

Hemlock Farms Community Association Lake Manager's Report (May 2008)

On May 28, 2008, **Ecological Solutions, Inc. (ECS)** visited the thirteen (13) lakes and ponds within the Hemlock Farms Community Association to perform their monthly monitoring activities. **ECS** observed conditions on the property from 10:30 a.m. until 3:30 p.m. During that site visit the following tasks were performed:

1. Water Quality Monitoring

Weather: Mostly Sunny; High Winds; High temperature was around 68°F.
Note: The Lake Watch Team was canceled.

In general, the results of the water chemistry showed average surface temperatures. In addition, the pH values fell within normal limits. Therefore, acidic and alkaline conditions were not a concern within the lake systems. The dissolved oxygen levels were within normal limits and there was no concern about the amount of available oxygen for fish populations. The water was clear as indicated by the low turbidity levels. According to the results the water appears to be soft but is slightly sensitive to acid rain. The secchi depth measurements ranged in depth from 0.6 to 2.7 meters. In general the total nitrate levels were considered normal. However, the total phosphorous levels were considered normal with the exception of a few lakes and ponds. High phosphorus levels indicate the potential for an algae bloom to occur.

2. Aquatic Plant Growth

During the site visit, **ECS** observed a planktonic algae bloom and heavy water star wort growth within the boat launch area and along the western shoreline of Bluestone Pond. This area was treated on May 28, 2008. Willow Pond is now clear of algae in response to last week's treatment. However, water star wort is still visible on the bottom. Blatterwort was observed in both Rimrock and Rockwood Ponds, while an algae bloom was starting on Little Camp Pond. **ECS** plans to treat the algae on Little Camp Pond, the blatterwort in Rimrock and Rockwood Ponds, and the water star wort in Willow Pond during the first week of June. At this time, **ECS** will observe the remaining lakes/ponds for any changes in algae/weed growth.

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3. Invasive Species

Finally, **ECS** surveyed the shorelines of all the thirteen (13) lakes and ponds for invasive species. **ECS** observed phragmites on McConnell Lake, Ledgeway, Bluestone, Saddlebrook, and Orchard Ponds. In addition, Spatterdock is starting to surface on Willow Pond. Finally, barberry was observed along Fairway Lane. **ECS** plans to begin treating for invasives during the month of June.

If you have any questions regarding any aspect of this report, please do not hesitate to contact us.

Sincerely,

Jessica Demusz

Jessica Demusz
Environmental Scientist

Attachments:
May 2008 Water Quality Parameter Worksheet

Parameter	McConnell Creek Watershed					York Creek Watershed		Maple Creek Watershed		Rock Hill Creek Watershed			
	Bluestone	McConnell	Mirror	Willow	Little Bell	Elm	Ledgeway	Rockwood	Rimrock	Little Camp	Lower	Hemlock	Saddlebrook
pH	7.3	7.6	7.4	7.2	7.3	7.2	7.2	7.4	7.3	7.4	7.3	7.2	7.1
TDS(umhos)	170	120	160	160	190	150	100	30	50	160	120	140	100
DO(Surface)	9.45	9.47	8.23	8.71	10.06	9.18	7.95	8.63	8.73	12.13	9.24	9.75	8.58
DO(1m)			8.28		10.04		7.75	8.75		17.67	9.24		8.48
DO(2m)	12.59	9.24				9.69			9.75			9.81	
Temp (°C) surface	20.2	19	17.7	18.7	18.8	19.9	21.7	20.5	21.2	22	19.2	18.7	21
Temp (°C) (1m)			16.6		18.6		17.7	19.2		19.7	19.2		20.3
Temp (°C) (2m)	18.3	18.7				18.8			18.3			18.7	
Air (°C)	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5
Secchi (m)	2.7 (bot)	2.5	(bot)	(bot)	2	2.7	1.4	2.0 (bot)	2.5 (bot)	1.5 (bot)	2.5	1.9	2.0 (bot)
Turbidity (FTU)	7	2	0	3	0	2	4	7	0	8	4	6	2
Nitrates (mg/l)	0.11	0.12	0.09	0.05	0.16	0.1	0	0.12	0.15	0.1	0.17	0.23	0.11
Phosphates (mg/l)	1.75	0.29	0.87	0.52	0.25	0.37	1.05	0.23	0.2	0.37	0.91	0.88	0.04
Alkalinity (ppm)	12	8	12	12	12	12	12	8	8	8	16	16	8
Hardness (ppm)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A