

# Red Deer River MUNICIPAL USERS GROUP

## REGULAR MEETING PACKAGE COVER PAGE

**March 17, 2016,  
1:00pm**

**BADLANDS COMMUNITY FACILITY**  
80 Veterans Way, Drumheller

- |                                                     |              |
|-----------------------------------------------------|--------------|
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| 2. Agenda                                           | Page 2       |
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| 5. Water Quality Action Plan Key Goals and Outcomes | Page 15 - 29 |

Planned presentations re: Alberta Drinking Water Safety Plan and a “Sneak Peak” on the Red Deer River Basin Integrated Watershed Management Plan. (Presenters to be confirmed)

(If you are unable to attend please remember an alternate or another member of your Council is most welcome)

NOTE: Please bring your meeting package with you. There will be a limited number for pick up at the meeting.

### WEB SITE MEMBERS AREA

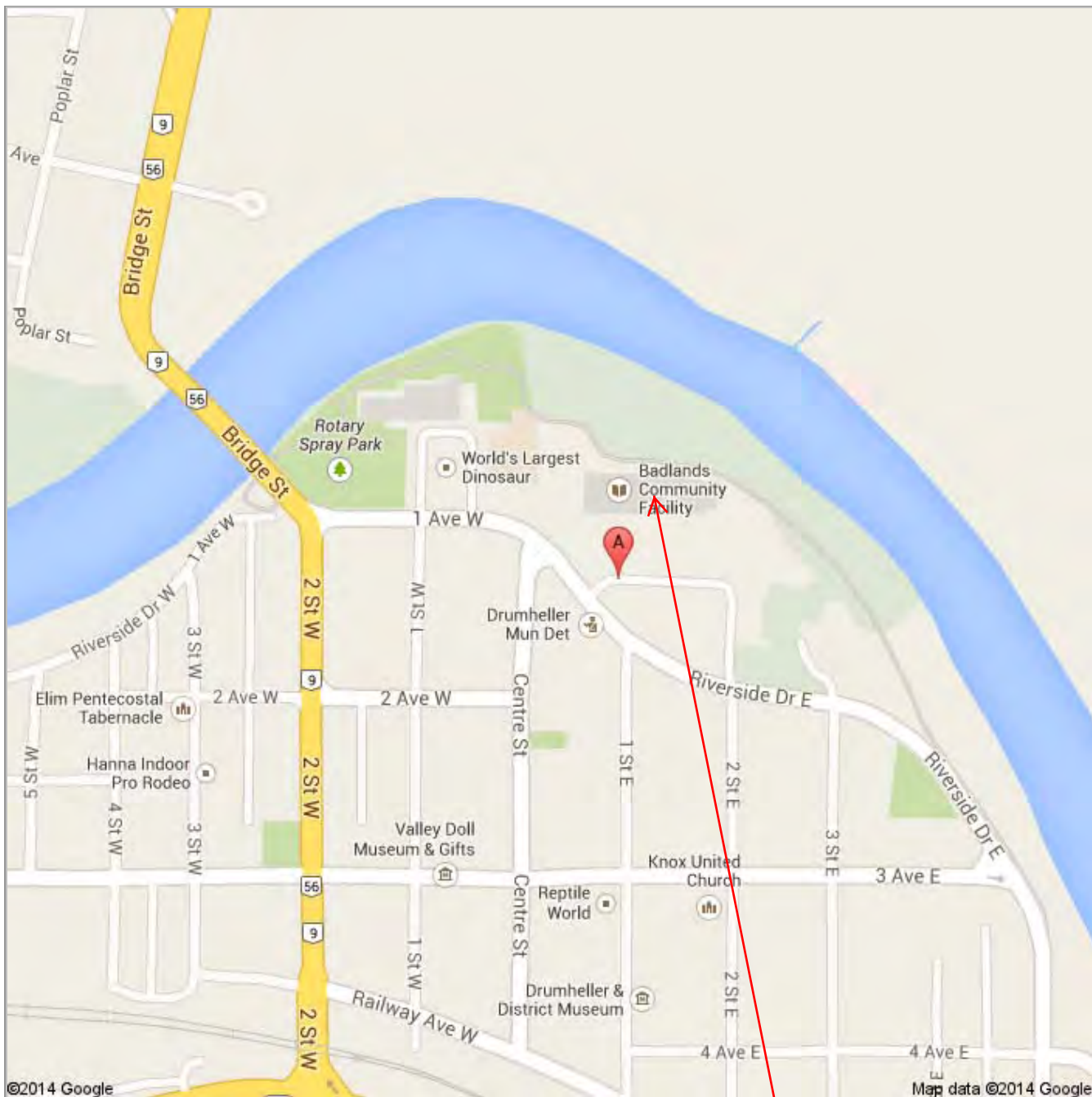
USER NAME: rdrmug  
PASSWORD: **rdriver2012**



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Address **Veterans Way**  
**Drumheller, AB T0J**



**80 VETERANS WAY**  
**RDRMUG MEETING LOCATION**

**1. 1:00pm Call to Order – Welcome - Introductions**

**2. Agenda:**

- 2.1. Additions
- 2.2. Approval of Agenda

**3. Confirmation of Minutes:**

- 3.1. Confirmation of minutes of the Regular Meeting: January 21, 2016 (Draft Copy Attached)
- 3.2. Business arising from minutes of Regular Meeting: January 21, 2016
  - 3.2.1. Update on Flood Mitigation (recent GOA Announcements/Actions and recent meetings)

**4. Financial:**

- 4.1. Financial Statements to February 29, 2016 (Attached)

**NEW BUSINESS:**

**PRESENTATION(S)**

- 5. Drinking Water Safety Plan (Alberta Environment and Parks)
- 6. IWMP Phase One Update (RDRWA)

**7. RDRMUG Water Quality Action Plan:**

- 7.1. Review/update from Rene Michalak, Project Lead Coordinator
- 7.2. Review Key Goals and Outcomes
- 7.3. Discussion of implementation scenarios

**8. Executive Director Report:**

- 8.1. Review Hart Water Management Report
- 8.2. Upcoming Events:
  - 8.2.1. Canadian Water Resources Association Alberta Conference: April 3 – 5, 2016, Edmonton ([Click Here](#) for Information)
  - 8.2.2. Earth Day CANADA, April 22, 2016 ([Click Here](#) for ideas on how your community can participate)
  - 8.2.3. RDRWA “Respecting our Rivers: Headwater Tour, June 23, 2016 ([Click Here](#) for Information)

**9. Municipal Project Review:** *An opportunity for all representatives to share their current and future water/waste water projects in an open round table format. (If a member has a report that they wish to have included in the minutes we would ask for a written copy).*

**10. Correspondence and Handouts**

**11. Next Meeting:** (to be discussed: RDRWA has an IWMP event booked for May 17, 18 and 19<sup>th</sup> – recommend rescheduling RDRMUG Meeting to May 12, 2016 or ??)

**12. Adjournment**

**Minutes of the Red Deer River Municipal User Group Regular Meeting held on January 21, 2016 at 1:00 PM, Badlands Community Facility, Drumheller, Alberta**

**Attendance:**

Mark Garneau - Town of Trochu, Ross Rawlusyk - Starland County, Chris Lust - Town of Sylvan Lake, Lucy Ann Banbert - Village of Acme, Curt Maki - Clearwater County, Ron Howe – Town of Three Hills, Ray Reckseidler - Village of Delburne, Tanya Meston - Village of Alix, Gordon Christensen - Village of Alix, Dave Brand - Town of Sylvan Lake, Josee Methot – RDRWA, Jeff Hanger – RDRWA, Leo Lazzari - Town of Oyen, Dianne Wyntjes - City of Red Deer, Tim Ainscough - City of Red Deer, Tom Marstaller - City of Red Deer, Bill Shaw - City of Red Deer, Robb Stuart - South Red Deer Wastewater Commission, Dave McPhee - Town of Ponoka, Brian Larson - Ducks Unlimited, Murray Holroyd - Town of Bashaw, Gerald Campion - Town of Hanna Kim Neill - Town of Hanna, Rick Poole - Town of Blackfalds, Myron Thompson - Town of Sundre, Terry Leslie – Town of Sundre, Bruce Beattie - Mountainview County, Lorelee Grattidge - Mountainview County, Harvey Walsh - Town of Olds, Jeff Cosens - County of Paintearth, Brian Bolduc – Drumheller, Ray Romanetz – Town of Drumheller, Terry Yemen – Town of Drumheller, Blayne West - Lacombe County, Steve Christie - City of Lacombe, Patt Churchill - Town of Innisfail, Travis Ryan - Town of Castor, Dave Grover – County of Stettler, Al Campbell – Town of Stettler, Ken Lewis - Red Deer County, Christine Campbell - ALUS Canada

**1.0 CALL TO ORDER**

Executive Member A. Campbell called the meeting to order at 12:30pm. Co-Chair P. Churchill took over the chair at 1:00pm.

**2.0 APPROVAL OF AGENDA**

**MOTION:** D. Wyntjes moved that the agenda for the January 21, 2016 Red Deer River Municipal Users Group be approved as presented. CARRIED

**3.0 CONFIRMATION OF MINUTES**

**MOTION:** R. Poole moved that the minutes of the December 3, 2015 Red Deer River Municipal Users Group regular meeting be approved as presented. CARRIED

3.1 There was no business arising from the minutes of December 3, 2015.

**4.0 FINANCIAL REPORTS TO DECEMBER 31, 2015**

4.1 Balance Statement

4.2 Statement of Revenue and Expenses

4.3 Accounting Notes

**MOTION:** To accept the financial reports for information by R. Reckseidler. CARRIED

**5.0 MUNICIPAL WATER QUALITY PROTECTION PLAN**

**MOTION:** T. Yemen moved to accept the draft Municipal Water Quality Protection Plan summary of key goals and outcomes for information. CARRIED

## 6.0 MUNICIPAL WATER QUALITY PROTECTION PLAN CONSULTATION

R. Michalak, RDRMUG Lead Project Coordinator and J. Methot, RDRWA conducted the second group consultation. Details attached.

<b>1) Welcome and Introductions</b>
Overview of agenda and progress report on the Municipal Water Quality Protection Action Plan  <i>Comments:</i> A-Okay, OK, will the Land Use Framework proceed? (re: Integrated Resource Management Framework)
<b>2) Background / Progress Update - Water Quality Protection Action Plan (RDRMUG)</b>
<i>Comments:</i> <ul style="list-style-type: none"><li>- I have a much better idea of the plan - I look forward to seeing it!</li><li>- I think the action plan will be a great basis from which the municipalities can work from (same song sheet)</li><li>- Source Water Protection – many resources AB Wetlands already have</li><li>- Very good presentation on our water quality action plan</li><li>- How are ground water wells protected from adverse affects of fracking related to oil and gas exploration and development?</li><li>- How are new council members updated to the value of the RDRMUG after an election? (i.e., how membership benefits the community)</li><li>- Deliverable Outcomes 5 – source water protection, Environmental Master Plan, next steps to Government of Alberta / Minister, Public Hearing Process and Crown Reservation Application</li><li>- Would be interested in more information on “Room for the River” idea / concept / approach</li><li>- Are the three goals of the Water For Life Strategy the goals of the Action Plan? It’s not clear.</li><li>- Need to check on the status of Land Use Planning Framework – regional plans</li></ul>
<b>3) Update on the Integrated Watershed Management Plan (RDRWA)</b>
<i>Comments:</i> <ul style="list-style-type: none"><li>- Clear that IWMP is everyone’s responsibility to implement – good job!</li><li>- good overview and excited to see how the IWMP will provide us with ideas for implementation</li><li>- please look for opportunities to share 3D modeling with SLMC group – might be useful for all municipalities around the lake – contact Keith Stephenson at Lacombe County (Councillor and Chair of SLMC)</li><li>- I would like to see more water testing on both the water and the watershed (e.g. Red Deer River)</li><li>- Good update, Josee!</li><li>- As a senior water operator for a small town this is the first time I’ve heard some of this information, how do we get informed if this is not passed down the line to operators?</li></ul>
<b>4) Presentation from ALUS Canada and participating municipalities</b>
<i>Comments:</i> <ul style="list-style-type: none"><li>- unfortunate that ALUS presentation focused on the lands that are wetland and habitat as “not good</li></ul>

farmland”. I would have thought that ALUS would show that these lands are important from an ecological standpoint (missed learning opportunity)

- great examples of on the ground projects - water quality data missing - good quantitative data but what does this really mean? Indicators should show change that is impacted (e.g., # of cows affected)
- I think it is a great idea but the funding from Loudlaws Corp may not be stable for next 20 - 30 years
- increased projects seem to indicate that this program is growing in all counties
- not available to towns or villages
- advice on how to evaluate effectiveness of a program not just the need to tick the box and do an “on the ground project”. I am not discounting projects such as ALUS but we need to choose how to evaluate our programming properly to achieve our desired outcomes
- Conservation will boil down to the private landowner; should we actually have to pay people to do the right thing... I guess that’s our society.

### **5) Interactive discussion - review proposed goals, outcomes, key actions of MWQPAP**

#### *Comments:*

- Diagram 2 is better (circles embedded) – much more intuitive
- I like the “Intro > Dip > Dive” approach but how do you know when to engage in each? Could you base this in a diagram of triggers and indicators? A trigger is when you reach a particular limit or indicator to tell you that you need a particular action (See SLMC as an idea of management strategies)
- Outcome 1 Intro - “Get water (DWSP) onto the agenda of municipalities”, “Support, listen to watershed stewardship groups”
- Outcome 1 – yes, understanding but an important component of that is gaining commitment
- Outcome 1 Dive – dovetail with education programs of others; but perhaps also municipalities need to hold workshops for residents, farmers, industry, etc. working together with other groups / associations to do this – e.g., Cattleman’s Association, etc.
- Outcome 2 scale is not clear; e.g., source water for Delburne, Eckville is “x” km around their wells; source water for Red Deer is the entire watershed upstream from the City; source water for Hanna is the entire watershed upstream of the Henry Kroeger Regional Line, etc. – how will you address this?
- Outcome 2 – needs to be clear how the Action Plan works with the RDRWA IWMP
- Outcome 2 Dip – are you going to address key components of a source water protection plan?
- Outcome 2 Dive – agree that wetland component is important but what about riparian – are there other programs and/or legislation to conserve and/or restore?
- Outcome 2 – Case studies – I ran across a supremely good one two months ago; I will try to find again and some others you can refer to
- Outcome 2 Dip – “Maintain wetlands and riparian areas”
- Outcome 2 Dive – “Is there a process to share water quality testing data from municipal staff with Municipality / Council?”
- Outcome 3 – Intro – built environments primarily means urban centres and industrial sites; by far the greatest portion of the watershed is farmland and forests; the introduction and Dip / Dive need to reflect this
- Outcome 3 – Dip – stakeholders include farm communities, local watershed groups, forest operation companies, key industries, etc.
- Outcome 3 Intro – “Research groups and support where necessary (WSG) support groups and people
  - are there or one or two easy actions across all outcomes that can be put into the Intro of each?



- Outcome 3 Dive – “Make mention of ALUS”
- Outcome 4 – many of the Dip and Dive statements are not reflected in the section title (Stormwater / Rainwater Management) – needs a broader title; e.g., wastewater is important (point source impacts)
- Outcome 4 – is not rainwater management a subset of Low Impact Development?
- Outcome 5 – “institutionalized” seems like a negative connotation; what about – Water and Watershed Conservation – a vital component in the ‘DNA’ of Municipal Culture?
- Outcome 5 – Dive – much broader and more detailed key actions – e.g., Environmental Master Plan; Open Space Plan; clean-up action plans; site restoration plans, farm environmental plans, municipalities working with forest operators to have demonstration ‘forests’ (operations, conservation, re-growth); the same with West Country oil companies re: access roads and pipelines)
- Outcome 5 Dip – “Standing agenda item on water – even more important on regional systems because operators may not be near the municipality”
- Outcome 5 Dip – “Not sure what annual presentation by RDRWA means; maybe through RDRMUG / partner events?”
- Outcome 5 Dive – “Mention of how to have input into Provincial level from a MUG level”
- Outcome 5 – Sustainability of implementation
- Yes, I would be in favor of the municipalities doing the sampling with the Government agencies or Health Services doing the testing, most municipalities already have stormwater and rainwater management and treating programs
- Outcome 5 – “What would a standing agenda item for council look like?”
- on our water safety plan we feel that maybe this should fall on the shoulders of local water commissions, more so than on the municipality (e.g., HKRWSC)
- this needs to be bought into by municipalities and to get that they need to understand the value of the programs
- name suggestion for the Plan, “Know Water” - have this somehow in the title
- try to reduce the acronyms – it is difficult enough to understand the content without having to translate the acronyms; in the final document have a glossary of terms and short description of the documents referenced
- I agree with the need to include advocacy role of the actions
- have a print version that is short – direct people to the long version on a website
- use plain language so an average person understands the basic concepts (use diagrams / images to explain concepts and action items)
- Include a table of where municipal water comes from for each community

**6) Q&A and any additional items**

*General Feedback / Final Thoughts:*

- key orgs need full names as well as acronyms



## **7.0 Agenda Additions**

### **7.1 Flood Mitigation:**

Councillor Myron Thompson – Town of Sundre and Mayor Terry Yemen – Town of Drumheller provided an update in relation to flood mitigation issues within the Red Deer River Basin. The membership agreed that the matter is of urgent importance and the Province needs to move forward on flood mitigation projects and priorities and that the RDRMUG will collectively work together to ensure that the members' needs are articulated to the Province.

Executive Director will follow up to ensure that necessary information is coordinated and documented to provide RDRMUG's concerns and suggestions.

## **10.0 Correspondence & Articles:**

1) *Handouts at the meeting*

**11.0 Next Scheduled Meeting Date:** Thursday, March 17, 2016

**13.0 Adjournment :** 4:30pm

**Red Deer River Municipal User Group Association**  
**224 Centre Street**  
**Drumheller, Alberta T0J 0Y4**

**Balance Sheet (un-audited)**  
**For The Month Ended February 2016**

<b>Assets</b>			
<b>Current Assets</b>			
Cash on Hand	-		
Bank - General	-		
Bank - Investments	-		
Bank - Chinook	81,972.79		
Prepaid Expenses	-		
Accounts Receivable	65,833.00		
Accrued Revenue	-		
GST Clearing	2,728.05		
GST Recoverable	190.00		
	150,723.84		150,723.84
 <b>Capital Assets</b>			
Furniture and Fixtures	-		
Equipment	-		
Tools and Software	-		
	-		-
<b>Total Assets</b>		150,723.84	
 <b>Liabilities and Equity</b>			
<b>Current Liabilities</b>			
Accounts Payable	-		
Accrued Liabilities	4,500.00		
Deferred Memberships	54,474.79		
Reserves	-		
	58,974.79		58,974.79
 <b>Surplus</b>			
Opening Surplus	89,234.20		
Surplus (Loss) for Year	2,514.85		
Closing Surplus	91,749.05		91,749.05
<b>Total Liabilities and Surplus</b>		150,723.84	

**Red Deer River Municipal User Group Association**  
**224 Centre Street**  
**Drumheller, Alberta T0J 0Y4**

**Statement of Revenue and Expense (un-audited)**  
**For The Month Ended February 2016**

	Budget	Actual	Variance
<b>Revenue</b>			
Municipal Membership	64,000	10,894.96	(53,105.04)
Interest Earned	1,000	105.89	(894.11)
	65,000.00	11,000.85	(53,999.15)
<b>Expenses</b>			
<b>Administration</b>			
Contract Services (includes per diems)	42,500	2,665.00	(39,835.00)
Meeting Expense	2,400	-	(2,400.00)
Bank Charges	100	-	(100.00)
Town of Drumheller	4,800	-	(4,800.00)
Memberships/subscriptions	200	-	(200.00)
Office Supplies	600	-	(600.00)
Conference, Meetings	1,000	-	(1,000.00)
Travel Expense (Staff)	2,500	-	(2,500.00)
Web Site Maintenance	1,000	-	(1,000.00)
Miscellaneous	500	-	(500.00)
Accounting/Legal		-	-
GST Expense		-	-
<b>Members Expenses</b>			
Per Diems (Members)	1,000	-	(1,000.00)
Travel (Members)	1,000	-	(1,000.00)
<b>Projects</b>			
Special Projects	5,000	-	(5,000.00)
Consulting/Professional	5,000	-	(5,000.00)
Pamphlets and Written	1,000	-	(1,000.00)
Miscellaneous		-	-
<b>RDRMUG Water Quality Water Protection Plan</b>			
Contract Staff	46,125	5,125.00	(41,000.00)
Travel	3,000	6.00	(2,994.00)
Facility/Office Rental	1,200	690.00	(510.00)
Printing, mailing, etc.	3,000	-	(3,000.00)
Miscellaneous	600	-	(600.00)
	122,525.00	8,486.00	(114,039.00)
<b>Surplus (Loss) for Year</b>	(57,525.00)	2,514.85	60,039.85

**Red Deer River Municipal User Group Association**  
**224 Centre Street**  
**Drumheller, Alberta T0J 0Y4**

**103 Bank - Investments**

Surplus funds are held in the general account which earns daily interest at a rate of prime less 2%. The banking agreement has a minimum of \$100,000 for short term investments.

**122 Prepaid Expenses**

**125 Accounts Receivable**

Feb 2016 65,833.00 Requisitions outstanding from the membership  
65,833.00

**127 GST Clearing**

On September 8, 2006 the Group was approved as a non-registered municipality and is able to claim 100% rebate on any GST paid. This is retroactive to the date the Group was formed to a maximum of 4 years. Claims filed on 31-Dec-07 are for the periods ending:

	100%	Received	Balance	
31-Dec-05	315.00		315.00	Disallowed: do not qualify as a municipality as def
30-Jun-06	206.38		206.38	Disallowed: do not qualify as a municipality as def
31-Dec-06	1,344.63		1,344.63	Disallowed: do not qualify as a municipality as def
30-Jun-07	985.40		985.40	Disallowed: do not qualify as a municipality as def
31-Dec-07	1,482.93		1,482.93	
31-Dec-08	5,618.82	2809.41	2,809.41	Received 2818.89 from Government of Canada on
31-Dec-09	2,439.16	1219.58	1,219.58	Received \$1225.10 from Government of Canada o
31-Dec-10	1,923.57	967.74	955.83	Received \$967.74 from Government of Canada on
31-Dec-11	2,300.48	1150.24	1,150.24	Received \$1150.24 from Government of Canada o
			(10,469.40)	Audit entry: GST Expense 2011
31-Dec-12	1,229.28	1229.28	-	50% of total GST
31-Dec-13	1,187.11	1187.11	-	50% of total GST
31-Dec-14	1,487.18	1487.18	-	50% of total GST
31-Dec-15	2,713.80		2,728.05	
Total	<u>23,233.74</u>	<u>10,050.54</u>	<u>2,728.05</u>	

GST 2005-2007 not collectable. Society can only claim 50% of the GST. 2012 transactions adjusted in C auditors.

**301 Accounts Payable**

31-Dec-15 - Keith Ryder: one month payable: Contract & Office Supplies  
Rene Michalak: one month payable: Contract - Water Quality Water Protectio  
current procedure is to pay Keith the first of the month following the service period.

**310 Deferred Memberships**

The requisition value is amortized to revenue on a monthly basis, for the year ending December 31, 2016. This value is adjusted with the addition of new members, and will reach zero at year end.

**501 Municipal Memberships**

The Membership fees were created for the period of January to December 2016. The membership fees are amortized to revenue on a monthly basis, and adjusted with the addition of new members.

The 2016 Fiscal Year budget was based on 25 cents per capita of the 2015 membership population, approximating 261,479 persons.

**601 Contract Services**

Cheques are payable to Keith Ryder. A one month payable is set up since invoicing follows the billing period.

**609 Web Site Maintenance**

The web site was launched in August 2006.

ined by section 123 or 259 of the Excise Tax Act  
ined by section 123 or 259 of the Excise Tax Act  
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January 3, 2012 (Rebate 2809.41 + 9.48 interest)  
n January 19, 2012 (Rebate 1219.58 + 5.52 interest)  
October 4, 2011  
n February 13, 2012

October to reflect this change as per

n Plan

**2016 Red Deer River Municipal User Group Association**

Membership is for the period of January 2015 to December 2015

For The Month Ended February 2016

Chq Date	Deposited	Municipality	Amount Paid	Commitment	Population	Outstanding	Arrears
		Acadia Valley, County		123.75	495	123.75	
		Acme, Village		163.25	653	163.25	
		Alix, Village		207.50	830	207.50	
		<i>Bashaw, Town</i>		-		-	
		Big Valley, Village		86.75	347	86.75	
		Blackfalds, Town		2,198.25	8,793	2,198.25	
		*Bowden, Town		310.25	1,241	620.50	310.25
		*Carstairs, Town		860.50	3,442	860.50	
		Clearwater, County		3,069.50	12,278	3,069.50	
		Consort, Village		180.50	722	180.50	
		<i>Coronation, Town</i>		-		-	
		*Crossfield, Town		729.50	2,918	729.50	
		Delburne, Village		207.50	830	207.50	
		*Didsbury, Town		1,239.25	4,957	1,239.25	
		Drumheller, Town		2,007.25	8,029	2,007.25	
		<i>Elnora, Village</i>		-		-	
		Halkirk, Village		30.25	121	30.25	
		Hanna, Town		668.25	2,673	668.25	
		*Innisfail, Town		1,988.25	7,953	1,988.25	
		Kneehill, County		1,230.25	4,921	1,230.25	
		Lacombe County		2,578.00	10,312	2,578.00	
		Linden, Village		181.25	725	181.25	
		Mountain View County		3,089.75	12,359	3,089.75	
		Munson, Village		51.00	204	204.00	153.00
		Newell, County		1,784.50	7,138	1,784.50	
		*Olds, Town		2,154.25	8,617	2,154.25	
		Oyen, Town		251.50	1,006	251.50	
		Paintearth, County		507.25	2,029	507.25	
		Red Deer, City		25,201.75	100,807	25,201.75	
		Red Deer, County		4,587.75	18,351	4,587.75	
		Special Areas		1,124.75	4,499	1,124.75	
		Starland, County		517.75	2,071	517.75	
		Stettler, County		1,275.75	5,103	1,275.75	
		Stettler, Town		1,437.00	5,748	1,437.00	
		Sundre, Town		673.75	2,695	673.75	
		Sylvan Lake, Town		3,577.50	14,310	3,577.50	
		Three Hills, Town		807.50	3,230	807.50	
		Trochu, Town		268.00	1,072	268.00	
		<i>Veteran, Village</i>		-		-	
		* members of the Mountain View Regional Water Services Commission				7,592.25	
						-	
		Paid Communities: 0		-	65,369.75	261,479	65,833.00
							(463.25)

**2016 Red Deer River Municipal User Group Association**

Membership is for the period of January 2015 to December 2015

For The Month Ended February 2016

**Deferred Membership Analysis**

Month Ended	to Revenue	Added	Municipality	Balance
Invoices				65,369.75
31-Jan-15	→ 5,447.48			59,922.27
28-Feb-15	5,447.48			54,474.79
3/31/2015.	5,447.48			49,027.31
30-Apr-15	5,447.48			43,579.83
31-May-15	5,447.48			38,132.35
30-Jun-15	5,447.48			32,684.87
31-Jul-15	5,447.48			27,237.39
31-Aug-15	5,447.48			21,789.91
30-Sep-15	5,447.48			16,342.43
31-Oct-15	5,447.48			10,894.95
30-Nov-15	5,447.48			5,447.47
31-Dec-15	5,447.47			-
	<u>65,369.75</u>		-	



# Municipal Water Quality Protection Action Plan

## Key Goals and Desired Outcomes Summary

Maintaining water quality in the Red Deer River system is an integral part of the Red Deer River Municipal Group's (RDRMUG) strategic goal to secure sufficient water to support sustainable communities. This strategic desire lines up with that of Albertans, as expressed in the provincial Water for Life Strategy, and the Alberta Water Council and the Red Deer River Watershed Alliance.

The Alberta Water for Life Strategy affects both water quality and quantity issues, as well as environmental concerns. It recognizes that the management and use of water involves not only economic and environmental aspects, but social ones as well. The three goals of the provincial water strategy are:

1. Safe, secure drinking water supply
2. Healthy aquatic ecosystems
3. Reliable, quality water supplies for a sustainable economy

Each of these goals directly relate to this proposed project to address water quality/source water protection in the Red Deer River watershed.

Recently, the Alberta Water Council has released a statement of opportunity regarding the importance of source water protection and the need for integrated action to protect source waters, or in more general terms - to protect water quality.

The RDRWA promotes a healthy watershed to ensure a legacy of ecological integrity and economic sustainability. One of its goals is to promote the use of beneficial, or best, practices and integrated management of land and water resources. To this end the RDRWA is in the process of preparing an Integrated Watershed Management Plan (IWMP) for the Red Deer River basin. As a core thrust of this plan, the RDRWA's vision is that the IWMP will promote water quality within the watershed to meet, or even better exceed, provincial requirements under government regulations. In terms of water quality management this implies that, at a minimum, 'use protection' will be achieved.

**Primary Objective:** Create an Integrated Municipal Water Quality Protection Action Plan that more effectively protects water quality through land use planning and management in order to ensure safe, secure drinking water supplies, healthy aquatic ecosystems and reliable and quality water supplies for a sustainable economy within the Red Deer River watershed.

**Implementation Timeline:** 2016 - 2020 (*note: will require update upon establishment of Red Deer Regional Plan*)

**Evaluation:** Annual review supported with bi-monthly progress updates at RDRMUG meetings

## **ACRONYMS**

AARD	Alberta Agriculture and Rural Development
AAMDC	Alberta Association of Municipal Districts and Counties
ACEE	Alberta Council on Environmental Education
AEMERA	Alberta Environmental Monitoring, Evaluation, and Reporting Agency
AEP	Alberta Environment and Parks
ALIDP	Alberta Low Impact Development Partnership
ALMS	Alberta Lake Management Society
ALUS	Alternative Land Use Services
ARCSA	American Rainwater Catchment Systems Association
AUMA	Alberta Urban Municipalities Association
AWC	Alberta Water Council
AWESOME	A Watershed Environmental System Of Municipal Excellence
AWWOA	Alberta Water and Wastewater Operators Association
BMP	Beneficial Management Practices
CANARM	Canadian Association for Rainwater Management
CCME	Canadian Council of Ministers of the Environment
CEM	Cumulative Effects Management
ELC	Environmental Law Centre
ESA	Environmentally-Sensitive Area
FCM	Federation of Canadian Municipalities
IRMF	Integrated Resource Management Framework
IWMIP	Integrated Watershed Management Plan
LSC	Land Stewardship Centre
LUF	Land Use Framework
NSWA	North Saskatchewan Watershed Alliance
QWAES	Qualified Wetland Aquatic Environment Specialist
RDRWA	Red Deer River Watershed Alliance
UDI	Urban Development Institute
WPAC	Watershed Planning and Advisory Council
WRA	Wetland Restoration Agency

**Key Strategies:**

- 1) *Intro > Dip > Dive - a structured approach to build confidence and capacity for sustainable development while leveraging the incremental nature of knowledge building via applied learning*
- 2) *Preparedness for Red Deer Regional Planning*
- 3) *Align with Crown Reservation application*

*Priority Outcomes: Increased Water Literacy and Water and Watershed Management Institutionalized*

**OUTCOME 1 (priority)**

**Increased Water Literacy of all stakeholders (elected officials, administration, residents)**

**OUTCOME 2**

**Source Water Protection Plans Established**

**OUTCOME 3**

**Land Use Planning Tools supporting Watershed Management Widely Practiced**

**OUTCOME 4**

**Stormwater / Rainwater (NPSP) Management Plans Established**

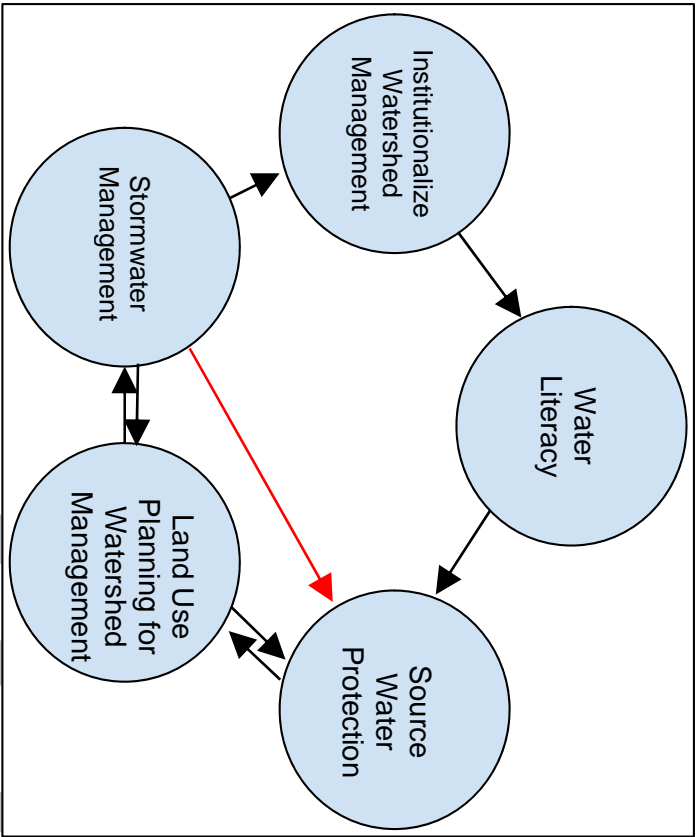
**OUTCOME 5 (priority)**

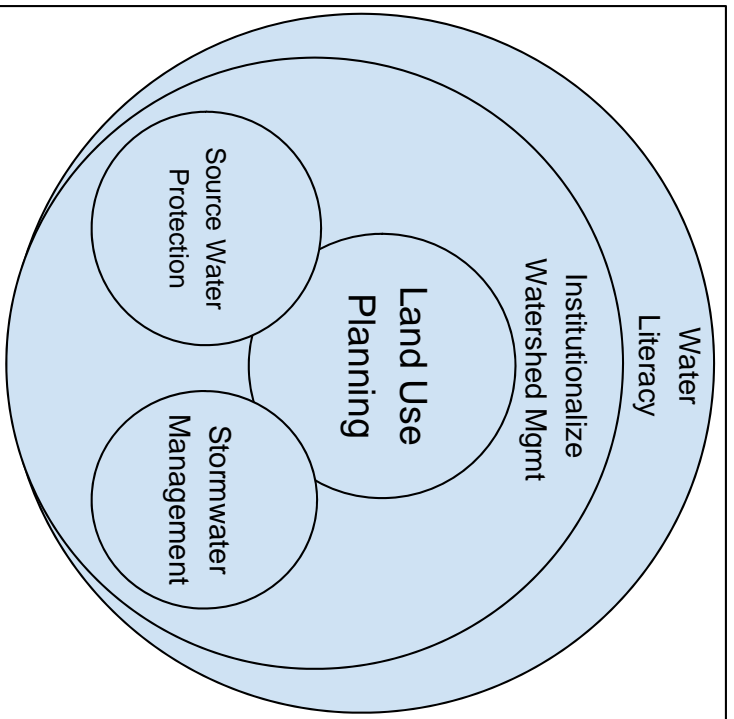
**Water and Watershed Management is "Institutionalized" in Municipal Culture**

**Case Studies:** Clearwater County, Lacombe County (EMS), Red Deer and Mountainview County (ALLUS), Special Areas, Headwaters Alliance (NSWA), Watershed Management Group (Green Co-Op), Piper Creek Restoration Agriculture Project, Bow Phosphorus Management Plan, Capital Region - Industrial Heartland Maximum Allowable Loads project

**Key Orgs:** RDRWA, AEP, AARD, AEMERA, AUUMA, AAMDC, ALMS, ELC, AWWOA, LSC, ACEE, Waterlution

**Funding Sources:** Water For Life (Municipal Water / Wastewater Partnership), Watershed Restoration and Resiliency Program / Agricultural Watershed Enhancement Program, Alberta Community Resiliency Program, Federal (Federation of Canadian Municipalities, etc.), Green Bonds (e.g., offset infrastructure costs)





**Alberta Land-Use Framework Regional Planning:**

- NSRP - impacts head of the Red Deer River
- RDRP - impacts heart of the Red Deer River
- SSRP - impacts feet of the Red Deer River

## **OUTCOME 1**

### **Increased Water Literacy of all stakeholders - elected officials, administration, residents (\*supports Water For Life Strategy)**

*Timeline: 2016 - 2018 (pilot)*

*Rationale: diverse perspectives sharing common understanding is key to effective and integrated municipal action in protecting water quality. Commonly referred to as "water literacy", this understanding supports the value and importance of water in our lives, awareness of where it comes from, and how to manage it sustainably. It also forms the foundation for successful education and outreach efforts, cultivates a stewardship and compliance ethic, builds capacity for collaboration between organizations, and enables meaningful public input to decision makers.*

#### **INTRO**

Theme: Know Your Watershed (e.g., "It's All Creek to Me")

Key Actions:

- Introduction to Water Management (Water Facts in Alberta, W4L Strategy, Guide to Watershed Planning in Alberta)
- Water Literacy Assessments
- Subscribe to RDRWA e-News, AUMA / AAMDC, Alberta WaterPortal, Water Canada, Canadian Municipal Water Consortium, etc.
- View RDRWA Outreach tools (e.g., YouTube vids)

#### **DIP**

Theme: Know Your Watershed (e.g., "It's All Creek to Me")

Key Actions:

- Understand the RDRWA State of the Watershed Report
- Understand the Integrated Watershed Management Plan Recommendations (RDRWA)
- Read the AUMA Water Primer and Discussion Paper
- Watershed Management in the Land Use Framework - Fact Sheets and Water Quality Management Framework
- Membership and Participation in RDRWA events, RDRMUG meetings, AUMA / AAMDC webinars and events
- Inventory of water-related policies, bylaws, plans for respective municipality (annually)
- Read NSWA Municipal Guide (*produce webinar series via WPAC collaboration*)
- Conduct Water Literacy Assessments (internal)
- Develop / Support and Implement Resident Education Program (*incl. incentives - rebates*)
  - Know Your Watershed (above)
  - Master Watershed Steward certification (e.g., Watershed Ambassadors education program)
  - Host Waterlution-type events, Celebrate World Water Day, River Clean-ups

## **DIVE**

Theme: Know Your Watershed (Master Watershed Steward)

Key Actions:

- Develop an Elected Officials Education Program - e.g., *AUMA, LSC, AWESOME Pilot*
  - Participate in hands-on learning and relationship building to prototype solutions to complex municipal problems
    - Literacy increases through exposure to new ideas and conversations / dialogue
  - Develop broad understanding of Regional Water Service Commissions (purpose and value proposition, operator succession, funding / pricing models, Full Cost Accounting for Integrated Risk Management, Commission representation)
  - Understand Intergovernmental Relationships (responsibilities and collaboration)
- Ensure succession plan / professional development of municipal staff regarding water literacy (e.g., conferences and training)

**Case Studies:** Alberta Water Council - Water Literacy Project Team, Alberta Watershed Toolkit - [www.watershedresources.ca](http://www.watershedresources.ca) (details, [presentation video](#)), Green Co-Op Model (WSG), RAIN Program

**Key Orgs:** RDRWA, AUMA, AAMDC, ALMS, LSC, ACEE, AWC, Waterlution

**Funding Sources:** AEP, AARD



## **OUTCOME 2**

### **Source Water Protection Plans Established (\*supports the Water For Life Strategy)**

*Timeline: 2016 - 2018 (pilot)*

*Rationale: Protecting water sources can minimize the overall costs of drinking water treatment for municipalities, reduce public health risks, increase the recreational value of the area, and enhance natural ecosystems but a more integrated approach is needed to address current issues and future water needs for all users. Although most municipalities have joined Regional Water Consortiums, many rural municipalities continue to depend on groundwater wells and private water systems for their water supply which can be more vulnerable to land use impacts.*

#### **INTRO**

Theme:

Key Actions:

- Development of Water Literacy (see OUTCOME 1)
- Ensure familiarity with:
  - IWMP Recommendations and actions of RDRWA; participation in spring / fall forum / AGM

#### **DIP**

Theme:

Key Actions:

- Ensure familiarity with:
  - AEP Resources - Source Water Protection Guide, Surface Water Quality Program, Wastewater Releases, Alberta Wetlands Policy, Fish Conservation and Management Strategy, Municipal Drinking Water Program, Groundwater Atlas, Stepping Back From the Water guide, Fish Conservation and Management Strategy
  - Canadian Council of Ministers of the Environment (CCME) - From Source to Tap: The Multi-Barrier Approach
- Define Municipal role in Regional Water Consortiums and Complete annual assessment of participation
- Development of Source Water Protection Plans (regional - headwaters) and Drinking Water Safety Plans (local - municipal)
- Wetland Policy Implementation - Mapping of ESAs and Flood prone areas with respect to Land Use

#### **DIVE**

Theme:

Key Actions:

- Active involvement in a RDR basin Water Quality Monitoring Program to monitor surface water, groundwater, headwaters and tributaries of the Red Deer River basin

- Commit to Wetland Policy Implementation - achieve certification of municipality as a Wetland Restoration Agency (WRA) and select municipal staff position(s) as Qualified Wetland Aquatic Environment Specialists (QWAES)
- Develop Project Partnering and/or Grants for WSGs (e.g., Lacombe County, ASN, RBC Blue Water, AB Ecotrust)
- Support development of Headwaters Working Group (e.g., NSWA Headwaters Alliance)
- Participate in Incentive-based land management programs (e.g., Alternative Land Use Services - ALLUS, Ducks Unlimited)

**Case Studies:** Clearwater County, Headwaters Alliance (NSWA), Gov't AB Source Water Protection Guide, Catskills (NY)

**Key Orgs:** RDRWA, AEP, AARD, AEMERA, AUMA, AAMDC, ALMS, ELC, AWWOA, LSC, ACEE, Waterlution

**Funding Sources:** Water For Life (Municipal Water / Wastewater Partnership), WRRP / AWE, Alberta Community Resiliency Program, Federal (FCM, etc.), Green Bonds (e.g., offset infrastructure costs)

### OUTCOME 3

#### Land Use Planning Tools supporting Watershed Management Widely Practiced (\*supports the Water For Life Strategy)

Timeline: 2016 - 2018 (pilot)

*Rationale: because the Red Deer River is 97% fed by precipitation, land use is the largest contributing factor to water quality; specifically, the impacts of Non-Point Source (NPS) and Point Source (PS) Pollution. The establishment of the Alberta Land Use Framework and preparation for development of the Red Deer Regional Plan (e.g., RDRWA IWMP) as a guiding document sets precedent for the role / influence of integrated watershed management in municipal governance for land use decisions.*

#### INTRO

Theme: RDRP preparedness

Key Actions:

- Development of Water Literacy (see OUTCOME 1)
- Ensure familiarity with:
  - Green Communities Guide (Land Stewardship Centre)
  - Tools to Help Restore Ecological Processes in Built Environments (Developments)

#### DIP

Theme: RDRP preparedness

Key Actions:

- Ensure familiarity with:
  - Guide to Watershed Management Planning in Alberta
  - Alberta Land Use Framework Regional Planning / Integrated Resource Management (CEM)
  - IWMP Background Technical Report 2 - Wetlands, Riparian Areas, and Land Use
- Creation of Municipal Environmental Management System Framework
  - Support of Lake Management Plans (specific to municipal geography)
- Engage developers and stakeholders in watershed management BMPs
  - require watershed management planning in development approvals

#### DIVE

Theme: RDRP preparedness

Key Actions:

- Land Use planning for Source Water Protection (See OUTCOME 2)
- Management of Municipal Environmental Management System Framework (Integrated Resource Management)

- Coordinate Wetland and Riparian Restoration projects
- Embed watershed management BMPs / policy into statutory plans and land use bylaws
- Active involvement in a RDR basin Water Quality Monitoring Program to monitor surface water, groundwater, headwaters and tributaries of the Red Deer River basin

**Case Studies:** Clearwater County, Stepping Back From the Water

**Key Orgs:** AUMA, AAMDC, UDI, LSC

**Funding Sources:** Alberta Community Resiliency Program, Federal (FCM, etc.), Green Bonds (e.g., offset Infrastructure costs)

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#### **OUTCOME 4**

##### **Stormwater / Rainwater Management Plans Established** (\*supports the Water For Life Strategy)

*Timeline: 2016 - 2018 (pilot)*

*Rationale: Over the past several decades, numerous reports have documented and catalogued the impacts of urban stormwater runoff and offered detailed prescriptions to improve its management. But, in spite of noteworthy municipal efforts, a complete integration of land- and water-use decisions has yet to be realized. With an integrated approach we can move beyond current best practices, use rain as a resource to help mitigate the impacts of climate change, and prevent the problem of runoff altogether; turning a stormwater liability into a rainwater asset.*

#### **INTRO**

Theme:

Key Actions:

Familiarity with:

- Stormwater and Water Reuse Guidelines (AEP - Nov 2016)
- *AUMA Water Conservation, Efficiency, and Productivity (CEP) Planning*
- Climate Change Preparedness via drought and flood mitigation (e.g., [www.allonesky.ca](http://www.allonesky.ca), The Natural Step)
- Non-Point Source Pollution Management (AB Policy for Pollutant Load Mgmt)

#### **DIP**

Theme:

Key Actions:

- Audit of fragmented governance around stormwater management, opps to reduce impermeable surfaces, improve / reduce outfalls
- Maintain current mapping of flood and drought prone areas of the municipality and ensure development is planned accordingly
- Creation of Municipal Wastewater and Stormwater Management Plan (place-based)
- Establishment of development incentives to require "rainwater" vs. stormwater management (e.g. EchoHaven)

#### **DIVE**

Theme:

Key Actions:

- Management of Municipal Wastewater and Stormwater Management Plan
- Decentralize stormwater management to include developers, business, and homeowner practices (e.g., LID, RAIN Program)
- Development of demonstration projects to iterate on integrated stormwater BMPs (residential, commercial, industrial)

**Case Studies:** City of Red Deer, Bow Phosphorus Mgmt Plan, Capital Region - IH, Scotland EPA Sustainable Urban Drainage Systems, Peeling Back the Pavement

**Key Orgs:** AEP, AUUMA, AAMDC, ARCSA / CANARM, ALIDP

**Funding Sources:** Alberta Community Resiliency Program, Federal (FCM, etc.), Green Bonds (e.g., offset infrastructure costs)

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**OUTCOME 5**

**Water and Watershed Management is “Institutionalized” in Municipal Culture** (\*supports the Water For Life Strategy)

*Timeline: 2016 - 2018 (pilot)*

*Rationale: When water literacy increases, a culture shift takes place and our relationship with water becomes more meaningful. Economic prosperity across the developed world is now dependent on how well governments can use integrated approaches to resource management. In Alberta, municipalities will flourish or flounder based on how well they're able to embed watershed management into their daily operations and implement Cumulative Effects Management (Integrated Resource Management Frameworks) to raise the collective level of water literacy in their communities. Those that are successful will ensure they're prepared for both the positive and negative impacts of climate change, that they can leverage relationships, spur innovation, and enhance community capacity to restore and maintain critical watershed features for future generations.*

**INTRO**

Theme:

Key Actions:

- Continuous Improvement / Development of Water Literacy (see OUTCOME 1)
- Collaborative Development and Regular Review of Source Water Protection Plans (see OUTCOME 2)
- Standardization of Land-Use Tools supportive of watershed management (see OUTCOME 3)
- Development of Stormwater Management Plan (see OUTCOME 4)

**DIP**

Theme:

Key Actions:

- Inspections / Licensing / Permitting needs to include impacts and mitigation of development permits on watershed
- Planning Departments develop / audit / update statutory plans and guidelines to include watershed management principles
  - *AUMA Water Conservation, Efficiency, and Productivity (CEP) Planning*
- Standing agenda item on Council Meetings - City Manager / CAO and Senior Water Staff present relevant info
- Council orientation on watershed matters after each election cycle; including annual presentation updates from RDRWA

**DIVE**

Theme:

Key Actions:

- Municipal Development Plan / Intermunicipal Development Plans have specific sections regarding watershed management (e.g., land use bylaws, BMPs, etc.)



- Regular participation in RDRWA activities (e.g., field trips)

**Case Studies:** Clearwater County, Calgary, Vancouver, Piper Creek Restoration Agriculture Project

**Key Orgs:** RDRWA, AEP, AARD, AEMERA, AUIMA, AAMDC, ALMS, ELC, AWWOA, LSC, ACEE, Waterlution

**Funding Sources:** Project grants

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