Friends of Cottage Lake

General Meeting Minutes
June 12th, 2024

A meeting of the Friends of Cottage Lake (FOCL) was held on Wednesday, June 12, 2024, at 7:00 p.m. at the Woodinville Unitarian Universalist Church.

The meeting was attended by (a list with street and email addresses is available on request):

Jonathan Morrison	Cora and David Goss-Grubbs	Sally Maimoni
Don and Anne Pettit	Bruce Lobree and Rosy Coe	Russ Glaser
Jama Cantrell	Al Summers	Gary and Karen Matson
Adam Straubel		

1. **Jonathan Morrison led the meeting, allowing questions and discussion throughout. The first topic is: Introductions and Friends of Cottage Lake Status**
    a) Friends of Cottage Lake has been a registered 501(c)(3) non-profit since 2006 but has been an active group focused on lake health since the 1980s.
    b) The group was very active between 2003-2011 when we worked with King County on a Centennial Grant (focused on reducing phosphorus and improving water quality) and treated lilies and milfoil.
    c) Current finances: $87,000 in the bank, but ~$60,000 committed to 2024 phosphorus treatments
        i. On going treatments to reduce phosphorus are estimated at $60K every year for several years. We need to step up our fund raising to meet this need.
        ii. We will monitor the results of this year's treatment as we make plans for next year.
    d) Recent fundraising: $4,100 raised from most recent charity concert and follow-on donations

2. **Jonathan showed pictures for algae blooms and water lilies from recent summers. Algae Blooms and Cyanobacteria (blue-green algae):**
    a) Due to the high phosphorus levels in the lake, Cottage Lake is home to a lot of algae (microscopic single-celled plants). During hot, sunny weather, the algae multiplies quickly, and this is referred to as an "algae bloom"(algae forms large dense patches visible on the surface of the water). Most species of algae are harmless and the blooms are just a nuisance.
        i. Last year we had significant algae blooms. Fortunately they were not toxic algae, but they are unattractive, people don't want to swim or boat in those conditions.
    b) Cyanobacteria (commonly referred to as "blue-green algae", but really a bacteria) is another organism living in the lake that multiplies during warm, sunny weather. Again, cyanobacteria are generally harmless, but can produce toxins which can be harmful to animals and humans.

c) As part of our volunteer lake monitoring, in partnership with King County, we collect algae samples when large blooms are seen on the lake. For several years (2015-2016, 2018, 2020-2021), toxic algae was detected in the samples at the end of the summer and the lake was closed to recreation. Toxic algae is very dangerous to pets (especially dogs that might drink the water) and can also be harmful to people. Algae (even when not toxic) also makes the lake less appealing for recreation and fishing. Last year (2023) we saw very large blooms that lasted from August to December. Toxin levels never exceeded the state threshold, but, clearly, we still have a problem (see the Washington State Toxic Algae site for more information).

d) Friends of Cottage Lake has continued researching solutions to our lake's problems. Reducing phosphorus entering the lake is one of the keys – encouraging residents in the watershed to use phosphorus free fertilizer (or not fertilize at all), pick up pet waste, and other behavior changes can help (see page 10 of our Welcome to the Lake booklet for more suggestions).

e) We have also been researching water treatments to remove phosphorus from the water and other treatments that might reduce harmful blue-green algae blooms. This year, we are working with Aquatechnex and are trying a Lanthanum treatment (EutroSORB). Based on their analysis of the lake (we did additional lake and sediment sampling in 2023), the best treatment, given our budget, is to do two "water column stripping" treatments (May and July) to remove phosphorus from the water. The first treatment was completed on May 31st, and we are working with Aquatechnex and King County Parks to do a second, larger treatment later in the summer.

   i. The treatment does not directly affect plants, the chemical bonds directly with phosphorus in the lake and will fall to the lakebed. One result of treatment might be that we see clearer water. If the water is clearer, it is possible that more plants will grow because they're getting more sunshine. Or there may be no impact, since phosphorus is a fundamental nutrient and there will be less of it in the lake.

   ii. The question was raised, have we considered using mussels to capture and filter the phosphorus from the lake using a non-chemical treatment? This sounds like a promising alternative, but there has not yet been enough study (scientific analysis) to determine if that is viable for this eco-system. We would love to have a professor or graduate student at UW take this on as a research project.

   iii. Another alternative is to use micro-bubblers, that infuse oxygen into the water at the lower levels of the lake. Lack of oxygen near the lake bed allows phosphorus to more easily leach into the lake. This alternative is not appropriate for Cottage Lake because it is massively expensive, we are unlikely to get permits for it, and there are a number of implementation issues that are difficult to resolve.

3. Milfoil treatment

a) Milfoil was first reported in 2007.

b) In 2009/2010 King County worked with Friends of Cottage Lake (FOCL) to treat the milfoil with triclopyr using a grant from the state (early infestation grant).

c) The treatment was successful, but the milfoil was not eradicated and began to spread again.

   i. Milfoil grows easily and doesn't need much to get it started. Also, we could really use better signage at the park to encourage boaters to clean off their craft so as not to introduce more invasive species.

d) The lake was most recently treated in 2022 by Aquatechnex with ProcellaCOR. Based on surveys in the spring of 2023, the treatment was largely successful although we saw a lot of native weeds fill in areas that used to have milfoil in the summer. You can read about our problems with invasive weeds in the Integrated Aquatic Vegetation Management Plan.

4. Lily treatment:

a) Cottage Lake has invasive fragrant water lilies. They were introduced into Cottage Lake by homeowners as an ornamental plant long before people understood how fragile the lake ecosystem is, or the impact of non-native species. Water lilies grow in dense patches in water up to 8′ deep and crowd out native plants. In addition, they cause other environmental problems.
b) We last treated the lilies in 2017 in combination with a milfoil treatment, but they are spreading again (especially in the north and south ends).
c) The next step is to monitor the lilies and determine if additional treatment is needed (new treatments will be more expensive than previous treatments due to changing regulations around herbicides).
    i. Treatment for water lilies is not as pricey as treatment for the phosphorus … more like about $5K per year for treatment, and treatment is not needed every year.

5. **Yellow Flag Iris**:
    a) This is also a non-native plant that grows in abundance on our shores. Homeowners are advised to cut off the stem of the lily below the seed pod (and flower) and discard those pieces in a plastic bag in the garbage – not yard waste.

6. **Lake Level:**
    a) The lake level is controlled by beaver dams and the pond levelers (beaver deceivers) that we worked with King County to install through the original dams. Last year, the beavers built a new dam further downstream and drove the lake level up causing flooding at the park and in many yards. We worked with Beavers NW to install a notch exclusion fence which provided about 6 weeks of relief before the beavers built a new dam at the lake outlet. The beavers continue to build new dams or try to block the notch fence. We have some active volunteers monitoring the creek and keeping the notch fence clear. As with other work, we could use additional volunteers.
    b) We may get help from the county to remove blockages that are not natural. For example, below the south end of the lake there is a partially submerged creosote soaked telephone pole that is partially blocking drainage from the lake.

7. Wildlife.
    a) Bats. The bat population was severely depleted due to an infestation but there are still some around. It is nice to hang up a few bat boxes to help provide safe habitat for the ones we still have.
    b) Swans. We have seen a beautiful increase in the number of swans during the winter months. They like to sleep on the lake where it is safe, then forage over in close by farmland for food during the day. They are gorgeous to watch and listen to.
    c) Eagles. We have also observed an increase the general eagle population (beyond the lake). We still have a pair of nesting eagles on the west side of the lake.

8. **Volunteer Help Needed -** Our lake faces numerous challenges, and it will take a collective effort to tackle them. Needed help includes:
    a) Helping to organize future meetings, coordinating volunteers, and managing communication
    b) Fundraising – we need to generate a lot more donations to continue the phosphorus treatment and be prepared for future invasive aquatic weed treatment. Volunteers and ideas are welcome (previous efforts have included a general mail campaign, and fundraising concerts).
    c) Beavers – we are looking for additional volunteers to help monitor and maintain water level control devices.

d) Cottage Lake Park – King County parks has a lot of ongoing improvement efforts, and it would be great to better partner with them in the future (e.g. rebuild the wet garden, give input on beach improvements, etc.)
e) Drainage on 185th Ave NE to Daniels Creek – runoff from NE 179th St goes straight into the creek instead of being filtered through the grass ditch. There is also a long-term plan to replace the culvert under the road.
f) Noise and light from the corner of Woodinville-Duvall Rd after the buildings were removed – possibly follow-up on the new project (gas station and fast-food restaurant) to see if barriers or additional trees could be part of the construction.
g) Volunteers to help coordinate mailings and signs for future treatments

9. **Nomination of Board Members.** Our bylaws require that all board members be members in good standing of Friends of Cottage Lake. Board members are nominated by other FOCL members. After the general meeting, the newly nominated Board met to assign roles to each member.

1. **Nomination of FOCL Officers.**
   a. **Bruce Lobree** nominated **Jonathan Morrison, Russ Glaser, Sally Maimoni, and Adam Straubel** to be on the Board of Directors for Friends of Cottage Lake. There was a strong second from many others in attendance.
   b. The nomination was accepted by all 4 candidates.

2. **After the general meeting, the Board met to choose their respective roles.**
   a. Selection for office of **President:** Jonathan Morrison for President.
   b. Selection for office of **Vice-President:** Russ Glaser for Vice-President.
   c. Selection for office of **Treasurer:** Sally Maimoni for Treasurer.
   d. Selection for office of **Secretary:** Adam Straubel for Secretary.
   e. Selection for office of **Position At-Large:** This position was not filled.

There being no further business, the meeting was adjourned.