

# CITY OF FORT SASKATCHEWAN

## Water Billing System External Assessment

---

### **Motion:**

That Council authorize the City Manager to engage an independent external consultant to conduct an external assessment of the City of Fort Saskatchewan's water billing system subject to the following conditions:

1. The scope of work to include an analysis of the system including data, analytics, equipment, water consumption, software, and processes;
2. The consultant provide a report back to Council that includes findings, recommendations, and potential process improvements;
3. The cost not to exceed \$105,000 funded from the Financial Stabilization Reserve;

### **Purpose:**

This report provides Council with options in moving forward with an external assessment of the City's water billing system.

### **Background:**

The City currently has over 8,000 active utility accounts with usage information collection from water meters including 2,931 walking route meters and 5,074 radio read meters. The average bill for a family of four is 36 m3 of water consumption totaling around \$225.00 for a two month bill (including fixed charges). Depending on the time of year and other circumstances, water customers have experienced spikes in their bills which is normally the result of increase water usage. Should a customer question their usage, the City has a thorough internal process to review the individual account to determine the reason for the spike. In most instances the customers concerns are resolved.

In the past four months a number of customers has expressed concerns that they have been billed for water usage which they did not use. Upon review of these customers concerns, the City has not identified any issues with the water billing system and can only equate the spikes in bills to additional water usage. In most instances the usage returns to what is considered normal for that account for the billing period following the spike.

In spite of the above, customers have asked Council to consider a further review of the utility billing system. The logical next step is to engage an external consultant to assess the system.

### **Process:**

Should Council wish to proceed with an external assessment, a proposal would be prepared to:

1. Map out the billing process from the meter, to the point when an invoice is sent to a customer;
2. Undertake a technical review of each step in the process to determine if there may be a problem causing possible billing anomalies;
3. If an issue is found, determine, if possible, the scope of the issue and which accounts were impacted;

As such a process requires technical expertise in different fields, there is not one single vendor who is considered an expert in every area of the billing system. Therefore, multiple subject matter experts will need to be used. Ideally the City will have one external consultant lead and manage the overall assessment process who is fully independent of Administration.

From discussions with experts in the fields needed, the scope of work for the assessment would include the following:

#### Data Gathering and Analytics

1. Gather and use a list of sample accounts identified by customers (approximately 50 accounts) as being subject to invoicing anomalies. Analyze account trends to verify that an anomaly does in fact exist;
2. Run system queries on all utility accounts for the past 36 months to determine if anomalies exist. This includes examining historical trends over the time period to test out consumption levels and understand if there are greater number of accounts reporting consumption over X (Amount of X to be determined by the external consultant and the City) than in previous billing periods. How often has this occurred in each billing period and has it been occurring more recently. As there have always been accounts with spikes historically, is there an abnormally high number of spikes in accounts now?
3. For a three year period, undertake a detailed analysis to ensure that the water purchased by the City from the Northeast Capital Region Water Services Commission matches the water being invoiced to customers. Include an analysis of revenue trends recently (adjusted for fee increases) compared to the amount of water purchased by the City. This would be reconciled with the amount of water running through the City reservoirs. Is revenue being generated that is excessive considering the amount of water purchased and sold by the City?

#### Equipment and Consumption

1. Gather information on the types of meters used, meter replacement dates, and changes to the AMR systems in the homes;
2. Gather information on the types of reads (manual, automatic, mobile, fixed network) that are used by the City;
3. Look for trending amongst all of the sample accounts identified vs the information collected in step 1 and 2. Are there any commonalities or trends amongst the sample accounts?

#### Software

1. Gather information on all software involved in the process including the AMR software and accounting software. Look at the versions the City is running and recent updates that may align with the timing in trends in anomalies;
2. Run diagnostic tests on all involved software programs to troubleshoot potential issues;
3. Identify any potential issue with the interface between all software systems;
4. Is it possible that accounts are being billed for another accounts water use?

#### Process

1. Provide a full process map of the water provision and invoicing system;
2. Identify points of potential human interface that may allow for manual errors to occur.

Process Improvements

1. Identify potential options for improvements to the current process along with cost impacts, resourcing requirements, and implementation plans;

Findings and Recommendations

1. All findings and recommendations be reported back to Council.

The role of administration is to provide all information requested to the process and allow access to any infrastructure or software as deemed necessary.

The external assessment is not intended to look at billing frequency, customer service, or organizational structure. This is meant to specifically look at potential issues and / or errors that may be occurring to customer billing.

**Strategic Plan:**

GOAL 4 – Analyze our current financial policies and develop a strategy to ensure that future financial requirements are planned for.

**Financial Implications:**

The cost for the external assessment is estimated at \$105,000 which includes project management, financial, technical, and technological aspects.

**Internal Impacts:**

The external assessment is to be conducted by external resources. Ideally the process will begin at the conclusion of the 2016 budget approval process in early December.

**Alternatives:**

1. That Council direct the City Manager to begin the external assessment process as outlined using an independent external consultant to be funded to a maximum of \$105,000 from the Financial Stabilization Reserve.
2. That Council not approve the motion as recommended and give other direction.

**Recommendation:**

That Council authorize the City Manager to engage an independent external consultant to conduct an external assessment of the City of Fort Saskatchewan's water billing system.

---

Approved by:	Troy Fleming General Manager Infrastructure and Community Services	Date: November 18, 2015
Reviewed by:	Kelly Kloss City Manager	Date: November 18, 2015
Submitted to:	City Council	Date: November 24, 2015