



REPORT TO

## CORPORATE SERVICES, STRATEGIC PLANNING AND PROPERTY COMMITTEE

### CITY OF TORONTO WATER AND WASTEWATER RATES UPDATE NOVEMBER 2016 (ALL WARDS)

*"I can do all this through Him who gives me strength."  
Philippians 4:13 (NIV)*

Created, Draft	First Tabling	Review
November 24, 2016	December 8, 2016	
K. Elgharbawy, Senior Coordinator, Maintenance and Energy Management M. Farrell, Coordinator, Materials Management P. de Cock, Comptroller, Business Services A. Della Mora, D. Yack, J. Shanahan, J. Wujek, K. Malcolm, M. Caccamo, P. Aguiar, S. Campbell Superintendents of Learning, Student Achievement and Well-Being M. Puccetti, Superintendent of Facilities Services		
<b>RECOMMENDATION REPORT</b>		

**Vision:**

*At Toronto Catholic we transform the world through witness, faith, innovation and action.*

**Mission:**

*The Toronto Catholic District School Board is an inclusive learning community uniting home, parish and school and rooted in the love of Christ.*

*We educate students to grow in grace and knowledge to lead lives of faith, hope and charity.*



R. McGuckin  
Associate Director of Academic Affairs

A. Sangiorgio  
Associate Director of Planning and  
Facilities

C. Jackson  
Executive Superintendent of Business  
Services and Chief Financial Officer

Angela Gauthier  
Director of Education

## **A. EXECUTIVE SUMMARY**

This is an update to the report regarding City of Toronto Water and Wastewater Utility Rates (October 15, 2016, Corporate Affairs Strategic Planning and Property Committee).

*The cumulative staff time dedicated to developing this report was 15 hours.*

## **B. PURPOSE**

This report also provides an update to the April 14, 2015 Corporate Affairs Strategic Planning and Property Committee report which recommended:

*“That the Toronto Catholic District School Board objects to the proposed increase and that staff be directed to approach the other school boards in the City to jointly pursue Ministry of Education support in seeking an exemption from the proposed City of Toronto water surcharge, and,*

*That staff look at a cost benefit of installing technology to reduce water usage”.*

## **C. BACKGROUND**

1. On April 14, 2015 and October 15, 2016, Board staff provided an update to Corporate Affairs Strategic Planning and Property Committee regarding the proposed City of Toronto Water and Wastewater Utility Rates.
2. The City is planning to change the way we pay for our water use. Currently we pay based on the quantity consumed. The city is proposing to change this to a combination of water consumption and storm water runoff charge (SWC). As a result, the consumption rate will decrease and there will be a new SWC which will be a net increase in the Board’s utility costs.
3. At the City of Toronto’s latest Stakeholder Consultation Meeting (October 24, 2016) regarding the proposed storm water charge, Board staff have learned that City of Toronto staff intend to take a report to the Executive Committee on May 27, 2017 recommending the implementation of the storm water charge. If approved, the implementation of the program would begin in 2018 and the storm water rate increases/charges would start on January 1, 2019.
4. The City of Toronto initially intended to implement the wastewater surcharge by the year 2017. Based on information available at that time,

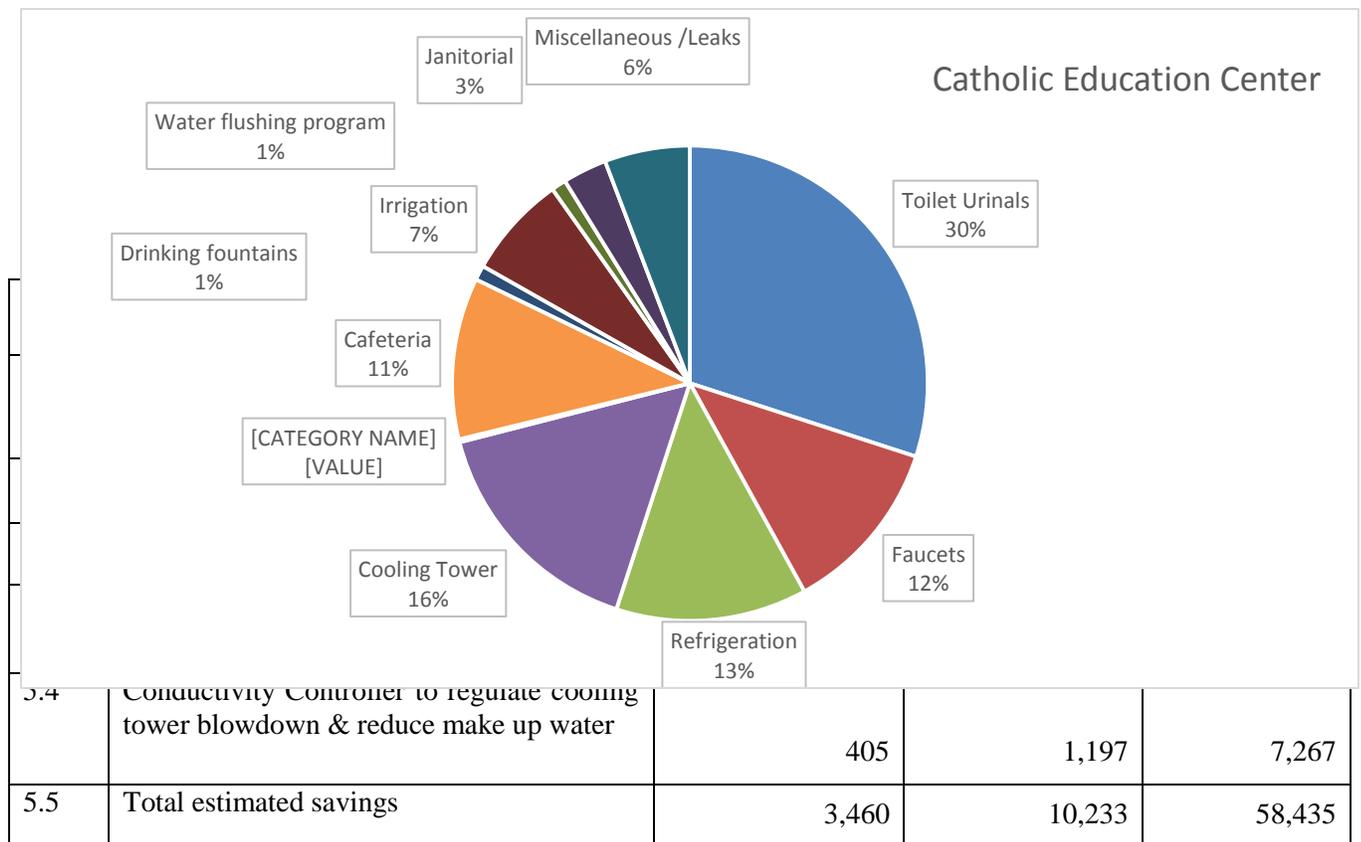
Board staff estimated this increase to be on the order \$3.5M for the first year. Board staff are currently working with City staff to determine the actual first year surcharge if fully implemented.

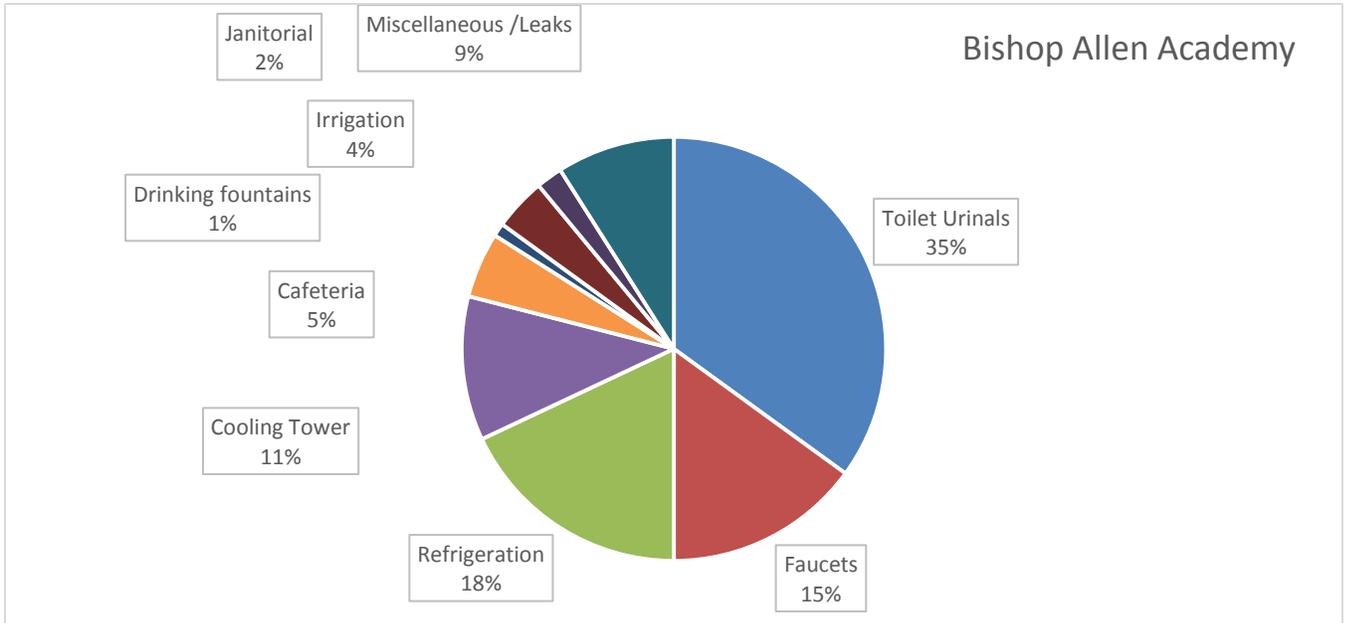
5. In 2015 and 2016, Board staff submitted a letter to the City of Toronto regarding the contemplated surcharge stating that the Board was seeking an exemption to this surcharge. There has been no formal response from the City.
6. Board staff also contacted the three other boards within the City of Toronto to see if they would like to jointly issue a letter to the Ministry of Education requesting an exemption to the storm water surcharge.

## **EVIDENCE/RESEARCH/ANALYSIS**

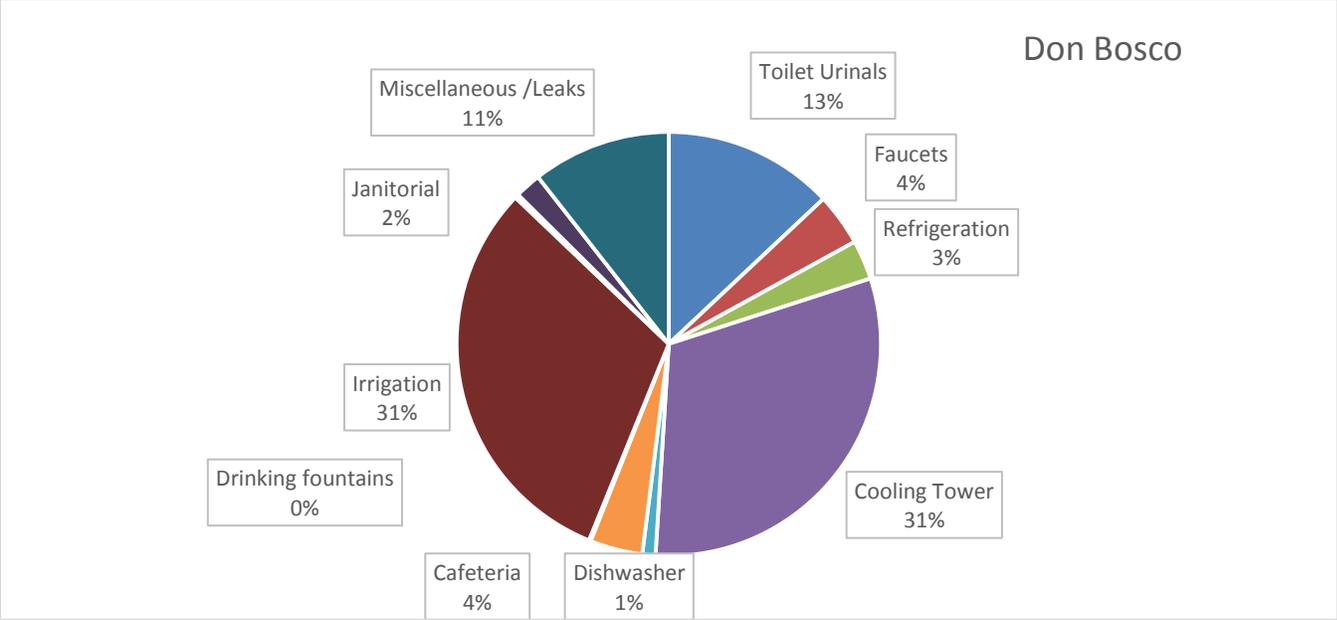
1. Board staff have also investigated technologies to reduce water consumption by conducting water audits at several sample schools (i.e. CEC, Bishop Allen Academy, Don Bosco Catholic Secondary, Michael Power/St Joseph, St Patrick, Bishop Marrocco/Thomas Merton).
2. The auditor estimated that approximately 15% of water utilization in the sample schools noted above is from tap or faucet use and recommended retrofitting existing 5.7 to 8.3 Litres Per Minute (LPM) faucet aerators with 1.9 LPM faucet aerators.
3. The auditor also estimated that approximately 35% of water utilization is from toilets and urinals. He recommended replacement of existing 13 Litres per Flush (LPF) toilets in all board facilities with 4.8 LPF toilets where there is the necessary drain slope and water pressure to meet the water flow requirements for these types of low flush fixtures.
4. The water audit also recommended conversion of (Air conditioning) water cooled refrigeration units to air cooled units as well as installing conductivity controllers to automatically control the blowdown of the cooling tower and reduce the makeup water required.
5. Each school is currently mandated to flush the water on one or more drinking fountains for 20 minutes per day. There are approximately 200 fountains running every school day under this program at a cost of \$0.20 per fountain per day (for the 20 minutes). This results in an estimated additional cost of \$7,600.00 per year based on a 190-school-day year for this flushing program.

6. The current water fountain usage is only approximately 1% of the total water utilized at most schools based on the findings from the sample schools as well as an analysis of the Board’s overall water consumption rates.
7. Some of the water saving technologies recommended in the audit cannot be easily implemented in older building, as the existing plumbing systems and infrastructure would require significant upgrades in order to support the new technologies. For example, in order to install low flush toilets, the existing new floor drains would be required, which typically requires the concrete floor to be cut open and new drain pipes run the length of the corridor.
8. MP End use breakdown charts indicate how water is being used in the sample board facilities. The measures recommended for each board facility where water audits were carried out by auditors to reduce water use are shown in the tables below:





Bishop Allen Academy- Recommended Measures				
Ref#	Description of the measure	Estimated Annual Water Savings (m <sup>3</sup> )	Estimated Annual Cost savings \$	Cost \$
5.1	Low flow Toilets/Urinals	1,364	4,034	48,500
5.2	Low flow Aerators/Faucets	1,134	3,355	1,100
5.3	Convert Water cooled refrigeration unit to Air Cool	1,682	4,974	15,018
	Total estimated savings	4,183	12,371	64,668



Don Bosco – Recommended Measures				
Ref#	Description of the measure	Estimated Annual Water Savings (m <sup>3</sup> )	Estimated Annual Cost savings \$	Cost \$
5.1	Low flow Aerators/Faucets	310	916	1,200
5.2	Convert Water cooled refrigeration unit to Air Cool	360	1,064	7,904
5.3	Conductivity Controller to regulate cooling tower blowdown & reduce make up water	978	2,893	10,096
	Total estimated savings	1,647	4,873	19,200

Michael Power/St. Joseph- Recommended Measures		
Ref#	Description of the measure	Recommended next action
5.1	Investigate background water consumption	Complete 7-day flow monitoring of incoming water
5.2	Replace 13 LPF toilets with efficient models	Obtain quotes
5.3	Replace faucet aerators with 1.9LPM models	Make a list of aerator types needed
	Recommended for further action	
6.5	Investigate eliminating overnight flushing of timed-flush urinals	Eliminate overnight flushing
6.6	Investigate installation of rainwater harvesting system to supply cooling tower	
6.7	Consider completing a thermal energy study	Contact consultant to obtain quote

St. Patrick - Recommended Measures		
Ref#	Description of the measure	Recommended next action
5.1	Replace 13 LPF toilets with efficient ones	Conduct a detail toilet inventory & gather cost estimates
5.3	Replace faucet aerators with 1.9LPM models	Make a list of aerator types needed
5.4	Install aerators in family studies rooms	
5.5	Adjust timer on wood shop Bradley	Adjust timer
5.6	Fix leaking faucets in room 523	
	Recommended for further action	
6.5	Eliminate background consumption	Conduct a detail flow monitoring
6.6	Replace walk in refrigeration system	Obtain a quote

Bishop Marrocco/Thomas Merton - Recommended Measures		
Ref#	Description of the measure	Recommended next action
5.1	Replace 13 LPF toilets with efficient ones	Conduct a detail toilet inventory & gather cost estimates
5.2	Replace faucet aerators with 1.9LPM models	Make a list of aerator types needed
5.3	Adjust Boys' WC Bradly wash fountain	Contact Bradley about adjusting flow rate

15. Waste Fees:

- (a) The City has been providing waste and recycling services to the Board since 2002.
- (b) The City advised Board Facilities staff that it is currently reviewing their waste rates to ensure that they are in line with the cost to operate the waste and recycling services and that there will be an anticipated increase of 5.2% as of January 1, 2017.
- (c) The approved waste budget for waste collection provided by the City of Toronto for 2016/17 is \$940,161.91. The 5.2% projected increase by the City of Toronto Waste Division will increase the budget to \$972,754.24. This is an estimated increase of \$32,592.33 from January 1, 2017 to August 31, 2017.
- (d) The Board has submitted a letter to the City of Toronto Budget Committee expressing concerns with the increased rate of 5.2% as of January 1, 2017.
- (e) It should be noted that the increase in rates to waste by the City for household residential collection could have an indirect effect on our waste budget due to an increase in illegal dumping on Board property, and the associated costs to remove.
- (f) To reduce waste fees, Facilities staff have implemented the following:
  - Reduce the size of waste container collected;
  - Reduce the number of waste containers on site;
  - Reduce the number of lifts per week;

- Cancel waste pick-ups at certain times of the year at various school locations during Summer, Christmas and March Break.
  - Continuation of free recycling and organics programs at all school locations
  - Implementation of EcoSchools
  - Implementation of Waste Free lunch programs
- (g) Over the past year, the Facilities Staff has reduced waste collections from twice per week to once per week at approximately 20 school sites. Facilities staff continue to monitor two-times-per-week sites and will be implementing further reductions based on the findings. This reduction in waste lifts has been achieved through the diligence of our caretaking, school staff, and students working towards improved recycling and reduced garbage. Schools that participate in becoming EcoSchools and schools that participate in the Waste Free Lunch program have been the most successful.
- (h) If the Board was to have waste and recycling collections provided by a private contractor the estimated cost would be \$1,508,780.00. This represents an increase of \$568,618.00 which equates to a 60% increase. \*\*This information is based on current fees charged by our current private provider. Costs could be lower if the entire Board were on private service in conjunction with another school Board.
- (i) Facilities staff in conjunction with Materials Management are currently preparing a tender to ensure that the Board is receiving the best price possible for waste collection and recycling collections

## **D. STAFF RECOMMENDATION**

1. That the Board continue to work with the other school boards in the City to jointly pursue Ministry of Education support in seeking an exemption from the proposed City of Toronto water surcharge.
2. That Board staff prioritize the schools that would benefit the most from installing water saving technologies and develop a program to retrofit these schools.