
APPENDIX F

PHOSPHORUS BUDGET



PRE-DEVELOPMENT Phosphorus LOAD

DEVELOPMENT: 1587-Highland Gate Development - Aurora
Subwatershed: East Holland

Land Use	Area (ha)	P coeff. (kg/ha)	P Load (kg/yr)
Forest	0.87	0.10	0.09
High Intensity - Comm/Industrial	0.85	1.82	1.55
Open Water	0.27	0.26	0.07
Sod Farm / Golf Course	32.91	0.24	7.90
Transition	0.86	0.16	0.14
Wetland	4.39	0.10	0.44
TOTALS:	40.15		10.18



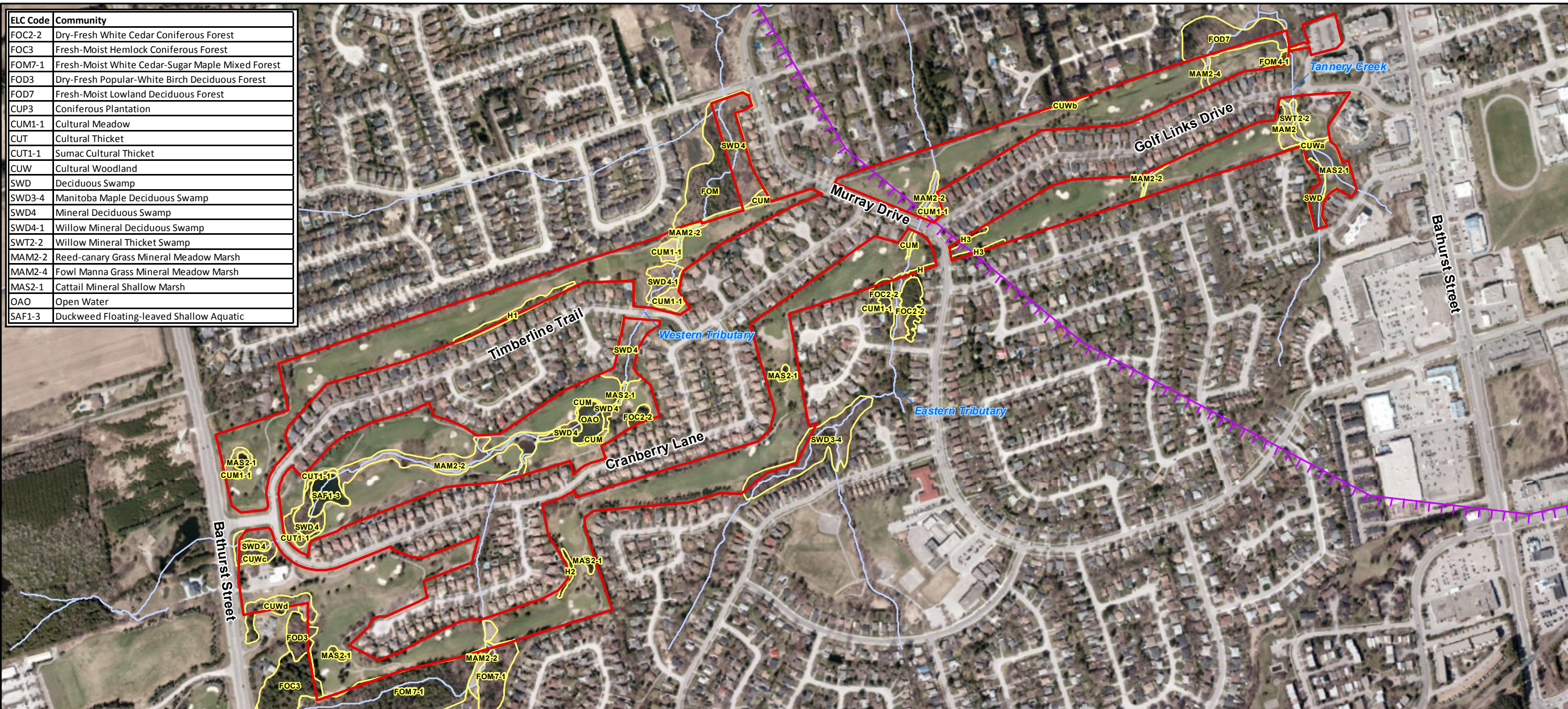
POST-DEVELOPMENT Phosphorus LOAD - BMPs applied

Subwatershed: East Holland

Land Use	Area (ha)	P coeff. (kg/ha)	Best Management Practice applied with P Removal Efficiency	BMP P Load (kg/yr)
DEVELOPMENT: 1587-Highland Gate Development - Aurora				
Forest	8.69	0.10	NONE	0.87
High Intensity - Comm/Industrial	0.34	1.82	Vegetated Filter Strips/Stream Buffers	0.22
High Intensity - Comm/Industrial	0.45	1.82	Perforated Pipe Infiltration/Exfiltration Systems	0.11
High Intensity - Residential	2.11	1.32	NONE	2.79
High Intensity - Residential	2.78	1.32	Vegetated Filter Strips/Stream Buffers	1.28
High Intensity - Residential	15.2	1.32	Perforated Pipe Infiltration/Exfiltration Systems	2.62
Low Intensity Development	0	0.13	NONE	0.00
Low Intensity Development	5.45	0.13	Vegetated Filter Strips/Stream Buffers	0.25
Low Intensity Development	0.1	0.13	Perforated Pipe Infiltration/Exfiltration Systems	0.00
Transition	0.6	0.16	NONE	0.10
Wetland	4.39	0.10	NONE	0.44

Post-Development Area Altered:	40.15		P Load (kg/yr)
Total Pre-Development Area:	40.15	Pre-Development:	10.18
Unaffected Area:	0	Post-Development Load:	30.13
		Change (Pre- Post):	-19.96
			196% Net Increase in Load
		Post-Development (with BMP):	8.66
		Change (Pre-Post):	1.52
			15% Net Reduction in Load

ELC Code	Community
FOC2-2	Dry-Fresh White Cedar Coniferous Forest
FOC3	Fresh-Moist Hemlock Coniferous Forest
FOM7-1	Fresh-Moist White Cedar-Sugar Maple Mixed Forest
FOD3	Dry-Fresh Poplar-White Birch Deciduous Forest
FOD7	Fresh-Moist Lowland Deciduous Forest
CUP3	Coniferous Plantation
CUM1-1	Cultural Meadow
CUT	Cultural Thicket
CUT1-1	Sumac Cultural Thicket
CUW	Cultural Woodland
SWD	Deciduous Swamp
SWD3-4	Manitoba Maple Deciduous Swamp
SWD4	Mineral Deciduous Swamp
SWD4-1	Willow Mineral Deciduous Swamp
SWT2-2	Willow Mineral Thicket Swamp
MAM2-2	Reed-canary Grass Mineral Meadow Marsh
MAM2-4	Fowl Manna Grass Mineral Meadow Marsh
MAS2-1	Cattail Mineral Shallow Marsh
OAO	Open Water
SAF1-3	Duckweed Floating-leaved Shallow Aquatic



Legend

- Study Area Boundary
- Oak Ridges Moraine
- ELC Communities

ELC Communities

Figure 2

Highland Gate Golf Course Redevelopment

First Base Solutions Web Mapping Service 2013

UTM Zone 17 N, NAD 83

0 75 150 300 Metres



1:7,000



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DRAFT