Appendix D
Water Demand Unit Rates

Table D.1-1

Water Service Assessment
Area Municipality: **Aurora**
Service Area: **all**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	35,495	4,505,581	12,344	0.348		
1997	37,940	4,841,087	13,263	0.350	21,834	1.65
1998	39,649	5,137,018	14,074	0.355	25,297	1.80
1999	40,664	5,400,929	14,797	0.364	24,084	1.63
2001	42,381	5,064,668	13,876	0.327	21,095	1.52

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.349	1.65

Table D.1-2

Water Service Assessment
Area Municipality: **Markham**
Service Area: **all**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	175,577	27,855,344				
1997	180,850	24,626,095	67,469	0.373	111,409	1.65
1998	186,281	27,600,756	75,619	0.406	116,580	1.54
1999	194,591	28,030,073	76,795	0.395	129,372	1.68
2001	214,315	30,133,257	82,557	0.385	128,720	1.56

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.390	1.61

Table D.1-3

Water Service Assessment
Area Municipality: **Newmarket**
Service Area: **all**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	58,547	7,202,792	19,734	0.337		
1997	61,200	7,655,158	20,973	0.343	26,704	1.27
1998	64,212	8,088,729	22,161	0.345	32,259	1.46
1999	65,963	8,311,010	22,770	0.345	34,369	1.51
2001	70,514	8,494,013	23,271	0.330	30,342	1.30

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.340	1.39

Table D.1-4

Water Service Assessment
Area Municipality: **Richmond Hill**
Service Area: **all**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	104,039	15,849,365				
1997	106,334	16,121,515	44,169	0.415	72,934	1.65
1998	114,146	17,421,376	47,730	0.418	73,585	1.54
1999	121,515	18,840,469	51,618	0.425	86,958	1.68
2001	138,838	19,317,080	52,924	0.381	82,517	1.56

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.410	1.61

Table D.1-5

Water Service Assessment
Area Municipality: **Vaughan**
Service Area: **all**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	132,426	24,005,572				
1997	140,060	26,910,547	73,728	0.526	121,744	1.65
1998	149,647	28,622,825	78,419	0.524	120,897	1.54
1999	160,770	35,563,806	97,435	0.606	164,144	1.68
2001	188,626	34,890,392	95,590	0.507	149,041	1.56

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.541	1.61

Table D.2-1

Water Service Assessment
Area Municipality: **Georgina**
Service Area: **Keswick**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	18,714	2,005,380	5,494	0.294		
1997	18,963	2,036,390	5,579	0.294	12,710	2.28
1998	19,276	1,915,164	5,247	0.272	10,242	1.95
1999	19,967	2,030,212	5,562	0.279	11,186	2.01
2001	21,323	2,254,657	6,177	0.290	11,457	1.85

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.286	2.02

Table D.2-2

Water Service Assessment
Area Municipality: **Georgina**
Service Area: **Sutton**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	6,595	651,063	1,784	0.270		
1997	6,651	640,262	1,754	0.264	3,227	1.84
1998	6,634	640,410	1,755	0.264	3,297	1.88
1999	6,606	665,525	1,823	0.276	2,904	1.59
2001	6,647	636,177	1,743	0.262	2,969	1.70

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.267	1.75

Table D.3-1

Water Service Assessment
Area Municipality: **Whitchurch-Stouffville**
Service Area: **Ballantrae**

Historic Flow Data

Year	Estimated Service Population	Total Metered m^3/yr	Average Demand m^3/d	Average day $m^3/c/d$	Max Day m^3/d	Max Day Peak Factor
1996	2,877					
1997	2,893	78,910	216	0.075	703	3.25
1998	3,031	159,016	436	0.144	1,427	3.28
1999	3,123	200,614	550	0.176	1,214	2.21
2001	4,451	272,113	746	0.167	1,947	2.61

Average Unit Rates

Ave day unit rate $m^3/c/d$	Max Day Peak Factor
0.140	2.84

Table D.3-2

Water Service Assessment
Area Municipality: **King**
Service Area: **King City**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	4,788	580,420	1,590	0.332		
1997	4,821	624,182	1,710	0.355	3,664	2.14
1998	4,848	623,281	1,708	0.352	4,138	2.42
1999	4,826	659,090	1,806	0.374	3,985	2.21
2001	4,887	562,181	1,540	0.315	3,007	1.95

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.346	2.18

Table D.3-3

Water Service Assessment
Area Municipality: **King**
Service Area: **Kleinburg**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	2,236	264,248	724	0.324		
1997	2,354	288,791	791	0.336	1,553	1.96
1998	2,479	307,400	842	0.340	2,042	2.42
1999	2,493	352,315	965	0.387	2,068	2.14
2001	2,950	399,302	1,094	0.371	2,519	2.30

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.351	2.21

Table D.3-4

Water Service Assessment
Area Municipality: **East Gwillimbury**
Service Area: **Mount Albert**

Historic Flow Data

Year	Estimated Service Population	Total Metered m^3/yr	Average Demand m^3/d	Average day $m^3/c/d$	Max Day m^3/d	Max Day Peak Factor
1996	2,166	238,091	652	0.301	1,139	1.75
1997	2,189	265,227	727	0.332	1,338	1.84
1998	2,504	294,040	806	0.322	1,493	1.85
1999	2,555	298,760	819	0.320	1,695	2.07
2001	2,807	304,174	833	0.297	2,270	2.72

Average Unit Rates

Ave day unit rate $m^3/c/d$	Max Day Peak Factor
0.314	2.05

Table D.3-5

Water Service Assessment
Area Municipality: **King**
Service Area: **Nobleton**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	3,240	348,638	955	0.295		
1997	3,296	360,928	989	0.300	2,164	2.19
1998	3,337	387,288	1,061	0.318	2,330	2.20
1999	3,435	427,604	1,172	0.341	2,629	2.24
2001	3,529	386,733	1,060	0.300	2,674	2.52

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.311	2.29

Table D.3-6

Water Service Assessment
Area Municipality: **King**
Service Area: **Schomberg**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	1,648	129,080	354	0.215		
1997	1,659	140,629	385	0.232	978	2.54
1998	1,668	166,290	456	0.273	713	1.57
1999	1,774	162,014	444	0.250	793	1.79
2001	1,974	176,608	484	0.245	808	1.67

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.243	1.89

Table D.3-7

Water Service Assessment
Area Municipality: **Whitchurch-Stouffville**
Service Area: **Stouffville**

Historic Flow Data

Year	Estimated Service Population	Total Metered m³/yr	Average Demand m³/d	Average day m³/c/d	Max Day m³/d	Max Day Peak Factor
1996	10,297	1,346,305	3,689	0.358		
1997	10,648	1,377,331	3,774	0.354	5,988	1.59
1998	11,097	1,519,566	4,163	0.375	6,987	1.68
1999	11,327	1,556,921	4,266	0.377	6,640	1.56
2001	11,574	1,505,266	4,124	0.356	6,785	1.65

Average Unit Rates

Ave day unit rate m³/c/d	Max Day Peak Factor
0.364	1.62