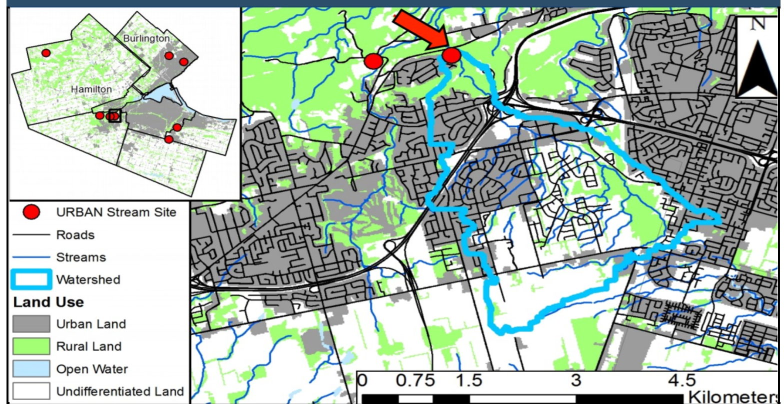
Report Card: **Tiffany Falls Conservation Area**

Site Information

Stream	Tiffany Creek
Land Management	Hamilton Conservation Authority (HCA)
URBAN Monitoring	Sampled May 2010-2014, 2017
Urban Land Use	**36.9%** in watershed
Road Density	**113.3 m/ha** in watershed
Ecological Importance	Downstream of an urbanizing area; tourist attraction/hiking destination

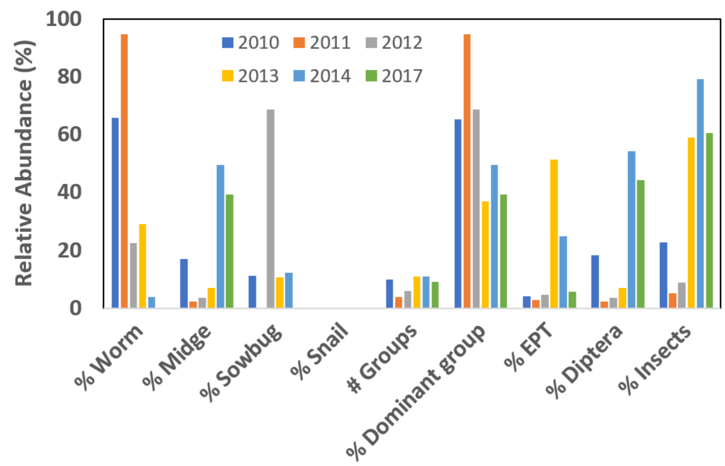
Site Map



Results

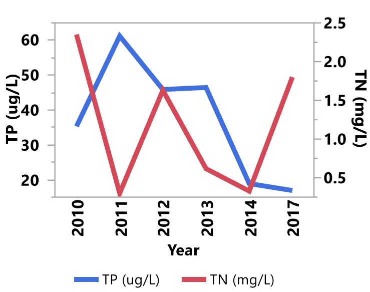
Stream Benthic Invertebrates

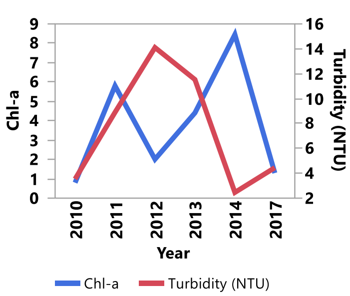
Indicator	Score					
	2010	2011	2012	2013	2014	2017
Total Abundance	339	442	285	271	105	208
Species Richness	10	4	6	11	11	9
% EPT	4.13	2.84	4.56	51.3	24.76	5.77
% Worms & Midges	82.9	97.2	26.0	36.2	53.33	39.42
HBI	7.65	7.88	7.79	6.18	6.36	6.18

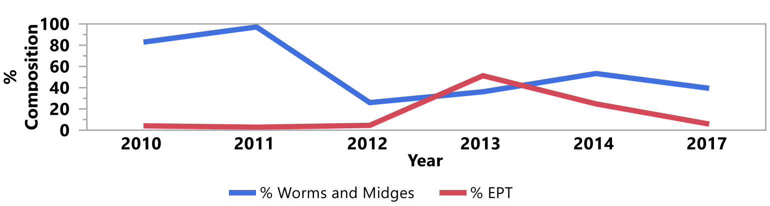


Water Quality

Parameter	Score						Parameter	Score					
	2010	2011	2012	2013	2014	2017		2010	2011	2012	2013	2014	2017
Total Phosphorus (ug/L)	35.31	61.24	45.9	46.46	18.89	16.90	Chlorophyll-α (ug/L)	0.80	5.80	2.01	4.40	8.45	2.26
Total Nitrogen (mg/L)	2.35	0.30	1.63	0.62	0.328	1.80	Turbidity (NTU)	3.54	8.90	14.1	11.53	2.46	4.45
Conductivity (mS/cm^3)	1053	530	485	839	1355	1045	pH	8.05	8.48	7.91	7.93	—	7.93







Site Summary

- Phosphorous levels appear to be decreasing alongside turbidity; nitrogen levels remain unstable
- Chlorophyll values also appear unstable; however, this may be due to the forested environment being non-ideal for algal growth
- While there has been a considerable decrease in pollution-tolerant worms and midges since 2010 , no definitive increase in pollution-intolerant EPT taxa (mayflies, stoneflies and caddisflies) has been observed
- Overall, the benthic community and water quality parameters indicate system impairment

Overall Status 2017: Impaired

McMaster University