



APPENDIX E

NVCA Phosphorus Tool Analysis

Managing New Urban Development in Phosphorus-Sensitive Watersheds

Table 6. Phosphorus (P) Export for Nottawasaga River Subwatersheds Derived from CANWET™ Modeled Phosphorus Loads and Land Use Areas

Subwatershed	Hay/Pasture			High Intensity Development			Row Crop		
	Area (ha)	Total P Load (kg)	P Export (kg/ha/yr)	Area (ha)	Total P Load (kg)	P Export (kg/ha/yr)	Area (ha)	Total P Load (kg)	P Export (kg/ha/yr)
Un-calibrated Subwatersheds									
Bear Creek	1,025	74	0.072	1,032	47	0.046	3,050	525	0.172
Black (Willow) Creek	740	72	0.097	133	1	0.008	2,088	452	0.216
Coates Creek	1,055	56	0.053	176	1	0.006	4,585	690	0.150
Innisfil Creek	7,547	487	0.065	1,500	112	0.075	28,365	4,687	0.165
Marl Creek	1,279	279	0.218	145	1	0.007	4,080	1,004	0.246
Matheson	3,121	201	0.064	1,816	119	0.066	13,574	1,978	0.146
McIntyre Creek	1,837	809	0.440	637	28	0.044	8,032	6,144	0.765
Upper Nottawasaga	4,841	298	0.062	563	37	0.066	18,281	3,593	0.197
Mean	2,372	283	0.144	1,246	77	0.057	9,111	2,211	0.266
Median	1,279	201	0.072	1,266	79.5	0.056	4,585	1,004	0.172
Minimum	740	56	0.053	637	28	0.044	2,088	452	0.146
Maximum	7,547	809	0.440	1,816	119	0.075	28,365	6,144	0.765
Standard Deviation	2,416	278	0.142	518	46	0.015	9,342	2,286	0.223
Calibrated Subwatersheds									
Boyne River	2,953	271	0.092	1,508	151	0.100	14,584	3,728	0.256
Lower Nottawasaga	6,062	356	0.059	2,484	109	0.044	20,621	3,179	0.154
Mad River	3,139	213	0.068	600	10	0.017	19,044	3,504	0.184
Pine River	4,267	405	0.095	1,613	105	0.065	15,341	2,937	0.191
Mean	4,252	309	0.075	1,354	82	0.058	17,574	3,388	0.196
Median	4,267	298	0.068	1,508	105	0.065	18,281	3,504	0.191
Minimum	2,953	213	0.059	563	10	0.017	14,584	2,937	0.154
Maximum	6,062	405	0.095	2,484	151	0.100	20,621	3,728	0.256
Standard Deviation	1,280	75	0.017	800	58	0.031	2,543	323	0.037
All Subwatersheds									
Mean	3,156	277	0.115	1,306	80	0.058	12,637	2,702	0.237
Median	3,037	275	0.070	1,500	105	0.065	14,079	3,058	0.188
Minimum	740	10	0.053	563	10	0.017	2,088	452	0.146
Maximum	7,547	809	0.440	2,484	151	0.100	28,365	6,144	0.765
Standard Deviation	2,172	226	0.112	651	49	0.024	8,304	1,804	0.170

Note: Shaded cells were excluded from calculation of the summary statistics as small land use areas and reported phosphorus loads from High Intensity Development resulted in very low export coefficients that are suspect for this land use and likely due to rounding errors.

