

Appendix Table A 2003 Water Demand by Crop with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Apple	0.2	1,427	779	-	-	-	5.6	32,767	590	5.7	34,194	596
Berry	-	-	-	-	-	-	9.3	48,870	526	9.3	48,870	526
Blueberry	1.5	7,222	467	-	-	-	59.6	242,556	407	61.1	249,778	409
Cranberry	-	-	-	-	-	-	20.2	300,423	1,490	20.2	300,423	1,490
Forage	462.2	3,019,008	653	-	-	-	242.3	1,753,321	724	704.4	4,772,329	677
Golf	16.1	131,788	817	-	-	-	37.5	298,572	795	53.7	430,360	802
Grape	-	-	-	-	-	-	4.8	10,571	222	4.8	10,571	222
Greenhouse	0.7	13,071	1,801	-	-	-	11.3	207,336	1,842	12.0	220,407	1,839
Nursery Floriculture	-	-	-	-	-	-	0.2	646	342	0.2	646	342
Nursery Shrubs/Trees	0.6	3,682	298	-	-	-	16.9	64,601	286	17.5	68,283	287
Pasture/Grass	11.7	82,788	705	-	-	-	7.5	50,531	675	19.2	133,319	693
Raspberry	0.2	1,127	579	-	-	-	7.7	37,043	478	7.9	38,170	481
Recreational Turf	-	-	-	-	-	-	6.8	47,479	698	6.8	47,479	698
Strawberry	-	-	-	-	-	-	3.3	13,918	422	3.3	13,918	422
Sweetcorn	-	-	-	-	-	-	29.0	113,340	391	29.0	113,340	391
Turf Farm	20.9	178,124	853	-	-	-	3.9	30,959	795	24.8	209,083	844
Vegetable	5.9	37,821	636	-	-	-	32.6	188,254	578	38.5	226,075	587
TOTALS	520.2	3,476,058	668	-	-	-	498.3	3,441,185	691	1,018.4	6,917,243	679

Appendix Table B 1997 Water Demand by Crop with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Apple	0.2	592	323	-	-	-	5.6	13,396	241	5.7	13,988	244
Berry	-	-	-	-	-	-	9.3	17,272	186	9.3	17,272	186
Blueberry	1.5	2,595	168	-	-	-	59.6	66,296	111	61.1	68,891	113
Cranberry	-	-	-	-	-	-	20.2	125,027	620	20.2	125,027	620
Forage	462.2	1,295,008	280	-	-	-	242.3	763,317	315	704.4	2,058,325	292
Golf	16.1	73,917	458	-	-	-	37.5	152,932	407	53.7	226,849	423
Grape	-	-	-	-	-	-	4.8	2,355	49	4.8	2,355	49
Greenhouse	0.7	12,260	1,690	-	-	-	11.3	192,960	1,714	12.0	205,221	1,712
Nursery Floriculture	-	-	-	-	-	-	0.2	288	152	0.2	288	152
Nursery Shrubs/Trees	0.6	1,827	116	-	-	-	16.9	28,312	99	17.5	30,139	100
Pasture/Grass	11.7	36,934	315	-	-	-	7.5	24,137	322	19.2	61,070	318
Raspberry	0.2	364	187	-	-	-	7.7	8,979	116	7.9	9,343	118
Recreational Turf	-	-	-	-	-	-	6.8	25,640	377	6.8	25,640	377
Strawberry	-	-	-	-	-	-	3.3	5,717	173	3.3	5,717	173
Sweetcorn	-	-	-	-	-	-	29.0	34,061	118	29.0	34,061	118
Turf Farm	20.9	92,139	441	-	-	-	3.9	15,574	400	24.8	107,713	435
Vegetable	5.9	20,626	347	-	-	-	32.6	94,401	290	38.5	115,027	298
TOTALS	520.2	1,536,262	295	-	-	-	498.3	1,570,664	315	1,018.4	3,106,927	305

Appendix Table C 2003 Water Demand by Irrigation System with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Drip	1.8	7,850	432	-	-	-	80.3	304,797	380	82.1	312,647	381
Flood	-	-	-	-	-	-	20.2	300,423	1,490	20.2	300,423	1,490
Golfsprinkler	4.1	27,800	676	-	-	-	34.6	274,234	792	38.7	302,035	780
Handline	35.3	278,731	790	-	-	-	20.2	119,516	592	55.5	398,247	718
Landscapesprinkler	12.0	103,988	865	-	-	-	9.7	71,816	738	21.8	175,804	808
Microsprinkler	0.7	13,071	1,801	-	-	-	11.3	207,336	1,842	12.0	220,407	1,839
Overtreedrip	-	-	-	-	-	-	7.3	31,721	434	7.3	31,721	434
SDI	-	-	-	-	-	-	4.0	17,605	440	4.0	17,605	440
Sprinkler	407.6	2,528,947	620	-	-	-	130.9	745,651	570	538.4	3,274,598	608
Ssovertree	-	-	-	-	-	-	12.9	80,578	627	12.9	80,578	627
Ssundertree	1.8	14,558	815	-	-	-	-	-	-	1.8	14,558	815
Travgun	56.8	501,113	882	-	-	-	116.2	865,943	745	173.0	1,367,056	790
Wheelline	-	-	-	-	-	-	50.8	421,566	830	50.8	421,566	830
TOTALS	520.2	3,476,058	668	-	-	-	498.3	3,441,185	691	1,018.4	6,917,243	679

Appendix Table D 2003 Water Demand by Soil Texture with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Clayey Sand	-	-	-	-	-	-	0.3	1,142	361	0.3	1,142	361
Cultured Medium	1.1	15,830	1,490	-	-	-	14.8	233,636	1,584	15.8	249,466	1,578
Fine Sandy Loam	26.7	212,385	795	-	-	-	3.9	30,874	794	30.6	243,260	795
Loam	0.1	955	805	-	-	-	11.6	71,109	614	11.7	72,063	616
Loamy Sand	37.4	317,893	850	-	-	-	79.3	631,932	797	116.7	949,825	814
Organic	38.4	159,535	415	-	-	-	70.8	320,250	452	109.2	479,785	439
Peat	-	-	-	-	-	-	20.2	300,423	1,490	20.2	300,423	1,490
Sand	20.2	192,928	953	-	-	-	3.3	29,583	910	23.5	222,511	947
Sandy Loam	87.2	650,882	747	-	-	-	80.8	547,985	678	168.0	1,198,867	714
Sandy Loam (defaulted)	0.9	5,453	639	-	-	-	5.4	30,050	552	6.3	35,504	564
Silt Loam	308.1	1,920,197	623	-	-	-	208.0	1,244,200	598	516.2	3,164,397	613
TOTALS	520.2	3,476,058	668	-	-	-	498.3	3,441,185	691	1,018.4	6,917,243	679

Appendix Table E 2003 Water Demand by Aquifer with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Agriculture Soil Texture	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Others	1.7	8,912	519	-	-	-	60.2	337,094	560	61.9	346,006	559
Between Big & Little Qual	-	141	662	-	-	-	49.1	491,408	1,001	49.1	491,549	1,000
Cassidy	11.2	87,692	780	-	-	-	21.3	173,034	811	32.6	260,726	800
Cedar, North Holden Lake	-	-	-	-	-	-	1.2	7,480	644	1.2	7,480	644
Cedar, Yellow Point, N.O	19.6	153,752	784	-	-	-	39.8	345,878	868	59.5	499,630	840
Errington	115.7	619,958	536	-	-	-	51.4	282,038	549	167.1	901,996	540
Errington, Morison Creek	60.0	283,150	472	-	-	-	21.4	124,190	579	81.5	407,340	500
Extension (Nanaimo)	11.1	78,186	702	-	-	-	1.1	6,903	610	12.3	85,088	694
Gabriola excluding North	0.7	4,735	669	-	-	-	3.6	25,734	724	4.3	30,470	715
Gabriola Northern Area	-	-	-	-	-	-	0.5	3,716	803	0.5	3,716	803
Lantzville	17.5	106,631	681	-	-	-	10.3	65,186	637	27.8	171,817	617
Little Qualicum R. Valley	29.1	183,740	632	-	-	-	-	-	-	29.1	183,740	632
Nanaimo	1.1	5,232	487	-	-	-	5.4	22,956	422	6.5	28,188	432
Nanoose Creek	138.2	1,092,091	790	-	-	-	12.9	104,369	806	151.2	1,196,460	791
Nanoose Hill	0.5	2,775	599	-	-	-	3.0	17,301	580	3.4	20,076	583
Parksville	22.7	183,302	833	-	-	-	101.6	824,610	837	124.3	1,007,914	837
Qualicum	61.2	432,900	707	-	-	-	81.7	407,986	499	142.9	840,886	588
South Wellington	21.2	188,872	892	-	-	-	7.3	47,776	658	28.4	236,648	832
Spider Lk nr Home Lk	-	-	-	-	-	-	0.2	2,493	1,014	0.2	2,493	1,014
Thames River to Mplegaur	-	-	-	-	-	-	1.1	8,948	787	1.1	8,948	787
Upper reaches of Whisky C	-	-	-	-	-	-	0.2	1,717	934	0.2	1,717	934
Westwood Lake, Nanaimo	8.7	43,987	507	-	-	-	24.7	140,367	569	33.4	184,354	553
TOTALS	520.2	3,476,058	668	-	-	-	498.3	3,441,185	691	1,018.4	6,917,243	679

Appendix Table F 2003 Water Demand by Local Government with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Agriculture Local Government	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Lantzville	4.8	39,973	835	-	-	-	8.8	57,711	652	13.6	97,685	716
Nanaimo	506.5	3,365,962	665	-	-	-	468.4	3,229,302	689	975.0	6,595,265	676
Parksville	8.8	70,123	793	-	-	-	0.6	4,330	765	9.4	74,452	791
Qualicum Beach	-	-	-	-	-	-	20.4	149,841	734	20.4	149,841	734
TOTALS	520.2	3,476,058	668	-	-	-	498.3	3,441,185	691	1,018.4	6,917,243	679

Appendix Table G 2003 Management Comparison on Irrigation Demand and Percolation Volumes

Water Source	Surface Water				Reclaimed Water				Groundwater				Total				
Agriculture Management	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Deep Percolation (m ³)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Deep Percolation (m ³)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Deep Percolation (m ³)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Deep Percolation (m ³)	Percolation (m ³ /ha)
Poor	520.2	3,546,161	682	403,820	-	-	-	-	498.3	3,509,179	704	486,500	1,018.4	7,055,340	693	890,320	874
Avg	520.2	3,476,058	668	333,717	-	-	-	-	498.3	3,448,244	692	425,564	1,018.4	6,924,302	680	759,281	746
Good	520.2	3,405,955	655	263,614	-	-	-	-	498.3	3,387,308	680	364,629	1,018.4	6,793,263	667	628,243	617

Appendix Table H 2003 Percolation Volumes by Irrigation System with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total			
	Irrigated Area (ha)	Irrigation Demand (m ³)	Deep Percolation (m ³)	Irrigated Area (ha)	Irrigation Demand (m ³)	Deep Percolation (m ³)	Irrigated Area (ha)	Irrigation Demand (m ³)	Deep Percolation (m ³)	Irrigated Area (ha)	Irrigation Demand (m ³)	Deep Percolation (m ³)	Percolation (m ³ /ha)
Drip	1.8	7,850	809	-	-	-	80.3	304,797	24,458	82.1	312,647	25,268	308
Flood	-	-	-	-	-	-	20.2	300,423	68,456	20.2	300,423	68,456	3,389
Golfsprinkler	4.1	27,800	5,630	-	-	-	34.6	274,234	41,387	38.7	302,035	47,017	1,215
Handline	35.3	278,731	33,247	-	-	-	20.2	119,516	11,425	55.5	398,247	44,672	805
Landscapesprinkler	12.0	103,988	21,052	-	-	-	9.7	71,816	10,475	21.8	175,804	31,528	1,446
Microsprinkler	0.7	13,071	3,735	-	-	-	11.3	207,336	59,239	12.0	220,407	62,973	5,248
Overtreedrip	-	-	-	-	-	-	7.3	31,721	3,077	7.3	31,721	3,077	422
SDI	-	-	-	-	-	-	4.0	17,605	1,100	4.0	17,605	1,100	275
Sprinkler	407.6	2,528,947	214,082	-	-	-	130.9	745,651	66,622	538.4	3,274,598	280,704	521
Ssovertree	-	-	-	-	-	-	12.9	80,578	12,943	12.9	80,578	12,943	1,003
Ssundertree	1.8	14,558	1,175	-	-	-	-	-	-	1.8	14,558	1,175	653
Travgun	56.8	501,113	53,987	-	-	-	116.2	865,943	84,707	173.0	1,367,056	138,694	802
Wheelline	-	-	-	-	-	-	50.8	421,566	41,676	50.8	421,566	41,676	820
TOTALS	520.2	3,476,058	333,717	-	-	-	498.3	3,441,185	425,564	1,018.4	6,917,243	759,281	746

Appendix Table I 2003 Crop Water Demand for Improved Irrigation System Efficiency and Good Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Apple	0.2	864	472	-	-	-	5.6	26,793	483	5.7	27,657	482
Berry	-	-	-	-	-	-	9.3	34,717	374	9.3	34,717	374
Blueberry	1.5	6,964	450	-	-	-	59.6	231,016	388	61.1	237,980	389
Cranberry	-	-	-	-	-	-	20.2	107,953	535	20.2	107,953	535
Forage	462.2	2,954,296	639	-	-	-	242.3	1,719,607	710	704.4	4,673,903	664
Golf	16.1	130,744	810	-	-	-	37.5	293,451	782	53.7	424,194	790
Grape	-	-	-	-	-	-	4.8	6,551	137	4.8	6,551	137
Greenhouse	0.7	13,071	1,801	-	-	-	11.3	207,336	1,842	12.0	220,407	1,839
Nursery Floriculture	-	-	-	-	-	-	0.2	619	328	0.2	619	328
Nursery Shrubs/Trees	0.6	3,662	292	-	-	-	16.9	63,691	280	17.5	67,352	280
Pasture/Grass	11.7	81,169	691	-	-	-	7.5	49,228	657	19.2	130,396	678
Raspberry	0.2	648	333	-	-	-	7.7	25,612	331	7.9	26,260	331
Recreational Turf	-	-	-	-	-	-	6.8	46,711	687	6.8	46,711	687
Strawberry	-	-	-	-	-	-	3.3	10,412	316	3.3	10,412	316
Sweetcorn	-	-	-	-	-	-	29.0	111,366	384	29.0	111,366	384
Turf Farm	20.9	176,479	845	-	-	-	3.9	30,359	779	24.8	206,838	835
Vegetable	5.9	20,303	341	-	-	-	32.6	105,277	323	38.5	125,581	326
TOTALS	520.2	3,388,199	651	-	-	-	498.3	3,070,699	616	1,018.4	6,458,897	634

Appendix Table J 2003 Water Demand for Frost Protection, Harvesting and Other Use with Average Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Agriculture Crop Group	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Cranberry Frost Protection	-	-	-	-	-	-	20.2	2,017	10	20.2	2,017	10
Cranberry Harvesting	-	-	-	-	-	-	20.2	5,042	25	20.2	5,042	25
Greenhouse	0.7	13,071	1,801	-	-	-	11.3	207,336	1,842	12.0	220,407	1,839
Nursery Pot	0.3	2,759	819	-	-	-	3.5	26,300	753	3.8	29,059	759
TOTALS	1.1	15,830	1,490	-	-	-	55.1	240,694	437	56.1	256,525	457

Appendix Table K 2003 Water Demand by Animal Type

Animal Type	Demand (m ³)
Beef	29,090
Dairy - dry	10,330
Dairy - milking	17,560
Goats	712
Horses	13,596
Poultry - broiler	6,250
Poultry - laying	3,309
Sheep	4,126
Swine	1,382
TOTALS	86,356

Appendix Table L Climate Change Water Demand Circa 2050 for High Demand Year with Good Management Using Current Crops and Irrigation Systems

Climate Change	rcp26			rcp45			rcp85			Average		
	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
2053	1,018.4	8,344,478	819	1,018.4	5,398,171	530	1,018.4	9,075,637	891	1,018.4	7,606,095	747
2056	1,018.4	5,085,250	603	1,018.4	7,385,931	725	1,018.4	5,337,802	524	1,018.4	5,936,328	617
2059	1,018.4	4,320,083	424	1,018.4	7,843,401	770	1,018.4	8,699,672	854	1,018.4	6,954,385	683
Average	1,018.4	5,916,604	615	1,018.4	6,875,834	675	1,018.4	7,704,370	756	1,018.4	6,832,269	682

Appendix Table M Buildout Crop Water Demand for 2003 Climate Data with Good Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Agriculture Crop Group	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Apple	0.2	1,398	763	-	-	-	5.6	31,884	574	5.7	33,282	580
Berry	-	-	-	-	-	-	9.3	47,942	516	9.3	47,942	516
Blueberry	426.5	1,574,807	369	-	-	-	63.2	250,166	396	489.6	1,824,973	373
Cranberry	-	-	-	-	-	-	20.2	300,423	1,490	20.2	300,423	1,490
Forage	2,304.5	16,087,534	698	-	-	-	311.3	2,248,286	722	2,615.8	18,335,820	701
Golf	16.1	130,744	810	-	-	-	37.5	293,451	782	53.7	424,194	790
Grape	-	-	-	-	-	-	4.8	10,343	217	4.8	10,343	217
Greenhouse	0.7	13,071	1,801	-	-	-	11.3	207,336	1,842	12.0	220,407	1,839
Nursery Floriculture	-	-	-	-	-	-	0.2	619	328	0.2	619	328
Nursery Shrubs/Trees	0.6	3,662	292	-	-	-	16.9	63,691	280	17.5	67,352	280
Pasture/Grass	518.4	3,261,259	629	-	-	-	25.6	163,875	641	544.0	3,425,134	630
Raspberry	0.2	1,105	568	-	-	-	7.7	36,431	470	7.9	37,536	473
Recreational Turf	-	-	-	-	-	-	6.8	46,711	687	6.8	46,711	687
Strawberry	-	-	-	-	-	-	3.3	13,564	411	3.3	13,564	411
Sweetcorn	-	-	-	-	-	-	29.0	111,366	384	29.0	111,366	384
Turf Farm	20.9	176,479	845	-	-	-	3.9	30,359	779	24.8	206,838	835
Vegetable	250.7	785,540	313	-	-	-	34.6	190,458	550	285.4	975,998	342
TOTALS	3,538.9	22,035,599	623	-	-	-	591.1	4,046,905	685	4,129.9	26,082,504	632

Appendix Table N Buildout Crop Water Demand for Climate Change Data Circa 2050 and Good Management

Climate Change	rcp26			rcp45			rcp85			Average		
Year	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
2053	4,129.9	33,388,424	808	4,129.9	20,952,630	507	4,129.9	34,589,240	838	4,129.9	29,643,431	718
2056	4,129.9	20,986,528	570	4,129.9	28,502,084	690	4,129.9	20,866,430	505	4,129.9	23,451,681	588
2059	4,129.9	17,064,005	413	4,129.9	31,272,821	757	4,129.9	33,347,438	807	4,129.9	27,228,088	659
Average	4,129.9	23,812,986	597	4,129.9	26,909,178	651	4,129.9	29,601,036	717	4,129.9	26,774,400	655

Appendix Table O Buildout Irrigation System Demand for 2003 Climate Data and Good Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Agriculture Irrigation System	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Drip	671.5	2,324,003	346	-	-	-	85.9	318,651	371	757.4	2,642,654	349
Flood	-	-	-	-	-	-	20.2	300,423	1,490	20.2	300,423	1,490
Golfsprinkler	4.1	27,713	674	-	-	-	34.6	269,402	779	38.7	297,116	767
Handline	35.3	275,061	780	-	-	-	20.2	117,166	580	55.5	392,227	707
Landscapesprinkler	12.0	103,030	857	-	-	-	9.7	70,760	727	21.8	173,790	799
Microsprinkler	0.7	13,071	1,801	-	-	-	11.3	207,336	1,842	12.0	220,407	1,839
Overtreedrip	-	-	-	-	-	-	7.3	31,223	428	7.3	31,223	428
SDI	-	-	-	-	-	-	4.0	17,267	432	4.0	17,267	432
Sprinkler	2,756.6	18,789,707	682	-	-	-	218.0	1,372,965	630	2,974.6	20,162,672	678
Ssovertime	-	-	-	-	-	-	12.9	78,247	609	12.9	78,247	609
Ssundertree	1.8	13,992	784	-	-	-	-	-	-	1.8	13,992	784
Travgun	56.8	489,021	860	-	-	-	116.2	847,820	730	173.0	1,336,840	773
Wheelline	-	-	-	-	-	-	50.8	415,646	818	50.8	415,646	818
TOTALS	3,538.9	22,035,599	623	-	-	-	591.1	4,046,905	685	4,129.9	26,082,504	632

Appendix Table P Buildout Water Demand by Aquifer for 2003 Climate Data and Good Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Aquifer	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Others	160.1	1,003,204	627	-	-	-	84.2	517,420	615	244.3	1,520,624	623
Between Big & Little Qual	864.6	5,055,148	585	-	-	-	49.1	488,072	994	913.7	5,543,220	607
Between Big Qualicum R. &	13.4	97,291	728	-	-	-	-	-	-	13.4	97,291	728
Cassidy	301.9	1,967,140	652	-	-	-	60.3	448,667	744	362.2	2,415,807	667
Cedar, North Holden Lake	-	-	-	-	-	-	1.2	7,174	617	1.2	7,174	617
Cedar, Yellow Point, N.O	60.5	440,559	728	-	-	-	44.5	373,481	839	105.0	814,040	775
Errington	506.1	3,096,658	612	-	-	-	51.4	277,193	539	557.5	3,373,851	605
Errington, Morison Creek	313.4	1,535,279	490	-	-	-	21.4	121,439	566	334.9	1,656,718	495
Extension (Nanaimo)	38.6	258,380	669	-	-	-	1.1	6,717	594	39.8	265,096	666
Gabriola excluding North	0.7	4,536	641	-	-	-	3.6	24,867	700	4.3	29,403	690
Gabriola Northern Area	-	-	-	-	-	-	0.5	3,688	796	0.5	3,688	796
Lantzville	29.9	162,786	662	-	-	-	10.3	64,233	626	40.2	227,020	594
Little Qualicum R. Valley	74.0	506,479	685	-	-	-	-	-	-	74.0	506,479	685
Madrona Point / Parksville	84.8	683,502	806	-	-	-	-	-	-	84.8	683,502	806
Nanaimo	8.0	38,908	485	-	-	-	5.4	22,431	412	13.5	61,340	455
Nanoose Creek	301.9	2,065,529	684	-	-	-	24.0	180,824	752	325.9	2,246,354	689
Nanoose Hill	0.5	3,327	617	-	-	-	3.0	16,713	561	3.5	20,040	569
Parksville	82.3	516,019	737	-	-	-	101.6	811,140	828	184.0	1,327,159	788
Qualicum	578.2	3,802,653	658	-	-	-	81.7	396,973	486	659.9	4,199,626	636
South Wellington	67.9	543,633	801	-	-	-	21.4	135,480	633	89.3	679,113	760
Spider Lk nr Home Lk	0.1	691	670	-	-	-	0.2	2,440	992	0.3	3,131	897
Thames River to Maplegaur	-	-	-	-	-	-	1.1	8,928	786	1.1	8,928	786
Upper reaches of Whisky C	20.3	102,015	502	-	-	-	0.2	1,717	934	20.5	103,732	505
Westwood Lake, Nanaimo	31.6	151,861	481	-	-	-	24.7	137,307	557	56.3	289,168	514
TOTALS	3,538.9	22,035,599	623	-	-	-	591.1	4,046,905	685	4,129.9	26,082,504	632

Appendix Table Q Buildout Water Demand by Local Government for 2003 Climate Data and Good Management

Water Source	Surface Water			Reclaimed Water			Groundwater			Total		
Agriculture Local Government	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)	Irrigated Area (ha)	Irrigation Demand (m ³)	Avg. Req. (mm)
Lantzville	17.2	97,655	568	-	-	-	8.8	56,934	643	26.0	154,589	594
Nanaimo	3,377.0	21,078,161	624	-	-	-	561.2	3,838,987	684	3,938.2	24,917,148	633
Parksville	32.2	229,950	713	-	-	-	0.6	4,236	748	32.8	234,185	714
Qualicum Beach	112.4	629,833	560	-	-	-	20.4	146,749	719	132.9	776,582	585
TOTALS	3,538.9	22,035,599	623	-	-	-	591.1	4,046,905	685	4,129.9	26,082,504	632