



# **TABLE OF CONTENTS**

1.	INTRODUCTION	3
	1.1. Mission and Vision	3
	1.2 History 1983-Present	3
2.	CHAIR'S REPORT	4
3.	GENERAL MANAGER'S REPORT	5
	3.1 2021 Overview	5
	3.2 2019-2023 Strategic Plan Update	6
	3.3 Existing Assets and Condition	7
	3.3.1 Collector Sewer System	8
	3.3.2 Wastewater Treatment Facility (WWTF)	8
	3.3.3 Composting Facility	9
	3.4 Wastewater Operations	9
	3.4.1 Regulatory Compliance	10
	3.4.2 Laboratory Operations	12
	3.5 Composting Operations	12
	3.5.1 CQA Certification	13
	3.6 Human Resources	14
	3.7 Public Outreach	14
	3.8 Capital Works Program	15
	3.8.1 TransAqua WWTF Upgrade and Modernization Project Update	15
	3.8.2 Collector System	16
	3.8.3 Combined Sewer Overflows	16
	3.8.4 Plant Automation	16
	3.8.5 Fox Creek WWPS Upgrade	16
	3.8.6 Bourque Road Forcemain	17
	3.9 Energy Sustainability	18
	3.10 Pandemic Response	18
	3.11 Environmental Issues	18
4.	TREASURER'S REPORT	19
5.	COMMISSION MEMBERS	20
6.	2021 AUDITED FINANCIAL STATEMENTS	22

2021 Annual Report - GREATER MONCTON WASTEWATER COMMISSION

# **1. INTRODUCTION**

# **1.1 Mission and Vision**



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

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 in consultation with the three municipalities and the Government of New Brunswick.

The Commission remains focused on providing high quality treated wastewater and the beneficial reuse of biosolids to produce the highest quality compost in Canada. TransAqua takes its responsibility as an environmental steward very seriously and are committed to being part of the solution for a healthy and thriving Petitcodiac River and its ecosystem.

The Residential Unit Rate has remained at \$210 per unit since 2017. A 15-year Asset Replacement Program will begin in 2022 to replace up to \$40.7M of assets that have reached the end of their useful life.

The Commission continues to be proven as an effective partner with the City of Moncton, City of Dieppe and Town of Riverview through the Regional Wastewater and Combined Sewer Overflow Committee in 2021. TransAqua worked directly with the City of Dieppe to complete the Bourque Road forcemain project one year earlier than planned. All 3 municipalities included TransAqua's "Sewer Do's and Don'ts" Brochure as a link on their websites. TransAqua partnered with EC0360 for advertising with the Moncton Wildcats.

By mid-2022, TransAqua's effluent is expected to meet the Canadian Recreational Water Quality Guidelines by using the Ultraviolet disinfection process.

- Separate collection systems. Raw sewage is discharged 1960 directly into the river. Petitcodiac Causeway built. 1968 ۲ 1973 Greater Moncton Metropolitain Plan: coordinating all phases of development. 1979 Environment N.B. proved a need for treatment system. 1982 🖕 Consensus reached for one treatment plant and a joint board from each municipality. GMSC established and construction begins for the 1983 🖕 "Greater Moncton Metropolitan Master Plan". 1989 🔶 Main Pumping Station is built. 1990 Inlet Building, first Clarifier and first section of the access Tunnel is built. 1991 Collector Sewer System is finished. Operations Centre, second Clarifier, second section 1994 of access Tunnel, Sludge Dewatering and Biosolids Shipping buildings are built. Official Opening: debt free. Causeway Pumping Station built. 1995 Third Clarifier and last access Tunnel section is built. 2000 🖕 General site work, landscaping and paving to complete plant. 2004 Composting Facility Phase 1. 2005 Composting Facility opens to te public. 2012 Composting Facility Garage for equipment is built.
- 2014 🖕 Change of brand name: TransAqua



# 2. CHAIR'S REPORT

It has been an honor to serve as chair of TransAqua for 2021, a year marked once again by a global pandemic. In addition to working on completing the upgrade project in 2021, the Board and staff have been furthering the aims and objectives of the strategic plan centered around the three pillars of environmental stewardship, sustainability and partnerships. The General Manager and the Treasurer reports contain more detail on all TransAqua activities in 2021 and there is no need for me to repeat them here.

That said, I would like to use this opportunity to highlight a few points that the Board has spent considerable time on during the year.

A few months after TransAqua had successfully achieved the federal effluent regulation, the Board of Directors began to engage in a robust debate as to whether the organization's procurement methods during the Project resulted in good value for money for the Greater Moncton ratepayer. Some excellent questions were asked about how the Project unfolded from a procurement point of view. These questions were explored through a series of detailed reports and opinions from outside experts. Despite its best efforts, the Board was not able to reach a consensus on some of these questions. Therefore, to bring closure to the debate and resolve the matter, the Board decided to invite the Auditor General of New Brunswick to carry out an audit of the Project and make a pronouncement on our approaches to awarding contracts. The Board remains optimistic that the process established of inviting the Auditor General to review the organization's procurement methods will provide a competent, objective, and transparent examination of all relevant information. On January 20<sup>th</sup>, 2022, the Auditor General stated that although an audit was not feasible in the short term due to his ongoing workload and limited resources, TransAgua's request will be considered for future audit topics.

In 2021, the Board of Directors continued to review, update and approve policies and procedures that provide for the efficient and effective operation of the organization. Some of the key policies that were reviewed are the Biosolids Management Policy, the Communications Policy and the Procurement Policy. The Board also approved its first Vaccination Policy to ensure the safest possible working environment and consistent with many other public and private organizations. There is also ongoing work being done on strengthening the governance of the organization. During the past year, the Board discussed and debated the accountability structure of the organization. In 2022, it is expected that more work will be done on clarifying the roles and responsibilities of Board members (including the specific roles of Officers) and on the Code of Business Ethics and Confidentiality.

At the end of 2021, some concerns were raised about strong and unpleasant odors in the North End of the City of Moncton. TransAqua shares those concerns. Staff has been trying to pinpoint the exact source of the problem and it does look like there may be many. The organization is committed to working with all partners as we explore all possible mitigation measures and their feasibility.

Finally, I would like to thank the Commission Board and our staff for their hard work and diligence in 2021. It is due to their efforts that TransAqua has become the organization it is today with a stateof-the-art facility serving the needs of the tri-community for many years into the future.

Respectfully submitted,

Michel Desjardins Chair

# **3. GENERAL MANAGER'S REPORT**

# 3.1 2021 Overview

The Commission continued construction of the WWTF Upgrade and Modernization Project in 2021 by commissioning the Biosolids Load Out Building. Electrical and Automation work continued throughout 2021 for the Blower Building, the Bioreactor and Secondary Clarifiers. This work was delayed because of supply chain issues. The UV Building Foundation work began in late 2021 and is expected to be commissioned in mid-2022.

With the Commission's Mission and Vision in mind, the Management Team continued to focus on the four Strategic Perspectives of the 2019-2023 strategic priorities.

The following projects were completed in 2021 in line with TransAqua's long-term strategic plan objectives:

- All required legislated and operational requirements were met in 2021 with the submission of National Pollutant Release Inventory, Combined Sewer Overflow Reports, quarterly Quality Monitoring Report through ERRIS and to NBDECC, the GMWC Annual Report, compost site groundwater monitoring wells analysis and the AMEC/STANTEC river sampling program analysis.
- TransAqua worked successfully with the City of Dieppe to complete the Bourque Road forcemain project.
- Capital Projects outside of the WWTF Upgrade and Modernization Project completed include the Fox Creek WWPS and the Bourque Road forcemain along Fox Creek Road, Melanson Road, Bourque Road ending at LaRochelle Street.
- Received Cyber Secure Canada certification.

- TransAqua's Public Information Booth was staffed at the November 19, 2021 at the Moncton Wildcats game.
- Began developing the Asset Management Plan, Assignment of Asset Condition Ratings and Identification of Critical Assets.
- The Regional Wastewater and Combined Sewer Overflow Strategy work began in 2021.
- TransAqua staff met its Safety Goal in 2021 of resolving 79% of all new safety issues brought forward to the Health and Safety Committee. In 2021, 17 new safety items were identified with 21 items being resolved with 5 outstanding safety items carrying over into 2022.
- The TransAqua website (www.transaqua.ca) was updated on a regular basis.

TransAqua would like to thank all community members who took an active interest in TransAqua and its activities in 2021 and participating with our nationally recognized compost program that reintroduced over 9,064 tonnes of compost in 2021 back into the local communities, the best year ever!

Respectfully submitted,

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

# 3.2 2019-2023 GMWC Strategic Plan Update

There are four Strategic Perspectives outlined in the 2019-2023 GMWC Strategic Plan. In 2021, several Strategic Initiatives to support the Strategic Priorities have been completed.

> Provide Fiduciary Stewardship - A Rate Analysis was completed in 2021 to ensure long-term financial stability while providing a high level of service to ratepayers. The unit rate was frozen at \$210 for 2022. The 15-year Asset Replacement Program was completed in 2021. Over \$51M in new Capital Projects were moved beyond 2036 to ensure rate stability.

Serve our Stakeholder - With respect to the Governance Leadership Objective, Commissioners met its attendance goal for attending Commission Meetings. For the Stakeholder Engagement Objective, three digital advertising campaigns were completed in 2021 for Compost, Win Your Water and Sewer Bill up to \$1,000 and the 3 P's (Pee, Poo and Toilet Paper). TransAqua was unable to host any Open Houses in 2021 due to the pandemic. The Commission Chair and Secretary met with the City of Moncton Council and staff to discuss the odour issues in the North End. The General Manager presented 2 virtual presentations to the Rotary Club of Moncton and Birchmount School.

Manage Internal Processes & Promote Technology Innovations - There were 12 compost lots sampled for analysis to meet the Category A classification in 2021. All 12 compost lots met Category A standard on the first sample meeting the 80% target. TransAqua received quotations to construct the Wastewater Heat Recovery system however the price tag (\$1.8M) exceeded the Engineer's Estimate (\$650,000) making the business case very poor so this Project will not be constructed until the business case becomes favorable. TransAqua partnered with NB Power to complete a Solar Power Feasibility Study. Work began on developing the Asset Management Plan template and Asset Risk Assessment and Mitigation Plan. Staff began exploring the opportunity for anaerobic digestion. TransAqua achieved certification with Cyber Secure Canada in March 2021. The Regional Wastewater and Combined Sewer Strategy Committee and CBCL began developing the Strategy in 2021 with completion expected by mid-2022.

Promote Learning / Growth - In 2021, one Wastewater Maintenance operator was promoted to a Class 3 Operator-in-Training. The Director of Finance and Administration completed the Yellow Belt and Green Belt levels and one Wastewater Maintenance operator completed the Yellow Belt level. Employee training has been a challenge in 2021 with the pandemic suspending a lot of in-person courses although virtual training did provide some relief. Several operations personnel received on-site and virtual training for new equipment related to the Upgrade Project. Some training was available through virtual conferences.







# **3.3 Existing Assets and Condition**

The Greater Moncton Wastewater Commission (GMWC) owns and operates 34.2 kms of collector and trunk sewers, 8 remote wastewater pumping stations (WWPS), 1 secondary biological wastewater treatment facility (WWTF), 8 compost toilets along the Petitcodiac River and a Compost Facility along with several operational assets such as trucks, heavy equipment, laboratory, etc. GMWC currently owns infrastructure with a value of approximately \$151,445,057.68 with a book value of \$95,491,171.14 after depreciation and a replacement value of \$160M.



#### 3.3.1 Collector Sewer System

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. The 34.2 kms 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 1.1km long tunnel under the riverbed from Bore Park to the Main Pumping Station. It is a 1.6 metre diameter tunnel and is 22 metres below the ground surface.

#### 3.3.2 Wastewater Treatment Facility (WWTF)



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.

The preliminary treatment building houses screening equipment, four grit tanks, grit handling equipment and chemical storage and feeding equipment. Four Primary Clarifiers provide solids settling. The Biological Nutrient Removal process occurs in the 4-step feed Bioreactor reducing nitrates, phosphorous and Carbonaceous Biochemical Oxygen Demand (CBOD5). The combined volume of the four primary clarifiers is 13 million litres or equivalent to five Olympic size swimming pools. The Septage Receiving Building has specialized equipment that receives regional (50km radius from the WWTF) septic tank waste (2021 - 11,431,000 litres), grinds it and removes the heavy solids before flowing into the fine screens.

Four 39 metre diameter secondary clarifiers are used to provide additional settling helping to remove more solids from the effluent. The Dewatering Building houses dewatering centrifuges, screw conveyors, sludge storage and mixing tanks, rotary drum thickeners, lime silos and polymer equipment all of which transform the wastewater by-products (biosolids) extracted from wastewater into an important feedstock for the Composting Facility.

The original WWTF was commissioned in 1994 with a capacity of 115,000,000 litres per day. The upgraded WWTF is capable of processing flows ranging from a daily average of 90,000,000 to 143,000,000 (storm flow) litres per day.

#### 3.3.3 Composting Facility

The composting process used by the Commission combines bottom positive aeration and a cover system on three large concrete thermophilic composting 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 Composting Facility has a capacity to process 15,000 tonnes of biosolids mixed with 15,000 tonnes of wood waste for a total

# 3.4 Wastewater Operations

In 2021, the WWTF treated more than 23,780,000,000 litres of wastewater or an average of 65,134,000 litres per day. At this flow rate, 26 Olympic-size swimming pools would be filled in a day. The wastewater treatment plant power consumption for 2021 was 7,965 MWh with an average monthly power bill of \$70,759. An increase in power consumption in 2021 can be attributed to the commissioning of the bioreactor blowers and centrifuges that are operating 5 days per week as opposed to 3 days per week that are a high energy consumer.

of 30,000 tonnes of input materials per year. While the amount of biosolids generated in 2021 exceeded this capacity, high public demand for compost created enough capacity for the composting process be successful.

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.

Screening of large objects and removal of inorganics such as sand and gravel particles are accomplished through the septage receiving, 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 2021, the removal rate of Total Suspended Solids (TSS)



was measured at 96% and the removal rate of Carbonaceous Biological Oxygen Demand (CBOD<sub>5</sub>) was measured at 97%.

The primary and secondary clarifiers remove solids from the wastewater. These solids are blended and dewatered by centrifuge to increase dryness. In 2021, 16,185 tonnes of biosolids with an average solids content of 24.5% were shipped from the WWTF to the Composting Facility.

The total cost to treat 1 m<sup>3</sup> of wastewater in 2021 was \$0.32. In 2021, TransAqua's depreciation was valued at \$3,643,718. TransAqua also disposed of \$1,699,711 in assets which had a remaining net book value of \$20,865. Due to the Upgrade Project, increased operational costs on a go forward basis for the management of new assets will result in an increase in wastewater treatment cost. The secondary wastewater treatment process will also result in additional biosolids which will increase costs related to processing and transportation of biosolids and composting them.

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

#### Table 1: 2017 – 2021 Historical WWTF Operational Data

		2017	2018	2019	2020	2021
Annual volume	m <sup>3</sup>	22,814,067	25,646,213	26,055,499	20,927,197	23,784,298
Daily average	m <sup>3</sup> /day	62,531	70,352	71,047	57,317	65,134
Anionic polymer	tonnes	0.7	0.6	0.7	0.6	0
Cationic polymer	tonnes	13.5	13.5	12.3	12.0	26.3
Ferric sulfate	tonnes	427.5	406.6	447.7	230.9	0
Lime	tonnes	108.67	187.2	161.2	145.6	169.4
Power consumption	MWh	5,139	6,105	6,332	5,584	7,965
Biosolids (Wet)	tonnes	11,128	11,183	11,188	11,047	16,406
Biosolids (Dry)	tonnes	3,082	3,154	3,105	3,009	4,014
Solids	%	27.7	28.2	27.8	27.2	24.5
Precipitation	mm	1052	1360	1,334	882	1,076
Cost / m <sup>3</sup>	\$	\$0.19	\$0.19	\$0.19	\$0.37	\$0.32

## 3.4.1 Regulatory Compliance

In 2021 TransAqua effluent discharged to the Petitcodiac River met the requirements to meet the federal Wastewater System Effluent Regulations (WSER). These federal regulations require that WWTF effluent must not be acutely lethal and must also meet the following conditions at the final discharge point to be authorized to be discharged:

- The average carbonaceous biochemical oxygen demand (CBOD5) must not exceed 25 mg/L.
- The average concentration of total suspended solids (TSS) 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 15℃ ±1℃.

TransAqua's 2021 effluent results were as follows;

## Total Suspended Solids (mg/l)



#### Carbonaceous Biochemical Oxygen Demand (mg/l)





#### 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. The Canadian Association for Laboratory Accreditation Inc. (CALA) provides laboratories with national accreditation that meet rigorous testing quality standards. As part of the accreditation process, laboratories are required to participate in biannual (March, October) Proficiency Testing 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<sub>e</sub>)
- Chemical oxygen demand (COD)
- Ammonia
- Total Kjeldahl nitrogen (TKN)
- Total phosphorus (TP)
- Alkalinity

TransAqua's laboratory participated in the 2021 CALA Proficiency Testing Program and passed all parameters that were required to be submitted. The results must be higher than 70% to achieve proficiency.

Table 2: Proficiency Testing results					
PARAMETER	OCTOBER 2019	MARCH 2020	0CT0BER 2020	MARCH 2021	0CT0BER 2021
Ammonia	88	96	98	95	99
CBOD <sub>5</sub>	79	86	88	94	96
Total Suspended Solids	90	89	85	91	85
pH	90	91	92	95	95

# 3.5 Composting Operations

Wastewater treatment by-products, or biosolids, are used as a key ingredient in the TransAqua composting process. Up until recently, biosolids were considered to be 'waste' that required expensive disposal. Personal attitudes are quickly changing to realize that compost containing biosolids are nutrient rich and are being seen as a value added product that can be reintroduced to the earth for many uses.

Treatment of biosolids at the WWTF involves conditioning with liquid lime and dewatering by high-speed centrifuges.

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. The initial mixture is two parts of green waste to one part of biosolids by volume. Biosolids are much denser (heavier) than green waste.

In 2021, 16,185 tonnes of treated biosolids were processed along with approximately 14,100 tonnes of green waste. The initial mix produced 47 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, 2021's production will be available for use in 2022.

Processing and product usage in 2021 involved screening of the 2020 stockpiles (lots) for use by the general public, landscapers and local municipalities.

The public was able to pick up compost free of charge from the self-loading area. If customers required a small tractor to load their truck or trailer, a \$21 / cubic yard fee was paid. Product was sold to landscapers and is also provided to the Greater Moncton area municipalities for their horticultural activities.

The five-year usage summary (tonnes) is shown in Table 3. There was approximately 9,313 tonnes of compost and soil conditioner available to the public in 2021.

Compost Clientele	2016	2017	2018	2019	2020	2021
Public pick-up	5,750	5,000	5,300	5,765	6,592	6,695
Commercial users	1,000	1,000	650	1,156	1,862	1,918
City of Moncton	40	130	100	186	220	350
City of Dieppe	60	60	10	60	-	2
Town of Riverview	150	60	100	166	54	23
Other Municipalities				190	193	40
Community projects (Donations)	200	200	160	339	14	16
Trials/tests/promotional	200	150	1,500	695	-	-
Miscellaneous/TransAqua	200	200	500	205	20	20
Annual compost output totals	7,600	7,400	8,320	8,773	8,955	9,064
Compost Lots created	17	13	13	13	13	17
End of Season Inventory	100	3,000	3,840	2,336	501	250

#### Table 3: 2016 – 2021 Historical Compost Operational Data (tonnes)

TransAqua was pleased that public, commercial and municipal participation in 2021 was very high for another pandemic year! To put this in a visual perspective, TransAqua could load almost 800 dump

trucks with compost every year. In 2021, the secondary treatment has resulted in an increase of 33% more biosolids than with the primary treatment process.

#### 3.5.1 CQA Certification

TransAqua is a member of the Compost Council of Canada (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. Although there is no regulatory requirement, TransAqua operators have received the Level 1 Compost Facility Operator certification through this organization.

COMPOSTING Council of Canada Conseil canadien du COMPOSTAGE

# 3.6 Human Resources

In 2021, TransAqua employed a staff of 16, augmented in the summer months with university and college students from the local community.

The overall system of collector sewers and pumping stations, the WWTF and Composting Facility was overseen by the General Manager who 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 and administration activities), the Director of Engineering and Operations (responsible for delivery of capital programs and engineering activities), an Operations Manager and a Quality Control Manager.

The pandemic continued to create difficulty in 2021 in TransAqua personnel's ability to complete training. In-person and virtual training initiatives that took place in 2020 includes numerous safety training courses (First Aid/CPR, Fall Arrest, JHSC and Confined Space Entry and Rescue), Wastewater Fundamentals (WEF), new Upgrade Project equipment specific training and Lean Six Sigma (yellow and green belt).

TransAqua remains an active member of the Canadian, Atlantic Canadian and Maritime Provinces Water and Wastewater Association (CWWA and ACWWA, MPWWA), the Canadian Network of Asset Management (CNAM), Atlantic Infrastructure Management Network (AIM), Water Environment Federation (WEF), Compost Council of Canada (TransAqua is a member of the Board of Directors) and the Chartered Professionals in Human Resources New Brunswick (CPHRNB).

# 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 provides meaningful sponsorship including in-kind services throughout 2021 for the following industry and public organizations; GMCC, Light-Up Riverview and various schools.

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, to allow for the public to register to receive information and update progress of the treatment plant upgrade. The website will be evaluated and updated in 2022 to make it more intuitive for the public. TransAqua also engages in weekly social media campaigns, a quarterly Newsletter, provide information to those people that have registered to receive information, radio advertising providing

the "Tip of the Week", Open Houses and participate with international environmental initiatives (e.g. 4 Oceans).

TransAqua participated in a Moncton Wildcats game sponsorship with Eco360 at the Wildcats November 19, 2021 game with its Public Information Booth where all information brochures were available to attendees. The "Win your Water and Sewer Bill up to \$1,000" contest was popular with a very happy winner drawn in the third week of December.

Three digital campaigns were advertised in 2021 for compost, Win your Water and Sewer Bill up to \$1000 and the 3P's.

During 2021, the public was invited to pick up Category "A" compost; the highest nationally accredited quality compost at the Compost Facility off Delong Drive. TransAgua expects to

> increase its public compost advertising in 2021.

TransAgua continued with several partnerships in 2021 by submitting a Letter of Support to the Petitcodiac Watershed Alliance for their **Environmental Trust** Fund applications and working with Eco360 on items of mutual benefit.



# 3.8 Capital Works Program

#### 3.8.1 TransAqua WWTF Upgrade and Modernization Project Update

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 Biosolids Load Out Building was commissioned in late December 2021 and site work continued with the completion of the exterior site lighting, some curbs, base asphalt along the east side of the site and grass.



#### 3.8.2 Collector System

The Greater Moncton Wastewater Commission's Collector System is over 34.2 kms long and spans from the Causeway on both sides of the Petitcodiac River to Mill Creek on the Riverview side and around the traffic circle and along the dykes in Dieppe all the way to Dover Road. Most collector sewers were constructed between 1983-1990.

The Long-term Sustainable Wastewater Collection and Treatment Strategy (June 2010) identified wastewater conveyance improvements that will ensure that a robust collector system is maintained and can continue to provide a reliable service well into the future.

#### 3.8.3 Combined Sewer Overflows (CSO)

A Combined Sewer Overflow Long-term Strategy was developed to address overflows resulting during wet weather events. While Dieppe and Riverview do not have combined sewers, inflow and infiltration contribute to the combined wastewater. The largest volumes originate from the older central parts of Moncton. As it is considered too costly to separate sewers in the built-up areas, sewer separation will continue in Moncton when this infrastructure is due for replacement at the end of its useful life.

The Commission is required to monitor CSO discharges and report volumes discharged per CSO structure each month. An annual report is submitted to the federal and provincial regulatory bodies. The

#### 3.8.4. Plant Automation

The fire alarm panel integration project was completed in 2021 to connect all existing and new buildings to one central system. The last step to be completed in 2022 is that when a fire alarm is activated, a message will be sent to all employees and the Riverview Fire Department notifying them of the exact alarm location to allow for a faster response.

#### 3.8.5 Fox Creek WWPS Upgrade

The Fox Creek WWPS certificate of substantial completion was issued in late 2021. Testing and commissioning will be completed early in 2022.

The new Bourque Road Forcemain Project installation was completed along Bourque Road and underneath Fox Creek along Melanson Road in 2021. TransAgua partnered with the City of Dieppe to combine Dieppe's road reconstruction project with TransAqua's forcemain installation along Bourque Road in 2021, completing this project 1 year earlier than planned.

The Regional Wastewater and Combined Sewer Overflow Strategy Committee worked with CBCL to begin the Strategy. Late in 2021, a new concept was proposed to deal with combined sewer overflow at its source rather than continuing to convey this flow to the WWTF for treatment. The Strategy will be completed in 2022.

Commission uses hydraulic modeling software and actual plant measurements to estimate the volume of CSO discharge from its different structures along its collector system. Data such as hourly precipitation, pumping station levels, and dry weather flows are placed into the model to recreate collector system hydraulic conditions. The model is used to estimate discharge, frequency and duration of CSO events and to also estimate treated effluent discharges to the Petitcodiac River. The current CSO capture rate is determined annually. With the initiatives by municipalities and establishment of CSO assets by the commission, it will be possible to measure the increase in capture rate over time.

The majority of new equipment as a result of the WWTF Upgrade and Modernization Project has been connected and programmed into the SCADA system allowing Operators to receive alarms when the equipment is not operating as designed. Work continues to make connections to critical equipment and upgrade existing systems.



# 3.8.6 Bourque Road Forcemain

GMWC partnered with the City of Dieppe to construct the forcemain along Bourque Road. Funds within the GMWC Capital Budget were allocated in 2021 and 2022. The City of Dieppe received favorable pricing and decided to complete both phases in 2021. GMWC agreed to also complete both phases and a third phase (Bonaventure) and work with the developer to complete the last section within their development area. The forcemain is expected to be commissioned and operating in early 2022.

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# 3.9 Energy Sustainability

GMWC completed a Solar Power Feasibility Study in 2021. The payback period for the construction and operation of this initiative was between 32 and 38 years resulting in a poor business case.

TransAgua will make application to NB Power to partner with completing a Process Turbine Feasibility Study in 2021.



# 3.10 Pandemic Response

The ongoing pandemic changed how TransAqua operated in 2021. The GMWC Vaccination Policy was created to ensure adequate health and safety protocols were in place.

Many operational and Commission Meetings, including the 2020 Annual General Meeting were held in person at the City of Dieppe

Council Chambers and using a virtual platform. A portable toilet was used at the Compost Facility for the public's safety. TransAqua opened five of eight compost toilets with an increased frequency of cleaning and provision of new hand sanitizer stations. The Virginia Street compost toilet was vandalised in 2021 and had to be removed to reduce liability.

# 3.11 Environmental Issues

There was a major oil spill into the collector sewers that entered the WWTF process. Some oil was contained at the surface of the primary clarifiers and could be seen in the bioreactor cells. This resulted in a major loss of bacteria in the bioreactor that took approximately a week for the bacteria population to come back to normal levels. The City of Moncton determined a potential source of the oil from a facility located in one of their industrial parks.

There was a major odour issue in the Moncton North End that began in mid-2021 that is an ongoing issue. Staff completed an investigation and immediately implemented most action items. The City of Moncton Mayor, several councillors and some staff participated in a Compost Facility tour. GMWC's senior compost operator partnered with Eco360 to receive and investigate complaints form the public. Work continues to resolve this issue including the potential for anaerobic digestion to reduce the amount of biosolids required for composting.



# 4. TREASURER'S REPORT

This year TransAqua kept progressing with upgrades and new items to consider including our major infrastructure projects, our review of capital assets, and the cyber security audit. As a result, actual revenue was 17,958,469 as of December 31, 2021 compared to a budget of \$18,837,243 resulting in a revenue variance of \$878,773 of which was attributed to a variance in grants.

As of December 31, 2021, we have issued \$91,731,945 in purchase orders for the upgrade of the plant of which we have spent \$77,912,599. While this amount currently exceeds \$90,400,000, many purchase order amounts will not be fully invoiced as they are based on actual work done in the field. From the \$45,201,944 committed by our funding partners for the upgrade project, we have claimed a total of \$42,020,757 from the start of the project. TransAqua is still eligible to claim up to \$3,181,187 excluding some holdbacks that are claimable when the project is closed which is expected to happen later this year.

In 2021, new and replacement assets were added to our capital asset base valued at \$13,004,083. The project also contributed \$129,822 in demolition costs that was offset by \$3,273 in the sale of miscellaneous metals. Overall operating expenditures were underspent by \$1,575,399.

Respectfully submitted,

Julit

Jean-Pierre Ouellette Treasurer

# **5. COMMISSION MEMBERS**



#### MICHEL DESJARDINS

#### Representing Moncton

Current term to September 2024

- Chair of the Commission Board
- Member of Executive Committee

#### JENNIFER DINGMAN PhD

#### Representing Riverview

Current term to August 2025

- Commission Member
- Member of Finance, Audit and Governance Committee

#### GERALD LUNDQUIST

#### Representing Riverview

Current term to October 2024

- Commission Member

#### BRENDA Dore-Kidney

#### Representing Moncton

Current term to September 2024

- Secretary of the Commission Board
- Member of Executive Committee

#### JEAN-PIERRE OUELLETTE

#### Representing Dieppe

Current term to September 2023

- Treasurer of the Commission Board
- Member of Executive Committee

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Member of Finance, Audit and Governance Committee

#### YVES GAGNON P. Eng., D. Sc.

#### Representing Dieppe

Current term to September 2022

- Commission Member

# 6. 2021 AUDITED FINANCIAL STATEMENTS

# **GREATER MONCTON WASTEWATER COMMISSION**

FINANCIAL STATEMENTS DECEMBER 31, 2021

# **TABLE OF CONTENTS**

PAGE

Independent Auditor's Report	. 22
Statement of financial position	. 24
Statement of operations and accumulated surplus	. 25
Statement of changes in net financial assets	. 26
Statement of cash flows	. 27
Notes to the financial statements	. 28
Schedule 1 – Schedule of annual surplus	. 33
Schedule 2 – Schedule of budget to public sector accounting	. 34

# Deloitte.

# **INDEPENDENT AUDITOR'S REPORT**

Deloitte LLP 816 Main Street Moncton NB E1C 1E6 Canada Tel: 506-389-8073 Fax: 506-632-1210 www.deloitte.ca

To the Chairman and Members of Greater Moncton Wastewater Commission

#### **Report on the Audit of the Financial Statements Opinion**

We have audited the financial statements of Greater Moncton Wastewater Commission (the "Commission") which comprise the statement of financial position as at December 31, 2021, and the statements of operations and accumulated surplus, changes in net financial assets and cash flows for the year then ended, and the notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Greater Moncton Wastewater Commission as at December 31, 2021 and the results of its operations, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards ("PSAS").

#### **Basis for Opinion**

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Commission in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with PSAS, 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.

In preparing the financial statements, management is responsible for assessing the Commission's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Commission or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Commission's financial reporting process.

#### Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Commission's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures • made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Commission's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Commission to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

eloitte LLP

**Chartered Professional Accountants** February 18, 2022

STATEMENT OF FINANCIAL POSITION As at December 31, 2021

	2021	2020
	\$	\$
Assets		
Cash		
Operating	20,860,019	25,243,123
Reserve funds	12,324,961	1,051,129
Accounts receivable		
General	1,872,657	1,241,018
Harmonized Sales Tax receivable	299,850	475,877
Accrued interest receivable	57,364	81,035
Investments (Note 3)	5,074,661	15,801,967
	40,489,513	43,894,149
Liabilities		
Accounts payable and accrued liabilities	3,134,853	3,966,375
Holdbacks payable	2,306,579	3,992,237
	5,441,432	7,958,612
Net assets	35,048,081	35,935,537
Non-financial assets		
Tangible capital assets	117,010,849	107,671,350
Prepaid expenses and deposits (Note 8)	61,812	262,666
	117,072,661	107,934,016
Accumulated surplus (Note 5)	152,120,742	143,869,553

Approved by the board and management

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Michael Desjardins, Chair

Kevin Rice, General Manager

Jean-Pierre Ouellette, Treasurer

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Sharon McGrath, Director of Finance

#### STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS Year ended December 31, 2021

		2021	2020
	Budget	Actual	Actual
	\$ (Note 7)	\$	\$
Revenue	(10007)		
User fees			
City of Moncton	8,379,840	8,379,840	8,346,660
City of Dieppe	2,484,930	2,484,930	2,404,290
Town of Riverview	1,742,790	1,742,790	1,750,350
	12,607,560	12,607,560	12,501,300
Grants	5,529,224	4,173,614	13,755,176
Interest income (Note 2)	531,158	762,561	1,116,800
Septic hauler and compost income	169,300	414,733	401,906
	18,837,242	17,958,469	27,775,182
Expenses			
Plant and operating expenses			
Amortization of tangible capital assets	4,176,759	3,643,718	2,511,841
Salaries and benefits	1,729,094	1,602,854	1,680,630
Maintenance and operating	1,798,400	1,755,185	1,594,801
Loss on disposal of tangible capital assets	—	17,592	871,858
Electricity	1,178,720	853,547	623,948
Easement and property taxes	1,044,876	644,586	570,990
Insurance	215,187	221,163	203,693
Telephone	23,450	24,267	24,964
Vehicle	10,487	21,656	15,844
Consulting services	362,000	201,158	13,872
Impairment of tangible capital assets (Note 8)	—	_	3,297,513
Demolition cost	—	—	450,935
Miscellaneous (income)	390,237	371,485	(883)
	10,929,210	9,357,211	11,860,006
General expenses			
Professional fees and consulting	124,640	198,908	735,624
Office	76,516	59,059	69,083
Marketing and communications	63,600	48,211	54,853
Travel, training and education	59,549	23,058	22,423
Governance	25,365	15,884	21,964
Interest and bank charges	3,800	4,950	5,182
	353,470	350,069	909,129
Total expenses	11,282,680	9,707,280	12,769,135
Annual surplus	7,554,562	8,251,189	15,006,047
Accumulated surplus, beginning of year		143,869,553	128,863,506
Accumulated surplus, end of year (Note 5)	_	152,120,742	143,869,553

## STATEMENT OF CHANGES IN NET FINANCIAL ASSETS Year ended December 31, 2021

	Budget	2021	2020
	(Unaudited)	Actual	Actual
	\$	\$	\$
Annual surplus	7,554,562	8,251,189	15,006,047
Acquisition of tangible capital assets	(17,591,242)	(13,004,083)	(27,067,855)
Impairment of tangible capital assets			3,297,513
Amortization of tangible capital assets	4,176,759	3,643,718	2,511,841
Loss on disposal of tangible capital assets	_	17,592	871,858
Proceeds on sale of tangible capital assets		3,275	8,916
Change in prepaid expenses and deposits	(13,414,483)	(9,339,498)	(20,377,727)
	—	200,854	(56,597)
	(13,414,483)	(9,138,645)	(20,434,324)
Change in net financial assets	(5,859,921)	(887,456)	(5,428,277)
Net financial assets, beginning of year	_	35,935,537	41,363,814
Net financial assets, end of year	(5,859,921)	35,048,081	35,935,537

# STATEMENT OF CASH FLOWS

Year ended December 31, 2021

	2021	2020
	\$	\$
Operating activities		
Annual surplus	8,251,189	15,006,047
Charges to income not involving cash		
Impairment of tangible capital assets	—	3,297,513
Amortization of tangible capital assets	3,643,718	2,511,841
Loss on disposal of tangible capital assets	17,592	871,858
	11,912,498	21,687,259
Change in non-cash assets and liabilities		
Accounts receivable	(431,942)	(411,248)
Prepaid expenses and deposits	2 00,854	(56,597)
Accounts payable and accrued liabilities	(831,522)	62,578
Holdbacks payable	(1,685,658)	1,817,086
	9,164,230	23,099,079
Investing activities		
Purchase of investments, net of maturities	10,727,306	15,161,096
Proceeds on sale of tangible capital assets	3,275	8,916
Acquisitions of tangible capital assets	(13,004,083)	(27,067,855)
	(2,273,502)	(11,897,844)
Net change in cash during the year	6,890,728	11,201,235
Cash, beginning of year	26,294,252	15,093,017
Cash, end of year	33,184,980	26,294,252
Cash consists of:		
Cash in bank, operating	20,860,019	25,243,123
Cash in bank, reserve funds	12,324,961	1,051,129
	33,184,980	26,294,252

#### NOTES TO THE FINANCIAL STATEMENTS December 31, 2021

#### 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.

#### Budget

The budget figures contained in these financial statements were approved by the Commission on November 19, 2020 and submitted to the Minister of Local Government. Certain budget figures have been reclassified to conform with PSAS financial statement presentation.

#### **Fund accounting**

Funds within the financial statements consist of general and capital funds. The Commission approves certain amounts to be set aside in capital funds for future operating and capital purposes.

Transfers between funds are recorded as adjustments to the appropriate fund balance.

#### Asset classification

Assets are classified as either financial or non-financial. Financial assets are assets that could be used to discharge existing liabilities or finance future operations and are not for consumption in the normal course of operations. Non-financial assets are acquired assets that do not normally provide resources to discharge existing liabilities, but instead are employed to deliver government services, may be consumed in the normal course of operations and are not for resale. Non-financial assets include prepaid expenses.

#### **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 fund balances as a direct increase to the capital fund.

Government transfers are recognized in the period in which the events giving rise to the transfer occur, providing transfers are authorized, any eligibility criteria have been met, and reasonable estimates of the amounts can be made.

NOTES TO THE FINANCIAL STATEMENTS December 31, 2021

#### 2. Summary of significant accounting policies (continued):

#### 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 and accumulated surplus as earned.

#### **Cash and cash equivalents**

Cash and cash equivalents includes cash on hand and cash in banks not subject to other restrictions and with a term to maturity of three months or less at date of acquisition.

#### **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 center 10 - 60 years
Treatment facilities 5 - 60 years
Collection system10 - 75 years
Fleet
Computer hardware and software

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 150 days. On retirement, 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.

The sick leave is an unfunded benefit. As such, there are no applicable assets. Benefits are paid out of accumulated surplus as they come due. The unfunded liability at December 31, 2021 of \$164,114 (\$174,098 in 2020) is recorded in accounts payable and accrued liabilities.

NOTES TO THE FINANCIAL STATEMENTS December 31, 2021

#### 3. Investments

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

	2021	2010
	\$	\$
Guaranteed investment certificate (2.90%, maturing May 2022)	5,074,661	5,074,661
Guaranteed investment certificate (2.85%, maturing September 2021)	—	5,113,653
Guaranteed investment certificate (2.85%, maturing September 2021)	—	5,613,653
	5,074,661	15,801,967

#### 4. Post-employment benefits

The Commission sponsors an RRSP plan for substantially all its employees. The plan allows for RRSP contributions of 8% of employee salaries. Prior to December 31, 2016, the employees were not required to pay into the RRSP plan in order to obtain this benefit. Subsequently, in accordance with the collective agreement signed between the Commission and Canadian Union of Public Employees Local 5217 on May 1st, 2020, each employee will contribute a minimum percentage of salary each year (2% in 2017, 4% in 2018, 6% in 2019 (for 25 pay periods) with last pay of 2019 increasing to 7%, and 8% thereafter). There is no unfunded liability associated with this post-employment benefits payable.

#### 5. 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:

	2021	2020
	\$	\$
Net financial assets	35,048,081	35,935,537
Non-financial assets	117,072,661	107,934,016
	152,120,742	143,869,553

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

# 2021 Annual Report - GREATER MONCTON WASTEWATER COMMISSION

# **GREATER MONCTON WASTEWATER COMMISSION**

NOTES TO THE FINANCIAL STATEMENTS December 31, 2021

#### 6. Financial instruments and risk management

#### Market risk

Market risk is the risk that the fair value or future cash flows of the Commission's financial instruments will fluctuate because of changes in market prices. Market risk is comprised of currency risk, interest rate risk and other price risk. The Commission does not consider itself exposed to these risks.

#### 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.

#### Liquidity risk

The Company's objective is to have sufficient liquidity to meet its liabilities when due. The Company monitors its cash balances and cash flows generated from operations to meet its requirements. As at December 31, 2021, the most significant financial liabilities are accounts payable and accrued liabilities, and holdbacks payable.

#### 7. Budgeted figures

Budget figures included in the financial statements were approved by the Board through the adoption of annual budgeting process. No adjustments have been made to the approved budgeted figures as presented on the Statement of Operations and Accumulated Surplus. The budget as presented on the face of the Statement of Operations and Accumulated Surplus is unaudited.

NOTES TO THE FINANCIAL STATEMENTS Year ended December 31, 2021

#### 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	558,365	3,706,215	112,178,211	33,211,406	1,428,688	362,172	8,581,580	160,026,637
Net additions during the year	_	3,487	7,984,546	_	_	40,490	4,975,559	13,004,082
Disposals during the year	_	(184,029)	(1,435,182)	(77,242)	_	(3,258)	_	(1,699,711)
Balance, end of year	558,365	3,525,673	118,727,575	33,134,164	1,428,688	399,404	13,557,139	171,331,008
ACCUMULATED AMORTIZATION								
Balance – Beginning of year	_	1,352,084	34,254,762	15,409,397	1,093,948	245,096	_	52,355,287
Amortization during the year	_	188,104	2,580,447	729,097	97,775	48,295	_	3,643,718
Accumulated amortization dispos	als —	(184,029)	(1,425,967)	(65,591)		(3,259)	_	(1,678,846)
Balance, end of year	_	1,356,159	35,409,242	16,072,903	1,191,723	290,132	_	54,320,159
Net book value of tangible capital assets 2020	558,365	2,354,131	77,923,449	17,802,009	334,740	117,076	8,581,580	107,671,350
Net book value of tangible canital assets								
2021	558,365	2,169,514	83,318,332	17,061,262	236,965	109,272	13,557,139	117,010,849

#### 9. Supplemental schedules

The Department of Environment and 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 page.

SCHEDULE OF ANNUAL SURPLUS – SCHEDULE 1 Year ended December 31, 2021 (Unaudited)

	Operating fund \$	Capital fund \$	Total \$
2021 annual surplus	7,100,204	1,150,985	8,251,189
Adjustments to annual surplus for funding requirements			
Second previous year surplus	416,600	—	416,600
Transfer from operating to capital	(7,373,050)	7,373,050	
Total adjustments to 2020 annual surplus	(6,956,450)	7,373,050	416,600
2021 annual fund surplus	143,753	8,524,035	8,667,789

# SCHEDULE 2 – SCHEDULE OF BUDGET BY FUND TO PUBLIC SECTOR ACCOUNTING Year ended December 31, 2021 (Unaudited)

	Operating \$	Amortization \$	Capital fund \$	Total \$
Revenue				
User fees				
City of Moncton	8,379,840		_	8,379,840
City of Dieppe	2,484,930	_	_	2,484,930
Town of Riverview	1,742,790	_	_	1,742,790
Grant	_	_	5,529,224	5,529,224
Interest and miscellaneous	169,300	—	531,158	700,458
	12,776,860	_	6,060,382	18,837,242
Expenses				
Plant and operating expenses				
Easement and property taxes	1,044,876	_	_	1,044,876
Salaries and benefits	1,729,094	_	_	1,729,094
Amortization of tangible capital assets	_	4,176,759	_	4,176,759
Electricity	1,178,720	_	_	1,178,720
Telephone	23,450	_	_	23,450
Insurance	215,187	_	_	215,187
Maintenance and operating	1,798,400	_	_	1,798,400
Consulting services	362,000	_	_	362,000
Vehicle expense	10,487	_	_	10,487
Miscellaneous	390,237	—	—	390,237
	6,752,451	4,176,759	—	10,929,210
General				
Marketing and communications	63,600	_	_	63,600
Office expenses	76,516	_	_	76,516
Travel, training and education	59,549	_	_	59,549
Governance	25,365	_	_	25,365
Interest and bank charges	3,800	_	_	3,800
Professional fees and consulting	124,640	—	—	124,640
	353,470	—	—	353,470
Total Expenses	7,105,921	4,176,759	_	11,282,680
Surplus Subtotal	5,670,939	(4,176,759)	6,060,382	7,554,562
Fiscal services				
Second previous surplus	416.600	_	416.600	_
Transfers from operating				
fund to capital fund	(6,087,539)		(6,087,539)	_
	(5,670,939)	_	(5,670,939)	_
Annual surplus	_	(4,176,759)	389,443	7,554,562

# 7. 2021 Independent Audit Report

Schedule of federal and provincial capital expenditure claim submissions **GREATER MONCTON WASTEWATER COMMISSION** DECEMBER 31, 2021

# **TABLE OF CONTENTS**

PAGE

INDEPENDENT AUDITOR'S REPORT	
SCHEDULE OF FEDERAL AND PROVINCIAL CAPITAL EXPENDITURE CLAIM SUBMISSIONS	38
NOTES TO THE SCHEDULE	38

# Deloitte.

# **INDEPENDENT AUDITOR'S REPORT**

To the Management of the Greater Moncton Wastewater Commission

Deloitte LLP 816 Main Street P.O. Box 6549, Suite 500 Moncton NB E1C 1E6 Canada Tel: 506-389-8073 Fax: 506-632-1210 www.deloitte.ca

#### **Opinion**

We have audited the schedule of federal and provincial capital expenditure claim submissions of the Greater Moncton Wastewater Commission (the "Commission") as at December 31, 2021, including a summary of significant accounting policies (collectively referred to as the "Schedule").

In our opinion, the financial information in the Schedule of the Commission is prepared, in all material respects, in accordance with the basis of accounting described in Note 1.

#### **Basis for Opinion**

We conducted our audit in accordance with Canadian generally accepted auditing standards ("Canadian GAAS"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statement* section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statement in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Emphasis of Matter – Basis of Accounting and Restriction on Use

We draw attention to Note 1 to the Schedule, which describes the basis of accounting. The Schedule is prepared to assist the Commission to meet the requirements of the contribution agreements with the Regional Development Corporation and Infrastructure Canada. As a result, the Schedule may not be suitable for another purpose. Our opinion is not modified in respect of this matter.

#### **Responsibilities of Management and Those Charged with Governance for the Schedule**

Management is responsible for the preparation of the Schedule in accordance with Note 1, and for such internal control as management determines is necessary to enable the preparation of the Schedule that is free from material misstatement, whether due to fraud or error.

In preparing the Schedule, management is responsible for assessing the Commission's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Commission or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Commission's financial reporting process.

#### Auditor's Responsibilities for the Audit of the Schedule

Our objectives are to obtain reasonable assurance about whether the Schedule as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian GAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of this financial statement.

As part of an audit in accordance with Canadian GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statement, whether due to fraud or error, design and
  perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis
  for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as
  fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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 Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates, if any, and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statement or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statement, including the disclosures, and whether the financial statement represents the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte LLP

Chartered Professional Accountants February 18, 2022

# SCHEDULE OF FEDERAL AND PROVINCIAL CAPITAL EXPENDITURE CLAIM SUBMISSIONS Year ended December 31, 2021

Claim #	Date Claimed	Period Covered	Total Claimed Eligible Costs	Provincial Claim	Provincial Total Project	Federal Claim	Federal Total Project	Total Claim
Claim balance beginning					6,371,967		977,027	
2020-45	January 30, 2021	From Jan 1 - 31 2021	2,024,295	506,071	5,865,896		977,027	1,180,836
2020-46	February 28, 2021	From Feb1-28 2021	1,631,673	407,916	5,457,980	674,765	302,262	710,178
2020-47	March 31, 2021	From Mar 1-31 2021	1,516,516	379,129	5,078,851	302,262		379,129
2021-48	April 30, 2021	From Apr 1-30 2021	684,899	171,224	4,907,627			171,224
2021-49	May 31, 2021	From May 1- 31 2021	2,044,888	511,222	4,396,405			511,222
2021-50	June 30, 2021	From Jun 1-30 2021	581,159	145,289	4,251,116			145,289
2021-51	July 31, 2021	From Jul 1- 31 2021	1,022,932	255,723	3,995,393			255,723
2021-52	August 31, 2021	From Aug 1-30 2021	573,184	143,295	3,852,098			143,295
2021-53	September 30, 2021	From Sept 1-30 2021	771,945	195,903	3,656,195			195,903
2021-54	October 31, 2021	From October 1 - 31, 2021	223,043	55,761	3,600,435			55,761
2021-55	November 30, 2021	From Nov 1-30 2021	817,732	204,433	3,396,002			204,433
2021-56	December 31, 2021	From Dec 1 - 31, 2021	859,257	214,814	3,181,187			214,814
Claim bal	ance ending				3,181,187			
			12,751,525	5,886,197		977,027		4,167,806

The accompanying note to the schedule are an integral part of this schedule.

#### NOTES TO THE SCHEDULE December 31, 2021

#### 1. Basis of accounting

The schedule of the Commission is prepared in accordance with the requirements as presented in article 9(b) of the contribution agreements of the Regional Development Corporation ("RDC") and Infrastructure Canada ("IC").



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