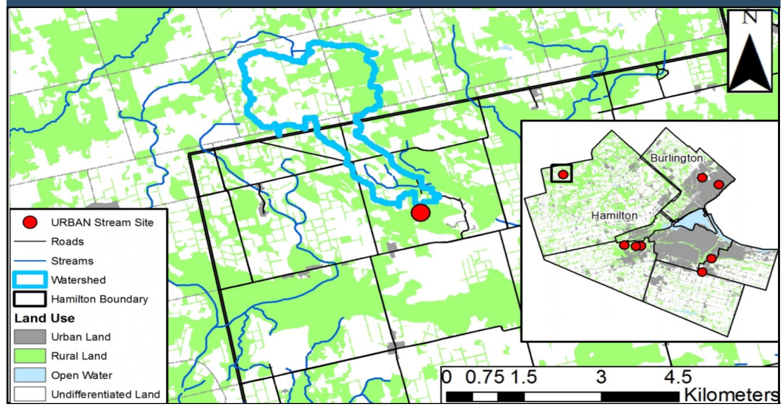
Report Card: **Valens Conservation Area**

Site Information

Site Information	
Stream	Spencer Creek
Land Management	Hamilton Conservation Authority (HCA)
URBAN Monitoring	Sampled May 2010-2014, 2017
Urban Land Use	2.18% in watershed
Road Density	9.63 m/ha in watershed
Ecological Importance	Area of natural and scientific interest

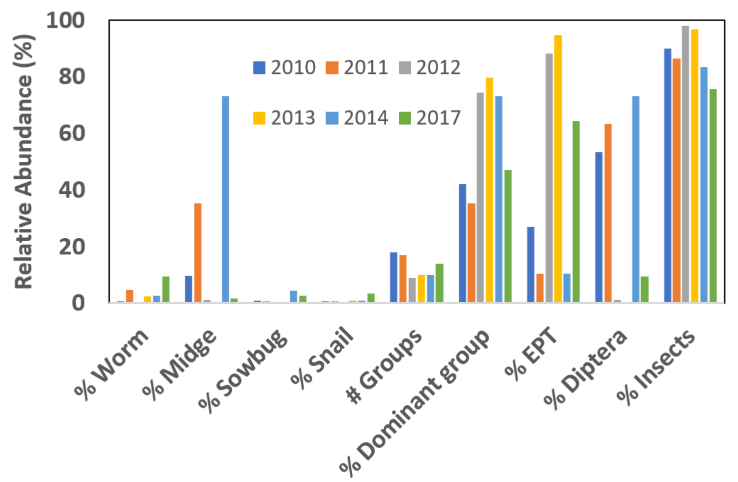
Site Map



Results

Stream Benthic Invertebrates

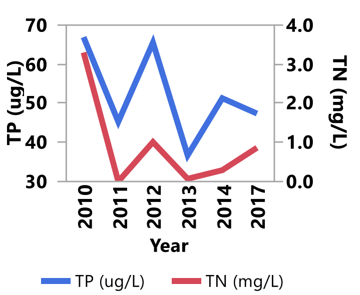
Indicator	Score					
	2010	2011	2012	2013	2014	2017
Total Abundance	307	275	231	299	115	280
Species Richness	18	17	9	10	10	14
% EPT	27.0	10.6	88.3	94.7	10.43	64.35
% Worms & Midges	10.4	40.0	1.73	2.34	75.65	11.29
HBI	5.26	5.74	1.98	1.89	6.63	3.7

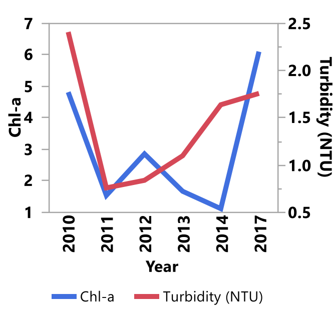


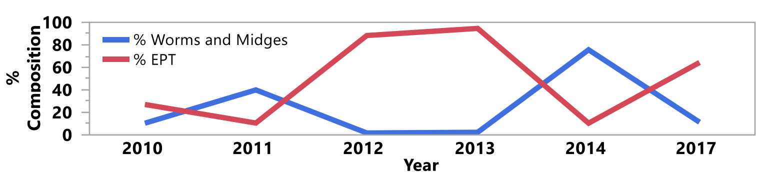
Water Quality

Parameter	Score					
	2010	2011	2012	2013	2014	2017
Total Phosphorus (ug/L)	66.92	45.28	65.54	36.7	51.3	47.38
Total Nitrogen (mg/L)	3.3	0	1.01	0.7	0.29	0.86
Conductivity (mS/cm^3)	670	485	183	545	615	615

Parameter	Score					
	2010	2011	2012	2013	2014	2017
Chlorophyll-α (ug/L)	4.82	1.54	2.86	1.67	1.12	0.78
Turbidity (NTU)	2.41	0.76	0.84	1.1	1.64	1.76
pH	7.19	7.88	7.96	7.04	—	8.02







Site Summary

- Nitrogen levels are unstable but appear to be decreasing, indicating little human impact in the area
- Phosphorus levels reflect the site's position surrounded by agricultural lands but have improved since the start of this study
- Turbidity values remain low, indicating minimal impacts of suspended solids from runoff
- Pollution-tolerant worms and midges are considerably outweighed by pollution-intolerant EPT taxa (mayflies, caddisflies and stoneflies) for the majority of the study
- Overall, water quality parameters suggest a healthy system

Overall Status 2017: Unimpaired

McMaster University