

## BI-WEEKLY MONITORING AND MAINTENANCE MONTHLY REPORT SUMMARY – JUNE 2009

### I. EXECUTIVE SUMMARY

We visited Red Wing View Ponds on June 9 and 23. During June we performed our regular monitoring and maintenance activities.

The average dissolved oxygen level was good at 7.3 mg/l with good average level of percent saturation at 90. The water temperature increased late in the month. Average visibility was 2.5 feet. Conductivity and dissolved solids levels increased.

Aquatic plant growth amounted to less than 1 to 40 percent surface and less than 1 to 20 percent subsurface coverage. Two treatments were necessary.

The water levels were normal to 12 inches above normal. The storm drains were clear.

Frogs, turtles, bluegill, largemouth bass and a heron were observed. Aquatic wildlife activity was good.

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

## BI-WEEKLY MONITORING AND MAINTENANCE MONTHLY REPORT SUMMARY – JUNE 2009

### II. AQUATIC COMPONENTS

MONITORING DATES: 6/9 & 6/23

#### 1. Aquatic Plant Growth

Rooted Aquatics  
Type: Pondweed

Location: Thinstem.  
W/ filamentous algae.

Floating  
Type: Duckweed

Location: 3 - 40% surface.

Algae  
Type: Chara

Location: Up to 20% subsurface.

Type: Filamentous

Location: Cladophora, hydrodictyon, pithophora.  
<1 – 40% surface, <1 – 20% subsurface.

Type: Planktonic

Location: None noted.

**TREATMENT: 6/9 – 5 gals. Cutrine, 2 gals. Clearigate, 64 ozs. Reward, 32 ozs. Hydrothol; 6/23 – 1.25 gals. Cutrine, 2.5 gals. Clearigate, 80 ozs. Hydrothol, 24 ozs. Aqua Prep.**

### III. AQUATIC COMPONENTS

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

Frogs, turtles, bluegills, largemouth bass and a heron were observed.

**Comments:** Aquatic wildlife activity was good.

#### 3. Visual Review of Pond Banks and Edges

The ponds had <1 - 40% surface and <1 - 20% subsurface coverage of aquatic plants. The water levels were normal to 12" above normal. The storm drains were clear.

**Comments:** Two treatments were necessary.

## BI-WEEKLY MONITORING AND MAINTENANCE MONTHLY REPORT SUMMARY – JUNE 2009

### IV. AQUATIC COMPONENTS

### HYDROLAB READINGS from 6/9 & 6/23

#### 4. Water Quality

	6/9	6/23
<b>Dissolved Oxygen (mg/l)</b> 1 Foot Depth:	6.9	7.7

Comments: The D.O. levels were good. 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.

	6/9	6/23
<b>Dissolved Oxygen (% saturation)</b> 1 Foot Depth:	75.6%	104.1%

Comments: Saturation was good to 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.

	6/9	6/23
<b>Temperature (F)</b> 1 Foot Depth:	65	86

Comments: The water temperature increased late in the month.

	6/9	6/23
<b>pH</b> 1 Foot Depth:	7.93	8.38

Comments: pH was good. 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.

	6/9	6/23
<b>Specific Conductance</b> 1 Foot Depth:	0.455	0.690

Comments: This parameter increased. 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.

	6/9	6/23
<b>Total Dissolved Solids (mg/l)</b> 1 Foot Depth:	279	441

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

	6/9	6/23
<b>Turbidity</b> 1 Foot Depth:	129	3.7

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).

	6/9	6/23
<b>Secchi Disk Clarity</b> Visibility	2.5'	2.5'

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 with sediment suspended in the water column.