

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

I. EXECUTIVE SUMMARY

We visited Red Wing View Ponds on August 4 and 18. During August we performed our regular monitoring and maintenance activities.

August weather was very mild and dry until the last week of the month. Most water temperatures were 6 to 8 degrees below those experienced last August. This slowed some plant growth, but did little to slow algae growth rates. The three days of rain from August 26-29. The continuous rain re-suspended many nutrients from bottom sediments. This may result in more extensive algae growth in September, as plant growth subsides; only algae are able to utilize the available nutrients.

The average dissolved oxygen level was very good at 9.3 mg/l with an excellent average level of percent saturation at 121. The average water temperature was normal. Average visibility was 2.4 feet. Average conductivity and dissolved solids levels increased. All parameters are summarized on page three of this report.

Aquatic plant growth amounted to less than 1 to 7 percent surface and 1 to 5 percent subsurface coverage. Two treatments were necessary.

The water levels were normal to 1 inch above normal.

Bluegill, largemouth bass, frogs and turtles were observed. Aquatic wildlife activity was good.

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

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II. AQUATIC COMPONENTS

MONITORING DATES: 8/4 & 8/18

1. Aquatic Plant Growth

Rooted Aquatics
Type: Pondweed

Location: Sago & Thinstem – scattered areas.

Floating
Type: Duckweed

Location: None noted.

Algae
Type: Chara

Location: Pond bottom.

Type: Filamentous

Location: Cladophora, hydrodictyon, pithophora.
<1 – 7% surface, 1 – 5% subsurface.

Type: Planktonic

Location: None noted.

TREATMENT: 8/4 – 5 gals. Cutrine, 4.5 gals. Clearigate, 106 ozs. Reward, 24 ozs. Hydrothol, 24 ozs. Aqua Prep; 8/18 – 2.5 gals. Cutrine, 2 gals. Clearigate, 12 ozs. Reward, 88 ozs. Hydrothol.

III. AQUATIC COMPONENTS

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

Bluegill, largemouth bass, frogs and turtles were observed.

Comments: Aquatic wildlife activity was good.

3. Visual Review of Pond Banks and Edges

Aquatic plant growth amounted to <1 - 7% surface and 1 - 5% subsurface coverage. The water levels were normal to 1" above normal.

Comments: Two treatments were necessary.

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IV. AQUATIC COMPONENTS

HYDROLAB READINGS from 8/4 & 8/18

4. Water Quality

		8/4	8/18
Dissolved Oxygen (mg/l)	1 Foot Depth:	10.5	8.18

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

Dissolved Oxygen (% saturation)	1 Foot Depth:	138.2%	104.8%
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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:	83	80
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Comments: The water temperature was normal.

pH	1 Foot Depth:	9.03	8.53
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Comments: pH was elevated to slightly elevated. 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:	0.524	0.924
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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.

Total Dissolved Solids (mg/l)	1 Foot Depth:	336	592
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Comments: TDS measures dissolved salts and minerals present in the water paralleling the conductivity measurement.

Secchi Disk Clarity	Visibility	1.7'	3.0'
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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.