

**TO**                   **Cities of Regina and Moose Jaw**  
**FROM**               **Dale Schoffer, Chair, Buffalo Pound Water Board of Directors**  
**DATE**               **October 31, 2018**  
**SUBJECT**           **2018 Semi-Annual Report**



**PURPOSE:**

The purpose of this report is to submit an executive summary of the Board’s activities in 2018 to the Cities of Regina and Moose Jaw in order to satisfy the conditions prescribed in Section 7.1 of the Unanimous Membership Agreement.

**BACKGROUND:**

Section 7.1 of the Unanimous Membership Agreement (UMA) states as follows:

7.1 *Semi-Annual Reports.* On or before October 31st of each year, the Board of Directors shall prepare a semi-annual report which shall be submitted to each of the Cities, who shall bring the matter forward to their respective elected officials as an information item for the Regina Council and Moose Jaw Council. The semi-annual reports will include, in respect of the immediately preceding semi-annual fiscal period:

- (a) the strategic plan update for the Corporation;
- (b) projected major capital expenditures in excess of \$1 million;
- (c) any matters that require the approval of the Cities pursuant to Article 5 of this Agreement;
- (d) six month financial statements for the period ending June 30 and financial projections against budget;
- (e) financial and operational performance against stated goals and objectives, including a key performance indicator report;
- (f) capital and operational plans and budgets for the upcoming year;

- (g) reporting on performance of the Board of Directors and any updates on the required skills and experience matrix for future appointments; and
- (h) information that is likely to materially affect either of the Cities.

## **DISCUSSION:**

In accordance with Section 7.1 of the UMA, the semi-annual report is comprised of the following matters:

### **1.0 Strategic Plan**

The Board of Directors, at its meeting held on September 27, 2017, adopted the 2018 - 2020 Strategic Plan.

The 2018-2020 Strategic Plan was presented to the Cities at the October 26, 2017 Mid-Year Meeting with both Cities supporting Plan.

The 2018 - 2020 Strategic Plan was implemented on January 1, 2018.

There have been no changes to the Strategic Plan since its adoption.

### **2.0 Plant Performance**

The Plant's Performance for 2018 is comprised of the 2016 National Water and Wastewater Benchmarking Initiative (NWWBI) results and the current 2018 - 2020 Strategic Plan Balanced Scorecard.

### **NWWBI**

The NWWBI has a lag of 2 years for reporting purposes based on the time to obtain the data from all the participants.

### **Overall Radar Chart Dashboard**

Given that there are numerous individual performance measures in the system, the Radar charts are developed to graph total goal attainment against five specific set of goals.

The Overall Radar Chart Dashboard shows the Plant performance against 5 categories of Goals; Ensure Adequate Capacity, Protect the Environment, Provide Safe and Productive Workplace, Protect Public Health and Provide Reliable Service/Infrastructure. In total the dashboard is made up from 13 rolled up measures that are measured in the NWWBI system for water treatment plants. The chart also contains a Quartile Chart of O&M Cost/ML Treated.

The 2016 Plant ratings on these 5 goals were:

Sufficient Capacity	100 %
Environmental Stewardship	81.3 %
Workplace Productivity	94.2 %
Protect Public Health	100 %
System Reliability	73.4 %

The System Reliability goal has improved significantly from 2015 due to reduction in unplanned maintenance hours, reactive maintenance hours and improvement in 5 year average capital reinvestment rate. The Plant didn't score as well in the infrastructure reinvestment measure which makes up one third of System Reliability goal. Over the next decade this metric will improve significantly with the amount of planned capital work for the Plant Renewal Project.

The goal of the Plant is to continuously improve its environmental stewardship. The residuals created by the Green House Gas (GHG) generated was higher due to the amount of electrical energy used to bring the water to the Plant from the lake, which has an elevation difference of approximately 83 m, and the amount of natural gas used to regenerate the granular activated carbon. Most water treatment plants do not contend with either of these issues in their treatment systems which makes the Plant an outlier. The calculation of GHG emissions is also a factor in the Province in which the energy originates. As Sask Power utilizes a significant amount of coal in power generation, the Provincial Factor is very high; whereas BC, Ontario and Manitoba have a much lower factor as they use significantly more hydro in their electrical power generation and less coal.

The Plant scored well compared to 24 other participants, which included Cities, Private Utilities, Regional Systems and Water Commissions representing other water treatment plants across Canada on its O&M Costs per ML Treated that puts it in the lowest 0-25% Quartile at \$274.08.

## **Statistical Analysis Summary of Min – Max Trend Graphs**

Statistical Analysis is done on a group of Min – Max trends to provide an easy visual comparison of a number of Plant performance measures against a comparable group. Although these graphs, individually, are very informative for trending purposes and as a high level overview of where the Plant compares to the median, maximum and minimum of the other plants, the graphs do not show if its performance measures are statistically different from other plants.

For determining the statistical significance, the NWWBI has started performing the statistical analysis on 24 performance categories, which the system measures for the participating plants. There were no items that were statistically significant in 2016. The measures or trends that are noteworthy are in the following categories:

### 1. Total FTEs/1,000ML Treated

In 2016, this measure weakened due to reduced water production as compared to 2015. In 2016, the Plant produced 1085 ML less water as compared to 2015. The overall Plant FTEs did not increase in 2016. A new position of Operations and Safety Manager was created and filled in 2016 but this increase was offset by reduction of a FTE in laboratory staff.

### 2. O&M Cost/ML Treated

The O&M cost appears to be stabilizing. The 2016 cost is above the group median but is not statistically different. Sub optimal raw water quality, and the Plant's higher energy consumption due to its elevation from the raw water source and Carbon regen facility are the contributing factors.

### 3. O&M Accidents with Lost Time/1000ML O&M Labour Hours

In 2016, the Plant had an accident which resulted in lost time. Root cause analysis was performed and appropriate actions were taken to prevent this kind of injury in the future. The new Safety Management System should also help improve health and safety of employees.

### 4. Chemical Cost/ML Treated

There was a significant spike in chemical cost 2015. Due to the improved raw water quality the chemical cost reduced in 2016.

Raw water quality is highly dependent on the amount of water released from Diefenbaker Dam. Adequate release of water helps improve water quality at Buffalo Pound Lake.

5. # of Sick Days taken per O&M Employee

The Plant sick time had reduced from 2015. The Plant sick time is not statically different from the group mean. There are employees at the Plant who require periodic sick time due to their ongoing medical issues.

The ageing work force is also a contributing factor for higher sick time as they are more prone to age related degenerative diseases.

6. Total Available O&M hours/Total Paid O&M hours

This measure shows the availability of the Plant's operations and maintenance staff against the total paid hours. The total available O&M hours exclude sick, vacation, training, LTD and union hours. The measure is not statistically different from the group mean. Due to the reduction in the sick time in 2016 this measure has improved slightly from 2015.

7. # of Unplanned hours that Plant could not operate at rated capacity

The Plant had only 1 hr and 10 mins of unplanned downtime; the majority of which was caused by concrete pumper truck arcing to overhead line during the construction of UV building.

## **2018 STRATEGIC PLAN BALANCED SCORECARD**

The Plant's KPIs use targets that are set by the Board through the Strategic Plan's Balanced Scorecard. These are reviewed by the Board and the targets adjusted accordingly at the Annual Retreat.

The performance rating is based on a September 30, 2018 review.

All items on the Balanced Scorecard are on track or have been completed with the exception of:

- (i) The Board developed a draft Financing Strategy and obtained input from the Cities' Finance Directors. The decision was to delay approving the Financing Strategy (Pre-Approval) until greater cost certainty was done by advancing the Plant Renewal Project to the 30% design and obtain a Class 3-4 Estimate. This will be delayed until Q4 2019 / Q1 2020.
- (ii) There was one lost time injury.
- (iii) The Customer Service Agreements between the Corporation and Cities will not likely be completed in 2018 but target for early 2019.

### **3.0 Q3 2018 Year-End Forecast**

The Cities only require the Q2 2018 mid-year operating and capital budget forecast and statement for June 30. However, the Q3 2018, September 30 statement and forecast are available which provides for more accurate data and has been used in place of the June 30 data.

#### **Operating Budget**

The water sales are projected to be \$1.502 million over the 2018 forecast due to the warm dry summer which increased the demand for water. The Plant had only received 60% of an average summer's rainfall. The revenues are estimated at \$13.311 million by year end.

The operating expenditures for 2018 are forecasting an under expenditure of approximately \$0.741 million from the 2018 budget. The largest savings are due to the reduction in chemical usage with the continued improvement in the raw water quality of the lake. As well, the carbon tax was not implemented in 2018; which accounted for \$0.572 million of the under expenditure. Expenditures are estimated at \$11.038 million by year end.

The amount of operating funds to be transferred to the Operating Reserve at year end is estimated at \$2.273 million. The surplus of funds will be utilized to provide a cushion for years where the water sales are below the forecast. Excess funds in the Operating Reserve can be transferred to the Capital Reserve to be used in the progression and development of the Plant Renewal Project.

## **Capital Budget**

The water sales allocated to the Capital Budget are projected to be \$0.596 million over the 2018 forecast due to the warm dry summer which increased the demand for water. The revenues are estimated at \$7.782 million by year end.

The capital expenditures for 2018 are forecasted at \$7.186 million by year end. There is the risk that it will be much lower based on the amount of work the contractors can deliver with the delays for the Electrical Capital Upgrades Project to obtain the PTIC-NRP grant funding of approximately \$20.582 million.

All of the Capital projects are either in progress, have been completed or cancelled with remaining funds placed in the Capital Reserve.

The Capital Reserve at year end is estimated at \$6.025 million, in addition to the proceeds from the \$45 million loan.

These funds which will allow for the completion of the Electrical Capital Upgrade Project, design for the Plant Renewal Project and the overall Capital Plan for future years.

## **4.0 2019 Budget**

At its September 26, 2018 meeting the Buffalo Pound Water Board of Directors adopted the 2019 Budget.

The water, capital and electrical rates were established as follows:

Water Rate	Cities of Regina and Moose Jaw	\$355.00/ML
	Provincial Park	\$447.62/ML
Capital Water Rate	Cities of Regina and Moose Jaw	\$188.00/ML
	Sask Water	\$273.44/ML
Electrical Rate	Cities of Regina and Moose Jaw	\$0.11089/kW.h
	Sask Water	\$0.12198/kW.h

This represented a Water Rate increase of 2.9% and a Capital Water Rate increase of 0.0% or an overall blended rate increase of 1.9% to the Cities over 2018. The electrical rate increased 3.0% from 2018.

The capital rate and electrical rate for Sask Water was calculated based on the January 14, 2009 agreement. The water rate for the Buffalo Pound Provincial Park was calculated based on the January 1, 2009 agreement.

### **5.0 Major Capital Expenditures in Excess of \$1 Million**

There are no unidentified major capital expenditures in excess of \$1 million commencing in 2019. All projects commencing in 2019 have been previously identified and reported. The current ongoing projects that exceed \$1 million are:

1. Electrical Capital Upgrades which consist of the Main Plant Redundant Power Supply; Lake Pump Station Transmission Line Replacement and the Lake Pump Station Pumping Upgrades and Power Supply for approximately \$40.4 million.
2. The Supervisory Control and Data Acquisition (SCADA) upgrade for approximately \$4.8 million. The budget was increased for 2019 and 2020 based on a higher level of cost estimate with the completion of the pre-design phase.
3. The Plant Renewal Project (PRP) is to ensure the long term viability of the Buffalo Pound Water Treatment Plant and to ensure that it will be able to meet its mandate as a going concern into the future. It has been nearly 30 years since the last rehabilitation or upgrades to the Plant have occurred and major components within the facility are at, or near, the end of life phase.

The PRP encompasses over 30 smaller projects which had been previously identified since 2005 and reviewed in technical studies. These have all been included under the program of work for the PRP. The project's cost range is \$127.2 to \$224.0 million at a Class 5 level of estimate.

A budget of ~\$140 million was set as a placeholder in the financial budget model until such time as the design is advanced with a higher class of estimate.

4. The only remaining project, which is a legacy project from pre-incorporation and funded directly by the Cities through a separate agreement between the Cities, is the Main Plant Electrical Upgrades. This is estimated at \$13.2 million.



## **6.0 Board Performance and Skills and Experience Matrix**

In April, the Board replaced one outgoing member; that being Chuck McDonald, with the appointment of Grant Ring. The Board also reappointed Dave Richards; both with terms of office expiring in 2021.

<b>Buffalo Pound Water Board of Directors</b>	<b>Position</b>	<b>Term of Office Expires</b>	<b>Sub- Committees</b>
Dale Schoffer	Chair	April, 2019	Governance & Nominations; Ex-Officio on all Committees
Judy May	Vice-Chair	April, 2019	Finance & Audit Committee (Chair) Governance & Nominations
Ben Boots	Member	April, 2020	Capital Projects Committee; HR Committee (Chair)
Daryl Posehn	Member	April, 2020	Capital Projects Committee
Dave Richards	Member	April, 2021	Capital Projects Committee (Chair)
Grant Ring	Member	April, 2021	Finance & Audit Committee; HR Committee

Up to the end of Q3 2018, there were: five (5) regular Board meetings; one (1) Special Board meeting; five (5) Finance & Audit Committee meetings and three (3) Capital Projects Committee meetings. The Board also attended a one (1) day retreat in June. Several Board members attended meetings related to the Plant Renewal Project with City representatives.

The Board continues to work very well together and has accomplished a number of initiatives over the past year. The synergies with the diverse skill set continually improve the discussions at Board meetings resulting in more effective leadership and direction.

Two Board member's terms will expire in April, 2019. Both members, Mr. Dale Schoffer and Ms. Judy May, have indicated they are desirous of being reappointed to the Board for a subsequent three (3) year term. The vacancies were publicly advertised via a number of different media. The application process closes on November 2, 2018. The selection process will commence in the very near future.

The Skills and Experience Matrix, developed and updated by the Board, will continue to be utilized in recruiting future Board members.

### **7.0 Matters Requiring Approval of Cities Pursuant to Article 5 of the UMA**

There are no items that require approval of the Cities as per Article 5 of the UMA at this time.

### **8.0 Other Information that is Likely to Materially Affect Either of the Cities**

#### **Electrical Capital Upgrade Project**

The Electrical Capital Upgrade Project (ECUP) is to address several of the most critical risks affecting the Corporation. The Plant's electrical system, and lack of backup power, is its Achilles heel. The Plant does not have any secondary electrical feeds from SaskPower nor does it operate dual drive motors and is only served by a single transmission line that runs 17 kms from the PQ3 Substation south of Highway #1. This work was accelerated to address the numerous electrical failures that have occurred in 2011, 2013 and 2015 from ageing infrastructure. This work, once completed, will ensure both the long term viability of the Buffalo Pound Water Treatment Plant and its obligation to meet its mandate as a reliable going concern.

The ECUP is comprised of 3 distinct elements which were developed into 3 RFPs as tender packages.

- RFP Package #1 – Main Plant Backup Generators
- RFP Package #2 – 3 km 138 kV Transmission Line from the Main Plant to the Lake Pump Station (LPS)
- RFP Package #3 – LPS Electrical Upgrades, Backup Generators and Pump Upgrades

The estimated ECUP cost was \$40.422 million.

In 2017, an application was made to obtain grant funding for all 3 RFP packages under the Clean Water Wastewater Fund (CWWF). However, the application was not successful.

The Board obtained a loan for \$45 million to complete the necessary works. Any remaining funds would be used towards the Plant Renewal Project.

As the work was urgent, the designs proceeded. RFP package #1 was issued in late 2017 and awarded in early 2018. The design advanced on the other 2 packages.

In early 2018, the Corporation obtained approval to make application under the Provincial Territorial Infrastructure Component – National Regional Project (PTIC-NRP) Program. As RFP package #1 had already been awarded, it was not eligible for grant funding. The Board released RFP package #2 but there were no compliant submissions, resulting in the process being cancelled and reworked. The Board held RFP packages #2 and #3 in abeyance pending a decision from the Provincial and Federal governments.

The Corporation was successful with its PTIC-NRP application for funding of ~\$20.6 million to perform the work in RFP packages #2 and #3.

RFP package #2 was re-released, closed on October 12<sup>th</sup> and will be awarded in Q4 2018.

## **NEXT STEPS**

Construction of RFP packages #1 and #2 should be completed in Q2 2019.

RFP package #3 should be issued and awarded in Q4 2018 with construction being completed in Q1 2021.

Once this work is complete, it will significantly reduce the Corporation's risk of not being able to meet its mandate by having less internal electrical failures and will have the ability to operate when there is a Sask Power failure.

## **Plant Renewal Project**

The Plant Renewal Project (PRP) is to ensure the long term viability of the Buffalo Pound Water Treatment Plant as well as being able to meet its mandate as a reliable going concern.

This PRP started with the gap analysis and Business Case in 2016 which was completed in 2017. The Board formally approved the project to proceed in 2017. CH2M Hill, now known as Jacobs, was selected from a public competition as the Owner's Advocate/Engineer in late 2017.

There has been a significant amount of activity on the PRP in 2018.

The Corporation procured a legal advisor, Aird & Berlis, to provide legal advice and to develop the Design Build Agreement.

The Fairness Advisor, RFP Solutions Inc., was selected to provide oversight for the Request for Proposal (RFP) evaluation and confidential meetings with the design build teams.

Jacobs has held several workshops on the PRP for the RFP development and has invited the Cities to participate in the Design Build Agreement development session.

The Cities' Senior Administrators have met to discuss the PRP, the Progressive Design Build (PDB) procurement method and the next steps to advance the PRP. The Cities' Directors of Finance have met to discuss the Financing Strategy.

The Board hosted a Joint City Council Meeting on September 17, 2018 to provide information on the PRP and to have open dialogue with questions and answers with the Cities prior to releasing the Request for Qualifications (RFQ).

The RFQ was developed by Jacobs and issued to the public on October 1, 2018.

## **NEXT STEPS**

The RFQ will close on November 9<sup>th</sup>. The short list, of up to 3 PDB teams, will be completed by year end.

The RFP should be ready for issuance in early 2019.

There will be a Technical Memorandum, to discuss the Plant Performance Specifications, in 2018 with the Cities' Technical Staff and a follow-up meeting or workshop, if required.

Once this project has been completed it will ensure that the Corporation will be able to deliver on its mandate over the next 25 years as a reliable going concern.

## **Future Grant Applications**

The Board's application for the Provincial Territorial Infrastructure Component – National Regional Project (PTIC-NRP) grant funding, in 2018, was successful.

The Provincial and Federal Governments will each contribute up to \$10.291 million towards the Electrical Capital Upgrade Project. This will free up funds to be utilized for the Plant Renewal Project.

The Corporation will be coming forward in the very near future to request pre-approval, from the Cities, for authorization to apply for any and all grants that become available from the Federal and/or Provincial Governments that would benefit the Plant Renewal Project. With pre-approval from the Cities, any proposed grant details and accompanying requirements, will be forwarded to the Cities as information.

With the complexity of the Plant Renewal Project and its Progressive Design Build procurement method, there may be issues related to the eligibility for funding of the Plant Renewal Project once the RFP has been awarded. The Corporation will manage this risk to the best of its ability but there may have to be some flexibility from the Federal and Provincial Governments with their eligibility requirements provided that there is a political desire to support the project.

The Board will continue to monitor the eligibility requirements for any and all grant opportunities and work with all parties in advance to be as successful as possible for the Plant Renewal Project.

**ATTACHMENTS:**

1. 2018-2020 Strategic Plan.
2. 2016 NWWBI Buffalo Pound Water Treatment Plant Overall Radar Chart.
3. 2016 Buffalo Pound Water Treatment Plant NWWBI Statistical Analysis Summary & 2018 Balanced Scorecard spreadsheet.
4. Q3 2018, September 30 Unaudited Financial Statements and Forecast – Operating and Capital Budget.
5. Board Skills and Experience Matrix.

Respectfully submitted,



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Dale Schoffer  
Chair  
Buffalo Pound Water Board of Directors  
attachments

# BUFFALO POUND WATER 2018 – 2020 STRATEGIC PLAN

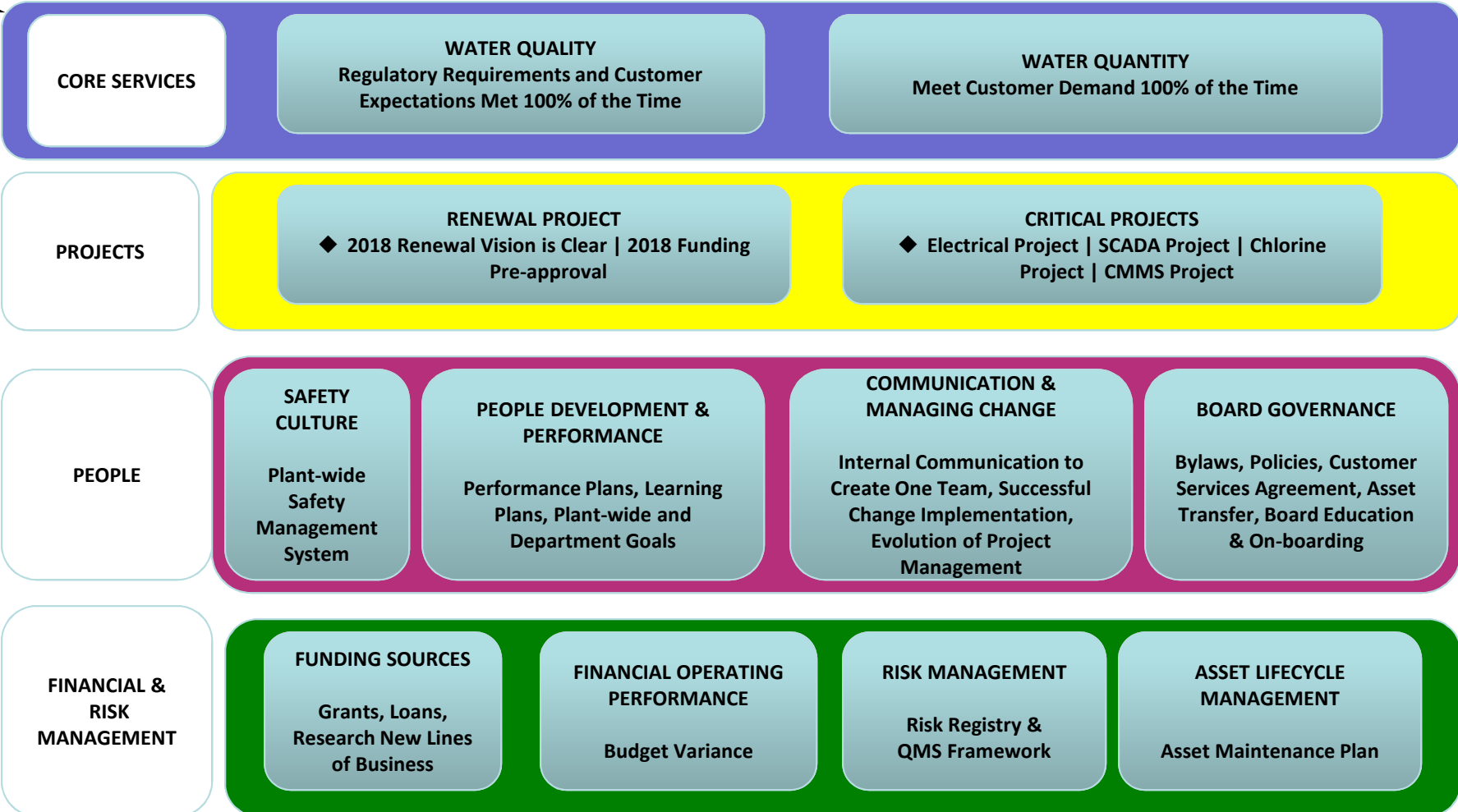
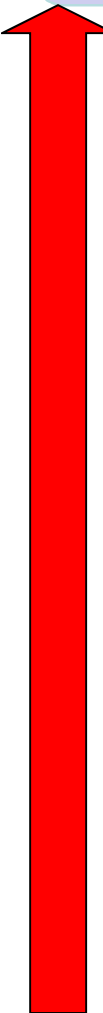
**MISSION (Why We Exist):** To provide for the Cities of Regina and Moose Jaw, a reliable and affordable supply of safe, high-quality drinking water which meets the needs and expectations of consumers.

**VALUES (How we operate):** SAFETY | TEAM CULTURE | ACCOUNTABILITY | PROCESS-DRIVEN | INNOVATION | CONTINUOUS IMPROVEMENT

**VISION (Where We Are Going):** BPW is an expertly operated, independent, and trusted entity, that will be positioned to provide sustainable and reliable water as a critical service *for generations to come.*

**3-YEAR BUSINESS PLAN  
2018 - 2020**

Deliver on the Mission, and by 2020, Renewal construction begins.



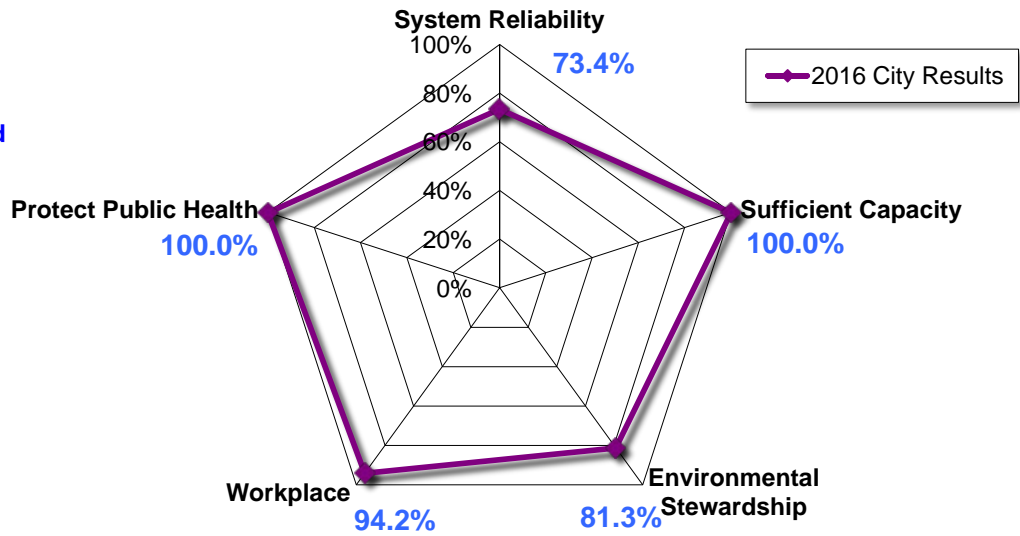
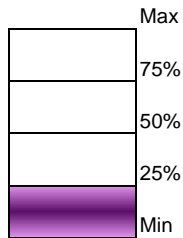
Select your plant →

**Buffalo Pound WTP**

**Water Treatment Plants - Conventional filtration**

**Overall Radar Chart**

**Quartile Chart**  
O&M Cost / ML Treated  
\$274.08



Quartile Charts show in which quarter your utility falls

Data Labels for 2016 City Results

**Goals**

**Provide Reliable Service and Infrastructure**

- 5 year Average Capital Reinvestment / Replacement Value
- Nr of Unplanned Hours that Plant Could Not Operate at Rated Capacity
- Unplanned Maintenance Hours / Total Maintenance Hours

**Protect the Environment**

- % of Water Wasted During Treatment Process
- GHG Emissions from Energy Consumed/ ML Treated

**Protect Public Health**

- # of days over Group Target for Turbidity
- # of days with Total Coliforms
- # of days over Group Target for Nitrates

**Ensure Adequate Capacity**

- ADD / Existing Licence Capacity
- Nr of Days Plant Operated at >100% Capacity

**Provide Safe and Productive Workplace**

- # of Sick Days Taken per O&M employee
- # of O&M Accidents with Lost Time / 1,000 O&M Labour Hours
- # of Lost Hours due to O&M Accidents / 1,000 O&M Labour Hours

Plant Category	Goal	KPI	Favourable if Result is Higher or Lower	Data Distribution	Other Plants' Mean	Buffalo Pound Value	Percentile	Is the Data Significant?
All WTPs	G1	5 Year Avg. Capital Reinvestment / Replacement Value	Higher	Lognormal	0.015	0.004	27	No
	G1	# of Unplanned Hours that plant could not operate at rated capacity)	Lower	Weibull	3.597	1.167	77.7	No
	G1	Reactive Maintenance Hours / Total Maintenance Hours	Lower	Lognormal	0.108	0.059	43.5	No
	G5	# O&M Accidents with Lost Time / 1000 O&M Labour Hours	Lower	Gamma	0.013	0.029	75.1	No
	G5	# Sick Days taken per O&M Employee	Lower	Weibull	7.548	9.100	68.6	No
	G5	Total Available O&M Hours / Total Paid O&M Hours	Higher	Gamma	0.834	0.865	67	No
	G5	Total Overtime Hours / Total Paid O&M Hours	Lower	Gamma	0.058	0.028	23.2	No
Conventional Filtration	G1	Unit Filter Run Volume (m3/m2)	N/A	Uniform	344.243	464.000	75.8	No
	G2	# Days Plant Operated over 90% of Capacity	Lower	Weibull	0.643	0.000	43.1	No
	G3	Total FTEs / 1000 ML Treated (Hrs)	N/A	Weibull	1.603	1.004	38.8	No
	G3	Total O&M Cost / ML Treated	Lower	Lognormal	290.523	274.085	54.2	No
	G3	(O&M Cost + Capital Reinvestment Cost )/ ML Treated	N/A	Lognormal	309.154	329.404	63.7	No
	G3	Total Energy Consumed in kWh / ML Treated	Lower	Lognormal	637.340	941.424	90.9	No
	G3	Chemical Cost / ML Treated	Lower	Weibull	60.774	69.979	65.4	No
	G4	% of Water Wasted During Treatment Process (% Residuals)	Lower	Lognormal	0.130	0.068	51.3	No
	G4	% of Backwash Waste Treated	N/A	Lognormal	0.889	1.000	63.1	No
	G6	Average Annual Treated Water Turbidity (NTU)	Lower	Lognormal	0.085	0.100	65.1	No
	G6	# of Coliform Occurrences in Treated Water (CFU/1000 mL)	Lower	Weibull	0.118	0.000	44.3	No
	G6	Treated Water Nitrates Average Value (mg/L)	Lower	Lognormal	0.534	0.000	14.2	No
	G6	Raw Water Total Organic Carbon Average Value (mg/L)	Lower	Lognormal	5.434	8.700	85.7	No
	G6	Treated Water Total Organic Carbon Average Value(mg/L)	Lower	Gamma	1.955	4.200	86.2	No
	G6	Raw Water Dissolved Organic Carbon Average Value (mg/L)	Lower	Gamma	6.283	8.500	75.7	No
	G6	Treated Water Dissolved Organic Carbon Average Value (mg/L)	Lower	Weibull	7.137	4.200	65.2	No
G4	Total GHG Emissions (kgCO2/ML Treated)	Lower	Lognormal	198.393	457.977	88.9	No	

Goal Legend:

- G1 Provide Reliable Service and Infrastructure
- G2 Ensure Adequate Capacity
- G3 Meet Service Requirements with Economic Efficiency
- G4 Protect the Environment
- G5 Provide a Safe and Productive Workplace
- G6 Protect Public Health and Safety

Legend:

- Statistically significant - not favourable
- Statistically significant - positive

Values within the 2.5 to 97.5 percentile range are considered to be statistically similar



**BALANCED SCORECARD (BSC): CORE SERVICES**

OBJECTIVES	MEASURES (Core Outcomes of Strategy)	2018	Status at September 30, 2018	2019	2020	INITIATIVES (RACI)
<b>Water Quality:</b> <b>Objective – Meets regulatory requirements and customer expectations 100% of the time</b>	Regulatory requirements met, Taste and odor quality met	100%	100%	100%	100%	<b>Quality &amp; Quantity:</b> SOPs documented & followed (Lead measure by all Operations, Maintenance, Lab) <b>Quality:</b> (a) ensure regulatory monitoring according to Permit to Operate; annual report appendix 1 (Lab) (b)Taste and odor of water leaving the Plant less than 8-10 TON (Threshold Odor Number) (Operations and Lab)
<b>Water Quantity:</b> <b>Objective - To deliver water that meets customer demand 100% of the time</b>	Parent: Customer demand met without compromising Quantity	100%	100%	100%	100%	<b>Quantity:</b> Reliability (Operations, Maintenance) including e.g. immediate reporting of failure of critical assets (see notes page) Maintenance
<b>Renewal Project:</b> <b>Objective – Successful achievement of all aspects of this massive undertaking to transform the plant’s ability to deliver, meeting its mission and vision</b>	Project deliverables:  On-time On-budget Scope management	Project Charter & Plan (Including: Vision, owner’s engineer resource, and funding pre-approval)	<b>Charter completed</b> <b>Draft Financing Strategy completed</b> <b>Funding pre-approval on hold pending direction of Cities for financing</b>	(Project reporting)	(Project reporting)	(Major Capital Projects Committee, Ryan, Rudi, Harry)
<b>Critical Projects:</b> <b>Objective – Critical projects are delivered (see initiatives)</b>	Individual project deliverables:  On-time On-budget Scope management	Electrical phase construction begins  SCADA begins Chlorine Project complete  CMMS Implementation	<b>Transmission Line RFP released in September and LPS planned to be released in October</b> <b>PTIC Grant Successful ~\$20.6 M Completed</b> <b>Just in time delivery of chlorine Scrubber in progress</b> <b>In progress</b>	CMMS Completion		1. Electrical Project: By 2018, electrical phase construction begins; 2019, complete (R=Rudi) 2. SCADA Project (R=Rudi) 3. Chlorine Project (R=Gene) 4. CMMS Project (R=Harry)
<b>Safety Culture:</b> <b>Objective – To operationalize plant-wide a Safety Management System</b>	a. # of injuries b. Audit	a. 0 b. Pass	<b>1 injury</b> <b>External audit passed and completed</b>	a. 0 b. Pass	a. 0 b. Pass	R=Keith (lead) A=Operations, Maintenance, Lab
<b>People Development &amp; Performance:</b> <b>Objective – To design, implement, and monitor people development and performance processes plant-wide.</b>	a. % out of scope employees with individual performance plans and learning plans b. Department Goals cascaded from Strategic Plan c. % in scope employees with individual performance plans and learning plans (managers)	100%  100%	<b>100% complete</b> <b>100% complete</b>	100%  100% 100%	100%  100% 100%	Succession Plans update and communicate (Ryan) Best practices research to design a reward system based on Plant and individual performance (R=Ryan; A=Managers)
<b>Communication &amp; Managing Change:</b> <b>Objective – To evolve all communication and project management processes plant-wide</b>	a. Employee Engagement Survey  b. Organizational Change Management plans for projects with significant process changes	Design survey & set baseline  Design/adopt model	<b>In progress; ready for December release</b> <b>Completed</b>	Annual 100%	Annual 100%	Internal Communication: Meetings (daily toolbox, Operations hand off; monthly staff meetings recorded); Plant wide e-mails; F2F conversations (Management Team & all staff); Successful change implementations; adopt Org. Change Management model (Mgmt. Team) Project management evolution: RACI, Charters, Major Project Committee (Rudi & Harry)
<b>Board Governance:</b> <b>Objective – To continue to evolve board governance effectiveness (Ryan, Laurie, Board)</b>	Initiative completion	Policies: Annual review Customer Services Agreement Board Education	<b>In progress</b> <b>In progress</b> <b>In progress</b>	Policies: Annual review Board Education	Policies: Annual review Education	Board Policies: Ongoing review and updates (Customer Service Agreement; Asset Transfer; Board Education & Onboarding)

<b>Funding Sources:</b>	% of critical projects funded	100%	<b>100%</b> <b>100%</b>	100% 100%	100% 100%	Grants Loans Research new lines of business: business & economic development funding partners (defer to 2021) (Ryan and Mgmt. Team members as required)
<b>Objective – Establish funding sources into the corporation</b>	% O&M budget funded	100%				
<b>Financial Operating Performance:</b>	Sum of O&M budget under management control within 5%	5%	<b>-2.4%</b>	5%	5%	Approximately \$12M budget (Mgmt. Team)
<b>Objective –To meet budget variance targets</b>						
<b>Risk Management:</b>	Initiative milestones	RR Annual Review QMS Framework Complete	<b>In progress Framework Completed. RFP to advance. Project under development.</b>	RR Annual Review QMS begin implementation	RR Annual Review QMS fully implemented	Risk Registry (Mgmt. Team, Board) based on RACI QMS (Keith and Mgmt. Team)
<b>Objective – To manage risk and take action on risk items</b>	Reporting					
<b>Asset Management:</b>	Project milestones	Working on CMMS Project		Complete asset criticality analysis	Start developing the asset management plan	Asset Management Plan (Harry)
<b>Objective – To adopt a formal asset lifecycle management approach</b>						

Revenues and Expenditures - September 30, 2018

04-Oct-18

	Current Month Actuals	YTD Actuals (B)	Previous YTD Actuals	2017 YEAR-END ACTUALS	Approved Budget (D)	2018 Forecast (E)	Variance From Budget (E-D)	Budget Less Actual (D-B)	% Budget Remaining (D-B)/D	Notes
<b>REVENUES</b>										
TOTAL REVENUES	1,221,826.31	10,716,990.69	9,248,883.81	11,817,531.94	11,809,300.00	13,311,250.00	1,501,950.00	1,092,309.31	9.2%	Water sales remain higher than historical 2 year lag forecast
<b>EXPENSES</b>										
Total Wage & Benefit Expenses	303,525.44	2,807,190.25	2,647,422.68	3,755,273.49	4,002,900.00	3,949,914.96	-52,985.04	1,195,709.75	29.9%	No casual employees required at this point in time
Total Administration Expenses	14,818.05	304,091.86	382,552.78	628,368.11	604,000.00	555,695.16	-48,304.84	299,908.14	49.7%	
Total Maintenance Expenses	40,444.93	1,004,042.45	865,127.67	1,439,632.27	2,255,500.00	2,201,842.60	-53,657.40	1,251,457.55	55.5%	
Total Chemical Expenses	161,651.89	1,465,183.70	1,626,024.26	1,985,603.32	2,461,000.00	2,109,000.00	-352,000.00	995,816.30	40.5%	Chemical usage has been decreasing significantly due to improvement in the raw water quality of the lake
Total Laboratory and Research Expenses	14,448.32	150,976.27	123,977.16	166,287.55	210,000.00	196,478.73	-13,521.27	59,023.73	28.1%	
Total Utility Expenses	207,014.84	1,448,160.01	1,294,994.31	1,991,172.00	2,245,400.00	2,025,000.00	-220,400.00	797,239.99	35.5%	Carbon tax not yet in effect, new natural gas supply contract with 45% reduction in rates
TOTAL EXPENDITURES	741,903.47	7,179,644.54	6,940,098.86	9,966,336.74	11,778,800.00	11,037,931.45	-740,868.55	4,599,155.46	39.0%	

December 31, 2017 OPERATING RESERVE	1,802,320.77
September 30, 2018 Forecasted Operating Revenue at YE	13,311,250.00
September 30, 2018 Forecasted Operating Expenditure at YE	11,037,931.45
September 30, 2018 Forecasted Operating Reserve at YE	4,075,639.32
Target Balance for Operating Reserve	2,000,000.00



Buffalo Pound Capital Projects - September 30, 2018

04-Oct-18

	Previous Year Month Actual	Current Month Actuals (A)	YTD Actuals (B)	Previous YTD Actuals (C)	Approved Budget (D)	Budget Less Actual (D-B)	% Budget Remaining (D-B)/D	2018 Forecast (E)	Variance From Budget (E-D)	Comment
<b>TOTAL CAPITAL REVENUES</b>	0.00	1,082,505.95	6,024,647.64	3,611,926.24	6,501,900.00	477,252.36	7%	7,782,200.00	1,280,300.00	
<b>December 31, 2017 CAPITAL RESERVE</b>	5,428,919.70									
<b>September 30, 2018 Total Capital Revenue</b>	6,024,647.64									
<b>September 30, 2018 Capital Expenditure</b>	3,763,165.90									
<b>September 30, 2018 Total Capital Reserve</b>	7,690,401.44									
<b>December 31, 2018 FORECASTED CAPITAL REVENUES</b>	7,782,200.00									
<b>December 31, 2018 FORECASTED CAPITAL EXPENDITURES</b>	7,186,148.48									
<b>December 31, 2018 FORECASTED CAPITAL RESERVE</b>	6,024,971.22									
<b>September 30, 2018 Loan Proceeds Available for Electrical Upgrade/Plant Renewal</b>	45,000,000.00									Have not spent any funds from the account.

		Individual Attributes									Skills and Experience											Diversity/ Leadership		
Director's Name	Director Since	Integrity	Mature Leadership	Strategic Thinker	Good Communicator, influencer	Business Acumen	Fiduciary Duty	Independence of Mind	Active Participant	Team Player	Water Utility Operations Engineering	Capital Project Management	Risk Management	Finance and Audit	Legal	Environmental	Gov't Relations/Policy/Community	Public Health & Safety/Regulatory	Executive Leadership	Governance	Human Resources	Geography	Board Chair Potential	Committee Chair Potential
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	7	7	3	2	8	8	7	6	7	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Term expiring. Up for reappt.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7	7	9	10	5	5	9	8	9	10	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10	8	8	7	3	8	7	8	8	8	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Term expiring. Up for reappt.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5	8	9	6	1	5	7	7	8	8	8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	8	8	6	6	6	8	7	8	7	7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TARGET																								
CURRENT																								
NEEDS																								

**PERSONAL ATTRIBUTES: DEFINITIONS**

<b>Category</b>	<b>Criteria</b>
<b>Integrity</b>	An innate adherence to ethical conduct and values.
<b>Mature Leadership</b>	Experience driven perspective and self-awareness of emotional patterns and triggers.
<b>Strategic Thinker</b>	Generates and applies unique business insights to challenges and opportunities, ability to challenge conventional thinking.
<b>Good Communicator and Influencer</b>	Expresses thoughts and ideas clearly and with respect for the views of others and listens actively. Has credibility with management and other directors.
<b>Business Acumen</b>	Track record of wise business judgment.
<b>Fiduciary Duty</b>	Strong understanding of fiduciary responsibility to the long term sustainability of the organization.
<b>Independence of Mind</b>	Unfettered from speaking his or her mind honestly on all issues.
<b>Active Participant</b>	Comes to meetings fully prepared and listens and speaks up.
<b>Team Player</b>	Committed to the role of the Board as a whole, works to resolve issues, treats others in a respectful and supportive manner, is flexible in arriving at solutions.

## SKILLS AND EXPERIENCE: DEFINITIONS

Category	Criteria
<b>Water Utility/Operations Engineering</b>	Involved with the producing, treating, disinfecting and storage of water for delivery to the public.
<b>Capital Project Management</b>	The management of high level corporate capital projects (ie. millions of dollars).
<b>Risk Management</b>	The identification, assessment, and prioritization of risks and the coordinated and economical application of resources to minimize, monitor, and control the probability of those risks.
<b>Finance and Audit</b>	The provision of sound financial advice or information in support of the operations of the organization.
<b>Legal</b>	Knowledge of the Canadian legal system and its application thereof.
<b>Environmental</b>	Knowledge of the environment and its relationship to water treatment facilities.
<b>Government Relations/Policy/Community</b>	Dealing with government affairs or public administration at all levels of government and the ability to interpret legislation and policy as it relates to the organization.
<b>Public Health &amp; Safety/Regulatory</b>	Knowledge of Occupational Health & Safety training and resources to reduce workplace risks and reduce workplace injuries and illnesses. Adherence to laws, regulations, guidelines and specifications relevant to the organization.
<b>Executive Leadership</b>	Provision of leadership to colleagues, ie. plans; sharing of visions; taking charge; inspiring others through examples.
<b>Governance</b>	Dealing with government, control and authority within the organization.
<b>Human Resources</b>	Provision of oversight to ensure that the Corporation meets its mission and is operated effectively and in the best interests of the employees, stakeholders and the community at large.

## DIVERSITY: GOALS/NEEDS

Category	Goals/Needs
<b>Geography</b>	Being from different locations (ie. cities, towns) to bring a different perspective to the Board.

## LEADERSHIP: POTENTIAL BOARD LEADERSHIP

Category	Goals/Needs
<b>Board Chair</b>	Well qualified individual with the skills, experience, time and motivation to dedicate to the job. Focus on tasks at hand as well as long term strategic issues. Accurately report on Board activities. One who holds himself/herself accountable.
<b>Committee Chair (specify)</b>	Same as above.