

To: Mayor and Members of Council

April 4, 2011

Re: WCRM158 Wastewater Management Authority – Ron Hilton

Background

There was a WCRM158 Wastewater Management Authority meeting on Monday March 28th, and the Councils from both the RM and Town were invited to attend the meeting. At the meeting there was discussion around the financing of the Wastewater Project, however there was no decisions made as to how the financing is going to be split.

Discussion

Ron Hilton, Administrator of the Wastewater Authority, has had a chance to further review the distribution of the grant and the costs of the project to come up with a recommendation to the Authority as to the amount each municipality will be responsible for.

Attached is a revised Financial Business Plan. Ron will attend the Council meeting to discuss this plan with Council.

Budget Implications

none

Conclusion

The next meeting of the WCRM158 Wastewater Management Authority is on Tuesday April 5, 2011. The board members of the Authority are planning on making a decision on the financial plan of the project at this meeting, so if the Council of the Town of White City has any questions or concerns, it would be prudent to discuss those at this Council meeting.

Recommendation

Respectfully submitted,



Shauna Bzdel,
Town Manager

WCRM158 Wastewater Management Authority Inc.

Financial Business Plan

BACKGROUND

The WCRM158 Wastewater Management Authority Inc. has embarked on a process that will lead to a long term solution for the conveyance, treatment and disposal of municipal waste water. The project began in 2009 with the formation of the Authority. Approval for a grant under the Infrastructure Stimulus Program was received by the Authority for the construction of the first phase of the project being a conveyance system from the lagoons at Emerald Park to the existing White City lagoon. The grant is based on a project cost of \$4.76 million the current estimated cost for completion of this project is about \$5.25 million leaving the local contribution of approximately \$2.1 million. The Authority has received approval for a loan of \$2 million and is currently just paying interest charges on the amounts advanced so far (\$850,000)

In addition to the conveyance project the authority has undertake other studies in preparation for the next and future stages of the process to a long term solution to the wastewater treatment for the communities. They include

Sewage Works and Sustainability Assessment of the existing White City lagoon and Irrigation system. The study was completed in Oct 2010 at a total cost of \$46,000. The Town of White City paid the total cost of this study. The study concluded that the White City lagoon is leaking and needs to be rehabilitated if it is to continue in operation. The study also concluded that the use of the existing irrigation facility is sustainable.

Short Term Solution Facilities Expansion This study was conducted in two stages firstly the preliminary design and next the detailed design and preparation of tender documents. This project involves the constructions of a new 17 hectare storage lagoon, the clay lining of the existing White City lagoon and conversion into a primary treatment lagoon and a new irrigation pumping station with additional irrigation capacity. The total cost of the studies to date is \$300,000. The detailed design for the storage lagoon and rehabilitation of the White City lagoon is competed and is currently out for tender. The detailed design of the expanded irrigation system is just beginning and is expected to be

tendered mid 2011. The current estimated cost for the project is \$6.2 million. The study costs to date have been shared equally by the Town and the RM

Long Term Solution Work is expected to begin in late 2011 on the preliminary design of the long term solution being the construction of a Mechanical Biological Treatment Plant expected to cost in the vicinity of \$7 to \$10 million

By mid 2011 it is expected that the conveyance system will be completed. The next stage for the project is the construction of the new storage lagoon and the lining and conversion of the existing White City lagoon into a primary lagoon. The first stage of the storage lagoon needs to be completed by September 2011 to allow treated effluent from the Emerald Park lagoon to be transferred to the new storage lagoon and disposed of through irrigation.

ALLOCATION OF COSTS

The purpose of the new and expanded facilities to allow for continued growth in the two communities of Emerald Park and White City.

The following air photo shows the future development areas for both the Town of White City and the RM of Edenwold (Emerald Park) and the following table show the area size and number of future lots based on 3 lots per acre.

DEVELOPMENT AREA OWNER AND LOTS

Area	Size	Lots
1- Aspen Village Properties	20.5	61.5
2- Tarowski	78.9	190.2
3 – Aspen Village Properties	6.3	18.9
4 – Great Plains Development	5.1	15.3
5 – Great Plains Development	106.5	319.5
6 - Great Plains Development	29.7	89.1
7 - Clearvista	196.5	589.5
8 – Clearvista	61.6	184.8
9 - Great Plains Development	40.4	121.2
10- Great Plains Development		150
RM of Edenwold (Existing)		510
White City (Existing)		854
		3150.5

The following table shows the planned projects and the estimated cost of each. (At this time we will deal only with the Short term costs which total \$11,414,000.)

Project Cost Table

Project	Cost Estimate
Force main	\$500,000
Gravity Main	\$2,151,000
Lift Station	\$2,600,000
White City Lagoon	\$1,663,000
Storage Lagoon	\$2,500,000
Irrigation	\$2,000,000
Mech Bio Plant	\$10,000,000
	\$21,414,000
Short term cost	\$11,414,000

The above project when completed will allow development to continue up to 2014 following which the treatment plant is scheduled to be constructed which will provide for growth in the communities up until 2027. The various overall project components will serve the areas for current and future development in different ways, so the following table shows the various project components and what areas of current and future development they will serve.

AREA BENEFIT TABLE

Project	Cost	Benefit Area										EP	WC
		1	2	3	4	5	6	7	8	9	10		
Force main	\$500,000	y	y	y	y	y	y	y	y	y		y	
Gravity Main	\$2,151,000	y	y	y	y	y	y		y			y	
Lift Station	\$2,600,000	y	y	y	y	y	y	y	y	y		y	
White City Lagoon	\$1,663,000	y	y	y	y	y	y	y	y	y	y	y	y
Storage Lagoon	\$2,500,000	y	y	y	y	y	y	y	y	y	y	y	y
Irrigation	\$2,000,000	y	y	y	y	y	y	y	y	y	y	y	y
Mech Bio Plant	\$0	y	y	y	y	y	y	y	y	y	y	y	y

Refer to airphoto map for areas EP (Emerald Park) WC (White City)

The next step is to determine what the cost per lot is based on the benefit it receives from the various project components. The following table shows projects broken down into the cost per lot served.

PROJECT COST PER LOT

Project	Cost	# of Lots	Cost per lot
Force main	\$500,000	2146.5	\$232.94
Gravity Main	\$2,151,000	1840.5	\$1,162.60
Lift Station	\$2,600,000	2146.5	\$1,235.03
White City Lagoon	\$1,663,000	1004	\$1,656.37
Storage Lagoon	\$2,500,000	3150.5	\$793.52
Irrigation	\$2,000,000	2146.5	\$931.75
Mech Bio Plant	\$0	3150.5	\$0.00

The next table combines the project cost per lot with the area benefit table to produce a total cost per lot based on the total project. It also show the total cost per area and the cost for the existing developed areas of both Emerald Park and White City

TOTAL COST PER LOT BY AREA

Benefit area	area	lots	Total Cost per lot	cost per area
1	20.5	61.5	\$4,886.77	\$300,536.22
2	78.9	236.7	\$4,886.74	\$1,156,697.94
3	6.3	18.9	\$4,886.74	\$92,359.91
4	5.1	15.3	\$4,886.74	\$74,767.55
5	106.5	319.5	\$4,886.74	\$1,561,322.31
6	29.7	89.1	\$4,886.74	\$435,411.01
7	196.5	589.5	\$3,424.17	\$2,018,547.36
8	61.6	184.8	\$4,886.74	\$903,074.69
9	40.4	121.2	\$3,424.17	\$415,009.23
10		150	\$1,956.20	\$293,429.61
Emerald Park (RM of Edenwold)		510	\$4,886.74	\$2,492,251.57
White City		854	\$1,956.20	\$1,670,592.60
		3150.5		\$11,414,000.00

Financial Plan

Based on the above information the a financial plan needs to be developed to allocate the cost as fairly as possible and to ensure finances are available to pay for the loan payments as they become due.

The costs associated with the current developed areas of Emerald Park and White City are shown on the table below.

Area	Lots	Cost Per Lot	Total Cost
Emerald Park (RM of Edenwold)	510	\$4,655.84	\$2,492,251.57
White City	854	\$2,449.90	\$1,670,592.60

The task now is to finance the balance of the project through development levies based on the benefits received and the timing of development If we take of the contribution of the existing development less grant to be received we are left with \$8.0 million to recover through development levies.

