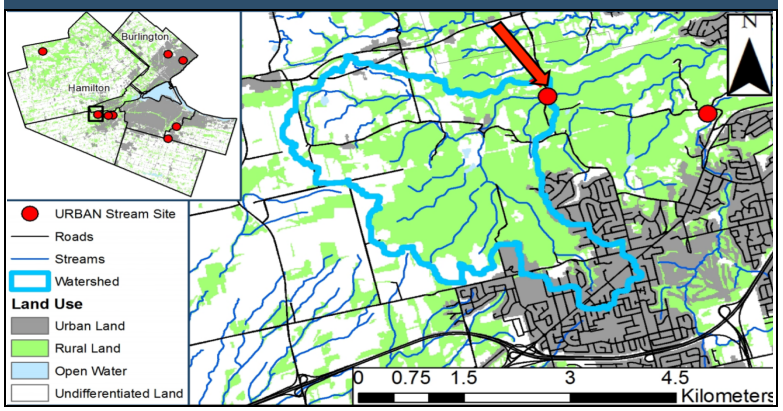
Report Card: Sulphur Springs

Site Information

Stream	Sulphur Creek
Land Management	Hamilton Conservation Authority (HCA)
URBAN Monitoring	Sampled May 2010-2014, 2017
Urban Land Use	11.84% in watershed
Road Density	38.71 m/ha in watershed
Ecological Importance	Area of natural and scientific interest; Dundas Valley Conservation Area

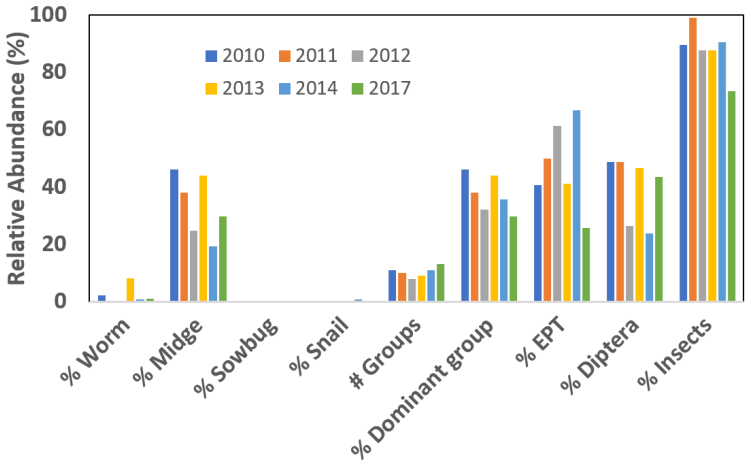
Site Map



Results

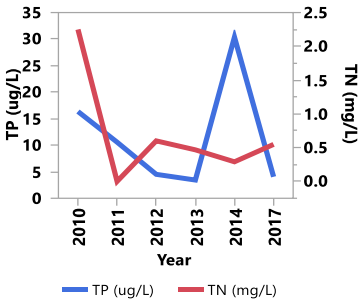
Stream Benthic Invertebrates

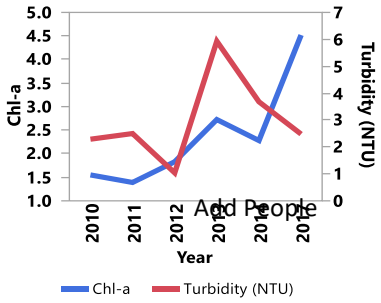
Indicator	Score					
	2010	2011	2012	2013	2014	2017
Total Abundance	325	281	227	73	135	202
Species Richness	11	10	8	9	11	13
% EPT	40.6	49.8	61.3	41.1	66.67	25.74
% Worms & Midges	48.3	38.1	24.7	52.1	20	30.69
HBI	5.51	4.99	4.19	4.93	3.75	5.09

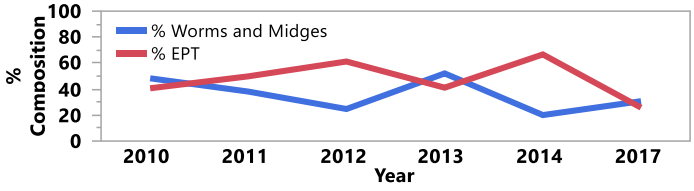


Water Quality

Parameter	Score						Parameter	Score					
	2010	2011	2012	2013	2014	2017		2010	2011	2012	2013	2014	2017
Total Phosphorus (ug/L)	16.35	10.57	4.51	3.44	30.36	4.05	Chlorophyll-α (ug/L)	1.55	1.39	1.83	2.73	2.28	4.52
Total Nitrogen (mg/L)	2.25	0	0.6	0.47	0.29	0.55	Turbidity (NTU)	2.29	2.5	1.04	5.93	3.68	2.48
Conductivity (mS/cm^3)	692	480	519	615	665	680	pH	8.61	8.23	8.12	8.00	—	8.03







Site Summary

- Nitrogen levels have remained relatively stable since 2012, as have phosphorus levels with the exception of the spike in 2014
- A noticeable increase in chlorophyll has occurred, suggesting increased productivity from increased agricultural runoff
- Conductivity reflects low road density (low input of road salts)
- Benthic community appears reasonably healthy with moderate proportions of dipteran species and midges, and considerable numbers of pollution-intolerant EPT taxa
- Overall, water quality parameters and benthic community indicate that Sulphur Creek is healthier than most urban streams

Overall Status 2017: Unimpaired