



Biological Stream Assessment for Wheaton Branch and Main Stem

On July 2, 2004, the Montgomery County Department of Environmental Protection did this brief study of Wheaton Branch and the Main Stem of Sligo Creek.

Biological Assessment:

Wheaton Branch was observed to have few Trichoptera (Caddisflies) and Chironomidae (Midges).

Sligo Main Stem was found to have larger amount of Trichoptera (Caddisflies) and found Diptera (Crane Flies).

Water Chemistry:

The water chemistry in both tributaries was found to be in the normal range for a stream. However, the Wheaton Branch tributary was found to have lower Dissolved Oxygen than in the Main Stem of Sligo. The water clarity at the main Stem was clearer than that the Wheaton Branch Tributary.

Site	Wheaton Branch	Sligo Main Stem (above confluence)
Date	7/2/2004	7/2/2004
Time	3:54 PM	3:35 PM
Phenol (mg/l)	0	0.1
Chlorine Total (mg/l)	0	0
Detergent (mg/l)	0	0
Copper (mg/l)	0.1	0
Air Temp °C	26	27
Water Temp °C	25.58	21.94
pH	7.67	7.8
Conductivity (µmhos)	227	185
Dissolved Oxygen	4.63	7.25
Dissolved Oxygen%	56.6	82.7

[For information on [water temperature](#), [pH](#), [conductivity](#), [DO \(dissolved oxygen\)](#), and other parameters, check out the [water quality parameters](#) page.]

Physical Observations:

There was an initial odor of "organic decay" (almost like what composting would smell like) at the Wheaton Branch tributary that was not present on the main stem of Sligo Creek. The substrate found in Wheaton Branch tributary had a layer of organic detritus (color of dark brown to black) throughout the tributary.

Conclusions:

There is a great possibility that the standing pipe in the Wheaton Branch pond is acting like a vacuum and is discharging the organic "soup" layer into Wheaton Branch Tributary. Potentially this organic layer is absorbing the dissolved oxygen in Wheaton Branch Tributary and therefore resulting in the lower dissolved oxygen numbers. There was found to be no chemical impairments in either of the two tributaries. It was found that there was no physical evidence that there was an illegal dumping of a type of oil in the Wheaton Branch Tributary. The biology found in both tributaries, to the best of my knowledge, is impaired but more likely is due to Sligo being an urban stream. The Wheaton branch pond is slated for dredging in about 3 weeks according to Gene Gopenko (DEP). Gene said that he was out at the pond on May 25, 2004 and found the pond was only dewatering clear water; therefore, I would recommend performing further tests after the completion of dredging the Wheaton Branch Pond to determine if there is another candidate that is leaching out this natural detritus into the stream.

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