

Friends of Green Lake Meeting Minutes September 18, 2007

Meeting opened at 7:15pm.

Members and guests present: Gayle Garman, Richard Fleming, Ellen Hewitt, Marcia Norman, Karen Schurr, Kris Fuller, Douglas Dorling, guest-Northwest Aquatic Ecosystems: "Measuring the Effects of Solarbee Systems in Lake Steilacoom"

A. Treasurers Report (Mary Lou Knox is away)

Checking Account	(9-1-07)	\$1031.80	no deposits	\$1031.80 (9-18-07)
Savings Account	(8-31-07)	\$1287.58	\$225.00	\$1512.58 (9-18-07)
Receipts	(T-shirts	\$75.00)		
	(Donation	\$150.00)		

B. Website Report – Ellen Hewitt

Pictures are moving from the Milk Carton Event to fall pictures. Martin Muller may send some fall bird pictures. Ellen asked Michael Cory to do a turtle story, but he has not responded yet. Joan Burton may give us a hiking story.

Notes: The Pied Bill Grebes have hatched one chick which is surviving.

Some spam has been getting through our website. Captcha is a spam resistant method we could try.

C. T-Shirts Report

Five shirts have been sold, two over the internet. Shirts are also selling through our various outlets.

D. Monitoring

1. The water level is normal to high for this time of year.
2. Water temperature is not as warm as prior years.
3. Water is well mixed, not stratified
4. Secchi disk readings have been very good. The water is very transparent -- between 3.5 and 4 meters since 6/12/06.
5. Dense milfoil is beginning to develop near Duck Island and the East Swim Beach. No fruiting fronds have developed, however, and this is good.

E. Program is a presentation by Doug Dorling – Northwest Aquatic Ecosystems- "Measuring the Effects of Solarbee systems in Lake Steilacoom."

Program:

NWAE has been in the Northwest since the 1970s. Lake Steilacoom is a 320 acre lake in Pierce County, and the lake is totally developed. The north basin averages 10 feet in depth, and the south basin averages 18-20 ft. Inflow is from Ponce De Leon Creek, Clover Creek, and a spring area. Large amounts of phosphorous are brought into the lake through these inflows, so there are lots of blue/green algae blooms. The lake has been treated with copper sulfate in the past, but it was banned by the Washington Dept of Ecology in 1992/1993. Since then, there have been constant toxic algae blooms. A very strong Lake Association works on the problem.

The Solarbee system changes lake circulation which should shift the bloom from the toxic blue/green type to the plain green type. Solarbee systems have not yet been well studied. The Lake Association was able to obtain a money back guarantee, and Solarbee was completely cooperative. The lake has been extensively studied and monitored since 1999 with bi-weekly Secchi disk readings and permanently installed quality monitoring stations. Lake Steilacoom can have total water turnover in 7-10 days. The Solarbees were installed in Oct/Nov of 2005.

Criteria of Performance (bi-weekly monitoring) requirements

1. No declaration by Pierce County of toxic bloom in the lake.
2. No floating blue/green scum in either basin, or mid-basin.
3. Blue/green species comprise not more than 25% of total algae.
4. Secchi disk readings of not less than 6 feet.
5. Blue/green algae counts were not to exceed WHO standards for non-potable water bodies (100,000 cells/1 ml).

The fear was that the Solarbees would be a boating hazard. This proved not to be true. There were no close calls except for a jet skiing teen who attempted to jump over one of the systems. The system is supposed to create a laminar flow and increase lake circulation. The big problem turned out to be the solar charging of the batteries that ran the systems. In the cloudy Northwest, the battery run systems were out a lot. In Aug. and Sept. 2006, blue-greens increased greatly. Mr. Dorling provided a graph of monthly blue-green cell counts collected each year from 1999 to 2007 which indicated the Solarbee systems in 2006 did not reduce the growth of blue-greens and failed to do what they were supposed to do. The only criterion met was for the SECCHI depth. The Solarbee Company was completely helpful and quick to respond to problems. Still, other lakes have had similar results as Lake Steilacoom. Most likely, the Solar bee system needs more peer reviewed and long term studies before it is widely disseminated. The Company chose to pull the systems rather than continue the study at Lake Steilacoom.

Trisha Shoblum is the liaison for the Department of Ecology. Cathy Hamill is an expert on toxics and weeds. The Department of Ecology is proposing a 1.6 cell/ml standard versus the 6 cell/ml accepted by WHO for bluegreen algae/bacteria.

The meeting adjourned at 9:00 pm.