

Friends of Green Lake

Minutes Tuesday – September 29, 2009

Attending: Deb Bonjouklian, Ellen Hewitt, Karen Schurr, Gayle Garman, Richard Fleming, Madi Carlson and her son, Mary Lou Knox, Marcia Norman, Dr. Richard Keil (guest speaker).

Monitoring: Richard Fleming, Monitoring Chairman, reported that total rainfall for the calendar year is normal, despite an unusually dry summer.

Water quality samples were collected from Green Lake on Monday, Sept 28.

Secchi depth was 3.2 meters or 10.6 ft, the same as the prior sampling on Sept 14 and similar to the average for 2005-2007 at this time of year (graph sent to Ellen for Website). In late summer thru early fall of 2008, secchi depth (water clarity) was extraordinarily high (22 ft) but we are not seeing that pattern repeated in 2009.

Temperature was 18.0C or 64.4F at 1 meter below the surface, and 18.5C or 65.3F in the deepest part of the Lake, the first time he has recorded a lower temperature at the surface. Two weeks ago, the surface temperature was 20.0C (68F), so the surface is cooling-off during our cool nights and there has only been a little wind to mix the Lake.

Presentation by Dr. Richard Keil, Associate Professor of Oceanography at the University of Washington.

Sound Citizen (CS) is primarily a teaching tool that allows anyone to collect a sample of water, do some testing themselves using dipsticks, and then mail the sample to U.W. for analytical chemistry. It is not focused on “bad things” but on showing “connectedness”, what natural and industrial chemicals are moving from our households into surface water and ultimately into Puget Sound. So far CS has distributed 700 kits to 200 citizen participants and have had 450 returned. Only about a dozen samples have been unusable, for example, ones from swimming pools. Compared to other projects, this is a very high return/completion rate. Samples have come from as far as OR, ID, and one from Alaska. Most are from King County, especially from Puget Sound watershed, and a few from the outer coast. There is a mapping tool on the website to show all sample locations <<soundcitizen.org>>

Anyone can request a kit via the website. It is more difficult to collect stormwater samples, so a special funnel is added to stormwater kits. If you plan to collect stormwater, please request one of these special kits. The dip sticks that measure pH, nitrite, alkalinity, etc are only good for about 6 weeks, after which the measurements are not reliable. Detailed instructions for sample collection are on the website. Results can be entered on the website, also.

Sound Citizen has been analyzing for cooking spices; vanilla, cinnamon, ethyl vanilla, and thyme. They added a curry spice, gran masala, this year. Other analytes are “natural solvents”, natural benzenes, terpenes and phenols that are used in “green” household products; and natural

and artificial “perfumes”; lily, lemon, musk and pine. Musk is added to perfumed products to mask the perfume, these products are then sold as “unscented”. This year SC plans to add metals, endocrine disrupters and plasticizers. About 40% of samples have measurable concentrations; only 3-4 have been “pristine”, from the Olympic Peninsula. Analysis is by gas chromatograph followed by mass spectrograph. U.W. lawyers have prevented posting of all analytical results on webpage, but FOGL should be able to get results from our own samples.

In general, ethyl vanilla (synthetic) is high in lakes and sewage effluent (samples at West Point), while creeks and rivers are generally higher in natural vanilla, which many flowers produce. There are 3 Green Lake samples, so far, 2 from January 2009 and 1 from April. They were unusual for lake samples because they were quite a bit higher in natural vanilla than in the synthetic vanilla (more like streams or rivers). They don’t have any samples from Bitter Lake or Haller Lake. It costs about \$75 to process a sample, which is done by U. W. students. The project is designed to provide laboratory experience and to distinguish different transport pathways: cooking spices generally go through our bodies and into the wastewater system, but some (natural vanilla) are common in the natural environment. CS data show a significant spike in cooking spices 2-3 days after Thanksgiving and Christmas, when a lot of special foods are prepared and eaten. Perfumes are more likely to be transported by air and then precipitate with rain, synthetic ones start in anti-static clothes drier sheets.

They partner with middle and high schools and are testing a new curriculum for grades 9-12 at Ingraham, Garfield and West Seattle High Schools. They are also starting a new project looking at the effects of whole (marine) water samples on octopus development. They have evidence of leaky septic tanks in Snohomish County. They are lacking repeated sampling from the same location, at regular intervals, and are hopeful Friends of Green Lake can do this. Dr. Keil brought 10 sample kits with him for Friends of Green Lake.

Discussion followed about Green Lake hydrology; where Green Lake water comes from and where water leaving Green Lake discharges. Questions were about whether the compounds are toxic. Dr. Keil emphasized that many of the compounds were natural and were not toxic at the concentrations being measured, but could be toxic in very high doses (for example, the natural compounds that produce the aroma in roses).

Dr Keil then left, we were way behind schedule. It was decided to discuss the Green Lake sampling as part of the Sound Citizen project at the next meeting.

Treasurers Report, Mary Lou Knox: As of August 31, 2009, we had \$ 2419.62 in the checking account and \$ 985.36 in the savings account for a total of \$ 3404.98. One donation of \$25 was received in July.

Webmasters Report, Ellen Hewitt: The website will be updated for fall soon.

Announcements. Kevin Stoops was not able to attend. Gayle noted that Sustainable Green Lake had decided to look outside of the Park for their demonstration rain garden because any suitable location within the Park was above the old garbage dump and/or didn’t have adequate infiltration. She also reported that the artificial surface on Field #2 in lower Woodland Park had

been completed and Field #7 was under construction. She noted Friends of Green Lake supported the conversion of these athletic fields from natural (dirt on #7 and grass on #2) surfaces to artificial surfaces because it should reduce the amount of silt and phosphorus entering the Lake from this drainage area. The Parks Dept has a contract with Herrera Environmental Consultants to monitor stormwater from the new fields this winter. Gayle also reported submitting a final package (2.5 lbs of paper) to the IRS to document that our activities are not primarily a political, as required for 501(c)3 certification.

Future Programs: Karen is planning a FOGL milfoil cleanup again this fall, she has spoken with Rodney Neeling in Don Allen's group at the Parks Dept. Don's group (Grounds Keeping) would need to pick-up and dispose of any milfoil FOGL collects. Gayle and Richard noted that milfoil extends farther from the shoreline in many areas than ever before (they started monitoring in spring 2005). Karen arranged for Martin Muller to continue the presentation on Birds of Green Lake at the November meeting (in the Chapel). In accordance with the By-Laws, some officers will be elected in October: Vice-President, Treasurer, and Corresponding Secretary. We also are looking for a Recording Secretary: Kris Fuller, elected Recording Secretary in 2006, is moving from the area. We will miss her loyal support and participation.

The meeting was adjourned at 9 PM.