managed.

Strategies:

- Manage **recreation and tourism opportunities** to ensure quality outdoor recreation and nature-based tourism experiences while minimizing environmental impacts.
- Continue to maintain locally, regionally and provincially **significant recreation and tourism features**, including sites, areas and corridors.
- Address **flood (2013) damaged** recreation and parks areas.
- Invest in **existing parks facilities** to enhance the experiences of users.
- Expand and designate **new provincial parks and provincial recreation areas** to provide recreational opportunities, contribute to tourism growth and begin to address growing recreational demand in the region. (See Schedule C – SSRP Land Uses and Schedule D – SSRP Digital Map.)
Some of the recreational activities that will be provided include serviced and un-serviced campgrounds, day-use areas, motorized and non-motorized staging areas and trails and tourism opportunities.
- Create **new public land recreation areas** in the eastern slopes to provide managed random camping areas. (See Schedule C – SSRP Land Uses and Schedule D – SSRP Digital Map.)
- Ensure all regional sites within the **provincial parks system** are appropriately **classed and parks areas consolidated** to gain efficiencies in management approach. (See Appendix I – Consolidation Summary for Alberta Parks Sites in the South Saskatchewan Regional Planning Area.)
- Continue to provide **outreach, education and enforcement** throughout the eastern slopes to promote stewardship.
- Work with aboriginal and other communities, stakeholders and partners to develop **comprehensive and integrated recreation and access management plans** for lands in the Green Area. Namely, the Castle, Porcupine Hills, Livingstone and Willow Creek areas by the end of 2017 (see page 50).



- j) Support current and future projects to identify, maintain and enhance sustainable long-term public **access to recreational water bodies**.
- k) In collaboration with aboriginal and other communities, stakeholders and partners develop the **South Saskatchewan Regional Trail System Plan** to provide designated land and water trails for year-round recreation linking communities, parks and outdoor spaces. (See Appendix J – Overview of the South Saskatchewan Regional Trail System Plan.)
- l) Develop the **regional parks plan for the South Saskatchewan Region** to direct the planning and management of new and existing parks within the provincial parks system by the end of 2016. This plan will reflect the conservation, recreation and tourism values, growing demands and changing expectations of visitors.
- m) Explore **legislative tool options** to help address liability concerns and facilitate continued work with trail groups and stewards in planning and managing trails.
- n) In concert with developers, ensure that land-based development activities are assessed to **identify and protect historic resources**.
- o) Ensure continued **public accessibility to information regarding historic resources** in the region.
- p) **Identify and designate important historic resources** in the region with municipal partners.
- q) Work with and support Parks Canada to inscribe **Writing-on-Stone as a UNESCO World Heritage site**.

A growing, prosperous and mobile population is changing the type of experiences people are looking for and putting more pressure on the landscape. More people are seeking outdoor recreation and nature-based tourism opportunities such as camping, picnic and day-use areas, or trail-based recreation, as well as larger and more varied special events using Crown land and public facilities. In addition to identifying the three iconic tourism destinations, there is a need for diverse recreation and tourism opportunities close to urban centres, and for the maintenance of the values that make this region so attractive for recreational users and tourists alike.

Indicators:

- Area per capita of provincial parks or designated open space for recreation.
- Recreation infrastructure such as number of campsites and kilometres of designated trails.
- Number of historic resources studies conducted.
- Number of new and previously identified historic resources protected and managed.
- Number of designated historic sites in the region.



Regulatory Details Plan: Part 6 Recreation and Parks Areas

Definitions

40 In this Part,

- (a) “provincial parks” means lands identified as provincial parks and labelled “1” through “9” on the SSRP Digital Map;
- (b) “provincial recreation area” means lands identified as a provincial recreation area and labeled “10” through “12” on the SSRP Digital Map;
- (c) “public land recreation area” means lands identified as a public land recreation areas and labelled “13” through “21” on the SSRP Digital Map;
- (d) “water” means water as defined in the *Water Act*.

Designated Minister for provincial parks and provincial recreation areas

41 For the purposes of this Part in respect of provincial parks and provincial recreation areas, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Provincial Parks Act* is the Designated Minister.

Designated Minister in respect of public land recreation areas

42 For the purposes of this Part in respect of public land recreation areas, the Minister designated under section 16 of the *Government Organization Act* as the Minister responsible for the *Public Lands Act* is the Designated Minister.

Recreation and tourism objectives

43 In respect of provincial parks, provincial recreation areas, and public land recreation areas the Designated Minister may take whatever steps that in the opinion of the Designated Minister is desirable for achieving the recreation and tourism objectives of SSRP Strategic Plan and implementing Schedule “C” to the SSRP Implementation Plan.

Renewal of certain statutory consents in provincial recreation areas and public land recreation areas

44 Subject to any other law, a statutory consent may be renewed in a provincial recreation area or public land recreation area if the statutory consent is, at the effective date of renewal, in good standing under the provisions of the enactment or enactments applicable to the statutory consent, and

- (a) if the statutory consent is consistent with this regional plan; or
- (b) if the statutory consent is inconsistent with or non-compliant with this regional plan, within the meaning of section 11(2), but
 - (i) is an agreement under the *Mines and Minerals Act* or a disposition under the *Public Lands Act* that is valid and subsisting at the time this regional plan comes into force, or



- (ii) if it is not an agreement or disposition referred to in subclause(i), but is, within the meaning of section 11(4), incidental to an agreement or disposition referred to in subclause(i).

Access to water

45 Subject to any other law, where a decision-maker under the *Environmental Protection and Enhancement Act* or *Water Act* issues a statutory consent under either of those Acts respecting water in or adjacent to a provincial park, provincial recreation area or public land recreation area identified and labelled “1” through “21” on the SSRP Digital Map, the Designated Minister shall permit access to the water through the provincial parks, provincial recreation area and public land recreation area to the extent necessary for the holder to comply with the statutory consent.

Programs to manage objectives

46 In respect of the land use in provincial parks, provincial recreation areas, and public land recreation areas, the Designated Minister shall establish and maintain programs evaluating the effectiveness of the provincial park, provincial recreation area or public land recreation area in meeting the recreation and tourism objectives in the SSRP Strategic Plan and SSRP Implementation Plan.



Outcome 7: Aboriginal peoples are included in land-use planning

Objective:

- To encourage aboriginal peoples' participation in land-use planning and input to decision-making in recognition of the cultural and economic importance of land use to those aboriginal communities with constitutionally protected rights. This will provide both aboriginal communities and the Government of Alberta with a basis for better addressing current and potential land-use conflicts, in a manner supportive of aboriginal traditional uses, such as the exercise of treaty rights.

Strategies:

- In accordance with applicable government policy as it may be from time to time, the Government of Alberta will continue to **consult with aboriginal peoples** in a meaningful way when government decisions may adversely affect the continued exercise of their constitutionally protected rights and the input from such consultations continues to be considered prior to the decision.
- Explore and present potential new approaches to draw on the rich **cultural, ecological and traditional land-use knowledge and stewardship** practices of aboriginal communities.
- Establish a **South Saskatchewan Regional Land Sub-Table** with First Nations with an interest in the region. This initiative will consider:
 - Development of a mechanism for engagement and strategic consultation.
 - Fish and wildlife management, access management and economic/business opportunities.
 - Management of current and new conservation areas and public land.
 - Strategic direction and joint priorities.
 - Linkages for environmental management frameworks and sub-tables (e.g., land, water, biodiversity).
- Continue First Nation involvement in the following **watershed management planning initiatives**:
 - Treaty 7 First Nations Water Sub-table.
 - Encourage First Nation participation in watershed planning and advisory councils.
 - Encourage First Nation involvement in headwaters protection and management.



- e) Engage aboriginal peoples on initiatives to **support tourism development** including:
- Tourism opportunity assessments.
 - The promotion of cross-cultural awareness and sharing cultural experience through visitor-based activities.
 - Opportunities to align and enhance partnerships at the provincial, regional and local levels to enhance Alberta's range of products while promoting and protecting natural resources, cultural practices and heritage lifestyles.
 - The development of partnerships based on the provision of aboriginal-recognized traditional tourism products, experiences, stories and imaginative product diversification.
 - The development of new or enhanced existing tourism products and infrastructure – including attractions, activities, amenities and accommodations.
 - Invite Treaty 7 First Nations to be involved in the Treaty 7 – Tourism Development Engagement Group Initiative to:
 - Consider opportunities to balance tourism product expansion with the needs of communities through business opportunities.
 - Enhance development and delineation of tourism development nodes and iconic tourism destinations.
 - Consider the connection with Canada's federal tourism strategy regarding Parks Canada and Aboriginal Affairs and Northern Development Canada who are conducting pilot projects for aboriginal cultural tourism businesses in or near Canada's national parks and historic sites.
- f) Promoting the **economic, social and cultural well-being** of aboriginal communities.
- Strike the appropriate balance between development and protection of the environment, with due regard to aboriginal peoples perspectives on such balance.

Indicators:

- Participation of First Nations in the First Nation Treaty 7 – Tourism Development Engagement Group Initiative.
- Participation of First Nations in the First Nation South Saskatchewan Regional Land Use Table Initiative.
- Participation of First Nations in implementation of the regional plan.

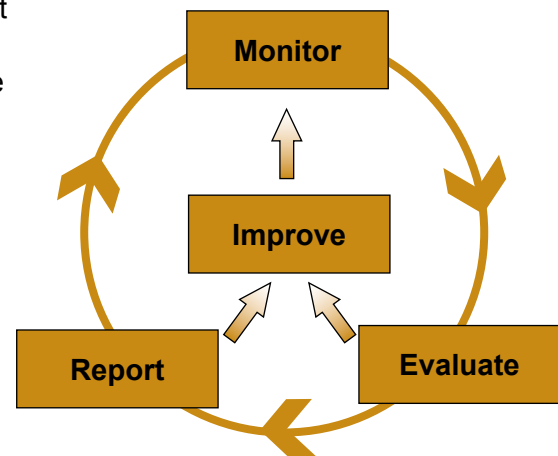


Monitoring, Evaluation and Reporting

Monitoring, evaluation and reporting are key activities for the success of the South Saskatchewan Regional Plan. To respond effectively to changing circumstances and new information, government must have a way to assess regional planning progress on objectives and outcomes and initiate corrective action where required. A system of monitoring, evaluation, reporting and improvement is needed to determine the effectiveness of the regional plan (that is, to determine if land-use strategies and actions will fulfill the regional plan's objectives and outcomes).

Monitoring

On an ongoing basis, government will systematically collect and store data for indicators about the progress of achievement of the SSRP outcomes. The indicators identified in Table 1 show the broad economic, environmental and social outcomes desired for the region. Government will be responsible for collecting data for these indicators over the span of the regional plan and for monitoring the data trends showing changes occurring in the region.



Evaluation

The monitoring data will undergo rigorous evaluation, analysis and interpretation of results within the context of government policies and strategies designed to achieve the regional objectives and ensure management actions are appropriate spatially and temporally.

This includes ministerial evaluation of monitoring data against the limits and triggers established for the region. Wherever possible, the contributions of subject matter experts within the stakeholder community will be encouraged as input into this process.

Reporting

Government will use various mechanisms to formally communicate on regional plan progress to the public, including the release of reports on an annual basis that speak directly to the plan, as well as ministry communications that address more specific aspects of the plan. Websites like the Land-use Framework site (www.landuse.alberta.ca) and other government websites will also be sources for monitoring information and progress updates related to the SSRP.



At least once every five years, an audit committee will be appointed to determine if regional objectives and policies are meeting the purposes of the *Alberta Land Stewardship Act*. The committee will make a public report to the Stewardship Minister. At least once every 10 years, a comprehensive review of the plan and a report on its effectiveness will be initiated by the Land Use Secretariat and submitted to the Stewardship Minister. This review may result in the plan being amended, replaced, renewed or repealed.

Continuously Improving

This on-going cycle of monitoring, evaluating and reporting encourages continuous improvements in decision-making and actions, so current and future generations achieve the balance desired between economic, environmental and social outcomes in South Saskatchewan Region.



Regulatory Details Plan: Part 7 Monitoring and Reporting

Definitions

47 In this Part,

- (a) “lead ministry” means the government department identified in the columns labeled “Lead Ministry” in Tables 1 and 2 of the SSRP Implementation Plan in respect of one or more supporting indicators, strategies and outcomes of this regional plan;
- (b) “strategy” means the strategy identified in the columns labelled “Strategies” in Table 2 of the SSRP Implementation Plan;
- (c) “regional outcome” means the outcome identified in the columns labeled “Provincial and Regional Outcomes” in Tables 1 and 2 of the SSRP Implementation Plan;
- (d) “supporting indicator” means the supporting indicator identified in the columns labeled “Supporting Indicators” in Table 1 of the SSRP Implementation Plan.

Designated Minister

48(1) For the purposes of this Part, the Minister responsible from time to time for a lead ministry identified for the purposes of a supporting indicator or strategy in the corresponding row in Tables 1 and 2 of the SSRP Implementation Plan is the Designated Minister.

(2) In the event a lead ministry is amalgamated with another lead ministry, is divided, or otherwise ceases to exist, the Stewardship Minister may, by order, designate Designated Minister for the purposes this Part in respect of one or more regional outcomes and strategies for the purposes of which the former lead ministry is identified in Tables 1 and 2 of the SSRP Implementation Plan.

Programs to manage objectives

49 In respect of each supporting indicator and strategy for which the Designated Minister is responsible, as identified in Tables 1 and 2 of the SSRP Implementation Plan, the Designated Minister shall establish and maintain programs monitoring and evaluating

- (a) the status of each supporting indicator, and
- (b) the effectiveness of each strategy,

in achieving the regional outcome identified in the corresponding row in those Tables.



Table 1: Regional Outcomes and Supporting Indicators

The indicators identified in the table below show the broad economic, environmental and social outcomes desired for the region. Government will be responsible for collecting data for these indicators over the span of the regional plan and for monitoring and evaluating the data to understand the trends occurring in the region.

Provincial and Regional Outcomes	Supporting Indicators	Lead Ministry
Healthy economy supported by our land and natural resources		
1. The region's economy is growing and diversified	Gross Domestic Product	Enterprise and Advanced Education
	Production Volumes	Energy/Environment and Sustainable Resource Development/ Agriculture and Rural Development/Tourism, Parks and Recreation
	Business Diversification	Enterprise and Advanced Education
	Capital Investments	Enterprise and Advanced Education
	Building Permits	Enterprise and Advanced Education
	Employment	Enterprise and Advanced Education
	Personal Income	Treasury Board and Finance
	Agricultural Land Fragmentation and Conversion	Agriculture and Rural Development

Provincial and Regional Outcomes	Supporting Indicators	Lead Ministry
Healthy ecosystems and environment		
2. Biodiversity and ecosystem function are sustained with shared stewardship	Biodiversity (to be determined as part of Biodiversity Management Framework)	Environment and Sustainable Resource Development
	Area of Conserved Land	Environment and Sustainable Resource Development
3. Air quality is managed to support healthy ecosystems and human needs through shared stewardship	Air Quality	Environment and Sustainable Resource Development
4. Watersheds are managed to support healthy ecosystems and human needs through shared stewardship	Water Quality	Environment and Sustainable Resource Development
	Water Quantity	Environment and Sustainable Resource Development
People friendly community with ample recreational and cultural opportunities		
5. Community development needs are anticipated and accommodated	Population	Treasury Board and Finance
	Housing Starts	Enterprise and Advanced Education
6. The quality of life of residents is enhanced through increased opportunities for recreation, active living, and the preservation and promotion of the region's unique cultural and natural heritage	Parks per Capita	Tourism, Parks and Recreation
	Recreation Infrastructure	Tourism, Parks and Recreation
	Historic Resources	Culture
7. Aboriginal peoples are included in land-use planning	Aboriginal peoples continue to be consulted when Government of Alberta decisions may adversely affect their continued exercise of their constitutionally protected rights, and the input from such consultation continues to be reviewed prior to the decision	Environment and Sustainable Resource Development/ Tourism, Parks and Recreation/Energy/ Aboriginal Relations

Table 2: Regional Outcomes and Action Items

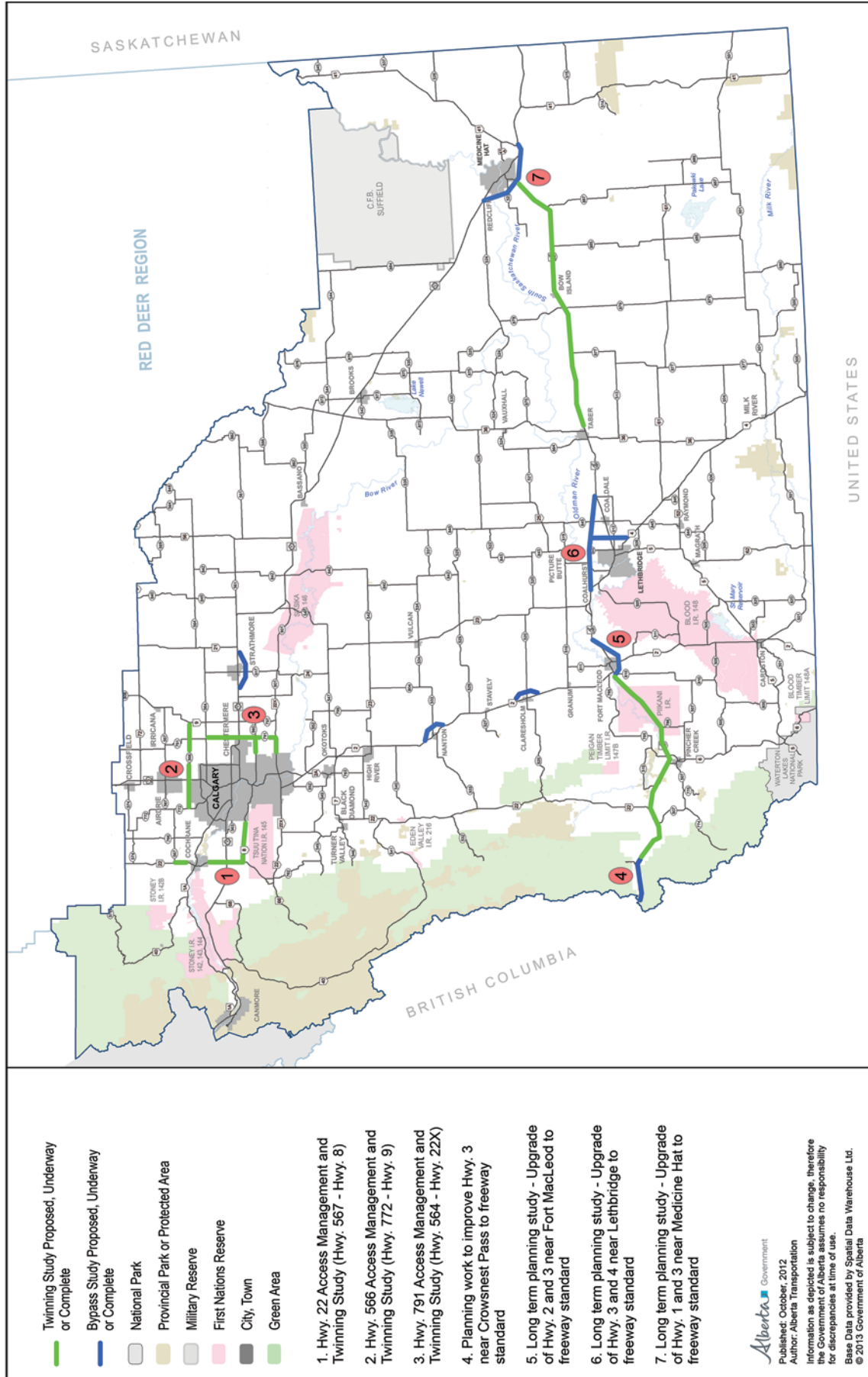
Strategies describe regulatory and non-regulatory approaches that will be used to achieve the objectives identified for each regional outcome. While some strategies identified in the SSRP are already implemented and will be ongoing over the span of the regional plan, the table below identifies the strategies that will be implemented within an identified timeline.

Provincial and Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
Healthy Economy Supported by Our Land and Natural Resources			
1. The region's economy is growing and diversified	Develop and implement destination management strategies and tourism opportunity plans	Tourism, Parks and Recreation	As soon as practicable
Healthy Ecosystems and Environment			
2. Biodiversity and ecosystem function are sustained with shared stewardship	Complete a Biodiversity Management Framework for Crown land (public lands and provincial parks) in the region	Environment and Sustainable Resource Development	2014
	Establish or expand nine new conservation areas on provincial Crown land	Tourism, Parks and Recreation/Environment and Sustainable Resource Development	As soon as practicable
	Develop a plan for management of linear footprint on Crown land in the region, with an initial focus on grizzly bear habitat, key native prairie, and species at risk habitats in the grasslands	Environment and Sustainable Resource Development	2017
	Complete development and evaluation of a voluntary conservation offset pilot on private lands	Agriculture and Rural Development	2015
	Consolidate and expand existing Public Land Use Zones in the Green Area of the region	Environment and Sustainable Resource Development	As soon as practicable

Provincial and Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
	Review, streamline and incorporate as necessary existing Integrated Resource Plans in the region into the regional plan	Environment and Sustainable Resource Development	As soon as practicable
3. Air quality is managed to support healthy ecosystems and human needs through shared stewardship	Implement the Air Quality Management Framework for the South Saskatchewan Region	Environment and Sustainable Resource Development	April 1, 2014
4. Watersheds are managed to support healthy ecosystems and human needs through shared stewardship	Implement the Surface Water Quality Management Framework for the South Saskatchewan Region	Environment and Sustainable Resource Development	April 1, 2014
	Develop a comprehensive approach for groundwater management	Environment and Sustainable Resource Development	2015
	Complete a Water Storage Opportunities Report	Agriculture and Rural Development	2015
People Friendly Communities with Ample Recreation and Culture Opportunities			
5. Community development needs are anticipated and accommodated	Strategies for this outcome are all ongoing		
6. The quality of life of residents is enhanced through increased opportunities for recreation, active living, and the preservation and promotion of the region's unique cultural and natural heritage	Address flood (2013) damaged recreation and parks areas	Tourism, Parks and Recreation	As soon as practicable
	Expand and designate new Provincial Recreation Areas and Provincial Parks	Tourism, Parks and Recreation	As soon as practicable
	Enhance facilities at key Provincial Parks	Tourism, Parks and Recreation	As soon as practicable

Provincial and Regional Outcomes	Strategies	Lead Ministry	Timeline (year end)
7. Aboriginal peoples are included in land-use planning	Develop comprehensive and integrated recreation and access management plans for the north Castle, Livingstone, Porcupine Hills and Willow Creek areas	Environment and Sustainable Resource Development	2017
	Develop a South Saskatchewan Regional Trails System Plan	Tourism, Parks and Recreation	As soon as practicable
	Develop a Regional Parks Plan	Tourism, Parks and Recreation	2016
	Develop Public Lands Recreation Areas	Environment and Sustainable Resource Development	As soon as practicable
	Establish a South Saskatchewan Regional Land Sub - Table with interested First Nations in the region	Environment and Sustainable Resource Development	Ongoing
	Continue First Nation involvement in watershed management planning initiatives	Environment and Sustainable Resource Development	Ongoing
	Engage aboriginal peoples on initiatives to support tourism development	Tourism, Parks and Recreation	Ongoing

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Appendix B:

Overview of the Approved Water Management Plan for the South Saskatchewan River Basin

The South Saskatchewan River Basin (SSRB) includes the Red Deer, Bow, Oldman and South Saskatchewan River sub-basins and is one of the major basins defined in Alberta's *Water Act*. It is managed as a single unit for meeting obligations to allow water to pass to Saskatchewan under the inter-provincial Master Agreement on Apportionment administered by the Prairie Provinces Water Board.

A water management plan for the SSRB was approved by the Lieutenant Governor in Council in 2006. The main outcome of the plan is the recognition that the limit of the water resource has been reached in the Bow, Oldman and South Saskatchewan River basins. This conclusion was reached in view of existing and potential reliability problems for licence holders as well as negative impacts on aquatic ecosystems. Alberta's future ability to meet its water-sharing obligations with the other Prairie provinces was also a factor.

This plan has resulted in the following decisions:

- The Bow, Oldman and South Saskatchewan River Basin Water Allocation Order directs Alberta Environment and Sustainable Resource Development to consider applications for water allocations in the noted sub-basins for the following purposes only:
- First Nations (for projects on reserves and other land controlled by a First Nation).
- Water conservation objective – the desired flow regime instream after diversions.
- Storage – for both the protection of the aquatic environment and for improving availability of water to existing licence holders and registrants.
- Applications filed before the date the Order was filed (August 4, 2007).
- Applications relating to the Little Bow Project/Highwood Diversion Plan or the Pine Coulee Water Management Project.
- Establishment of water conservation objectives for the Bow, Oldman and South Saskatchewan rivers that have the purpose of flow restoration.
- Establishment of a water conservation objective for the Red Deer River that permits additional allocation.
- The authorization of water allocation transfers and water conservation holdbacks.
- Consequently, a market for water allocations (licences) is developing and some significant transactions have taken place.



Water allocation transfers are simply a change to the location of a licenced water intake and/or point of use, providing a means by which reliable water allocations can be secured from existing licence holders through a private arrangement, by enterprises requiring new, additional, or more reliable water allocations in a new location. Alberta Environment and Sustainable Resource Development approval is required, including public review, notice and consideration of impacts on other water users and the aquatic environment. The water management plan prescribes matters and factors that must be considered in making decisions on applications for water allocation transfers, licences, preliminary certificates and approvals.

Water conservation holdbacks are taken from some water allocation transfers when doing so is deemed by Alberta Environment and Sustainable Resource Development to be in the public interest. Up to 10 per cent of the volume transferred can be withheld to remain in stream, for the purpose of helping to restore flows in heavily utilized streams.

Water conservation objectives are established under Alberta's *Water Act* to define the amount and quality of water necessary for the:

- Protection of a natural water body or its aquatic environment, or any part of them.
- Protection of tourism, recreational, transportation or waste assimilation uses of water.
- Management of fish or wildlife.

Appendix C: Alberta's Natural Sub-regions

Parks are an important component of the retention of native landscapes, natural habitats, biodiversity, conservation of riparian areas and protection of headwaters and watershed areas. In Alberta the Natural Regions Landscape Classification Framework has been adopted and helps determine where gaps in the protected areas network exist.

Additionally, inclusion of unique or atypical elements of biological diversity identified outside this framework help to identify the best landscapes for conservation. Two Government of Alberta policies support this work: Alberta's Plan for Parks and the Land-use Framework.

Currently, there are significant representation gaps in three of the natural Sub-regions within the Grassland Natural Region, as well as in the Foothills Parkland Sub-region within the Parkland Natural Region that are achievable within the South Saskatchewan Region. In addition, gaps in the Foothills Parkland, Foothills Fescue and Mixed grass natural Sub-regions can only be



met in the South Saskatchewan Region as they do not occur anywhere else in the province in any significant way.

The table below illustrates the percentage of gaps currently filled by protected areas within the four Sub-regions in Alberta. (This chart does not include the proposed conservation areas in the DRAFT SSRP)

Representation of Natural Landscape Types by Natural Region and Subregion within Parks and Protected Areas in Alberta

Natural Region	Subregion	Subregion Size (km ²)	Total Area of Sites within Subregion (km ²) ¹	% of Subregion Protected	Total # of Sites in Subregion ^{1,2}	Targets		Progress Toward Targets ³		
						# Natural Landscape Type Targets	Total Area of Targets (km ²)	# Sites Contributing to Targets ²	Area Contributing to Target (km ²)	Average % of Targets Achieved
Rocky Mountains	Montane	8,768	2,404	27.4%	87	4	620	28	620	100%
	Subalpine	25,218	13,361	53.0%	49	5	645	31	645	100%
	Alpine	15,084	12,772	84.7%	21	5	645	21	645	100%
	Subtotal	49,070	28,538	58.2%		14	1,910		1,910	100%
Foothills	Lower Foothills	44,899	341	0.8%	60	5	1,125	12	289	41%
	Upper Foothills	21,537	604	2.8%	55	5	710	19	554	71%
	Subtotal	66,436	945	1.4%		10	1,835		843	56%
Grassland	Dry Mixedgrass	46,937	769	1.6%	12	10	1,250	9	714	65%
	Mixedgrass	20,072	208	1.0%	13	10	265	4	162	50%
	Northern Fescue	14,933	196	1.3%	9	11	450	4	173	41%
	Foothills Fescue	13,623	84	0.6%	13	9	270	5	48	32%
	Subtotal	95,565	1,258	1.3%		40	2,235		1,098	40%
Parkland	Central Parkland	53,706	469	0.9%	35	12	1,415	20	390	49%
	Foothills Parkland	3,921	82	2.1%	14	8	230	8	76	42%
	Peace River Parkland	3,120	20	0.6%	5	6	130	4	21	18%
	Subtotal	60,747	570	0.9%		26	1,775		487	40%
Boreal Forest	Dry Mixedwood	85,321	1,375	1.6%	80	11	2,000	38	955	57%
	Central Mixedwood	167,856	18,777	11.2%	80	11	3,500	35	3,500	100%
	Lower Boreal Highlands	55,615	3,245	5.8%	15	8	1,375	7	1,375	100%
	Upper Boreal Highlands	11,858	1,463	12.3%	4	4	325	3	325	100%
	Peace-Athabasca Delta	5,535	4,329	78.2%	3	3	300	3	300	100%
	Northern Mixedwood	29,513	13,216	44.8%	3	8	1,600	3	1,600	100%
	Boreal Subarctic	11,823	5,832	49.3%	2	5	450	2	450	100%
	Athabasca Plain	13,525	2,126	15.7%	8	7	385	7	385	100%
	Subtotal	381,046	50,364	13.2%		57	9,935		8,890	92%
Canadian Shield	Kazan Upland	9,719	1,504	15.5%	5	6	360	5	360	100%
	Subtotal	9,719	1,504	15.5%		6	360		360	100%
ALL	TOTAL	662,583	83,179	12.6%		153	18,050		13,589	70%

1 - Sites include all classes of Provincial Parks and Protected Areas, National Parks and National Wildlife Areas

2 - Individual Sites may contribute to more than one subregion and/or target

3 - Only sites with a primary objective of the conservation of nature are considered to contribute toward representation of targets. Progress achieved through proposed SSRP conservation areas are not reflected in this chart.



Appendix D: Overview of New Conservation Areas and Recreation and Parks Areas in the South Saskatchewan Region

New Conservation Areas (Management of the following areas are further defined in Schedule C)			
Map Area	Area Name (added area)	Area Size (ha)	Legal Designation
A	Don Getty Expansion	27,928	Wildland Provincial Park
B	Bow Valley Expansion	8,075	Wildland Provincial Park
C	Bluerock Expansion	453	Wildland Provincial Park
D	Mt. Livingstone	564	Wildland Provincial Park***
E	Beehive	6,734	Wildland Provincial Park***
F	High Rock	8,362	Wildland Provincial Park
G	Bob Creek Expansion	328	Wildland Provincial Park
H	Livingstone Range	4,614	Wildland Provincial Park
I	Castle	44,558	Wildland Provincial Park
J	Pekisko	33,050	Heritage Rangeland**
K	Castle	10,741	Conservation Area*
Total		134,666 10,741*	

* Conservation Area being established as a Public Land Use Zone under the *Alberta Public Lands Act* – commercial forestry is permitted but the management priority is for maintaining biodiversity and headwaters protection. Enhanced best management practices for biodiversity and headwaters protection will be required such as: winter only operations to avoid critical active periods for grizzly bear, practices to restrict access, buffer zones that cover entire riparian areas and visual buffer screens to increase bear security for travel.

** Management will be undertaken by Environment and Sustainable Resource Development.

*** Mount Livingstone and Beehive are currently Natural Areas and are being designated as Wildland Provincial Parks.



Recreation and Parks Areas (Management of the following areas are further defined in Schedule C)				
Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation
1	West Bragg Creek	81	Expansion	Provincial Park
2	Gooseberry	56	Expansion	Provincial Park
3	Elbow River	107	Expansion	Provincial Park
4	Elbow Falls	43	Expansion	Provincial Park
5	Little Elbow	28	Expansion	Provincial Park
6	Sheep River	266	Expansion	Provincial Park
7	Chinook	217	Expansion	Provincial Park
8	Syncline	418	Expansion	Provincial Park
9	Cypress Hills	129	Expansion	Provincial Park
10	Sibbald Lake	83	Expansion	Provincial Recreation Area (PRA)
11	Crowsnest Lake	14	New	PRA
12	Coleman	32	New	PRA

Public Land Recreation Areas (Management of the following areas are further defined in Schedule C)				
Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation
13	Speers Creek	TBD	New	Public Land Recreation Area (PLRA)
14	Trout Creek	TBD	New	PLRA
15	Ceasar's Flat	TBD	New	PLRA
16	Beaver Creek	TBD	New	PLRA
17	Atlas	TBD	New	PLRA
18	McGillivray	TBD	New	PLRA
19	Tent Mountain	TBD	New	PLRA
20	Lynx Creek Flats	TBD	New	PLRA
21	Upper Castle Flats	TBD	New	PLRA

The Public Land Recreation Areas boundaries will be determined based upon existing access, use and natural features and will be small in size.



Appendix E: Iconic Tourism Destinations: Kananaskis, Canadian Badlands and Southern Rockies

The three identified areas will be developed as Iconic Tourism Destinations to:

- Diversify the regional and local economy.
- Increase tourism visitation, length of stay and visitor expenditures.
- Offer a full range of recreation and tourism, experiences, opportunities and activities.
- Provide an attractive tourism destination for local, provincial, national and international visitors.
- Support hunting, fishing and trapping (including by aboriginal communities). Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use.
- Protect and maintain private property rights.
- Honour existing direction regarding statutory consents and tenures on public lands.
- Provide for the continued issuance of new statutory consents and tenures on public lands.

In developing the Iconic Tourism Destinations, the Government of Alberta will work with First Nations to consider how their constitutionally protected rights to hunt, fish and trap for food can continue to occur within reasonable proximity of First Nations' main population centres.

Destination Management Planning

Destination Management Planning provides the tourism industry with the tools to produce sustainable and competitive tourism in a destination. It is organized around a destination's unique tourism assets and unique planning, development, marketing and management needs.

It represents a more integrated approach to understanding destination needs and the delivery of services with the specific planning goals to:

- Collate research and baseline data to document current tourism supply and demand scenarios.
- Investigate land-use planning and natural resource management requirements.
 - Identify recreation and tourism features, settings and scenery on public lands and ensure impacts to these features, settings and scenery are minimized.



- Identify approaches to ensure tourism development is sustainable and meets any regional or area-specific environmental thresholds.
- Gather information from local people, community leaders and industry stakeholders.

Tourism nodes already identified by destination planning currently occurring in these areas will be carried forward into the planning process and will be encouraged as locations for private and community investment.

Destination Management Strategies

Destination Management Strategies provides the framework to guide tourism industry development in the region by coordinating stakeholders in a common direction to maximize the tourism potential of the destination so as to achieve a balance of economic, social and environmental outcomes.

They focus regional development resources on growing and enhancing the supply of tourism products and services that develop the destinations. The strategies will, in collaboration with communities and stakeholders:

- Identify tourism business investment opportunities for the public, private and not-for-profit sectors.
- Identify the need for new innovative tourism product and infrastructure development across the region.
- Identify the region's significant attractions and experiences.
- Identify relevant research on tourism supply and demand and identify new trends in recreation and tourism activities.
- Identify current target markets and those identified for development to achieve the region's long-term potential.
- Identify an agreed focus and mechanism for engagement with the tourism industry, infrastructure providers and private investors.

Destination Management Plans

Destination Management Plans are developed after a comprehensive process of research within the destination, consultation, feedback, planning and review where community-level participation from local tourism organizations, tourism boards, local government and operators is essential in their preparation.

Their purpose is to grow destination appeal and provide direction for the sustainable development of tourism products and services in the three destinations over the next 10 years, and in consideration of other economic and social interests and values in the area. The plans will, in collaboration with communities and stakeholders:

- Identify a vision for each of the destinations.
- Identify key enablers that will encourage tourism growth in the destinations and surrounding region.



- Prioritize product development and visitor experiences that address current expectations and future demand.
- Provide direction to enhance and sustain a quality land base to support tourism product development.
- Prioritize and secure new tourism business investment opportunities.
- Identify specific investment needs that support the priority development of innovative tourism infrastructure projects.
- Facilitate collaboration amongst key tourism industry stakeholders (communities, investors, financiers and operators).
- Identify a destination brand and establish a marketing plan for each of the destinations.
- Provide a detailed implementation action plan, funding priorities and funding strategies.

Both the strategy and the plan will be developed as an *Alberta Land Stewardship Act* issue-specific plan and will be led by Tourism, Parks and Recreation, with engagement with other ministries, aboriginal communities, local governments, stakeholders and the public.

Appendix F: Overview of Biodiversity Management Framework

The following provides an overview of the proposed contents of a biodiversity management framework for the region. This is intended to illustrate the current directions for proposed content; however there will be consultation and engagement during the development of the management framework which will be completed by the end of 2014.

Introduction and Purpose of the Management Framework

Biodiversity, short for “biological diversity,” represents the assortment of life – including the variety of genetics and species, and the habitats in which they occur – all shaped by natural processes of change and adaptation. For regional planning, the focus is on indicators of biodiversity at a regional scale that are affected by land-use activity.

Biodiversity and the services it provides are critical to the well-being of current and future generations of Albertans. Biodiversity and ecosystem services are not the same thing but they are interdependent. Ecosystem services are the benefits humans, communities and society as a whole receive from healthy functioning ecosystems and the biodiversity found in them. Some of these services include fresh water, crops, forests, fish and



wildlife, and cultural and recreational opportunities (e.g. hunting, fishing, and esthetic values). Biodiversity underpins the supply of ecosystem services and so changes in biodiversity will affect the kind and amount of those services available. If biodiversity is not properly managed, species at risk designations can occur which further restrict industry access to resources, and impact Alberta's reputation for environmental management. Collectively this impacts Alberta's economy. Managing biodiversity is integral to continued economic prosperity. The conservation and sustainable use of biodiversity will be essential elements in an overall environmental management approach that supports the social licence for development and management of Alberta's natural resources.

While cumulative effects are considered to be the combined effects of past, present and reasonably foreseeable land-use activities on the environment, it is not the intention of the biodiversity management framework to return Alberta to the levels of biodiversity found prior to European settlement. Today's Alberta includes working landscapes, and the Land-use Framework policy acknowledges the need to balance environmental, social and economic considerations. The focus of the framework is from today into the future, where information from modelled predictions of the past conditions could inform decision-making about desired future conditions.

Policy Context

Alberta is a signatory to the Canadian Biodiversity Strategy, a commitment under the 1992 UN Convention on Biological Diversity. Alberta, along with other Canadian jurisdictions, agreed to use the Canadian Biodiversity Strategy as a guide for actions to conserve biodiversity and to use biological resources in a sustainable manner. Further, Alberta's Land-use Framework establishes environmental outcomes, including maintenance of biodiversity, and that a cumulative effects approach will be taken in land-use planning to manage the long-term cumulative effects of development on the environment.

Regional Objectives

- Terrestrial and aquatic biodiversity are maintained.
- Species at risk are recovered and key grasslands habitat is sustained.
- Areas are added to the regional network of conservation areas.
- Biodiversity and healthy functioning ecosystems continue to provide a range of benefits to communities in the region and Albertans.
- Long-term forest ecosystem health and resiliency is maintained



Indicators and Targets for Biodiversity

Primary indicators will be identified based on two areas of focus: the Eastern Slopes/Parkland/Foothills Fescue area and a grasslands area encompassing the rest of the South Saskatchewan Region. The following are some possible examples that illustrate the types of indicators that may be used:

Eastern Slopes Sub-region Indicators

- Grizzly bear recovery
- Ecosystem health

Grasslands Sub-region Indicators

- Native grassland
- Important/representative species habitats

Secondary indicators will be monitored along with the primary indicators to ensure a broad representation of regional level biodiversity is being assessed over time. If such indicators are trending into areas of high or very high risk, management response planning or other land-use requirements (e.g. human footprint reduction) will be determined.

Methodology to Establish Targets for Biodiversity Indicators

The following existing information will be used for setting targets for selected indicators for regional plans: Species at Risk (SAR) Recovery Plans, Forest Management Plans (FMP), and monitoring reports from the Alberta Biodiversity Monitoring Institute (ABMI) will be used. Environment Canada data, and pertinent research information will also be considered.

Risk Bands

In addition to monitoring data and plans, setting of targets is informed by forecasting (that is, modeling) to assess potential levels of risk to selected biodiversity indicators over time based on regional scale projections of land-use development.

A risk assessment protocol has been developed, based on risk-level breakpoints from the International Union for the Conservation of Nature (IUCN), which is used in assessing the status of species at risk. Although this isn't the same process as designating a species at risk, it gives an indication of trends that need to be considered in development of targets for indicators (see figure on the next page).

Species in the high or very high risk levels are more likely to be assessed as a species at risk, which leads to restrictions on industry access to resources, and other public uses (e.g., recreation). The risk values represent the percentage of the indicator remaining relative to what would have been expected to be found in a landscape with little to no human disturbance impacts on the habitat or ecological function of biodiversity indicators.



Figure – Biodiversity Risk Assessment	
Biodiversity Indicator Status	Implications
Stable – Low Risk (70-100 per cent remaining)	Populations are healthy and self-sustaining Low level of restrictions on hunting, fishing, and industrial development
Moderate Risk (50-70 per cent remaining)	Populations are mostly self-sustaining, but some declines Increasing restrictions on hunting, fishing, and industrial development
High Risk (20-50 per cent remaining)	Potential for species at risk designations if projected trend realized through monitoring Negative attention/media within Alberta. Federal involvement May lose hunting and fishing opportunities Increased cost to industry and resource development due to restrictions
Very High Risk (0-20 per cent remaining)	High likelihood to result in species at risk designations if projected trend realized through monitoring Negative reputation for Alberta. Federal intervention High cost for recovery while high potential for species loss Industry access to resources restricted Economic impacts

Management Approaches

Biodiversity targets for selected indicators will guide decisions about future and existing land-use activities. Meeting biodiversity targets established in the framework will depend on a number of actions related to minimizing human footprint on public lands.

These strategies include:

- Minimizing the duration and extent of linear disturbances.
- Managing public motorized access in specific locations.



- Maintaining a diverse range of forest seral stages.
- Maintaining stream continuity (minimizing fragmentation of watercourses due to barriers at stream crossings).
- Managing wildfire risk in key species at risk habitats which depend on natural disturbance.

A range of tools and approaches will be used to achieve biodiversity objectives and targets

1. The existing network of conservation areas with lands added as described under Outcome 2 – designating new areas in the region will support grizzly bear, grasslands, and other indicators.
2. Development of a linear footprint management plan in the Green Area and White Area – will reduce the extent, duration, and rate of total linear footprint development, through detailed planning, setting of limits and targets in favor of key biodiversity indicators such as grizzly bear exposure, and maintaining intact native prairie.
3. Integrated Land Management (ILM) tools will be required including coordinated industry planning of major access corridors and associated development infrastructure; re-use of existing linear disturbance and progressive and timely reclamation of linear disturbances and land not required for further development.

These new approaches and tools will build on, and be incorporated into, existing programs such as the Enhanced Approvals Process (EAP) which outlines oil and gas development requirements; the Landscape Analysis Tool; the Grazing Leaseholders Code of Practice, forest management plans, and existing Public Land Use Zones to manage public access. In the case of linear footprint targets and limits, specific plans may be required, and implemented through the Public Lands Administration Regulation which allows for disturbance standards.

The full compendium of tools under Integrated Land Management can be found on the website of the Ministry responsible for the *Public Lands Act*.

Proposed Monitoring Approach

Monitoring involves collecting quality information on the status of the biodiversity indicators and the amounts of the human disturbance footprint. The Alberta Biodiversity Monitoring Institute (ABMI) has a structured sampling program across the province which will be the main source of biodiversity monitoring in the region. In the future, the Alberta Environmental Monitoring, Evaluation and Reporting Agency will coordinate most of this monitoring work. This program will be linked to other biodiversity monitoring initiatives led by government or partners of government such as the Rangeland Health Monitoring Program, Forest Management Plan reporting, and the Species at Risk recovery plan reporting. Data also comes from existing monitoring done by ESRD (rare, hunted, fished or trapped species) or other organizations (e.g., Alberta Conservation Association), academics, and the federal government if applicable.



Appendix G: Consolidation and Expansion of Public Land Use Zones in Green Area Public Land

What is a Public Land Use Zone?

A Public Land Use Zone is a designated area of public land established under the *Public Lands Act* to assist in the management of industrial, commercial, and recreational land uses and resources. They are typically used in areas of high overlapping activity and contain conditions to manage access to reduce user conflicts, and protect sensitive areas. They are an effective tool to conserve biodiversity on the working landscape.

Public Land Use Zones in the Eastern Slopes

Green Area public land within the South Saskatchewan Region will be managed by means of Public Land Use Zones. This will improve the province's ability to effectively manage public land across the Green Area, manage undesirable impacts, address priority issues, and increase the safety and enjoyment of recreational users throughout these areas.

The existing Public Land Use Zones will be consolidated and expanded as part of implementation of the regional plan. The intention is to standardize Public Land Use Zone conditions and add Public Land Use Zone to remaining Green Area public land.

Current State – Existing Public Land Use Zones and Associated Plans

Public Land Use Zone	Purpose	Associated Plans
Allison/Chinook	Designate separate areas for motorized and non-motorized recreational activities	Crowsnest Corridor Local IRP
Castle Special Management Area	Restrict motorized access to certain areas, and protect ecologically sensitive backcountry areas	Castle River Sub-regional IRP; Castle Access Management Plan
Cataract Creek Snow Vehicle	Provide snowmobiling opportunities in the Cataract Creek area	Eden Valley Local IRP



Public Land Use Zone	Purpose	Associated
Dormer Sheep	Provide year-round access for non-motorized and equestrian use. Access for off highway vehicles (OHV) is permitted on designated trails	Nordegg/Red Deer Sub-regional IRP; Bighorn Backcountry Access Management Plan Recreation Trail Monitoring
Ghost	Address the growing demand for recreation and the potential conflicts among uses in the Ghost-Waiparous area	Ghost River Sub-regional IRP; Ghost-Waiparous Operational Access Management Plan
McLean Creek OHV	Provide an area for off-highway vehicle (OHV) use	Kananaskis Sub-regional IRP
Panther Corners	Provide a year-round network of trails for non-motorized and equestrian use. No motorized access is permitted	Nordegg/Red Deer Sub-regional IRP; Bighorn Backcountry Access Management Plan Recreation Trail Monitoring
Sibbald Snow Vehicle	Provide snowmobiling opportunities in this area	Kananaskis Sub-regional IRP
Kananaskis Country		Kananaskis Sub-regional IRP
Willow Creek	Reduce environmental impacts from use of the area	Livingstone-Porcupine Hills Sub-regional IRP



Proposed Approach for Public Land Use Zones

Existing	Proposed
Green Area public land	Public Land Use Zone coverage
10 Public Land Use Zones Allison/Chinook Castle Special Management Area Cataract Creek (Snow Vehicle) Dormer Sheep Ghost Kananaskis Country McLean Creek (OHV) Sibbald (Snow Vehicle) Panther Corners Willow Creek	Consolidation and expansion of Public Land Use Zones focused on the following areas: 1 Castle Special Management Area, Allison/Chinook, Cataract Creek (Snow Vehicle) and Willow Creek; adding north Castle, Livingstone, Porcupine Hills, and Poll Haven areas 2 Ghost and Sheep Dormer; adding lands from Forest Reserve Boundary to Green Area public land boundary 3 Kananaskis including McLean Creek (OHV) and Sibbald (Snow Vehicle) 4 Panther Corners
10 sets of conditions	Consolidation of common conditions; specific conditions for areas as needed reflecting access management and linear footprint planning

New Area Descriptions

Poll Haven – Green Area public land bordering the United States and Waterton National Park.

Livingstone – Green Area public land north of the Crowsnest Pass. Sensitive rough fescue grassland, headwaters, and Cutthroat Trout habitat.

Porcupine Hills – Green Area public land in the foothills area near Livingstone. Sensitive rough fescue grassland, conflicts with grazing and recreation.

North of Kananaskis – Green Area public land from Forest Reserve Boundary to Green Area public land boundary.



Implementation Steps and Timing

On plan approval:

- Public access to Green Area public land will continue
- The Public Lands Administration Regulation. These apply to all provincial land managed by Environment and Sustainable Resource Development under the *Public Lands Act* (including lands within Public Land Use Zones). There will be no change to the application of these requirements.
- Regulations will be amended to ensure protection of watercourses, water bodies and wetland areas.
- Regulations will be amended to ensure avoidance of camping and off-highway vehicle recreation on industrial facility areas (e.g. well sites) for safety reasons.
- The existing 10 Public Land Use Zones will stay in place. Existing access management plans (as listed above) will continue to apply.

Following Plan Approval (through plan implementation):

- Future access and camping management will be determined through trail mapping, and through recreation and access management planning and linear footprint management planning with consultation. Priority areas are the area north of Castle, Livingstone, Porcupine Hills and Willow Creek. The Government of Alberta will work collaboratively with stakeholders and trail associations to determine the appropriate trail network.
- New public land recreation areas (low infrastructure camping areas) will be established in conjunction with other strategies for enhancing recreation and tourism opportunities.
- Expanded Public Land Use Zones will be established after trails are identified through mapping and posting of signs.
- As recreation and access management plans, the linear footprint management plan and the South Saskatchewan Regional Trail System Plan are completed, the Public Land Use Zones Schedule(s) will be updated as part of implementation of these plans.



Appendix H: Conversion of Grasslands – White Area Public Land – Policy Guidelines

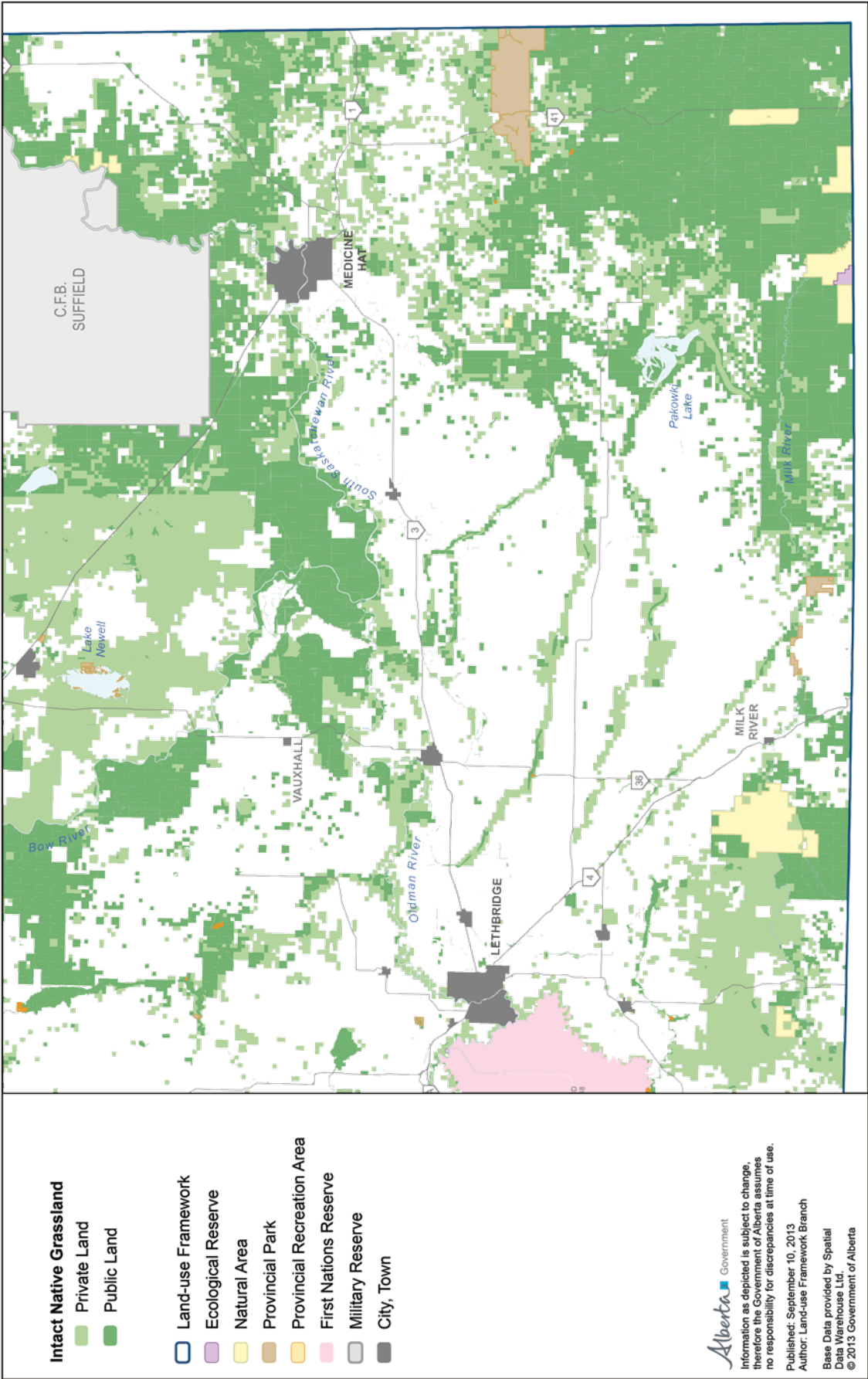
The following policy guidelines are to be considered in review of an application for the sale of White Area public land in the South Saskatchewan Region:

- Intact native grasslands – No new sales of public lands will be permitted in areas of intact native grasslands (see maps – Intact Native Grassland and Irrigation Potential) where no irrigation potential exists based on map and field assessments.

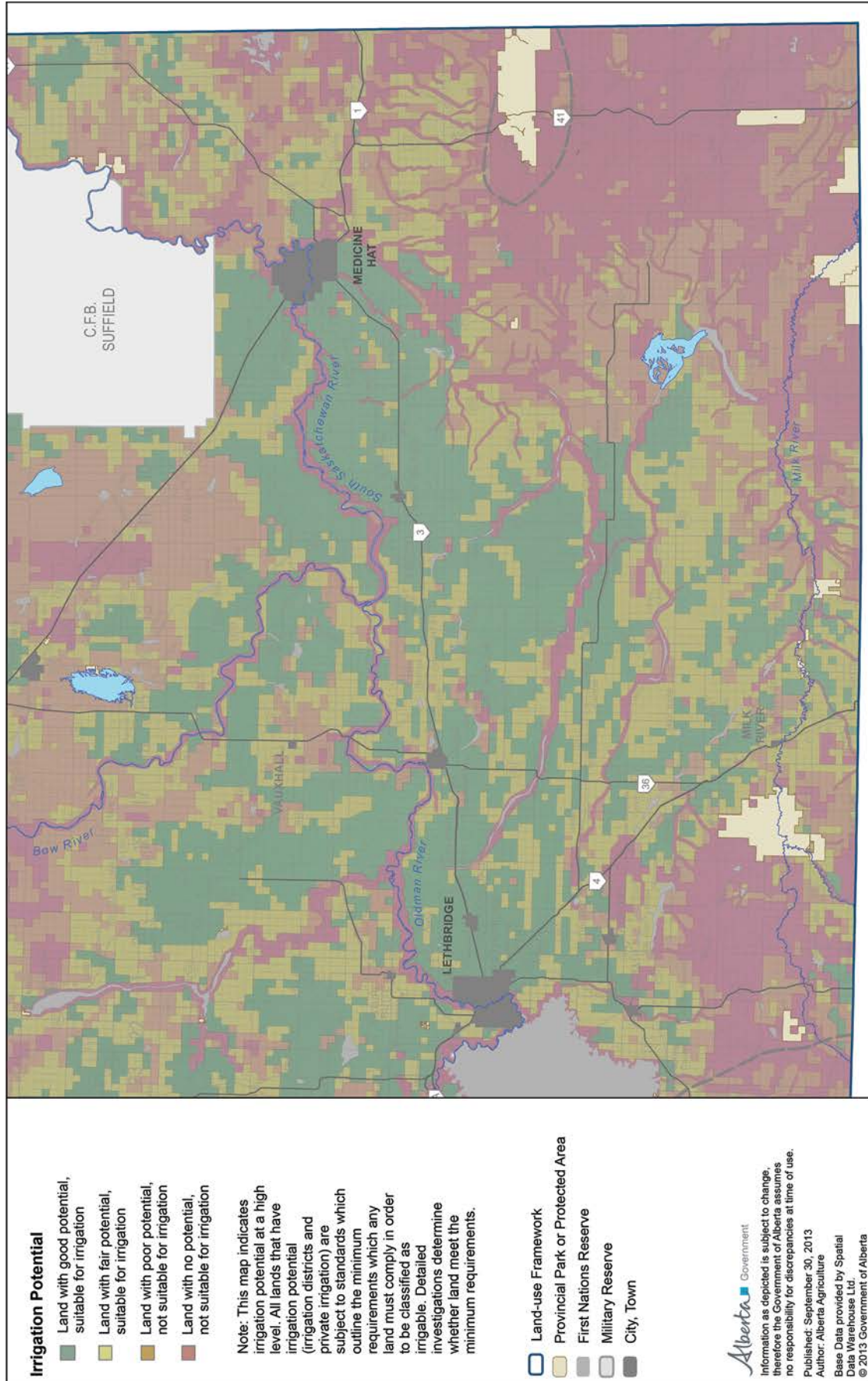
Where irrigation potential exists, applications will be reviewed on a case-by-case basis. Proposals that include an offsetting area of intact grassland from private land would have a higher potential for approval, if all other criteria are met. The preferred offset would be land exchange sponsored by the government where public land being sold would be exchanged for an appropriate ratio of intact private grassland to be held permanently by the provincial Crown. Second priority would be a private land offset held by a sponsoring agency such as a land trust or the Alberta Conservation Association.

- Non-intact native grasslands – Regardless of irrigation potential, new sales of public land will be considered, subject to review for land suitability (e.g. soils) and whether needed for government programs (e.g., soil conservation, species at risk habitat).

South Saskatchewan: Intact Native Grassland



South Saskatchewan: Irrigation Potential





Appendix I: Proposed Reclassification and Consolidation for Alberta Parks Sites in the South Saskatchewan Regional Planning Area

As part of the Plan for Parks, the Government of Alberta has committed to providing quality park experiences for all Albertans. A part of that commitment is clarifying and refining the parks system by ensuring that all sites within the provincial parks system are appropriately classed under the existing parks legislation. Currently there are several sites across the systems that are not classed properly, for example the size, uniqueness, or quality of experience indicates that they should be classed differently.

Consolidations and re-classifications would help to clarify the existing use of the sites and will also help create efficiencies in management, operations and costs so that resources can be allocated more effectively. Existing use would not change by the re-classification and consolidation of these sites.

Sites in the SSRP will be reviewed and proposed re-classifications and consolidations will be recommended and consulted upon as part of implementation of the regional plan. An example of re-classifications and consolidations that would occur is the re-classification and consolidation of the Provincial Recreation Areas within the Elbow Valley into one Elbow Valley Provincial Park, as per the approved Kananaskis Provincial Recreation Areas and Bragg Creek Provincial Park Management Plan.

Appendix J: Overview of the South Saskatchewan Regional Trail System Plan

Tourism, Parks and Recreation and Environment and Sustainable Resource Development will collaborate with and engage aboriginal communities, municipal governments, stakeholders and the public to plan and develop a regional trail system plan. The regional trail system plan will:

- Use the Alberta Recreation Corridor and Trails Classification System to identify and designate winter and summer motorized, non-motorized and mixed-use land- and water-based trails, routes and areas that link communities, neighbourhoods, destinations and other jurisdictions with the region's parks, outdoor spaces and recreation and tourism areas;
- Identify and designate sustainable, high-intensity motorized recreation areas;



- Identify other infrastructure and facilities necessary to support trails-based recreation; and
- Be planned, developed and managed in accordance with the standards and guides set out in the Provincial Trails System and other supporting documents.

The development of the regional trail system plan will include:

- The identification and analysis of recreation trail demands, supply and gaps;
- An inventory and assessment of the sustainability and quality of existing pathways, trails and user-created travel routes and areas;
- The gathering and analysis of environmental, resource, land use, heritage, aboriginal and other social data and land-use commitments;
- The development, assessment and discussion of options and scenarios for regional trail system design. This will include an assessment of the benefits and risks of these options and scenarios for other objectives in the SSRP, their consistency with other provisions in the SSRP and existing land-use commitments;
- In accordance with the Provincial Trails System, establish the class, desired experience and explicit management objective statement for each trail, route or area in the system;
- Trail, route and area development, maintenance and management priorities; information and education strategies and performance monitoring;
- Direction on enforcement, including plans for any modifications of – or enhancements to – the existing enforcement capability needed to achieve timely, fair and effective enforcement of restrictions on trail use, access and associated activities that support the objectives of the regional trail system; and
- The identification of industrial access, resource roads or developments that could contribute to the regional trail system and where reclamation requirements may be deferred and/or amended to reflect their contribution to the regional trail system.



Schedule A:
Air Quality Management Framework Limits and Triggers

Table A-1 Annual Ambient Air Quality Triggers and Limit for NO₂

Description	NO ₂
Level 4	
Limit ¹	45 µg/m ³ (24 ppb)
Level 3	
Trigger for Level 3	30 µg/m ³ (16 ppb)
Level 2	
Trigger for Level 2	15 µg/m ³ (8 ppb)
Level 1	

Ambient air quality triggers and limits apply at continuous air monitoring stations, as described in this framework. Limits are based upon Alberta Ambient Air Quality Objectives.

Table A-2: Interim Upper Range of Data (99th percentile) Ambient Air Quality Triggers for NO₂

Description	NO ₂
Level 4	
Trigger for Level 4*	196 µg/m ³ (104 ppb)
Level 3	
Trigger for Level 3	130 µg/m ³ (69 ppb)
Level 2	
Trigger for Level 2	66 µg/m ³ (35 ppb)
Level 1	

* This is an ambient trigger and not a limit.

Ambient air quality triggers and limits apply at continuous air monitoring stations, as described in this framework.



Table A-3: Action Levels, Triggers and Limits for Ozone and Fine Particulate Matter

Description	O ₃ (*)	PM _{2.5} 24-hour (**)	PM _{2.5} annual
Level 4 ^(iv)			
Limit ⁽ⁱ⁾	63 ppb	28 µg/m ³	10 µg/m ³
Level 3 ^(v)			
Trigger for Level 3 ⁽ⁱⁱ⁾	56 ppb	19 µg/m ³	6.4 µg/m ³
Level 2 ^(vi)			
Trigger for Level 2 ⁽ⁱⁱⁱ⁾	50 ppb	10 µg/m ³	4.0 µg/m ³
Level 1 ^(vii)			

* 8-hour averaging time, achievement to be based on 4th highest annual measurement, averaged over three consecutive years

** 24-hour averaging time, achievement to be based on 98th percentile annual value, averaged over three consecutive years

(i) CAAQS refers to this as Highest Threshold

(ii) CAAQS refers to this as Middle Threshold

(iii) CAAQS refers to this as Lowest Threshold

(iv) CAAQS refers to these as Actions for Achieving Air Zone CAAQS, or Red Management Level

(v) CAAQS refers to these as Actions for Preventing CAAQS exceedances, or Orange Management Level

(vi) CAAQS refers to these as Actions for Preventing AQ Deterioration, or Yellow Management Level

(vii) CAAQS refers to these as Actions for Keeping Clean Areas Clean, or Green Management Level

First reporting under the framework is anticipated be done in the year following the regional plan coming into force. This will be aligned with monitoring and reporting of progress and activities under the national Air Quality Management System.

Schedule B: Surface Water Quality Management Framework Limits and Triggers

Table B-1: Ambient Surface Water Quality Triggers and Limits for the Bow River at Cochrane.

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.005	0.041	0.008	0.025	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	1.9	2.9	2.0	2.6	100 ^b
Nitrate (NO ₃ -N) mg/L	0.074	0.108	0.109	0.130	3.0 ^a
Total Nitrogen (TN) mg/L	0.18	0.40	0.17	0.23	-
Total Dissolved Phosphorus (TDP) mg/L	0.002	0.004	0.002	0.004	-
Total Phosphorus (TP) mg/L	0.005	0.009	0.003	0.006	-
Sulphate (SO ₄ ⁻) mg/L	33.6	40.4	42.2	45.8	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.07	0.12	0.07	0.10	5 ^d
Specific Conductivity µS/cm	289	317	330	349	1000 ^d
Total Dissolved Solids mg/L	165	190	190	200	500 ^b
Total Organic Carbon mg/L	1.0	1.6	0.8	0.9	-
Total Suspended Solids mg/L	2	8	1	2	-
Turbidity NTU	1.8	10.1	0.8	1.7	-
pH	8.23	8.38	8.17	8.30	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	2	13	1	2	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-2: Ambient Surface Water Quality Triggers and Limits for the Bow River at Carseland

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.045	0.160	0.250	0.472	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	7.6	13.1	12.7	20.4	
Nitrate (NO ₃ -N) mg/L	0.601	0.990	1.130	1.403	
Total Nitrogen (TN) mg/L	1.02	1.72	1.68	2.17	
Total Dissolved Phosphorus (TDP) mg/L	0.007	0.016	0.017	0.028	
Total Phosphorus (TP) mg/L	0.021	0.083	0.030	0.062	-
Sulphate (SO ₄ ⁻) mg/L	42.9	51.5	53.9	58.0	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.30	0.45	0.39	0.58	5 ^d
Specific Conductivity µS/cm	346	398	422	443	1000 ^d
Total Dissolved Solids mg/L	201	232	246	260	500 ^b
Total Organic Carbon mg/L	2.0	3.6	1.5	1.9	-
Total Suspended Solids mg/L	6	64	5	14	-
Turbidity NTU	4.0	48.4	2.6	9.3	-
pH	8.20	8.39	8.06	8.20	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	28	144	10	25	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-3: Ambient Surface Water Quality Triggers and Limits for the Bow River at Cluny

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.025	0.120	0.195	0.372	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	8.0	13.0	13.0	20.9	100 ^b
Nitrate (NO ₃ -N) mg/L	0.520	0.837	1.195	1.455	3.0 ^a
Total Nitrogen (TN) mg/L	0.94	1.52	1.68	2.07	-
Total Dissolved Phosphorus (TDP) mg/L	0.005	0.014	0.012	0.020	-
Total Phosphorus (TP) mg/L	0.017	0.128	0.017	0.025	-
Sulphate (SO ₄ ⁻) mg/L	47.9	58.1	57.2	63.1	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.35	0.60	0.42	0.72	5 ^d
Specific Conductivity µS/cm	360	425	441	490	1000 ^d
Total Dissolved Solids mg/L	210	245	257	290	500 ^b
Total Organic Carbon mg/L	2.2	4.3	1.3	1.8	-
Total Suspended Solids mg/L	11	80	4	9	-
Turbidity NTU	8.5	62.7	2.8	7.1	-
pH	8.30	8.46	8.00	8.23	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	8	56	1	6	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-4: Ambient Surface Water Quality Triggers and Limits for the Bow River at Ronalane

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.020	0.081	0.130	0.292	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	8.4	12.0	13.0	19.7	100 ^b
Nitrate (NO ₃ -N) mg/L	0.302	0.747	1.190	1.440	3.0 ^a
Total Nitrogen (TN) mg/L	0.68	1.26	1.58	1.91	-
Total Dissolved Phosphorus (TDP) mg/L	0.005	0.010	0.005	0.017	-
Total Phosphorus (TP) mg/L	0.025	0.138	0.012	0.027	-
Sulphate (SO ₄ ⁻) mg/L	62.2	78.2	60.9	70.5	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.55	0.80	0.48	0.67	5 ^d
Specific Conductivity µS/cm	386	431	448	499	1000 ^d
Total Dissolved Solids mg/L	228	260	263	291	500 ^b
Total Organic Carbon mg/L	3.0	4.8	1.5	2.5	-
Total Suspended Solids mg/L	12	72	6	18	-
Turbidity NTU	10.4	73.3	3.8	17.4	-
pH	8.32	8.58	8.06	8.30	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	14	77	1	6	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-5: Ambient Surface Water Quality Triggers and Limits for the Milk River at Highway 880

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.025	0.070	0.040	0.130	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	1.3	6.2	8.0	14.3	100 ^b
Nitrate (NO ₃ -N) mg/L	0.031	0.123	0.382	0.807	3.0 ^a
Total Nitrogen (TN) mg/L	0.31	0.59	0.82	1.22	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.006	0.003	0.010	-
Total Phosphorus (TP) mg/L	0.079	0.193	0.007	0.039	-
Sulphate (SO ₄ ⁻) mg/L	22.3	170.0	197.0	316.0	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.43	2.26	2.54	3.80	5 ^d
Specific Conductivity µS/cm	248	733	916	1380	1000 ^d
Total Dissolved Solids mg/L	140	488	606	900	500 ^b
Total Organic Carbon mg/L	2.1	4.2	3.7	4.8	-
Total Suspended Solids mg/L	107	304	3	12	-
Turbidity NTU	60.0	170.0	3.7	17.5	-
pH	8.23	8.43	8.30	8.41	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	57	230	1	9	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-6: Ambient Surface Water Quality Triggers and Limits for the Oldman River at Brocket

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.010	0.030	0.010	0.030	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	0.9	1.8	1.2	1.9	100 ^b
Nitrate (NO ₃ -N) mg/L	0.078	0.126	0.093	0.132	3.0 ^a
Total Nitrogen (TN) mg/L	0.23	0.35	0.19	0.32	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.006	0.003	0.005	-
Total Phosphorus (TP) mg/L	0.007	0.018	0.005	0.010	-
Sulphate (SO ₄ ⁻) mg/L	22.1	29.4	29.6	36.0	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.16	0.22	0.18	0.20	5 ^d
Specific Conductivity µS/cm	275	311	307	342	1000 ^d
Total Dissolved Solids mg/L	156	181	179	202	500 ^b
Total Organic Carbon mg/L	2.0	3.7	1.6	2.2	-
Total Suspended Solids mg/L	4	10	1	6	-
Turbidity NTU	5.0	18.8	2.3	8.0	-
pH	8.26	8.35	8.25	8.34	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	3	14	2	27	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-7: Ambient Surface Water Quality Triggers and Limits for the Oldman River at Highway 3

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.020	0.070	0.020	0.060	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	1.5	3.2	2.1	3.0	100 ^b
Nitrate (NO ₃ -N) mg/L	0.022	0.110	0.221	0.349	3.0 ^a
Total Nitrogen (TN) mg/L	0.25	0.64	0.40	0.59	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.009	0.003	0.006	-
Total Phosphorus (TP) mg/L	0.013	0.147	0.008	0.022	-
Sulphate (SO ₄ ⁻) mg/L	35.8	52.1	45.0	58.0	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.42	0.59	0.46	0.60	5 ^d
Specific Conductivity µS/cm	323	391	358	437	1000 ^d
Total Dissolved Solids mg/L	182	224	217	256	500 ^b
Total Organic Carbon mg/L	2.4	3.9	1.7	2.5	-
Total Suspended Solids mg/L	10	163	6	34	-
Turbidity NTU	10.0	143.9	6.2	26.2	-
pH	8.33	8.53	8.19	8.27	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	13	77	2	13	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-8: Ambient Surface Water Quality Triggers and Limits for the Oldman River at Highway 36

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.020	0.090	0.040	0.135	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	4.0	6.1	6.0	8.1	100 ^b
Nitrate (NO ₃ -N) mg/L	0.006	0.127	0.318	0.502	3.0 ^a
Total Nitrogen (TN) mg/L	0.31	0.75	0.59	0.96	-
Total Dissolved Phosphorus (TDP) mg/L	0.003	0.011	0.003	0.007	-
Total Phosphorus (TP) mg/L	0.015	0.160	0.009	0.018	-
Sulphate (SO ₄ ⁻) mg/L	44.8	61.4	58.1	77.4	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.56	0.78	0.65	0.80	5 ^d
Specific Conductivity µS/cm	355	422	416	502	1000 ^d
Total Dissolved Solids mg/L	200	243	246	296	500 ^b
Total Organic Carbon mg/L	2.9	4.4	2.2	3.0	-
Total Suspended Solids mg/L	11	190	3	15	-
Turbidity NTU	10.0	173.0	4.8	17.3	-
pH	8.36	8.53	8.21	8.32	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	14	151	3	17	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Table B-9: Ambient Surface Water Quality Triggers and Limits for the South Saskatchewan River at Medicine Hat – Highway 1

Indicator	Surface Water Quality Triggers				Surface Water Quality Limit
	Open Water (April to Oct.)		Winter (Nov. to March)		
	Median	90%ile	Median	90%ile	
Total Ammonia (NH ₃₊₄ -N) mg/L	0.020	0.060	0.090	0.253	varies with pH and temperature ^a
Chloride (Cl ⁻) mg/L	6.4	9.8	12.6	19.9	100 ^b
Nitrate (NO ₃ -N) mg/L	0.103	0.497	1.015	1.258	3.0 ^a
Total Nitrogen (TN) mg/L	0.55	1.01	1.33	1.72	-
Total Dissolved Phosphorus (TDP) mg/L	0.004	0.009	0.004	0.010	-
Total Phosphorus (TP) mg/L	0.023	0.098	0.011	0.042	-
Sulphate (SO ₄ ⁻) mg/L	56.5	76.9	62.4	77.6	1000 ^{c,1}
Sodium Adsorption Ratio (SAR)	0.60	0.79	0.59	0.88	5 ^d
Specific Conductivity µS/cm	369	436	462	519	1000 ^d
Total Dissolved Solids mg/L	221	252	268	316	500 ^b
Total Organic Carbon mg/L	2.7	4.0	1.7	3.0	-
Total Suspended Solids mg/L	19	105	5	32	-
Turbidity NTU	16.4	80.5	4.0	28.3	-
pH	8.32	8.47	8.14	8.27	<6.5 or >9.0 ^a
<i>Escherichia coli</i> cfu per 100 mL	13	99	1	7	100 ^b

a CCME Guidelines for the Protection of Aquatic Life

b CCME Guidelines for the Protection of Agricultural Water Uses - Irrigation Use

c CCME Guidelines for the Protection of Agricultural Water Uses - Livestock Use

d Alberta Agriculture and Rural Development Guidelines for Irrigation Water Quality - note is combination of SAR and Specific Conductivity limit values in evaluating water suitability for use.

1 Sulphate guidelines related to livestock use presently under review

mg/L = milligram per litre; µS/cm = microsiemens per centimetre; NTU = Nephelometric Turbidity Unit; cfu = colony forming units

Schedule C: SSRP Land Uses

Conservation Areas														
Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infra-structure (Note 9)	MUC (Note 10)
	Ghost River	15,317		Wilderness Area	X	X	X	X	X	X	X	X	X	X
	Kennedy Coulee	1,068		Ecological Reserve	X	X	X	X	X	X	X	X	X	X
	Plateau Mountain	2,323		Ecological Reserve	X	X	X	X	X	X	X	X	X	X
	West Castle Wetlands	94		Ecological Reserve	X	X	X	X	X	X	X	X	X	X
E	Beehive (Note 6)	6,734	Reclass from Natural Area	Wildland Provincial Park	X	X	X	X	✓	X	✓	✓	X	✓
C	Bluerock (Note 6)	12,720 +453	Expansion	Wildland Provincial Park	X	X	X	X	✓	X	✓	✓	X	✓
G	Bob Creek (Note 6)	20,778 +328	Expansion	Wildland Provincial Park	X	X	X	X	✓	✓	✓	✓	X	✓
B	Bow Valley (Note 6)	37,370 +8,075	Expansion	Wildland Provincial Park	X	X	X	X	✓	X	✓	✓	X	✓
I	Castle (Note 6)	44,558	New	Wildland Provincial Park	X	X	X	X	✓	✓	✓	✓	X	✓
K	Castle Conservation Area (Note 6)	10,741	New	Public Land Use Zone	X	X	X	✓	✓	✓	✓	✓	X	✓
A	Don Getty (Note 6)	62,775 +27,928	Expansion	Wildland Provincial Park	X	X	X	X	✓	✓ (snowmobile only)	✓	✓	X	✓
	Elbow Sheep	79,998		Wildland Provincial Park	X	X	X	X	✓	✓ (snowmobile only)	✓	✓	X	✓
F	High Rock (Note 6)	8,362	New	Wildland Provincial Park	X	X	X	X	✓	✓	✓	✓	X	✓

Conservation Areas

Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure (Note 9)	MUC (Note 10)
H	Livingstone Range (Note 6)	4,614	New	Wildland Provincial Park	X	X	X	X	✓	✓	✓	✓	X	✓
D	Mt. Livingstone (Note 6)	564	Reclass from Natural Area	Wildland Provincial Park	X	X	X	X	✓	X	✓	✓	X	✓
	Black Creek	7,733		Heritage Rangelands	X	X	X	X	✓	X (grazing lease holder use permitted)	✓ (by leaseholder permission)	✓	X	✓
	OH Ranch	4,277		Heritage Rangelands	X	X	X	X	✓	X (grazing lease holder use permitted)	✓ (by leaseholder permission)	✓	X	✓
□	Pekisko (Note 6)	33,050	New	Heritage Rangelands	X	X	X	X	✓	X (grazing lease holder use permitted)	✓ (by leaseholder permission)	✓	X	✓
	Emerson Creek	194		Natural Area	X	X	X	X	✓	X	✓	✓	X	✓
	Highwood River	10		Natural Area	X	X	X	X	✓	X	✓	✓	X	✓
	Milk River	5,344		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Ole Buck Mountain	357		Natural Area	X	X	X	X	✓	X	✓	✓	X	✓
	Onefour Heritage Rangeland	11,165		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Outpost Wetlands	72		Natural Area	X	X	X	X	✓	X	✓	✓	X	✓
	Prairie Coulees	1,788		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Red Rock Coulee	324		Natural Area	X	X	X	X	✓	X	✓	✓	X	✓
	Ross Lake	1,943		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Sheep Creek	5		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Threepoint Creek	52		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Twin River Heritage Rangeland	19,028		Natural Area	X	X	X	X	✓	✓	✓	✓	X	✓
	Wildcat Island	8		Natural Area	X	X	X	X	✓	X	✓	✓	X	✓

Recreation and Parks Areas

Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure (Note 9)	MUC (Note 10)
	Beauvais Lake	1,161		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Big Hill Springs	32		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Bow Valley	3,129		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Bragg Creek	128		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Brown-Lowery	278		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Canmore Nordic Centre	805		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Chain Lakes	409		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
7	Chinook	45 +217	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
9	Cypress Hills	20,450 +129	Expansion	Provincial Park	X	X	X	X	✓	X	X (Elk Management Hunt only)	✓	X	✓
	Dinosaur	8,086		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
4	Elbow Falls	84 +43	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
3	Elbow River	236 +107	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Elbow River Launch	15		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Fish Creek	1,356		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Glenbow Ranch	1,334		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
2	Gooseberry	42 +56	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Kinbrook Island	540		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Little Bow	110		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
5	Little Elbow	215 +28	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Park Lake	224		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓

Recreation and Parks Areas

Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure (Note 9)	MUC (Note 10)
	Peter Loughheed	50,142		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Police Outpost	223		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
6	Sheep River	6,192 +266	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Spray Valley	27,472		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
8	Syncline	15 +418	Expansion	Provincial Park	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Tilleybrook	140		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
1	West Bragg Creek	25 +81	Expansion	Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Willow Creek	79		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Woolford	35		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Writing-on-Stone	2,689		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Wyndham-Carseland	178		Provincial Park	X	X	X	X	✓	X	X	✓	X	✓
	Beaver Mines Lake	113		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Bow Valley	4		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Bullshead Reservoir	4		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Burnt Timber	33		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Cartier Creek	44		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Castle Falls	30		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Castle River Bridge	15		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Cat Creek	10		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓

Recreation and Parks Areas

Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure (Note 9)	MUC (Note 10)
	Cataract Creek	53		Provincial Recreation Area	X	X	X	X	✓	✓ (snowmobile staging)	X	✓	X	✓
	Chin Coulee	1		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Cobble Flats	91		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
12	Coleman	32	New	Provincial Recreation Area	X	X	X	X	✓	✓	X	✓	X	✓
11	Crowsnest Lake	14	New	Provincial Recreation Area	X	X	X	X	✓	✓	X	✓	X	✓
	Dawson	2		Provincial Recreation Area	X	X	X	X	✓	✓ (snowmobile staging)	X	✓	X	✓
	Dutch Creek	16		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Elbow River Creek	15		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Elbow River Launch	15		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Etherington Creek	46		Provincial Recreation Area	X	X	X	X	✓	✓ (snowmobile staging)	X	✓	X	✓
	Evan-Thomas	2,571		Provincial Recreation Area	X	X	X	X	✓	X	✓ (In WMU 408 Marmot Basin area)	✓	X	✓
	Fallen Timber	3		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Fallen Timber South	50		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Fisher Creek	11		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Fitzsimmons Creek	2		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Ghost Airstrip	157		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Ghost Reservoir	24		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Greenford	2		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Heart Creek	10		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓

Recreation and Parks Areas

Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure (Note 9)	MUC (Note 10)
	Highwood	31		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Highwood Junction	6		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Honeymoon Creek	7		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Indian Graves	15		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Ing's Mine	27		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Island Lake	3		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Jensen Reservoir	9		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Jumpingpound Creek	13		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Lake McGregor	140		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Lantern Creek	11		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Lineham	7		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Little Bow Reservoir	70		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Livingstone Falls	24		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Lundbreck Falls	9		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Lusk Creek	14		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Lynx Creek	26		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Maycroft	6		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	McLean Creek	245		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Mesa Butte	10		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓

Recreation and Parks Areas

Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas (Note 1, 2)	Metallic and Industrial Minerals, Coal, and Other Crown Minerals (Note 1, 2)	Surface Materials (Note 3)	Commercial Forestry (Note 4)	Grazing (Note 5)	Off-Highway Vehicles (Note 7)	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure (Note 9)	MUC (Note 10)
	Michelle Reservoir	9		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Mist Creek	16		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Moose Mountain Trailhead	15		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	North Fork	17		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Old Baldy Pass Trail	28		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Oldman Dam	4,846		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Oldman River	2		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Oldman River North	39		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Payne Lake	37		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Picklejar	8		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Pine Grove	27		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Pinetop	5		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Racehorse	14		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	Sentinel	15		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
10	Sibbald Lake	73 +83	Expansion	Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Sibbald Meadows Pond	10		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	Sibbald Viewpoint	16		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓
	South Ghost	7		Provincial Recreation Area	X	X	X	X	✓	✓ (OHV staging)	X	✓	X	✓
	St. Mary Reservoir	173		Provincial Recreation Area	X	X	X	X	✓	X	X	✓	X	✓

Recreation and Parks Areas

[illegible]

Public Land Recreation Area														
Map Area	Area Name	Area Size (ha)	Type of Change	Legal Designation	Petroleum and Natural Gas	Metallic and Industrial Minerals, Coal, and Other Crown Minerals	Surface Materials	Commercial Forestry	Grazing	Off-Highway Vehicles	Hunting, Trapping (Note 8)	Fishing (Note 8)	Linear Infrastructure	MUC (Note 10)
17	Atlas	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
16	Beaver Creek	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
15	Ceasar's Flat	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
20	Lynx Creek Flats	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
18	McGillivray	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
13	Speers Creek	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19	Tent Mountain	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
14	Trout Creek	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
21	Upper Castle Flats	TBD	Establish	Public Land Recreation Area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Green Area - Public Land							
Petroleum and Natural Gas	✓	✓	✓	✓	✓	✓	✓
Metallic and Industrial Minerals, Coal, and Other Crown Minerals	✓	✓	✓	✓	✓	✓	✓
Surface Materials	✓	✓	✓	✓	✓	✓	✓
Commercial Forestry	✓	✓	✓	✓	✓	✓	✓
Grazing	✓	✓	✓	✓	✓	✓	✓
Off-Highway Vehicles	✓	✓	✓	✓	✓	✓	✓
Fishing, Hunting, Trapping (Note 8)	✓	✓	✓	✓	✓	✓	✓
Linear Infrastructure	✓	✓	✓	✓	✓	✓	✓
MUC (Note 10)	✓	✓	✓	✓	✓	✓	✓
<p>Private lands – Private landowners make decisions about how to use and manage their land consistent with existing provincial and municipal legislation – the South Saskatchewan Regional Plan does not change this or alter property rights.</p> <p>Federally controlled lands - Approximately eight per cent of the region includes Canadian Forces Base Suffield, First Nations Reserves and National Parks.</p>							
White Area - Public Land							
Petroleum and Natural Gas	✓	✓	✓	✓	✓	✓	✓
Metallic and Industrial Minerals, Coal, and Other Crown Minerals	✓	✓	✓	✓	✓	✓	✓
Surface Materials	✓	✓	✓	✓	✓	✓	✓
Commercial Forestry	✓	✓	✓	✓	✓	✓	✓
Grazing (Note 5)	✓	✓	✓	✓	✓	✓	✓
Off-Highway Vehicles	✓	✓	✓	✓	✓	✓	✓
Fishing, Hunting, Trapping (Note 8)	✓	✓	✓	✓	✓	✓	✓
Linear Infrastructure	✓	✓	✓	✓	✓	✓	✓
MUC (Note 10)	✓	✓	✓	✓	✓	✓	✓

Note 1: Petroleum and Natural Gas Exploration and Development – Existing Commitments

Existing petroleum and natural gas tenure will be honoured in conservation areas and recreation and parks areas, in accordance with existing policy.

This includes all subsurface and surface activities needed to explore for, develop and extract the resource defined in the existing agreement. Care must be taken when exploring, developing and extracting the resource in order to minimize impacts of activities on the natural landscape, historic resources, wildlife, fish and vegetation.

- This also includes renewing subsurface and surface dispositions, approvals and agreements for existing activities.
- Applications for **new surface dispositions** (e.g., a new disposition for a well, road, pipeline or facility, etc.) required to access an existing subsurface commitment would also be honoured as necessary extensions to an existing commitment, subject to review through the current application and approval process.
- Applications for **seismic programs** associated with existing subsurface commitments will be reviewed through the current application and approval process.
- Limitations: Existing surface or subsurface commitments related to petroleum and natural gas within a protected area cannot be used as a basis to access new subsurface rights within a protected area (e.g., whether to access new subsurface deeper rights, new lateral subsurface rights or additional new rights). By definition, any new subsurface disposition or subsurface right does not qualify as an existing commitment, as it came into effect after the protected area was established.

For greater clarity, this Note 1 does not apply to metallic and industrial minerals, coal, or other Crown minerals.

Note 2: Freehold Minerals

Freehold minerals (petroleum and natural gas, coal, metallic and industrial minerals, other minerals) are exempt from the restrictions associated with any part of this plan including conservation areas and recreation and parks areas.

Note 3: Surface Materials (sand, gravel, clay, marl, silt and peat)

Existing surface materials leases will be honoured in conservation areas and recreation and parks areas, in accordance with the Alberta Aggregate (Sand and Gravel) Allocation Policy for Commercial Use on Public Land.



Note 4: Commercial Forestry

Management for wildfire, insect and disease control will be allowed in areas where commercial forestry activities are not permitted. This may include prescribed burns and limited tree removal.

In the Conservation Area commercial forestry is permitted but the management priority is for maintaining biodiversity and headwaters protection. Enhanced best management practices for biodiversity and headwaters protection will be required such as: winter only operations to avoid critical active periods for grizzly bear, practices to restrict access, buffer zones that cover entire riparian areas and visual buffer screens to increase bear security for travel.

Note 5: Grazing

Existing grazing activities will continue. Approvals for new grazing dispositions are subject to a grazing suitability assessment.

Note 6: Access to Water

There are a number of known corridors and key routes that are used for access to water resources and associated infrastructure. This access to surface water and ground water is related to various activities.

At the time when the new conservation areas are established, these known corridors and key access routes will be identified. Following the establishment of the new conservation areas, any further access for water would have to be compatible with the management intent for the area. Activities such as monitoring may be considered compatible, while permanent infrastructure for private purposes would not.

Note 7: Off-highway vehicles (motorized-recreation):

Where it is a permitted use, off-highway vehicle use will be managed to designated trails and areas, subject to the following:

- Off-highway vehicle use is permitted on existing trails and areas or where a management plan, trails plan or regulation specifies.
- In areas where designation of trails has not yet occurred, use of existing access can continue but no new trails or routes or access may be developed without an access management plan.
- Regardless of whether or not there is a management plan or trails plan in place, off-highway vehicle use shall not occur in the beds and shores of permanent water bodies. Furthermore, off-highway vehicle use shall not occur on industrial facility areas (e.g., wellsites), unless specifically authorized to do so.
- In areas designated as Heritage Rangelands, grazing lease holders are permitted to use off-highway vehicles in connection with the exercise of holders' rights under the grazing lease.



Note 8: Hunting, Fishing and Trapping (including by aboriginal peoples)

With the exception of new public motorized access management requirements, hunting, fishing and trapping will continue in accordance with existing provincial laws governing such activities as such laws may be amended or replaced from time to time. Hunting includes commercial guiding and outfitting operations where wildlife species management plans provide an allocation for that use. Existing trapping will be honoured.

Note 9: Linear infrastructure

Linear infrastructure (roads, electric transmission, pipelines, water management, telecommunication towers and underground fibre-optic cables) are generally prohibited within conservation areas and recreation and parks areas. There are three exceptions to this general rule:

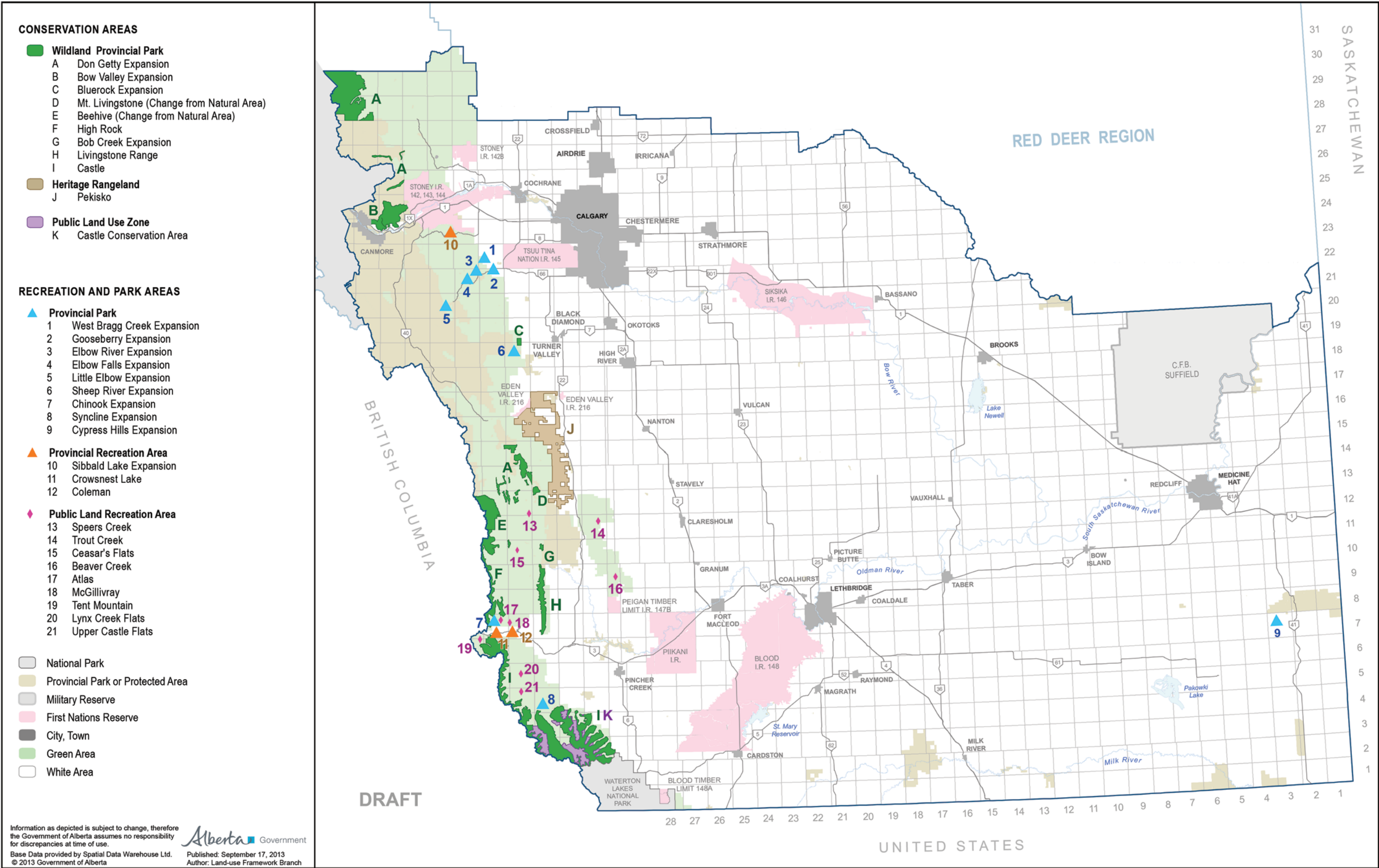
- 1) Linear infrastructure developed in accordance with activities, approvals and agreements or their renewal that is part of honouring existing petroleum and natural gas tenure as explained by Note 1;
- 2) Linear infrastructure developed in accordance with activities, approvals and agreements or their renewal that is part of honouring freehold minerals as explained by Note 2; or
- 3) Linear infrastructure developed in accordance with activities, approvals and agreements or their renewal that is part of honouring existing surface material tenure as explained by Note 3; or
- 4) Cabinet has designated and approved a Multi-Use Corridor.

Note 10: Multi-use Corridors

A multi-use corridor is a dedicated land area identified by Cabinet for co-location of linear infrastructure that supports critical economic linkages and is in the public interest. A multi-use corridor may include one or more of the following:

- public highways and roads
- electric transmission
- high-speed rail and rail
- pipelines
- water management
- telecommunication towers and underground fibre-optic cables
- recreation trails.

Schedule D: South Saskatchewan Digital Map





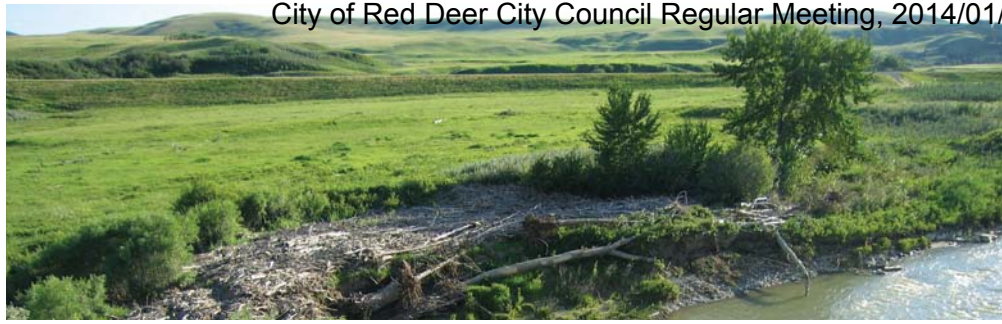
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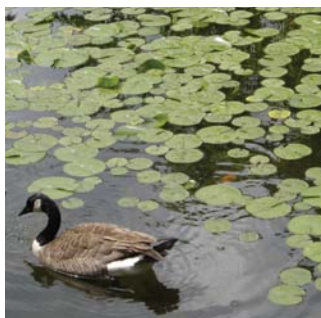
REFERS TO: Comments on Draft South Saskatchewan
Regional Plan:

**Stepping Back from the Water:
A Beneficial Management Practices Guide
for New Development Near Water Bodies
In Alberta's Settled Region**



Stepping Back from the Water

A BENEFICIAL MANAGEMENT PRACTICES GUIDE FOR NEW
DEVELOPMENT NEAR WATER BODIES IN ALBERTA'S SETTLED REGION



Disclaimer

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Foreword

INTENDED USERS OF THIS DOCUMENT

This handbook is for anyone with an interest in minimizing the impacts and risks associated with development¹ near water bodies. The emphasis is on conserving riparian areas, the lush strips of land adjacent to lakes, rivers, streams and wetlands.

WHAT IS THE PURPOSE OF THE DOCUMENT?

The question often arises: what is the minimum setback needed to protect aquatic ecosystems from development such as buildings, roads and other permanent structures? This handbook answers this question by providing decision makers with information for determining setback widths and designing effective buffers adjacent to water bodies.

Scientific studies from around the world have shown that healthy riparian areas provide essential ecological functions. Albertans recognize the need to protect and conserve water resources and aquatic ecosystems, along with their shorelines and unique landscapes including floodplains, ravines and valleys². But, construction activities in riparian areas can lead to erosion and sedimentation, flooding, slope failure, surface and groundwater pollution, and loss of valuable fish and wildlife habitat. This handbook can help avoid these and other problems by ensuring adequate setbacks and managing erosion and pollutants at source.

WHAT'S IN THIS DOCUMENT?

This publication contains the following information:

- An introduction to riparian areas;
- Recommendations for setback widths and buffers;
- An overview of riparian areas and how they function;
- Measures for protecting and conserving riparian areas;
- A listing of legislation and policy affecting riparian areas in Alberta;
- Examples of riparian guidelines from other jurisdictions;
- Managing runoff from new development; and,
- A resource list for further reading.

This document deals with setbacks only for new development adjacent to water bodies in Alberta's settled region. There are several types of setbacks for protecting water bodies in Alberta, affecting activities such as agriculture, timber operations, and oil and gas. These are beyond the scope of this document. Appendix 1 contains additional information about setback requirements in Alberta and the legislation that governs them.

¹As defined in the *Municipal Government Act*, development may consist of a building, excavation or stockpile. See the glossary in this report for a complete definition.

²Sections 5 and 6.3 of the provincial Land Use policies encourage municipalities to identify unique and sensitive landscapes and take measures to minimize possible negative impacts of subdivision development.

ACKNOWLEDGEMENTS

This document was prepared by Alberta Environment and Sustainable Resource Development with assistance from AMEC Earth and Environmental and the Alberta Riparian Habitat Management Society (Cows and Fish). It is based on an extensive review of scientific studies and accepted beneficial management practices. Valuable input was received through consultation with various Government of Alberta departments, municipal officials, land-use planners, academic researchers and watershed groups. The document follows on several key recommendations and conclusions of a report³ prepared in 2007 by a multi-stakeholder working group chaired by Alberta Environment, namely:

- Healthy intact riparian lands deliver broad benefits to society;
- Riparian lands are transition zones between the land and water. Their unique and dynamic nature present special challenges for their delineation and management;
- Riparian management is a shared responsibility of governments, communities and landowners. Within this management system, it is the role of governments to assure environmental quality;
- The best tools to achieve riparian land protection are those that help achieve outcomes and fit local environmental, social and economic conditions.

³*Riparian Land Conservation and Management Project: Phase One Final Report.* 2007. Prepared by Alberta Environment for Riparian Land Conservation and Management Project Members.



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Riparian areas are important landscape features that can buffer water bodies from non-point sources of nitrogen pollution.

Executive Summary

BACKGROUND

As the Ministry responsible for the *Water Act* and implementing *Water for Life*, Alberta Environment and Sustainable Resource Development has a strong interest in maintaining the integrity of riparian areas. Fundamental to the *Water Act* is the recognition that the protection of the aquatic environment⁴ is essential to sustainable water management. The health of rivers, streams, lakes and wetlands involves more than managing water quantity and quality. Activities on lands near water bodies can also have a profound effect on aquatic ecosystem health and sustainability. Maintaining healthy aquatic ecosystems is one of three goals identified in Alberta's *Water for Life* strategy, which recognizes that healthy aquatic ecosystems are vital to a high quality of life for Albertans. Riparian areas, the strips of land adjacent to water bodies, have an important role in the natural regulation of water quantity and improvement of water quality. They provide many other important benefits to society including flood water conveyance and storage, groundwater recharge, shoreline protection, forage for livestock, and habitat.

The impacts and risks associated with development of riparian lands are well documented, but provincial direction on how to reduce and minimize the impacts and risks in Alberta's settled region is needed. As Alberta's population and economy continue to grow, pressure on riparian lands is increasing and the benefits they provide are being compromised. Currently, subdividing authorities have the ability to establish building development setbacks, or dedicate environmental reserve strips, for the purpose of preventing pollution. However, guidance has been lacking on exactly how wide an effective filter strip should be. In response to these and other concerns, Alberta Environment and Sustainable Resource Development has prepared this handbook to help minimize the impact of new development on water bodies in Alberta's settled region. By keeping permanent developments an appropriate distance from the water, maintaining riparian areas in a healthy state, and managing sources of pollution in our watersheds, the ecosystem services provided by riparian areas can be maintained and enjoyed for generations to come.

CONTENT AND SCOPE

The *Stepping Back from the Water* handbook is designed to assist municipalities, watershed groups, developers and landowners in Alberta's settled region determine appropriate water body setbacks for development around our lakes, rivers and wetlands. It will also encourage new policies for achieving riparian environmental outcomes. The handbook will help users with the following:

1. Identifying riparian lands, and understanding key riparian area functions;
2. Understanding how setbacks can be applied to create effective riparian buffers;
3. Conserving and managing riparian land;
4. Managing erosion and pollutants associated with new development.

The *Stepping Back from the Water* document contains recommendations for development setbacks and riparian buffer management based on a review of the scientific literature, published monographs, and regulatory and planning documents from various jurisdictions in Canada and the USA. Buffer strip recommendations for water quality functions were made using only the scientific literature, whereas a variety of sources were used relative to other core riparian functions including flood water conveyance and storage, bank stability, and habitat. In these cases, existing policies and beneficial management practices supplemented the scientific literature and offered practical guidance.

The *Stepping Back from the Water* handbook also provides guidance on watershed-scale approaches for protecting water bodies, sensitive areas, wetlands, shorelines and water quality, recognizing that riparian buffer strips alone are unlikely to reduce runoff and nutrient loading into surface waters. The importance of working together, and using a broad suite of tools and approaches to manage human impact on our natural environment, cannot be overemphasized. Later sections and the report's appendices contain information and links for land and water management beyond riparian areas.

⁴The aquatic environment is a complex system that is influenced by many factors such as climate, weather patterns, landscape and geology. It includes naturally occurring features, such as rivers, streams, creeks, riparian areas, lakes, wetlands and groundwater. Each water body is associated with a unique variety of plant and animal life as well as a riparian area.

[executive summary <](#)

HOW DO STEPPING BACK FROM THE WATER'S RECOMMENDATIONS COMPLY WITH EXISTING ALBERTA GUIDELINES AND REQUIREMENTS FOR SETBACKS ADJACENT TO WATER BODIES?

The recommendations for water body setbacks and riparian filter-strip widths in *Stepping Back from the Water* are discretionary. They are intended to assist local authorities and watershed groups in Alberta's White Area⁵ with policy creation, decision making and watershed management relative to structural development near water bodies. Alberta Environment and Sustainable Resource Development provides municipalities with guidelines for minimum environmental reserve/easement widths; however, *Stepping Back from the Water's* recommendations can be used to supplement those guidelines. When timber is cleared under a timber disposition, the Alberta Timber Harvest Planning and Operational Ground Rules will provide direction for the removal of the timber and the buffers (setbacks) required. Appendix 1 contains additional information about setback requirements in Alberta and the legislation that governs them.

- Additional buffer considerations are recommended for protecting aquatic and terrestrial habitat, wildlife travel corridors, and rare species,
- An appendix contains a summary of federal and provincial legislation, regulations, policies and guidelines that affect water body or riparian area management in Alberta,
- Examples from various Alberta municipalities and other jurisdictions are included to illustrate how others have approached riparian area management.

Alberta's Settled (White) Area



STEPPING BACK FROM THE WATER HANDBOOK HIGHLIGHTS

- Setback recommendations are made with the following factors in mind:
 - » water quality functions of riparian areas,
 - » effect of slope on effectiveness of vegetated filter strips,
 - » risk of shallow groundwater contamination,
 - » flooding,
 - » shoreline migration, and
 - » bank stability.
- The 1:100 flood is recommended for determining setbacks relative to flood water conveyance and storage,
- Appropriate environmental assessments are recommended for protecting shallow groundwater and avoiding unstable ground,

⁵Alberta's White Area was set aside as land primarily suited for agriculture and settlement. It covers about 39 per cent of Alberta (see map).



Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land. LUNA LEOPOLD

Setbacks and Buffers

INTRODUCING YOU TO RIPARIAN AREAS

You have likely walked in or crossed over a riparian area. You may live, work or play in one. As Alberta was settled, pioneers were attracted to agricultural land that was partly covered by woods and water. Sought-after lands often included riparian areas along rivers and streams or around wetlands and lakes. Towns and cities have since evolved from these early settlement patterns and many Albertans still live next to or in riparian areas. Over time, residential developments, recreational amenities, roads and industrial activities have encroached more and more on these attractive areas. Our current demands on riparian areas now compromise their ability to provide the environmental, aesthetic, and economic benefits that attracted settlers in the first place.

Let's Talk About Water

Albertans are concerned about water since our lives are intertwined with fresh water from surface and groundwater sources. Many of us live in areas of the province where water supplies are not abundant. The limiting factor to us isn't space, it's water. Water is essential for life and commerce; a finite amount means our care of it should be paramount.

Albertans have identified water quality and quantity as priorities. What influences water quality and quantity? In many cases it is how we treat the landscape (and watershed) and the areas that adjoin water – riparian areas. What can we do better and smarter around water bodies to improve and maintain them? To start we need to be able to identify those pieces of the landscape essential for our attention and management.



Credit: Alberta Riparian Habitat Management Society (Cows and Fish)

> setbacks and buffers

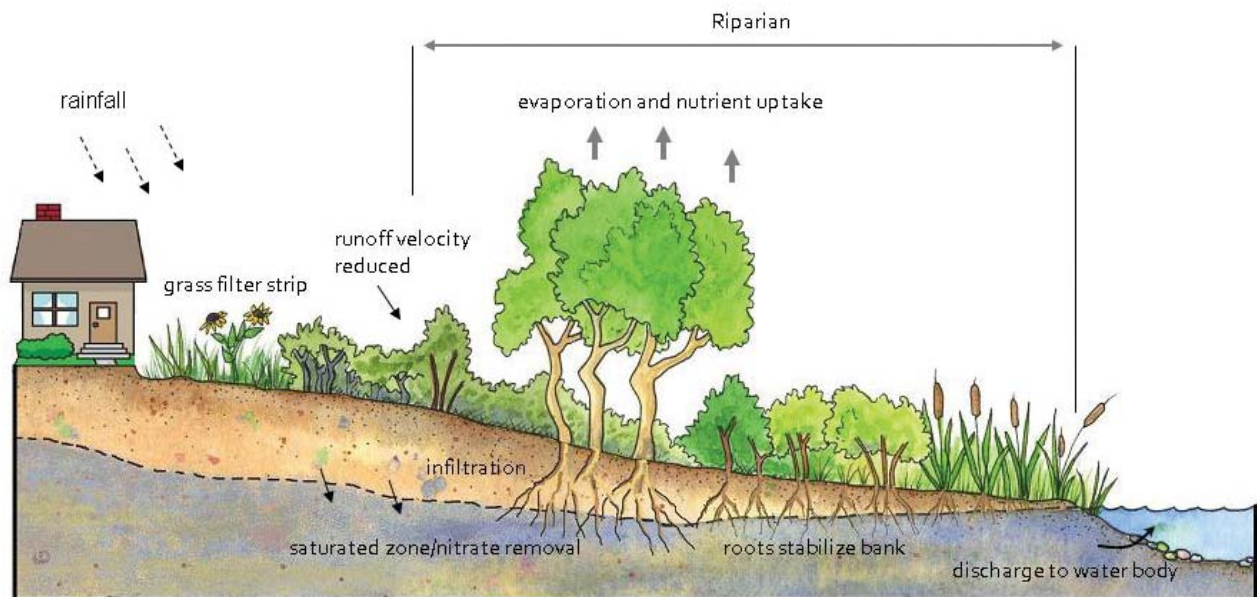
What are Riparian Areas?

If we get back to the basics, riparian areas are the place where water and land meet and interact. It is the interaction part that best defines a riparian area. They usually are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are influenced by the presence of water above the ground and below the surface. Riparian areas occupy a small part of the landscape, but are important ecologically, socially and economically. They are the “thin green lines” between all we do in uplands and the effect of that use on aquatic ecosystems.

Riparian areas are created and maintained by water. A lot of water is present, seasonally or regularly, on the surface or close to the surface. Native riparian vegetation requires and survives well with abundant supplies of water. Soils have been modified by water,

the deposition of sediment and by lush vegetation. Typical native riparian plants in Alberta’s settled region include sedge, cattail, willow, cottonwood and poplar. Topographically, the riparian area can have variable widths and can be sloped or flat. Groundwater generally flows along the topographical gradient, or where the riparian area is level to gently sloping, flow direction is influenced by the surface water level. When your eye has been trained to recognize these unique areas, the distinctions between riparian and upland boundaries become clear. In some cases, because of developments that encroach into riparian areas, that distinction is lost. Only when riparian areas are inundated by high water, from a flood for example, are we reminded that these areas are created and maintained by water.

Figure 1
Illustration Showing a Riparian Area and Some of Its Interactions with Water



[setbacks and buffers <](#)

What Makes Riparian Areas Special?

As our understanding about the role of riparian land grows, so does our appreciation of how important these areas are to us. Healthy riparian areas possess several unique functions and provide important ecosystem services and benefits to society including:

Water Quality Functions (sediment, nutrients, flows and temperature)

- Improve water quality by trapping sediment, sediment-bound nutrients and other contaminants from surface runoff before they reach the water and downstream water users
- Reduce the velocity of sediment-bearing storm flows, allowing sediments to settle out of water and be deposited on land instead of being carried downstream
- Contribute large woody debris (snags) to streams that can trap large amounts of sediment
- Remove nutrients from groundwater via uptake in vegetation and by denitrification
- Help prevent eutrophication of aquatic ecosystems
- Shade and cover provided by riparian vegetation can moderate water temperature in small (low order) streams

Flood Water Conveyance and Storage

- Riparian areas reduce peak flows and downstream flooding. As flood water flows through a vegetated area, the plants resist the flow and dissipate the energy, increasing the time available for water to infiltrate into the soil and be stored for use by plants.
- The water that is stored in shallow groundwater (alluvial) aquifers helps maintain stream flow (and water quality) during low flow periods.

Bank and Shoreline Stabilization

- Deep-rooted, native plants protect shorelines by reducing bank erosion, bank failure, sediment transport, and loss of valuable lands

Habitat and Biodiversity

- Capture organic matter that is a source of food and energy for the aquatic ecosystem
- Support an exceptional level of biodiversity due to natural disturbance regimes, a diversity of habitats, and small-scale climatic variations
- Support species at risk
- Provide undercut banks, shade, food and woody debris to aquatic ecosystems
- Facilitate plant and animal dispersal along green corridors

Finally, naturally functioning riparian areas provide a range of social and economic benefits through their provision of water quality functions and other processes:

- Provide public access, recreational and educational opportunities in an aesthetically pleasing landscape
- Capture and slow flood waters, thereby decreasing damage to property
- Provide an important source of grazing land and forage for managed livestock grazing
- Provide green space that can increase property values
- Reduce the need to combat flooding, repair eroding stream banks, and replace damaged property

Other sections of this handbook contain more information about riparian areas and the benefits they provide to property owners, communities and to society.

> setbacks and buffers

DRAWING THE LINE: SETBACK WIDTHS

Setbacks identify the minimum distance required between water bodies and development, separating those areas where we want to work and live from what we want to conserve and protect. The strip of land created is generally called a buffer. Buffers are sometimes described as the boundary between the natural and the man-made world. Buffers can be comprised of a vegetated filter strip⁶ consisting of riparian and upland vegetation, a slope allowance, and in some cases can include a wildlife corridor as well.

To function effectively, riparian areas must be healthy. Placing permanent structures in riparian areas not only compromises riparian function, but puts people and property at risk from flooding, ice damage, unstable ground and other dangers. Development of riparian lands can have many undesirable consequences including: altered drainage and sedimentation processes, decreased bank stability and increased erosion and pollutants, introduction of invasive species, habitat loss, and visual impacts. In many cases, development near water will be constrained by an active flood plain and topographic factors such as steep slopes and unstable ground. Keeping development back from such hazards will in most cases be sufficient for avoiding riparian areas. In others, it may be necessary to maintain a vegetated filter strip as a buffer. This chapter explains how setbacks can be determined for different types of water bodies found in Alberta's White Area, and how setbacks can be used to create effective riparian buffers.

The approach described in this document can be used for most types of permanent developments including the following:

- Urban subdivisions
- Country residential developments
- Cottages
- Farm buildings
- Golf courses (buildings)
- Commercial buildings
- Stormwater ponds
- Roads and dikes, and
- Temporary land uses such as sand and gravel pits.

Scientific studies have found that the effectiveness of riparian buffers as water quality filters varies from location to location. The size, topography and geology of the watershed determine the amount and quality of surface water and groundwater that passes through a buffer. Site characteristics such as slope, soils and substrate can determine the amount of pollutants that are filtered out before they reach the water body. Although the type and health of vegetation can affect sediment removal effectiveness, nitrate removal in riparian areas is influenced mainly by hydrogeological characteristics, for example see Vidon and Hill (2004, 2006).

The large number of variables that control the effectiveness of riparian buffers in filtering pollutants underlines the importance of maintaining riparian areas in a natural state and in so doing, maintaining ecological processes. For example, studies suggest that the quantity and quality of the organic carbon in subsurface sediments in riparian areas regulate the removal of nitrogen (Hill and Cardaci 2004), and zones of high biological activity and groundwater flow are more effective at removing this nutrient (Maitre et al. 2003). Although prescribing a minimum setback distance is difficult, scientific studies generally agree that wider, forested riparian strips are more effective at removing pollutants. The setback needed to maintain other important functions including water storage and flood control, bank stabilization, and aquatic and terrestrial habitat depend more on hydrological and landscape factors than width alone.

Setbacks should be determined on a case-by-case basis by a person or persons qualified to make these assessments. This may involve a report certified by a professional biologist, engineer, geologist or geophysicist, as defined in the appropriate legislation governing these professions.

⁶A vegetated filter strip is land left in a natural, preferably undisturbed state, usually consisting of riparian soils and native or planted vegetation, situated between development and a water body.

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Thinking About Objectives

Organizing objectives according to the water body classification used in this document is recommended. The classification includes: 1) Lakes and Class III, IV, V, VI & VII Wetlands; 2) Rivers and Streams; 3) Ephemeral/intermittent streams; 4) Class I & II Wetlands, Seeps and Springs. Ephemeral streams are streams that flow only during and immediately after rainstorms. Intermittent streams flow for part of each year.

Setbacks are only one tool for achieving desired environmental outcomes for riparian lands and aquatic environments. Managing development and agricultural and industrial land uses throughout the watershed play an integral role in protecting sensitive landscapes and managing sources of pollution. Later sections and the appendices of this report contain information on policies, legislation and resource management strategies for achieving environmental outcomes.

Policy and Legislation Affecting Riparian Areas

Working knowledge of relevant policy and legislation and how they affect development adjacent to water bodies is a prerequisite for ensuring that any proposed or new setback widths complement and do not conflict with existing sets of rules. For example, municipalities may have addressed riparian and wetland protection in their plans and policies, or may have created guidelines for setbacks in their Area Structure Plans. Alternatively, watershed management plans may provide additional guidance for riparian conservation and management.

There are several important pieces of legislation affecting land development on or adjacent to shorelines and riparian areas in Alberta, including the following:

- *Municipal Government Act* – Alberta Municipal Affairs
- *Fisheries Act* – Fisheries and Oceans Canada (DFO)
- *Migratory Birds Convention Act* – Environment Canada, Canadian Wildlife Service
- *Navigable Waters Protection Act* – Transport Canada
- *Public Lands Act* – Alberta Environment and Sustainable Resource Development
- *Water Act* – Alberta Environment and Sustainable Resource Development

- *Forest Act* – Alberta Environment and Sustainable Resource Development

Appendix 1 contains a complete list of policy and legislation affecting riparian areas along with a brief summary of each policy or act.

Technical Information Needs for Determining Setback Widths

The more detailed information that is collected and used in this process, the more likely the buffer will provide desired ecosystem services and benefits. This section describes the technical information needed for determining setbacks, along with recommended data sources (Table 1). At a minimum, information assembly should support the determination of filter strip width, unstable ground, erosion-prone areas, and the flood plain.

The retention of full-width buffers to protect habitat and biodiversity may not always be practical; however, emphasis should be placed on protecting environmentally significant areas, sensitive wildlife habitats, and rare species. In the absence of recent data for the specific site or area that is being considered, a qualified environmental professional may be needed to identify and collect relevant information.

Mapping the Legal Bank of a Water Body

The legal bank⁷ of a water body should be determined as defined in the *Surveys Act*. Setbacks should be measured from this line, except for ephemeral/intermittent streams where the middle axis of the channel can be used. Aerial photographs and Alberta hydro-net data can be used to map the legal bank; however, using a LiDAR-derived Digital Elevation Model (where available) will give a much more accurate representation of stream networks and wetlands, and water body boundaries. The actual legal bank will have to be determined for each individual water body in the field at time of survey. Marshland or wetland vegetation such as cattails and sedges form part of the bed and shore of a water body.

⁷Under Section 3 of the *Public Lands Act*, the Crown claims title to the beds and shores of all permanent and naturally occurring bodies of water including rivers, streams, watercourses and lakes.

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Table 1
Recommended Data and Sources, by Function

Type of Data	Data Source
Water Quality Functions	
Topography and Slope⁸ <ul style="list-style-type: none"> Topographic slope from the legal bank extending out to adjacent uplands, including floodplains and valley escarpments. 	Maps Alberta Geological Survey; Alberta Soil Information Viewer (AGRASID); Canadian Soil Information System (CanSIS) DEMs AltaLIS: Spatial Data Warehouse Ltd.; DEMs using LiDAR: Alberta Environment and Sustainable Resource Development
Parent Material <ul style="list-style-type: none"> Glacial till or water/wind deposited substrate. 	Maps Alberta Geological Survey; Alberta Soil Information Viewer (AGRASID); Canadian Soil Information System (CanSIS)
Groundwater <ul style="list-style-type: none"> Surficial aquifers/alluvial aquifers (areas of high hydraulic connectivity between surface water and groundwater and vulnerable to surface contamination) 	Maps and Records <ul style="list-style-type: none"> Agri-Environment Services Branch (AESB); Alberta Environment and Sustainable Resource Development: Groundwater Information Centre, Groundwater Observation Well Network; Groundwater Centre (www.tgwc.com); Watershed Management Plans
<ul style="list-style-type: none"> Shallow groundwater (< 1.8 m) 	<ul style="list-style-type: none"> Geotechnical studies.
<ul style="list-style-type: none"> Springs, seeps 	<ul style="list-style-type: none"> Topographic land surveys; geotechnical studies.
Flood Water Conveyance & Storage	
Floodplains (Rivers and Streams) <ul style="list-style-type: none"> Floodway and flood fringe 1:100 year floodplain 	Flood Hazard Maps <ul style="list-style-type: none"> Alberta Environment and Sustainable Resource Development Areas Without Flood Hazard Maps <ul style="list-style-type: none"> Use the most recent topographic maps to evaluate land contours & elevations, named water bodies, and wet areas. Choose at least four aerial photos between 1960 (or earlier) and the present to determine if the site is subject to periodic inundation by water. Photos taken during the months of April-June have a higher chance of showing flooded areas; flood photography is also available from Alberta Environment and Sustainable Resource Development. The use of satellite and LiDAR imagery is acceptable for determining flood prone areas.
Flood Water Conveyance & Storage	
Flood Levels (Lakes) <ul style="list-style-type: none"> 1:100 year level 	Maps <ul style="list-style-type: none"> Alberta Environment and Sustainable Resource Development
Bank/Shoreline Stability	
Erosion Prone Lands, Undercut Banks <ul style="list-style-type: none"> such as the outside bends of rivers having dynamic channels, including highly erodible soils & areas subject to channel migration 	Soil Maps <ul style="list-style-type: none"> Alberta Geological Soil Survey; Alberta Soil Information Viewer (AGRASID); Alberta Agriculture and Rural Development: Water Erosion Risk Map of the Agricultural Areas of Alberta; Canadian Soil Information System (CanSIS); geotechnical studies.

⁸There is a direct relationship between slope and erosion potential, conversion of nutrients, and retention of nutrients. A steeper slope usually results in higher erosion potential and lower nutrient conversion and retention. Slopes with grades of 15 per cent or over are steep. If disturbed, these areas can yield heavy sediment loads on streams. Very steep slopes, over 25 per cent grade, produce heavy soil erosion and sediment loading

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Type of Data	Data Source
Bank/Shoreline Stability (continued)	
Sloping Ground <ul style="list-style-type: none"> including slopes more than 25%. Slope constraint maps, if available. 	See “Topography and Slope” <ul style="list-style-type: none"> Some municipalities may have slope constraint maps for areas with approved area structure plans. Note: gathering of these data can be coordinated with preparation of Master and Overland Drainage Plans.
Unstable Ground <ul style="list-style-type: none"> such as the base and top of steep banks, or close to seeps and springs 	<ul style="list-style-type: none"> Geotechnical studies
Habitat/Biodiversity	
Environmentally Significant Areas (ESAs) <ul style="list-style-type: none"> includes some riparian areas of major rivers 	Maps and Records <ul style="list-style-type: none"> Alberta Conservation Information Management System (Alberta Tourism, Parks and Recreation). Municipalities also may house updated information.
Wildlife Sensitivity Maps <ul style="list-style-type: none"> includes migration corridors, critical wildlife summer or winter range(s), traditional nesting, calving, fawning, or birthing sites, endangered and threatened plants ranges, colonial nesting birds, sensitive amphibian ranges. 	Maps and Data <ul style="list-style-type: none"> available through Alberta Environment and Sustainable Resource Development Landscape Analysis Tool used by the Government of Alberta's Enhanced Approval Process. See also: Ducks Unlimited Canada; Hinterlands Who's Who and Canadian Important Bird Areas (IBA).
Rare Species <ul style="list-style-type: none"> Includes wildlife species at risk that rely on or use riparian areas, including northern leopard frog, peregrine falcon, prairie falcon, bald eagle, great blue heron, and other species. Includes rare plant species or rare plant communities. 	Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta <ul style="list-style-type: none"> Alberta Environment and Sustainable Resource Development <i>Species at Risk Act</i> www.sararegistry.gc.ca Contacts <ul style="list-style-type: none"> Alberta Conservation Information Management System (Alberta Tourism, Parks and Recreation). If the proposed development is in a natural landscape, a rare plant survey should be considered. Alberta Environment and Sustainable Resource Development – Fish and Wildlife Division.
Vegetation <ul style="list-style-type: none"> Cover type & composition 	Aerial Photos/Imagery <ul style="list-style-type: none"> Government of Alberta Aerial Photo Distribution Centre Inventories <ul style="list-style-type: none"> Alberta Grassland Vegetation Inventory, Alberta Vegetation Inventory (Alberta Environment and Sustainable Resource Development)

> setbacks and buffers

Why Are Riparian Buffers Needed in Urban Areas?

Nitrogen export from urban watersheds generally is a major contributor of water quality degradation and eutrophication of receiving water bodies (McLeod et al. 2006, Massal et al., 2007, Shields et al. 2008). Low density suburbs served by septic systems can be major contributors to downstream nitrogen loading, while more heavily urbanized, impervious areas tend to have a greater nitrogen export under high-flow conditions. Phosphorus export from non-point sources in urban areas is generally less than from agricultural land, except for urban commercial developments where it can be higher. Studies generally show that undisturbed riparian buffers can help ensure proper filtration and maintenance of water quality in urban areas.

Even though urban stormwater systems direct large amounts of stormwater away from riparian areas, substantial amounts of stormwater still reach riparian areas in urban environments, especially during high-flow storm events. Nitrogen and phosphorus loadings in runoff from urban lands are generally higher than from native grass and parkland, and are similar to loadings from pasture and cropland (Table 2). For these reasons, vegetated filter strips adjacent to water bodies are strongly recommended as a beneficial management practice in urban areas, and minimum effective widths for removing pollutants are provided in the following section (Table 3). The recommended widths for vegetated filter strips in Table 3 are based on a thorough review of the scientific literature. Developers wishing to use narrower filter strips should be able to demonstrate that narrower strips are adequate for preventing pollution.

Table 2
Selected Export Coefficients for Various Land Use Categories (kg/ha/yr)

Land Use Category	Total Phosphorus	Total Nitrogen	Author, Location
Urban, residential	0.03-1.90	0.17-0.79	USEPA (2002); Oberts (1989); MDEP (2000); McLeod (2006), Various
Urban, commercial	0.48 1.70-3.00	2.18	McLeod et al. (2006), Saskatchewan Oberts et al. (1989), Minnesota
Lawns, golf courses	0.51 0.19	1.43 1.52	King et al. (2007), Texas Reckhow et al. (1980), Pennsylvania
Parkland	0.03-0.08	0.20-0.82	Jeji (2004), Alberta
Forest	0.18	0.45-2.50	USEPA (2002); MDEQ (2001), Montana
Pasture	0.20-1.42	5.10	Mitchell & Trew (1982), Alberta
Cropland	0.01-0.63	0.010-2.13	Ontkian et al. (2000), Alberta

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What is the Appropriate Setback Width?

This section contains a step-by-step approach for determining setbacks for all types of water bodies and various types of development. A checklist, recommendations by function, a table (Effective Widths for Vegetated Filter Strips), and diagrams are provided to help determine what the setback should be for any particular situation.

Checklist

1. Define scenario

Assemble background information. What type of water body is affected? What type(s) of lands are being buffered (e.g., urban, country residential, agricultural)? Are large industrial spills a possibility?

2. Summarize key information

What type of substrate is adjacent to the water body? What is the slope profile of the bank and backshore? Is there unstable ground, and what is its location? Where is the 1:100 year floodplain? Is there shallow groundwater and what is its location?

3. Determine width of vegetated filter strip

The width of a vegetated filter strip needed for removing pollutants will depend mainly on the type of substrate (i.e., glacial tills or sands/gravels).

4. Determine setbacks relative to site constraints

Consider unstable ground, slopes, shallow groundwater, and floodplain.

5. Additional considerations

Adjust setback for other needs including habitat/biodiversity.

Setback Recommendations (By Function)

Water Quality Functions

- Table 3 lists effective widths for vegetated filter strips for removing nitrate, and trapping other contaminants including sediment and phosphorus. For sites that contain both till and alluvial sediments, refer to Table 4 to determine the appropriate widths.
- The risk of contacting shallow groundwater should be assessed, and where necessary, setbacks should be increased to prevent contacting shallow groundwater. Alternatively, measures should be taken to protect against its contamination in accordance with current legislation and guidelines.
- Siting of sewage disposal systems will follow standard Alberta septic system management practices (Appendix 1 contains a list of policies and legislation governing septic systems).
- Siting and maintenance of aggregate extraction pits will follow Alberta's *Code of Practice for Pits*, and *A Guide to the Code of Practice for Pits* (Alberta Environment and Sustainable Resource Development). A setback of at least 50 metres is recommended along rivers whose channels consist of coarse, alluvial sediments (Table 3). Appendix 1 contains information about the *A Guide for Code of Practice for Pits*.

Bank and Shoreline Stability

- Appropriate setbacks should be used to keep development back from areas that may be susceptible to slope movement and erosion. A geotechnical assessment should be carried out using accepted engineering principles with regard to slope stability, toe erosion and shoreline migration.

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Flood Water Conveyance and Storage*Lakes, and Class III - VII Wetlands:*

- Setbacks should encompass the 100-year water level, plus an allowance for wave action and, if necessary, an allowance for other water-related hazards such as ice piling.

Rivers and Streams:

- If the flood fringe and floodway have been mapped, the setback should encompass the floodway. In general, new development within the floodway is not permitted. Within the flood fringe area, development may be permitted when certain design conditions are met.
- If the flood hazard area has not been mapped, a qualified environmental professional (e.g., hydrologist) should be retained to properly assess flood hazard risk and provide setback recommendations, using the following criteria:
 - » Flood risk assessments should be conducted within 100m of all named rivers and streams, or wherever flood hazard is believed to exist. Table 1 contains information sources for identifying flood risk areas.
 - » The scope of the assessment will depend on the nature of the development relative to flood hazard. Proponents are encouraged to discuss proposed assessments with Alberta Environment and Sustainable Resource Development to clarify matters of scope.
 - » To minimize the risk from floods, developments are frequently restricted to outside the generally accepted 1-in-100-year flood elevation line. A 1-in-100-year flood is a flood having a 1 per cent chance of being equalled or exceeded in any given year. Based on the expected floodwater level data (defined by monitoring gauges or geomorphic indicators), a predicted area of inundation can be mapped out.

For more information on flood hazard mapping, go to the Alberta Environment and Sustainable Resource Development website:
www.environment.alberta.ca/01655.html.

Habitat and Biodiversity

- The setbacks for other core functions will in most cases protect aquatic and terrestrial habitat including: undercut banks, shade, food, woody debris, facilitate plant and animal dispersal, and help conserve riparian-dependent species.
- Setbacks should be extended to encompass environmentally sensitive areas, sensitive wildlife areas, and rare species. Each situation should receive an assessment and recommendation by appropriate qualified environmental professionals (e.g., wildlife biologist, botanist, rare plants specialist).
- Appendix 3 contains corridor widths for various species of wildlife and species at risk.

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Table 3
Effective Widths for Vegetated Filter Strips

Type of Water Body	Substrate	Width	Modifiers	Notes
Permanent Water Bodies Lakes, Rivers, Streams, Seeps, Springs Class III - VII Wetlands	Glacial till	20m ⁹	If the average slope of the strip is more than 5%, increase the width of the strip by 1.5 m for every 1% of slope over 5%	Slopes > 25% are not credited toward the filter strip
	Coarse textured sands & gravels, alluvial sediments	50m ¹⁰	None	Conserve native riparian vegetation and natural flood regimes
Ephemeral and Intermittent Streams, Gullies	Not specified	6m strip of native vegetation or perennial grasses adjacent to the stream channel crest ¹¹	If the average slope of the strip is more than 5%, increase the width of the strip by 1.5 m for every 1% of slope over 5%	Maintain continuous native vegetation cover along channels and slopes
Class I & II Wetlands	Not specified	10m strip of willow and perennial grasses adjacent to water body ¹²	None	Maintain and conserve native wetland or marshland plants on legal bed and shore

In situations where the land near a water body consists of a combination of alluvial or coarse-grained sediments adjacent to the legal bank and glacial till further inland, use Table 4 to determine how wide a vegetated filter strip should be.

⁹ Vidon and Hill 2006 (See Appendix 2 for additional supporting references)

¹⁰ Vidon and Hill 2006 (See Appendix 2 for additional supporting references)

¹¹ Gharabaghi et al. 2006 (minimum width of strip required for capturing sediment > 40 µm)

¹² Liu et al. 2008 (optimal width of strip for capturing sediment)

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Table 4

Width Combinations of Vegetated Filter Strips Situated on Both Till & Alluvium (metres)

Alluvium	Till	VFS Width
0	20	20
5	18	23
10	16	26
15	14	29
20	12	32
25	10	35
30	8	38
35	6	41
40	4	44
45	2	47
50	0	50

To use Table 4, first determine the average width of the alluvial sediments that are adjacent to the target water body, and find that width in the “alluvium” column in the table. Then, find the corresponding width of till in the adjacent “till” column. This will determine how wide the alluvium and till strips will be, along with the total width of the strip, for areas with an average slope of less than five per cent.

Example:

- Average width of alluvium from map or field measurements = 10 metres
- Corresponding width of glacial till = 16 metres
- Total width of vegetated filter strip = 26 metres

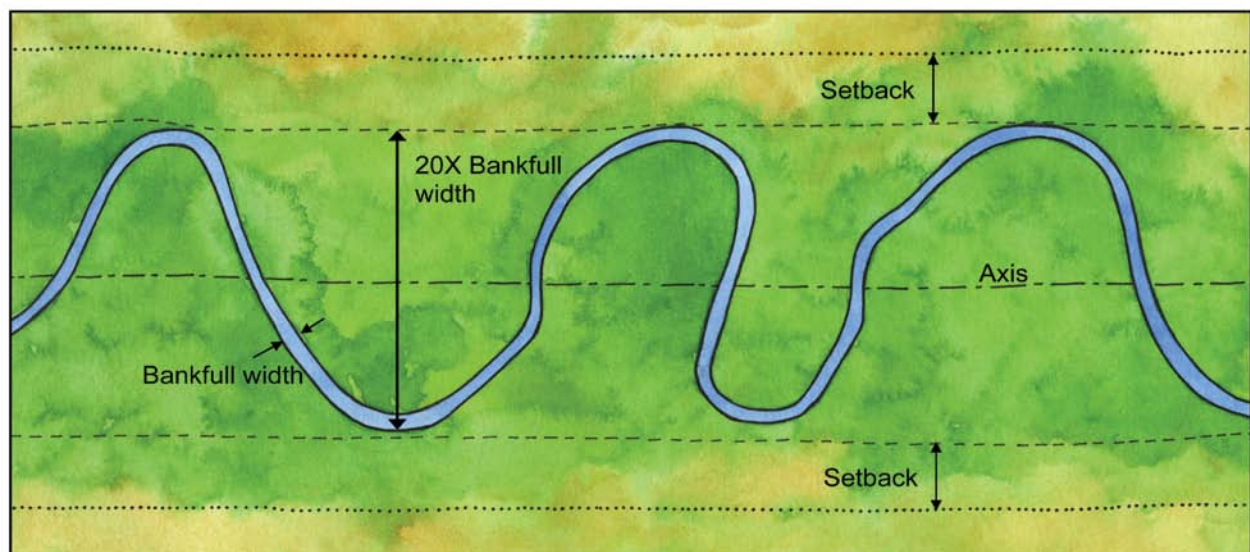
Figure 5 contains another example of how to determine filter strip width on sites that consist of both till and alluvium.

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Additional Considerations

- Riparian areas that are currently in a natural state, especially filter strips adjacent to a drinking water source, should be maintained free of any development or impervious surfaces that may increase the chances of polluted runoff entering the water body.
- Riparian areas that are already disturbed should be reclaimed to a natural state. This may be done as compensation under *Fisheries Act* authorizations.
- The most effective filter strips contain healthy, native forest vegetation and perennial grasses to improve diffuse flow and trap sediment. In general, the wider the filter strip the better it will perform; however, the first five metres are critical for the removal of suspended sediments (Gharabaghi et al. 2006). More than 95 per cent of the aggregates larger than 40 μm in diameter (coarser silt fraction plus sand) can be captured within the five metres of a grass strip.
- Regular harvesting of buffer vegetation may reduce export of phosphorus.
- Revegetate cleared areas and bare ground by planting perennial grasses, trees and shrubs.
- Remediate concentrated flow paths where possible and install additional grass buffer strips or grassed swales.
- For medium-sized and smaller watercourses that have actively moving channels through the active processes of bank erosion and bank building, consider using the width of the meander belt (Figure 2). For such streams, aerial photos often show the existence of abandoned channels or oxbows and other associated features, and can help in mapping the meander belt. The meander belt is determined by multiplying bank full width by 20 for each reach, and is split equally on either side of the channel along its axis. Setbacks are measured from the edge of the meander belt as opposed to the legal bank of the watercourse.
- Use a minimum 30 metre buffer if the water body is fish bearing or where the riparian vegetation is dominated by trees. This would enhance shading and overhang by trees, important elements on fish-bearing streams.

Figure 2
Schematic Diagram of a Meander Belt



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Reservoirs**Note:**

Alberta Environment and Sustainable Resource Development requires a certain amount of land around reservoirs. This area is often referred to as the reservoir right-of-way or buffer zone. The reservoir right-of-way is determined after consideration of geotechnical data on soil and slope stability, potential flood levels, and mitigation requirements. Generally, the criteria used to determine the amount of right-of-way is the top-of-dam contour elevation with a minimum distance of 30 metres from the reservoir full supply level. Where the top-of-dam contour elevation falls across a slope, additional land is acquired to ensure stability.

Industrial Development and Transportation

- All new proposed industrial developments will follow Alberta Environment and Sustainable Resource Development's *A Guide To Content of Industrial Approval Applications*.
- All new and upgraded rural watercourse crossings will follow Alberta Transportation's best practice *Guideline for Stormwater Management at Rural Stream Crossings*.

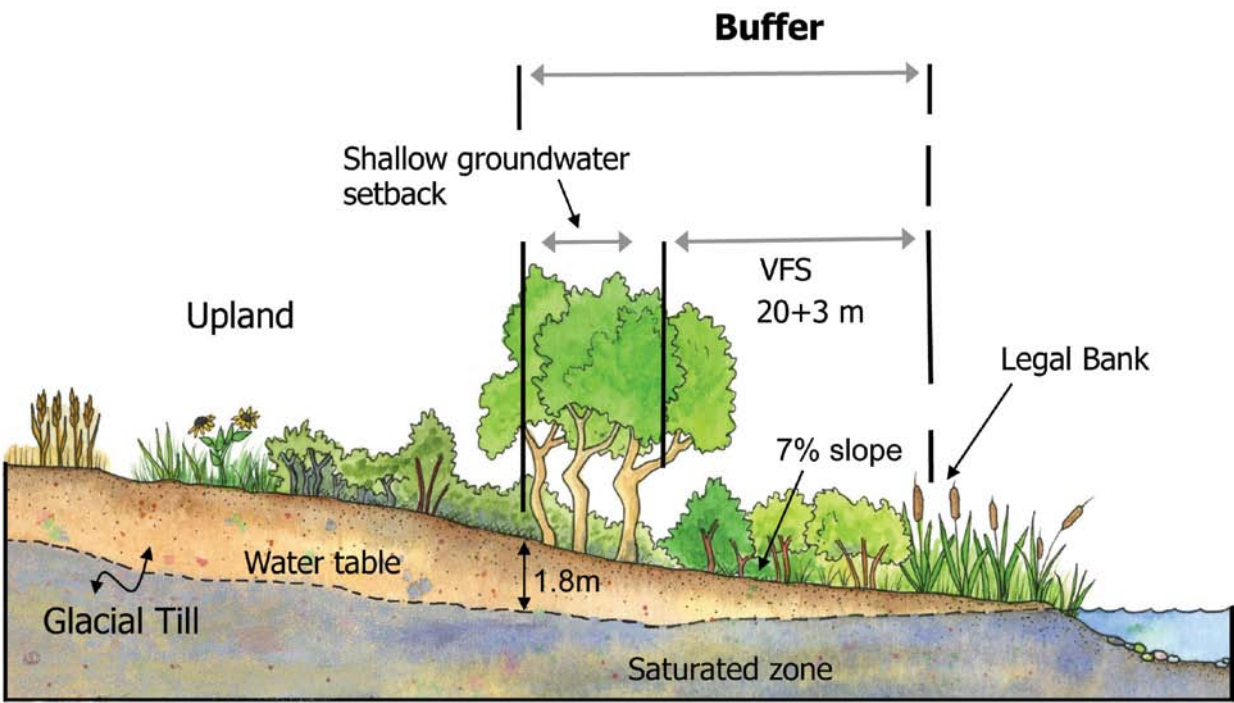
Buffer Diagrams

This section contains some diagrammatic examples of how setbacks can be applied to create buffer strips on various water bodies using the rules described above. The relative setback widths shown are only examples. Actual setback widths will depend on local conditions. The diagrams are drawn not to scale.

Note:

The total buffer should be wide enough to achieve all desired functions, but it should be no less than the calculated width of the vegetated filter strip (i.e., 20 metres + slope factor for glacial till; 50 metres for alluvial sands/gravels), where contaminant removal is a priority.

Figure 3
A lake or wetland buffer on glacial till, comprised of a vegetated filter strip (VFS), and setback for shallow groundwater.



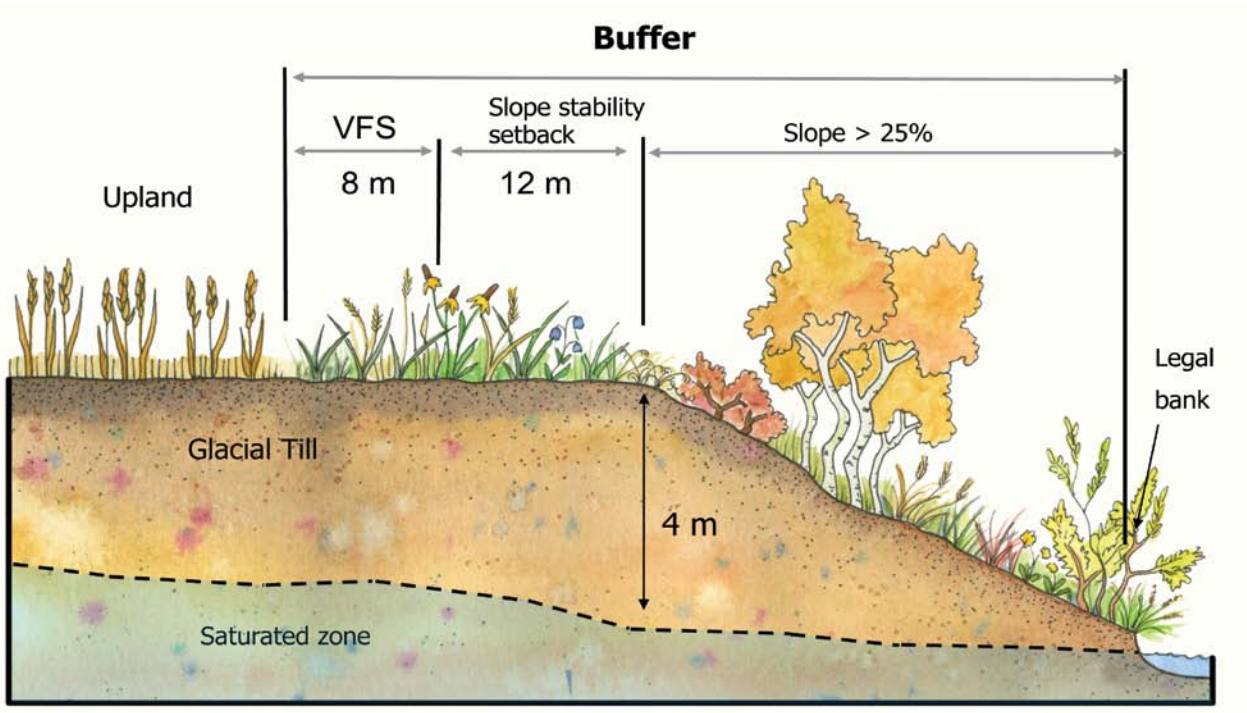
Buffer width calculation for Figure 3

Setback	Width (metres)
Vegetated filter strip (glacial till)	20
Slope factor, glacial till (7 - 5) x 1.5	3
Setback to avoid shallow groundwater ¹³	10
Total buffer width	33

¹³ The setback to avoid contacting shallow groundwater will vary depending on local conditions. Alternatives to a setback can be taken to avoid contacting shallow groundwater.

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Figure 4
A stream buffer on glacial till, comprised of a steep slope, slope stability setback, and a vegetated filter strip. The steep slope does not count toward the vegetated filter strip.



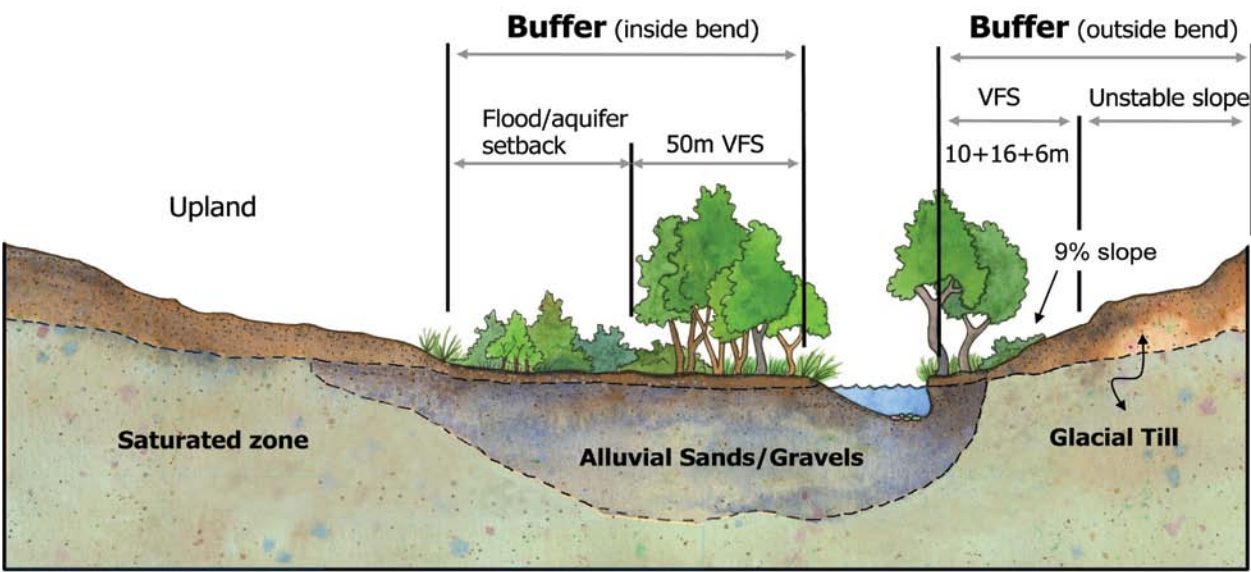
Buffer width calculation for Figure 4

<i>Setback</i>	<i>Width (metres)</i>
Steep slope > 25%	16
Slope stability setback ¹⁴	12
Vegetated filter strip	8
Total buffer width	36

¹⁴ The width of the slope stability setback will vary depending on local conditions and the geotechnical method used.

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Figure 5
River buffers on glacial till and alluvial sands/gravels, comprised of vegetated filter strips, a flood/aquifer setback, and a slope stability setback.



Buffer width calculation for Figure 5

<i>Setback (Inside Bend)</i>	<i>Width (metres)</i>
Vegetated filter strip (alluvium)	50
Flood/aquifer setback (site dependent)	50
Total buffer width	100

<i>Setback (Outside Bend)</i>	<i>Width (metres)</i>
Vegetated filter strip (alluvium)	10
Vegetated filter strip (glacial till, Table 4)	16
Slope factor, glacial till (9% – 5%) x 1.5	6
Unstable slope setback (site dependent)	20
Total buffer width	52

> setbacks and buffers

ESTABLISHING RIPARIAN BUFFERS

Riparian buffers created through development setbacks as described above may be legally designated in accordance with the *Municipal Government Act* by various methods. These include:

- Environmental reserve or environmental reserve easement: recommended for dedicating a vegetated filter strip adjacent to a water body to prevent non-point source pollution,
- Municipal reserve: recommended where land may be used for a public park, a public recreation area adjacent to or near a vegetated filter strip.
- Conservation easement: recommended where the landowner can benefit by retaining ownership of the land or some property tax reductions, and the municipality can benefit by not having to manage small parcels of land.

Municipalities may also create defacto buffers through the creation of land-use bylaws. Section 640 of the *Municipal Government Act* enables building development setback land use bylaw provisions on land subject to flooding or subsidence or that is low lying, marshy or unstable or on land adjacent to or within a specified distance of the bed and shore of any lake, river, stream or other body of water. A “building” includes anything constructed or placed on, in over or under lands, but does not include a highway or road or a bridge that forms part of a highway or road.

Other options for landowners include the Government of Canada’s Ecological Gifts program in which private and corporate landowners can make donations of ecologically sensitive land (e.g. wetland areas), or interests in these lands, and receive tax benefits.

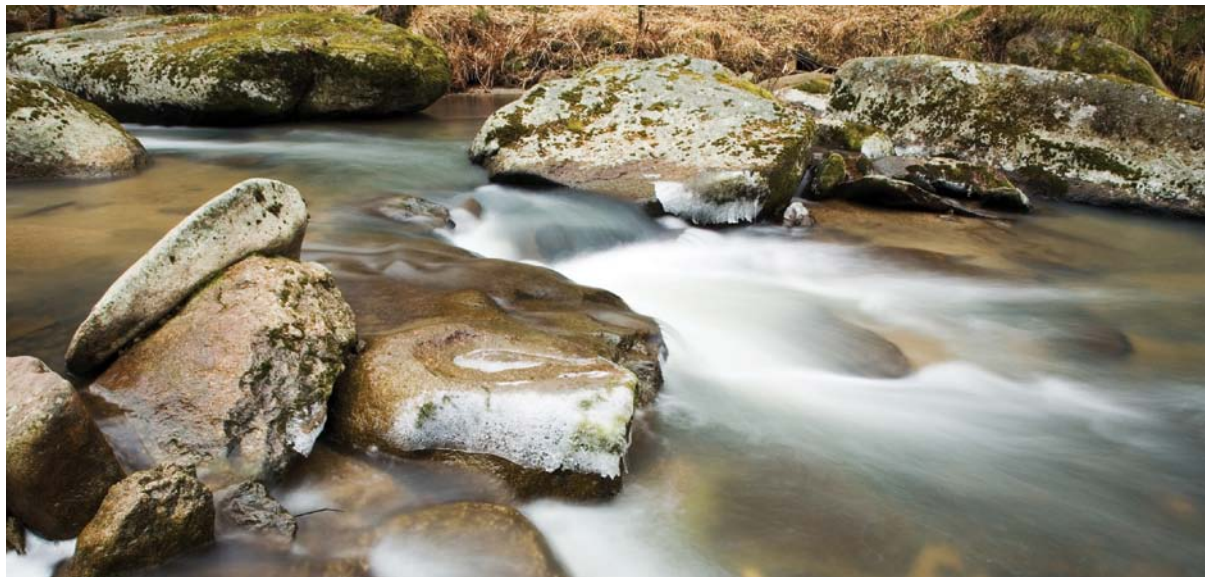
Developers are strongly encouraged to establish riparian buffers together with other environmental features associated with water bodies, with the purpose of protecting sensitive lands or providing public access for enjoyment of natural features. For example, section 664(1) of the MGA: Subject to section 663, a subdivision authority may require the owner of a parcel of land that is the subject of a proposed subdivision to provide part of that parcel of land as environmental reserve if it consists of:

- a swamp, gully, ravine, coulee or natural drainage course,
- land that is subject to flooding or is, in the opinion of the subdivision authority, unstable, or
- a strip of land, not less than six metres in width, abutting the bed and shore of any lake, river, stream or other body of water for the purpose of
 - » preventing pollution, or
 - » providing public access to and beside the bed and shore.

Riparian buffer boundaries should be clearly marked and signed in the field and on appropriate maps and drawings prior to commencement of any subdivision site work. Temporary boundary markers should be maintained until construction of buildings, roads and other subdivision amenities are completed. Once construction is finished, permanent boundary markers and signage should be installed. Fencing may have to be considered to keep unauthorized vehicles from entering buffer strips, or properly managing livestock within the buffer area.

Riparian buffers may also be required in areas where timber clearing is subject to forestry legislation (i.e., the *Forests Act* and *Timber Management Regulation*). The Alberta Timber Harvest Planning and Operation Ground Rules set out buffer requirements for timber harvesting in these areas. Agricultural producers wishing to establish appropriate buffers adjacent to water bodies are encouraged to contact their local agricultural office for information. Setbacks for feedlots are regulated by Alberta’s Natural Resources Conservation Board.

Finally, provision should be made for ongoing protection and management of riparian buffers. For example, regular access may be needed for emergencies, to manage recreational activities, and resource management purposes including vegetation management. However, road construction should be avoided, and access routes should be left in a natural state such as grass to allow infiltration. Wetland vegetation and unstable areas should be left undisturbed. The appendices in this report contain resource lists and links for further information. Development of management plans for riparian land is strongly encouraged to help ensure that conservation objectives are achieved. The “Choices – Common Sense for Managing Riparian Areas” section of this document also contains helpful information for managing riparian buffers.





Understanding Riparian Areas

The following section describes some of the special features of riparian areas and the important role of water in making them a unique part of the landscape.

WATER, WATER EVERYWHERE

The water we see is a fraction of the water that is stored beneath us. All flow starts as precipitation but can follow several pathways after falling to earth. The portion of precipitation that is not intercepted or flows as surface runoff moves into the soil. A close inspection of the soil reveals millions of particles of sand, silt and clay separated by channels, or pores of different sizes. Water is drawn into the pores by both gravity and capillary action. The size and quantity of pore openings determines the movement of water, with soils of riparian areas generally having high porosity. Downward movement of water continues until a zone of saturation is encountered. This is the groundwater table, the surface of the large, complex and hidden reservoir that underlies the landscape. Riparian areas are one of the locations where ground and surface water is exchanged. Riparian areas can be recharge zones where water is added to deep storage; they can be the place where the water table meets the watercourse; or they can arise where lake and groundwater emerges as springs and seeps (also called discharge areas).

When rainfall intensity exceeds the infiltration capacity of the soil, or where the soil profile becomes saturated, excess water collects on the soil surface and travels down slope as runoff. Many factors influence runoff volume and the speed at which it travels. Sloping terrain, fine-textured soils, frozen ground, and areas lacking permanent vegetation cover have more runoff, and runoff that occurs faster.

Runoff patterns are changed dramatically in urban landscapes where sites are cleared and natural vegetation is replaced by impervious cover in the form of rooftops, streets, parking lots, sidewalks and driveways. Roads, trails and other linear features intercept runoff, channel it and often shorten the distance from source to watercourse or lake. A consequence of development is that more of the annual flow of watercourses in urban areas comes as runoff. Depending on the area of impervious cover the annual rate of runoff can be orders of magnitude greater than that of natural areas. Since pavement, concrete and other similar surfaces prevent rainfall and snowmelt from infiltrating into the soil, less flow is available to recharge groundwater. Watercourses in urban areas may have significantly reduced flows over some seasons and especially in times of drought because there has been little or no water storage during runoff periods.

Because runoff moves much more rapidly over smooth, hard surfaces than over natural vegetation, there is more energy available to erode and to transport eroded materials. Runoff from impervious surfaces can turn a tame little trickle of a stream into a land-eating monster. Riparian areas, the zone of defence against erosion, have to be well vegetated and intact to absorb this additional energy.

> understanding riparian areas

UNDERSTANDING FLOODS

Floods occur when excess water goes over the top of the watercourse bank or beyond the basin of a wetland, pond or lake, and on to the floodplain. How high the water will rise, how long the water will stay on the floodplain, and when to expect a similar-sized flood event to occur again are all difficult to predict. The problem is that floodplains are such inviting places. River floodplains for example lure us with their flat nature, the pleasant umbrella of trees and the proximity to water. The river doesn't use them very often so why don't we develop them? When we do, and the river periodically reoccupies its land, serious problems can arise.

The things we build on the floodplain, the bridges, roads and buildings, become the casualties of flooding. When we try to "fix" the problem, or gain some more developable land, the "solutions" can increase future erosion and flood hazard. Repairs and replacement of infrastructure are often repetitive and costly. In 1995, flooding in southern Alberta caused an estimated \$33 million in damage; in 2005 the damage was estimated at more than \$400 million, and in 2010 another \$210 million. Recent studies also show that proximity to a flood zone lowers property values (Bin et al. 2008). Human life can also be put at risk; four people died in the 2005 flood. Many jurisdictions now recognize that the most effective way to reduce flood risk (and costs) is to locate developments outside of the floodplain, or design structures in a way that allows for flooding and lateral channel migration to occur with minimal damage to property.



It makes a whole lot of sense to invest in advance of a disaster so that when high rainfall comes in the future, we have better control and prevent substantial losses. MUNICIPAL AFFAIRS MINISTER, ROB RENNER

(Calgary Herald, May 7, 2006)

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Flood Hazard Mapping in Alberta

Flood hazard (formerly known as floodplain or flood risk) mapping has been produced by the Government of Alberta for communities throughout the province since the 1970s. The Canada-Alberta Flood Damage Reduction Program was initiated in 1989. This was a joint program of the federal and provincial governments to standardize and cost-share flood hazard mapping studies to increase public safety and reduce flood damage costs. Federal involvement ended in 1999 but the Alberta Government has continued to produce flood hazard mapping studies using the same basic guidelines established for the Program. Some local planning authorities and developers may produce flood hazard mapping studies independent of the provincial government.

In Alberta, the design flood used for flood hazard mapping is the 1:100 year return period flood.

This is a flood that has a one per cent chance of being equaled or exceeded in any one year. Even though a flood may have a relatively low chance of occurring in any one year, it is possible for several large floods to occur within a few years of each other.

Typically, the 1:100 year flood hazard area is divided into two zones – the floodway and the flood fringe.

The floodway is the area where flood waters are the deepest, fastest and most destructive. The flood fringe area is where flows are shallower and slower moving.

In Alberta, land zoning is a municipal responsibility, and Flood Hazard Maps are usually incorporated into municipal zoning bylaws (e.g., Flood Hazard Mapping has been incorporated into the City of Calgary's Land Use Bylaw 1P2007).

In general, new development within the Floodway Area is not permitted, and should be limited to land uses which are non-obstructing in nature (e.g., natural parks, trails). For example, the City of Calgary Land Use Bylaw 1P2007 generally prohibits the development of new buildings, with new development permissible only under specific conditions. Within the Flood Fringe Area, development may be permitted, when certain design considerations are met.

Activities in the floodway that may impact the conveyances of flood flows or the aquatic environment may require approval under the Water Act. Any projects in the floodway should be discussed with Alberta Environment and Sustainable Resource Development Regional Staff. Within the Flood Fringe Area, development may be permitted, when certain design considerations are met.

For more information on Flood Hazard Mapping, go to the Alberta Environment and Sustainable Resource Development website:
www.environment.alberta.ca/01655.html

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Figure 6

Aerial View of a Typical 2-zone Flood Hazard Area Divided into the Floodway and Flood Fringe

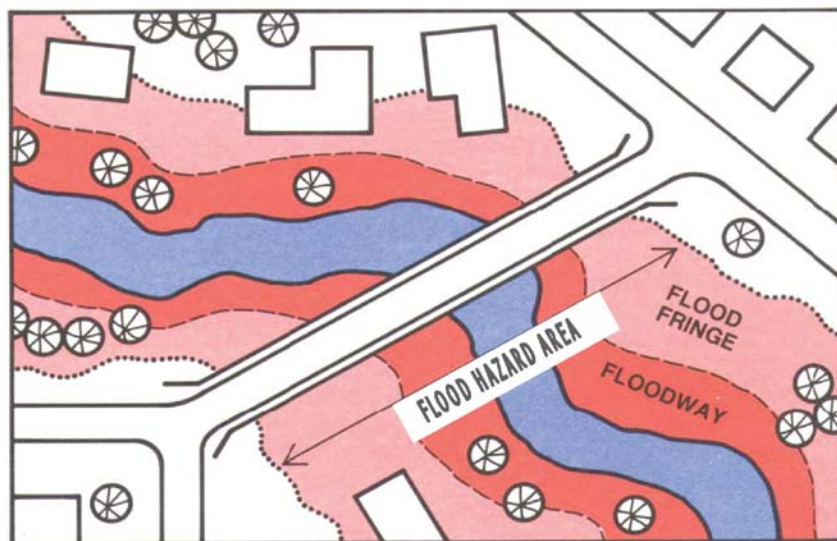
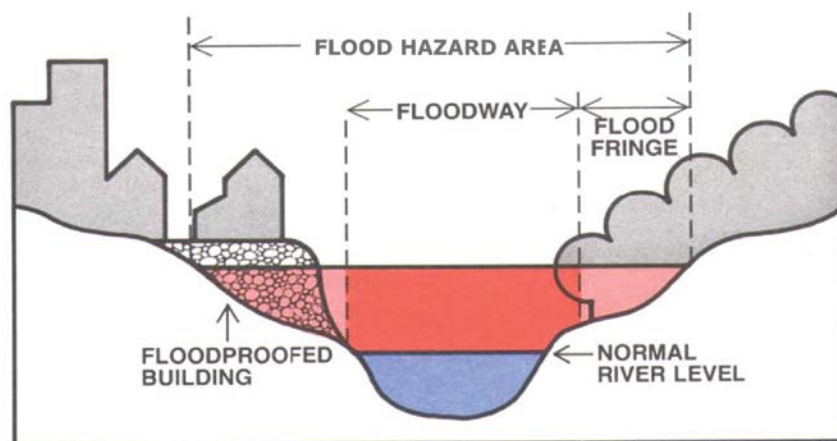


Figure 7

Cross Section View of a Typical 2-zone Flood Hazard Area Divided into the Floodway and Flood Fringe



The risk of constructing a flood-proofed building in the flood fringe area should be carefully evaluated before proceeding. Infilling in the flood hazard area can lead to increased water velocity and subsequent erosion issues elsewhere. The infilling also reduces the natural filtration and other positive effects of intact riparian habitat. Historically, many flood-proofed areas have been found

later to be susceptible to flooding or erosion. When a river channel is connected to an intact, naturally functioning floodplain, flood waters are able to spread over a large area, reducing the energy of flows and reducing peak flows downstream. This reduces potential damage to infrastructure and communities and improves channel stability.

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Cottonwoods in Alberta

Cottonwood trees (genus *Populus*) are abundant riparian plants that line the river valleys of the western prairies, including Alberta. Historically, these forests were abundant, but have been declining recently. Cottonwood stands regenerate after disturbances associated with flood events (Rood et al. 2007), and consequently, preservation of these forests will likely rely on the continued effects of floods.



Credit: Cheryl Dash

WATER ALWAYS WINS

All stream banks and river banks erode, and so do the shores of lakes and wetlands. Erosion is a natural and essential process of water in motion, and is important for creating fish habitat. Watercourses generally erode the outside of meander bends and deposit material on the inside of meanders. The meandering nature of watercourses balances water speed, valley slope and the amount of sediment carried by the system. Watercourse channels, lake shores, and the adjoining riparian areas are constantly adjusting to the energy, water and sediment supplied from the watershed.

Riparian plants, especially trees and shrubs, resist the erosive forces of moving water. For example, deep roots anchor the soil, and the flexible stems of willow bend over in a flood, reducing water velocity near the ground. But removing or altering vegetation can reduce bank stability, leading to undesirable changes to river banks and lake shores. In rivers, this can result in the loss of undercut banks, excessive widening and meandering of a water course, reducing instream habitat diversity for fish and invertebrates by creating deeper, shallower or more uniform habitat (after Lyons et al. 2000). In lakes and wetlands, impaired riparian

areas can allow “shoreline creep” to occur, where the banks of the water body¹⁵ are slowly eroded.

Furthermore, as sediment entering the lake increases, the ability of the near-shore to provide fish and amphibian habitat decreases.

Structural attempts to break the cycle of riparian alteration and shoreline erosion often involve channelization and bank armoring with concrete, rock riprap and dikes. Bank armoring can be costly, ranging from \$150 to \$200 per cubic metre. On lakes, this can lead to further habitat deterioration and loss. On rivers, these efforts not only lead to habitat loss, but usually redirect the volume and energy of a river's flow downstream, potentially worsening the hydrological effect and risking greater losses and costs. The meandering of streams and rivers is a necessary part of the function of these systems. Healthy, intact riparian areas resist the amount of watercourse roaming, but the floodplain belongs to the watercourse.

There is an axiom, rarely heeded, that says in the tension between water and land, water always wins. Water always wins!

¹⁵ For the purpose of this document, a water body is any location where water flows or is present, whether or not the flow or the presence of water is continuous, seasonal, intermittent, or occurs only during a flood. The mere absence of water due to dry conditions (e.g., natural variability in precipitation, seasonal cycles of flooding and drying) may not be indicative that a water body does not exist – a temporary water body that is dry is still a water body. Roadside ditches and temporary pooling of water, as a result of snow melt, spring runoff and storms, that does not induce change in soil and vegetation are not considered water bodies.

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Nutrients and Lakes

Many of Alberta's lakes are naturally eutrophic. They are therefore extremely sensitive to further nutrient enrichment. Both shoreline cottage development and agricultural activities have the potential to increase the nutrient supply to lakes, and thereby increase plant productivity. The nutrients of concern are nitrogen and phosphorus, but especially phosphorus, because it usually is in shortest supply, and therefore is the limiting nutrient in most lakes. Nitrogen, which is present in the atmosphere, is fixed by certain species of algae, thereby maintaining levels sufficient for algal growth (Mitchell and Trew 1982).

KEEP THE "LAKE" IN LAKESHORE

We are attracted to water and like to live, relax and play next to it. Who isn't attracted to Alberta's lakeshores? With increasing pressure we can love our lakes to death, both from intensive lakeshore development and extensive changes in the watershed. Most of Alberta's lakes are naturally high in nutrients and continue to accumulate nutrients, like bathtubs without drains. To a point this higher productivity supports greater levels of aquatic life, with fish being near the top of the food chain. The tipping point occurs when the cumulative effects of all our activities, near and far from the lake, exceed the lake's capacity to absorb nutrients. A kilogram of phosphorus, derived from our activities, can spark the growth of 500 kilograms of algae. With this dramatic response to nutrients, algal blooms begin to proliferate and persist. Excessive algal blooms create a cascade of issues including loss of water-based recreation, decreased water quality for domestic and agricultural purposes, decreased property values, losses of sport fish populations, and even serious health effects. To prevent or remediate problems like this a comprehensive, watershed-scale initiative may be required, including management of nutrient sources, limiting development around the lake and preserving riparian vegetation along shorelines.



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A WORD ABOUT WETLANDS

Wetlands serve a vital role in the watershed by acting like natural sponges, capturing and storing rainfall and snowmelt. This allows a substantial amount of water to infiltrate and become part of the groundwater aquifer. Wetlands, like riparian areas, are extremely important for supporting a wide diversity of plant and animal life.

There are problems associated with developing near wetlands. Drainage or filling in of wetlands removes natural water storage, ultimately increasing the speed and volume of water pouring into receiving water bodies. Studies in the Broughton Creek watershed in Manitoba showed a 70 percent loss of wetlands over a 37 year period (Ducks Unlimited Canada 2008). There was a subsequent 18 percent increase in peak flows following rainstorms, a 30 percent increase in water flow in receiving water courses and a 41 percent increase in the amount of sediment dumped into downstream waters. The loss of filtering, buffering and retention of water has a cascading effect on water quality, erosion, flooding and biodiversity.

THE GROUNDWATER CONNECTION

Riparian vegetation grows where water is close to the surface. Shallow groundwater associated with riparian areas is vulnerable to contamination, compared to aquifers found deeper and covered with thick layers of impervious materials. Contaminants can enter the groundwater from developed land in a variety of ways, including basements, waste water systems, and wells. Because riparian areas are connected directly to water bodies, contaminated groundwater in riparian areas can readily put surface water quality at risk.

NATURE'S WATER FILTER

Many factors influence surface water quality including climate, soil type, vegetation, groundwater and flow conditions. For most water bodies in Alberta, nutrients and other pollutants enter primarily from the surrounding watershed. Phosphorus and nitrogen are important nutrients for the growth of algae, macrophytes (large aquatic plants), and cyanobacteria¹⁶ in surface waters. The most common pollutants, in addition to nutrients, include sediment, pesticides, microbes and heavy metals carried by rain and snowmelt runoff.

The following sections contain an overview of the impact that sediment, nitrogen and phosphorus can have on water quality, and the role that riparian areas can play in filtering them from runoff before it reaches water bodies.

Sediment

Sediment, the product of runoff and erosion, can be a carrier of pathogens, contaminants and nutrients, each of which bond to the sediment particles. As sediment moves downstream, so do the potential contaminants. Pollutants that enter the river from diffuse or undefined sources are called non-point source pollutants. In contrast, point-source pollutants enter a water body from one, easily recognizable location such as a pipe associated with an industrial or municipal wastewater treatment facility. In an urban environment, non-point source pollutants enter water bodies through storm-drain networks. Non-point sources of pollution are more difficult to identify, regulate or control. They usually occur over wide expanses of the landscape and together, accumulate in the receiving water body.

Bank erosion is often the dominant source of sediment along water courses where poor management practices have reduced the health of riparian areas.

¹⁶ Cyanobacteria, also known as blue-green algae, are a group of bacteria that obtain their energy through photosynthesis. Cyanobacteria are able to use atmospheric nitrogen for growth. This gives cyanobacteria a competitive advantage over algae in nitrogen-poor lakes. Cyanobacteria may impart noxious odour or disagreeable tastes to water and fish.

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Sediment, at levels higher than the natural background amounts, can negatively impact aquatic ecosystems and is a major source of water quality issues. Also, water treatment costs increase dramatically with higher sediment loadings and efficiency of treatment processes can diminish.

Although sediment occurs naturally in streams, it is commonly accepted that there is an increased risk to the survival of fish and other organisms when levels exceed background values for a particular period of time. Sediment covers clean gravels needed by some species for spawning. Eggs and new fry can be covered and deprived of oxygen. The ability of fish to breathe, feed and move can also be impaired. These effects can either be acute and rapid or chronic and cumulative.

Other impacts of sediment imbalance in water bodies include:

- Scouring of periphyton from stream (plants attached to rocks);
- Abrading and damage to fish gills, increasing risk of infection and disease;
- Shifts in fish community toward more sediment-tolerant species;
- Reduced sight distance for trout, with reduction in feeding efficiency;
- Reduced light penetration causing reduction in plankton and aquatic plant growth;
- Reduced filtering efficiency of zooplankton in lakes and estuaries; and
- Adverse impacts to aquatic insects which are the base of the food chain.

Healthy riparian areas improve and maintain water quality because the lush vegetation traps sediment. During runoff, especially when the soil is frozen, upright plants help to maximize this trapping function. Native riparian vegetation also buffers the effects of soil erosion caused by runoff or flooding by slowing runoff or flood waters, and holding the soil, shorelines and stream banks in place. Reduced erosion means less sediment in lakes and streams.

Nitrogen

Nitrogen, along with phosphorus and carbon, is one of the main nutrients found in Alberta surface waters. Studies across Canada and the USA have linked high nitrogen concentrations in streams to agricultural land use and the widespread application of fertilizers and manure. Cattle grazing in streams is associated with elevated levels of total nitrogen and ammonium. Urban watersheds also frequently are significant contributors of nitrogen to receiving waters. Although emphasis has been placed on phosphorus control since the 1970s, recent experimental evidence suggests that regulation of both nitrogen and phosphorus is essential for protecting surface waters from eutrophication (Finlay et al. 2010, Lewis et al., 2011).

Most algae and aquatic plants obtain their nutritional needs directly from the water itself. Algae serve as a vital food source for microscopic animals, which then provide food for fish and other aquatic life. However, when nitrogen runs off into adjacent water, the nutrient can promote excessive growth of blue-green algae and aquatic plants, and create unpleasant conditions for recreational activities such as boating and swimming. When fertilizers containing nitrogen in the form of ammonium enter surface waters, ammonia build-up may create toxic conditions for fish. Algal "blooms" and excessive aquatic plant growth can reduce oxygen levels in the water, putting stress on aquatic animals, and can produce toxins that are harmful to aquatic life and people.

Nitrate is a form of nitrogen and a contaminant commonly found in surface waters and groundwater. Rainfall can carry nitrate that is not taken up by plants overland to surface waters, or downwards through the soil and into groundwater. If nitrate ends up in water or saturated soil with very little dissolved oxygen and a supply of oxidizable carbon, certain types of bacteria will convert it to nitrite, and eventually to nitrogen gas, which can then escape to the atmosphere. The effectiveness of a riparian area to filter nitrogen is highly dependent on the pathway of water movement through its biologically active areas. Nitrate removal is much less effective when riparian areas are overwhelmed by high volumes of runoff, and where cold temperatures in the non-growing season

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restrict biotic removal. Nonetheless, studies from across North America have shown that vegetated riparian areas can help mitigate the impact of land use on stream water quality by acting as nitrate sinks in the landscape.

Figure 8

Riparian areas are important landscape features that can buffer water bodies from non-point sources of nitrogen pollution.

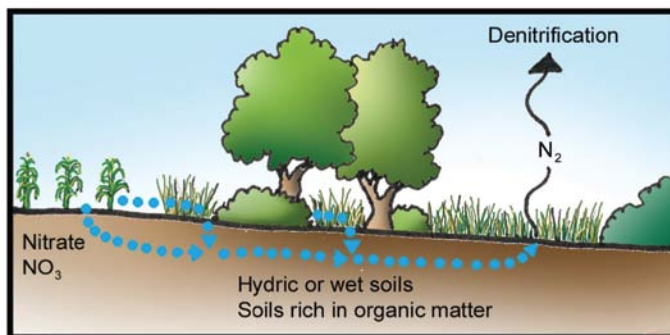


Illustration: USDA

Phosphorus

Phosphorus in aquatic systems occurs in three forms: inorganic phosphorus, particulate organic phosphorus, and dissolved (soluble) organic phosphorus. Aquatic plants require inorganic phosphorus for nutrition, typically in the form of orthophosphate ions. This is the most significant form of inorganic phosphorus, and is the only form of soluble inorganic phosphorus directly utilized by aquatic plants. Because phosphorus is usually in short supply in nature, additions of phosphorus in fertilizers are quickly taken up by organisms. In aquatic systems, excessive phosphorus can cause rapid growth of macrophytes and algae, leading to water quality problems.

Soils can become saturated with phosphorus, and excess phosphorus may be carried in runoff or leach through the soil profile and enter groundwater. Once in a lake or wetland, phosphorus can remain for some time and may cycle annually or more often. For instance, the nutrient is released from the bottom sediments of lakes into overlying water during periods

of oxygen depletion. This deep, phosphorus-enriched water can mix with shallow surface waters during windy periods or during spring and fall turnover, in effect fertilizing the lake. The results are often excessive growth of both cyanobacteria and algae, which can make the lake look green and murky. In Alberta rivers, the concentration of total phosphorus often is elevated because the river flows through fertile soils. However, the highest concentrations usually occur downstream from densely populated regions, where nutrient concentrations are influenced by sewage. Beyond a certain point, phosphorus levels can have undesirable effects, including a decrease in biodiversity, increased water treatment costs, and increased risk to aquatic life, livestock and human health.

Although grass buffer strips have been shown to reduce phosphorus transport to surface waters in the short term, long-term benefits are more problematic. Vegetated buffers remove phosphorus by trapping particles, allowing infiltration into the root zone, and

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through root uptake of soluble phosphate. However, the result may be a build-up of phosphorus and increased soil-phosphorus solubility in the buffer strip, leading to future export of the nutrient to adjacent water bodies, such as during storm events or spring melts. Also, buffer strips have not been found to be effective at removing dissolved phosphorus from subsurface flows. Strategies such as proper fertilizer management, strategic placement of grass buffer strips, and regular harvesting of buffer vegetation can help in reducing the amount of phosphorus that gets transported to surface waters.

The last line of defence, against all we do in the watershed, is the thin green line of the riparian area. Healthy, diverse riparian vegetation resists erosion and reduces the amount of sediment generated from

watercourse banks. Plants trap sediment and reduce the amount of contaminants, nutrients and pathogens reaching the water through absorption, uptake and breakdown, while nitrate is transformed to harmless nitrogen gas in riparian sediments.

Nature has provided us with an efficient, cost-effective water filter. But improper land management practices in just a few areas within a watershed can contribute to a majority of water quality problems. Targeting better land management practices in these few, select areas may yield significant improvements (Bentrup 2008). For example, erosion should be managed at source to reduce sediment and pollutants to acceptable levels, erosion and sediment controls should be put in place at construction sites, and concentrated flows should be managed to prevent conveyance of large sediment loads directly to water bodies.



We didn't know that tiny things we couldn't smell or touch could hurt us. WALKERTON, ONTARIO RESIDENT

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FISH AND WILDLIFE HABITAT

Riparian areas are among the most productive ecosystems on earth, and are “hot spots” of biodiversity. They occupy a small proportion of the landscape (often 2 per cent or less) but frequently support a greater variety and abundance of life than adjacent habitats. Important habitat components include vegetation (that is often different, more diverse and more complex than adjacent areas), food, standing water, shelter from predators, sites for nesting, and a local microclimate that moderates temperatures.

Fish and wildlife species differ in their dependence and reliance on riparian areas. Some are confined to it for their entire lives; others use these areas less frequently, yet their long term life cycle requirements depend on access to riparian areas. Wildlife use riparian areas as corridors to move to different habitats seasonally, to accommodate different life stages, and to escape unpredictable events.

Fish communities have evolved to exist in certain habitats with favourable conditions. Factors such as water temperature, light, sediment, stream channel and shoreline shape, are important. They normally fluctuate within a natural range of variability. So long as these factors remain within that range, fish communities can persist. But, if habitat conditions fluctuate beyond this normal range, the fish community is placed at increased risk of losing one or more species. Riparian areas play an important role in regulating habitat conditions and providing the necessary degree of stability. Studies suggest that maintaining the integrity of riparian areas may be critical to maintaining diverse fish communities across river basins (Lammert and Allan 1999, Meador and Goldstein 2003).

River Valleys –

Sheltered Havens for Deer

Wildlife and wild things once fed and shaped our culture; their presence today is a measure of whether the landscape we live in is healthy. For Alberta wildlife like deer, moose and elk, key ungulate habitat is usually associated with river valleys. River valley landforms contain unique conditions that provide good winter browse conditions in proximity to forest or topographic cover providing shelter from wind chills. Slopes with south-facing aspects are particularly important because they accumulate less snow than north-facing slopes. Ungulates often concentrate in these areas during winter because of the thermal advantages, and because the steep slopes and ravines provide optimal mixes of food, cover and escape terrain. White-tail deer have been reported to use riparian areas almost twice as much as upland areas in avoidance of predators (Naiman and Decamps 1997).

Forested riparian areas along river valleys also provide travel corridors for wildlife, allowing animals to move to refuges when disturbances temporarily alter their preferred habitat. Riparian corridors also help maintain connections among breeding animals, which is important for the long-term health of wildlife populations. Wider corridors generally are more functional than narrow corridors because some species avoid forest edges. Even in urbanized areas, riparian areas along water courses offer an excellent opportunity for maintaining all-important wildlife corridors.

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RIPARIAN AREAS – PART OF THE COMMUNITY

In urban centres riparian areas can be community assets, offering a host of activities of economic and educational value to community members. If we turn these areas into our community front yards we add to urban diversity and enjoyment. Amid noise, concrete and pavement, riparian areas are people-friendly places offering cool, shaded places for cyclists, hikers and picnickers. Coupled with biking and hiking paths, riparian buffers offer commuter traffic a non-motorized alternative. Riparian forests in urban areas are the last refuges for a variety of wildlife, and can offer the best bird watching in town. These are places for urban dwellers, especially children, to find connections with the natural world, which encourages citizen participation and stewardship. Our waterways were the highways for native peoples, explorers, trappers, traders and early pioneers. Riparian areas have historical and archaeological values worth preserving.

Large Woody Debris and Undercut Banks – Fish Hangouts

How many lures have you lost trying to catch a big trout hiding under a log? These logs are not a nuisance, they are important for our streams, and there is a reason trout might be hiding there!

Larger woody debris is a term used to describe large logs or fallen trees greater than 10 cm in diameter which have ended up partially or wholly within a watercourse or lake. In watercourses, large woody debris is a major contributor to watercourses in terms of nutrients, habitat diversity, and stabilizing the watercourse environment.

The lateral migration and natural undercutting of vegetated banks in watercourses result in the creation of some of the best fish habitat by providing cover for fish. When the bank becomes sufficiently undercut and a tree falls in, large woody debris can act as a sweeper, create a debris dam, or lodge on the bottom of the watercourse. It often catches other smaller pieces of wood or leaves, and holds them in place while they decay, ultimately providing nutrients for invertebrates which are in turn eaten by fish. Fish and aquatic invertebrates use the large woody debris as shelter to hide from predators and as resting areas outside of the main current.



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The Economic Value of a River Valley

Economic valuation generally supports preservation of natural green corridors and riparian buffers (Qiu et al. 2006). Studies in the USA have shown that there is willingness to pay a premium for living in a subdivision that has access to community-owned riparian buffers. But, willingness to pay is significantly higher for living on a property adjacent to the same riparian buffer (Qiu et al. 2006). Tradeoffs also have been identified. For example, residents pay more for living closer to a stream; however, if a property is too close to a stream, flooding threat reduces property value (Bin and Polansky 2004). The literature suggests that natural open space provides a significant benefit to property owners through increased property values, potentially a benefit to the local government through higher property tax assessments and increased quality of life in the community (Curran 2001).

Edmonton and Calgary both benefit from being located adjacent to river valleys. A 1986 study found that 70 per cent of Calgary area households used the Bow River valley for various forms of land-based recreation, including walking, jogging and cycling, and that total recreational activity amounted to 12.4 million user-days per year. The economic benefits associated with this recreational activity amounted to \$5.3 million annually (Scace and Associates Ltd. 1987). Applying 2006 census data and adjusting for inflation, this value would be about \$16 million annually, assuming the same household participation rate.

Economic benefits are greater when all factors are considered. The North Saskatchewan River Valley near Edmonton was found to generate between \$300 and

\$600 million per year in economic, social and environmental benefits (AMEC 2007). Environmental benefits included management, erosion control, carbon sequestration, air and water quality improvements, and pest control. Social benefits included recreation and health. Economic effects included tourism and increased property values. The study found that houses built adjacent to the river valley were, on average, worth more than similar buildings elsewhere in the City of Edmonton, such that proximity to riparian areas added about \$131 million to real estate values in 2006.

In another Alberta study, residential properties located adjacent to an amenity such as a park, open space or waterway will attract a higher capitalized value than will properties that do not have access to such an amenity (Serecon 2007). Quantitative analysis of newer, mainly single-family residential developments in an average socio-demographic found proximate premiums of up to 15 per cent on the total property (home and lot combined). High premium parks combine municipal reserve, environmental reserve and public utility corridors, such as well-managed stormwater features, because of the massing of the park area and the positive environmental impact. The value of the benefit is expressed by the view, as well as the privacy afforded by the park. The presence of a contiguous pathway, but set away from the property line, further enhances the value to the homeowner.

Appendix 1 contains more information about the economic value of river valleys (see: "Economic impacts of buffers" in "Case Studies.")



Choices – Common Sense for Managing Riparian Areas

Whether we live beside a lake or a river, very few of us have no upstream neighbours; the rest of us live both upstream and downstream of someone. One of the results of this connectivity is that changes we make to our property can affect others in a watershed. The additive effects of these types of decisions might translate into higher nutrient loading in surface waters, higher peak flows, more erosion, increased risk of flooding and lower base flows. If we can appreciate those changes, it might help us understand that it isn't about how much more development we can undertake in riparian areas, but rather, how do we reverse this trend?

INDISPENSABLE LANDSCAPES

Riparian areas have significant values beyond the relatively small scale of their size. The water bodies they adjoin interact with them both frequently and occasionally. These small landscape bits both buffer the land from the water, and also the water from the land. The processes within them are complex, connected and essential. The more that our knowledge of riparian areas deepens through scientific investigation, the more apparent it is becoming that no part of riparian areas are or should be considered surplus or redundant, especially given the wide scope of services these areas provide us. There is no apparent silver-bullet methodology available to draw a line within a riparian area designating part of it dispensable to our needs. What is clear is that the choices we make will have costs, benefits and consequences in the future and for our near (and maybe not so near) neighbours. Those costs, benefits and consequences may not be shared equally by all watershed residents. If we choose to divide the riparian area up, we need to understand the choices and what we are willing to give up in the bargain. Which, of the attributes of water storage, filtering capacity, erosion control, flood abatement, wildlife habitat, climate change amelioration, or aesthetics, will we give up? Because of the connections and the spatial and temporal aspect of the choice, several of these attributes may be relinquished at once. Some, such as flood abatement, may have greater risk and hazard associated with them. It will be necessary to understand who or what will bear the additional costs of our decisions to forgo some or several riparian functions.

> choices – common sense for managing riparian areas

PLANNING TIPS

Municipal Conservation Planning

Not all shorelines should be developed, and buffers are only one part of ensuring healthy, sustainable landscapes. A watershed-scale approach is being used more and more to help ensure protection of sensitive areas and habitat, and prevent conflicting land uses. This approach is also important for identifying ecosystem functions and linkages, evaluating the cumulative impacts of development and resource management strategies, and setting environmental outcomes. Municipal conservation planning evaluates and integrates the physical, economic and social aspects of land management. Its purpose is to conserve the soil and water resources in the municipality while protecting the environment and quality of life of the local residents. An inventory of the soil, water and wildlife resources is used to analyze the conservation issues in the municipality. From this the objectives and related projects and activities can be determined.

Some municipal planning work has been built using a land system framework. Land systems are biophysical units with similar soils, climate and landscape characteristics within a municipality. In this way, activities and projects can be targeted within areas having similar resource concerns.

Riparian buffers are typically designed to achieve several objectives of individual landowners and the community. Often, objectives are addressed through different buffer designs in different locations, creating a system of buffers. A planning process is a structured method to organize and conduct this task and ensure that all objectives are addressed. The result is called a landscape plan (Bentrup 2008).

There are many excellent resources available to help in the design of riparian buffer systems in the context of sustainable landscapes. One such publication is *Protecting Riparian Areas: Creative Approaches to Subdivision Development in the Bow River Basin: A Guide for Municipalities, Developers and Landowners*, written by the Bow River Project, 2002. See also Bentrup (2008), and Johnson and Buffler (2008).

Watershed Management Planning

Watershed management plans are generally broad in scope and deal with topics that could be directly or indirectly related to the water within a water body, including riparian, non-point source pollution, and source water protection. Using the Framework for Water Management Planning as guidance, any group can develop a watershed management plan with recommendations to be considered by the Director in charge of water management decisions under the *Water Act*. A watershed management plan is not only for a Director designated under the *Water Act*, it is also a valuable tool for other jurisdictions who make decisions that could impact water, such as municipalities and First Nations. It is important that the watershed planning group include all stakeholders who make decisions that could impact water. The resulting plans provide key recommendations to minimize the cumulative effect of activities on receiving water bodies. Recommendations in a plan may or may not be incorporated into policies. The result, however, is agreed-upon recommendations to best manage the watershed. When developing a watershed management plan, it is also important to consult the regional Watershed Planning and Advisory Council (WPAC) to ensure consistency of planning initiatives. See the *Water for Life* website to find a WPAC operating in your region (www.waterforlife.alberta.ca).

Regional Land-Use Planning

Alberta's Land-use Framework, developed after extensive consultation with Albertans, sets out a new approach for managing public and private lands and natural resources to achieve Alberta's long-term economic, environmental and social goals. It is a blueprint designed to guide decision making about our land and natural resources. Implementation of the Land-use Framework has been enabled through the *Alberta Land Stewardship Act*, and a key component of the framework is the development and implementation of seven regional plans for the province. The Government of Alberta is responsible for regional

choices – common sense for managing riparian areas <

planning which will involve extensive local input, and the establishment of a Regional Advisory Council for each region to provide advice to Cabinet regarding the plan. Regional plans will be reviewed and approved by Cabinet, and they will become official policies of the Government of Alberta. Municipalities and Alberta government departments will be required to comply with regional plans in their decision-making.

See the Land-use Framework website for more information on the framework and regional planning (www.landuse.alberta.ca).

RIPARIAN ZONES

A vision for landscape and riparian health is a combination of the land we stand on and of the watershed as a whole. Good riparian management works hand in hand with sustainable land management practices. For example, healthy perennial vegetation in upland areas can intercept precipitation and resist erosion, natural wetlands can capture and slowly release runoff or store it as groundwater, and healthy riparian areas can moderate flood flows, recharge alluvial aquifers, and filter runoff. Attempts to size buffers to achieve only one ecological function or administrative objective may fail to meet other objectives. A combination of maintaining continuous riparian areas in a natural state, and extending buffers out from the water body give the best chance of providing a full range of ecosystem services and benefits.

To maximize the benefits of buffers, a three-zone approach is now widely accepted. This includes:

- **Inner or Streamside Zone**

consisting of undisturbed vegetation along the bank intended to provide shade, and maintain the integrity of the bank and adjacent aquatic habitat;

- **Middle Zone**

inland from the legal bank, to help filter sediment and pollutants, capture pollutants and recharge groundwater, and provide separation between the inner zone and adjacent development; the width should encompass the 1:100 year floodplain and adjacent steep slopes; and

- **Outer Zone**

intended to minimize encroachment of adjacent development and provide initial filtering of runoff.

Typically, no development is allowed in the inner zone, and shorelines are protected and kept in a natural state as an integral part of the vegetated filter strip. Some development and supporting park amenity or open space needs may be allowed in the middle and outer zones, provided they do not compromise the integrity of the vegetated filter strip. The outer zone should have the greatest ability to trap sediments and pollutants. The following measures should be taken to maintain riparian functions:

- » Protect against compaction from vehicles, livestock, and construction of impervious surfaces; rainwater infiltrating the riparian area could represent almost the same quantity as groundwater input, and the dilution effect is very important in riparian areas that are not nitrate sources;
- » Avoid excessive removal of leaf litter, or alteration of the natural plant community through improper use of herbicides or herbicide drift, and improper livestock grazing; the moist soil of riparian areas makes them very susceptible to compaction by livestock and wildlife;
- » Avoid activities that disconnect the channel from the flood plain such as urbanization, channelization, diking, and drain tiles.

> choices – common sense for managing riparian areas

Vegetated filter strips need to be wide enough to allow flow to spread out and slow down so that sediments can settle out. But riparian areas cannot do their work on their own. Filter strips become ineffective when runoff water is contaminated and allowed to enter directly into water bodies via concentrated flow paths. Conserving riparian areas should take a comprehensive approach, including wetland conservation and appropriate best management practices. Best management practices (as opposed to beneficial management practices) are generally classified into four categories (Novotny 2006):

- Source controls (erosion control, soil conservation, targeted fertilizer applications, nutrient management in built-up areas);
- Hydrologic modifications of source area;
- Reduction of delivery of pollutants between the sources and receiving water body (e.g. riparian buffers, infiltration). Maintain diffuse flow into buffers or install additional vegetated buffer strips near source;
- Capture, storage and treatment in ponds and wetlands. BMPs can include ponds, fertilizer application rate and timing, field-contour buffer strips, and grass waterways.

LANDSCAPE MATTERS

Urban vs. Rural Challenges

In the past, agricultural and silvicultural standards for riparian buffer design were often applied to urban areas, ignoring important differences in hydrology, physical site conditions and land use. Even though urban streams tend to suffer greater impacts than other streams, urban buffers also tend to be less effective for filtering pollutants because storm drains deliver a large proportion of runoff directly to the channel. Therefore, widening a buffer in an urban area may have less of an effect on water quality than widening a buffer in an agricultural area (Wenger 1995). On the other hand, keeping development out of flood hazard areas in higher-density urban environments can help avoid widespread impact to human life and property.

In urban and urbanizing areas, construction is the major source of sediment, whereas in rural areas natural sources, cultivation and bank degradation from improper livestock grazing are the main sources. Storm flows in urban and suburban areas are elevated owing to greater surface runoff from impervious surfaces. Consequently, bank stabilization may not be effective in these areas if the underlying causes of channel erosion are not addressed. Controlling runoff close to where it begins can reduce runoff volume and improve runoff quality. Major techniques include green roofs, water capture and re-use, pervious pavement, conservation landscaping and bioretention. The Alberta Low Impact Development Partnership promotes these and other techniques as part of its mandate to promote the recharging of aquifers, the protection of riparian areas and wetlands, and the maintenance or improvement of the aquatic health of our water bodies.

choices – common sense for managing riparian areas <

Low-Order Streams

Headwater and smaller, tributary streams have the most land-water interaction and the most opportunities to accept and transport sediment (Wenger 1999). Maintaining vegetative buffers along low-order streams may offer the greatest benefits for some stream networks as a whole. Temporary water courses also require special attention. Because they can carry appreciable flow and sediment during storms, ephemeral and intermittent streams should be properly managed to prevent pollutants from entering surface waters. This can include conserving native vegetation, maintaining buffer strips, and in urban areas, integrating ephemeral streams into engineered stormwater systems.

Non-native Plants

Riparian areas along streams and rivers are often the first areas to be colonized by invasive and disturbance-caused plants, some of which thrive to the exclusion of native species and wildlife. Non-native plants are generally not as effective as native species at binding soils with their roots and stabilizing stream banks. Also, invasive plants typically do not provide forage for wildlife and livestock. Riparian areas that have been disturbed by construction and development activities are more prone to invasion by non-native plants. Where restorative efforts are planned on previously disturbed riparian land, weed management measures should be taken into consideration.

BUCKING THE TREND

Naturalizing riparian areas that have been impacted by human activities is being used more and more in Canada and the USA to help protect shorelines, reduce erosion, improve water quality and improve aesthetics. Replacing features such as retaining walls, lawns and bare ground with natural materials and native vegetation may take some work, but pays dividends in the long run. Appendix 1 contains information sources and links on how riparian areas can be restored to healthy condition.

GETTING READY FOR CLIMATE CHANGE

As some of the predictions of climate change unfold, it is reasonable to expect more uncertainty in flows and water levels. Some predictions indicate that there will be greater variability in precipitation, which could result in more frequent and intense storm events or drought conditions. Hence, there is an increased possibility of unpredictability in flow volumes in a number of Alberta rivers. These trends suggest that protection and, in some cases, restoration of riparian areas and floodplains, especially in urban areas, should be part of the overall strategy to reduce the potential effects of increased flood risks and to avoid the potentially higher costs of maintaining infrastructure. Interaction between urbanization and climate variability also may amplify watershed nitrate export through decreased nitrogen retention during periods of drought, and higher levels of nitrogen export during high flow conditions (Kaushal et al. 2008). At a watershed level, intact, vegetated riparian areas, including wetlands, can temporarily store flood water, thereby reducing erosion and flood damage. Riparian areas capture and store water allowing infiltration to groundwater aquifers. This stored water maintains watercourse base flow and could help mitigate the impacts of low flows associated with drought.

LEARNING FROM OTHERS

A number of municipalities in Alberta have adopted policies for Environmental Reserve setback widths in excess of six metres where it can be demonstrated that wider ERs are needed to prevent non-point-source pollution in adjacent water bodies. Appendix 1 contains some examples of policies various municipalities have implemented, as well as examples from other jurisdictions in Canada.

> choices – common sense for managing riparian areas

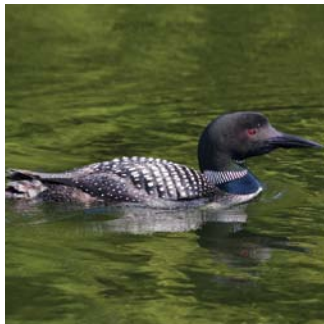
ADDITIONAL INFORMATION FOR DESIGNING EFFECTIVE BUFFERS

In addition to the information requirements outlined in the earlier sections, the following information should be considered when planning effective riparian buffers at watershed scales:

Table 5
Additional Information Sources

Type of Information	Data Sources
Water Quality Protection	
Adjacent Land Use <ul style="list-style-type: none"> Include existing development and zoning 	<ul style="list-style-type: none"> Municipal development plans; Area structure plans
Lands Upstream or Adjacent to Municipal Drinking Water Sources	Hydrography Data/Maps <ul style="list-style-type: none"> AltaLIS: Spatial Data Warehouse Ltd. Aerial Photos <ul style="list-style-type: none"> Alberta Environment and Sustainable Resource Development Air Photo Distribution
Sedimentation Source Areas <ul style="list-style-type: none"> Including concentrated flow paths and non-vegetated swales that intercept sheet flow and carry sediment directly to the water body 	Soil/Hydrography Maps <ul style="list-style-type: none"> Alberta Geological Survey; Alberta Soil Information Viewer (AGRASID); Canadian Soil Information System (CanSIS); AESA Soil Quality Resource Monitoring. <p>Note: gathering of these data can be coordinated with preparation of Drainage Plans</p>
Possible Pollutant Source Areas	Reports and Maps <ul style="list-style-type: none"> related to the oil and gas industry Energy Resources Conservation Board: Maps showing buried utility lines, and oil and gas facilities: Abacus Demographics Inventories <ul style="list-style-type: none"> National Pollutant Resource Inventory
Riparian Vegetation Condition <ul style="list-style-type: none"> Type (trees, shrubs, grass) and condition (e.g., Cows and Fish assessment) Historical extent (i.e., where vegetation has been cleared) 	Aerial Photos <ul style="list-style-type: none"> Government of Alberta Aerial Photo Distribution Centre Inventories <ul style="list-style-type: none"> Alberta Grassland Vegetation inventory, Alberta Vegetation Inventory, Alberta Vegetation Inventory (Alberta Environment and Sustainable Resource Development); Health Assessments (Alberta Riparian Habitat Management Society: Cows and Fish) Site Inspections/Surveys
Habitat/Biodiversity	
Fish Habitat Sensitivity <ul style="list-style-type: none"> as defined in Guide to the Code of Practice for Watercourse Crossings (2001) 	Map <ul style="list-style-type: none"> The <i>Code of Practice for Watercourse Crossings</i>

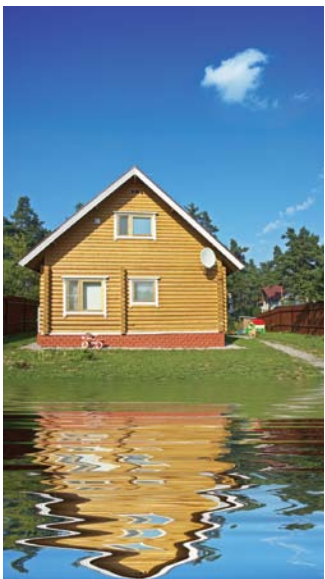






Conclusion

We cannot take care of what we cannot see. Being able to identify a riparian area and understand what it does for us is the first step. Then, appreciating the complexity of the connections between riparian areas and water bodies will help us make better choices for attaining conservation objectives while meeting human needs. For example, healthy riparian buffers can provide both ecosystem services and community benefits, including reduction of flood hazard and erosion. Integrated approaches among all stakeholders will help make informed planning decisions, aid private/corporate stewardship, and guide restoration efforts. Most importantly, however, we will be taking the necessary steps required to help ensure that our riparian areas are intact and provide the same important ecological functions for generations to come.





Glossary of Terms

Glossary of Key Terms

Aquatic Environment

The components of the earth related to, living in or located in or on water or the beds or shores of a water body, including but not limited to:

- All organic and inorganic matter; and
- Living organisms and their habitats, including fish habitat, and their interacting natural systems.

Aquifer

Refers to a sub-surface layer or layers of porous rock which hold water within the spaces between the rocks (interstitial spaces).

Alluvial Aquifer

A non-confined aquifer comprised of groundwater that is under the influence of surface water.

Bed and Shore

Is the land covered so long by water as to wrest it from vegetation or as to mark a distinct character on the vegetation where it extends into the water or on the soil itself. In Alberta, the province owns most of the beds and shores of all naturally occurring lakes, rivers and streams (*Public Lands Act, Sec. 3 (1)*).

Buffers

A buffer is a strip of land placed in the landscape and managed in such a way so as to maintain desired ecological processes and provide economic and societal benefits.

Crest

Means the dividing line between a valley slope and its upland area. The crest is also referred to as the top-of-the-bank line.

Denitrification

Denitrification is the conversion of nitrate into nitrogen gas by anaerobic microorganisms, and its subsequent loss to the atmosphere. It is an important mechanism of nitrogen reduction in many riparian systems.

Development:

As defined in Section 616 of the *Municipal Government Act*:

1. an excavation or stockpile and the creation of either of them,
2. a building or an addition to or replacement or repair of a building and the construction or placing of any of them on, in, over or under land,
3. a change of use of land or a building or an act done in relation to land or a building that results in or is likely to result in a change in the use of the land or building, or
4. a change in the intensity of use of land or a building or an act done in relation to land or a building that results in or is likely to result in a change in the intensity of use of the land or building.

Environmentally Significant Areas (ESAs)

Are those areas on the landscape that are considered to be vital to the long-term maintenance of biological diversity, physical landscape features, or other natural processes. ESAs are important within the context of regional land-use planning and protected areas design, since they provide an inventory of critical biological, physical, and cultural resources. Fiera Biological Consulting was retained by Alberta Tourism, Parks, and Recreation to update the portfolio of Environmentally Significant Areas in the province. With consultation from a variety of stakeholders, Fiera applied a systematic conservation planning approach to develop new criteria for defining, identifying, and ranking ESAs throughout the province. The Alberta government maintains a database and maps of ESAs in Alberta following a systematic approach using seven well defined criteria.

[glossary of key terms <](#)

Ephemeral/Intermittent/Temporary/ Seasonal Water Bodies

Water bodies where the presence of water ceases for a time due to variation in climatic or seasonal conditions, including snow melt/spring runoff, seasonal storms and drought conditions. These changes are considered part of a natural cycle. Intermittent, ephemeral and temporary water bodies (or portions of) can remain dry for many years and may be fully restored after prolonged precipitation. Ephemeral streams are streams that flow only during and immediately after rainstorms. Intermittent streams flow for part of each year.

Escarpment

A steeply sloping area associated with a slope of 15 per cent or greater that is separating two comparatively level or more gently sloping areas, and may contain isolated pockets of lesser sloped terrain. Escarpments include ravines, gullies, coulees, side draws, and other similar features.

Eutrophication

The process whereby water bodies become biologically more productive due to an increased nutrient supply.

Floodplain (Flood Hazard Area)

A floodplain consists of the low-lying land next to a watercourse that is subject to periodic inundation. A 1:100-year floodplain, which is the result of a flood having a 1 per cent chance of being equalled or exceeded in any given year, is used for purposes of development. In the absence of information that identifies the 1:100-year floodplain elevation, the best available information must be used to establish the historic high-water level for a water body. The floodplain can be divided into two zones once a flood hazard mapping study has been completed:

1. Floodway

The area within which the entire design flood can be conveyed while meeting certain water elevation rise, water velocity and water depth criteria. Typically the floodway includes the river channel and some adjacent overbank areas.

2. Flood Fringe

The land along the edges of the flood risk area that has relatively shallow water (less than 1 metre deep) with lower velocities (less than 1 metre/s). In Calgary the mapping uses the term floodplain for the flood fringe area.

Hydric Soil

Soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part.

Hydrology

The branch of geology that studies water on the earth and in the atmosphere, its distribution, uses and conservation.

Hydrogeology

The branch of geology that deals with the occurrence, distribution, and effect of ground water.

Invertebrates

Animals without backbones.

Legal Bank

The top of bank as defined by the *Surveys Act*. The top of bank is the legal line that separates private land from the bed and shore of a water body.

Lentic

Pertaining to standing water such as lakes and ponds.

Lotic

Pertaining to flowing waters such as rivers, streams and springs.

Macrophytes

Large rooted or floating aquatic plants.

> glossary of key terms

Meander Belt

The land area on either side of a watercourse representing the farthest potential limit of channel migration. Areas within the meander belt may someday be occupied by the watercourse; areas outside the meander belt typically will not.

Ordinary High Water Mark

The usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “active channel/bank-full level” which is often the 1:2 year flood flow return level. In inland lakes or wetlands, it refers to those parts of the water body bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs this refers to normal high operating levels (full supply level).

Qualified Environmental Professional

An applied scientist or technologist with detailed knowledge of the aquatic environment, soils, vegetation and wildlife species, hydrology and geology (biologist, agrologist, geotechnical engineer, forester, forest technologist, erosion and sediment control specialist, etc.), acting alone or together with another qualified environmental professional. The person must be in good standing as a registered professional with an association constituted under an act, and must conduct themselves in accordance with the ethics set out by their association or be subject to disciplinary action by that association. The qualified environmental professional (s) must act in their area of expertise and must exercise professional due diligence in providing their advice.

Riparian

Riparian is derived from the Latin word “ripa” meaning bank or shore, and refers to land adjacent to a water body.

Riparian Area¹⁷

Includes any land that adjoins or directly influences a water body and includes floodplains and land that directly influences alluvial aquifers. Typical examples include the green ribbons of lush vegetation that grow on floodplains and watercourse banks. They usually are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are influenced by the presence of water above the ground and below the surface. Water is present due to a water body or elevated water table such as in a seep or spring.

- *Note*

Riparian area/upland boundaries in some regions of Alberta can be difficult to see, such as in the Central Parkland or Boreal forest where the transitions can be quite subtle. The presence of water may also be difficult to detect. For example, Silver Sagebrush/ Western Wheatgrass communities are the driest of the riparian types and water may only be present for a few weeks during the year.

Riparian Vegetation

Vegetation growing on or near the banks of a watercourse or other water body that is more dependent on water than vegetation that is found further up slope.

Setback

For the purposes of this handbook, a setback is a minimum distance that must be maintained between a land use or development and a water body. The distance is measured from the legal bank of the water body to the boundary line of the adjacent development.

¹⁷ Definition adapted from Alberta Environment's Riparian Land Conservation and Management Project (2007), with modifications from Cows and Fish (Alberta Riparian Habitat Management Society).

[glossary of key terms <](#)**Shallow Groundwater**

Shallow groundwater is defined as any area where the water table is within 1.8 metres of the ground surface during the frost free period up until the end of August; and within 2.4 metres of the ground surface during the remainder of the year.

Stable Slope Allowance

A horizontal allowance measured landward from the toe of a shoreline cliff, bluff, or bank reflecting a long-term stable state of the existing slope material.

Stream

A natural watercourse of any size containing flowing water, at least part of the year, supporting a community of plants and animals within the stream channel and the riparian vegetative zone.

Substrate

A layer of earth beneath the surface soil; subsoil.

Toe Erosion Allowance

A horizontal allowance measured landward from the toe of a shoreline cliff, bluff, or bank reflecting the possible erosion of the toe of the slope.

Upland Area

An area of land, usually terrestrial land (not aquatic), either upstream or surrounding the wetland. It is not part of the wetland but may contribute to the integrity of the wetland.

Vegetated Filter Strip

A vegetated filter strip is land left in a natural, preferably undisturbed state, usually consisting of riparian soils and native or planted vegetation, situated between development and a water body.

Water Body

Means any location where water flows or is present, whether or not the flow or the presence of water is continuous, intermittent or occurs only during a flood, and includes but is not limited to wetlands and aquifers. The water boundary is considered bound by its ecological boundary. Water bodies can be natural or man-made:

1. *Natural Water Body*

Examples of a natural water body are a river, stream, creek, lake, and wetland (e.g., swamp, marsh, bog, fen, muskeg, and slough).

2. *Man-made Water Body*

Examples of a man-made water body are irrigation canals, reservoirs, and dugouts. Ditches are excluded except where they connect to a water body that includes irrigation systems.

Watercourse

A flowing water body, such as a river, stream, or creek. This includes watercourses that may be ephemeral, intermittent, temporary or seasonal in nature.

Watershed

An area of land that catches precipitation and drains it to a specific point such as a marsh, lake, stream or river. A watershed can be made up of a number of sub-watersheds that contribute to the overall drainage of the watershed. A watershed is sometimes referred to as a basin, drainage basin or catchment area.

> glossary of key terms

Wetland

A wetland is land that has the water table at, near, or above the land surface, or which is saturated for a long enough period to promote wetland or aquatic processes as indicated by hydric soils, hydrophytic vegetation, and various kinds of biological activity that are adapted to the wet environment” (Tarnocai, 1980). If the rooting zone extends below the water table, the area is a wetland (National Wetlands Working Group, 1988).

Wetlands in Alberta’s prairie region (White Area) are commonly classified according to the Stewart and Kantrud classification system:

- *Class I*
Ephemeral Wetlands typically have free surface water for only a short period of time after snowmelt or storm events in early spring.
- *Class II*
Temporary Wetlands are periodically covered by standing or slow moving water. They typically have open water for only a few weeks after snowmelt or several days after heavy storm events.
- *Class III*
Seasonal Ponds and Lakes are characterized by shallow marsh vegetation, which generally occurs in the deepest zone (usually dry by midsummer). These wetlands are typically dominated by emergent wetland grasses, sedges and rushes.
- *Class IV*
Semi-permanent Ponds and Lakes are characterized by marsh vegetation, which dominates the central zone of the wetland, as well as coarse emergent plants or submerged aquatics, including cattails, bulrushes and pondweeds.
- *Class V*
Permanent Ponds and Lakes have permanent open water in a central zone that is generally devoid of vegetation.
- *Class VI*
Alkali wetlands are characterized by a pH above 7 and a high concentration of salts. The dominant plants are generally salt tolerant. These wetlands are especially attractive for shore birds.
- *Class VII*
Fen Ponds are wetlands in which fen vegetation dominates the deepest portion of the wetland area. This wetland type often has wet meadow and low prairie vegetation present on the periphery. The soils are normally saturated by alkaline groundwater seepage. Fen ponds often have quaking or floating mats of emergent vegetation, which includes sedges, grasses and other herbaceous plants.



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Appendix 1

The main body of this report described a process for determining setbacks, beginning with the assembly of relevant policy and legislation that affect development adjacent to water bodies in Alberta. The document also included the types of environmental information that were needed to determine the appropriate type and width of buffer if riparian function was to be maintained. Finally, the document described some of the planning and management steps to consider in maintaining healthy riparian buffers once they are established on the landscape. To help the reader sort through the large amount of material that is available, this appendix summarizes the following information:

- Key federal and provincial legislation, policies, guidelines and programs that developers and planners should be aware of when designing setbacks or riparian buffers in association with planned developments;
- Examples of municipal policies and bylaws that are in place to establish environmental reserve strips in excess of six metres;
- Beneficial management practices for establishing and maintaining riparian buffers and protecting shorelines; and
- Additional information and resources on riparian areas.

The Appendix also summarizes Alberta legislation and policies that affect other types of land uses adjacent to water bodies that are beyond the scope of this document, including agriculture, timber operations, and oil and gas. These are included to help the reader understand how different areas of legislation work together to protect water bodies and adjacent riparian areas from the impacts of human activities.

FEDERAL LEGISLATION AFFECTING DEVELOPMENT IN RIPARIAN AREAS

Fisheries Act

Fisheries and Oceans Canada (DFO)

To sustain or achieve a net gain in the quality and quantity of fish habitat in Alberta, the federal Department of Fisheries and Oceans (DFO) is the primary regulatory agency for dealing with the harmful alteration of fish habitat in Alberta. The *Fisheries Act* includes provisions for the protection of fish and their habitat, where any harmful alteration, disruption or destruction (HADD) will require authorization from Fisheries and Oceans Canada (DFO). Under the *Fisheries Act*, fish habitat is identified as: “spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out their life processes”. As such, riparian areas are considered to contribute to, if not directly constitute part of, fish habitat. Additionally, the *Fisheries Act* prohibits the discharge of deleterious substances in water used by fish.

Alberta Operational Statements

The purpose of the operational statements is to describe the conditions under which DFO review of proposed project activities is not required and to provide measures which must be incorporated into projects to protect fish and fish habitat. Operational Statements applicable to riparian areas include:

- Alberta Operational Statement:
Maintenance of Riparian Vegetation in Existing Rights-of-Way
- Alberta Operational Statement:
Isolated Pond Construction

PROVINCIAL LEGISLATION AFFECTING DEVELOPMENT IN RIPARIAN AREAS

Migratory Birds Convention Act

Environment Canada, Canadian Wildlife Service

Environment Canada prohibits harming or killing of listed species and makes it an offence to damage or destroy their residence on federal lands, for all aquatic species, and migratory birds under the *Migratory Birds Convention Act*. The Act would apply to species at risk and their habitat which occurs within a riparian area of interest, and also allows for emergency protection where the Act would not apply. This Act requires consideration for activities within or near riparian areas which may disturb migratory birds or their nests, as defined by the Act.

Navigable Waters Protection Act

Transport Canada

Provides for the prohibition to build works in navigable waters, unless the work, its site and plans have been approved by the Minister of Transport. Navigable waters are defined as including any body of water capable of being navigated by any type of floating vessel for the purpose of transportation, recreation or commerce. Any company, organization, government agency or Crown corporation that is planning the construction or modification of a work in, on, over, under, through or across any navigable waterway is affected by this Act. Works include a wharf, dock, pier, dam, boom, bridge, overhead cable or pipeline.

Species at Risk Act

Environment Canada (Lead), Department of Fisheries and Oceans (Aquatic Species at Risk)

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was established by the *Species at Risk Act* as the authority for assessing the conservation status of wildlife species that may be at risk of extinction in Canada. COSEWIC uses the best available scientific, community and Aboriginal knowledge to evaluate risk of extinction.

Alberta Land Stewardship Act

Creates the authority for regional plans for each of the seven regions identified in the Land-use Framework. Government will appoint regional advisory councils, which will consist of members representing a wide range of interests, expertise and experience within each region. Regional advisory councils will provide advice to government, on what should be in the regional plans. Plans will be developed by Government of Alberta, under the direction of the Land Use Secretariat, with public and stakeholder input and will be reviewed and approved by Cabinet. The *Alberta Land Stewardship Act* makes approved regional plans binding on all provincial government departments and decision-making boards and agencies, municipalities and local government authorities.

The *Alberta Land Stewardship Act* enables the development of new conservation and stewardship tools to protect heritage landscapes and views. For example, the scope of conservation easements has been expanded and they are now enabled under the *Alberta Land Stewardship Act*. Under the Act, a registered owner of land may, by agreement, grant to a qualified organization a conservation easement in respect of all or part of the land for one or more of the following purposes: (a) the protection, conservation and enhancement of the environment; (b) the protection, conservation and enhancement of natural scenic or esthetic values; (c) the protection, conservation and enhancement of agricultural land or land for agricultural purposes; (d) providing for any or all of the following uses of the land that are consistent with the purposes set out in clause (a), (b) or (c): (i) recreational use; (ii) open space use; (iii) environmental education use; (iv) use for research and scientific studies of natural ecosystems.

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Environmental Protection and Enhancement Act **Alberta Environment and Water**

The *Environmental Protection and Enhancement Act*, in general, prohibits the release of any substance into the environment which might cause a significant adverse environmental effect. The Act provides for management of wastewater systems, contaminated sites, storage tanks, landfills, and hazardous waste.

For a comprehensive listing of legislation and guidelines under the *Environmental Protection and Enhancement Act*, see: www.environment.alberta.ca/03147.html.

Municipal Government Act **Alberta Municipal Affairs**

Ordinarily, a person wishing to create one or more lots from a parcel of land must obtain subdivision approval from the municipal subdivision authority. Conditions may be attached to a subdivision approval requiring the applicant to:

- Provide land as environmental reserve in accordance with section 664 of the Act,
- Where the municipality and the landowner agree, an environmental reserve easement may be registered on title by caveat in favour of the municipality.

The *Municipal Government Act* defines the conditions under which a municipality may acquire “reserve lands” during the subdivision of a parcel of land. Under Section 664, subdivision approval authorities may require establishment of an environmental reserve if those lands consist of:

- A swamp, gully, coulee, or natural drainage course;
- Land that is unstable or subject to flooding; or
- A strip of land not less than six metres in width, abutting the bed and shores of any lake, river, stream, or other body of water for the purpose of preventing pollution or providing public access to and beside the bed and shore.

Under Section 671 environmental reserve lands are lands which must be left in their natural state or used as a public park or for public to access the area. A municipality can develop guidelines to dedicate environmental reserve strips adjacent to water bodies (setbacks) in excess of 6 metres when it can be demonstrated that such takings are required to prevent pollution in adjacent water bodies, or is needed to ensure public access.

Section 640 enables building development setback land use bylaw provisions on land subject to flooding or subsidence or that is low lying, marshy or unstable or on land adjacent to or within a specified distance of the bed and shore of any lake, river, stream or other body of water. A “building” includes anything constructed or placed on, in, over or under lands, but does not include a highway or road or a bridge that forms part of a highway or road.

Regional Health Authorities Act **Alberta Health**

Under the Act, Health Regions and corresponding Regional Health Authorities (RHAs) are established. The RHAs have the mandate to promote and protect the health of the population in the region, and as such, may respond to concerns that may adversely affect surface and groundwater.

Private Sewage Disposal Systems Regulation **Alberta Municipal Affairs**

The *Private Sewage Disposal Systems Regulation* 229/97, as amended by AR 264/2009, adopts the 2009 Alberta Private Sewage Systems Standard of Practice. The private sewage standards set out design standards, installation standards and material requirements for on-site private sewage systems serving a single property or handling less than 25 cubic metres (5,500 Imperial gallons) sewage volume per day.

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Public Lands Act**Alberta Environment and
Sustainable Resource Development**

Under the *Public Lands Act*, the Crown owns the bed and shores of a water body. Approvals are required for any activity which involves the alteration or occupation of Crown owned land.

Safety Codes Act**Alberta Municipal Affairs**

Under Section 65(1), the *Safety Codes Act* provides for the regulation and enforcement of septic system management practices, including installation of septic fields and other subsurface disposal systems. The *Private Sewage Disposal Systems Regulation* enabled under the Act further refines the Minister's powers, and adopts the design and installation requirements and additional specifications and standards outlined in Alberta.

Soil Conservation Act**Alberta Agriculture and Rural Development**

The *Soil Conservation Act* applies to all land within Alberta with the exception of "specified land", as defined in EPEA. Specified land does not include "subdivided land that is used or intended to be used solely for residential purposes" and "land owned by the Crown in right of Canada". Therefore, these lands are regulated by the *Soil Conservation Act*. The *Soil Conservation Act* regulates activities having erosion and sediment control concerns.

**Subdivision and Development Regulation,
Municipal Government Act****Alberta Municipal Affairs**

The *Municipal Government Act* and *Subdivision and Development Regulation* govern subdivision of land. This legislation specifies the authority and responsibilities of the municipality in receiving and deciding on subdivisions. Each municipality must enact a subdivision bylaw to provide for a Subdivision Authority to exercise powers and duties on behalf of the municipality.

Surveys Act

Section 17(3) defines the location of the legal bank and the extent of the bed and shore of a water body.

Water Act**Alberta Environment and
Sustainable Resource Development**

The *Water Act* governs water diversion, allocation and usage of water in Alberta, and an approval or license is required before a construction activity can be undertaken in a water body or before diverting and using water. Furthermore, the draining, infilling or alteration of wetlands without an approval is prohibited under the Act. Under the *Water (Ministerial) Regulation* and *Water Act* Codes of Practice, activities related to watercourse crossings for roads, pipelines and transmission lines are regulated.

**Alberta Environment and Sustainable Resource
Development Water Flood Management Programs**

The *Water Act* provides the Minister of Environment and Sustainable Resource Development with the power to designate any area of land as a flood risk area, either temporarily or more generally. Approval may be required under the *Water Act* for an activity within a flood hazard area. Local governments, however, are responsible for enacting by-laws/zoning to prevent development in flood hazard areas. An integrated, coordinated approach to flood management in Alberta is encouraged.

For a comprehensive listing of legislation and guidelines under the *Water Act*, see: www.environment.alberta.ca/03147.html.

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Wildlife Act

The Government of Alberta has authority for the protection and management of wildlife on all provincial lands, irrespective of whether these lands are owned by the Crown or by private interests. Land and resource users should be aware of these legislative and regulatory provisions under the *Wildlife Act* and *Wildlife Regulation*. The Minister responsible for fish and wildlife management has authority under the *Wildlife Act* to influence and control human activities that may have direct adverse effects on populations and habitat of wildlife species. The *Wildlife Act* [Sec. 96 (1) (u)] enables the Minister to establish regulations, “...*respecting the protection of wildlife habitat and the restoration of habitat that has been altered, and enabling the Minister to order persons responsible for the alteration to restore the habitat and to charge them with the cost of it if they have failed to effect the restoration.*”

Section 38(1) of the *Wildlife Act*, states that: *A person shall not willfully molest, disturb or destroy a house, nest or den of prescribed wildlife or a beaver dam in prescribed areas and at prescribed times.*

ALBERTA GOVERNMENT POLICIES AND PROGRAMS AFFECTING DEVELOPMENT IN RIPARIAN AREAS

A Guide to Content of Industrial Approval Applications

Alberta Environment and Sustainable Resource Development

This guideline has been prepared to outline the content requirements for applications to construct, or operate, or reclaim an industrial plant, facility, or activity under the *Alberta Environmental Protection and Enhancement Act* (EPEA) and the *Approvals and Registrations Procedure Regulation*. It addresses applications for industrial activities listed in the *Activities Designation Regulation* (Alberta Regulation 211/96) under Schedule 1 Divisions 1, 2 and 3.

A Guide to the Code of Practice for Pits

Alberta Environment and Sustainable Resource Development

This guide explains how sand, gravel, clay or marl pits that are five hectares (12.5 acres) or larger on private land are regulated through the *Code of Practice for Pits*. The Code of Practice was made under the Conservation and Reclamation Regulation. Registration holders must meet all the requirements of the *Code of Practice for Pits*.

Administrative Guide for Approvals to Protect Surface Water Bodies Under the Water Act (2001)

Alberta Environment and Sustainable Resource Development is concerned about the level of unauthorized activities occurring in water bodies. Unauthorized alterations, such as draining and infilling of water bodies cause damage to the aquatic environment and shorelines, degrade water quality and destroy wildlife and their habitat. This guide identifies methods to protect all permanent and intermittent natural surface water bodies throughout the province in rural and urban areas on private and public land. The guide defines the various activities requiring approval under the *Water Act* and provides for consistent

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application of the *Water Act* in both rural and urban areas of the province. Alberta's *Water Act* supports and promotes the conservation and management of water. Fundamental to the *Water Act* is the recognition that the protection of the aquatic environment is an important element of sustainable water management.

Alberta Private Sewage Systems Standard of Practice 2009

The Standard of Practice was adopted by Alberta Regulation and came into force October 5, 2009. The 2009 Standard of Practice reflects substantial changes from the 1999 Private Sewage Systems Standard of Practice. Certified Installers must be knowledgeable of the 2009 Standard to appropriately apply the requirements set out in that standard when undertaking the design and installation of onsite sewage systems.

Alberta Wetland Policy

The Alberta Wetland Policy is Alberta's interim policy concerning development adjacent to wetlands, and should be consulted prior to the establishment of setback widths through by-laws or other means.

Channel Migration

Alberta does not have a written policy for how to manage channel migration, erosion and debris accumulation in watercourses. Alberta Environment and Sustainable Resource Development is considering the creation of a policy that would promote landowners and local authorities to be accountable for developments in and near water bodies while allowing for a healthy environment to be sustained and managing GOA risks, costs and liabilities. The policy would be consistent with the renewed *Water for Life* Strategy and the Department's mandate to assure the effective stewardship of Alberta's environmental systems to sustain a high quality of life.

Conservation Easement

A conservation easement is a legally recorded agreement by which landowners voluntarily restrict the use of their land to protect its natural and cultural heritage. A conservation easement protects important land resources and can be held by a qualified conservation organization such as a land trust or local unit of government. Provided that certain conditions or programs are met, donors of easements may be eligible for income, estate and/or tax benefits. One condition is that there must be an established, recognizable public benefit, such as protecting rare species, public water supplies, or heritage sites. In Alberta, conservation easements are currently enabled under the *Alberta Land Stewardship Act* (ALSA).

Environmental Reference Manual for the Review of Subdivisions in Alberta **Alberta Environment and Sustainable Resource Development**

This manual provides Subdivision Authorities, planners, planning consultants and development officers with tools that can assist them to screen for, avoid and/or resolve environmental concerns associated with subdivision applications. Subdivision authorities are obliged to consider a variety of environmental factors in their decision as per the *Subdivision and Development Regulation*. In addition, users will find the manual's advice helpful with respect to the environmental aspects of development reviews and as a reference document for the preparation of land use plans. Moreover, the manual will assist users to pinpoint when a proposed development will likely require environmental approvals or authorizations pursuant to the *Environmental Protection and Enhancement Act* (EPEA), the *Water Resources Act* and/or the *Public Lands Act*.

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Guideline for Stormwater Management at Rural Stream Crossings Alberta Transportation

Potential impacts of road operations on the natural drainage system include an increase in flow rates, a decrease in water quality, and risk of contaminated spills. Stormwater management guidelines have been published by Alberta Environment and Sustainable Resource Development (ESRD) to address these potential impacts. This best practice guideline documents the current Alberta Transportation (AT) practice for stormwater management at rural stream crossings.

Land-use Framework Government of Alberta

Through the Land-use Framework, regional land use planning and co-ordination between the Government of Alberta and municipal land-use decisions is formalized. The framework divides the province into seven regions and a regional plan will be developed within each. Regional planning is expected to implement provincial policies, outline regional objectives for land use planning, and provide context for land use planning in a given region. Local governments and provincial government departments will be required to comply with each plan. Implications for what the framework holds for setbacks and riparian areas are yet to be determined.

Provincial Land Use Policies Alberta Municipal Affairs

Provincial Land Use Policies provide broad policy direction to municipalities with respect to such matters as the environment and water resources. Municipalities are expected to reflect these policies in their municipal development plans, other statutory plans, and Land Use Bylaws

Recommended Land Use Guidelines for Protection of Selected Wildlife Species and Habitat within Grassland and Parkland Natural Regions of Alberta Alberta Environment and Sustainable Resource Development

The guidelines provide recommended setback distances and timing restrictions applicable to various land use/surface disturbance activities for key wildlife areas and/or sites of species of the grassland and parkland natural regions considered to be sensitive. The recommended setbacks are distances from the key wildlife habitats (e.g., hibernaculae, nests, or ponds) and vary depending on the species under consideration.

Stormwater Management Guidelines for the Province of Alberta (1999) Alberta Environment and Sustainable Resource Development

These guidelines outline the objectives of management and the available methodologies and concepts for the planning, design, and operation of stormwater drainage systems. In addition to the water quantity aspects of stormwater management, the publication also describes some of the techniques that can be applied for quality management of stormwater. It is important that these guidelines be viewed as a tool to assist in making decisions and not as a rulebook for management solutions. The designer is solely responsible for decisions made with respect to management for any given site.

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Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems Alberta Environment and Sustainable Resource Development

To meet the requirements of the *Potable Water Regulation*, the *Wastewater and Storm Drainage Regulation*, and *Wastewater and Storm Drainage (Ministerial) Regulation*, water works systems, wastewater systems, and storm drainage systems are required to be designed to meet (at a minimum) the performance standards and design requirements outlined within this publication.

Standard Recommendations to Municipal Subdivision Referrals (Includes Recommended Minimum Environmental Reserve Widths) Alberta Environment and Sustainable Resource Development

This document identifies Alberta Environment and Sustainable Resource Development's (ESRD) common interest with municipalities relating to the conservation of the natural environment through the establishment of environmental reserves/easements. ESRD's goal is to have adequate riparian buffers established between a proposed development and a lake, river, watercourse, or wetland. ESRD supports the use of all available tools and best management practices to ensure that the long-term integrity and functionality of Environmental Reserve lands are maintained. These tools include, but are not limited to, by-laws and conditions on development permit that:

1. reflect the sensitivity of the lands and which are likely to continue to preserve the functions that a healthy riparian area provides;
2. ensure Environmental Reserves are not affected by grading of adjacent lots prior to construction and development arising out of the subdivision and development process. For example, the use of Grading Permits would provide a mechanism where erosion and sediment control measures can be directed to prevent pollution of aquatic environments;

3. ensure the protection of tree cover in areas deemed to be environmentally sensitive, especially in areas adjoining water bodies and watercourses, or where lands are subject to erosion or slope failure; avoid, wherever possible, the enclosure of long stretches of a natural watercourse so that they continue to remain above ground. ESRD encourages municipalities to utilize bridges at larger or more sensitive streams rather than culverts; and
4. incorporate natural wetland areas into green space and park systems wherever possible with sufficient buffer areas to facilitate their long-term sustainability.

Water for Life Strategy Alberta Environment and Sustainable Resource Development

The *Water for Life* Strategy has been developed and implemented as an overarching strategy or vehicle for water management in the province since 2003 (and renewed in 2008). The strategy is based on three principle outcomes: safe, secure drinking water supply, healthy aquatic ecosystems and reliable, quality water supplies for sustainable economy. The *Water for Life* strategy is implemented through a variety of initiatives or programs, including conservation, efficiency and productivity sector plans, as well as partnerships, such as Watershed Planning and Advisory Councils and Stewardship Groups.

Watershed Management Plans

Contain recommendations for protecting and managing watershed and riparian health.

> appendix 1

Wetland Management in the Settled Area of Alberta

This is an interim policy used to achieve the department's no net-loss strategy of wetlands on private and public land. The intent of the policy is to:

- conserve slough/marsh wetlands in a natural state
- mitigate degradation or loss of slough/marsh wetland benefits as near to the site of disturbance as possible
- enhance, restore or create slough/marsh wetlands in areas where wetlands have been depleted or degraded

Wetland Restoration/Compensation Guide: Revised Edition 2007 Alberta Environment

This guide has been written for government regulators, land developers, the public, wetland restoration agencies, and government departments whose mandates or activities affect wetlands. It explains how applications under the *Water Act* will be reviewed when loss of wetlands will occur. It also explains wetland compensation; a process to help reduce loss of wetland area by restoring drained or altered, naturally occurring wetlands. Alberta Environment's priority is to avoid having land development impact wetland area whenever possible. When this is not an option, Alberta Environment requires developers to explore how they can reduce impacts to the wetland area or, if this is not possible, how they can compensate for the disturbance. Compensation for the loss of naturally occurring wetlands will be required when an approval to impact a wetland is issued under the *Water Act*, and when the regulator has decided the most appropriate action is to restore a wetland. Wetland loss includes infilling, altering, or physically draining the wetland, any impact to the riparian area and buffer strips, and any type of interference with the hydrology to and from the wetland.

ALBERTA LEGISLATION, POLICIES AND PROGRAMS AFFECTING AGRICULTURE, OIL AND GAS, AND OTHER ACTIVITIES IN RIPARIAN AREAS

***Agriculture Operation Practices Act* Natural Resources Conservation Board**

The *Agricultural Operation Practices Act* (AOPA) and regulations include manure management requirements for all livestock operations in Alberta. Under AOPA, all livestock producers are expected to follow the setbacks required from common bodies of water when locating wintering sites and livestock corrals. This practice will help minimize the risk of contaminated runoff potentially affecting the water quality of common water bodies. The following key setbacks are in effect:

1. Manure storage sites must be located at least one metre above the 1-in-25 maximum flood level,
2. Wintering sites and livestock corrals must be located a minimum 30m from a water body unless mitigating management strategies are applied or there is a natural slope away from the water body,
3. Manure must be stored a minimum 100m from spring or well, unless groundwater is monitored.

Alberta Environmentally Sustainable Agriculture Alberta Agriculture and Rural Development

The goal of the AESA program is to encourage the agricultural industry to enhance efforts in environmental stewardship. It identifies and promotes practical, effective solutions for existing challenges and assesses emerging environmental issues. Through an extension component, AESA staff as well as municipalities, producer, aboriginal environmental groups and other agencies are linking researchers to the extension process and transferring new knowledge, information, tools and ideas to Alberta's farmers and ranchers.

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Environmental Farm Plan

Is an awareness tool that the AESA extension staff use to help producers identify their environmental risks. EFP takes a whole farm approach directing a producer to analyze their farming operation and develop a plan to mitigate the identified risk. EFP is now only available through trained extension staff mostly made up of AESA funded positions.

Alberta Tier 2 Soil and Groundwater Remediation Guidelines

Alberta Environment and Sustainable Resource Development

Alberta's framework for the management of contaminated sites is designed to achieve three policy outcomes: pollution prevention, health protection and productive use. Under this framework, three management options are provided: Tier 1, Tier 2, and Exposure Control. The Tier 1 approach is based on the assumption that all exposure pathways and receptors relevant to a particular land use are actually present. At Tier 1, exposure pathways that are part of the generic scenario for the applicable land use may not be screened out. Under Tier 2 it may be possible to screen out certain exposure pathways and/or modify the Tier 1 guidelines on the basis of site conditions.

Beneficial Management Practices: Environmental Manual for Alberta Farmsteads – Fuel Storage and Handling

Alberta Agriculture and Rural Development

At present, the Alberta Fire Code governs the storage and handling of petroleum products. Although Alberta producers are exempt from the Code, its standards are used as guidelines for producers to follow as beneficial management practices.

Environmental Code of Practice for Land Treatment of Soil Containing Hydrocarbons

Alberta Environment and Sustainable Resource Development

Made under the *Environmental Protection and Enhancement Act* RSA 2000, cE-12. Any person who constructs, operates, or reclaims a registered site, must do so in accordance with this Code of Practice, unless the site is the subject of an approval issued under s.6(3) of the *Activities Designation Regulation*.

Energy Resources Conservation Board Draft Directive February 10, 2009: Oil and Gas Development Within or Proximal to Water Bodies

Energy Resources Conservation Board

The Alberta Government aims to protect water bodies on both public and private lands and has established setback distances to separate water bodies from oil and gas developments. The goal is to avoid disturbance to water bodies and to ensure that the appropriate mitigative measures are in place to protect them when siting oil and gas developments.

The requirements set out in this directive have been jointly developed by the ERCB, Alberta Environment and Sustainable Resource Development (ESRD), and the Special Areas Board (SAB) of Alberta Municipal Affairs. They are designed to provide a consistent, field-applicable methodology that can be used to identify and delineate water bodies and to accurately determine whether a new oil and gas development will meet the water body setback requirements or whether an existing development is meeting the setback requirements.

> appendix 1

Forests Act

The Forests Act provides the legal framework for management of forests in Alberta. It defines the basic rules governing forest tenure and provides the Minister and Cabinet with the power to set policies and regulations governing logging methods, wood utilization standards, and broader issues concerning use of forest land.

Timber Management Regulation

Timber Management Regulation and policy are used to implement and administer the *Forests Act*.

Alberta Timber Harvest Planning and Operating Ground Rules are authorized under Section 5 of the *Forests Act* and Section 100 (b) of the *Timber Management Regulation*. The ground rules highlight the current standards and guidelines for timber harvest planning and operations, road construction and reclamation, reforestation and the integration of other forest users and values.

Pesticide Ministerial Regulation

Alberta Environment and Sustainable Resource Development

Pesticides are regulated under a specific regulation under the EPEA (*Pesticides Ministerial Regulation*) and the Environmental Code of Practice for Pesticides. Under the ministerial regulation, pesticide application within 30 metres of a water body requires a permit. The Environmental Code of Practice for Pesticides allows specific pesticides to be used within 30 metres of an open body of water provided specified conditions and practices are followed.

Snow Disposal Guidelines for the Province of Alberta

This guidance document was developed to assist urban centres and municipalities in developing snow removal methods which minimize potential environmental impacts. In Section 9 of the document, a minimum setback distance of 200 metres from any water body is considered required for snow disposal, and slopes greater than 15 degrees will require additional setback.

EXAMPLES OF ALBERTA MUNICIPAL POLICIES AND BYLAWS AFFECTING RIPARIAN AREAS

City of St. Albert

The City of St Albert has a 50 metre setback from the top of bank of Carrot Creek. There also are 50 per cent Municipal Reserve credits for protection of lands between the 1:25 year flood line and 1:100 year flood line provided other amenities (e.g., trail surfacing) are provided.

City of Brooks

The City of Brooks has variable setbacks from permanent water bodies that range from as little as 6 metres to more than 40 metres. The Municipal Development Plan identifies that sensitive and important water and landscape features and ecosystems will be identified and set aside for environmental protection. In the past, the City has protected many of its water bodies through the use of municipal reserve and environmental reserve dedication.

City of Calgary

Environmental Reserve Setback Guidelines

City of Calgary environmental reserve policy contains base setbacks up to 50 metres depending on stream order (size of stream) and which allows for adjustments according to slope, hydraulic connectivity, and vegetation cover.

City of Edmonton

Guidelines for Determining Environmental Reserve (ER) Dedication for Wetlands and Other Water Bodies

City of Edmonton guidelines recommend greatest extent of all environmental reserve components: floodplain, unstable lands, pollution prevention (fixed minimum width of 30 metres), and public access needs. See also: Background Report: Rationale for Guidelines for ER Dedication for Wetlands and other Water Bodies. City of Edmonton, Office of Natural Areas. 2006.

[appendix 1 <](#)

City of Lethbridge

The City of Lethbridge has adopted a River Valley Area Redevelopment Plan intended to provide direction to guide the development of the Oldman River Valley area within the City of Lethbridge. This plan establishes parameters within which various options may occur. Within this broad framework it is intended that the Plan will provide adequate protection for the river valley and its users. Protection of the river valley resource will be achieved through the development of land use control measures, land use bylaws and development guidelines.

City of Spruce Grove

The City will not permit development in areas which are unstable or within defined floodplains, unless it can be shown to the City's satisfaction that development would not be a significant risk.

Industrial Heartland Complementary Area Structure Plans – River Valley Setbacks

The Alberta Industrial Heartland Association has as its members Strathcona County, the City of Fort Saskatchewan, Sturgeon County and Lamont County. Complementary area structure plans are in place, which contain minimum 30 metres and 50 metres setbacks from the top-of-the-valley breaks along major river valleys. See also: Strathcona County, Sturgeon County.

Lac La Biche County

In 2007, Lac La Biche County adopted a riparian setback model called The Riparian Setback Matrix Model as a methodology for determining development setbacks. Aquality Environmental Consulting Ltd. created the model, which requires the services of a qualified professional and assessment of site specific factors to determine the appropriate setback required for a given site. The model was designed to consider four biophysical parameters: slope, bank height, groundwater influence, and vegetation type.

Lacombe County

The County shall, as a condition of subdivision approval, require an environmental reserve or environmental reserve easement of not less than 30 metres in width from the high water mark of water bodies and/or the top of bank of watercourses to the lot line. A greater setback may be required by the County based on the recommendations of a geotechnical study undertaken by a qualified professional. As a condition of development permit approval where there is no subdivision, a comparable setback of 30 metres (98 feet) shall be required from the high water mark of water bodies and/or the top of bank of watercourses to the building.

Leduc County

A riparian setback matrix model will be used to establish environmental reserves and/or conservation easements. The overall goal is to delineate and protect sensitive areas. The riparian setback matrix model is currently being applied as a pilot project for the Pigeon Lake and Wizard Lake Area Structure Plans.

> appendix 1

MD of Bighorn

The Municipal Development Plan for the MD of Bighorn contains 30 metre development setback to ensure protection of watercourses, water bodies and their banks. Applications can be made to the MD of Bighorn for relaxation of this setback. Any major development or subdivision that is located near a water course may require environmental assessment prior to consideration of the subdivision or development. In some instances, before subdivision or development of land is allowed, the MD of Bighorn may require that the proponent of the subdivision or development prepare an Area Structure Plan (ASP), at the expense of the proponent. The ASP will normally include direction to guide subdivision and development, including among other requirements, a groundwater impact assessment.

MD of Foothills

Proposed revisions to the Municipal Development Plan will support science-based setbacks. Applicants will be required to determine appropriate setbacks from water bodies by considering slope, vegetation and other factors.

Red Deer County Off the Creek Program

The purpose of the Off the Creek Program is to conserve or improve watershed health in Red Deer County, through support of on-the-ground projects impacting native range, riparian areas, surface water quality and shallow groundwater quality. Among other public and private benefits, healthy (that is, ecologically functional) watersheds can reduce flooding, erosion and runoff, stabilize banks and shorelines, provide fish and wildlife habitat, and diversify opportunities for landowners. The program is intended to be a cost-shared program. Landowners will be expected to contribute 25% to 50% of the project costs, either in cash or in-kind (labour, equipment, etc.).

Rocky View County

Bylaws include requirements for protection from hazards where land is situated adjacent to or includes the banks of any watercourse, and where the slope of the bank adjacent to any watercourse is in excess of 15 per cent. Development restrictions are in place for Bragg Creek and the Elbow River. In 2010 the County adopted policies for riparian and wetland conservation and management. The purpose of the riparian policy is to conserve and manage riparian lands in recognition of the important functions that riparian areas perform. The riparian policy includes the following statements:

1. The County will rely on science-based standards to develop setback requirements for riparian lands adjacent to watercourses and water bodies.
2. When approving development within its boundaries, the County will require applicants (developers, landowners and others) to consider and demonstrate plans for the maintenance and/or restoration of riparian lands adjacent to natural water courses and water bodies to a functional condition, and where possible, to an enhanced or improved condition.

Strathcona County

Strathcona County's Municipal Development Plan, Bylaw 1-2007 sets out a number of environmental management objectives, along with the following buffer requirements to protect lands and water resources adjacent to watercourses:

- The North Saskatchewan River, a minimum 50 metre buffer from the top of bank where no buildings or structures will be allowed, except under unique and appropriate circumstances;
- Old Man Creek and its tributaries, a minimum 36 metre buffer from the top of bank where no buildings or structures will be allowed, except under unique and appropriate circumstances as determined by the Approving Authority; and
- All other lakes, water bodies and watercourses, a minimum 30 metre buffer from the top of bank where no buildings or structures will be allowed, except under unique and appropriate circumstances. Top of bank is defined as the top of the valley crest.

Sturgeon County

Sturgeon County has a 30 metre setback from the valley crest. No permanent structures are permitted within the 1:100 year floodplain, excepting residential development that demonstrates the lands are suitable. No permanent structure will be permitted within the 1:100 year floodplain of the Manawan, Sandy, Gladu and Big Lakes.

In addition, Sturgeon County will require a 50 metres (164 ft) lot setback from the top of the bank of the North Saskatchewan and Sturgeon River Valleys to provide for an environmental buffer and recreation corridor. This should consist of 30 metres (98 ft) Environmental Reserve (ER) dedication as required by the MDP, with the balance of 20 metres (66 ft) taken as Environmental Reserve (ER), Municipal Reserve (MR) and / or conservation easement. The 30 metres (98 ft) generally commences from the 1:100 year flood line unless a discernable top of bank exists beyond this. The embankment is often a geotechnical constraint and therefore the 50 metres (164 ft) setback should generally commence beyond this. To enable the determination of top of bank setbacks, each industry proponent shall undertake a top of bank survey for the North Saskatchewan River and Sturgeon River as a condition of the development permit.

Town of Cochrane

The Town of Cochrane has land-use bylaws affecting development within flood risk areas and adjacent to river escarpments, steep slopes, top of bank, toe of slope, and wetlands. No development shall be permitted in riparian lands.

EXAMPLES OF RIPARIAN GUIDELINES FROM OTHER CANADIAN JURISDICTIONS

British Columbia *Riparian Areas Regulation*

Valuable riparian fish habitat is protected by the federal *Fisheries Act* and the provincial *Fish Protection Act* (including the *Riparian Areas Regulation*, and the *Water Act* and municipal bylaws). If a project is a residential, commercial or industrial activity within 30 metres of a watercourse, the *Riparian Areas Regulation* may affect the development. The regulation encourages responsible development. It helps conduct activities responsibly to avoid degrading valuable riparian fish habitat.

If the *Riparian Areas Regulation* applies to a development, the property is assessed by a Qualified Environmental Professional. The assessment will determine the Streamside Protection and Enhancement Area (SPEA) on the property, which represents the development setback to prevent degradation of fish habitat. Additional measures to maintain riparian fish habitat, such as sediment and erosion control, may be included in the assessment. SPEA vegetation must be left in, or allowed to return to, a natural, undisturbed state. Formal trails and landscaping may be restricted in SPEAs if they have the potential to damage vegetation and/or interfere with the ability of the riparian area to provide fish habitat.

> appendix 1

Carolinian Canada Draft Guide for Determination of Setbacks and Buffers

Setback is defined as the distance measured from a rear lot line or edge of developed area to an identifiable natural heritage feature. The width of the setback will be determined on a site specific basis and will take into account geotechnical assessments and hazards, an ecological buffer zone to protect features of the natural heritage system and other needs such as corridors and rights-of-way.

Buffer zone is an area within a setback that is required for the protection of natural heritage features and ecological functions. Key ecological functions may include, but are not limited to, acting as a filter to minimize impacts from adjacent land use, providing linkage as a wildlife corridor around or between habitats and contributing to habitat and species diversity.

Establishment and maintenance of buffer zones may involve natural successional processes or require planting of native vegetation. The width of the setback and the type of buffer required will depend on: 1) the function and features of the natural heritage feature and their sensitivity to disturbance; 2) site- specific topography, hydrology and soils; 3) existing and future land uses; and 4) the required land uses within the setback (e.g. site stability, ecological buffer, rights-of-way

and access). Because of great differences in site specific requirements for setbacks and buffers, a standardized approach for determining setback distance is not recommended. Rather setbacks should be determined based on minimum distances required for buffers to protect ecological features and functions plus other considerations. The width of the buffer will depend on the type and sensitivity of the feature. In general, the wider the buffer, the more protection it provides. Best available information suggests the following minimum buffer widths are appropriate, and necessary to provide protection for natural features and maintain ecological function.

Wildlife habitat: 100 metres. Woodlands: 10 metres beyond the drip line of trees (protects the rooting zone). Wetlands: 30 metres for water quality benefits. Ratio of 3:1 of upland to wetland habitat area for protection of small wetlands. Watercourses: 30 metres from the high water mark (50 metres + 0.5 metres per 1 per cent of slope for cold water streams). Corridors: 100 metres (urban) and 200 metres (rural). Buffer widths may be increased depending on the expected impacts from the development and the sensitivity of the features and functions being buffered.

Cataraqui Region Conservation Authority, Ontario

The Cataraqui Region Conservation Authority recognizes that buffers adjacent to water bodies provide numerous conservation benefits which can include the following:

- restoring and maintaining the chemical, physical and biological integrity of the water resources;
- removing pollutants delivered in urban stormwater;
- reducing erosion and controlling sedimentation;
- stabilizing stream banks;
- providing infiltration of runoff;
- maintaining the base flow of streams;
- contributing the organic matter that is a source of food and energy for the aquatic ecosystem;
- providing tree canopy that shades streams and promotes desirable aquatic organisms;
- providing riparian wildlife habitat;
- maintaining critical floodplain setbacks; and
- furnishing scenic value and recreational opportunities.

General buffer plan requirements include, subject to review by CRCA staff, a riparian buffer plan to be prepared by a qualified environmental professional or Landscape Architect. Each riparian buffer plan shall contain the following information:

- a location or vicinity key map;
- a map showing: field-delineated and surveyed streams, springs, seeps, waterbodies, and wetlands (include a minimum of 60m into adjacent properties);
- a map showing field-delineated and surveyed forest outline, taken at the drip line of the trees;
- a map showing the limits of the regulatory (1:100 year) floodplain, where it has been identified;
- a map showing slopes greater than 15 percent for areas adjacent to and within 60 metres of a water body;
- a narrative of the species and distribution of existing vegetation within the buffer.

Buffer Width Guidelines

The buffer shall begin at the normal water's edge of a lake or reservoir, and at edge of the bank of an active stream channel. The buffer width shall be increased as necessary to include contiguous sensitive areas, such as wetlands, floodplains, steep slopes or erodible soils. The minimum width for all buffers (i.e., the base width) is 30 metres. The buffer width shall be extended beyond 30 metres based upon:

- stream order – in third order and higher order streams, add 8 metres to the base width;
- percent slope;
- the regulatory (1:100 year) floodplain – the entire floodplain should be included in the buffer; and
- wetlands or other critical aquatic, riparian, and terrestrial habitat areas – the buffer shall be measured from the edge of the habitat.

A complete copy of the Cataraqui Region Conservation Authority riparian buffer guidelines can be obtained at the following link: www.cataraquiregion.on.ca/management/Buffer_Guidelines.pdf

City of Hamilton 2005 Official Plan Review Discussion Paper #7: Buffers

This paper has been prepared for the purpose of public and agency consultation as part of preparing the City of Hamilton's new Official Plan. This is one of a series of discussion papers dealing with natural heritage policies in Hamilton. The contents of this paper are meant to promote dialogue and should not be construed as policy or the position of the City at this time.

> appendix 1

ADDITIONAL SOURCES OF INFORMATION

Alberta's Wetlands: A Law and Policy Guide

Kwasniak, A. 2001. Environmental Law Centre and Ducks Unlimited Canada for the North American Waterfowl Management Plan. Edmonton, Alberta.

Caring for the Green Zone: Riparian Areas and Grazing Management – Third Edition

Alberta Riparian Habitat Management Society (Cows and Fish)

Caring for Shoreline Properties: Changing the Way We Look at Owning Lakefront Property in Alberta (Booklet)

Alberta Conservation Association

Classification of Natural Ponds and Lakes in the Glaciated Prairie Region

1971. Bureau of Sport Fisheries and Wildlife, Washington, USA R. E. Stewart and H. A. Kantrud

Creative Approaches to Subdivision Development in the Bow River Basin: A Guide for Municipalities, Developers and Landowners

Bow River Project

Field Manual on Buffer Design for the Canadian Prairies

2010. Stewart, A., Reedyk, S., Franz, B. Fomradas, K., C. Hilliard and S. Hall. Agri-Environment Services Branch, Agriculture and AgriFood Canada.

Guide to Naturalizing a Lakefront Shoreline

2010. Wabamun Watershed Management Council.

Guidelines for Lakeshore Use (Brochure)

Alberta Sustainable Resource Development

Green Zones: Riparian Areas and Wetlands

(Contains Beneficial Management Practices for maintenance of healthy riparian areas) in: Milk River State of the Watershed Report 2008. Milk River Watershed Council Canada. Milk River, Alberta.

Lake Stewardship Reference Guide

Association of Summer Villages of Alberta. 2006.

Municipal Guide: Planning for a Healthy and Sustainable North Saskatchewan River Watershed

2008. Prepared for North Saskatchewan Watershed Alliance by G. Beaudry.

Riparian Areas: A User's Guide to Health (Booklet)

Alberta Riparian Habitat Management Society (Cows and Fish)

The Active River Area: A Conservation Framework for Protecting Rivers and Streams

Smith, M.P., Schiff, R. Olivera, A. and MacBroom, J.G. 2008. The Nature Conservancy, Boston, MA.

The Shore Primer, Prairies Edition: A Cottage Owner's Guide to a Healthy Waterfront

Department of Fisheries and Oceans and Cottage Life.

Tools to Help Restore Ecological Processes in Alberta's Built Environments

Primeau, S., Bell, M., Riopel, M., Ewaschuk, E. and Doell, D. 2009. Land Stewardship Centre of Canada. Edmonton, AB.

Wetlands on My Lands

Ducks Unlimited Canada. Case Studies

CASE STUDIES

A Fish-based Index of Biological Integrity for Assessing River Condition in Central Alberta

A multi-metric, fish-based Index of Biological Integrity (IBI) was developed for assessing the health of aquatic ecosystems in central Alberta. Data on fish assemblages collected via electro-fishing by the Alberta Conservation Association were combined with reach and basin-scale environmental variables for 80 river sites on the Battle River. Twelve candidate metrics representing attributes of the Battle River fish assemblage were screened for redundancy, as well as their sensitivity to human disturbance variables, using statistical methods. Three metrics were selected for the IBI representing two trophic guilds (i.e., percent carnivores and percent omnivores) and one measure of community structure (i.e., species richness) that were unrelated to river size but related to measures of human disturbance.

The multi-metric IBI was highly sensitive to changes in cumulative anthropogenic disturbances (statistically indexed as road densities). Statistical analysis indicated that cumulative disturbances associated with road densities as low as 7 metres/ha (i.e., 0.7 km/km²) in basins may impair the integrity of fish assemblages. The Battle River IBI provides a single, defensible, easily understood measure of the health of watercourses in the prairie parkland ecoregion. With the aid of a simple spreadsheet, land managers and researchers can quickly calculate an IBI score using fish data collected from a river section.

Additional research on ecological functions and requirements of species in northern systems is recommended to strengthen the basic foundation of guild based bioassessment methods in Alberta. For a digital copy of the full report, visit the Alberta Conservation Association website at: www.ab-conservation.com.

Economic Impacts of Buffers

Although riparian forest buffers are frequently seen as a loss by developers and property owners, studies have shown that the preservation of these buffers increases the value of property. A national survey was conducted in 1992 by the Metropolitan Washington Council of Governments to determine the financial impact of existing riparian buffer programs. Twenty-nine of the thirty-one respondents indicated that existing buffers had a positive or neutral effect on the value of adjacent property. The remaining two respondents indicated that they were unsure of the effect that buffers had on adjacent property values.

Builders, real estate agents, and homeowners have acknowledged the financial advantage of having forests and trees near home sites. A survey of builders by the National Association of Home Builders found that home buyers are willing to pay more for lots with trees. The survey results showed that 43 per cent of home buyers paid up to \$3,000 more for homes on wooded lots, 30 per cent paid between \$3,000 and \$5,000 more, and 27 per cent spent over \$5,000 more for wooded lots – with 8 per cent of that group spending an additional \$10,000. In a 1994 Bank of America Mortgage survey, 50 per cent of 1,350 real estate agents surveyed believed that trees had a positive impact on potential buyers' impression of a home and its neighborhood and 84 per cent felt that a home on a treed lot would be as much as 20 per cent more sellable than a similar, treeless home.

Riparian forest buffers may decrease the public's investment needs in management and waterway restoration and protection. For example, Fairfax County, Virginia reduced its costs by \$57 million by protecting riparian forest areas and buffers. Citizens in Johnson County, Kansas voted to spend \$600,000 to create a stream way park system, as opposed to \$1.2 million on control projects. Also, New York City opted to spend \$1.5 billion to protect 80,000 acres of its upstate watershed to avoid the need to build an \$8 billion water filtration plant that would need an additional \$300 million annually to operate.

> appendix 1

The preservation of riparian forest buffers can also have additional economic value to landowners. For example, on a typical subdivision construction site, the average cost for clearing a forest is \$4,000 per acre and sediment control is \$800 per acre. However, by conserving some forest, developers will reduce sediment loss from the site and reduce the time and labor needed for regrading, stabilizing, and re-landscaping the site.

Real world examples also exist to demonstrate the high cost of restoring degraded waterways. In response to public demands, Montgomery County, Maryland is spending \$20,000-\$50,000 per household lot in some areas to repair damaged streams and riparian forests. Also, Fairfax County, Virginia has passed a local bond issue to supply the needed \$1.5 million to restore two miles of stream and riparian areas that were degraded.

Source: Final Report of the Statewide Task Force on Riparian Forest Buffers, University of South Carolina. 2000.

ONLINE RESOURCES**Alberta Amphibian Monitoring Program**

www.srd.alberta.ca/FishWildlife/WildlifeManagement/AmphibianMonitoring/AlbertaVolunteerAmphibianMonitoringProgram.aspx

Alberta Conservation Association

www.ab-conservation.com/go/default/index.cfm

Alberta Environment and Sustainable Resource Development*Fish and Wildlife*

www.srd.alberta.ca/fishwildlife/default.aspx

Flood Hazard Mapping

www.environment.alberta.ca/01655.html

Lakeshores

www.srd.alberta.ca/LandsForests/Shorelands/Lakeshores/Default.aspx

Municipal Planning Referrals

www.srd.alberta.ca/LandsForests/landmanagement/MunicipalPlanningReferrals.aspx

Water for Life Program

www.waterforlife.alberta.ca

Water Information Centre

www.environment.alberta.ca/0958.html

Respect our Lakes

www.environment.alberta.ca/03036.html

Alberta Lake Management Society (ALMS)

www.alms.ca

Alberta Low Impact Development Partnership

www.alidp.org

Alberta Native Plant Council

www.anpc.ab.ca/content/index.php

Alberta Riparian Habitat Management Society (Cows and Fish)

www.cowsandfish.org

Alberta Stewardship Network

www.ab.stewardshipcanada.ca

Association of Summer Villages of Alberta

www.albertasummervillages.org/

Canadian Council of Ministers of the Environment: Water Quality Guidelines

www.ccme.ca/ourwork/water.html

Ducks Unlimited Canada

www.ducks.ca

Fisheries and Oceans Canada

www.dfo-mpo.gc.ca/index-eng.htm

Healthy Shorelines

www.healthyshorelines.com/why.html

Healthy Shorelines**(Federation of Alberta Naturalists)**

www.healthyalberta.ca/alberta-natural-history/living-by-water/workshop-in-a-box/healthy-shorelines

Land Stewardship Centre of Canada

www.landstewardship.org

Trout Unlimited Canada

www.tucanada.org

Don't forget your own municipality or county administration and watershed groups active in your area. These organizations and individuals will be able to provide a wealth of knowledge, or point you in the right direction for finding more information.



Appendix 2

CONTAMINANT REMOVAL RESULTS FOR NITRATE, PHOSPHORUS AND SEDIMENT

Appendix 2

Contaminant Removal Results for Nitrate, Phosphorus and Sediment

Reference	Width (m)	Vegetation Type	Flow Path	% Reduction
Nitrate				
Dillaha et al 1989	9.1	Grass	Surface	73
Jacobs and Gilliam 1985	<16	Forest	Subsurface	90 +
Jordan et al 1993	25	Forest	Subsurface	50
	35	Forest	Subsurface	90
Haycock and Pinay 1993	5	Poplar	Subsurface	99
	5	Grass	Subsurface	84
Hill ¹⁸ 1996	5-55 130	Various Forest	Mainly shallow lateral Shallow lateral	High (variable) 100
Hubbard and Lowrance 1996	7-12	Forest	Subsurface	Most
Jordan et al 1993	25-30	Forest	Subsurface	90
Mander et al 1997	20	Forest	Overland and subsurface	81
	28	Forest	Overland and subsurface	80
Mayer et al 2007	26-50	Various	Various	90
Lowrance 1992	10	Forest	Subsurface	95
Osborne and Kovacic 1993	16	Forest	Subsurface	90
	39	Grass	Subsurface	90
Peterjohn & Correll 1984	19	Forest	Surface	79
	19	Forest	Subsurface	90
	50	Forest	Subsurface	98
Vidon and Hill 2006	20	Forest	Subsurface (loamy sand)	90
	40 +	Forest	Subsurface (sand/gravel)	90
Phosphorus (Total)				
Dillaha et al 1989	9	Grass	Surface	79
	5	Grass	Surface	61
Wenger ¹⁹ 1999	9	Grass	Surface	46
	5	Grass	Surface	18
Sediment				
Gharabagi et al. 2006	5	Grass	Surface	95 ²⁰
Liu et al 2008	10	Grass	Surface	85-95

¹⁸ The author presents the effects of riparian zones on the nitrate-nitrogen removal from several studies worldwide.

¹⁹ A review of more than 140 articles and books for determining riparian buffer width, extent and vegetation.

²⁰ Sediment capture limited to particles > 40 µm in diameter.

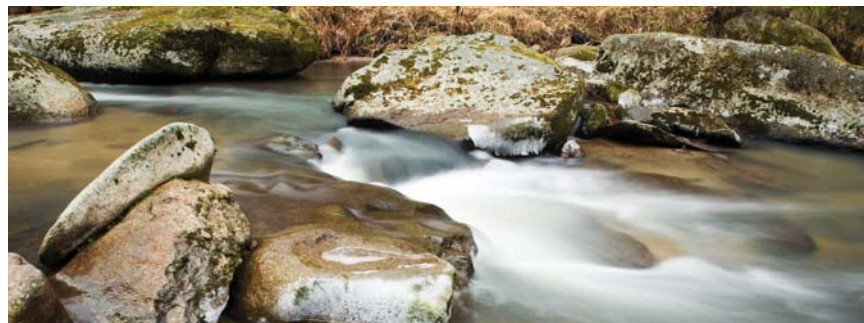
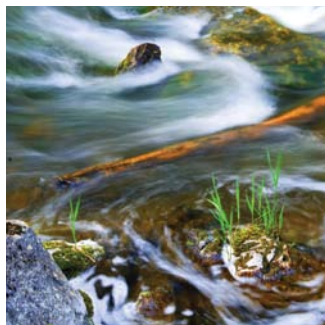


Appendix 3

Corridor Widths for Conservation of Wildlife Habitat in Alberta Lakes, Rivers, Streams and Wetlands

Species of Interest	Width (m)	References
Foraging and loafing water birds	100	Rodgers and Smith 1997
Raptors	400-150	Richardson and Miller 1997
Amphibians and reptiles	177-340	Semlitsch and Bodie 2003
Amphibians, small mammals and songbirds	100-200	Hannon et al 2002
Small mammals	60-100	Lehmkuhl et al 2008
Winter habitat for ungulates in large river valleys	400 m from water body or top of valley break + 100	Alberta Energy Resources Conservation Board





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