

**City of Tumwater
Barnes Lake Management District**

Steering Committee Meeting Minutes

November 14, 2018
6 p.m. – 8 p.m.

Tumwater City Hall
“Public Works Conference”
555 Israel Road SW, Tumwater, WA

Call to order

Chair Gary Bodeutsch called the regular meeting of the Barnes LMD Steering Committee to order at approximately 6:00 p.m.

Roll Call, Introductions & Agenda Approval

The following Steering Committee members were present:

Gary Bodeutsch (Chair), Linnea Madison (vice chair), Kathy Peterson, Rusty Weaver, Bill Baxter, Jody Keys, Tom Sparks, Dana Day, Bob Gillette, Chris Hartman (staff), Dan Smith (staff), Doug Dorling (NWAES)

The following Steering Committee members were excused: Judith Loft

Review of Minutes from September 12, 2018

The minutes of this previous meeting were reviewed and approved unanimously.

Review of Minutes from October 10, 2018

The minutes of this previous meeting were reviewed and approved unanimously.

Lake Management

2018 Lake Management Summary

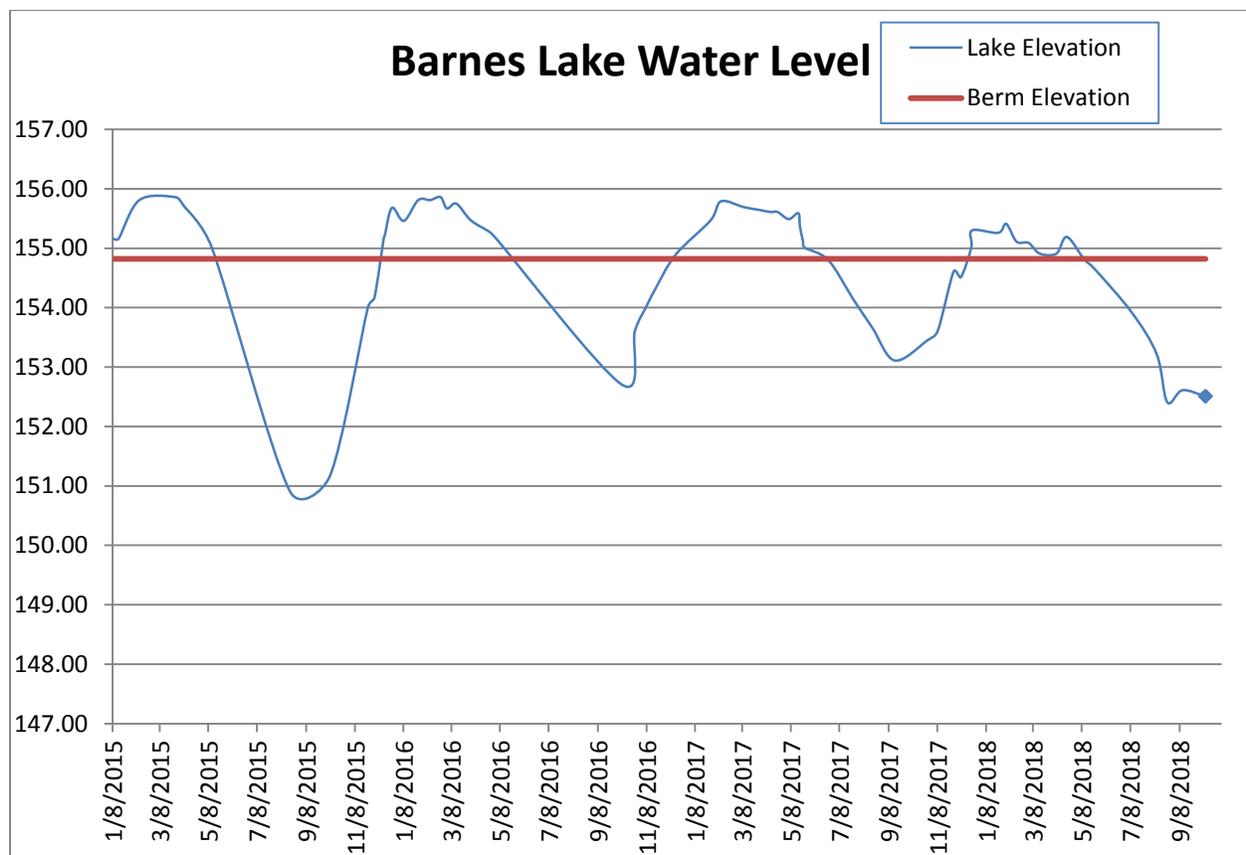
Doug Dorling of Northwest Aquatic Ecosystems was on hand to give an overview of the 2018 treatment season. The Fluridone treatment from 2017, targeting bransenia and bladderwort, remained very effective through 2018. This has resulted in a significant change in the lake ecosystem, which is visually apparent to anyone living around the lake by the increase in the amount of open water. Doug has been able to quantify this change with different tools. For example, vegetation density maps from May 2017 and May 2018 show an increase in open water. Doug is also able to plot the density of biomass at different depth intervals within the lake in 2017 vs. 2018. This shows, for example, that in 2017 between 0 and 1 meters below the lake surface nearly 45% of the water volume contained plant matter and in 2018 this same section of the lake contained only 15%.

Doug explained that the plant and animal communities in the lake will respond to the increase in the amount of open water, but what remains unknown is what this response will look like. Algae species in the lake currently present in low amounts may begin to flourish and so too might native smart weed or pondweed. The fish community, which currently consists of large numbers of small fish, may begin to shift to fewer large fish. Doug does not recommend any specific management activates at this time and stressed that the LMD should remain in a “wait and see” mode. He suggested a vegetation survey in the early spring to understand which plant communities are thriving to get some idea about what might happen over the growing season. He also suggested that it would be useful and interesting to ask Fish and Wildlife if they’re available to conduct a baseline fish survey so the LMD can understand how this community might change over time.

For detailed information see Doug’s report at the end of these meeting minutes

Lake Level

The water level at Barnes Lake was last recorded on October 10th. People commented that the lake is lower than it has been in a couple years



Algae Update

Late this summer lake residents observed a previously unseen algae on the lake surface. There was some concern initially that it was a variety capable of producing neurotoxins, but that turned out not to be the case. This algae is no longer present.

Smart Weed / Long-leaf Pond Weed

In October, during the walk about, Kathy collected an aquatic plant specimen on the lake and gave it to the City for identification. It was determined to be either smart weed (*Polygonum amphibium*) or pondweed (*Potamogeton natans*), both of which are native and have been seen on the lake in the past. Doug mentioned that smart weed can/should be controlled similar to lily pads. These species don't present a problem currently, but their numbers may increase in the future.

Volunteer Water Quality Monitoring

At the September 12th LMD meeting Chris Hartman introduced the idea of creating a volunteer water quality monitoring program for the lake. The *current* plan is to contract with Thurston County to conduct water quality monitoring every five years. Potential benefits of a volunteer program include the following:

- Could save the group money
- Could allow the group to collect data more frequently for a similar (or lower) cost to a contract with the County
- Would create a new way for committee members and other lakeside residents to become involved/invested in the lake

After the last meeting the group decided that this is an idea worth exploring further and asked for a more detailed breakdown of equipment costs and some different alternative monitoring scenarios. The table below shows two different summaries of the costs for conducting this monitoring. One assumes that the most expensive item, a multi-parameter water quality meter, is purchased and the other assumes it is rented. It is more expensive in the first year to purchase the meter, but is cheaper in subsequent years.

Water Quality Monitoring Costs per Season		
Equipment	Equipment Purchase	Equipment Rental
Secchi Disk	70	70
Water Quality Probe	3600	660
Water Quality Calibration Solutions	294	0
Kemmerer Sampler	564	564
Lab analysis Per year		
Total Nitrogen	156	156
Total Phosphorus	216	216
Chlorophyll-a	210	210
Algae ID	480	480
Other		
Misc. Supplies	150	150
Shipping (Chlorophyll-a only)	60	60
Total for first year	5800	2566
Total for subsequent years	1566	1932

Some useful background on this cost assessment:

- The water quality probe quotes came from Geotech Environmental Equipment in Kirkland, WA. The equipment rental price is \$110 for a 1-day rental. The total of \$660 assumes the group would rent the device for one day, six different times over the monitoring season.
- Prices for water quality analysis came from IEH Analytical Laboratories in Seattle, which is where Thurston County Environmental Health sends their samples.
- No costs are shown for data management, field labor, project administration, or transport to the field site (via boat). The assumption is that these elements would be provided by the City or volunteers.
- The City may have a need to purchase a water quality meter to support other Water Resources Projects. If this happens it may make sense for the BLMD to rent the equipment from the City. Water Resources staff are going to investigate this potential and provide a recommendation to the group.
- The group discussed the idea of sampling 3 times a season instead of 6, which would reduce the cost and time commitment. This suggestion was supported by Doug who believes it would still yield a useful dataset.

Based on these costs City staff provided 4 different monitoring alternatives to the status quo (where the County conducts the monitoring every five years). Each of these alternatives is cheaper than the status quo and increases the sampling interval. The group has not selected a specific path, but has decided to undertake this monitoring effort in the summer of 2019. Kathy and Gary have agreed to be points of contact for the group.

		Alternative 1	Alternative 2	Alternative 3	Alternative 4
	County monitors every 5 yrs	Conduct full monitoring every other year	Conduct full monitoring every other year and TSI monitoring during the middle years.	Conduct full monitoring every 5 years and TSI monitoring during middle years.	Conduct full monitoring every 4 years and TSI monitoring during middle years.
2021	4,805	2,566	2,566	2,566	2,566
2022			636	636	
2023		1,932	1,932	636	636
2024			636	636	
2025		1,932	1,932	636	1,932
2026	5,045		636	1,932	
TOTAL	9,850	6,430	8,338	7,042	5,134

General Business

2018 Budget and Work Plan Update

All of the items on the 2018 work plan have been addressed (see below).

The group did not have the most current budget information on hand so the budget was not discussed. City staff are going to update the budget to include the costs associated with the volunteer monitoring program and circulate the budget via email.

Walk About Recap

The October Walk About was enjoyed by all. The group decided that next year it would be better to have the walk in the spring when days are longer and they could take a more leisurely pace.

Private Shoreline Management Activities

Cathy expressed an interest in hiring a contractor remove floating mats from her shoreline this coming spring. She would like to coordinate with Doug to push the mats to her property so that her private contractor can reach them with a backhoe.

South Neighborhood Vacancy

No news. Position is still vacant and nobody has expressed interest in filling it.



**Barnes Lake Management District
2018 Work Plan**

For more information, visit: www.ci.tumwater.wa.us/BLMD.htm

The following tasks are outlined by month. Unforeseen circumstances may delay completion as expected.

January / February

1. Annual election of Steering Committee officers – Chair, Vice-Chair, Recorder
2. Submit 2018 Annual Work Plan for Council review and approval
3. Submit 2018 Operating Budget for Council review and approval
4. Begin preparation of Member Outreach letter to be distributed in March/April

March / April

1. Distribute outreach postcard (or NEWSLETTER) to LMD members relating to 2018 work plan, budget, schedule, and 2017 Treatment Summary Report. Include treatment notice for NWAES.

May / June

1. Review results of lake management activities
2. Conduct chemical treatment(s) on lake if possible (dependent on growth & water levels)
3. Contractor to provide floating mats to volunteer property owners for removal, as available.
4. Review Steering Committee Appointments; announce vacancies as necessary

July / August

1. Review results of lake management activities
2. Conduct aerial photo assessment of lake, as conditions permit
3. Conduct chemical treatment(s) on lake if possible (dependent on growth & water levels)

September

1. Conduct follow-up aerial photo assessment of lake, as conditions permit (GPS Assessment?)
2. Review results of lake management activities
3. Begin consideration of 2019 work plan based on LMD priorities
4. Review budgetary needs for 2019; revise roll of rates & charges as needed

October

1. Review permit compliance needs and requirements for 2019
2. Steering Committee's Annual Lake "Walk About", October 10
3. Submit revised roll of rates and charges to Tumwater Finance Department, as needed

November / December

1. Develop 2019 work plan based on 2018 activities, LMD needs and available budget
2. Review Treatment Summary Report and update IAVMP with results
3. Develop draft Operational budget for 2019
4. Finalize meeting schedule for 2019

** Items in **RED** signify new, or revised, work plan elements following acceptance by the LMD Steering Committee and Tumwater City Council **

Confirm 2019 Meeting Schedule

The group discussed and ironed out the 2019 meeting schedule.

February 13	Regular Meeting
April 10	Regular Meeting
June 12	Walk About
August 14	Regular Meeting
September 11	Annual Meeting
October 9	Regular Meeting
November 13	Regular Meeting

Member Comment

None

Agenda Items for Next Meeting

- Volunteer monitoring program update

Adjourn

Chair Bodeutsch adjourned the meeting at 8:00 p.m. The next Steering Committee meeting for business will be held on February 13th.

Minutes submitted by: Chris Hartman, 12/11/2018

Minutes approved by: Gary Bodeutsch, 12/20/2018