

# TORONTO

Works and  
Emergency  
Services

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Date: June 3, 1998  
To: Works and Utilities Committee  
From: Michael G. Thorne  
Interim Functional Lead, Water & Wastewater Operations  
Subject: Execution of Agreement for Supply of Water to the Region of York

Purpose:

To obtain authorization to execute an agreement for the supply of water to the Region of York.

Funding Sources, Financial Implications and Impact Statement:

Adoption of the report's recommendation regarding a revised agreement would impact positively on Toronto Water Supply's Operating and Capital Budgets and on revenue generated through the sale of water to York Region. Financial analysis has determined that the revised rate formula and Capital cost-share methodology on the basis of proportionate use will ensure full operating cost recovery, a fair return on investment, and continued rate and reserve stability.

Recommendations:

It is recommended that authority be granted to execute an agreement for the supply of water to the Regional Municipality of York, essentially in accordance with the report provided as an appendix to this report, and the appropriate officials give effect thereto.

Council Reference/Background/History:

The previous agreements for supply of water to York Region were executed on December 23, 1974, by the Province of Ontario and Metropolitan Toronto and on August 1, 1975, by York Region, the Province of Ontario and Metropolitan Toronto. The tri-partite agreement specified an average day supply limit of 30 MIGD which has been exceeded since 1988. The average day consumption reached 40 MIGD in 1997 and continues to trend upwards. Several Capital Works projects required to supply an incremental amount of water beyond the supply limit have been cost-shared by York Region, pending execution of a new agreement.

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Through Clause No. 2 of Report No. 15 of the Environment and Public Space Committee (EPSC), Metropolitan Council at its meeting of September 27, 1995, was advised that Metro and York Region staff had reached agreement on a supply limit of 57 Million Imperial gallons per day (MIGD) average day and cost-sharing of the additional infrastructure requirements to provide for additional supply to meet Metro and York's needs as identified by the 1995 Water Supply Joint Study and that negotiations for a revised agreement were continuing.

Through the adoption of Clause No. 3 of Report No. 9 of the EPSC, as amended, Metropolitan Council at its meetings held on July 2 and 3, 1997, authorized staff to prepare, in association with staff of the Region of York, an agreement for additional water supply to the Region of York, generally in accordance with proposed principles contained in the report. Through an amendment to the clause, Council recommended that the detailed agreement be submitted to Council, through the Committee, prior to execution. The proposed principles are attached to this report as Appendix 1.

York's Council, at its meeting of July 10, 1997, adopted Clause No. 3 of Report No. 14 of its Transportation and Works Committee authorizing York to enter into an agreement with Metro based on the proposed principles.

The agreement, provided as Appendix 2 to this report, contains terms and conditions satisfactory to Toronto's Commissioner of Works and Emergency Services, the City Treasurer and the City Solicitor and to York Region staff in the Works, Finance and Legal Departments.

Comments and/or Discussion and/or Justification:

The proposed agreement provides mutual benefits in that York Region's short-term needs, as identified in their 1997 Master Plan (57 MIGD average day anticipated in 2004) would be assured and further capital investment in Toronto's system can be undertaken to ensure the capability to meet future demands within Toronto and York Region while maintaining competitive wholesale rates.

Central to the development of the new agreement to meet York's short-term requirements and Toronto's requirements to 2011 was the agreed allocation of capital costs on a proportional use basis for the required infrastructure and a revised formula for determining future water rates.

Analyses undertaken by Toronto Finance Department staff has confirmed future rate and reserve stability, full operating cost recovery and a fair return on capital investment for the City.

The following summarizes the key elements of the proposed agreement:

1. Supply Volumes

Toronto to provide water to York on the basis of projected requirements for maximum day and average day volumes as set out in the agreement to an upper limit of 97 MIG (440 megalitres (ML)) per maximum day. By mutual agreement, Toronto may provide York in excess of average day volumes as set out in the agreement.

York to continue to purchase 57 MIG (259 ML) per average day, or other amount agreed upon, once upper limit for average day volume is reached. York not to exceed on any day the upper limit of maximum day volumes as set out.

2. Facility Cost Sharing

York to contribute approximately 50 per cent. of the estimated \$206 million total Capital costs of facilities required based on proportional use of the assets including water mains, plant and reservoir expansions and pumping station upgrades.

3. Water Rate Determination

The water rate to be determined annually includes the following components:

- (a) Operating costs of the Toronto system excluding the local distribution system, net of Capital funding and debt charges;
- (b) Operating surcharge to cover additional hydro costs for pumping to York;
- (c) Return on investment for existing Capital assets not subject to cost sharing; and
- (d) Replacement allowance which acknowledges asset life expectancy.

The 1998 water rate to York as determined by the proposed rate formula is 19.5 cents per cubic metre, which is unchanged relative to the 1997 rate.

4. Premium Water Rate

Premium rate at double the normal rate may be applied on each day that the maximum day limit as set out in agreement is exceeded. Premium rate may be waived by Toronto's Commissioner of Works and Emergency Services if diligent actions were taken by York to reduce water consumption and if York exceedance did not reduce supply within Toronto.

5. Water Use Efficiency

Toronto and York to use best efforts in implementation of their water use efficiency programs as endorsed and funded by their respective Councils.

6. Joint Studies

Toronto and York to share in cost of joint infrastructure studies which consider expansion of Toronto system to service Toronto and York.

7. Further Agreement on Certain Issues

Toronto's and York's Commissioners may agree upon amendment of specific matters as set out in the agreement, including revised average day volumes so long as the maximum of 97 MIG is not exceeded.

8. Dispute Resolution

Any matters not resolved by direct discussion between Toronto and York staff to be referred to a three-tiered dispute resolution process:

- (a) High Level Negotiation  
- Mayor and Regional Chair or designate
- (b) Mediation
- (c) Binding Arbitration.

9. Term

Agreement term to be twenty years with option in favour of York Region for renewal for successive twenty year terms on the same terms and conditions.

Although the agreement specifies an upper supply limit based on York Region's short-term requirements, there is a possibility that their long-term needs can be supplied by the City.

The previously referenced Master Plan by York Region was completed in July of 1997 to identify a strategy to meet future water demands.

The recommended strategy includes the following principal components:

- (a) Expansion of water supply from Metro (short-term supply);
- (b) Implementation of a regional water use efficiency program;
- (c) Construction of Lake Simcoe Water Treatment Facility; and
- (d) Implementation of a New Great Lakes Supply (long-term supply).

A supply from Lake Ontario entailing a raw water pumping station and a pipeline through the western part of Durham Region to a new water treatment plant in Durham or York Region was identified as the preferred long-term supply alternative.

Subsequent to completion of the 1995 Water Supply Joint Study, employment populations within Toronto have declined and York Region's long-term demand projections (to 2031) have been reduced. Consequently, there is a potential for York's long-term needs to be fully supplied through further expansion of Toronto's system, above and beyond what was identified in the 1995 Water Supply Joint Study, precluding the West Durham alternative. The feasibility of long-term supply from Toronto will be reviewed as part of the scope of work for a joint optimization study to be undertaken by Toronto and York Region to update the 1995 study.

The scope of work of the proposed study will also include a review of long term water supply strategies for the Regions of Peel, Durham and Halton in order to identify opportunities for efficiencies in water servicing across the Greater Toronto Area.

York Region staff have expressed their eagerness to explore the viability and effectiveness of Toronto's ability to supply water beyond the agreement's limit of 57 MIGD.

Any future amendments to the maximum day supply limits as specified in the agreement would require approval from Toronto and York Region Councils.

It should be noted that the additional water supplied to York Region would not impact sewage flows to Toronto's sewage treatment plants as York's sewage is not connected to Toronto's system except through emergency outlets. York Region has recently executed an agreement with Durham Region to enable treatment of the sewage flows generated from the areas of York using Toronto's water at Durham's Duffin Creek Sewage Treatment Plant.

Given that the Capital Works identified in the proposed agreement will address Toronto's long-term needs and York Region's needs to the year 2004, execution of the agreement is now required to enable priority projects in Toronto Water Supply's approved 1998 Capital Works Program to proceed and to enable York Region to secure its short-term water supply.

Conclusion:

Authorization is recommended for execution of the agreement for additional water supply to the Region of York.

Contact Name and Telephone Number:

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M.G. Thorne, P. Eng.  
Interim Functional Lead, Water & Wastewater



Barry H. Gutteridge  
Commissioner of Works and Emergency Services

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Attachments

## APPENDIX 1

### **REVISED AGREEMENT FOR SUPPLY OF WATER TO REGION OF YORK PROPOSED PRINCIPLES**

#### **GENERAL TERMS**

- Agreement between Metro & Region of York - no provincial involvement.
- Agreement in perpetuity subject to review at mutually agreed intervals (say 10 years).
- Agreement to consider Metro and Region of York systems together as one system for future infrastructure studies.
- Terms under which agreement can be modified, as mutually agreed at any time, include:
  - volumes supplied;
  - basis for cost-share of additional Capital Works required in event projected demands are exceeded; and
  - interest rates used in water rate determination.
- Non-agreement of issues which arise following execution of agreement referred to third party dispute resolution.

#### **METRO'S OBLIGATION**

- To supply Region of York with upper limit of 57 MIGD (259 ML/d) average day and 97 MIGD (441 ML/d) maximum day as limited by available capacity in Metro system.
- To supply Region of York at projected rates of annual increase to 57 MIGD (259 ML/d) subject to completion of necessary facilities.
- To supply water at specific delivery points within volume ranges mutually agreed upon.
- To ensure accurate metering of water being delivered and provide Region of York with metering and billing records.

### **REGION OF YORK OBLIGATION**

- When upper limit is reached, to continue to take 57 MIGD (259 ML/d) average day from Metro as part of long-term requirements unless a lower amount is mutually agreeable.
- Not to exceed upper limit of 57 MIGD (259 ML/d) average day and 97 MIGD (441 ML/d) maximum day unless by mutual consent.
- To take water at specific delivery points within volume ranges mutually agreed upon.

### **JOINT RESPONSIBILITIES**

- Mutual understanding that Metro and York Region build their portions of the system as agreed.
- Facility owner assumes responsibility for construction, operation and maintenance of own system.
- Consultation on design and operation of facilities which may affect respective systems.
- Maintain water quality in accordance with Ontario Drinking Water Objectives.
- Ensure no mixing of water from different sources to minimize the potential for water quality impacts unless mutually agreed upon.
- Maintain distribution network in good working order to minimize stresses on system.
- Maintain storage systems to a common standard to provide for operational fluctuations, fire protection and emergency use.
- Optimize operations and infrastructure expansions through joint analyses.



## FINANCIAL

- Metro and York facilities:
  - identification of all Metro facilities located in Region of York;
  - identification of ownership of all cost-shared facilities.
- Basis for Capital cost-share:
  - schedule of Capital Works required for upper supply limit of 259 ML/d;
  - identification of Metro facilities to be cost-shared;
  - proportional use methodology for cost-share; and
  - inclusion of design and contract administration costs.
- Water rate determination:
  - annual revision to rate based on formula;
  - rate formula (rationale is detailed on attachment) to capture:
    - return on investment and replacement allowance on built infrastructure which was not cost-shared,
    - operating costs proportional to consumption,
    - hydro premium to cover additional cost of pumping to Region of York; and
  - peaking premium for exceeding maximum and average day upper consumption limits.

## LEGAL

- Closure of existing agreement.
- Pertinent clauses from Metro Toronto Act and other relevant legislation.
- Metro/York Region indemnified against potential problems in quality or quantity.
- Notwithstanding clause to allow for "Acts of God", emergency conditions, etc.

HAT/rah

April 15, 1997

Revised: June 5, 1997

## WATER SUPPLY AGREEMENT

This Agreement made in quadruplicate this 9th day of June, 1998

**B E T W E E N:**

**CITY OF TORONTO**

- and -

("Toronto")

**THE REGIONAL MUNICIPALITY OF YORK**

("York")

**WHEREAS** The Municipality of Metropolitan Toronto (hereinafter referred to as "Metro") entered into an agreement, dated December 23, 1974, pursuant to the provisions of the Ontario Water Resources Act, with Her Majesty the Queen in Right of Ontario as represented by the Minister of the Environment (the "Crown") for the provision of water to York and, subsequently, by agreement, dated April 18, 1975, entered into a tripartite agreement with the Crown and York with respect thereto (the "Original Water Supply Agreements");

**AND WHEREAS** Metro and York participated in joint studies to identify capital improvements in Metro which would enable the delivery of additional water to York and participated in cost sharing of specific capital improvements to date;

**AND WHEREAS** Metro's Council, at its meeting on the 2nd and 3rd day of July, 1997, adopted Clause No. 3 of Report No. 9 of its Environment and Public Space Committee authorizing Metro to finalize an agreement with York for the supply of additional water upon the terms and conditions set out therein and based on proposed principles (the "Principles");

**AND WHEREAS** York's Council, at its meeting on the 10th day of July, 1997, adopted Clause No. 3 of Report No. 14 of its Transportation and Works Committee authorizing York to enter into an agreement with Metro based on the Principles;

**AND WHEREAS** Toronto was incorporated on January 1, 1998 and, pursuant to the provisions of the City of Toronto Act, 1997, stands in the place of Metro for all purposes;

**AND WHEREAS** pursuant to the provisions of section 15 of the *City of Toronto Act, 1997* (No. 2) Toronto may enter into contracts for the supply of water to a regional municipality for its use or for resale to the inhabitants thereof;

**AND WHEREAS** pursuant to section 60(3) of the *Regional Municipalities Act*, York may enter into a contract for the purchase of water from Toronto;

**AND WHEREAS** Toronto's Council, at its meeting on the day of , 1998, adopted Clause No.

of Report No. of its Works and Utilities Committee thereby authorizing execution of this agreement;

**AND WHEREAS** this Agreement settles all matters pertaining to the Principles;

**NOW THEREFORE** the parties covenant and agree with each other as follows:

## **ARTICLE 1 INTERPRETATION**

### **1.1 Definitions**

In this agreement, including the Schedules,

- (a) "Agreement" means this agreement and any and all schedules, appendices or amendments;
- (b) "Delivery Point" means an existing or proposed point of interconnection between the Toronto System and the York System, approved by Toronto and York for the delivery of water from the Toronto System to the York System;
- (c) "Effective Date" means January 1, 1998;
- (d) "Facility" or "Facilities" means the infrastructure improvements to the Toronto System as set out in Schedule "B" to this Agreement, which Schedule may be altered from time to time by mutual agreement between Toronto and York;
- (e) "Joint Study" means the Final Water Supply Joint Study, dated August 10, 1995, prepared for the parties by Fenco MacLaren Inc. in association with Knowles Engineering Inc., to determine expansion requirements for the Toronto System due to projected growth in population and employment;
- (f) "Meter" means a flow measuring and recording device for measuring and recording the volume of water flowing through the Delivery Points;
- (g) "Metering Point" means the location of a Meter within the Toronto System or at a Delivery Point as set out in Schedule "A" to this Agreement, as modified from time to time by mutual agreement between Toronto and York;
- (h) "MIG" means a million Imperial Gallons of water;
- (i) "ML" means a million litres of water;
- (j) "Ontario Drinking Water Objectives" means the most current guidelines issued from time

to time by the Ministry of the Environment for drinking water quality;

- (k) "OWSA" means the Original Water Supply Agreements as referred to in the recitals to this Agreement;
- (l) "Term" means the term of this Agreement as set out in section 13.1;
- (m) "Toronto Area" has the meaning of "urban area" as defined in the *City of Toronto Act, 1997*, as amended;
- (n) "Toronto's Commissioner" means Toronto's Commissioner responsible for Works and Emergency Services or his successor or the person holding a successor position and includes the Commissioner's designate duly appointed in writing;
- (o) "Toronto System" means all of the water works system owned, operated and maintained by Toronto from time to time, including such facilities located within York Region;
- (p) "Uncontrollable Circumstances" has the meaning set out in section 11.1;
- (q) "Water" means potable water which meets the Ontario Drinking Water Objectives;
- (r) "York's Commissioner" means York's Commissioner of Transportation and Works or his/her successor or the person holding a successor position and includes the Commissioner's designate duly appointed in writing; and
- (s) "York System" means the York water works system owned, operated and maintained by York;

## 1.2 Headings and Table of Contents

Headings used in this Agreement are inserted only as a matter of convenience and for reference and in no way are to be construed as defining, limiting or describing the scope or intent of this Agreement.

## 1.3 Article, Section and Subsection References

Any article, sections or subsections mentioned in this Agreement by number only without reference to another document refer to those articles, sections or subsections contained in this Agreement.

## 1.4 Construction of Terms

Unless otherwise specified in the Agreement, words describing material or work or terms that have a well-known technical or trade meaning shall be construed in accordance with the well-known meaning generally recognized by water supply professionals and engineers.

1.5 Entire Agreement

This Agreement contains the entire agreement between the parties with reference to the subject matter hereof, supersedes all prior agreements, negotiations, representations and proposals, written or oral, relating to its subject matter and shall not be altered, modified or amended except by an agreement in writing duly executed by the parties or as otherwise expressly provided for in this Agreement.

**ARTICLE 2  
TORONTO RESPONSIBILITIES**

2.1 General

Toronto shall:

- (a) provide Water to York on the basis of the projected requirements for average day and maximum day volumes as set out in Schedule "C" to an upper limit of 440 ML (97 MIG) per maximum day. By mutual agreement, Toronto shall provide water to York in excess of the average day volumes as set out in Schedule "C", provided that the maximum day volume limits are not exceeded at any time. For the purposes of this Agreement, an "average day" volume is the volume of water calculated by dividing the volume of water used in a calendar year by the number of days in that year and a "maximum day" volume is the maximum volume of water supplied on any day in a calendar year;
- (b) ensure the accurate metering of water delivered to York by installing, operating and maintaining Meters at the Metering Points and by measuring and recording the quantity of water being delivered to York through the Metering Points;
- (c) provide York with billings and metering records, every two (2) months, or at such other or different intervals as may be mutually agreed upon by the parties; and
- (d) provide York with access to on-line SCADA (Supervisory Control and Data Acquisition) signals from the Metering Points, when available to Toronto.

2.2 Calculation of Volumes of Water

Notwithstanding that a Metering Point may not be located at a Delivery Point but is located within the Toronto System, the volume of Water delivered to York shall be calculated based on the flow of water through the Metering Points. In calculating the net volume of water supplied to York, the volume of water returned to the Toronto System, through the Metering Points shown as bi-directional on Schedule "A", shall be deducted from the volume of water delivered to York.

### 2.3 Volumes at Specific Delivery Points

The volumes of Water to be delivered at any Delivery Point, as measured by the pertinent Metering Point, shall be agreed upon. The appropriateness of any volume range shall be subject to consideration of the matters referred to in section 2.1(a).

### 2.4 Conditions to Provision of Water Service

Toronto's obligation for the provision of Water under section 2.1 shall be subject to and conditional upon:

- (a) York not exceeding the schedule of year by year increases in water volumes as set out in Schedule "C", as may be amended from time to time in accordance with this Agreement, up to the maximum upper limit of 440 ML (97 MIG) per maximum day;
- (b) completion of the Facilities in the Toronto System as set out in Schedule "B", as amended from time to time, on the shared cost basis as set out in Article 4, and in accordance generally with the staging of construction as set out in Schedule "B1" to permit adherence to the schedule of York's forecasts of year to year increases; and
- (c) The reduction by Toronto of the amount of water supplied to York in cases of Uncontrollable Circumstances but Toronto shall endeavour to provide reasonable notice, where possible, of any such reduction and the basis for same.

### 2.5 Inspection of Meters

Toronto shall provide to York copies of "as constructed" record drawings for all Meters. York may from time to time request from Toronto the right to inspect any Meters installed in the Toronto System by Toronto and the records produced by such devices and Toronto shall reasonably accommodate such requests. Either party may witness all calibration tests of Toronto's Meters at such times as are agreed upon between Toronto's Commissioner and York's Commissioner.

### 2.6 Inaccuracies in Meters

- (a) In the event that either party determines that the quantity of water delivered to any Delivery Point, as measured through a Metering Point, during any period has not been accurately determined or recorded or has not been recorded, Toronto shall calculate, on the basis of quantities recorded before and after the period of such inaccurate recording or failure to record, a reasonable quantity which shall be deemed to be the quantity of water delivered to York;
- (b) If, in the opinion of York, the quantity determined, recorded or calculated for any Delivery Point, as measured through the pertinent Metering Point, or any adjustment made under

subsection 2.6(a) appears excessively high or low, Toronto shall supply York with details of the readings or calculations which resulted in such quantity and, if necessary, the parties shall meet to discuss the matter and to come to mutual agreement as to the correctness or otherwise of the account based on such quantity and, if required, an adjusting payment shall be added to or subtracted from the next payment due after such agreement is reached.

### ARTICLE 3 YORK RESPONSIBILITIES

#### 3.1 General

York shall:

- (a) purchase Water from Toronto at the Delivery Points, as measured through the Metering Points;
- (b) take water from the Toronto System only at the Delivery Points;
- (c) except with the consent of Toronto's Council, not supply water obtained from the Toronto System to persons or municipalities other than York's area municipalities and persons located within York;
- (d) not exceed:
  - (i) the average day volume limits as set out in Schedule "C", or
  - (ii) the volumes at specific Delivery Points, as measured through the Metering Points, as such volumes are agreed upon or such volumes or limits are amended from time to time in accordance with this Agreement;
- (e) not exceed, on any day during the Term, the upper limit of maximum day volumes as out in Schedule "C";
- (f) adhere to any reasonable request of Toronto's Commissioner that York decrease water pumping and consumption in order not to exceed the limits or volumes as set out in paragraph 3.1(d)(ii) or clause 3.1(e);
- (g) pay to Toronto, on demand from Toronto's Commissioner, a premium rate pursuant to the provisions of Article 6 for York's daily Water consumption that exceeds the maximum day volume limits for the respective years set out in Schedule "C", subject to section 6.2;

- (h) once the upper volume limit for average day supply as set out in Schedule "C" is reached, continue to purchase 259 ML (57 MIG) per average day, or such other amount as may be agreed between the parties; and
- (i) contribute to the cost of the Facilities in accordance with the provisions of Article 4.

### 3.2 Backflow Prevention

York shall not install, connect or operate any works, equipment or structures that will transmit, or cause or permit the transmission of, water to the Toronto System, at any time, at a rate of flow or of a quality unacceptable to Toronto's Commissioner and shall, if deemed necessary by Toronto's Commissioner, install, or reimburse Toronto the reasonable costs of installation of, suitable backflow prevention devices to prevent such flow.

## ARTICLE 4 FACILITY COST SHARING

### 4.1 York's Contribution to Cost Sharing of Facilities

York shall contribute to the capital costs of the Facilities in the percentages set out in Schedule "B", as revised from time to time, such percentages having been based on the proportion of anticipated use or benefit of the capacity of the specific infrastructure work by York and Toronto. It is acknowledged by the parties that the costs for any of the Facilities set out in the Schedule are estimates only and, accordingly, the percentage contributions by York shall not be limited to such estimates but to the actual costs of final construction, including engineering design costs, contract administration costs and applicable net taxes.

### 4.2 Payment for Cost Share

- (a) Toronto shall provide York with an invoice setting out in detail the project cost for any Facility based on the value of the construction contracts and consulting agreements entered into by Toronto in respect of the Facility and York's percentage share of such costs in accordance with this Agreement.
- (b) York may inspect and audit Toronto's books, payrolls, accounts and records during regular office hours with respect to any item which York is required to pay hereunder. All invoices shall be accompanied by such further supporting information and documentation as York may reasonably request.
- (c) York shall review each invoice received and shall notify Toronto within ten (10) business days of receipt thereof if York does not agree with Toronto that the amount is then due or as to the amount thereof. Toronto shall respond to York's notification of a disputed invoice within 10 days of such notification.



- (d) York shall pay all invoices within thirty (30) days of the date of receipt thereof. York shall pay such invoices pending the resolution of any dispute relating to an account. Toronto shall adjust any account in accordance with the resolution of any dispute and make any payment to York necessary to refund any overpayment by York determined by the adjustment, as the case may be.

#### 4.3 Final Project Statement

Upon the completion of construction of a Facility, Toronto shall provide to York a statement of final Facility costs and York's payments made in contribution thereof. The determination of final Facility costs shall incorporate any rebates from any taxes paid or Facility grants paid to Toronto for such construction from any source. The parties shall make any payment necessary to make up any shortfall or to refund any surplus, as the case may be, in order to reflect properly the agreed upon percentage contribution of York in respect of the actual capital costs of the Facility after construction.

#### 4.4 Effect of Cost Sharing

Despite any contribution by York to the capital costs of a Facility:

- (a) Provided that Toronto advises York of any dispute with or claim made by a contractor which may affect the final costs or design of a Facility, Toronto may settle any such claim in its sole discretion;
- (b) Toronto shall have no obligation to take into account, in determining the final costs of a Facility, any revenue from water rates given that the capital components of such rates exclude the capital costs of the Facilities, and
- (c) York shall not acquire any interest or property rights in the Facility which shall be part of the Toronto System;

Clause 4.4(c) shall not be construed to limit York's entitlement to receive Water from Toronto under the terms of this Agreement.

#### 4.5 Variation of Facilities and Metering Points

The Facilities and Metering Points shall be as set out in Schedules "A" and "B", as revised from time to time by mutual agreement.

## ARTICLE 5 RATES

### 5.1 Charges for Water

York shall pay to Toronto the amounts charged for Water under this Agreement in accordance with accounts issued to York every two (2) months. The charge for Water shall be calculated for each billing period as the product of:

- (a) the rate for Water applicable to such billing period; and
- (b) the net quantity of water as determined under this Agreement delivered through the Metering Points during such billing period.

### 5.2 When Accounts Due

Accounts shall be paid by York to Toronto within thirty (30) days from the date of receipt and overdue accounts shall be subject to an interest charge of 12% annually for each month or fraction thereof while such default continues.

### 5.3 Inclusions Within Water Rates

The rate for Water shall be determined annually and shall be subject to change in every year from and after the commencement of the Agreement. The rate shall include the following components, the details of which are set out in Schedule "D" (the "Water Rate"):

- (a) Operating Costs - that part of the operating costs of the Toronto System, excluding the local distribution system, net of capital funding, debt charges, reserve contributions and additional hydro costs for pumping to York;
- (b) Operating Surcharge - an operating premium which takes into account that water consumed in York Region is pumped to a higher elevation than water consumed in Toronto and, therefore, demands greater power input and higher costs;
- (c) Return-On-Investment (ROI) - a return, based on the depreciated value of existing capital assets not subject to cost sharing under Article 4 of this Agreement; and
- (d) Replacement Allowance - a reserve contribution which acknowledges a life expectancy of assets.

### 5.4 Effective Date for Water Rates

The Water Rate shall be calculated for the 1998 calendar year and shall be effective from the Effective Date of this Agreement. The Water Rate shall be recalculated annually for each successive

calendar year with the recalculated Water Rate to be effective on January 1st of each year. Toronto shall determine the Water Rate in November of the prior year to the year in which the recalculated Water Rate is applicable and shall notify York of the Water Rate applicable to each calendar year no later than December 31st in the prior year.

#### 5.5 Example of Determination of Water Rate

For greater certainty, an example of the determination of the 1998 water rate to York, which incorporates the components referred to in section 5.3, is set out in Schedule "D1".

#### 5.6 Demand Forecasts

York agrees to provide to Toronto annually on or before October 31st in each year a demand forecast for the next succeeding five (5) year period, setting out the estimated demand for Water supply for the next five (5) years.

### ARTICLE 6 PREMIUM WATER RATE ON EXCESS VOLUMES

#### 6.1 Premium Water Rate

Where Toronto's Commissioner determines that, for whatever reason, York has, in respect of any calendar year, taken Water from the Toronto System in quantities which exceed the maximum day volume limits referred to in section 3.1 and Schedule "C", Toronto's Commissioner may, in his sole discretion, demand payment from York of a premium water rate applicable to the excess quantities as set out in Schedule "D2". York shall pay such premium rate in accordance with section 5.2.

#### 6.2 Commissioner's Discretion

Toronto's Commissioner may, in his sole discretion, waive the premium water rate, if satisfied that actions were diligently taken by York to reduce Water consumption to within the maximum day volume limits and that exceedance of such limits did not result in reduction in Water supply within the Toronto System. Toronto's Commissioner may, in addition to such demand and the receipt of the premium water rate, take such other action as the Commissioner deems necessary, including:

- (a) the reduction of the supply of Water to bring the quantities supplied to York in accord with the maximum day supply limits, or
- (b) obtaining relief in the nature of a mandatory order to enforce compliance with the restriction on the maximum day supply limits.

**ARTICLE 7**  
**MAINTENANCE AND OPTIMIZATION OF TORONTO AND YORK SYSTEMS**

**7.1 Responsibility for Costs**

Except as provided in Article 4, the Toronto System shall be built at the expense of Toronto and the York System at the expense of York. Each party shall be responsible for the operation, maintenance and repair of its own system.

**7.2 Maintenance**

The parties shall maintain their respective distribution networks in good working order to industry standards with the objective of minimizing stresses on the systems considered together. The parties acknowledge that there may be reductions in Water supply occasioned by the need to repair or extend a portion of the Toronto System through which Water is supplied to York. Toronto shall consult with York, to the extent possible in the circumstances, prior to any such repair or extension in order to properly plan for the continued supply of Water and the minimization of any disruption in such supply.

**7.3 Water Quality**

The parties shall maintain water quality which, at a minimum, complies with Ontario Drinking Water Objectives. York acknowledges and agrees that there are no warranties or covenants by Toronto, express or implied, pertaining to the quality of water supplied to York other than that the water meets Ontario Drinking Water Objectives. York shall ensure that no mixing of the water supplied by Toronto occurs with water supplied to York from other sources, except with the consent of Toronto's Commissioner.

**7.4 Storage Systems**

The parties shall maintain their storage systems to a design standard that will allow the parties to meet the demands on their respective systems for operational fluctuations, the provision of adequate fire protection and other emergency uses.

**7.5 Consultation**

The parties shall consult with each other respecting the design and operation of their respective systems insofar as such design and operation may affect the operation of the system of the other party. All future infrastructure studies which consider the expansion of any of the systems shall consider the Toronto System and the York System as one system for purposes of the studies with a view to optimizing the efficiency of the respective operational systems prior to any infrastructure expansions.

7.6 Joint Studies

The parties shall use their best efforts to complete joint infrastructure studies in a timely fashion and to confirm the need for construction of new capital works. The parties shall share in the cost of any joint infrastructure studies which consider the expansion of the Toronto System to service the Toronto Area and York Region. The cost of the contribution to be made by each of the parties shall be agreed upon.

7.7 Water Use Efficiency

The parties shall use their best efforts in the implementation of their water use efficiency programs, as endorsed and funded by their respective Councils, in order to maintain consumptions within projected levels and maximize utilization of built infrastructure.

7.8 Water Volumes at Metering Points

The parties shall periodically assess average daily volume flows through Metering Points to confirm adherence to the requirements stipulated in sections 2.4(a), 3.1(d) and Schedule "C".

**ARTICLE 8  
FURTHER AGREEMENTS**

8.1 Further Agreement on Certain Issues

Toronto's Commissioner and York's Commissioner (together referred to as the "Commissioners") may by agreement in writing settle or amend the matters that are expressly stated in this Agreement to be subject to further agreement of or mutual consent of the parties, but only to the extent such settled or amended provisions are in respect to the following:

- (a) the modification or addition to the number, location and design of the Metering Points and the Facilities during the Term;
- (b) the frequency with which metering records and billings are provided by Toronto to York, including the form and content of such records;
- (c) the correctness of any account as a result of inaccurate metering as provided for in section 2.6;
- (d) the range of the volumes of water to be supplied at any of the Delivery Points, as measured through the pertinent Metering Points, and the average day volume limits set out in Schedule "C".
- (e) the cost-share of any of the Facilities, in the event changes in projected demands impact on

the percentage of proportional use which was originally utilized in determining the cost-share for the relevant Facility;

- (f) the respective party's contributory share to the cost of the Toronto infrastructure studies which consider expansion of the Toronto System; or
- (g) the percentage rates used in the Water Rate determination for return on investment, replacement allowance, and depreciation.

#### 8.2 Limitation on Commissioners' Agreement

In no event shall any of such settled or amended provisions affect the upper limits of the maximum day water volumes to be supplied under this Agreement.

#### 8.3 Notice of Settlement or Amendment

A respective party's Commissioner may at any time provide written notice to the other of the need to settle or amend any of the matters referred to in section 8.1. The notice shall set out in reasonable detail the substance of the provision to be settled or amended and the basis and rationale for the proposed provision. The giving of notice under this section shall be deemed to be a dispute within the meaning of Article 9 in order that the resolution process set out in Schedule "E" shall be applicable.

### ARTICLE 9 DISPUTE RESOLUTION

#### 9.1 General

Any dispute, controversy or claim arising under or in connection with this Agreement or the breach, termination, validity or enforceability of any provision of this Agreement (a "Dispute") shall be settled in accordance with the dispute resolution process set out in Schedules "E", "E1" and "E2".

#### 9.2 Exclusive Remedy

Other than any action necessary to enforce the award of a board of arbitration, the parties agree that the provisions of this Article are a complete defence to any suit, action or other proceeding instituted in any court or before any administrative tribunal with respect to any Dispute arising under or in connection with this Agreement.

#### 9.3 Continued Performance

The parties shall continue to fulfil their obligations under this Agreement during the dispute resolution process.

**ARTICLE 10  
REMEDIES**

10.1 Reduction of Water Service

York acknowledges and agrees that in the event that York exceeds the maximum day volume limits or the volumes referred to in clause 2.1(a) and section 2.3, Toronto may implement measures to reduce the supply of any quantity of water at any of the Delivery Points in order to ensure compliance with such provisions of the Agreement and Toronto shall not be liable for damages as a result thereof.

10.2 Waiver

Failure of any party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement, or to take advantage of any of its rights, shall not be construed as a waiver of any such provisions or the relinquishment of any such rights, which shall continue to remain in full force and effect.

**ARTICLE 11  
UNCONTROLLABLE CIRCUMSTANCES**

11.1 Uncontrollable Circumstances

Notwithstanding anything contained in this Agreement to the contrary, it is expressly understood and agreed that the obligations imposed upon Toronto may be suspended so long as and to the extent that Toronto is prevented from or delayed in performing such obligations by causes beyond the reasonable control of Toronto, provided that Toronto reasonably pursues the removal of the cause or causes preventing or hindering the performance of such obligation (hereinafter referred to as "Uncontrollable Circumstances"). This Agreement shall remain in full force and effect during any suspension of any of Toronto's obligations under any provisions of this section and for a reasonable time thereafter, provided that, after the removal of the cause or causes preventing or hindering the performance of such obligation, Toronto diligently commences or resumes the performance of such obligation.

11.2 Temporary Reductions of Supply

Without limiting the generality of section 11.1, Toronto shall not be liable for damages caused by the shut-off or reduction of the amount of Water supplied to York in cases of Uncontrollable Circumstances but Toronto shall, wherever possible, give to York reasonable notice of intention to shut off or reduce the supply of Water, and use its best efforts to minimize interruption in the delivery of Water to York during such Uncontrollable Circumstance.

**ARTICLE 12  
INDEMNITY**

12.1 Toronto Indemnity

With the exception of actions, claims, demands and debts arising from Uncontrollable Circumstances, Toronto hereby releases York and indemnifies and saves York, its officers, officials and employees, harmless from and against all actions, claims, demands and debts, including costs, for all damages or injuries, including death to any person or persons and for damage to any and all property, including property of Toronto, arising out of the construction, operation and maintenance of the Toronto System or arising out of the failure of Toronto to comply with sections 2.1 and 7.3 of this Agreement,

12.2 York Indemnity

York hereby releases Toronto and indemnifies and saves Toronto, its officers, officials and employees, harmless from and against all actions, claims, demands and debts, including costs, for all damages or injuries, including death to any person or persons and for damage to any and all property, including property of York, arising out of the construction, operation and maintenance of the York System or arising out of the failure of York to comply with sections 3.1 and 7.3 of this Agreement.

**ARTICLE 13  
TERM**

13.1 Term

The term of this Agreement shall be twenty (20) years commencing from the Effective Date, provided however that York may, at its option, renew this Agreement for successive terms of twenty (20) years each, upon the same terms and conditions.

**ARTICLE 14  
COMPLIANCE WITH LAWS**

14.1 City of Toronto Act, 1997

This Agreement is subject to the provisions of the *City of Toronto Act, 1997*, the *City of Toronto Act, 1997 (No. 2)* and any other applicable laws and regulations in effect now or during the Term.



**ARTICLE 15**  
**OWSA**

15.1 Termination of the OWSA

From and after the Effective Date, the parties waive any and all rights under the OWSA, release each other from any obligations under the OWSA and shall cooperate with each other by providing any consent or executing any document necessary to give effect to the foregoing if, at any time, formal termination of the OWSA is required.

**ARTICLE 16**  
**NOTICES**

16.1 General

All notices, requests, demands and other communications under this Agreement shall be in writing by the respective Commissioner and shall only be given:

- (a) when delivered by hand (against receipt);
- (b) on the date of sending, if transmitted by facsimile and the recipient has acknowledged receipt; or
- (c) on the fifth business day after posting, if sent, during normal postal conditions, by registered or certified mail to the party for which it is intended and addressed as follows:

- (i) to York at:

The Regional Municipality of York  
P.O. Box 147  
17250 Yonge Street  
Newmarket ON L3Y 6 71

Fax: (905) 895-3031  
Attention:

- (ii) to Toronto at:

City of Toronto  
Metro Hall Office, 55 John Street  
19th Floor, Station 1180  
Toronto ON M5V 3C6

Fax: (416) 397-5001

Attention: Commissioner responsible for Works and Emergency Services

Each party may change any such address by giving five (5) calendar days prior written notice of such change to the other party in the manner prescribed above.

## **ARTICLE 17 BENEFITS**

### 17.1 Assignment

This Agreement shall not be assigned by either party without the consent of the other, which consent may be unreasonably and arbitrarily withheld, unless the assignment is to another governmental body pursuant to statutory authorization.

Toronto has caused this Agreement to be executed under seal this       day of  
1998.

**CITY OF TORONTO**

\_\_\_\_\_  
Clerk

\_\_\_\_\_  
Treasurer

York has caused this Agreement to be executed under seal this       day of       , 1998

**THE REGIONAL MUNICIPALITY OF YORK**

Authorized by Report 14(3) of  
the Transportation and Works  
Committee and adopted by  
Regional Council on July 10, 1997

\_\_\_\_\_  
Bill Fisch, Chair

\_\_\_\_\_  
Regional Clerk

\_\_\_\_\_  
Dennis Hearse, Clerk

## SCHEDULE "A"

### TORONTO TO YORK SYSTEM DELIVERY/METERING POINTS

Meter No.	Location	Flow
1	Adesso Drive	Uni-directional
2	Bathurst & Steeles	Bi-directional
3	Bayview P.S.	Uni-directional
4	Dufferin & Steeles *	Bi-directional
5	Islington & Steeles	Uni-directional
6	Keele & Steeles	Bi-directional
7	McCowan & Steeles	Bi-directional
8	Milliken P.S. District 5	Uni-directional
9	Milliken P.S. District 6S	Uni-directional
10	Thornhill P.S.	Uni-directional
11	Willowdale & Highland	Bi-directional
12	Woodbine & Steelcase	Bi-directional

\* Scheduled to be placed into service in 1998.

## SCHEDULE "B"

### TORONTO FACILITIES COST-SHARED INFRASTRUCTURE ADDITIONS REQUIRED FOR SUPPLY UNDER AGREEMENT

Item No.	Item	Length (m)	Size (mm)	Total Estimated Cost (\$M)	York's Cost Share Based on Capacity Usage	York's Estimated Cost (\$M)
<b>WATER MAINS</b>						
1	Ellesmere Avenue - Ellesmere P.S. to Neilson Road	350	1800	1.342	53.10%	0.712
2	Markham Road to Sheppard Avenue to Kennedy & McNicol Road	7500	2100	25.926	58.70%	15.225
3	Kennedy & McNicol to Bayview & Finch	8300	1650	29.170	69.50%	20.285
4	Kennedy Road to Kennedy Pumping Station	800	1200	2.285	100.00%	2.285
5	Steeles Avenue - Keele Reservoir to Dufferin Street	2100	1200	5.998	100.00%	5.998
6	Remote Control Valve Actuator for Main 136, PD-2 at Bloor St.		750	0.060	100.00%	0.060

Item No.	Item	Total Estimated Cost (\$M)	York's Cost Share Based on Capacity Usage	York's Estimated Cost (\$M)
<b>FILTRATION PLANTS</b>				
1	F.J. Horgan Filtration Plant Expansion	84.975	55.40%	47.098
<b>PUMPING STATIONS</b>				
1	Ellesmere (PD-4) Upgrade 4 Pumps & Add 2 Pumps	2.000	100.00%	2.000
2	Milliken (PD-5) Expand Station & Install 2 Pumps	5.489	100.00%	5.489
3	F.J. Horgan (PD-1E) Add 2 Pumps	0.800	100.00%	0.800
4	F.J. Horgan (PD-2E) Remove 2 Pumps & Install 3 Pumps	0.750	100.00%	.750
<b>RESERVOIRS</b>				
1	Dufferin Reservoir Expansion	20.665	11.90%	2.449
<b>TOTALS</b>		<b>\$179.460</b>	<b>57.5%</b>	<b>\$103.151</b>



**SCHEDULE "C"**  
**PROJECTED AVERAGE AND MAXIMUM DAY VOLUME FLOWS THROUGH METERING POINTS**  
(1998 - 2004)

Meter No.	Location	Scenario	1998 (ML/D)	1999 (ML/D)	2000 (ML/D)	2001 (ML/D)	2002 (ML/D)	2003 (ML/D)	2004 (ML/D)
1	Adesso Drive	Ave. Day	11.1	11.9	12.7	13.5	14.3	15.1	15.8
		Max. Day	20.7	21.4	22.0	22.5	22.9	23.2	23.3
2	Bathurst & Steeles	Ave. Day	2.6	(1.1)	(2.1)	(2.2)	(2.3)	(2.5)	(2.6)
		Max. Day	15.9	10.4	11.1	11.8	12.5	1.2	(11.4)
3	Bayview P.S.	Ave. Day	59.4	63.5	67.9	72.2	76.5	80.8	84.9
		Max. Day	107.4	111.2	121.5	132.2	133.8	141.3	147.2
4	Dufferin & Steeles *	Ave. Day	0.0	7.7	8.3	8.8	9.3	9.8	10.3
		Max. Day	0.0	22.4	23.9	25.4	26.9	28.4	29.9
5	Islington & Steeles	Ave. Day	11.2	11.1	11.8	12.6	13.3	14.0	14.8
		Max. Day	15.5	15.5	15.3	15.0	14.6	14.0	13.2
6	Keele & Steeles	Ave. Day	28.1	30.2	32.2	34.2	36.3	38.3	40.3
		Max. Day	47.4	51.7	56.2	60.8	65.5	70.3	73.9
7	McCowan & Steeles	Ave. Day	23.0	24.7	26.3	28.0	29.7	31.3	32.9
		Max. Day	33.2	33.7	34.0	34.0	33.8	33.3	35.0
8	Milliken P.S. District 5	Ave. Day	8.7	9.4	10.0	10.6	11.2	11.9	12.5
		Max. Day	19.6	21.0	22.4	23.9	25.4	50.4	77.7
9	Milliken P.S. District 6S	Ave. Day	11.0	11.8	12.6	13.4	14.2	15.0	15.8
		Max. Day	18.6	20.1	21.5	23.0	24.5	26.0	27.4
10	Thornhill P.S.	Ave. Day	17.6	18.8	20.1	21.4	22.6	23.9	25.1
		Max. Day	13.1	14.0	15.0	15.9	26.3	37.8	50.2
11	Willowdale & Highland	Ave. Day	(6.7)	(9.1)	(9.7)	(10.4)	(11.0)	(11.6)	(12.2)
		Max. Day	(1.3)	(7.9)	(8.5)	(9.0)	(9.6)	(19.9)	(31.3)
12	Woodbine & Steeplecase	Ave. Day	15.0	16.1	17.1	18.2	19.3	20.4	21.4
		Max. Day	17.6	16.6	17.7	18.8	19.9	13.0	5.3
<b>TOTAL ML/D</b>		Ave. Day	<b>181.0</b>	<b>194.2</b>	<b>207.3</b>	<b>220.4</b>	<b>233.5</b>	<b>246.6</b>	<b>259.1</b>
		Max. Day	<b>307.7</b>	<b>330.1</b>	<b>352.3</b>	<b>374.4</b>	<b>396.6</b>	<b>419.0</b>	<b>440.4</b>
<b>TOTAL ML/D</b>		Ave. Day	<b>39.8</b>	<b>42.7</b>	<b>45.6</b>	<b>48.5</b>	<b>51.4</b>	<b>54.2</b>	<b>57.0</b>
		Max. Day	<b>67.7</b>	<b>72.6</b>	<b>77.5</b>	<b>82.4</b>	<b>87.2</b>	<b>92.2</b>	<b>96.9</b>

\* This meter is due to be installed in 1998.

## SCHEDULE "D"

### WATER RATE

1. For the purposes of this Schedule "D" "Toronto System" means the City-wide water works system comprising facilities, infrastructure and equipment required for the production, pumping, storage and bulk transmission of water and excludes the local distribution systems within the Toronto districts.
2. The costs and consumptions used in determination of the rate for a particular year shall be actual values as of October in the prior year projected to year end.
3. The rate for Water shall be the sum of A, B, C and D below:

#### **A. OPERATING COSTS**

The total cost of operating, maintaining and repairing the Toronto system for the prior year to the year in which the water rate is to be applicable is determined. The net operating cost is determined by subtracting the following components from the total cost:

- Capital financing
- Debt repayment
- Reserve contributions
- Additional hydro costs for pumping to York, as determined in rate Component B

The operating cost component is calculated by dividing York's share of operating cost (on the basis of proportionate consumption) by York's consumption for the prior year.

#### **B. OPERATING SURCHARGE**

The additional hydro cost for pumping to York is based on the additional lift from Pressure Districts three to five (assumed as centroids of consumption for Toronto and York respectively).

The additional unit hydro cost is determined annually using developed formulae utilizing proportionate consumptions and hydro costs for the prior year.

#### **C. RETURN ON INVESTMENT**

A schedule summarizing the cumulative historical cost of Capital assets in service in the Toronto system at the end of the prior year excluding components cost-shared with York shall be provided to York on an annual basis.

The agreed upon cumulative historical cost of capital assets in service (excluding cost-shared components) as of December 31, 1997 is \$445,488,740.00.

The depreciated asset value is then calculated using a depreciation rate of 1.25% applied annually to the historical asset cost using the straight-line method.

The depreciated value of assets used to supply York is determined on the basis of proportionate consumption during the prior year.



## ***SCHEDULE "D" CONTINUED***

A return on capital investment is calculated by applying a rate of return based on a five year rolling average of Toronto's cost of capital (8% for 1997) on the depreciated value of assets used for York.

### ***D. REPLACEMENT ALLOWANCE***

A replacement allowance is calculated by applying a rate of 2 ½ % on the depreciated value of assets used for York.

## SCHEDULE "D1"

### DETERMINATION OF 1998 YORK REGION RATE

#### A. OPERATING COST

1997 Total Operating Cost = \$84,419,015

1997 Net Operating Cost (Excludes Capital Financing  
& Debt Charges) = \$60,220,275

1997 Net Operating Cost less Operating Surcharge  
(from Component B) = \$59,200,534

Proportionate Operating Cost to York = 13.01% x \$59,200,534 = \$7,701,990

Operating Cost Component =  $\frac{\$7,701,990}{66,678,189 \text{ m}^3} = \underline{\underline{11.55\text{¢/m}^3}}$

#### B. OPERATING SURCHARGE

Referring to formulae and applying 1997 costs and consumptions:

Total System Hydro Unit Cost ( $H_s$ ) =  $\frac{\$19,613,893}{512,592,970 \text{ m}^3} = \$0.0383/\text{m}^3$

Assume P = average pumping cost above lake level in  $\$/\text{m}^3/\text{m}$

and Toronto's hydro unit cost ( $H_T$ ) = 109 P

and York's hydro unit cost ( $H_Y$ ) = 155 P

$C_T = \frac{\text{Toronto Consumption}}{\text{Total System Consumption}} = \frac{445,914,781 \text{ m}^3}{512,592,970 \text{ m}^3} \text{ or } 86.99\%$

$C_Y = \frac{\text{York Consumption}}{\text{Total System Consumption}} = \frac{66,678,189 \text{ m}^3}{512,592,970 \text{ m}^3} \text{ or } 13.01\%$

$H_s = (H_T) (C_T) + (H_Y) (C_Y)$

.0383 = (109P) (.8699) + (155P) (.1301)

Solving for P,

P =  $\$.000333/\text{m}^3/\text{m}$

Additional Unit Hydro Cost =  $H_Y - H_T = 155 (.000333) - 109 (.000333) = \$.0153/\text{m}^3$

Operating Surcharge =  $\$.0153/\text{m}^3 \times 66,678,189 \text{ m}^3 = \$1,020,176$

Operating Surcharge Component =  $\underline{\underline{1.53\text{¢/m}^3}}$

## SCHEDULE "D1" CONTINUED

### C. RETURN ON INVESTMENT

Cumulative Historical Cost of Toronto System Assets in Service (Excluding Cost-shared Assets)

Assumed in 1953	\$51,300,000
1953 to 1973	\$154,200,000
1974 to December 1997	<u>\$239,988,740</u>
<b>TOTAL</b>	<b>\$445,488,740</b>

Depreciated Asset Value @ 1.25% = \$317,100,000

York/Total System Consumption 1997 = 13.01%

Net Asset use by York = 13.01% x \$317,100,000 = \$41,254,710

Return on Investment = 8.0% x \$41,254,710 = \$ 3,300,377

Return on Investment Component =  $\frac{\$3,300,377}{66,678,189 \text{ m}^3} = \underline{\underline{4.95\text{¢}/\text{m}^3}}$

### D. REPLACEMENT ALLOWANCE

Replacement Allowance = 2.5% x \$41,254,710 = \$1,031,368

Replacement Allowance Component =  $\frac{\$1,031,368}{66,678,189 \text{ m}^3} = \underline{\underline{1.55\text{¢}/\text{m}^3}}$

**TOTAL RATE = 19.58¢/m<sup>3</sup>**

1998 YORK REGION RATE = 19.5¢/m<sup>3</sup>

## SCHEDULE "D2"

### DETERMINATION OF PREMIUM WATER RATE ON EXCESS VOLUMES

1. The premium water rate shall apply to the entire volume of water supplied to York during each day in which the applicable maximum day supply limit as set out in Schedule "C" was exceeded, regardless of the magnitude of exceedance.
2. The premium water rate shall be 100% in excess of the annual Water Rate as established for the year.

**EXAMPLE:**

Maximum day limit for 1998 per Schedule C	=	308 ML/d
1998 water rate	=	19.5¢/m <sup>3</sup>
1998 premium rate	=	39.0¢/m <sup>3</sup>
If daily consumption is greater than limit, say 320 ML/d, daily billing @ 39.0¢/m <sup>3</sup>	=	\$124,800
Therefore, peaking premium for day	=	\$62,400

## **SCHEDULE "E"**

### **DISPUTE RESOLUTION**

#### **1.1 Three Tiered Dispute Resolution**

Toronto and York agree that any dispute, controversies, claims or questions or other matters arising out of or relating to this Agreement which cannot be resolved in the first instance by direct discussions between the parties, or where agreement on a major decision cannot be achieved, such matter shall be referred for dispute resolution by High Level Negotiation, Mediation and Binding Arbitration in the manner hereinafter described. For greater certainty, a matter in dispute may be referred by either party to dispute resolution under the provisions of this section by the delivery of a Notice Requesting Dispute Resolution to the other party which notice shall set out in reasonably sufficient detail the matter or matters in dispute.

#### **1.2 High Level Negotiation**

In the event that a Notice Requesting Dispute Resolution has been issued by one party to the other, then the Mayor and the Regional Chair or their designates, which designates shall be members of their respective Councils, shall meet and make a good faith effort to resolve any disputes, controversies, questions or claims arising out of or relating to this Agreement as set out in the Notice Requesting Dispute Resolution in a prompt manner and, for the purpose of same, both such persons shall be provided with full and timely disclosure of all relevant facts, information and documents to facilitate such negotiation. Such negotiations shall be commenced within ten (10) business days of the delivery of a Notice Requesting Dispute Resolution by either party and shall, unless both parties agree to the contrary, be concluded within ten (10) business days of their commencement. In the event that a resolution satisfactory to both parties is achieved through such negotiations, the parties shall issue a joint statement detailing the manner in which the matter in dispute has been resolved. Such joint statement shall be deemed to be a Determination under this Schedule.

#### **1.3 Mediation**

If the matter identified in the Notice Requesting Dispute Resolution has not been resolved through High Level Negotiation, the matter will be referred to structured negotiation with the assistance of a mediator appointed by mutual agreement of the parties (the "Mediator") within ten (10) business days of either party issuing a Notice Requesting Mediation Resolution. The Mediator shall be an independent person who by training and experience has the professional qualifications and the mediation skills to mediate any dispute that may arise between the parties under this Agreement. Unless the parties agree otherwise at the time, the Mediation shall

## **SCHEDULE "E" CONTINUED**

proceed in accordance with the Mediation Procedures set out in Schedule "E1". Any resolution of the dispute with the assistance of the Mediator shall be deemed to be a Determination under this Schedule.

### **1.4 Binding Arbitration**

- (a) After the expiry of the post-mediation period referred to in Schedule "E1", or if a Mediator cannot be agreed upon, or if the mediation is terminated by the Mediator, the Dispute shall be settled by arbitration in accordance with the provisions of Schedule "E 2".
- (b) For so long as the parties are required by legislation to arbitrate only in a manner prescribed by such legislation, then any binding arbitration provided for under this Agreement shall be conducted in accordance with such legislation, provided the parties agree that to the extent permitted thereunder, the provisions for proceeding with binding arbitration under Schedule "E2" shall be followed.
- (c) A dispute will be finally resolved by arbitration in accordance with the process for the appointment of arbitrators, and for the rules of arbitration as set out in Schedule "E2". The decision of the arbitration panel shall be deemed to be a Determination under this Schedule.

### **1.5 Determination Final and Binding**

Upon any Determination having been made under the terms of this Schedule, such Determination shall be final and binding upon the parties for all purposes save and except if such Determination is that this Agreement be terminated, in which event such Determination may be reviewed by or appealed to a court of law.

### **1.6 Performance to Continue**

Notwithstanding that a matter has been referred to dispute resolution under the provisions of this Schedule, both parties shall throughout the period of Dispute Resolution endeavour to perform their respective obligations under the terms of this Agreement to the best of their abilities.

## **SCHEDULE "E1"**

### **MEDIATION PROCEDURES**

1. **Time and Place for Mediation**

In consultation with the Mediator, Toronto and York shall promptly designate a mutually convenient time and place for the mediation (and unless circumstances require otherwise, such time to be not later than 10 calendar days after selection of the Mediator).

2. **Summary of Views**

Two business days prior to the first scheduled session of the mediation, each party shall deliver to the Mediator and to the other party, a concise written summary of its views on the facts and issues in dispute, not to exceed 5 pages.

3. **Staffing at Mediation**

In the mediation, each party may be represented by counsel. In addition, each party may bring such additional persons as needed to respond to questions, contribute information and participate in the mediation.

4. **Conduct of Mediation**

Toronto and York will attempt to resolve the Dispute with the assistance of the Mediator. To this end the Mediator is authorized to conduct both joint meetings and separate private caucuses with Toronto and York.

5. **The Mediator's Views**

Any opinions or recommendations of the Mediator shall not be binding on Toronto or York.

6. **Termination of Procedure**

Toronto and York agree to participate in the mediation for at least 4 hours (unless terminated earlier by the Mediator). After that time, either Toronto or York may leave the mediation at any time. Toronto and York agree not to take any action in relation to the Dispute (other than good faith attempts to negotiate a settlement to the Dispute) prior to the conclusion of a 10 calendar day post-mediation period that commences on the day after the conclusion of the mediation.

## **SCHEDULE "E1" CONTINUED**

### **7. Fees of Mediator; Disqualification**

The fees of the Mediator shall be shared equally by Toronto and York. The Mediator shall be disqualified as a witness, consultant, expert or counsel for either party with respect to the matters in dispute and any related matters.

### **8. Confidentiality**

The mediation shall be confidential and no stenographic, visual or audio records shall be made. All conduct, statements, promises, offers, views and opinions, whether oral or written, made in the course of the mediation by either of Toronto or York, their agents, employees, representatives or other invitees and by the Mediator (who will be the parties' joint agent for the purposes of the mediation) are confidential. Any conduct, statements, promises, offers, views and opinions shall not be discoverable or admissible for any purposes, including impeachment in any litigation or other proceeding involving Toronto or York, and shall not be disclosed to anyone not an agent, employee, expert, witness, or representative of either Toronto or York; provided, however, that evidence otherwise discoverable or admissible is not excluded from discovery or admission as a result of its use in the mediation.



## SCHEDULE "E2"

### ARBITRATION PROCEDURES

1. All Disputes will be referred to a board of arbitration ("the Board") to be settled in accordance with the provisions of the *Arbitration Act* (Ontario) and any amendments thereto, based on the following procedure:
  - a. Subject to paragraph (b) of this Schedule, the Board will be composed of one person appointed by the party requesting a Board (the "Applicant"), one person appointed by the other party (the "Respondent") and a third person to act as chairperson chosen by the other two members of the Board, or, if both parties agree, the Board will consist of a sole arbitrator.
  - b. The Applicant shall deliver to the Respondent written notice of its intent to refer the Dispute to the Board within twenty calendar days after any of the events described in subsection 1.4 (a) of Schedule "E" and shall at the same time name its appointee to the Board. The Respondent shall within fifteen business days of receipt of such notice advise the Applicant, in writing, of the name of its appointee to the Board. If the Respondent fails to notify the Applicant of its appointee, the Respondent shall be deemed to have concurred in the appointment of the arbitrator appointed by the Applicant, and such arbitrator shall constitute the Board.
  - c. If the Respondent appoints an arbitrator pursuant to paragraph (b) of this Schedule, then, within five business days of the appointment of such additional arbitrator, the two appointed arbitrators shall agree on the appointment of an additional arbitrator to act as chairperson (the "Chairperson"). If the appointed arbitrators cannot agree on the additional arbitrator, the Applicant or Respondent may apply to the Ontario Court General Division to appoint an impartial third member to act as Chairperson or promptly take such other action to appoint a Chairperson as the parties may agree.
  - d. No person may be appointed as an arbitrator unless he or she is independent of the Applicant and Respondent, is skilled in the subject matter of the Dispute and is not directly or indirectly carrying on or involved in a business being carried on in competition with the business of the parties.
  - e. The Board shall allow such discovery as is appropriate, consistent with the purposes of arbitration in accomplishing fair, speedy and cost effective resolution of disputes.
  - f. The decision of the Board shall be made by a majority vote or by the sole arbitrator, as the case may be. In the event of the failure of the Board to reach a majority decision, the decision of the Chairperson shall constitute the decision of the Board.
  - g. The decision of the Board with respect to the Dispute shall be made in writing within

## **SCHEDULE "E2" CONTINUED**

the sixty (60) days following the appointment of the last member to the Board, shall be final and binding on the parties, not subject to any appeal, and shall deal with the question of costs of arbitration and all related matters, including interest.

- h. The arbitration shall take place in Toronto, Ontario.
2. The time limits referred to in this Schedule may be extended or modified by mutual agreement of the parties' respective Commissioners.

Refer to:

Tel: (416) 392-8200  
Fax: (416) 392-4540

Date: June 3, 1998  
To: Works and Utilities Committee  
From: Michael G. Thorne  
Interim Functional Lead, Water & Wastewater Operations  
Subject: Region of York Long-Term Water Supply Strategy

2a.

Purpose:

To provide information with regards to the Region of York's long-term water supply strategy and further opportunities for partnership with the City of Toronto.

Recommendation:

That this report be received for information.

Funding Sources, Financial Implications and Impact Statement

There are no funding implications resulting from this report.

Council Reference/Background/History:

At the meeting of March 25, 1998, the Works and Utilities Committee had before it a memo (deputation Item 22) dated March 2, 1998, from Councillor Jack Layton with respect to the Region of York's Long-Term Water Supply Project, Lake Ontario Water Supply via Durham West. The memo referred to an attached package from Consumers Utilities containing information in regards to the Environmental Assessment (EA) process for the aforementioned project, advising that an opportunity for partnership between the Region of York and City of Toronto could be missed and that York's need for water could be met through water efficiency projects in the City of Toronto and suggesting the Committee may wish to address conservation issues in regards to the drafting of the terms of reference for York Region's EA before the next round of public information centres planned for September of this year.

The Committee also had before it a communication (deputation Item 22a dated March 25, 1998) from Ms. Karey Shinn, Chair, Public Committee for Safe Sewage Treatment in Toronto, requesting that this matter be a deputation item at the next Works and Utilities Committee meeting.

In summary, the following issues were raised in the aforementioned communications:

- (1) The opportunities for partnership between Toronto and Region of York regarding water supply are not addressed in an EA that the Region is currently undertaking.
- (2) York Region's need for water could be met through water efficiency projects in Toronto.
- (3) Works & Utility Committee may wish to address conservation issues in regards to the EA.
- (4) A request that the Commissioner present the water supply request from York Region and any new terms of reference.
- (5) Concerns that additional water supply to York Region will threaten the integrity of the Toronto tax base.

The Committee referred these communications to the Commissioner of Works and Emergency Services for a report thereon to the Committee.

Comments and/or Discussion and/or Justification:

The City of Toronto has been providing water to the Region of York since 1975. The provision of water to the Region of York has mutual benefits. This partnership has enabled the development of an integrated system with multiple production and distribution facilities providing enhanced security of supply to over 2.8 million residents. With the principle of cost-share based on proportional use, this is achieved fairly and in the most cost effective way possible.

The former Council of Metropolitan Toronto at its meeting of July 2 and 3, 1997, adopted Clause No. 3 of Report No. 9 of the Environment and Public Space Committee headed "Agreement for Additional Water Supply to the Region of York". The report dealt with the process for developing a new water supply agreement with the Region of York, given that the limit of 30 Million Imperial Gallons per day (MIGD) average day supply under the previous agreement has been exceeded since 1988. Council was advised that staff had reached an agreement on a supply limit of 57 MIGD with additional infrastructure requirements as identified in a joint water supply study undertaken by the consulting engineering firm of Fenco-MacLaren Inc. These infrastructure requirements were based on meeting City of Toronto projected water demands to the year 2011, less a 13 per cent. reduction as a result of water efficiency, and providing 57 MIGD average day demand to the Region of York. The cost of additional infrastructure will be shared between Toronto and the Region of York, based on proportional use. A report requesting authorization to execute a new agreement is included in the agenda of this Works and Utilities Committee meeting.

At its meeting of September 24 and 25, 1997, the former Metropolitan Council received for information Clause No. 28 (1) of Report No. 12 from the Environment and Public Space Committee regarding the York Region Long-Term Water Project Master Plan. This report provided information

on the Region's Master Plan process. The plan identified water demands incorporating water efficiency within the Region of York for the years of 2001, 2011, 2021 and 2031. Alternative water supply sources to meet these demands were assessed, including use of ground water and supply from Lake Simcoe, Georgian Bay and Lake Ontario. The preferred solution involved four components: expansion of supply from Toronto to 57 MIGD, implementation of a regional water efficiency program, additional supply from Lake Simcoe and additional supply from Lake Ontario via a Durham west route.

Staff from the former Metro Works, Planning, Legal and Finance Departments reviewed the Master Plan document and provided comments to the Region of York in a letter dated September 23, 1997. Key issues identified include:

- (a) Toronto's ability to provide water beyond the planned 57 MIGD which appears to be the most effective and low cost option should be evaluated in detail;
- (b) The estimated demand reduction resulting from water efficiency measures appears to be modest; and
- (c) An integrated Greater Toronto Area (GTA) wide service coordination strategy should be considered in more detail.

The Region of York responded in a letter dated December 18, 1997, providing the following information:

- (i) The Region is eager to explore the viability and effectiveness of additional supply from Toronto.
- (ii) The demand reductions due to water efficiency are considered reasonable, based on their analysis.
- (iii) The Region has fully supported the principle of optimization of water infrastructure on a GTA-wide basis.

The Region of York has recently initiated an environmental assessment (EA) for their Long-Term Water Supply Project - Lake Ontario Water Supply via Durham West. This represents the preferred long-term alternative for supply of additional water to the Region. Toronto staff are monitoring this EA and will provide comments with regards to the draft terms of reference prior to the September public information session. These comments will address source of supply, water efficiency, and any other appropriate issues. Further, the EA process allows for agency input following public input. This agency input will take place after September and would allow Toronto to provide additional input into the Terms of Reference for the EA if required.

Both the City of Toronto and Region of York have incorporated water efficiency programs into their respective water supply strategies. At its meeting of August 14, 1996, the former Council of Metropolitan Toronto approved Clause No. 14 of Report No. 13 of the Environment and Public Space Committee. This report headed, "Engineering Studies - Water Efficiency Plan", authorized the expenditure of funds to engage a consultant to develop a water efficiency plan. REIC Consultants has since been engaged to complete this plan. The goal of this plan is to develop a City of Toronto wide water efficiency plan containing a set of acceptable water efficiency measures and an implementation plan that will enable reduction in water use in the most cost efficient way. The target is to reduce Toronto's overall projected average day water demand by a least 15 per cent. by the year 2011. Work on the study is ongoing and has included input from each of the former cities within the new City of Toronto and members of the public through a Public Advisory Committee. Results to date indicate a 15 per cent. reduction is achievable, subject to completion of the cost benefit analysis. The study is expected to be complete by October, 1998.

On May 7, 1998, the Region of York Council approved a report recommending that staff proceed with implementation of a Water Efficiency Program. The report indicates an anticipated reduction in water demand of about 4 MIGD, representing eight per cent. of the 1995 average day demand.

With regards to assessing the ability for Toronto to meet the Region of York's requirements through the use of water efficiency projects within the City of Toronto, it should be noted that demand reductions due to water efficiency have been considered in all recent infrastructure planning. In the 1995 Water Supply Joint Study, the supply to Toronto was based on projected population and employment growth and allowed for a reduction of 13 per cent. in demand due to water efficiency. Recent census information indicates population growth is on target but employment population is below target. A preliminary assessment of 2011 demands considering reduced employment growth and 15 per cent. demand reduction due to water efficiency indicates that expansion of the water supply system will still be required to meet 2011 demands within Toronto and 57 MIGD to York. The analysis also suggests that additional supply could be provided to York, however, the exact volumes and costs would need to be determined.

Given the reductions in Toronto's employment projections and York's reduction in long-term (2031) demand projections, staff from the Region and City of Toronto are developing the terms of reference for a Joint Optimization Study that would identify infrastructure requirements to meet long-term needs for the City of Toronto and York. This study continues the ongoing partnership between Toronto and York with respect to water supply.

The main objectives of the study include:

- (1) A high level assessment of GTA wide services and identification of opportunities to meet growth and security needs.

- (2) Determination of projected water demands within City of Toronto for the year 2011 and 2031 and incorporating existing water demand projections for York Region to the same planning horizons.
- (3) To identify and incorporate the effects of ongoing water efficiency programs in Toronto and York Region.
- (4) Determination of optimal infrastructure required to meet the above demands. This includes assessment of options for additional supply to York including the Durham west route and additional supply from Toronto.

Following completion of the Terms of Reference, an engineering consultant will be selected and engaged to carry out the work. The cost of this comprehensive study will be equally shared between Toronto and York Region. At its meeting of February 4, 5 and 6, 1998, City of Toronto Council adopted Clause No. 12 of Report No. 2 of the Strategic Policies and Priorities Committee authorizing Capital funding for the City of Toronto's share of the Joint Optimization Study.

Concerns in regards to the integrity of Toronto's tax base as a result of providing additional water supply to York were identified in Deputation Item 22a. Issues raised include the anticipated ability for Toronto to provide additional supply to York at a lower cost than any of the alternatives, the rate of growth in York, and associated sprawl and having the tax base migrate from Toronto to the 905 area. Given Toronto's long-standing partnership with York Region with respect to water supply, we should consider any requests from York for additional supply. York Region pays their share of all Capital and Operating costs for water they receive from Toronto and there are mutual benefits that support the development of cost-shared infrastructure. Issues with regards to urban sprawl would be best addressed through the planning process.

York Region clearly would prefer to obtain its short-term water supply from Toronto and is willing to consider its long-term supply from Toronto. Based on analysis to date, there appears to be mutual benefits for York's long-term supply to be provided through the Toronto system. The planning processes being used will identify the best alternative from both an environmental and cost perspective.

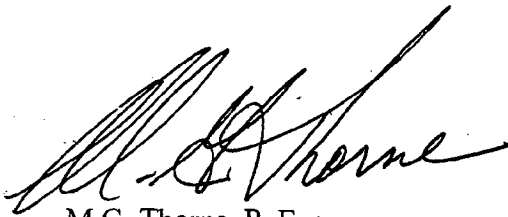
Conclusion:

To mutual benefit since 1975, Toronto has been providing water to York Region, and a new agreement has been developed to meet York's short-term needs to 2004. Additional infrastructure is required to meet Water Supply demands as a result of planned growth while incorporating water efficiency measures within the City of Toronto and York Region. In partnership with the Region


of York, a Joint Optimization Study will be undertaken to establish the most effective manner of meeting York Region's long-term water demands. Toronto staff will be providing input during the EA process for York's Durham West long-term supply alternative.

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