TransAqua

GREATER MONCTON WASTEWATER COMMISSION

COMMISSION DES EAUX USÉES DU GRAND MONCTON

ANNUAL REPORT 2015

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1. INTRODUCTION

1.1 Mission and Vision

MISSION To collect and treat wastewater in a reliable, cost-efficient and environmentally responsible manner.

VISION To be an outstanding environmental steward supporting regional planning, economic development and quality of life for the communities of Dieppe, Moncton and Riverview.

1.2 History 1983-Present

The Greater Moncton Sewerage Commission (GMSC) was created by an order-in-council in 1983 based on a model outlined in a consultant's report by Boyd A. Touchie Engineering Ltd. and Anderson Associates Limited in consultation with the three municipalities and the Government of New Brunswick.

The GMSC was then mandated to implement the Master Plan as laid out in the study. From 1983 to 1995, the GMSC oversaw the construction of a 31-km network of collector sewers intercepting more than 80 untreated outfalls; the construction of a major pumping station along with eight smaller ones; implementation of an advanced primary treatment system; and implementation of a long-term sustainable Biosolids Management Program with a new innovative composting system.

Clarifier under construction.

In 2012, the federal government's new Wastewater Systems Effluent Regulations (WSER-2012) were enacted under the Fisheries Act. This legislation guides the effluent compliance requirements for wastewater treatment facilities and requires that the Commission meet these new requirements by 2020.

The Greater Moncton Sewerage Commission changed its legal corporate name to the Greater Moncton Wastewater Commission (GMWC) in 2014 and introduced a new trade name, TransAqua as the day-to-day business name. TransAqua is bilingual, easier to remember and better conveys what the Commission does: transforming ("trans") wastewater ("aqua") and returning it to nature, i.e. the Petitcodiac River. Changes to its Board and management structure in 2012 have improved transparency, accountability, public communication effort and operations.

After 32 years, the Commission continues to move away from concentrating on what goes into the pipe (i.e. sewage) and concentrate on what comes out of the other end – high-quality treated wastewater which will be enhanced after secondary treatment is implemented by 2020. These mandated upgrades will be the main focus of TransAqua's activities between 2016 and 2020. We take our responsibility as an environmental steward very seriously and are committed to being part of the solution. Other initiatives which were planned for prior to – or in – 2016 include:

- Wastewater heat-recovery system pilot project to reduce energy costs;
- Continued improvements to Composting Facility in order to proactively expand capacity due to anticipated increased amounts of biosolids due to planned upgrades;
- Through planned upgrades by 2020, we will achieve 97% of solids removed from effluent released into the Petitcodiac River. As well, through disinfection via ultraviolet light, the effluent released into Petitcodiac River will be of quality suitable for recreational use. In 2015, 69% of solids were removed.

The Commission has been proven as an effective tri-community model and has demonstrated co-operation and the ability and efficiency to deliver. Its assets are well managed and maintained within a sustainable financial model that remains affordable to ratepayers. The administration, operations and maintenance teams continue to meet current expectations and aim to anticipate future needs to the benefit of all ratepayers, stakeholders and the environment.

2. CHAIR'S REPORT

In 2015, we saw our community become comfortable with our new name, TransAqua. It also saw the Commission pursuing its objective of transforming wastewater into clean water as it moves toward its upgrade to secondary treatment with a focus on "transforming wastewater back to nature." To accomplish this, detailed design of the first phase for secondary treatment began in October 2015 and approaches completion. Calling of tenders and awarding of the first contracts are in the plans and budgets for 2016.

However, funding for the overall project remains elusive. Last year, this report stated that, "The preferred financing method would be through participation in Building Canada Fund - Major Infrastructure Component funding for the undertaking of the secondary treatment phase of this project." However, it also pointed out that, "Another means of achieving this objective, while meeting the regulatory compliance deadline, would be to undertake such a project and facility upgrade under a Public-Private Partnership (P3) delivery model." The $120-million P3 model was found not to be the optimum funding solution after having a business case review completed by an independent third party. It was recommended that TransAqua proceed with a reduced project scope in the implementation of necessary plant enhancements required to meet federal guidelines by 2020 and that a reduced project scope effectively negates any material advantage of employing a P3 funding option. TransAqua had also submitted a $90-million application under Build Canada's Provincial Territorial Infrastructure Component (PTIC) funding. As of December 31, 2015, we were still awaiting provincial support which must be in place for a PTIC project to gain federal support.

Because of the size of design elements and phasing of the construction, local contractors/engineers would be well equipped to handle the work. The preliminary-treatment part of this project is truly "shovel-ready" for 2016 and could be moved ahead quickly to accommodate federal wastewater effluent guidelines.

Aerial view of TransAqua's Wastewater Treatment Facility in Riverview.

Other developments/accomplishments in 2015 were:

- The Commission continues to work toward meeting federal Wastewater System Effluent Regulations by the 2020 deadline.
- Development of the proposed secondary treatment process continues. The pilot plant operation continues to operate successfully and is providing useful design data. The preliminary design for the $90-million WWTF Upgrade and Modernization Project has been completed and detailed design of the first phase for preliminary treatment begun.

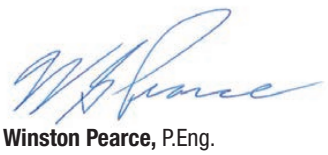
- As an environmental initiative, the Commission continues to successfully operate a second pilot project to extract heat on a small scale from the wastewater returning to the Petitcodiac. This heat is anticipated to be used to heat the entire WWTF's buildings and tunnels. Benchmark data is still being obtained to determine if this project is financially feasible on a larger scale.
- A new General Manager was hired. Staffing levels remained constant. Negotiations with newly unionized staff occurred throughout the year.
- The year ended within budget and with a reported surplus of $6,201,318. During the year, $7,760,955 was transferred into the Reserve Fund. A total of $534,026 was earned in interest on the Reserve Fund in 2015. In 2015, $831,150 was spent on capital projects. TransAqua currently has its $30-million share of the $90-million WWTF Upgrade and Modernization Project in the Reserve Fund.
- The 2013 study, designed to prepare the Commission for its next 30 years (the Gabbey report), made recommendations on GMWC's legal structure, on governance and transparency issues and on its organization. It also delved into the GMWC's collector system of the future, dealt with anticipated wastewater treatment objectives and recommended cost allocations among all stakeholders. All of its recommendations have now been dealt with, a few of which remain implemented in 2016.
- Efforts to improve communication with all levels of government – municipal, provincial and federal, including NGOs and ratepayers will continue into 2016. Minutes of meetings continue to be published on the GMWC website. A composting marketing brochure will be developed and TransAqua's Public Information and Engagement Plan will be reviewed and updated.
- Development of the GMWC Long-term Combined Sewer Overflow Strategy.
- Capital improvements saw:
  - Compost site project expansion completed. Capacity has been increased by 50% (to 30,000 tonnes/year) that will accommodate the Advanced Biological Treatment Process, which is generally referred to as wastewater secondary treatment.
  - Installation of baffles in lift station overflows complying with Approval to Operate requirements

Looking forward into 2016, we see:

- A $10.4-million capital construction season, subject to finalization of negotiations with the Province of New Brunswick regarding the WWTF Upgrade and Modernization Project portion of the Capital Program.

Special thanks to our stakeholders – the City of Dieppe, City of Moncton and Town of Riverview – and to the Commissioners and staff of the GMWC. All of them have assisted myself and the Commission in making significant improvements to GMWC's plant and operations this year. A special word of welcome to our new General Manager, Kevin Rice.

Respectfully submitted,



Winston Pearce, P.Eng.
Chair

3. GENERAL MANAGER'S REPORT

3.1 2015 Overview

Obtaining tripartite funding was the main focus for 2015. Extensive work was completed through the P3 model analysis and was not found to be a suitable funding model to meet the Commission's needs. A renewed focus was placed on analyzing all potential funding options with the traditional tripartite funding model through the PTIC application process being the model of choice at the end of the year. As part of the 2016 GMWC budget process, presentations outlining funding requirements and funding options were made to the following provincial ministers: Minister of Finance, Minister responsible for the Regional Development Corporation, and Minister of of Social Development. Similar presentations were also made to Moncton-Riverview-Dieppe Member of Parliament Ginette Petitpas Taylor, some NGOs and the three local municipal councils.

Despite the lack of a funding announcement in 2015, there were many activities taking place that were building the foundations for a sustainable future. Activating the newest compost pad, installing major automation upgrades (SCADA) and installing Combined Sewer Overflow (CSO) baffles at four wastewater pumping stations (WWPS) are key projects that position the Commission very well once the $90-million WWTF Upgrade and Modernization Project commences in 2016.

With the Commission's Mission and Vision in mind, the management team focused on the four strategic objectives of the 2015-2020 strategic priorities, primarily the upgrade of the facility to a point where effluent released into the local environment complies with the 2012 federal wastewater regulations.

Technical staff worked extensively with the consulting firm Amec Foster Wheeler to prepare the final Environmental Impact Assessment (EIA) submission to the provincial Department of Environment and Local Government (DELG) for consideration. The EIA process is expected to be completed in February 2016.

Technical staff also worked with consulting engineering firm CBCL Limited to begin the detailed design of Phase 1 – Preliminary Treatment and Septage Receiving that is expected to be completed in March 2016.

The Commission and management focused on and made improvements regarding the roles of governance.

Investments became more diversified in 2015 where the Commission now has investments with four different financial institutions based on the best returns made available. A 2015-2035 Capital Plan was developed that identifies the resources required to meet the 2020 effluent guidelines, CSO requirements, biosolids infrastructure and equipment replacement requirements.

In 2016, an umbrella agreement will be drafted for approval by Moncton, Dieppe and Riverview to deal with cost-sharing, sewer use guidelines and cost recovery among other items of common interest.

In 2016, a number of insourcing/outsourcing financial analyses will be completed to ensure that ratepayers are receiving the best value for money for services provided.

A Public Funding Business Strategy will be undertaken in early 2016 to better understand ratepayer impacts for various WWTF Upgrade and Modernization Project funding models.

TransAqua continued to work closely with the tri-community councils through the Technical Committee mechanism and met with councils' financial and leadership personnel for their input into the 2016 budget. The Commission is grateful for the time and effort given in this assistance.

Moncton, Dieppe and Riverview incorporated the GMWC guidelines into each municipality's sewer use bylaw. The CSO Strategy was completed, reviewed by the Technical Committee and submitted to DELG. The GMWC will be reporting CSO overflows from its collector system and on behalf of the City of Moncton in 2016.

Efforts to increase cooperation between GMWC and the Southeast Regional Service Commission will continue into 2016.

The Technical Committee began discussions related to Climate Change Adaptation Strategies to understand how climate change will impact municipal and TransAqua infrastructure that will be continued into 2016.

TransAqua was pleased to be nominated at the Greater Moncton Chamber of Commerce's Business Excellence Awards in the Environmental Excellence category in October. TransAqua's submission focused on the composting program and the work being completed to ensure the foundations are in place for the major WWTF Upgrade and Modernization Project that will greatly enhance effluent quality by 2020.

The management team and their respective support staff have continued the great work and high standards for which the Commission is known. The following projects were completed in 2015, in line with TransAqua's long-term strategic plan objectives:

- Entered into a fuel supply agreement to purchase diesel fuel at the provincial negotiated rate.
- Supported the P3 business case development and the subsequent independent value-for-money audit.
- Submitted the CSO Strategy to the Province of New Brunswick prior to the December 31, 2015, deadline.
- Completed compost Pad #3 and commissioned for testing to handle additional capacity of biosolids as a result of secondary treatment. New biosolids turning equipment and a second-hand screener drum were purchased.
- Completed the upgrades to the automation (SCADA) hardware and software systems to build the foundations for the upgrade project where the upgraded and additional system components can be immediately connected.

- Ongoing maintenance to collector system pumps; a main pumping station pump; scrubber system refurbishment; CSO flap gates in Moncton, Dieppe and Riverview; septage receiving tank; dewatering sludge holding tanks; Dewatering Building roof.
- Launched a Service New Brunswick property tax assessment appeal as a result of a 100% increase in property taxes.
- Updated the TransAqua website (www.transaqua.ca) on a regular basis.
- Installed CSO baffles at the Mill Creek, Fox Creek, Dover Road and Beaubassin WWPSs to remove floatables and heavy debris.
- Public Safety Canada site risk assessment regarding business continuity and security.
- Design work for the Jonathan Creek culvert relocation, Bourque Road forcemain and WWPS, and the Melanson Road WWPS were initiated.
- Initiated the centrifuge upgrade planning and business case analysis (new centrifuges vs. upgrade existing).

TransAqua's new General Manager, Kevin Rice started work at the end of August. Kevin brings extensive experience in the wastewater field with the City of Saint John and more than 17 years of management experience from both the private and public sectors.

There were no changes within the Commission Board members and the 2015 Executive Officers were Win Pearce, P. Eng. as Chair; Clarence Sweetland as Secretary; and Chanel Michaud as Treasurer.

TransAqua would like to thank all community members who took an active interest in the Commission and its activities in 2015 through participation in various visits and tours or supporting it as it looks to source government funding to meet the 2020 regulatory deadline for improved wastewater treatment standards.

Respectfully submitted,

R. Kevin Rice, B.Sc., CET
General Manager

3.2 2016-2020 Strategic Plan Update

In 2016, TransAqua will be developing a Communications Strategy to ensure timely and appropriate communications with all levels of government (municipal, provincial, federal), NGOs and ratepayers regarding its activities. A storyline will be developed to educate the public on the benefits of TransAqua's environmental stewardship to the community and the environment. The existing Public Information and Engagement Plan will be reviewed and updated that will identify opportunities for improving TransAqua's communications with the public and its stakeholders. A composting marketing brochure will be developed to assist the community in better understanding what the compost is; how to use it; as well as how, when and where it can be accessed easily.

In 2016, TransAqua will be developing a Public Funding Business Strategy that will identify all potential WWTF Upgrade and Modernization Project funding options and associated impacts to ratepayers. It is necessary to ensure that the current rates are appropriate and identify opportunities to maintain the 2016 rate for years to come. Funding from provincial and federal governments in the traditional tripartite funding model will play a key role in this Strategy.

TransAqua is continuing to develop an overarching agreement to enter into with Moncton, Dieppe and Riverview that ensures the long-term security and sustainability of TransAqua's operations while demonstrating a higher level of collaboration and co-operation with the municipalities as it relates to major infrastructure projects that are mutually beneficial to the public. Such an agreement will clearly delineate roles and clearly identify mutual responsibilities of TransAqua and the municipalities.

TransAqua expects to source and implement a Computerized Maintenance Management System (CMMS) to ensure that there is a complete understanding of the inventory and condition of assets, repair history, inventory management, preventative maintenance planning and scheduling, and identify the optimum replacement point to replace equipment. The timing for implementation of the CMMS is crucial considering the addition of new infrastructure and equipment between 2016 and 2020 is significant. By having a formalized and detailed asset management system, TransAqua can better plan and budget for major infrastructure repairs and/or replacement at the appropriate time.

TransAqua's laboratory will be undertaking the process to become nationally accredited with the Canadian Association for Laboratory Accreditation (CALA) by participating in the Proficiency Testing Program in October 2016. This Program will build the foundation to ensure consistent, reliable and competent wastewater analysis through the monitoring of laboratory performance whose results are compared to other laboratories.

TransAqua management worked diligently with its unionized employees in 2015 in an effort to ratify its first collective agreement. Much progress has been made and this work will continue into 2016.

3.3 Existing Assets and Condition

Currently, TransAqua's infrastructure consists of eight Remote Pumping Stations, 31 km of trunk sewers and tunnels, a Main Pumping Station, a Wastewater Treatment Facility (WWTF) located at Outhouse Point in Riverview and a Composting Facility located in Moncton on a 140-hectare property.

3.3.1 Collector Sewer System

The 31 km of trunk sewers and tunnels extend to the causeway around the traffic circle and all the way to Dover Road on the north side of the Petitcodiac River. On the Riverview side, it extends from the causeway to Mill Creek. The culminating achievement of this collector network is the 1.1-km-long tunnel under the riverbed from Bore Park to the Main Pumping Station. It is a 1.6-m diameter tunnel and is 22 m below the ground surface. Eight Remote Pumping Stations along the collector sewer system are operated to pump wastewater to the WWTF and to protect low-lying areas from flooding during wet weather events.

3.3.2 Main Pumping Station

The Main Pumping Station located on the plant site at Outhouse Point (property having been granted initially to a Mr. Robert Outhouse) is the heart of the collector sewer system, a point of collection for all lines and continuous pumping to the WWTF. The station is equipped with four non-clog type vertical centrifugal pumps, rated at 1020 L/s at 28.7 m head. The cylindrical structure extends 30 m below grade and 9 m above ground, much like a 10-storey building underground.

3.3.3 Wastewater Treatment Facility (WWTF)

The pre-treatment building houses screening equipment, grit tanks, grit handling equipment, chemical storage and feeding equipment. Three 39-m diameter settling tanks are used for the chemically enhanced primary treatment. The dewatering building houses dewatering centrifuges, screw conveyors, lime silos and polymer equipment all of which transform the wastewater by-products (sludge) extracted from wastewater into an important feedstock for the Composting Facility, namely biosolids.

The actual WWTF was commissioned in 1994 with a capacity of 115,000 m^3 per day, or 25 million gallons per day. The plant was laid out to facilitate expansion to biological treatment in the future.

3.3.4 Composting Facility

The composting process used by the Commission combines bottom positive aeration and a cover system on three large concrete curing pads. The key to the composting process is the mix ratio of biosolids and wood waste consisting primarily of bark and ground forestry waste. The bulking material provides a source of carbon but is essential in obtaining a porosity that facilitates the migration of air for a thorough and complete aerobic process.

The current original system has a capacity to process 10,000 tonnes of biosolids mixed with 10,000 tonnes of wood waste for a total of 20,000 tonnes of input materials per year. An expansion has been completed and will further increase capacity by allowing for an additional 5,000 tonnes of biosolids and 5,000 tonnes of wood waste thereby accommodating anticipated increase in volume of biosolids due to advanced biological treatment, as well as to prepare for future growth.

Compost curing and finishing take place on adjacent asphalt pads. The design concept is based on total containment of surface runoff from rainfall and snowmelt from the composting site flowing into an on-site retention pond together with leachate generated from the composting process and then flowing back to the wastewater treatment plant through sanitary sewers for treatment.

3.4 Wastewater Operations

In 2015, the WWTF treated more than 25.3 million m^3 of wastewater or an average of 69,384 m^3 per day. At this flow rate, 28 Olympic-size swimming pools would be filled in a day. The wastewater treatment plant power consumption for 2015 was 5,137 MW hours or an average of 14,075 KW hours per day with an average monthly power bill of $46,074.

Screening of large objects and removal of inorganics such as sand and gravel particles are accomplished through the screening and grit-removal processes. The materials removed are then transported to the Southeast Regional Service Commission waste management facility for disposal.

The existing enhanced primary treatment is designed to remove suspended solids and reduce biochemical oxygen demand to some extent. In 2015, the removal rate of Total Suspended Solids (TSS) was measured at 69%. Biological Oxygen Demand (BOD) is a measure of organic biodegradable matter which is partially removed (approximately 51%) with the current process. The planned plant upgrades to biological treatment would bring these removal rates to more than 95%.

Approximately 9,509 m^3 of septage collected from rural communities surrounding Greater Moncton (50-km radius) were also treated at the WWTF.

Chemically assisted primary treatment uses chemical coagulants to increase the removal of settleable solids. Sludge is dewatered by centrifuge to increase dryness. Lime is then added to produce lime-stabilized biosolids. In 2015, 11,449 tonnes of biosolids with an average solids content of 28% were shipped from the WWTF to the Composting Facility.

The five-year historical operational data can be seen below in Table 1:

Table 1: 2011 – 2015 Historical WWTF Operational Data

	2011	2012	2013	2014	2015
Annual volume - m^3	**29,087,197**	**23,034,466**	**23,817,805**	**27,328,601**	**25,341,627**
Daily average - m^3/day	**79,522**	**62,923**	**65,257**	**74,865**	**69,384**
Anionic polymer - tonnes	**0.6**	**0.7**	**0.6**	**0.4**	**0.7**
Cationic polymer - tonnes	**10.2**	**12.0**	**12.9**	**10.4**	**10.9**
Ferric sulfate - tonnes	**349.8**	**402.5**	**410.7**	**390.3**	**398.5**
Lime - tonnes	**78.2**	**103.6**	**133.6**	**127.3**	**118.9**
Power consumption - MW	**5,660**	**5,034**	**5,279**	**5,557**	**5,137**
Diesel generators - hours	**231**	**139**	**125**	**190**	**187**

The total cost to treat 1 m^3 of wastewater in 2015 was $0.20. In 2014, this cost was $0.17. The operating cost for 2015 was higher than for 2014 while wastewater production was less. The increase in the 2015 operating cost was mainly due to the significant increase in property taxes, higher snow removal cost, amortization of capital assets and consulting services cost. Without these items, the cost in 2015 would have been $0.18/$m^3$, an increase of $0.01/$m^3$. This would be in line with annual inflation.

3.4.1 Regulatory Compliance

In 2015 TransAqua effluent discharged to the Petitcodiac River met requirements set in the Transitional Authorization issued by the New Brunswick DELG in November 2014. This authorization sets conditions for effluent quality that are appropriate for the current Advanced Primary Treatment Process in place:

- The average carbonaceous biochemical oxygen demand ($CBOD_5$) must not exceed 130 mg/L.
- The average concentration of total suspended solids (TSS) in the effluent must not exceed 96 mg/L.
- The maximum concentration of un-ionized ammonia in the effluent should be less than 1.25 mg/L, expressed as nitrogen (N), at 15ºC ±1ºC.

The following table contains monthly averages for TSS and $CBOD_5$ and maximum concentrations of un-ionized ammonia for 2015:

Table 2: 2015 Monthly Effluent Average

2015	$CBOD_5$ mg/L	TSS mg/L	Un-NH_3 max mg/L
January	87	59	0.113
February	107	77	0.107
March	86	66	0.092
April	30	35	0.053
May	64	63	0.082
June	60	52	0.096
July	60	49	0.096
August	85	50	0.091
September	95	55	0.125
October	77	49	0.178
November	62	47	0.150
December	52	44	0.146
Average	72	54	0.111

2015 average efluent concentrations for the pollutants above described are as follows:

- Carbonaceous biochemical oxygen demand ($CBOD_5$): 72 mg/L.
- Total suspended solids (TSS): 54 mg/L.
- Un-ionized ammonia: 0.111 mg/L, expressed as nitrogen (N), at 15ºC ±1ºC.

By 2020, TransAqua discharge to the Petitcodiac River will meet the Wastewater System Effluent Regulations (WSER). These federal regulations require that WWTF effluent must not be acutely lethal to rainbow trout and must also meet the following conditions at the final discharge point to be authorized to be discharged:

- The average carbonaceous biochemical oxygen demand ($CBOD_5$) must not exceed 25 mg/L.
- The average concentration of total suspended solids in the effluent must not exceed 25 mg/L.
- The average concentration of total residual chlorine in the effluent must not exceed 0.02 mg/L.
- The maximum concentration of un-ionized ammonia in the effluent should be less than 1.25 mg/L, expressed as nitrogen (N), at 15ºC ±1ºC.

3.4.2 Laboratory Operations

The TransAqua wastewater laboratory is located at the WWTF Operations Center. This laboratory produces essential data that enables personnel to determine wastewater characteristics, process efficiency and effluent quality. Adjustments and improvements to treatment processes can be done based on laboratory results. A Quality Assurance Program has been implemented in 2015 to ensure precision and accuracy of analytical results. The laboratory is expected to participate in proficiency testing with the Canadian Association for Laboratory Accreditation Inc. (CALA) in 2016 for some of the following parameters that are currently being tested at the TransAqua laboratory:

- pH and temperature
- Total suspended solids (TSS) and volatile suspended solids (VSS)
- Five-day carbonaceous biochemical oxygen demand ($CBOD_5$)
- Chemical oxygen demand (COD)
- Ammonia
- Total Kjeldahl nitrogen (TKN)
- Total phosphorus (TP)
- Alkalinity

3.5 Composting Operations

Wastewater treatment by-products, or biosolids, are used as a key ingredient in the TransAqua composting system.

Treatment of biosolids at the WWTF involves conditioning with liquid lime, dewatering by high-speed centrifuges followed by the addition of dry lime.

Biosolids are transferred to the Composting Facility where they are mixed with green waste consisting of bark (from sawmills), ground forestry waste, wood chips and other green waste.

In 2015, 11,449 tonnes of treated biosolids were processed along with approximately 8,269 tonnes of green waste. The initial mix produced 40 windrows which are 50 m long on the composting pad. Windrows spend a minimum of eight weeks on the active aerated pad and are turned over three times. The windrows are covered with a breathable cover during the initial phases and can reach temperatures of more than 70°C. The windrows are then moved and grouped into lots on the curing pad where they are conditioned and left to compost at a slower rate while cooling down. The complete process takes one year. Consequently, 2015's production will be available for use in 2016.

Processing and product usage in 2015 involved screening of the 2014 stockpiles (lots) for use by the general public, landscapers and local municipalities.

The public was allowed to pick up compost free of charge from the self-loading bins. Product was sold to landscapers and is provided to the Greater Moncton area municipalities for their horticultural activities.

The five-year usage summary (tonnes) is shown in Table 3. There were approximately 6,800 tonnes of 2014 product available to the public in 2015.

Table 3: 2011 – 2015 Historical Compost Operational Data (tonnes)

Compost Clientele	2011	2012	2013	2014	2015
Public pick-up bins	2,720	2,880	4,000	3,696	4,000
Commercial users	240	280	515	160	960
City of Moncton	2,400	1,464	42	535	800
City of Dieppe	120	192	1,009	26	200
Town of Riverview	120	128	16	34	96
Community projects	400	128	128	24	400
Trials/tests/promotional	320	360	680	600	400
Miscellaneous/TransAqua	320	320	400	400	400
Annual compost output totals	6,640	5,752	6,790	5,476	7,256

TransAqua was pleased that 2015 was the best year to date with respect to participation from the public, commercial users and municipalities. There was a significant increase in volume removed from the compost facility compared to 2014 and is the highest volume to date. To put this in a visual perspective, TransAqua could load approximately 600 dump trucks with compost every year. This volume is expected to continue to increase as the WWTF upgrades to secondary treatment.

The product available for use in 2015 were Lots 2014-1 to 2014-13, each tested in order to confirm product quality. Lot 2014-2 was recycled back into the process due to very high moisture levels. Approximately 100 m^3 of screened and approved compost from Lots 2014-11 and 2014-13 remained on site at the end of the season and are available for use in early 2016.

3.5.1 BNQ Compost Certification

TransAqua's Composting Facility operation was developed on the basis of meeting BNQ standards (Bureau de Normalisation du Québec).

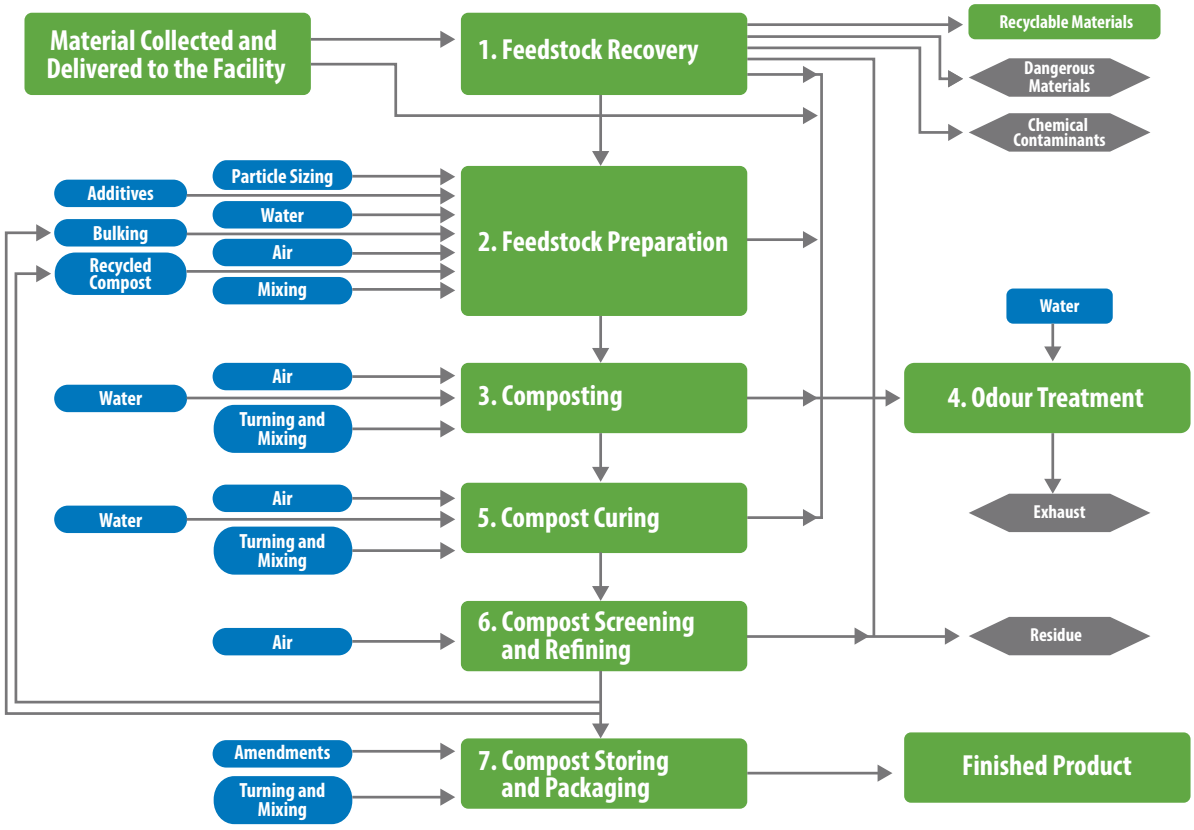
The BNQ is a standard development organization which is part of the Centre de recherche industrielle du Québec CRIQ). The BNQ was created in 1961 and is one of the four standards-development organizations accredited by the Standards Council of Canada and is therefore a member of the National Standards System.

The Commission went through the process of obtaining BNQ certification in 2009 for its Category "A" quality compost. This certification is under the Standard CAN/BNQ 0413-200/2005. Product certification level was upgraded to Category "AA" in 2011 – which is the highest certification level achievable in Canada for compost.

3.5.2 CQA Certification

TransAqua is a member of the Canadian Composting Council (CCC) and is also a member of its Compost Quality Alliance (CQA) Program. The CCC is active at continuing education through regional workshops and an annual conference. TransAqua operators have received Level 1 Compost Facility Operator certification through this organization.

Biosolids Composting Process



3.6 Human Resources

Front row, left to right: Peter Brown (standing), Gordon Buck (standing), Marc Hebert, Conrad Allain, Kevin Rice, Patricia Casas, Michael Asplet, Cory Babineau, Burtis Hayes (standing), Jordan Welsh (standing). Back row, left to right (all seated): Shawn Hackett, Stella Richard, Candace Jonah, Lawton Hicks, Ralph Green.

TransAqua currently employs a staff of 15, augmented in the summer months with university students from the local community. The overall system of collector sewers and pumping stations, the WWTF and Composting Facility was overseen by General Manager, Kevin Rice who joined the Commission at the end of August, with Mike Asplet, Director of Finance and Administration, acting as the General Manager from January to August.

The General Manager is supported by a management and administration team, WWTF operators, maintenance personnel for mechanical and electrical systems, a laboratory technician and heavy equipment operators for the Composting Facility.

In addition to the General Manager position, the management team also consists of the Director of Finance and Administration (responsible for all in-house financial activities), the Director of Technical Services (responsible for delivery of capital programs and engineering activities), the Manager of Solid Systems and Maintenance (responsible for composting activities and overall operational maintenance requirements), and the Manager of Liquid Systems (responsible for WWTF and WWPS performance).

3.7 Public Outreach

TransAqua plays a significant role in raising awareness of the importance of wastewater treatment on public health and the environment.

TransAqua maintains a bilingual website, www.transaqua.ca, to promote its current communication strategy, to keep the local community informed of its operations and goals for the future and update progress of the treatment plant upgrade and funding requests to government. In 2015, TransAqua activated a section where the public can sign up to automatically receive new information that TransAqua wishes to distribute (i.e. media releases, holiday card, Annual General Meeting invitation, etc.) that is posted to the website.

TransAqua hosted numerous technical tours on a regular basis to school classes, technical colleges, universities and local community groups (Scouts, etc.).

Elected government representatives and candidates toured the WWTF throughout 2015. The TransAqua Chair and General Manager gave numerous presentations to local groups (i.e. Men's Probus Club of Greater Moncton, 3+ Corporation, etc.), federal election candidates, provincial MLAs and municipal councils.

During 2015, the public was invited to pick up Type "AA" compost, the highest provincial and nationally accredited, quality compost at the Compost Facility off Delong Drive. For small quantities (self-loaded), the product was provided free of charge.

TransAqua was pleased to be nominated to the Greater Moncton Chamber of Commerce's Business Excellence Award in the Environmental Excellence category in October. Recognition of the level of environmental stewardship that TransAqua exhibits on a daily basis is much appreciated especially when it comes from the community that we serve.

3.8 Capital Works Program

3.8.1 Advanced Biological Treatment

The federal government enacted new Wastewater Systems Effluent Regulations (WSER-2012) under the Fisheries Act in July 2012 to harmonize regulatory and reporting requirements across Canada. This regulation came as a result of the Canadian Council of Ministers of the Environment's (CCME) Canada-wide strategy for management of municipal wastewater effluent.

The current treatment works provide for an Advanced Primary Treatment Process. The new regulation will require that the plant be upgraded to an Advanced Biological Treatment Process for it to achieve new effluent requirements. The new requirements are in place now, however the Commission has been given until 2020 to complete the upgrades required to support the biological process.

The Commission started planning for the upgrade well ahead of the deadline and has had time to carefully evaluate the best available technology and most sustainable approach in meeting the new regulatory limits. Extensive studies and evaluations completed will greatly reduce risks and ensure successful outcome.

This planning started with the completion of a report titled "Advance Biological Treatment Process Selection" by Conestoga-Rovers & Associates dated April 2010.The Commission then constructed a Pilot Plant and carried out extensive pilot testing. The compiled Pilot Plant data was used to carry out computer process simulations and to produce a report entitled Design Basis and Preliminary Conceptual Design Report – BNR Secondary Wastewater Treatment Facility by Conestoga-Rovers and Associates in October 2013.

In late 2013, a request for proposal (RFP) was issued to complete the pre-design of the upgraded plant and also to provide detail design services. CBCL of Halifax was awarded the pre-design phase which was completed in early 2015. This first phase allowed the Commission to determine the extent of the required upgrades and to use this information at evaluating the best procurement options and to support applications to funding programs.

In July 2015, the Commission decided to proceed on the basis of a design, bid, build model of procurement in phases and to continue pursuing funding from various levels of government. The Commission awarded the detail design of the Preliminary Treatment Works (Phase 1) to CBCL as per their original detailed proposal. Detail designs and equipment pre-selection were initiated in late October with the intent of proceeding to tender in spring of 2016. This first phase will result in a complete upgrade of the Screening Process and the Grit Removal System thus laying the foundation for downstream processes. This phase will also incorporate a new Septage Receiving System to support the haulers serving all of Southeastern New Brunswick.

The EIA process continued in 2015 with the completion of the site Environmental Survey and Heritage Impact Assessment by Amec of Fredericton. Responses to various technical comments were prepared and filed along with additional supporting information.

3.8.2 Collector System

In addition to regulatory driven projects, the Long-term Sustainable Wastewater Collection and Treatment Strategy (June 2010) has identified wastewater conveyance improvements to ensure that a robust collector system is maintained. Major projects identified include a second river crossing and a new pumping station at Virginia Avenue in Dieppe.

In view of the rapid growth in the City of Dieppe, the Commission will need to increase capacity of the conveyance by constructing a forcemain along Bourque Road and Pumping Station for redirecting flows at Fox Creek to a new trunk sewer constructed along Babineau Creek.

A preliminary engineering study was awarded to Stantec in early 2015 to determine the best long-term configuration of the Commission's collector sewer in Dieppe considering the new Babineau Creek trunk sewer and the need to increase capacity from the Fox Creek drainage basin.

3.8.3 Combined Sewer Overflows (CSO)

The new federal regulations also required the Commission to develop a Combined Sewer Overflow Long-term Strategy to address overflows resulting during wet weather events from older areas which still have combined sewers. The goal is to focus on increasing CSO capture rates to provide an adequate level of treatment. CSO facilities have been identified at strategic locations of the system.

A request for proposal (RFP) was issued in 2014 to develop the CSO Strategy and prepare conceptual designs of the major CSO facilities. The engineering contract was awarded to R.V. Anderson Associates Limited and the CSO strategy was filed with the New Brunswick DELG prior to December 31, 2015 under the new WSER-2012. Conceptual designs for the identified CSO pumping and treatment facilities will be available for use within the 2016-2035 Capital Plan.

Baffle structures were installed at various pumping station emergency overflows. This was mandated with the new collector system Approval to Operate and is intended at preventing discharge of floatables and debris into the Petitcodiac River in case of equipment failure or major wet weather events.

3.8.4 Composting Facility

The initial composting system was capable of processing 20,000 tonnes per year (10,000 tonnes of biosolids with 10,000 tonnes of amendments). The process incorporates recycled green wastes and purchased bark from sawmills in the process. The system which produces "AA" compost quality is fully aerobic using a bottom aeration system and a cover system.

In anticipation of the Advanced Biological Treatment Process which will increase the volume of biosolids requiring treatment, the Commission initiated construction of compost pad #3 in the fall of 2013.

Construction of the concrete pad #3 was completed in 2014 while the blower enclosure, platforms, electrical, mechanical and control systems were completed in 2015 when the system was commissioned.

This pad has increased the overall processing capacity to 30,000 tonnes per year (using 15,000 tonnes of biosolids) and will thus easily support the additional volumes of sludge anticipated with the Advanced Biological Treatment Process

Work will continue in 2016 with expansion of the curing pad and other various site improvements and integration of the automation system with the rest of the GMWC facilities.

3.8.5. Plant Automation

The Commission embarked on a modernization program of its Supervisory Control and Data Acquisition System (SCADA) in 2014. Initially, the focus was on updating workstations and software to allow for a smooth transition to the new-generation control hardware (Programmable Logic Controllers, or PLCs).

These new PLCs will replace the aging older hardware and make use of the fibre-optic network for communication. Fibre-optic trunk lines were installed throughout the plant several years ago.

Phase 1 of the control hardware upgrade was completed in 2015 at the Dewatering Facility. This provides the new control platform to support a major retrofit of the three large dewatering centrifuges. The equipment upgrade scheduled for 2016-2017 will include compatible PLCs that will be integrated to the plant system.

Phase 1 of the preliminary treatment part of the WWTF Upgrade and Modernization Project is in the detail design phase and will incorporate Phase 2 of the control hardware upgrade.

Significant progress has been made in 2015 at advancing the upgrading of the plant automation which will facilitate design and integration of the upcoming process elements namely the primary tanks, the bioreactor and the disinfection system.

3.8.6. Jonathan Creek Culvert Replacement

The City of Moncton and CN have reached an agreement to reconstruct a major culvert under the railway track to improve drainage of the Jonathan Creek watershed in order to eliminate risk of flooding in the Jones Lake area and Main Street. The construction will involve relocation of City of Moncton infrastructure and a section of the GMWC Collector Sewer. The engineering for the collector sewer relocation was awarded to Crandall Engineering Ltd, the same consultant completing the work for CN. In 2015, Crandall completed preliminary plans and profiles and worked closely with the Commission at incorporating the planned future CSO Facility. This project is scheduled to be constructed in spring 2016.

3.9 Energy Sustainability

In 2014, TransAqua completed the installation of a pilot project to test commercial grade geothermal heat pumps and plate type heat exchangers in order to confirm design criteria and equipment necessary for a plant-wide heating system using heat extracted from wastewater. This project is being done to support the Commission's goal toward efficiency and sustainability. The Pilot Plant operated successfully during 2015 and generated valuable data and insight that will support full-scale system design and implementation.

The composting facility is designed with a very low energy input to sustain the fully aerobic process. The process itself generates high temperatures, an important aspect for pathogen inactivation.

In view of this excess heat, the concrete pads were equipped with network of polyethylene pipes carrying a glycol solution and configured to extract heat from the hot slab. This heat is then circulated within the blower enclosure to pre-heat intake air, and can also be directed to other parts of the pad to melt snow and ice. The newly constructed operations centre was also designed to also take advantage of this green energy. The heating system is a deep-well geothermal system that will be integrated to the pad heat-recovery system using heat exchangers. Planning for the full integration of all facilities is underway.

4. TREASURER'S REPORT

In 2015, TransAqua recognized a surplus of more than $6.2 million based on revenues of $12.9 million. A budgeted expense of $2.9 million for the Babineau Creek cost-sharing project agreement was not completed in 2015 but is budgeted for 2016. As indicated on page two of TransAqua's 2015 Financial Statements, there is now more than $39 million in cash assets that include capital reserves. TransAqua's total combined assets are approximately $80 million.

With TransAqua's investment policy in place since 2012, TransAqua has earned more than $1.8 million in interest revenue. TransAqua has investments with four different locally represented financial institutions utilizing the best rates available at the time of the investment.

Over the last four years, TransAqua's revenues from user fees have increased by 16.2% ($5/unit/year and growth to include new units) while other revenues increased by 64.3%. Annual expenses over this time period increased by 13.7% and included a 108.9% increase in property taxes. In late August 2015, TransAqua hired a new General Manager and had previously hired a Director of Finance (2013) to ensure best management practices in the industry and controls are being followed. Also during that same period, a total of $6.9 million in capital funds were re-invested in the improvement of TransAqua's facilities and equipment.

With the New Brunswick Auditor General's report of 2011 as our guide, our independent auditors, the quality of our management team, and with different policies in place, TransAqua has been well managed. Under the supervision of the Commissioners, I am confident this will continue.

Respectfully submitted,

Chanel Michaud
Treasurer

5. COMMISSION MEMBERS

JULIE THÉRIAULT

Representing Dieppe

Current term to September 2016

- Commission Member

CLARENCE SWEETLAND

Representing Riverview

Current term to July 2017

- Secretary
- Member of Executive Committee

DAVID MUIR

Representing Riverview

Current term to October 2017

- Member of Finance, Audit and Governance Committee

GEORGE SOMERS

Representing Moncton

Current term to October 2016

- Commission Member

CHANEL MICHAUD

Representing Dieppe

Current term to September 2019

- Treasurer
- Chair of Finance, Audit and Governance Committee
- Member of Executive Committee

WINSTON PEARCE

Representing Moncton

Current term to October 2016

- Chair of Commission
- Member of Executive Committee

6. 2015 AUDITED FINANCIAL STATEMENTS

GREATER MONCTON WASTEWATER COMMISSION

FINANCIAL STATEMENTS
DECEMBER 31, 2015

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INDEPENDENT AUDITOR'S REPORT

February 19, 2016

To the Chairman and Members of Greater Moncton Wastewater Commission

We have audited the accompanying financial statements of **Greater Moncton Wastewater Commission**, which comprise the statement of financial position as at December 31, 2015 and the statements of operations and accumulated surplus, changes in net financial assets and cash flows for the year then ended, and the related notes, which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian generally accepted accounting principles, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Greater Moncton Wastewater Commission as at December 31, 2015 and the results of its operations, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

PricewaterhouseCoopers LLP

Chartered Professional Accountants
Moncton, New Brunswick

GREATER MONCTON WASTEWATER COMMISSION

STATEMENT OF FINANCIAL POSITION
As at December 31, 2015

	2015 $	2014 $
Financial assets		
Cash		
Operating	3,920,946	5,475,082
Reserve funds (schedule II)	5,440,726	4,239,045
Accounts receivable		
General	30,604	24,686
Federal government and its agencies (note 3)	33,359	55,049
Accrued interest receivable (schedule II)	108,065	89,765
Investments (note 4 and schedule II)	30,075,000	23,000,000
	39,608,700	32,883,627
Financial liabilities		
Accounts payable and accrued liabilities	756,269	1,090,349
Holdbacks payable	–	94,491
	756,269	1,184,840
Net financial assets	38,852,431	31,698,787
Non-financial assets		
Tangible capital assets (note 8)	41,556,809	42,476,185
Prepaid expenses and deposits	112,561	145,511
	41,669,370	42,621,696
Accumulated surplus	80,521,801	74,320,483

Approved by the Board of Directors

Winston Pearce, *P.Eng., Chair*

Chanel Michaud, *Treasurer*

The accompanying notes are an integral part of these financial statements.

GREATER MONCTON WASTEWATER COMMISSION

STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS
For the year ended December 31, 2015

	2015 Budget $	2015 Actual $	2014 Actual $
Revenue			
User fees			
City of Moncton	8,106,516	8,106,520	7,685,419
Town of Riverview	1,636,716	1,636,720	1,583,055
City of Dieppe	2,280,420	2,280,420	2,274,739
	12,023,652	12,023,660	11,543,213
Septic hauler and compost income	215,000	294,836	380,606
Interest income (schedule II)	470,850	600,329	539,101
	12,709,502	12,918,825	12,462,920
Expenses			
Plant and operating expenses			
Easement and property taxes	336,444	629,039	325,753
Salaries and benefits	1,694,125	1,471,431	1,530,840
Amortization of tangible capital assets	1,689,996	1,750,526	1,632,295
Electricity	598,425	552,890	564,950
Telephone	35,556	29,462	33,400
Insurance	188,062	184,470	180,878
Maintenance and operating	1,612,102	1,373,146	1,443,068
Consulting services	394,070	394,768	84,090
Vehicle expense	35,160	16,649	25,190
Miscellaneous	2,900,004	–	–
	9,483,944	6,402,381	5,820,464
General expenses			
Marketing and communications	100,344	47,797	135,443
Office expenses	24,429	22,861	18,304
Travel, training and education	58,252	36,839	32,239
Governance	72,492	19,930	19,694
Interest and bank charges	4,770	1,835	3,994
Professional fees and consulting	208,075	185,864	121,910
	468,632	315,126	331,584
Total expenses	9,952,306	6,717,507	6,152,048
Annual surplus	2,757,196	6,201,318	6,310,872
Accumulated surplus – beginning of year		74,320,483	68,009,611
Accumulated surplus – end of year		80,521,801	74,320,483

The accompanying notes are an integral part of these financial statements.

GREATER MONCTON WASTEWATER COMMISSION

STATEMENT OF CHANGES IN NET FINANCIAL ASSETS
For the year ended December 31, 2015

	2015 Budget $	2015 $	2014 $
Annual surplus	2,757,196	6,201,318	6,310,872
Acquisition of tangible capital assets	(13,713,727)	(831,150)	(2,139,899)
Amortization of tangible capital assets	1,689,996	1,750,526	1,632,295
Loss on sale of tangible capital assets	–	–	39,706
Proceeds on sale of tangible capital assets	–	–	115,619
	(12,023,731)	919,376	(352,279)
Change in prepaid expenses	(3,555)	32,950	(59,031)
Change in net financial assets	(9,270,090)	7,153,644	5,899,562
Net financial assets – Beginning of year	31,698,787	31,698,787	25,799,225
Net financial assets – End of year	22,428,697	38,852,431	31,698,787

The accompanying notes are an integral part of these financial statements.

GREATER MONCTON WASTEWATER COMMISSION

STATEMENT OF CASH FLOWS
For the year ended December 31, 2015

	2015 $	2014 $
Cash provided by (used in)		
Operating activities		
Annual surplus	6,201,318	6,310,872
Charges (credits) to income not involving cash		
Amortization of tangible capital assets	1,750,526	1,632,295
Loss on sale of tangible capital assets	–	39,706
	7,951,844	7,982,873
Net change in non-cash working capital balances related to operations		
Decrease (increase) in accounts receivable	(2,528)	377,968
Decrease (increase) in prepaid expenses	32,950	(59,031)
Increase (decrease) in accounts payable and accrued liabilities	(334,080)	434,256
Decrease in holdback payable	(94,491)	(40,904)
Decrease in deferred revenue	–	(2,789,963)
	7,553,695	5,905,199
Investing activities		
Purchase of investments, net of maturities	(7,075,000)	(4,800,000)
Proceeds on sale of tangible capital assets	–	115,619
Cash used to acquire tangible capital assets	(831,150)	(2,139,899)
	(7,906,150)	(6,824,280)
Net change in cash during the year	(352,455)	(919,081)
Cash – Beginning of year	9,714,127	10,633,208
Cash – End of year	9,361,672	9,714,127
Cash consist of:		
Cash in bank – operating	3,920,946	5,475,082
Cash in bank – reserve funds	5,440,726	4,239,045
	9,361,672	9,714,127

The accompanying notes are an integral part of these financial statements.

GREATER MONCTON WASTEWATER COMMISSION

NOTES TO FINANCIAL STATEMENTS
For the year ended December 31, 2015

1. Purpose of organization

The Greater Moncton Wastewater Commission (the "Commission") is incorporated and operates under the provisions of the Province of New Brunswick Municipalities Act and the Clean Environment Act. As a municipality, the Commission is exempt from income tax under section 149(1)(c) of the Income Tax Act of Canada.

The Commission operates a wastewater treatment plant, wastewater collection system and composting facility in the greater Moncton region and provides wastewater treatment for the cities of Moncton and Dieppe and the town of Riverview.

2. Summary of significant accounting policies

The financial statements of the Commission are prepared in accordance with Canadian public sector accounting standards (PSAS) and reflect the accounting policies enumerated below.

The focus of PSAS financial statements is on the financial position of the Commission and the changes thereto. The Statement of Financial Position includes all of the assets and liabilities of the Commission.

Reporting entity

The financial statements reflect the assets, liabilities, revenues, expenditures and changes in net debt and cash flows of the reporting entity. The reporting entity is comprised of all organizations and enterprises accountable for the administration of their affairs and resources to the Commission and which are owned or controlled by the Commission.

Budget

The budget figures contained in these financial statements were approved by the Commission on December 11, 2014 and submitted to the Minister of Local Government. Certain budget figures have been reclassified to conform with the financial presentation adopted for the current year.

Revenue recognition

The Commission recognizes revenues from user fees, septic hauler and compost income as the services are rendered or the goods are sold, the price is fixed or determinable and collection is reasonably assured. Interest income is recognized on an accrual basis and recorded in the statement of reserve fund balances as a direct increase to the reserve fund.

Use of estimates

The preparation of the financial statements in conformity with PSAS requires management to make estimates that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Actual results may differ from those estimates.

Financial instruments

The Commission's financial assets and liabilities are initially measured at fair value and subsequently carried at amortized cost with interest recorded in the statement of operations as earned.

2. Summary of significant accounting policies (continued):

Credit risk

Credit risk arises from the potential that a debtor will be unable to meet its obligations. The Commission conducts a thorough assessment of its debtors prior to granting credit and actively monitors the financial health of its debtors on a continuous basis. Credit risk arises primarily from cash, accounts receivable and investments. There are no significant concentrations of credit risk.

Cash

Cash includes cash on hand and cash in banks not subject to other restrictions.

Tangible capital assets

Tangible capital assets are stated at cost less accumulated amortization. The Commission provides for amortization at rates designed to amortize the cost of the tangible capital assets over their estimated useful lives. Annually, amortization is calculated using the straight-line method over the estimated useful lives as follows:

Operations centre	10 - 60 years
Treatment facilities	5 - 60 years
Collection System	10 - 75 years
Fleet	5 - 20 years
Computer hardware and software	3 - 5 years

Assets under construction are not amortized until the asset is available for productive use.

Accrued sick leave

The Commission provides for sick leave that accumulates at 1.25 days per month worked for full-time employees. The employees can accumulate up to a maximum of 120 days. On retirement or resignation after being employed for at least 60 months, any employee having accrued sick leave will receive an allowance equal to fifty percent of the value at a rate of pay effective immediately prior to retirement or resignation.

The sick leave is an unfunded benefit. As such, there are no applicable assets. Benefits are paid out of general revenue as they come due. The unfunded liability at December 31, 2015 of $147,571 (2014 - $133,406) is recorded in accounts payable and accrued liabilities.

3. Due from Federal government and its agencies

	2015 $	2014 $
Canada Revenue Agency (HST refund)	33,359	55,049

4. Investments

The details of the investments held by the Commission are as follows:

	2015 $	2014 $
Guaranteed investment certificate (2.14%, maturing November 2015)	–	10,000,000
Guaranteed investment certificate (2.14%, maturing November 2015)	–	5,000,000
Guaranteed investment certificate (1.50%, maturing October 2015)	–	4,995,000
Guaranteed investment certificate (1.60%, maturing July 2015)	–	3,000,000
Guaranteed investment certificate (1.50%, maturing October 2015)	–	5,000
Guaranteed investment certificate (1.85%, maturing July 2018)	5,000,000	–
Guaranteed investment certificate (2.04%, maturing November 2017)	15,000,000	–
Guaranteed investment certificate (1.60%, maturing October 2016)	5,075,000	–
Guaranteed investment certificate (1.82%, maturing May 2017)	5,000,000	–
	30,075,000	23,000,000

5. Short-term borrowings and compliance

Short-term borrowings outstanding

The Commission has obtained credit in the amount of $100,000 for credit cards held with Bank of Montreal. The Commission has set the limit on the credit cards at $10,000 each. Credit cards are unsecured and bear interest at a rate of 18.4%. The Commission pays the balance owing on the credit cards on a monthly basis.

Short-term borrowings compliance

As of December 31, 2015, the Commission had no borrowings outstanding. As a result, the Commission was in compliance with all required municipal ratios noted below.

Interim borrowing for capital

The Commission does not have any short term borrowing in excess of cash as of December 31, 2015.

Operating borrowing

As prescribed in the Municipalities Act, the borrowing to finance its utility operations is limited to 50% of the Commission's operating budget. In 2015, the Commission has complied with these restrictions.

Inter-fund borrowing

The Municipal Financial Reporting Manual requires that short-term inter-fund borrowings be repaid in the next year unless the borrowing is a capital project. The amounts payable between funds are in compliance with the requirements.

6. Post-employment benefits payable

The Commission sponsors an RRSP plan for substantially all its employees. The plan allows for RRSP contributions of 7% of employee salaries. The employee is not required to pay into the RRSP plan in order to obtain this benefit. There is no unfunded liability associated with this post-employment benefits payable.

7. Accumulated surplus

The accumulated surplus noted on the statement of financial position is the result of the excess of revenue over expenditures from the commencement of the Commission's operations to the date of financial position. The accumulated surplus is made up of the following:

	2015 $	2014 $
Net financial assets	38,852,431	31,698,787
Non-financial assets	41,669,370	42,621,696
	80,521,801	74,320,483

The net financial assets consist of cash flows necessary for day-to-day operations and reserve funds held for future capital expenditures. The non-financial assets consist of tangible capital assets and prepaid expenses that the Commission has purchased or had constructed as of the end of the year.

GREATER MONCTON WASTEWATER COMMISSION

NOTES TO FINANCIAL STATEMENTS
For the year ended December 31, 2015

8. Tangible capital assets

	Land $	Operations centre $	Treatment facilities $	Collection system $	Fleet $	Computer hardware and software $	Assets under construction $	Total $
COST								
Balance – Beginning of year	517,785	2,743,575	48,032,918	33,499,545	1,591,732	68,997	2,468,348	88,922,900
Net additions during the year	400	–	88,701	–	125,243	4,766	612,040	831,150
Disposals during the year	–	–	–	–	(34,022)	–	–	(34,022)
Balance End of year	518,185	2,743,575	48,121,619	33,499,545	1,682,953	73,763	3,080,388	89,720,028
ACCUMULATED AMORTIZATION								
Balance – Beginning of year	–	2,271,852	30,947,884	12,626,274	593,806	6,899	–	46,446,715
Amortization during the year	–	49,267	1,105,703	472,241	108,863	14,452	–	1,750,526
Accumulated amortization disposals	–	–	–	–	(34,022)	–	–	(34,022)
Balance – End of year	–	2,321,119	32,053,587	13,098,515	668,647	21,351	–	48,163,219
Net book value of tangible capital assets 2014	517,785	471,723	17,085,034	20,873,271	997,926	62,098	2,468,348	42,476,185
Net book value of tangible capital assets 2015	518,185	422,456	16,068,032	20,401,030	1,014,306	52,412	3,080,388	41,556,809

9. Comparative figures

Certain comparative figures have been reclassified to conform with the financial position adopted for the current year.

GREATER MONCTON WASTEWATER COMMISSION

SCHEDULE OF REGULATORY REPORTING REQUIREMENTS
For the year ended December 31, 2015

The Department of Local government of New Brunswick has requested disclosures in addition to Canadian public sector accounting standards for monitoring purposes. The Commission has provided these disclosure requirements in the following pages.

I. Reconciliation of annual surplus

	General fund $	Capital Fund $	Reserve Fund $	Total $
2015 annual surplus	7,417,818	(1,750,526)	534,026	6,201,318
Adjustments to annual surplus for funding requirements				
Second previous year surplus	5,063,164	–	–	5,063,164
Transfer from operating to capital	(831,150)	831,150	–	–
Transfer from operating to reserve	(7,760,955)	–	7,760,955	–
Amortization expense	–	1,750,526	–	1,750,526
Total adjustments to 2015 annual surplus	(3,528,941)	2,581,676	7,760,955	6,813,690
2015 annual fund surplus	3,888,877	831,150	8,294,981	13,015,008

II. Statement of reserves

	2015 $	2014 $
Capital reserve		
Assets		
Cash	5,440,726	4,239,045
Accrued interest receivable	108,065	89,765
Investments	30,075,000	23,000,000
Accumulated surplus	35,623,791	27,328,810
Revenue		
Interest	534,026	490,406
Transfers from operating funds	7,760,955	–
Annual surplus	8,294,981	490,406

GREATER MONCTON WASTEWATER COMMISSION

SCHEDULE OF REGULATORY REPORTING REQUIREMENTS
For the year ended December 31, 2015

III. Operating budget to public sector accounting

	Operating $	Amortization $	Transfers $	Total $
Revenue				
User fees	12,023,652	–	–	12,023,652
Interest and miscellaneous	685,850	–	–	685,850
	12,709,502	–	–	12,709,502
Expenses				
Plant and Operating Expense				
Easement and property taxes	336,444	–	–	336,444
Salaries and benefits	1,694,125	–	–	1,694,125
Amortization of tangible capital assets	–	1,689,996	–	1,689,996
Electricity	598,425	–	–	598,425
Telephone	35,556	–	–	35,556
Insurance	188,062	–	–	188,062
Maintenance and operating	1,612,102	–	–	1,612,102
Consulting services	394,070	–	–	394,070
Vehicle expense	35,160	–	–	35,160
Miscellaneous	2,900,004	–	–	2,900,004
	7,793,948	1,689,996	–	9,483,944
General				
Marketing and communications	100,344	–	–	100,344
Office expenses	24,429	–	–	24,429
Travel, training and education	58,252	–	–	58,252
Governance	72,492	–	–	72,492
Interest and bank charges	4,770	–	–	4,770
Professional fees and consulting	208,075	–	–	208,075
	468,362	–	–	468,362
Fiscal services				
Transfer from operating fund to capital fund	13,713,732	–	13,713,732	–
Transfer from operating fund to reserve fund	(4,203,376)	–	(4,203,376)	–
Second previous surplus	(5,063,164)	–	(5,063,164)	–
	4,447,192	–	4,447,192	–
	12,709,502	1,689,996	4,447,192	9,952,306
Annual surplus	–	(1,689,996)	4,447,192	2,757,196

NOTES

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GREATER MONCTON WASTEWATER COMMISSION

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