



# Table of Contents

Executive Summary.....	i
Table of Contents.....	iv
<b>1.0 Developing a Water Efficiency Plan.....</b>	<b>1</b>
1.1 Background.....	1
1.2 Our Water Efficiency Goal, Objective and Targets.....	3
1.3 Water Efficiency Planning.....	3
<b>2.0 The Water System.....</b>	<b>4</b>
2.1 Demand Components.....	4
2.1.1 Annual Average Day Demands.....	4
2.1.2 Peak Day Demands and Peaking Factor.....	5
2.1.3 Wastewater Flows.....	5
2.2 Service Connections.....	5
2.3 Per Capita Demands.....	7
<b>3.0 Forecasting Water Demand.....</b>	<b>8</b>
3.1 Forecasting Methodology.....	8
3.2 Factors Affecting Water Demands.....	8
<b>4.0 Water Efficiency Measures.....</b>	<b>11</b>
4.1 Selection of Measures.....	11
4.2 Screening Process.....	11
4.3 Short-listed Water Efficiency Measures.....	12
4.4 Short-listed Measures by Category.....	12
<b>5.0 Analysis of Water Savings and Costs.....</b>	<b>14</b>
5.1 Maximum Water Savings.....	15
5.2 Target Water Savings.....	16
5.3 Cost Analysis.....	17
5.4 Equivalent Cost of Supply.....	18
5.5 Benefit to Cost Ratio.....	19
<b>6.0 Implementation and Monitoring.....</b>	<b>21</b>
6.1 Implementation Schedule.....	21
6.2 Long-term Implementation.....	22
6.3 Short-term Implementation.....	22
6.4 Emergency Implementation.....	23
6.5 Additional Costs.....	23
6.5.1 Public Education and Promotion.....	23
6.5.2 Pilot Program Monitoring.....	24
6.5.3 Toilet Disposal.....	24
6.5.4 Toilet Inspection.....	24
6.5.5 New Technologies.....	24
6.6 Staffing.....	24
6.7 Program Monitoring and Tracking.....	26

6.7.1	Water Billing Analysis.....	26
6.7.2	Data Logging.....	26
6.7.3	District Meter Areas.....	26
6.7.4	Public Surveys.....	27
<b>7.0</b>	<b>Summary and Recommendations.....</b>	<b>28</b>
7.1	Meeting our Objectives.....	28
7.2	Meeting our Targets.....	28
7.3	Other Benefits.....	29
7.4	Final Recommendations.....	30
<b>8.0</b>	<b>Conclusions.....</b>	<b>31</b>
	<b>Glossary.....</b>	<b>32</b>
	<b>Bibliography.....</b>	<b>33</b>
	<b>Appendix A</b>	
	Facts and Figures.....	34
	<b>Appendix B</b>	
	Program Descriptions.....	38
	<b>Appendix C</b>	
	Current Water Efficiency Activities.....	73
	<b>Appendix D</b>	
	Factors Affecting Water Demands.....	76
	<b>Appendix E</b>	
	List of 70 Water Efficiency Measures.....	78
	<b>Appendix F</b>	
	List of 21 Water Efficiency Measures.....	81
	<b>Appendix G</b>	
	Peer Review, Public Survey, and Public Consultation Activities.....	82
	<b>Appendix H</b>	
	Best Management Practices.....	84
	<b>Appendix I</b>	
	Measures Not for Consideration at this Time.....	85
	<b>List of Tables</b>	
Table 1.1	Projected Demands with and without OBC.....	1
Table 1.2	Volume Target Reductions.....	2
Table 2.1	Peaking Factors.....	5
Table 2.2	Residential Per Capita Demand.....	7
Table 4.1	Measures by Category.....	13
Table 5.1	Maximum Water Savings.....	15
Table 5.2	Target Water Savings.....	16

Table 5.3	Equivalent Cost of Supply.....	18
Table 5.4	Cost of WEP vs. Equivalent Cost of Supply.....	19
Table 6.1	Implementation Schedule.....	22
Table 6.2	Staffing Requirements.....	25
Table 7.1	WEP Targets vs. Total Water Savings.....	28
Table B.1	Detailed Implementation Schedule.....	68
Table B.2i	Yearly Program Monitoring and Tracking - Municipal.....	69
Table B.2ii	Yearly Program Monitoring and Tracking - Single-Family Residential.....	70
Table B.2iii	Yearly Program Monitoring and Tracking - Multi-Unit Residential.....	71
Table B.2iv	Yearly Program Monitoring and Tracking - Industrial, Commercial & Institutional.....	72

### List of Figures

Figure 1.1	Peak Day Demand and Supply Capability.....	2
Figure 2.1	2001 Water Consumption for Toronto and York Region.....	4
Figure 2.2	Number of Water Accounts by Sector.....	6
Figure 2.3	Water Demand by Sector.....	6
Figure 3.1	Annual Average Day Demands for Toronto.....	9
Figure 3.2	Peak Day Demands for Toronto (1997 to 2002).....	10
Figure 5.1	Peak Day Demands and Supply Capability.....	17