## **TOWN OF RIMBEY**

# TOWN COUNCIL BUDGET MEETING AGENDA

AGENDA FOR COUNCIL BUDGET MEETING OF THE TOWN COUNCIL TO BE HELD ON SATURDAY, JANUARY 16, 2016 AT 9:00 AM IN THE COUNCIL CHAMBERS OF THE TOWN ADMINISTRATION BUILDING

Agend	a Approval and Additions
Minute	es - None
	ations -
Boys a	nd Girls Club of Wolf Creek
Bylaw	s - None
	nd Unfinished Business
7.1 7.2	Core Budget – 2016 (Motion 003/16, as information, Jan 09/16)  Debt Management – 2016 (Motion 004/16, as information, Jan
1.2	09/16)
7.3	Salary Ranges - 2016 (Motion 005/16, as presented, Jan 09/16)
7.4	2016 Operating Budget – By Function (Motion 006/16, as
7 4 4	information, Jan 09/16)
<del>7.4.1</del> 7.4.2	General Municipal (Motion 007/16, as presented, Jan 09/16) Council (Motion 008/16, as amended, Jan 09/16)
	Administration (Motion 009/16, as presented, Jan 09/16)
	General Administration (Motion 010/16, as amended, Jan 09/16)
	RCMP (Motion 011/16, as presented, Jan 09/16)
7.4.6	Emergency Management (Motion 012/16, as amended, Jan 09/16).
	Intern (Motion 013/16, as presented, Jan 09/16)
	Animal Bylaw (Motion 014/16, as presented, Jan 09/16)
	Community Policing (Motion 015/16, to Postpone to Jan 09/16)  Public Works – Roads (Motion 016/16, as amended, Jan 09/16)
	Airport (Motion 017/16, Motion 018/16,as amended, Jan 09/16
	Storm Sewer (Motion 019/16, as presented, Jan 09/16)
	Water (Motion 020, as amended, Jan 09/16)
	Sewer (Motion 021/16, as amended, Jan 09/16)
	Garbage Services (Motion 022/16, as presented, Jan 09/16)
<del>7.4.16</del>	Recycle Pick Up and Transfer Station (Motion 023/16, as presented, Jan 09/16)
7 4 17	Compost (Motion 024/16, as presented, Jan 09/16)
	F.C.S.S (Motion 025/16, as amended, Jan 09/16)
	Cemetery (Motion 026, as presented, Jan 09/16)
	Development (Motion 027/16, as presented, Jan 09/16)
	Economic Development (Motion 028/16, as amended, Jan 09/16)
7.4.22	Ball Diamonds (Motion 029/16, as amended to terminate, Jan
7 / 23	09/16) Recreation (Motion 030/16, as presented, Jan 09/16)
	Pool (Motion 031/16, as presented, Jan 09/16)
	Parks (Motion 032/16, as presented, Jan 09/16)
7.4.26	Fitness Centre (Motion 033/16, as amended, Jan 09/16)
	Arena (Motion 034/16,as amended, Jan 09/16)
	Programs (Motion 035/16, to postpone to Jan 09/16)
	Community Centre (Motion 036/16, as presented, Jan 09/16 Library (Motion 037/16, as amended, Jan 09/16)
	Community Buildings (Motion 038/16, as amended, Jan 09/16)
	Curling Club (Motion 039/16, as presented, Jan 09/16)
	Historical Society (Motion 040/16, as presented, Jan 09/16)
7.5	Reserves – 2016 (Motion 041/16, as presented, Jan 09/16)
7.6	2016 Capital Budget (Motion 042/16, as amended, Jan 09/16)
7.7	2016 Capital Budget "B" List (Motion 043/16, as amended, Jan
7.8	9/16)Grant Funded Projects (Motion 044/16, as presented, Jan 9/16)
7.8 7.9	Reserve Funded Projects (Motion 045/16, as presented, Jan 9/16)
	1.000.70 Fallada Fidjoolo (Motion 070/10, ao amenaea, dan 09/10)

- (20) minutes in length to allow members of the public present at the meeting to address Council regarding issues arising from eeting in progress. No formal decision shall be made on any matter discussed with Council during the open forum session.)
  In- Camera
- 11.
- Adjournment 12.

# Town of Rimbey Core Budget - 2016

Assumption: No new debt and no increase or decrease in current assessments

## **ALL SERVICES COMBINED**

Net Budget by Object	Budget 2015	Budget 2016
Revenue		
User Fees and Sale of Goods	1,702,746	1,730,289
Government Transfers	1,056,755	1,141,372
Rentals	63,320	112,028
Licences and Fines	220,260	96,875
Frontage	100,000	107,000
Penalties	53,200	60,400
Interest	36,000	22,000
Franchise	410,438	410,438
Naming rights	25,000	25,000
Reserve transfers		
Total revenue	3,667,719	3,705,402
Expenses		
Salaries and Benefits	1,893,190	1,982,638
Contracted Services	457,299	598,914
Goods and Utilities	1,662,752	1,567,578
Local Requisitions	412,257	430,321
Provincial requisitions	861,140	892,061
Interest and debt repayments Reserve Transfers (Streetlights	587,738	469,884
\$100,000; Zamboni \$18,000;		
Water/sewer \$50,000)	100,000	168,000
Total expenses	5,974,376	6,109,396

2016 %	2016
Change	Change
1.62%	27,543
8.01%	84,617
76.92%	48,708
-56.02%	,
7.00%	7,000
13.53%	7,200
-38.89%	
0.00%	0
0.00%	0
1.03%	37,683
4.72%	89,448
30.97%	
-5.72%	-95,174
4.38%	18,064
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
-20.05%	-117,854
	,
2.26%	135,020

Total Budget Requirement	2,306,657	2,403,995
Estimated tax levies with no new		
assessment (New Tax Generation)	2,342,959	2,319,231
Net Budget Requirement	-36,302	84,764
Estimated required increase in		
taxes		3.65%

4.22% 97,338

# TOWN OF RIMBEY 2016 Operating Budget - By Function

Part of the second seco	Revenues	Expenses	Surplus (deficit)
General Municipal Revenues	2,941,321	100,000	2,841,321
Council	0	177,803	(177,803)
Administration	21,935	569,039	(547,104)
General Operating	0	140,480	(140,480)
RCMP	64,243	49,135	15,108
Disaster Services	0	3,050	(3,050)
Intern	20,000	43,023	(23,023)
Bylaw - Animal	2,500	23,064	(20,564)
Community Policing	192,000	313,452	(121,452)
Public Works	4,000	903,968	(899,968)
Airport	7,790	15,331	(7,541)
Storm Sewers	0	9,800	(9,800)
Water	569,644	438,816	130,828
Sewer	332,250	360,371	(28,121)
Garbage	202,875	121,423	81,452
Recycle	41,100	92,199	(51,099)
Compost	1,150	26,463	(25,313)
F.C.S.S.	190,424	218,424	(28,000)
Cemetery	14,900	36,326	(21,426)
Development	25,700	90,648	(64,948)
Economic Development	22,610	28,541	(5,931)
Ball Diamonds	0	0	0
Recreation	14,400	64,588	(50,188)
Fitness Centre	37,200	48,826	(11,626)
Programs	25,000	72,511	(47,511)
Pool	101,850	339,959	(238,109)
Arena	150,780	232,807	(82,027)
Parks	10,000	119,467	(109,467)
Community Centre	127,400	284,265	(156,865)
Library	10,850	131,958	(121,108)
Community Buildings	0	5,000	(5,000)
Curling Club	650	21,700	(21,050)
Museum	0	66,300	(66,300)
School Requisition	858,958	858,958	0
Rimoka Requisition	33,103	33,103	0
Subtotal	6,024,633	6,040,796	(16,163)
Transfer to Capital Projects			
Surplus (Deficit)			(16,163)

# **COUNCIL**

	2016 Budget	2015 Budget	2015 Actual to Date
Expenditures			
Salaries & benefits	147,503	145,116	150,641
Contracted services	2,000	2,000	859
Goods and utilities	28,300	26,645	24,204
Mayor's budget	0	0	0
Total Expenditure	177,803	173,761	175,704

<sup>%</sup> Increase over prior year budget

2.33%

# Highlights

Salaries and benefits include:

- 2% increase in Mayor and Council salaries as per Policy # 155
- \$300/month/Councilor Health Spending Account

#### **GENERAL ADMINISTRATION**

	2016 Budget	2015 Budget	2015 Actual to Date
Expenditures			
Salaries and Benefits (WCB)	16,500	16,500	2,328
Contracted Services	28,500	25,000	26,263
Goods and Utilities	51,430	49,380	45,910
Local Requisitions	36,150	52,189	57,042
Interest and Debt Repayments	7,900	7,500	7,354
Total Expenditures	140,480	150,569	138,897

% Increase over prior year budget

-6.70%

#### Highlights

Census

Last census was done in 2008

#### **Grants to Community Organizations:**

- Received applications of \$8,500 plus \$3,500 for any additional events that may be applied for during the year = total grants of \$12,000

#### **Local Organizational Grants:**

Local Organizational Grants:		
Beatty House	4,000	
Handi-van Sociaty	20,000	(Annual grant for 2015, 2016 and 2017)
West County Outreach School	150	
	24,150	<u></u>
		E.
Fundraisers:		
Rimbey Victim Services	450	
Kinsmen Christmas Party	450	
Library	450	
Boob Tour	240	
Chamber Trade Show	700	
Power Moms & Super Dads	100	
Game On Kids Fund	60	
Legion Wreath	100	
FCSS Golf	750	
MADD ad	650	
	3950	•
		i.
New Items:		

3,500

# **EMERGENCY MANAGEMENT**

	2016 Budget	2015 Budget	2015 Actual to Date
Expenditures Goods and services	3,050	3,050	104
Total Expenditure	s 3,050	3,050	104

# Highlights

**Goods and Services:** 

Expenses for emergency management conferences or training for all staff

# **COMMUNITY POLICING**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Fines	78,000	202,860	70,670
Contract	114,000	113,176	117,390
Other	o	0	35
Subtotal Revenues	192,000	316,036	188,095
Expenditures			
Salaries and Benefits	213,612	200,515	183,549
Contracted Services	25,800	29,000	926
Goods and Utilities Interest & debt	74,040	83,146	40,604
Subtotal Expenditures	313,452	312,661	225,079
Net Operating Costs	(121,452)	3,375	(36,983)

% recovery of expenses

61.25%

101.08%

83.57%

#### Highlights

#### **Revenues:**

- Fine revenue reduced to more acurately reflect actual
- Contract revenue is based on 1,316 hours at \$86 per hour

#### Goods and services includes:

- Lease of Tahoe for 12 months plus lease of 2nd vehicle for 6 months

#### **PUBLIC WORKS - ROADS**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Goods and services	4,000	6,300	10,297
Other			
Subtotal Revenues	4,000	6,300	10,297
Expenditures	i i		
Salaries and Benefits	281,719	257,653	199,869
Contracted Services	120,500	109,000	67,378
Goods and Utilities	360,440	319,220	259,730
Interest and debt repayments	141,309	152,679	126,241
Subtotal Expenditures	903,968	838,552	653,217
Net Operating Costs	(899,968)	(832,252)	(642,920)

<sup>%</sup> Increase over prior year budget

7.52%

## Highlights

#### **Contracted Services**

- Increase in snow removal to compensate for new snow removal policy of removing snow off main street more often \$ 11,500

#### - Equipment Operator training

Equipment operator training for 4 staff members \$19,390

# **AIRPORT**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Goods and services	40	40	40
Hanger rental	7,750	720	720
Subtotal Revenues	7,790	760	760
Expenditures			
Salaries and Benefits	5,940	7,981	1,344
Goods and Utilities	9,391	9,991	4,127
Subtotal Expenditures	15,331	17,972	5,471
Net Operating Costs	(7,541)	(17,212)	(4,711)

% recovery of expenses

50.81%

#### **WATER**

	2016 Budget 2015 Budget		2015 Actual to Date	
Revenues				
Water Services	569,644	529,100	462,661	
Subtotal Revenues	569,644	569,644 529,100		
Expenditures				
Salaries and benefits	120,066	145,763	147,442	
Contracted services	9,500	6,000	15,087	
Goods and utilities	171,556	163,820	110,931	
Interest and debt repayments	137,694	137,693	127,437	
Subtotal Expenditures	438,816	453,276	400,897	
Net Operating Costs	130,828	75,824	61,764	

% recovery of expenses

129.81%

## Highlights

Goods and Services includes a contingency fund of \$40,000 for water main breaks and other potential repairs

#### New:

50% of all water/sewer surpluses will go to water/sewer reserves 2016 estimated surplus approximately \$100,000; \$50,000 to Reserves

#### **SEWER**

	2016 Dudant	2045 D. J	2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Sewer services	332,250	304,600	390,377
Subtotal Revenues	332,250	304,600	390,377
Expenditures			
Salaries and benefits	96,078	68,166	86,400
Contracted services	44,000	33,000	79,629
Goods and utilities	123,500	110,300	90,509
Interest and debt repayment	96,793	96,794	78,809
Subtotal Expenditures	360,371	308,260	335,347
Net Operating Costs	(28,121)	(3,660)	55,030

% recovery of expenses

92.20%

# Highlights

2015 actual includes \$127,000 from Talisman agreement. No amount has been budgeted in 2016.

#### **Goods and Services:**

Increase includes additional testing and monitoring for licencing requirements

Drainage ditch repairs and fencing

## **GARBAGE SERVICES**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Garbage services	202,875	201,404	186,014
Other			
Subtotal Revenues	202,875	201,404	186,014
Expenditures			
Salaries and benefits	23,423	22,692	20,922
Contracted services	78,000	78,000	66,150
Goods and utilities	20,000	20,600	16,510
Subtotal Expenditures	121,423	121,292	103,582
Net Operating Costs	81,452	80,112	82,432

% recovery of expenses

167.08%

# Highlights

No significant changes to 2016 budget.

Garbage contract will be tendered for 5 years with change to curbside pick-up

# **FCSS**

	2016 Budget	2015 Budget	2015 Actual to Date
Revenues		-	
Provincial funding	190,424	158,686	170,588
Subtotal Revenues	190,424	158,686	170,588
Expenditures			
Transfers to Rimbey FCSS	190,424	158,686	170,588
Town funding - per agreement Town funding - Volunteer Centre	23,803	19,836	19,836
operating grant	4,197	7,500	7,500
Subtotal Expenditures	218,424	186,022	197,924
Net Operating Costs	(28,000)	(27,336)	(27,336)

% Increase over prior year budget

2.37%

# Highlights

Provincial Government has increased funding to FCSS

#### **ECONOMIC DEVELOPMENT**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Business Licences	16,375	15,000	16,373
Other	6,235	6,235	6,649
Subtotal Revenues	22,610	21,235	23,022
Expenditures			
Salaries and benefits	20,141	16,920	10,152
Contracted services	650	650	524
Goods and utilities	7,750	8,905	6,930
Subtotal Expenditures	28,541	26,475	17,606
Net Operating Costs	(5,931)	(5,240)	5,416

% recovery of expenses

79.22%

#### Highlights

Salaries and benefits:

**Beatty House staff** 

Corresponding grant revenue has been included in "Other" revenue.

Agreement with the Beatty House Society will stipulate that all salary and/or wage grants that are received will be turned over to the Town in exchange for 2 summer staff.

# **BALL DIAMONDS**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Contract recovery	0	0	6,000
Other			
Subtotal Revenues	0	0	6,000
Expenditures			
Contracted services	o	0	15,000
Subtotal Expenditures	0	0	15,000
Net Operating Costs	0	0	(9,000)

# Highlights

Contract to Lions Club for the mowing of the Ball Diamonds Lions Club reimbursed the Town for unused funding.

# **FITNESS CENTRE**

	2016 Budget	2015 Budget	2015 Actual to Date
Revenues			
Goods and services	37,200	37,700	40,626
Other			
Subtotal Revenues	37,200	37,700	40,626
Expenditures			
Salaries and benefits	25,626	4,812	5,089
Goods and utilities	23,200	16,450	13,757
Subtotal Expenditures	48,826	21,262	18,846
Net Operating Costs	(11,626)	16,438	21,780

% recovery of expenses

76.19%

# Highlights

Salaries benefits:

Estimated 20% of caretakers time has been allocted to Fitness Center for 2016 budget. (2 positions)

Goods and services includes \$5,000 flooring for to use Racquetball court as an additional fitness room

# **ARENA**

	V 4 2 -		2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Goods and services	100,780	100,780	107,697
County contribution (25%)	50,000	50,174	50,174
Subtotal Revenues	150,780	150,954	157,871
Expenditures			
Salaries and benefits	101,557	90,531	115,249
Goods and utilities	131,250	138,972	117,968
Subtotal Expenditures	232,807	229,503	233,217
Net Operating Costs	(82,027)	(78,549)	(75,346)

% recovery of expenses

64.77%

# Highlights

No significant changes to 2016 budget.

## **PROGRAMS**

			2015 Actual to
	2016 Budget	2015 Budget	Date
Revenues			
Goods and services	11,000	10,000	9,923
County contribution (7%)	14,000	14,048	14,048
Subtotal Revenues	25,000	24,048	23,971
Expenditures			
Salaries and benefits	27,503	26,720	19,038
Goods and utilities	19,000	19,300	13,737
Local requisitions	26,008	25,664	0
Subtotal Expenditures	72,511	71,684	32,775
Net Operating Costs	(47,511)	(47,636)	(8,804)

% recovery of expenses

34.48%

## Highlights

Local requisition is to the Boys and Girls Club. We have committed \$25,000 per year for 5 years (2013 - 2017), including an annual COLA adjustment

## LIBRARY

	2016 Budget	2015 Budget	2015 Actual to Date
Revenues	2010 Buuget	2015 Budget	Date
	10,850	9,263	9,293
Janitorial recovery	10,650	9,203	9,293
Other			
Subtotal Revenues	10,850	9,263	9,293
Expenditures			
Goods and services	21,219	19,799	16,621
Requisition	92,000	91,000	91,000
Parkland Regional Library requisition	18,739	18,382	18,382
Subtotal Expenditures	131,958	129,181	126,003
Net Operating Costs	(121,108)	(119,918)	(116,710)

# Highlights

Goods and services includes one half of all building repairs and maintenance and one half of utilities.

## **COMMUNITY BUILDINGS**

## Scout Hall/Old Community Center/Blindman Youth Center

	2016 Budget	2015 Budget	2015 Actual to Date
Expenditures Building repairs and utilities	5,000	5,400	2,356
Total Expenditures	5,000	5,400	2,356

# Highlights

Building R & M includes new railing on Blindman Youth Center for \$950

# TOWN OF RIMBEY RESERVES - 2016

				2016 %	2016
Reserve Balances	2014 Ending	2015 Ending	Budget 2016	Change	Change
Unrestricted	653,162	463,162	195,162	-57.86%	(458,000)
Special Projects	299,029	226,829	156,104	-31.18%	(142,925)
Fire equipment	134,185	81,275	0	-100.00%	(134,185)
Water and Sewer	447,459	435,459	460,459	5.74%	13,000
Roads	283,833	268,833	228,833	-14.88%	(55,000)
Recreation	181,338	154,338	141,338	-8.42%	(40,000)
Cemetery	3,000	3,000	3,000	0.00%	0
Streetlights	100,000	100,000	200,000	100.00%	100,000
Zamboni			18,000		
Recycle	25,000	25,000	8,000	-68.00%	(17,000)
Municipal Reserve	62,159	62,159	62,159	0	0
Total reserve balance	2,189,165	1,820,055	1,473,055	-19.07%	(347,000)

# TOWN OF RIMBEY 2016 CAPITAL BUDGET

#### Assumption: AMWWP Grant is received

Project	Estimated	Cunding	Notes
Project	Cost	Funding	Notes  Replace Town office 2016, PW 2017 (5,000); Rec/pool 2018
New Computers	10,000	Special Projects	(8,000)
Phone System Upgrade		Special Projects	All sites
RCMP Building repairs: Painting,	31,000	Special Flojects	All sites
lighting, flooring, HVAC	30,000	Special Projects	Refunded in 2017
ingining, nooring, rivac	30,000	Special Projects	Refunded in 2017
50 St Asphalt Overlay 52 ave to 56 Ave	279,300	MSI	
49St Asphalt Overlay 52 Ave to 54 Ave	137,700	MSI	
49 Street Reconstruction 49 Ave to 50			Suggested by Tagish to move from B list as this overlay
Ave	68,700		would tie into the other asphalt projects
Watt's septic tie in to Town system	25,000	Water/Sewer	
Sidewalk replacements	200,000	MSI	
New Tandem	70,000	Road	
2 Way Radios (6)	7,000	Road	Look at AAMDC and Emergency Management Grant
Headache racks, lighting and re-			
decaling on all Town vehicles	13,000	Road	
New mower & sidewalk snow clearing			
tractor	119,000	MSI	Toro Groundsmater with snow broom and snow blower
			Airconditioning (\$6,500) and painting of offices, etc
PW Shop upgrades		Special Projects	(\$9,500)
Waste Water Composite Samplers	53,000		Needed for compliance with waste water licence
		AMWWP grant	
New Water Well Study & Construction	2000000	of 60.51%	
Phase 1 (Phase 2 in 2017 - \$1.6)	607,250	(367,447)	Remainder of \$361,380 to come from MSI
Main Water Reservoir/Pump House	75.000		
Upgrades		MSI	
Fencing around Recycle Bins Clay, Gravel & Cement Blocks for	8,000	Recycle	
Marshall area	0.000	Camanan	
Land Use Bylaw		Compost	
Floor Scrubber (Arena)		Special Projects Recreation	
Major Zamboni maintenance		Recreation	Start reserve
E-ceiling repairs (Arena)		Recreation	Start reserve
Swipe Key Security System (carry fwd	8,000	Recreation	
2015)	15,000	Special Projects	
Community Center main auditorium	13,000	Special Frojects	
lights	33,000	l <sub>MSI</sub>	
Community Center new roof	385,000		
2 HVAC Units	65,000	MSI	
Pool - Slide pump (new pump relocated			
to on deck)	10,000		Pool equipment fund
Pool - Hot tub replacement motor	5,000		Pool equipment fund
Pool - Family change room floors	5,000		Pool equipment fund
Total Projects	2,356,950		

# Water Well Risk Mitigation Strategy Study

# Prepared for:



Prepared by:



Project No.: RB126

Date: November 2015

# **Table of Contents**

1.0	Introduction and Background	. 1
2.0	Risk Assessment and Mitigation Strategies	. 2
2.1	Sourcing Alternate Ground Water	. 2
2.2	Additional Monitoring and Testing	. 2
2.3	Relocate Wastewater Treatment Facility	. 3
3.0	Mitigation Strategy Summary Table	. 4
4.0	Preliminary Cost Estimates	. 4
5.0	Discussion	
6.0	Conclusion and Recommendation	

Appendix A – Cost Estimates

Appendix B - Aquifer Connectivity Evaluation Report

# 1.0 Introduction and Background

The Town of Rimbey has three production water wells to supply two reservoirs. Well PW13 is the primary production water well, with 57% of the Town's water diversion license. The Water Act license (00032725-00-01) was amended effective September 12, 2011. The table below was created from the information provided by Alberta Environment and Parks and summarizes amended license information. According to the 2010 Omni-McCann Groundwater Supply Review, well PW13 produced 110,000 m³ (40%) of 275,000 m³ total of water pumped by the Town in 2009. The Town cannot produce enough water from the other two production water wells to supply the average day demand required. Well PW13 is therefore crucial to the Town and its residents for normal activity.

Well ID	Well Location	Production Interval (m below grade)	Max. Pump Intake Depth (m below grade)	Max. Rate (m³/day)
No.10	SE28-42-2-W5	24.6 – 90.2	24.1	250.0
ID 472298 No.12	SW27-42-2-W5	29.2 – 67.0	28.7	500.0
ID 365501 No.13	NE28-42-2-W5	26.5 – 51.8	26.0	1000.0

The Town of Rimbey's wastewater lagoons were originally constructed in the 1950's. In 2007, the Town upgraded and expanded the northeast lagoon bringing it approximately 140m away from a production water well PW13. During the construction of the wastewater facility upgrades some surficial fractured bedrock was exposed; well PW13 is screened in a fractured bedrock aquifer.

In 2013, Amec Foster Wheeler installed 15 groundwater monitoring wells around the northeast wastewater treatment facility and completed the annual groundwater monitoring program. Based on the proximity of PW13 to the wastewater treatment facility, Amec recommended that a study be completed to better understand the interaction between the wastewater lagoons, the shallow aquifer and deep bedrock aquifer. Amec was then commissioned by the Town to complete an Aquifer Connectivity Evaluation, see **Appendix B**, to determine if there are interactions and how they would affect well PW13.

The evaluation by Amec considers the setback distance to be insufficient for the site conditions in consideration of the large size of the wastewater lagoon, production of well PW13 and that the well is screened in the fractured bedrock aquifer that was exposed during the previous wastewater lagoon expansion. The full extent of well PW13's capture zone could not be determined with the existing data available but would include the wastewater lagoons if the fractured bedrock aquifer was approximated as an equivalent porous media aquifer. The groundwater elevations and temperatures recorded indicated that there is a hydraulic connection between the shallow groundwater and the deeper bedrock aquifer.

There is no redundancy in the water supply system in regards to well PW13. In the event PW13 is shut down for any reason the Town will not be able to meet its current water demand. The findings of the Amec connectivity evaluation indicate that the well PW13 appears to be under the influence of the wastewater lagoon and is in a high risk area. With the current information in consideration, the Town has classified well PW13 as a priority and a high risk to the health and safety of the Town and its residents.

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## 2.0 Risk Assessment and Mitigation Strategies

The Town of Rimbey's greatest risk is that the well, PW13, could be contaminated at any time and be required to be shut down from production. Well PW13 is the primary production well for the Town as it provides the largest volume of raw water for treatment and distribution. There are two other production wells in the system, PW10 and PW12. Even combined, the other two wells cannot provide enough water to service the Town's needs. There are multiple options that can mitigate the risks of well PW13 such as sourcing additional ground water, additional monitoring and testing or moving the wastewater lagoon to another location.

## 2.1 Sourcing Alternate Ground Water

New production water wells can be placed in a more suitable location that is away from the wastewater lagoons. This would require abandoning the current well PW13 and completing additional production wells. New pumps and raw water supply lines will have to be installed and tied into the existing reservoir pump house. The new production water wells should be located such that the cone of influence is not compromised by the existing wastewater lagoons. The benefit of relocating the water well is that it will provide clean and safe water for the Town.

The current production of well PW13 should be split into two producing water wells to further mitigate risk for the Town by allowing for maintenance of all the production wells. If one of the two new or two existing production water wells were to be shut down for maintenance the Town could still provide an adequate water supply to meet its needs.

A big disadvantage of relocating the existing water well PW13 is the cost. The project would require purchasing land, abandoning the existing well, locating and developing new wells, constructing and powering the pump houses, installing the supply lines and tying into the existing water treatment facility. A big variable in the cost for this option is the distance of the raw water supply lines and whether the production would be split into two water wells.

# 2.2 Additional Monitoring and Testing

Amec recommendations highlight a more aggressive monitoring and testing program which would detect even a small amount of contamination of PW13. In the event of unfavorable test results, PW13 will be shut down and removed from service.

Increased monitoring and testing is a cost effective option and would increase due diligence for water well monitoring. The existing monitoring wells all around the wastewater lagoons would be utilized to complete additional testing. Early detection of contaminated water would minimize the risk to public health.

There are major disadvantages to only increasing monitoring and testing. The most problematic being that if contaminants are discovered in well PW13, it will still be required to be shut down. If PW13 is shut down the Town cannot supply sufficient water to meet the average daily demand. Also, without knowing the extent of the fractured bedrock there is no way to definitively determine

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the path of groundwater contaminants, so PW13 may get contaminated while the monitoring wells show no change.

## 2.3 Relocate Wastewater Treatment Facility

The northeast wastewater treatment facility could be relocated farther away from the production wells to reduce the chance of ground water contamination. A project of this magnitude would require an extended construction schedule. The lagoon would be required to be taken out of service and the sludge would need to be collected and disposed of in an acceptable manner. The existing lagoon would then have to be reclaimed and restored to an appropriate condition. A suitable location for a new lagoon would need to be chosen and the new lagoon would have to be constructed.

The major benefit of relocating the wastewater treatment facility is that the Town would incorporate the most recent Alberta Environment and Parks standards into the new design. The new wastewater treatment facility would be constructed large enough to accommodate both the northeast and south lagoons.

There are several major disadvantages to relocating the existing wastewater lagoon. The cost of relocating the lagoon is very high due to the many steps required to decommission the existing lagoon and construct a new lagoon. The Town would have to purchase new land for the new lagoon. The existing lagoon had upgrades that were completed in 2009 which means that the lagoon is still at the beginning of its service life. The current site of the wastewater lagoons has been in existence a long time as wastewater facilities so there is a high probability of surrounding soil contamination. It is very likely that even by removing the lagoon there would still be contaminants present deep in the soil.

# 3.0 Mitigation Strategy Summary Table

The table below summarizes the positives and negatives for each mitigation strategy discussed in this report.

Mitigation Strategy	Positive	Negative
Sourcing Alternate Ground Water	<ul> <li>Provides clean and safe water</li> <li>Adds ability to perform maintenance on all wells if two production wells are incorporated</li> </ul>	<ul> <li>Cost of locating and developing new wells</li> <li>Provide power to new well sites</li> <li>Construct raw water supply lines</li> <li>Requires land purchase for new wells</li> </ul>
Additional Monitoring and Testing	<ul> <li>Cost effective to continue</li> <li>Potential for early detection</li> </ul>	<ul> <li>Would not stop ground water from being contaminated</li> <li>Insufficient water supply if well PW13 is taken out of service</li> </ul>
Relocate Wastewater Treatment Facility  Incorporate most recent Alberta Environment and Parks standards Increased separation of wastewater facility and water supply Increased wastewater storage capacity		<ul> <li>High cost of construction and reclamation</li> <li>Will need to purchase land</li> <li>Existing lagoon is early in service life</li> <li>Still likely to have contaminants even if lagoon is moved</li> </ul>

# 4.0 Preliminary Cost Estimates

An estimated construction cost of the specified mitigation strategies has been included in **Appendix A**. These estimates are preliminary only and much more analysis is required to create more detailed cost estimates during the pre-design phase for the project. The table below provides a summary of the preliminary cost estimates for this project.

Mitigation Strategy	Cost
Sourcing Alternate Ground Water	\$2,242,585.01
Additional Monitoring and Testing	\$115,869.60
Relocate Wastewater Treatment Facility	\$13,083,940.80

#### 5.0 Discussion

Relocating the production well is a long term solution to the existing risk of sourcing contaminated ground water. Sharing the current production of PW13 between two new wells will allow for a temporary shutdown, for maintenance, of any production well. The cost of this design concept is variable, depending mostly on the locations of the new wells. More analysis is needed to verify suitable well locations and provide more accurate cost estimates.

Additional monitoring of the monitoring wells and PW13 would allow for quick detection and response if well PW13 became contaminated. Monitoring does not solve the problem of potentially contaminated ground water supply. If contaminants were detected, PW13 would still need to be shut down and that would put the Town into a state of emergency since the Town would no longer be able to produce sufficient water for the average daily demand of it users. Also, with fractured bedrock, it is impossible to tell the precise route of contaminates so the wells used for monitoring may not be contaminated while well PW13 is contaminated.

Moving the wastewater lagoon is prohibitively expensive. The project would include the long process of cleaning and reclaiming the existing lagoon as well as building a replacement lagoon. The lagoon has been recently upgraded, completed in 2009, and is still very early in its service life. The site of the existing lagoons has been a wastewater facility for a long time. Even if the wastewater lagoon is moved there is a high probability of contaminants in the soil from previous site facilities.

#### 6.0 Conclusion and Recommendation

The purpose of this report is to provide a preliminary analysis on well PW13 and its effect on the water system of the Town of Rimbey. All cost estimates are considered to be preliminary and should only be used for budgeting and to get a general scope of associated costs for various options.

The production well PW13 is the primary source of raw water for the Town of Rimbey as it is licensed to produce 57% of the Town's potable water. If well PW13 has to shut down for any reason, the Town cannot provide enough water to meet its average daily demand with the remaining two water wells. This makes the operation of PW13 a top priority for the Town. As highlighted in the Amec Connectivity Evaluation, PW13 is in close proximity to the existing wastewater lagoons and draws water from an aquifer overlaid by fractured bedrock which was exposed during recent lagoon upgrades. The Amec Connectivity Evaluation also has indicated that there is a hydraulic connection between the shallow ground water and the deeper bedrock aquifer.

Tagish Engineering is recommending that the Town should actively locate, develop and incorporate new ground water sources into the Town's ground water supply infrastructure. Tagish is recommending that sufficient ground water sources be located such that one well could be shut down temporarily and the remaining water wells would have the capacity to supply the necessary ground water to meet the Town of Rimbey's water requirements. The existing well PW13 is in a very vulnerable location and has a high risk of contamination. Locating the production wells away and up-gradient from the existing lagoon location will allow for safe and clean raw water for the Town. Splitting the existing production well into to two separate production wells will lower the risk of the Town going into a state of emergency.

Respectfully Submitted by,

Tagish Engineering Ltd.

Prepared By:

Reviewed By:



Gerald Matichuk

Greg Smith, P.Eng.

PERMIT TO PRACTICE TAGISH ENGINEERING LTD.

Signature

Date Nou.

PERMIT NUMBER: P 3686

The Association of Professional Engineers, Geologists and Geophysicists of Alberta

**TAGISH ENGINEERING** 

6

Appendix A

**Cost Estimates** 



# Town of Rimbey Water Well Risk Mitigation Concepts Study

Project No: RB126

Date: 24-Nov-15

Preliminary Cost Estimate for Sourcing Alternate Ground Water

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
CHE	DULE A - Drilling and Licensing Wells				
1	Review existing ground water data and provide recommendations for drilling locations.	L.S.	1.0	\$12,500.00	\$12,500.00
2	Drill observation wells.	Each	4.0	\$20,650.00	\$82,600.00
3	Drill production wells c/w pump testing.	Each	2.0	\$115,900.00	\$231,800.00
4	Purchase land for well locations c/w land agent and subdivision costs.	На.	3.5	\$25,000.00	\$87,500.00
5	Sub-consultant fees for supervising drilling, pump testing, ground water analysis, report preparation and licensing.	L.S.	1.0	\$71,400.00	\$71,400.00
				SCHEDULE A SUBTOTAL	\$485,800.00
CHE	DULE B - Water Supply				
1	Supply and install 150mm C900 PVC DR-18 water main c/w compacted backfill, connection to existing water supply infrastructure and all required appurtenance.				
	illinastructure and an required apputteriance.	Lin.m.	2,600.0	\$200.00	\$520,000.00
2	Construct access road c/w 150mm crush gravel surface, 3:1 side slopes and landscaping.	Lin.m.	500.0	\$130.00	\$65,000.00
3	Supply and install barbwire fence along access road $\ensuremath{\text{c/w}}$ all appurtenances.	Lin.m.	1,000.0	\$12.50	\$12,500.00
4	Supply and install chain-link fence around well sites c/w all required appurtenances.	Lin.m.	680.0	\$72.50	\$49,300.00
5	Supply and install well pump and pit less adaptor c/w all appurtenances.	Each	2.0	\$8,750.00	\$17,500.00
	Supply and construct a pump house building to house the well pump and controls c/w all appurtenances.	Each	2.0	\$100,000.00	\$200,000.00
	Fortis to install power poles and lines to wells c/w connection to power grid and all required appurtenance.	Each	30.0	\$5,000.00	<b>\$</b> 150,000.00
	Supply and install SCADA equipment c/w all appurtenances.	Each	2.0	\$50,000.00	\$100,000.00
	Purchase land easement for water supply lines c/w land agent and subdivision costs.	На.	3.9	\$12,500.00	\$48,750.00
				SCHEDULE B SUBTOTAL	\$1,163,050.00



#### **Town of Rimbey**

ITEM

Water Well Risk Mitigation Concepts Study

Preliminary Cost Estimate for Sourcing Alternate Ground Water

Project No: RB126

PROJECT TOTAL \$2,242,585.01

Date: 24-Nov-15

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
SUMMARY OF	SCHEDULES				
			SCI	HEDULE A SUBTOTAL	\$485,800.00
			SCH	HEDULE B SUBTOTAL	\$1,163,050.00
				SUBTOTAL	\$1,648,850.00
				CONTINGENCY (15%)	\$247,327.50
				SUBTOTAL	\$1,896,177.50
			Mot	bilization and Bonding	\$50,000.00
			Engineer	ring and Testing (10%)	\$189,617.75
				SUBTOTAL	\$2,135,795.25
				GST (5%)	\$106,789.76



#### **Town of Rimbey**

Water Well Risk Mitigation Concepts Study

Preliminary Cost Estimate to Additional Monitoring and Testing

Project No: RB126 Date: 24-Nov-15

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
SCHE	DULE A - Additional Monitoring and Testing				
1	Drill and case observation wells at 6m, 30m and 60m between the northeast lagoon and well PW13 for observation and testing purposes.	L.S.	1.0	\$74,000.00	\$74,000.00
2	Provide additional testing of existing monitoring wells over and above current annual testing c/w with sampling, lab testing, reporting and all appurtenances.	L.S.	1.0	\$9,600.00	\$9,600.00
				SCHEDULE A SUBTOTAL	\$83,600.00
SUM	MARY OF SCHEDULES				
				SCHEDULE A SUBTOTAL	\$83,600.00
				SUBTOTAL	\$83,600.00
				CONTINGENCY (20%)	\$16,720.00
				SUBTOTAL	\$100,320.00
				Engineering (10%)	\$10,032.00
				SUBTOTAL	\$110,352.00
				GST (5%)	\$5,517.60
				PROJECT TOTAL	\$115,869.60



# Town of Rimbey Water Well Risk Mitigation Concepts Study

Preliminary Cost Estimate to Relocate Wastewater Treatment Facility

Project No: RB126 Date: 24-Nov-15

NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
CHE	DULE A - Decommission Northeast Wastewater Facility				
1	Remove and dispose of aeration equipment includes blower building, blower piping and all appurtenances.	L.S.	1.0	\$150,000.00	<b>\$1</b> 50,000.00
2	Remove and dispose of sludge from lagoons.	Cu.m.	5,000.0	\$25.00	\$125,000.00
3	Remove and dispose of miscellaneous infrastructure including PVC liner, piping, structures and manholes.	L.S.	1.0	\$100,000.00	\$100,000.00
4	Reclaim site c/w spreading of existing berms, supply, place and compact 150mm topsoil seeded with grass, fertilizer, maintenance and all appurtenances.	Cu.m.	70,000.0	\$20.00	\$1,400,000.00
				SCHEDULE A SUBTOTAL	\$1,775,000.00
CHE	DULE B - Construct New Wastewater Treatment Facility				
1	Strip and stockpile topsoil.	Cu.m.	45,000.0	\$7.50	\$337,500.00
2	Supply, place and compact import clay material for berms.	Cu.m.	78,000.0	\$15.00	\$1,170,000.00
	Supply, place and compact import clay material for clay lining of lagoon cells.	Cu.m.	125,000.0	\$20.00	\$2,500,000.00
	Supply and install aeration equipment c/w building, controls, piping and appurtenances.	L.S.	1.0	\$784,000.00	\$784,000.00
	Supply and install chain-link fence around wastewater treatment facility c/w all required appurtenances.	L.S.	1.0	\$160,000.00	\$160,000.00
	Supply, place and machine compact 150mm topsoil seeded to grass c/w fertilizer, maintenance, and all required appurtenances.	Cu.m.	30,000.0	\$4.00	\$120,000.00
	Fortis to install power poles and lines to aeration building c/w connection to power grid and all required appurtenances.	Each	15.0	\$5,000.00	\$75,000.00
	Purchase land for new wastewater treatment facility c/w land agent and subdivision costs.	На.	30.0	\$25,000.00	\$750,000.00
	Supply and install lift station at existing northeast wastewater treatment facility c/w forcemain to new wastewater treatment facility and all appurtenances.	L.S.	1.0	\$1,600,000.00	\$1,600,000.00
				SCHEDULE B SUBTOTAL	\$7,496,500.00



#### **Town of Rimbey**

Water Well Risk Mitigation Concepts Study

Preliminary Cost Estimate to Relocate Wastewater Treatment Facility

Project No: RB126

Date: 24-Nov-15

ITEM	DESCRIPTION	UNIT QUANTITY	UNIT PRICE	AMOUNT
NO.				

#### **SUMMARY OF SCHEDULES**

SCHEDULE A SUBTOTAL	\$1,775,000.00
SCHEDULE B SUBTOTAL	\$7,496,500.00
SUBTOTAL	\$9,271,500.00
CONTINGENCY (20%)	\$1,854,300.00
SUBTOTAL	\$11,125,800.00
Engineering and Testing (12%)	\$1,335,096.00
SUBTOTAL	\$12,460,896.00
GST (5%)	\$623,044.80
PROJECT TOTAL	\$13,083,940.80

# TOWN OF RIMBEY 2016 CAPITAL BUDGET - B LIST

Project	Estimated Cost	Notes
43 Street Road Construction 50 Ave to	COSC	Notes
54 Ave	1 062 300	Local Improvement Levy
54 Ave Road Construction 44 St to Hwy	1,002,300	Local Improvement Levy
20	545,800	Local Improvement Levy
51 Ave Reconstruction 50 st to 51 St	1,222,600	Apply for Building Canada Fund
Concrete Crushing	50,000	Road
New Truck 4WD 3/4 or 1 ton	50,000	Road
Gen Set for Well 13	27,000	MSI
NE Lagoon Drainage Ditch upgrade	700,000	Appled for AMWWP Grant \$420,000 plus MSI of \$280,000
Standby Generator (Carry fwd 2015)	85,000	MSI
		Spray park rebuild recirculation park is estimated at \$359,900 however other options would be to re-build a free flow park for \$185,750, turn the splash park into a playground, or dismantle
Spray Park (rebuild)	100,000	completely.
Demolition and Asbestos removal		
(Scout Hall)		Give to Kinsmen
Demolition and Asbestos removal (Old		
Community Center)	74,300	Special Projects
	3,917,000	

# TOWN OF RIMBEY GRANT FUNDED PROJECTS Budget 2016

#### **Assumption: Full Alberta Wastewater Grant is received**

	FGTF	MSI	AMWWP
Bal Dec 31 2015	124,662	759,458	
2016 Allocation	124,662	659,882	367,447
Available funding	249,324	1,419,340	367,447
2016 Capital Projects			
50 Street Overlay; 52 Ave to 56 Ave	249,324	29,976	
49 Street Overlay; 52 Ave to 54 Ave		137,700	
49 Street Reconstruction 49 Ave to 50 Ave		68,700	
Sidewalk replacements		200,000	
New Mower with snow broom and blower		119,000	
Waste Water Composite Samplers		53,000	
Main Reservoir/pump house upgrades New Water Well Study and Construction (Does not		75,000	
include cost of land that may be required)		239,803	367,447
Community Center new roof		385,000	
2 HVAC units		65,000	
Estimated total costs	249,324	1,373,179	367,447
Unexpended Grant Revenue	0	46,161	0

# TOWN OF RIMBEY RESERVE FUNDED PROJECTS Budget 2016

Assumption: Does not include 2015 surplus/deficit

	Budget	Reserve
Opening balance	1,820,055	
2016 Capital Projects		
New computers	10,000	Special Projects
Phone system upgrade	31,000	Special Projects
RCMP building repairs	30,000	Special Projects
Watt's septic tie in to Town system	25,000	Water/Sewer
Tandem truck	70,000	Road Reserves
2-way radios	7,000	Road Reserves
Headache racks, new decaling	13,000	Road Reserves
PW shop upgrades	16,000	Special Projects
Fencing around recycle bins	8,000	Recycle
Clay, gravel and cemet blocks for compost marshalling area	9,000	Recycle
Land Use Bylaw		Special Projects
Community Center main auditorium lights	33,000	Recreation
Floor scrubber (Arena)	7,000	Recreation
Major Zamboni maintenance	15,000	Recreation
E-ceiling repairs (Arena)	8,000	Recreation
Swipe key security system (Community Center)	15,000	Special Projects
Pool Equipment funded items \$20,000		Pool equipment fund
Estimated total costs	347,000	
Closing balance	1,473,055	