

APPENDIX B: SUMMARY OF ENERGY CONSUMPTION AND GHG EMISSIONS BY FACILITY - 2012

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	236,290.00	kWh	236,290.00	22,693.29	26.51	276.04 ekWh/m ²
Community Buildings	Pembroke Public Library	237 Victoria Street	975	60		Electricity	147,303.00	kWh	147,303.00	14,146.98	14.51	151.08 ekWh/m ²
						Natural Gas	6,636.00	m ³	70,525.93	12,546.20	12.87	72.33 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	16,064.00	m ³	170,724.61	30,371.03	81.86	460.17 ekWh/m ²
Fire Department	Pembroke Fire Department - Fire Station and Offices	273 Victoria	622	168 (24 hr facility)		Electricity	61,598.00	kWh	61,598.00	5,915.87	9.51	99.03 ekWh/m ²
						Natural Gas	7,159.00	m ³	76,084.26	13,535.00	21.76	122.32 ekWh/m ²
	Pembroke Fire Department - Annex	224 Victoria	167	168 (24 hr facility)		Electricity	8,471.00	kWh	8,471.00	813.55	4.87	50.72 ekWh/m ²
						Oil	860.00	Litres	9,268.89	2,352.23	14.09	55.50 ekWh/m ²
Operations Department	Operations Department - Administration Offices	460 River Rd	492	40		Electricity	71,303.00	kWh	71,303.00	6,847.94	13.92	144.92 ekWh/m ²
						Natural Gas	4,662.00	m ³	49,546.70	8,814.10	17.91	100.70 ekWh/m ²
	Operations Department - Garage #1	470 River Rd	445	40		Electricity	46,498.00	kWh	46,498.00	4,465.67	10.04	104.49 ekWh/m ²
						Natural Gas	10,141.00	m ³	107,776.29	19,172.85	43.09	242.19 ekWh/m ²
	Operations Department - Garage #2	442 River Rd	538	40		Electricity	45,995.00	kWh	45,995.00	4,417.36	8.21	85.49 ekWh/m ²
						Natural Gas	10,614.00	m ³	112,803.23	20,067.11	37.3	209.67 ekWh/m ²
Garage WPP - Small Equipment Storage	9 Riverside Drive	66	40			Electricity	3,571.00	kWh	3,571.00	342.96	5.2	54.11 ekWh/m ²

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									Energy (ekWh/yr)	GHG Emissions (kg CO ₂ e/yr)	GHG Intensity (CO ₂ e/m ²)	Energy Intensity
Operations ~ Sewage Pumping Stations	Crandall Street Lift Station	7 Crandall Street (behind Taco Bell)	6	168 (24 hr facility)	49.10	Electricity	4,276.00	kWh	4,276.00	410.67	68.44	85.35 ekWh/ML
	Draper Street Lift Station	486 Draper Street (Temporary LS)	2	168 (24 hr facility)	8.46	Electricity	8,726.00	kWh	8,726.00	838.05	419.02	922.41 ekWh/ML
	Mackay Street Lift Station	4 Nelson Street (behind City Hall)	225	168 (24 hr facility)	2,219.19	Electricity	183,631.00	kWh	183,631.00	17,635.92	78.38	82.71 ekWh/ML
	Marina Lift Station	11 Albert Street (entrance to Marina)	20	168 (24 hr facility)	1.66	Electricity	57.00	kWh	57.00	5.47	0.91	21.44 ekWh/ML
	Moffat Street Lift Station	689 Moffat Street	10	168 (24 hr facility)	30.84	Electricity	3,181.00	kWh	3,181.00	305.50	30.55	99.91 ekWh/ML
	McGee Street Lift Station	435 Munro Street	44	168 (24 hr facility)	890.33	Electricity	56,247.00	kWh	56,247.00	5,401.96	122.77	63.10 ekWh/ML
	Pembroke Place Lift Station (Supples Landing)	199 Joseph	6	168 (24 hr facility)	9.51	Electricity	2,545.00	kWh	2,545.00	244.42	40.74	242.15 ekWh/ML
	Riverside Park Service Building, Beach House & Lift Station (Lift Station)	961 Pembroke St W (in Riverside Park Campground)	6	168 (24 hr facility)	20.31	Electricity	7,873.68	kWh	7,873.68	756.19	37.81	369.48 ekWh/ML
	Townline Lift Station	10 Paul Martin Dr	423	168 (24 hr facility)	1,072.64	Electricity	212,328.00	kWh	212,328.00	20,391.98	48.21	197.76 ekWh/ML
						Natural Gas	30,709.00	m ³	326,368.40	58,059.26	137.26	303.98 ekWh/ML
Water Purification Plant - Sewage Pumping Station	1 Riverside Drive	6	168 (24 hr facility)	3,604.42	Electricity	10,093.59	kWh	10,093.59	969.39	161.56	2.80 ekWh/ML	
					Natural Gas	375.30	m ³	3,988.57	709.55	118.26	1.11 ekWh/ML	

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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	231,720.00	kWh	231,720.00	22,254.39	23.96	249.43 ekWh/m2
						Natural Gas	63,704.00	m ³	677,031.91	120,440.50	129.65	728.77 ekWh/m2
	Kiwanis Field House	961 Pembroke St W (Riverside Park)	325	40		Electricity	63,010.00	kWh	63,010.00	6,051.48	18.62	193.88 ekWh/m2
	Pembroke Memorial Centre (PMC Arena)	393 Pembroke St W	4,180	94		Electricity	751,025.00	kWh	751,025.00	72,128.44	17.26	179.67 ekWh/m2
						Natural Gas	149,185.00	m ³	1,585,504.91	282,053.19	67.48	379.31 ekWh/m2
	Pembroke & Area Community Centre - PACC (Pem Ice 2)	40 Bennett Street	3,809	74		Electricity	712,184.00	kWh	712,184.00	68,398.15	17.96	186.97 ekWh/m2
						Natural Gas	30,706.00	m ³	326,336.52	58,053.59	15.24	85.68 ekWh/m2
	Riverside Park Service Building, Beach House & Lift Station (Service Building)	Riverside Park	182	168 (24 hr facility)		Electricity	71,650.46	kWh	71,650.46	6,881.31	37.81	393.68 ekWh/m2
	Riverside Park Service Building, Beach House & Lift Station (Beach House)	Riverside Park	108	168 (24 hr facility)		Electricity	42,517.86	kWh	42,517.86	4,083.42	37.81	393.68 ekWh/m2
	Rotary Park Fieldhouse	300 James Street	148	40		Electricity	7,718.00	kWh	7,718.00	741.24	5.01	52.15 ekWh/m2
Natural Gas						3,546.00	m ³	37,686.10	6,704.16	45.30	303.25 ekWh/m2	
Police Services	Pembroke Police Station	169 William Street	361	168 (24 hr facility)		Electricity	166,409.00	kWh	166,409.00	15,981.92	44.27	460.97 ekWh/m2
						Natural Gas	17,024.00	m ³	180,927.28	32,186.03	89.16	501.18 ekWh/m2
Wastewater Treatment	Pollution Control Centre	98 Rankin Street	5,869	168 (24 hr facility)	5,065.17	Electricity	1,684,101.0	kWh	1,684,101.00	161,741.06	27.56	332.42 ekWh/ML
						Natural Gas	133,990.00	m ³	1,424,015.84	253,325.11	43.16	281.08 ekWh/ML

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									Energy (ekWh/yr)	GHG Emissions (kg CO ₂ e/yr)	GHG Intensity (CO ₂ e/m ²)	Energy Intensity
Water Treatment & Distribution	Water Purification Plant - Offices & Admin	1 Riverside Drive	90	168 (24 hr facility)		Electricity	151,403.79	kWh	151,403.79	14,540.82	161.56	1682.26 ekWh/m2
						Natural Gas	5,629.45	m ³	59,828.57	10,643.20	118.26	664.76 ekWh/m2
	Water Purification Plant - Water Treatment Facility	1 Riverside Drive	672	168 (24 hr facility)	3,604.42	Electricity	1,130,481.6	kWh	1,130,481.62	108,571.46	161.56	313.55 ekWh/ML
						Natural Gas	42,033.25	m ³	446,720.01	79,469.20	118.26	123.90 ekWh/ML
	Water Purification Plant - Bell Street Elevated Tower (Re-Chlorination Station)	Bell Street	14	168 (24 hr facility)	185.03	Electricity	9,516.77	kWh	9,516.77	913.99	65.29	51.16 ekWh/ML
	Water Purification Plant - Bell Street Elevated Tower (Monitoring Facility)	Bell Street	12	168 (24 hr facility)	185.03	Electricity	8,157.23	kWh	8,157.23	783.42	65.29	43.85 ekWh/ML
Water Purification Plant - Quarry Rd Reservoir (& Re-Chlorination Station)	290 Quarry Rd	139	168 (24 hr facility)	176.80	Electricity	139,589.00	kWh	139,589.00	13,406.13	96.45	785.09 ekWh/ML	
Totals	2012 Facilities					Electricity	6,281,643	kWh	11,946,781.02	1,611,791.31		
						Natural Gas	532,178	m ³				
						Oil	860	Litres				