

BI-WEEKLY MONITORING AND MAINTENANCE MONTHLY REPORT SUMMARY – JULY 2009

I. EXECUTIVE SUMMARY

We visited Red Wing View Ponds on July 2, 8 and 22. During July we performed our regular monitoring and maintenance activities.

The dissolved oxygen level was excellent at 9.36 mg/l with an excellent level of percent saturation at 115. The water temperature was normal. Average visibility was 2.2 feet. Conductivity and dissolved solids levels decreased. All parameters are summarized on page three of this report.

Aquatic plant growth amounted to less than 1 to 90 percent surface and 3 to 90 percent subsurface coverage. Three treatments were necessary.

The water levels were normal to 6 inches below normal.

Frogs, bluegill, largemouth bass and two great blue herons were observed. Aquatic wildlife activity was good.

The July water quality sampling report follows. Please call if you have questions or observations.

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II. AQUATIC COMPONENTS

MONITORING DATES: 7/2, 7/8 & 7/22

1. Aquatic Plant Growth

Rooted Aquatics
Type: Pondweed

Location: Thinstem. #4.
75% surface, 75 – 80% subsurface.

Floating
Type: Duckweed

Location: # 4, 6 & 7
3 - 90% surface.

Algae
Type: Chara

Location: None noted.

Type: Filamentous

Location: Cladophora, hydrodictyon, pithophora.
<1 - 90% surface, 5 - 90% subsurface.

Type: Planktonic

Location: None noted.

TREATMENT: 7/2 – 7.5 gals. Cutrine, 20 ozs. Reward, 112 ozs. Hydrothol, 24 ozs. Aqua Prep, 24 lbs. Cutrine Granular; 7/8 – 1.25 gals. Cutrine, 2.25 gals. Clearigate, 80 ozs. Reward, 16 ozs. Hydrothol, 104 ozs. Aqua Prep; 7/22 – 3 gals. Cutrine, 4.5 gals. Clearigate, 144 ozs. Hydrothol, 64 ozs. AquaPrep.

III. AQUATIC COMPONENTS

2. Visual Review of Aquatic Wildlife (Fish and Others)

Frogs, bluegill, largemouth bass and two great blue herons were observed.

Comments: Aquatic wildlife activity was good.

3. Visual Review of Pond Banks and Edges

The ponds had <1 - 90% surface and 3 - 90% subsurface coverage of aquatic plants. The water levels were normal to 6" below normal.

Comments: Three treatments were necessary.

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IV. AQUATIC COMPONENTS

HYDROLAB READINGS from 7/22

4. Water Quality

7/22

Dissolved Oxygen (mg/l) 1 Foot Depth: 9.36

Comments: The D.O. level was excellent. 5.0 is the level required for fish survival; 12.0 is the saturation level of oxygen in water, although super-saturation is attainable during cool weather conditions and times of heavy plant growth.

Dissolved Oxygen (% saturation) 1 Foot Depth: 115%

Comments: Saturation was excellent. Saturation is affected by water temperature, weather conditions, state of growth or degradation of plant materials in the water, time of day and other factors.

Temperature (F) 1 Foot Depth: 78.7

Comments: The water temperature was normal.

pH 1 Foot Depth: 8.46

Comments: pH was excellent. A pH of 7.0 is neutral. Higher pH levels are due to more alkaline soils. pH levels are also affected by the growth of aquatic plants.

Specific Conductance 1 Foot Depth: 0.472

Comments: This parameter decreased. This is a measure of the electrical current that can pass through water. Ponds with lots of dissolved materials that are charged particles (ions) will have a high conductivity. This is directly related to TDS below.

Total Dissolved Solids (mg/l) 1 Foot Depth: 302

Comments: TDS measures dissolved salts and minerals present in the water paralleling the conductivity measurement.

Turbidity 1 Foot Depth: 31.2

Comments: Turbidity is an optical measurement of matter suspended in the water column. High turbidity greatly affects water clarity, as measured below. The range is 0 (perfect clarity-distilled water) to 400 (less than one-inch visibility).

Secchi Disk Clarity Visibility 2.7'

Comments: A Secchi disk is a quick and simple way of measuring the transparency and color of the water. The water was clear to tan to brown with sediment suspended in the water column.