

Clause embodied in Report No. 4 of the Works Committee, as adopted by the Council of the City of Toronto at its meeting held on May 21, 22 and 23, 2003.

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**Joint Optimization Study Update and Modification of
Maximum Water Supply Limit to York Region, 2003-2004**

The Works Committee recommends the adoption of the following report (April 28, 2003) from the Commissioner of Works and Emergency Services:

Purpose:

To provide an update on the status of the Joint Optimization Study to identify future water supply infrastructure requirements for Toronto and York Region, and to amend the 1998 Water Supply Agreement between the City of Toronto and the Regional Municipality of York to allow average annual day supply to York of 253 and 271 Megaliters per day (ML/d) as well as maximum day supply to York of 430 and 460 ML/d in 2003 and 2004 respectively.

Financial Implications and Impact Statement:

There is no financial impact on the 2003 Water and Wastewater Capital and Operating Budgets. The additional cost in 2003 for the work required to increase water supply to York, estimated at \$30,000, will be borne by the Region. Funds to cover this additional scope of work are available within the Water Capital Account CPW 011-19 in the 2003 Water and Wastewater Capital Budget. The potential increase in revenue in 2003 and 2004 resulting from supply to York in excess of volumes stipulated in the 1998 agreement is projected at between \$450,000 and \$850,000 per year.

The Chief Financial Officer and Treasurer has reviewed and concurs with the financial impact statement.

Recommendations:

It is recommended that:

- (1) the 1998 Water Supply Agreement between the City of Toronto and the Regional Municipality of York be amended to permit average day supply to York Region of 253 ML/d and 271 ML/d as well as maximum day supply to York Region of 430 ML/d and 460 ML/d in the years 2003 and 2004 respectively; and
- (2) the appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

Background:

The former Municipality of Metropolitan Toronto began supply of potable water to the Region of York in 1975 under agreement with the Region and the Province of Ontario. At its meeting of July 29, 30 and 31, 1998, City of Toronto Council approved Clause No. 1 of Report No. 7 of The Works and Utilities Committee authorizing execution of an agreement for the supply of additional water to York Region. Accordingly, the City of Toronto and York Region entered into a 20-year agreement providing for the supply of potable water from Toronto to the Region of York. The agreement states that Toronto will provide York Region with specified volumes of potable water at a rate per cubic metre as calculated in accordance with the agreement. Within the 1998 agreement, it also states that York will contribute to the capital investment of shared facilities required to supply York with a maximum daily volume of 440 ML/d in 2004. Contributions to shared infrastructure from Toronto and the Region of York are based on the proportion of anticipated use of, or benefit from, the shared infrastructure. In 1998, York's contribution to the capital cost of the required expansion of Toronto's water supply infrastructure was estimated at \$103.2 million.

At its meeting of July 27, 28, 29 and 30, 1999, City of Toronto Council approved Clause No. 13 of Report No. 2 of The Works Committee authorizing engagement of consultants to undertake the Water Supply Joint Optimization Study. The main objectives of this study included a high level assessment of Greater Toronto Area wide services and identification of opportunities to meet growth and security needs; determination of projected water demands within the City of Toronto for the years 2011 and 2031 and incorporating existing water demand projections for York Region to the same planning horizons; and determination of optimal infrastructure required to meet the above demands including assessment of options for additional supply from Toronto to York Region.

The 1998 Water Supply Agreement currently limits Toronto average day supply to York Region to 247 ML/d and 259 ML/d, as well as maximum day supply to York Region to 419 ML/d and 440 ML/d, in 2003 and 2004 respectively. York Region has requested that the City consider increasing these limits in the short term in order to meet anticipated higher demand in the Region of York.

Comments:

The Joint Optimization Study is currently targeted for completion in May of 2003. Preliminary reporting indicates that water supply from the City of Toronto to York Region can be increased from the current limit of 440 Megaliters per day (ML/d) in 2004 to 519 ML/d by 2031. The preliminary estimate of infrastructure costs within Toronto to meet City of Toronto water supply demands to 2031 and supply 519 ML/day to York Region is \$460 million by the year 2031. Infrastructure required for supply to York Region would be cost shared with the Region of York on the proportion of anticipated use of, or benefit from, the shared infrastructure. Upon final completion of the JOS, a process will be carried out over the next 12 to 18 months to revise the 1998 Water Supply Agreement between the City of Toronto and York Region to incorporate updated supply volumes and cost-share arrangements with York Region.

York Region has asked that the City of Toronto consider increasing the maximum supply volume limit for 2003 and 2004 to meet anticipated short term demand. Modelling associated with JOS has indicated maximum day supply to York Region can be increased from the limits specified in the 1998 agreement for 2003 and 2004 (419 ML/d and 440 ML/d respectively) to 430 ML/d and 460 ML/d, without any detrimental impact on City of Toronto supply. Average day supply limits would also be increased to 253 ML/d and 271 ML/d from the limits specified in the 1998 agreement (247 ML/d and 259 ML/d respectively). All costs for work required to increase supply will be borne by York Region. York will pay Toronto for all water delivered to York pursuant to the water rate formula provided for in the agreement. Revenues will increase by approximately \$450,000 in 2003, based on the increase in supply to the Region of York.

Staff from both Toronto and York have indicated a desire for amendments to various aspects of the agreement. These changes will be discussed at the staff level over the next 12-18 months, and will be reported to Council at that time.

Conclusions:

The Joint Optimization Study (JOS) is nearing completion and preliminary reporting has indicated that a future increase in supply to York Region from the City of Toronto is feasible and economical. Subsequent to final reporting of the JOS, a process should be implemented over the next 12 to 18 months to modify the 1998 Water Supply Agreement to incorporate modifications in supply volumes and infrastructure requirements as recommended by the JOS. The Region of York has indicated agreement with this course of action.

Hydraulic modelling has indicated that 430 ML/d and 460 ML/d respectively can be supplied to York Region in 2003 and 2004 respectively on maximum day, in order to meet anticipated short term higher demand in the Region. The City of Toronto would be reimbursed by York Region for all work required to increase the supply volume to the Region of York.

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