

Township of North Dundas

COUNCIL REPORT

To:	CAO, Mayor and Members of Council
From	Mary Lynn, Water/Sewer Assistant Manager
Date of Meeting:	January 7, 2014
Subject:	Water & Sewer Report

1. Township of North Dundas Drinking Water and Wastewater System Rate Report & The Township of North Dundas Drinking Water System Financial Plan:

Please see attached excerpts from the Township of North Dundas Drinking Water and Wastewater System Rate Report and the North Dundas Drinking System Financial Plan that was completed by Ken Sharratt of Sharratt Water Management Ltd. A complete copy is available for your viewing in the Councilors office. Ken concluded that the North Dundas Water System "is in sound financial condition". The reports need to be approved by a resolution by Council and once approved a copy of the Financial Plan will be sent to the Ministry of Municipal Affairs and Housing and made available on our North Dundas website. Ken Sharratt will be available at a later date if Council would like him to present his reports.

Mary Lynn Plummer

Approved by

TOWNSHIP OF
North Dundas



**The Township of North Dundas
Drinking Water and Wastewater System**

Rate Report

September 30, 2013



Sharratt Water Management Ltd.
Sustainable Water Management Specialists



Executive Summary

The Township retained the services of the Ontario Clean Water Agency and Sharratt Water Management Ltd to prepare rates for the Township's water and wastewater systems and to prepare a financial plan for the Township's water system that meets the requirements of Ontario Regulation 453/07. The preparation of a financial plan has been prepared as a three-step process:

1. The Ontario Clean Water Agency (OCWA) has identified the future capital and major maintenance needs necessary to maintain the water and wastewater systems to 2020, as well as their timing and costs. These needs are set out in a separate document, and the main findings are in the appendices to this report.
2. Sharratt Water Management Ltd. has taken OCWA's capital and major maintenance data, inflated it to future cost, and developed full cost rates for the water and wastewater systems. The rates that are proposed and the process used to develop them are set out in this report.
3. Water Financial Plan – This is based on the water portion of components 1 and 2 above, as well as the Township's listing of tangible capital assets. We will project the amortization of these assets forward to 2019. The water financial plan is set out in a separate report.

The communities of Winchester and Chesterville are 12 km apart, located in the Township of North Dundas, 60 km southeast of Ottawa. The Township operates water and wastewater systems in Winchester and in Chesterville. Water in both communities is provided by wells, and a project is underway to connect the two communities with a water main. Wastewater treatment in both is provided by lagoon systems. The Township is establishing common water and wastewater rates for both communities.

ES 1 Water Rates

A common water rate is proposed that would be applicable in both communities commencing January 1, 2014. This is set out in table ES1:

Table ES1 North Dundas Metered Combined Water Rates 2013-2020 in inflated \$

		2013	2014	2015	2016	2017	2018	2019	2020
Fixed Rate Paid by All Users/Month									
Meter Size (Inches)	0.62	7.28	7.41	7.70	8.00	8.31	8.64	8.98	9.33
	0.75	7.28	7.41	7.70	8.00	8.31	8.64	8.98	9.33
	1	10.19	10.37	10.78	11.20	11.64	12.09	12.57	13.06
	1.5	13.11	13.33	13.86	14.40	14.96	15.55	16.16	16.79
	2	21.12	21.48	22.32	23.20	24.10	25.05	26.03	27.05
	2.5	50.97	51.86	53.88	55.99	58.18	60.46	62.83	65.29
	3	80.09	81.49	84.68	87.99	91.43	95.01	98.73	102.60
	4	101.94	103.71	107.77	111.98	116.36	120.92	125.65	130.58
Volumetric Charge for All Water Used									
	Per cubic metre (219 imperial gallons)	0.85	0.89	0.93	0.97	1.01	1.05	1.10	1.15

Note 1 2013 shaded information is for Winchester only and is shown only for comparison

Note 2 2014-2020 proposed rates are for both Winchester and Chesterville customers

The above rates represent an increase of 6% per year, including inflation of 2.5% per year, from 2014 to 2020 for someone using 300 cubic metres of water per year. The rate will finance future capital projects from 2014-2020, it will cover projected operating cost increases and it will maintain the capital reserves.



ES2 Wastewater Rates

Wastewater charges are commonly collected by placing a surcharge on water use. This approach makes sense, as the loading a user imposes on the wastewater treatment system is generally related to the amount of water bought by that user. Winchester has utilized this approach in the past, and it is proposed that the Township utilize this approach, as a common rate, now that Chesterville is metered.

OCWA's projection of future capital and major maintenance needs to 2020 has meant that future rate increases are needed, if reserves are to be maintained, and additional debt, over that projected, is to be avoided.

Three wastewater surcharge options are presented. All provide a sustainable financial framework to the 2014-2020 periods. The options represent different paths for getting to that point. Each has different implications for the size of the loan required to finance the Winchester wastewater expansion project in 2016, and each has different implications for the size of the 2014 rate increase for family users in Chesterville. In all options, the surcharge for 2015 to 2020 is the same in both communities. The options are as follows:

Option 1 Full Implementation – this option brings wastewater ratepayers to the same surcharge in 2014. This results in a significant bill increase for families and others using average amounts of water, but minimizes the size of the loan required in 2016.

Option 2 Chesterville Phase in – this option provides a lower surcharge in 2014 to Chesterville users, which reduces the size of the 2014 bill increase to Chesterville families. It results in the need for a larger loan than is needed in option 1.

Option 3 Chesterville and Winchester Phase in – Users in both systems pay the same lower surcharge in 2014 as option 2. This phases in bills in both communities compared to options 1 and 2. It requires a larger loan than is needed in option 2.

The proposed surcharge rates for each option for 2014 to 2020 are set out in table ES2:

Table ES2 North Dundas Proposed Wastewater Surcharges - 2014 to 2020

		2014	2015	2016	2017	2018	2019	2020
Option 1	Chesterville	151%	146%	149%	151%	153%	156%	158%
	Winchester	151%	146%	149%	151%	153%	156%	158%
Option 2	Chesterville	130%	138%	143%	149%	155%	161%	164%
	Winchester	146%	138%	143%	149%	155%	161%	164%
Option 3	Chesterville	128%	133%	139%	145%	151%	157%	163%
	Winchester	128%	133%	139%	145%	151%	157%	163%

A brief summary of the implications of the three options is presented in table ES3. Impacts that are more detailed are shown in the wastewater section, including a projection of total water and wastewater bills for various users groups shown in tables 6.3, 6.4 and 6.5.



Table ES3 Comparison of Impacts of North Dundas Wastewater Surcharge Options

	Option 1	Option 2	Option 3
Loan Needed In 2016 for Winchester Lagoon	\$ 2,429,177	\$ 2,579,177	\$ 2,750,000
Annual Principal and Interest Cost 2016-2036	\$ 191,553	\$ 203,381	\$ 216,851
2014 Total Water and Wastewater Family Bill Increase/(Decrease)			
Chester/Ille	\$ 119	\$ 62	\$ 55
Winchester	\$ (0)	\$ (0)	\$ (64)
2020 Revenue Generation	\$ 1,056,843	\$ 1,074,666	\$ 1,074,317
2020 Year-End Reserve	\$ 457,328	\$ 447,492	\$ 366,491
2020 Year End Operating Cost	\$ 555,188	\$ 555,188	\$ 555,188
2020 Transfer to the Reserve	\$ 310,103	\$ 316,097	\$ 302,278

Note: Shaded areas show features of each option that are different. Non-shaded areas show features that are the same

As can be seen above, the annual revenue generation by 2020, the year-end operating costs, the annual transfers to the reserves, and the reserves totals are generally comparable. The main differences relate to the size of the loans and the 2014 surcharge, and resulting total water bill increase.

ES3 Value of North Dundas Water Context to this Report

The cost per litre in 2014 for someone using 300 cubic metres per year is one ninth of a cent. In 2014, it is projected to be one sixth of a cent. Table ES3 provides an indication of the number of water uses that can be undertaken for \$1.00.

ES3 North Dundas Tap Water - Its Value in 2014 and 2020

Amount Used (Litres)	What \$1.00 will buy Quantity Purchased		
	2014 Rate	2020 Rate	
Drink a 340 ml glass of ND tap water	0.34	2,482	1,935
Drink a 500 ml bottle of ND tap water	0.5	1,687	1,316
Buy a 500 ml bottle at Tim Hortons	0.5	1	?
Shower 30 minutes	270	3	2
Shower 10 minutes	90	9	7
Shower 5 minutes	45	19	15
Run dishwasher start to finish - New	25	34	26
Run dishwasher start to finish - Older	38	22	17
Flush an older 15 litre toilet	15	56	44
Flush a 6 litre toilet	6	141	110
Flush a High Efficiency Toilet	4.5	187	146
Wash Clothes - Older Top Load	175	5	4
Wash Clothes - New Front Load	90	9	7
Water lawn for 1 hour - 1/2" hose	1,097	0.8	0.6

Table ES3 shows that \$1.00 worth of water in 2014 will buy over 2,400 normal glasses of tap water, 15 five-minute showers, 26 runs of a water-efficient dishwasher, 146 toilet flushes with a high efficiency toilet and 7 washer loads using a front load machine. A dollar will get 48 minutes of lawn watering time. These numbers pertain only to water. If wastewater treatment is included, then the numbers will be smaller. This table is not intended to downplay the bill increases between 2014 and 2020. Instead, it shows the tremendous value represented by tap water.

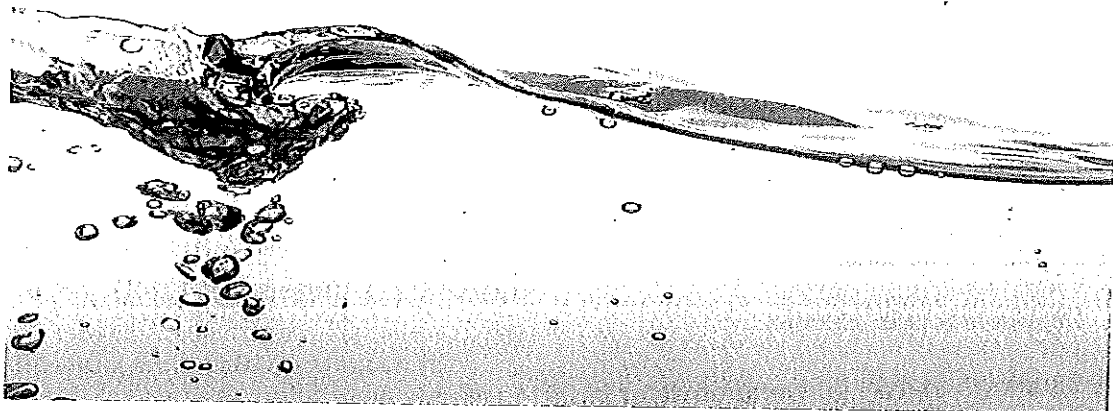
TOWNSHIP OF
North Dundas



**The Township of North Dundas
Drinking Water System**

Financial Plan

November 6, 2013



**Ontario Clean Water Agency
Agence Ontarienne Des Eaux**



Sharratt Water Management Ltd.
Sustainable Water Management Specialists

1. Introduction

The Township of North Dundas has authorized the Ontario Clean Water Agency (OCWA) and Sharratt Water Management Ltd. (SWML) to develop water and wastewater rates and the Financial Plan for the Township's drinking water system.

This Financial Plan has been prepared in accordance with the Financial Plan regulation (O. Reg. 453/07) made under the Safe Drinking Water Act, as well as the provisions of the financial planning guidelines published by the Ministry of the Environment (MOE) in August 2007 entitled "Toward Financially Sustainable Drinking-Water and Wastewater Systems".

The water rates are set out in the NORTH DUNDAS DRINKING WATER SYSTEM AND WASTEWATER SYSTEM FINAL RATE REPORT (FINAL RATE REPORT), dated September 30, 2013. The FINAL RATE REPORT estimates the capital and major maintenance costs from the year 2010 to the year 2020 in an operating plan. The revenue needed to support the operating plan is laid out in a funding plan that relies on user fees from rates, connection charges and other sundry sources of revenue. User fees from rates are set so that adequate reserves are developed in order to fund future capital and major maintenance expenses.

The Financial Plan was developed for the Township's drinking water system, based on the FINAL RATE REPORT, as well as tangible capital asset information that the Township generated in accordance with the Public Sector Accounting Board (PSAB) standard PS 3150 requirements. The Financial Plan includes a projection of non-financial tangible capital assets to the year 2020.

1.1 Legislative Context to Financial Planning

There have been a number of legislative initiatives affecting water system management and operations over the past decade. These initiatives were a result of the water borne illness tragedy in Walkerton in 2000. Following this event, the Government of Ontario established a public inquiry chaired by the Honourable Dennis O'Connor to look into the tragedy. The Inquiry Report recommended a comprehensive approach to the delivery of safe drinking water in Ontario.

The MOE has responded to the Inquiry recommendations by making legislative changes. One change directly related to the development of this Financial Plan was the passage of the Safe Drinking Water Act, 2002 (SDWA). It requires owners of a municipal drinking

water system to apply for and obtain a Municipal Drinking Water Licence. Five elements must be in place in order for the owner of a drinking water system to obtain a licence:

- 1) A Drinking Water Works Permit to establish or alter a drinking-water system;
- 2) An accepted Operational Plan. The Drinking Water Quality Management Standard (DWQMS) is the standard upon which operational plans are based. The plan documents an operating authority's quality management system (QMS).
- 3) An Accredited Operating Authority. A third party audit of an operating authority's QMS will be the basis for accreditation.
- 4) A Permit to Take Water.
- 5) A Financial Plan that must be prepared and approved in accordance with the prescribed requirements in the Financial Plans Regulation.

Under section 30 of the SDWA, the Financial Plan element of the licence program must either be prepared in accordance with the Sustainable Water and Sewage System Act, 2002 (SWSSA) or in accordance with the requirements set by the Minister of the Environment. SWSSA regulations were never published and the legislation has now lapsed. Accordingly, the requirements set by the Minister of Environment apply as per the 2007 MOE guidelines.

Regulation 453/07 of the Safe Drinking Water Act was passed in 2007 and contains two key provisions that apply to an existing water system:

1. A person who makes an application under the Act for a municipal drinking water licence shall, before making the application, prepare and approve financial plans for the system that satisfy the requirements of O. Reg. 453/07, S. 1(1).
2. As a condition in a municipal drinking water licence that is issued in response to an application made under section 33 of the Act for a municipal drinking water licence, the Director shall include a requirement that the owner of the drinking water system, by the later of July 1, 2010 and the date that is six months after the date the first licence for the system is issued, prepare and approve financial plans for the system that satisfy the requirements prescribed Reg. 453/07. O. Reg. 453, S. 1(3).

Several other provisions are also set out in the regulation that must be met by a municipality operating a water system:

- The Financial Plan must be approved by a resolution that is passed by the Council of the municipality

- The Financial Plan must apply to a period of at least six years.
- The first year to which the Financial Plan must apply is the year in which the first license for the system was issued.

Once a system is licensed, the municipality's Financial Plan is required to be updated every 5 years, in conjunction with every application for license renewal.

1.2 Recent Accounting and Policy Changes

In June 2006, the Public Sector Accounting Board (PSAB) of the Canadian Institute of Chartered accountants approved new municipal financial accounting and reporting standards requiring that tangible capital assets (TCA), including components of the water system, be included in municipal financial statements. The new accounting standard PS 3150 came into effect on January 1, 2009. This provides for a sharper focus on the depreciation of the capital asset base of the water system and the need to plan for renewal and replacement on a timely basis. This data is an integral component of the financial statements included in this Financial Plan.

The Clean Water Act 2006 targets the protection of drinking water supplies through the development of collaborative, locally driven, science and watershed based source protection plans. According to the MOE financial planning guidelines, Financial Plans should include source water protection costs related to the provision of water services. Utilities are encouraged to have, at minimum, estimates of any current source protection costs as a separate cost item by the time that their Financial Plans are required in order to effectively align with the anticipated approval timelines for source protection plans (2010-2012).

In June 2007, the government of Ontario proposed a lead action plan. The Financial Plans regulation contains requirements for municipalities to include in their Financial Plans, the costs associated with replacing lead service pipes that are part of the drinking water system.

1.3 Township of North Dundas Water System

The North Dundas water system serves two communities connected with a feeder main:

- Winchester - This system is comprised of six wells, a new reservoir, a water tower and a distribution system. The water system serves approximately 2,300 residents and businesses, including the large dairy. The system is fully metered and currently has about 994 connections.

5.5 Conclusion

The North Dundas water system has undertaken some major capital projects over the 2010 to 2012 periods. The system is debt free. No more large capital renewal projects are projected until 2019. It has a good reserve. The system is in sound financial condition, if the Township follows the projected rates and the long-range capital renewal and major maintenance plan proposed in the FINAL RATE REPORT. The detailed financial statements set out in tabular form that were the basis for the above summary follow in Section 6.

6. Financial Statements

The detailed financial statements are set out in the following tables followed by the notes that correspond to the numbers in the tables.

Table 6.1 Statement of Financial Position - North Dundas Water System

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Notes
Financial Assets												
Cash and Cash Equivalents	773,981	1,035,250	958,685	926,116	1,010,003	989,796	1,060,521	1,201,984	1,403,877	864,288	1,009,876	1
Accounts Receivable												
Deposits												
Total Financial Assets	773,981	1,035,250	958,685	926,116	1,010,003	989,796	1,060,521	1,201,984	1,403,877	864,288	1,009,876	
Liabilities												
Accounts Payable (Capital)												
Debt Principal	278,715	955,506	969,598	1,392,431								2
Working Deficit												
Other Liabilities												
Total Liabilities	278,715	955,506	969,598	1,392,431								
Net Financial Assets (Debt)	495,266	79,744	(10,913)	(406,315)	1,010,003	989,796	1,060,521	1,201,984	1,403,877	864,288	1,009,876	
Non Financial Assets												
Tangible Capital Asset Cost	7,423,906	11,096,643	14,014,099	14,325,387	15,161,050	15,209,495	15,440,114	15,431,817	15,504,380	15,566,452	16,364,973	3
Additions to Tangible Capital Assets - Cost	3,887,655	2,924,413	380,863	856,258	46,522	243,448	42,986	72,563	62,072	798,521	98,106	4
Accumulated Amortization Incl. Addition	2,655,980	2,672,911	2,901,080	3,116,137	3,380,727	3,674,140	3,956,229	4,197,478	4,483,039	4,829,120	5,171,604	5
Total Non Financial Assets	8,655,581	11,348,145	11,493,882	12,065,508	11,830,145	11,778,802	11,526,771	11,305,902	11,073,412	11,535,853	11,291,475	
Accumulated Surplus/(deficit)	\$9,150,847	\$11,427,889	\$11,482,969	\$11,659,193	\$12,840,149	\$12,748,599	\$12,587,291	\$12,508,885	\$12,477,290	\$12,400,141	\$12,301,351	

Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.

Table 6.2 Statement of Financial Operations - North Dundas Water System

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Notes
Revenues												
User Fees	\$701,843	\$773,158	\$797,796	\$846,000	\$745,000	\$777,333	\$814,069	\$846,270	\$882,998	\$921,220	\$961,305	6
Other Revenues	\$163,527	\$76,793	\$40,683	\$44,090	\$45,506	\$46,453	\$47,420	\$48,408	\$49,927	\$49,957	\$51,009	7
Interest on Reserves	\$0	\$0	\$0	\$0	\$27,783	\$30,300	\$29,094	\$31,816	\$36,080	\$42,116	\$25,929	
Donation Charges	\$0	\$0	\$0	\$0	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000	
Total Revenues	\$865,370	\$849,951	\$838,479	\$890,090	\$838,290	\$874,086	\$907,583	\$946,493	\$987,985	\$1,033,393	\$1,058,243	
Expenses												
Operating	\$479,018	\$518,473	\$528,770	\$596,959	\$606,960	\$623,316	\$640,199	\$657,445	\$675,248	\$693,565	\$712,412	8
Major Maintenance	\$48,303	\$17,510	\$136,856	\$71,027	\$97,919	\$47,530	\$133,734	\$75,022	\$48,771	\$80,896	\$102,138	9
Debt Interest	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Amortization	\$192,141	\$231,849	\$242,914	\$284,692	\$284,885	\$284,791	\$295,017	\$292,432	\$295,561	\$336,080	\$342,484	10
Loss on Disposal of Assets	\$5,391	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Lead Abatement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Source Water Protection	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Expenses	\$724,852	\$767,832	\$808,540	\$882,678	\$899,764	\$965,637	\$1,088,890	\$1,024,889	\$1,019,580	\$1,110,542	\$1,157,034	
Excess (Deficit) of Revenues over Expenses	\$140,518	\$82,119	(\$70,061)	(\$92,528)	(\$61,475)	(\$91,550)	(\$81,307)	(\$78,406)	(\$31,595)	(\$77,148)	(\$98,791)	
Other												
Government Transfers Related to Capital	\$2,512,574	\$1,353,182	\$82,534	\$1,039,162	\$0	\$0	\$0	\$0	\$0	\$0	\$0	11
Hydro Products	\$0	\$0	\$0	\$0	\$1,332,431	\$0	\$0	\$0	\$0	\$0	\$0	12
Excess (Deficit) of Revenues over Expenses	\$2,653,090	\$1,435,301	\$12,473	\$976,634	\$1,180,556	(\$91,550)	(\$161,307)	(\$78,406)	(\$31,595)	(\$77,148)	(\$98,791)	
Accumulated Surplus (Deficit) Beginning of year	\$6,581,695	\$8,234,785	\$10,670,087	\$10,682,559	\$11,659,193	\$12,840,130	\$12,748,599	\$12,587,292	\$12,508,887	\$12,477,291	\$12,400,143	
Accumulated Surplus (Deficit) End of Year	\$9,234,785	\$10,670,087	\$10,692,559	\$11,659,193	\$12,840,150	\$12,748,599	\$12,587,292	\$12,508,887	\$12,477,291	\$12,400,143	\$12,301,352	

Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.

Table 6.3 Statements of Change in Cash Flow - North Dundas Water System

Operating Transactions	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Notes
Total Operating Revenues	\$918,357	\$850,441	\$838,479	\$890,090	\$810,506	\$843,786	\$878,489	\$914,677	\$951,925	\$991,277	\$1,032,314	13
Total Cash for Operating Expenses	\$479,018	\$518,473	\$528,770	\$596,559	\$606,980	\$623,316	\$640,139	\$657,445	\$675,248	\$693,565	\$712,412	14
Total Cash for Major Maintenance	\$48,308	\$17,510	\$138,856	\$171,027	\$97,919	\$47,530	\$133,734	\$75,022	\$48,771	\$0	\$102,136	9
Excess of Revenues Over Expenses	\$391,038	\$314,458	\$172,853	\$222,104	\$105,627	\$172,940	\$104,617	\$182,210	\$227,905	\$276,816	\$217,765	
Product Non Cash Charges to Operations	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Amortization	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Loss on the Disposal of Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	15
Working Capital Items	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Accounts Receivable	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Inventory	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Capital Work in Progress	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash Provided/Used in Operating Transactions	\$391,038	\$314,458	\$172,853	\$222,104	\$105,627	\$172,940	\$104,617	\$182,210	\$227,905	\$276,816	\$217,765	
Capital Transactions	\$3,987,655	\$2,924,413	\$390,863	\$856,258	\$49,522	\$243,448	\$42,986	\$72,563	\$62,072	\$798,521	\$98,106	4
Acquisition of TCAs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Proceeds on Disposal of TCA	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash Provided/Used in Capital Transactions	\$3,987,655	\$2,924,413	\$390,863	\$856,258	\$49,522	\$243,448	\$42,986	\$72,563	\$62,072	\$798,521	\$98,106	
Investing Transactions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Proceeds from Investments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash (Used in) Provided by Investing Activities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Cash Provided/Used in Investing Transactions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	7
Financing Transactions	\$0	\$0	\$0	\$0	\$27,783	\$30,300	\$29,094	\$31,816	\$36,080	\$42,116	\$25,929	
Hydro Proceeds	\$0	\$0	\$0	\$0	\$27,783	\$30,300	\$29,094	\$31,816	\$36,080	\$42,116	\$25,929	
Proceeds from Debenture Loans	\$278,715	\$676,791	\$14,092	\$362,833	\$0	\$0	\$0	\$0	\$0	\$0	\$0	12
Proceeds from Government Grants	\$2,512,574	\$1,353,182	\$92,534	\$1,039,162	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2
Repayment of Working Deficit	\$0	\$0	\$0	\$0	\$1,332,431	\$0	\$0	\$0	\$0	\$0	\$0	11
Cash Provided by (Used in) Financing Activities	\$2,791,289	\$2,029,973	\$96,626	\$1,401,995	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2
Increase (Decrease) in Cash Equivalents	(\$706,330)	(\$579,982)	(\$110,184)	\$767,841	\$39,888	(\$40,207)	\$90,725	\$141,463	\$201,894	(\$539,589)	\$145,587	
Cash and Cash Equivalents at the beginning of the Year	\$1,553,771	\$848,441	\$288,459	\$158,275	\$926,116	\$1,010,004	\$1,060,521	\$1,201,984	\$1,403,878	\$864,289	\$664,289	
Cash and Cash Equivalents at the End of the Year	\$848,441	\$268,459	\$158,275	\$926,116	\$1,010,004	\$969,796	\$1,060,521	\$1,201,984	\$1,403,878	\$864,289	\$664,289	

Note: Unaudited for Planning Purposes Only - Actual results will differ from the above and these differences could be material.

