

APPENDIX A: SUMMARY OF ENERGY CONSUMPTION AND GHG EMISSIONS BY FACILITY - 2011

Facility Name/Type		Address (Pembroke ON)	Total Area (m ²)	Average Hours/Week	Annual Flow (Mega Litres)	Fuel Type	Consumption		Totals			
									Energy (ekWh/yr)	GHG Emissions (kg CO ₂ e/yr)	GHG Intensity (CO ₂ e/m ²)	Energy Intensity
City Hall	Pembroke City Hall - Municipal Offices	1 Pembroke Street East	856	40		Electricity	206,555.00	kWh	206,555.00	19,837.54	23.17	241.30 ekWh/m ²
Community Buildings	Pembroke Public Library	237 Victoria Street	975	60		Electricity	149,138.00	kWh	149,138.00	14,323.21	14.69	152.96 ekWh/m ²
						Natural Gas	8,064.00	m ³	85,702.39	15,246.02	15.64	87.90 ekWh/m ²
	Victoria Hall - Senior Citizen's Drop In & Activity Centre	42 Renfrew Street	371	30		Electricity	2,172.00	kWh	2,172.00	208.60	0.56	5.85 ekWh/m ²
						Natural Gas	17,806.00	m ³	189,238.20	33,664.50	90.74	510.08 ekWh/m ²
Fire Department	Pembroke Fire Department - Fire Station and Offices	273 Victoria	622	168 (24 hr facility)		Electricity	40,529.00	kWh	40,529.00	3,892.41	6.26	65.16 ekWh/m ²
						Natural Gas	8,278.00	m ³	87,976.74	15,650.61	25.16	141.44 ekWh/m ²
	Pembroke Fire Department - Annex	224 Victoria	167	168 (24 hr facility)		Electricity	9,975.00	kWh	9,975.00	958.00	5.74	59.73 ekWh/m ²
						Oil	1,480.00	Litres	15,951.11	4,048.03	24.24	95.52 ekWh/m ²
Operations Department	Operations Department - Administration Offices	460 River Rd	492	40		Electricity	68,992.00	kWh	68,992.00	6,625.99	13.47	140.23 ekWh/m ²
						Natural Gas	4,536.00	m ³	48,207.60	8,575.88	17.43	97.98 ekWh/m ²
	Operations Department - Garage #1	470 River Rd	445	40		Electricity	37,817.00	kWh	37,817.00	3,631.94	8.16	84.98 ekWh/m ²
						Natural Gas	11,089.00	m ³	117,851.42	20,965.16	47.11	264.83 ekWh/m ²
	Operations Department - Garage #2	442 River Rd	538	40		Electricity	39,434.00	kWh	39,434.00	3,787.24	7.04	73.30 ekWh/m ²
						Natural Gas	12,601.00	m ³	133,920.62	23,823.79	44.28	248.92 ekWh/m ²
Garage WPP - Small Equipment Storage	9 Riverside Drive	66	40			Electricity	7,024.00	kWh	7,024.00	674.58	10.22	106.42 ekWh/m ²

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Crandall Street Lift Station	7 Crandall Street (behind Taco Bell)	6	168 (24 hr facility)	49.54	Electricity	4,025.00	kWh	4,025.00	386.56	64.43	79.64 ekWh/ML
Draper Street Lift Station	486 Draper Street (Temporary LS)	2	168 (24 hr facility)	143.28	Electricity	9,006.00	kWh	9,006.00	864.94	432.47	62.42 ekWh/ML
Mackay Street Lift Station	4 Nelson Street (behind City Hall)	225	168 (24 hr facility)	2,833.43	Electricity	182,974.00	kWh	182,974.00	17,572.82	78.1	64.55 ekWh/ML
Marina Lift Station	11 Albert Street (entrance to Marina)	20	168 (24 hr facility)	1.78	Electricity	204.00	kWh	204.00	19.59	3.27	73.49 ekWh/ML
Moffat Street Lift Station	689 Moffat Street	10	168 (24 hr facility)	30.50	Electricity	3,660.00	kWh	3,660.00	351.51	35.15	116.19 ekWh/ML
McGee Street Lift Station	435 Munro Street	44	168 (24 hr facility)	847.73	Electricity	55,606.00	kWh	55,606.00	5,340.40	121.37	65.52 ekWh/ML
Pembroke Place Lift Station (Supples Landing)	199 Joseph	6	168 (24 hr facility)	9.83	Electricity	2,348.00	kWh	2,348.00	225.50	37.58	216.81 ekWh/ML
Riverside Park Service Building, Beach House & Lift Station	961 Pembroke St W (in Riverside Park Campground)	6	168 (24 hr facility)	32.81	Electricity	8,463.61	kWh	8,463.61	812.85	40.64	250.33 ekWh/ML
Townline Lift Station	10 Paul Martin Dr	423	168 (24 hr facility)	1,268.27	Electricity	245,916.00	kWh	245,916.00	23,617.77	55.83	193.75 ekWh/ML
					Natural Gas	29,949.00	m ³	318,291.29	56,622.39	133.86	250.77 ekWh/ML
Water Purification Plant - Sewage Pumping Station	1 Riverside Drive	6	168 (24 hr facility)	3,389.90	Electricity	9,664.90	kWh	9,664.90	928.22	154.7	2.85 ekWh/ML
					Natural Gas	369.11	m ³	3,922.81	697.85	116.31	1.16 ekWh/ML

Operations ~ Sewage Pumping Stations

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									Energy (ekWh/yr)	GHG Emissions (kg CO ₂ e/yr)	GHG Intensity (CO ₂ e/m ²)	Energy Intensity
Parks & Facilities	Kinsmen Pool	400 Herbert Street	929	90		Electricity	231,559.00	kWh	231,559.00	22,238.93	23.94	249.26 ekWh/m2
						Natural Gas	63,718.00	m ³	677,180.69	120,466.97	129.67	728.94 ekWh/m2
	Kiwanis Field House	961 Pembroke St W (Riverside Park)	325	40		Electricity	69,455.00	kWh	69,455.00	6,670.46	20.52	213.71 ekWh/m2
	Pembroke Memorial Centre (PMC Arena)	393 Pembroke St W	4,180	94		Electricity	724,182.00	kWh	724,182.00	69,550.44	16.64	173.25 ekWh/m2
						Natural Gas	111,267.00	m ³	1,182,520.86	210,364.39	50.33	282.9 ekWh/m2
	Pembroke & Area Community Centre - PACC (Pem Ice 2)	40 Bennett Street	3,809	74		Electricity	773,644.00	kWh	773,644.00	74,300.77	19.51	203.11 ekWh/m2
						Natural Gas	31,487.00	m ³	334,636.81	59,530.17	15.63	87.85 ekWh/m2
	Riverside Park Service Building, Beach House & Lift Station (Service Building)	Riverside Park	182	168 (24 hr facility)		Electricity	77,018.88	kWh	77,018.88	7,396.89	40.64	423.18 ekWh/m2
	Riverside Park Service Building, Beach House & Lift Station (Beach House)	Riverside Park	108	168 (24 hr facility)		Electricity	45,703.51	kWh	45,703.51	4,389.37	40.64	423.18 ekWh/m2
	Rotary Park Fieldhouse	300 James Street	148	40		Electricity	7,126.00	kWh	7,126.00	684.38	4.62	48.15 ekWh/m2
Natural Gas						4,223.00	m ³	44,881.10	7,984.12	53.95	303.25 ekWh/m2	
Police Services	Pembroke Police Station	169 William Street	361	168 (24 hr facility)		Electricity	170,962.00	kWh	170,962.00	16,419.19	45.48	473.58 ekWh/m2
						Natural Gas	15,273.00	m ³	162,318.04	28,875.55	79.99	449.63 ekWh/m2
Wastewater Treatment	Pollution Control Centre	98 Rankin Street	5,869	168 (24 hr facility)	5,118.75	Electricity	1,699,254.0	kWh	1,699,254.00	163,196.35	27.81	331.97 ekWh/ML
						Natural Gas	138,940.0	m ³	1,476,623.34	262,683.72	44.76	288.47 ekWh/ML

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Water Treatment & Distribution	Water Purification Plant - Offices & Admin	1 Riverside Drive	90	168 (24 hr facility)		Electricity	144,973.48	kWh	144,973.48	13,923.25	154.7	1610.82 ekWh/m2
						Natural Gas	5,536.64	m ³	58,842.18	10,467.72	116.31	653.8 ekWh/m2
	Water Purification Plant - Water Treatment Facility	1 Riverside Drive	672	168 (24 hr facility)	3,389.90	Electricity	1,802,468.6	kWh	1,082,468.62	103,960.29	154.7	319.23 ekWh/ML
						Natural Gas	41,340.25	m ³	439,354.96	78,158.99	116.31	129.57 ekWh/ML
	Water Purification Plant - Bell Street Elevated Tower (Re-Chlorination Station)	Bell Street	14	168 (24 hr facility)	179.67	Electricity	12,440.62	kWh	12,440.62	1,194.80	85.34	68.86 ekWh/ML
	Water Purification Plant - Bell Street Elevated Tower (Monitoring Facility)	Bell Street	12	168 (24 hr facility)	179.67	Electricity	10,663.38	kWh	10,663.38	1,024.11	85.34	59.02 ekWh/ML
Water Purification Plant - Quarry Rd Reservoir (& Re-Chlorination Station)	290 Quarry Rd	139	168 (24 hr facility)	159.90	Electricity	139,471.00	kWh	139,471.00	13,394.79	96.37	866.82 ekWh/ML	
Totals	2011 Facilities					Electricity	6,992,425	kWh	11,649,845.16	1,560,229.55		
						Natural Gas	504,477	m ³				
						Oil	1,480	Litres				