

Lake St. Charles CDD

Midge Fly Assessment



Sample date: 12/13/2018

Report date: 12/19/2018

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Midge Fly Assessment: Lake St. Charles CDD, Sites 9 & 27

Midge Fly sampling procedures included the following steps:



An Ekman grab was prepared for sampling



Open water samples were collected by using an Ekman grab



Sediment samples were transferred into a Nalgene bottle in order to transport sediment samples to Aquatic Systems, where larval counting took place



Sediment samples were poured into a mesh sieve in order to filter out small particles



Small particles were washed through the mesh sieve



The left over sample was poured into a bucket, inside which the midge larvae were counted



Midge larvae were picked out of the bucket and counted



Microscopic view of midge larvae

Midge Fly Assessment: Lake St. Charles CDD, Site 9

Date Sample Taken: 12/13/2018

Sample Location (Before Treatment)	Number of Larvae/m ²
1	913
2	304

Sample Location (After Treatment)	Number of Larvae/m ²
1	3044
2	0



Observations

A midge fly assessment was performed at Site 9. It is recommended that midge fly densities remain below 1000 larvae/m². Based on field survey results, sample location 1 is experiencing nuisance level midge fly densities. Densities appear to be much stronger in the north western portion of the lake.

It is recommended that an integrated management plan be implemented in order to reduce midge densities. Bluegill and Redear are two insectivorous sunfish that are commonly used in midge fly control. It is recommended to utilize a variety of techniques in midge control including fish stocking and larvicides.

Recommendations

<input checked="" type="checkbox"/>	Larvicide Treatments
<input checked="" type="checkbox"/>	Fish Stocking

Midge Fly Assessment: Lake St. Charles CDD, Site 27

Date Sample Taken: 12/13/2018

Sample Location* (Before Treatment)	Number of Larvae/m ²
1	80363
2	0
3	5784
4	913



Sample Location* (After Treatment)	Number of Larvae/m ²
1	2131
2	0
3	0
4	304
5	0
6	0
7	1218
8	0
9	0
10	0
11	609
12	609



Observations

A midge fly assessment was performed at Lake St. Charles CDD, Site 27. It is recommended that midge fly densities remain below 1000 larvae/m². Based on field survey results, sample locations 1 and 7 are experiencing nuisance level midge fly densities. This is greatly reduced from the first midge fly assessment performed.

Recommendations

- Larvicide Treatments
- Fish Stocking

*Pre-treatment and post-treatment sampling locations differ, please reference maps. The map on top is pre-treatment, and the bottom map is post-treatment.