



STAFF REPORT ACTION REQUIRED

Amendment to Contract No. 47018444 for the Supply of Phosphoric Acid at all Four City of Toronto Water Treatment Plants

Date:	August 19, 2015
To:	Public Works and Infrastructure Committee
From:	General Manager, Toronto Water Director, Purchasing and Materials Management Division
Wards:	All
Reference Number:	P:\2015\Cluster B\TW\PWI15017

SUMMARY

Phosphoric acid is applied at the City of Toronto Water Treatment Plants to reduce lead levels at consumers' taps. Since commissioning the chemical system in 2014, higher than anticipated applied chemical dosages were required to maintain a desired phosphate concentration. The purpose of this report is to: (1) amend the 2015 Toronto Water Operating Budget to provide funding for the continuous application of phosphoric acid; (2) seek authority to allocate appropriate funding for the amendment of Contract No. 47018444 with Appropriate Chemical International Ltd. o/a Anchem Sales ("Anchem Sales") for the supply and delivery of Phosphoric Acid.

RECOMMENDATIONS

The General Manager, Toronto Water and the Director of Purchasing & Materials Management recommend that:

1. City Council amend Contract No. 47018444 with Anchem Sales for the supply and delivery of Phosphoric Acid, Request for Quotation 6628-14-7086, by an additional amount of \$650,000.00, net of all taxes (\$661,440.00 net of HST recoveries), revising the current total value from \$2,489,909.47 to \$3,139,909.47 net of all taxes (\$3,195,171.89 net of HST recoveries), subject to approval of Recommendation 2 of this report.

2. City Council amend the 2015 Operating Budget for Toronto Water with an increase to Phosphoric Acid of \$935,603.83 and a corresponding reduction to the 2015 budgeted contribution to the Toronto Water Capital Reserve.
3. City Council direct the General Manager, Toronto Water to include for consideration as part of the 2016 Budget Process, any additional funding required in 2016 and future years for Phosphoric Acid.

Financial Impact

Amendment of Contract No. 47018444 for an additional \$650,000.00 net of all taxes (\$661,440.00 net of HST recoveries) will increase the current contract value from \$2,489,909.47 to \$3,139,909.47 net of all taxes (\$3,195,171.89 net of HST recoveries).

The 2015 Approved Operating Budget includes \$1,451,357.99 for Phosphoric Acid. Toronto Water has issued \$1,415,157.53 in purchase order commitments for the 2015 calendar year. The recommended 2015 operating budget adjustment to ensure funds are available can be summarized as follows:

Proposed Contract Value	\$3,195,171.89
Less: 2014 & 2015 Expenditures	(\$2,223,367.60)
Less: 2015 Funds Available	(\$36,200.46)
Total Forecasted Overspending (net of HST recoveries):	\$935,603.83

The 2015 Approved Operating Budget for Toronto Water does not include sufficient funding for the additional Phosphoric Acid dosage since the provision for Phosphoric Acid was based on projected consumption calculated in 2014 upon initial contract award and prior to commissioning of the chemical systems at all four Water Treatment Plants.

Toronto Water will include for consideration as part of the 2016 Budget Process, any additional funding required in 2016 and future years for Phosphoric Acid.

The proposed increase will impact Toronto Water's 2015 Operating Budget as follows:

Cost Centre	Cost Element	2015 Approved Budget	Budget Adjustment	Adjusted 2015 Budget
TW7015	2463	\$309,514.97	\$192,734.36	\$502,249.33
TW7030	2463	\$464,250.09	\$365,699.68	\$829,949.77
TW7045	2463	\$364,092.92	\$280,706.30	\$644,799.22
TW7060	2463	\$313,500.01	\$96,463.49	\$409,963.50
Total		\$1,451,357.99	\$935,603.83	\$2,386,961.82

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

A copy of the Lead in Drinking Water Mitigation Strategy adopted by City Council at its meeting on February 23 and 24th, 2011 can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2011/bu/bgrd/backgroundfile-34876.pdf>

A copy of updates to the Lead in Drinking Water Mitigation Strategy provided to Public Works & Infrastructure Committee on July 24, 2014 and June 17, 2015 can be viewed at:

<http://www.toronto.ca/legdocs/mmis/2014/pw/bgrd/backgroundfile-72320.pdf>

<http://www.toronto.ca/legdocs/mmis/2014/pw/bgrd/backgroundfile-72321.pdf>

<http://www.toronto.ca/legdocs/mmis/2015/pw/bgrd/backgroundfile-81085.pdf>

At this meeting on July 17, 2014, Bid Committee granted the authority to awarded RFQ 6628-14-7086, for the supply and delivery of Phosphoric Acid to City of Toronto Water Filtration Plants to Anchem Sales for \$1,989,909.47 net of all taxes. The following is the link to the Bid Committee approval:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2014.BD190.1>

On July 20, 2015, Contract No. 47018444 was amended, in accordance with the Financial Control By-Law by \$500,000.00 to \$2,489,909.47 net of all taxes to accommodate unforeseen increase in demand.

ISSUE BACKGROUND

Phosphoric Acid is added to the treatment process for corrosion control purposes to reduce overall lead levels found in tap water, fulfil our commitments under the Lead Mitigation in Drinking Water Strategy and meet the Ministry of the Environment and Climate Change regulatory requirements.

The contract to supply and deliver this chemical was awarded to Anchem Sales in the amount of \$1,989,909.47 through RFQ 6628-14-7086 for the period July 18, 2014 to December 31, 2015 with no optional renewal years. A new RFQ for the supply and delivery of Phosphoric Acid will be issued in 2015 for award of a new chemical supply and delivery contract with an anticipated commencement date of January 1, 2016.

Anchem Sales contract provides the supply and delivery of Phosphoric Acid to Toronto Water's four drinking water treatment plants (WTPs): R.L. Clark, F. J. Horgan, R. C. Harris and the Island WTPs.

COMMENTS

Phosphoric Acid was implemented at all four City of Toronto WTPs in 2014 to control lead at consumers' taps. Toronto Water had no prior experience with the use of this chemical and as a result could not predict as accurately the consumption of this chemical in comparison to other chemicals used at its facilities.

During design and through pilot testing, optimal dosing locations and dosages were established. However, shortly after commissioning Phosphoric Acid at the Clark WTP (first plant to be commissioned), it was found that one of the dosing locations would need to be used over a wider temperature range. As a result, there was an unforeseen increase in Phosphoric Acid demand.

Furthermore, original chemical estimates were based on a certain volume of chemical being initially supplied by the contractor as part of the corrosion control implementation construction project. The initial supply of the chemical through construction contract was overestimated and did not account for the actual tank volumes available on site. This further contributed to the greater demand in the chemical supply contract.

In late May 2015, the chemical supply amount remaining in the Contract was estimated to be depleted by August 2015. Based on actual chemical consumption rates, it was estimated that there would be a \$1,150,000 net of all taxes shortfall in the current chemical contract which expires on December 31, 2015.

Phosphoric Acid is an essential chemical in the water treatment process and should be added at all times to ensure tap water lead levels are kept below the regulatory limits. Based on the timelines required to add an item to the Public Works and Infrastructure Committee agenda, it was necessary to issue a Contract amendment to the existing contract to ensure continuous supply of Phosphoric Acid during the summer and high water demand months. The Contract was amended by \$500,000 net of all taxes on July 20, 2015 for a total contract value of \$2,489,909.47 net of all taxes.

The Contract requires a further \$650,000 net of all taxes (\$661,440.00 bet of HST recoveries) amendment to ensure the supply and delivery of Phosphoric Acid until the end of the year. Since the Contract amendment is in excess of \$500,000, a report is required for Public Works and Infrastructure Committee.

In order to fund the higher Phosphoric Acid requirements, Toronto Water is requesting a total budget increase of \$935,603.83 to the 2015 Toronto Water Operating Budget for Phosphoric Acid.

The contract amendment and budget adjustment requested in this report represent the estimated funds required to adjust the Water Treatment & Supply 2015 Operating Budget to carry the Division through to the end of the current contract, December 31, 2015. The amendment will ensure continuous supply of phosphoric acid through to the end of 2015 and continued compliance with drinking water regulations.

Toronto Water and PMMD are currently working on a new RFQ for the supply and delivery of Phosphoric Acid for award as of January 1, 2016. The new RFQ contains updated chemical consumption estimates based on the experience of operating the new Phosphoric Acid chemical systems at all four Water Treatment Plants.

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