



**BARNES LAKE MANAGEMENT DISTRICT
MEETING AGENDA**

Online via Zoom

**Wednesday, January 12, 2022
6:00 PM**

1. Call to Order
2. 6 PM - Introductions and Agenda Review
3. Approval of Minutes
 - [a.](#) Barnes Lake Management District Meeting Minutes 11-10-21
4. Public Comment
5. Member Comment
6. Lake Management
 - [a.](#) 2021 Treatment Program Update (Dorling)
 - b. Floating Mats Management (Dorling)
 - c. Lake Access Improvement Update (Dorling)
 - d. Lake Levels (Kangiser)
7. General Business
 - [a.](#) 2021 Budget, Assessment and Work Plan (Smith)
 - b. Member Outreach Newsletter Assignment Updates (Assigned Committee Members)
 - c. Rate Increase Subcommittee Update (Peterson)
 - d. South Neighborhood Committee Member Vacancy Update
 - e. Open Public Meetings Act Discussion
 - f. COVID-19 Vaccine Mandate Discussion
8. Next Meeting Date - 02/16/2021
9. Adjourn

Remote Meeting Information

To comply with Governor Inslee's Proclamation 20-28, the City of Tumwater meetings will be conducted remotely, not in-person, using a web-based platform. The public will have telephone and online access to all meetings.

Watch Online

<https://us02web.zoom.us/j/81929856838?pwd=STR3cHlwTXVEQjJmQk12TFI2ZEExQT09>

Meeting ID: 819 2985 6838

Passcode: 712290

Listen by Telephone

Call (253) 215-8782, listen for the prompts and enter the Webinar ID 819 2985 6838 and Passcode 712290

Accommodations

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BARNES LAKE MANAGEMENT DISTRICT MEETING MINUTES

Online via Zoom

Wednesday, November 10, 2021
6:00 PM

1. **Call to Order:**

Chair Gary Bodeutsch called the regular meeting of the Barnes Lake Management District Steering Committee to order at 6:05 PM.

2. **Roll Call:**

Gary Bodeutsch (Chair), Linnea Madison (Vice- Chair), Jody Keys, Dana Day, Tom Sparks, Kathy Peterson, Tom Oliva, Judith Loft, Dave Kangiser (Water Resources Specialist), Dan Smith (Water Resources and Sustainability Director)

The following Steering Committee Members were excused: Rusty Weaver, Lalani Shelton, Bob Gillette, Contractor Doug Dorling (Northwest Aquatic Eco-Systems)

3. **Approval of Minute:**

The September 8, 2021 Steering Committee minutes were reviewed. Member Peterson identified misspellings of Judith Loft and Doug Dorling. The minutes were approved as amended. Member Peterson motioned to accept, Member Sparks seconded the motion, the vote was unanimous.

4. **Public Comment:** Resident Tom Oliva provided public comment:

There are a few aquatic weeds that he didn't recognize and a few pink lilies that he hasn't seen in a while. The lake looks great. Resident Oliva referenced the 2015 low lake level in the 9-8-2021 meeting minutes. He remembers that 2001 seemed to be lower to where he could walk to an island in the middle of the lake. Based on the progress he has seen throughout the years of treatment, he supports an assessment increase. He thought it would be a good idea to send out agendas and minutes well before meeting dates. He would like to see the City Council renew LMD. He thanked the Steering Committee for their service.

5. **Member Comment:** See floating mats

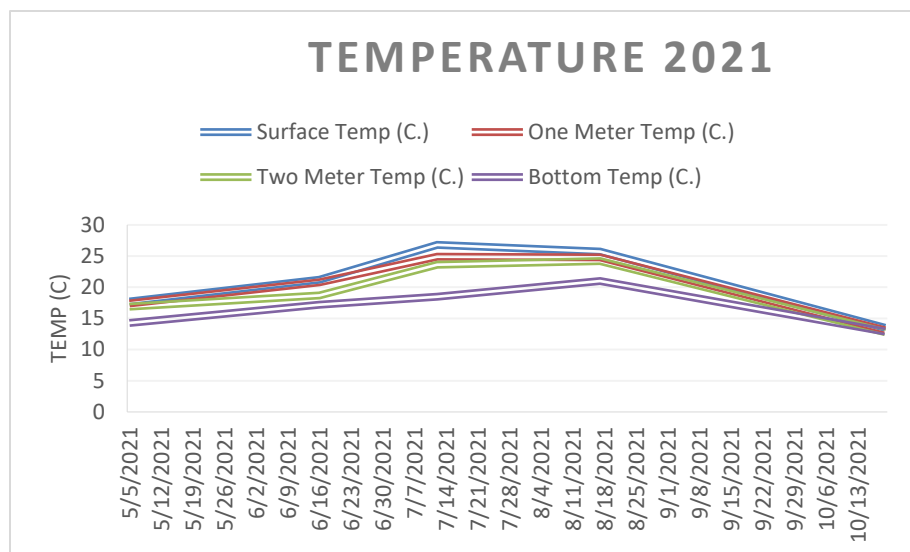
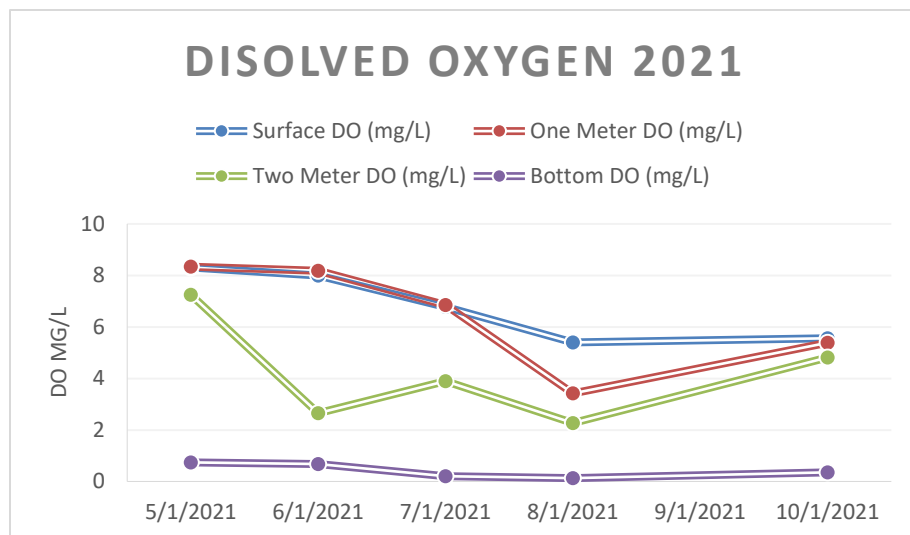
6. Lake Management:

a. 2021 Treatment Program Update (Dorling): Contractor Dorling with Northwest Aquatic Eco-Systems (NWAES) was excused from the meeting. There was no immediate update on the Treatment Program.

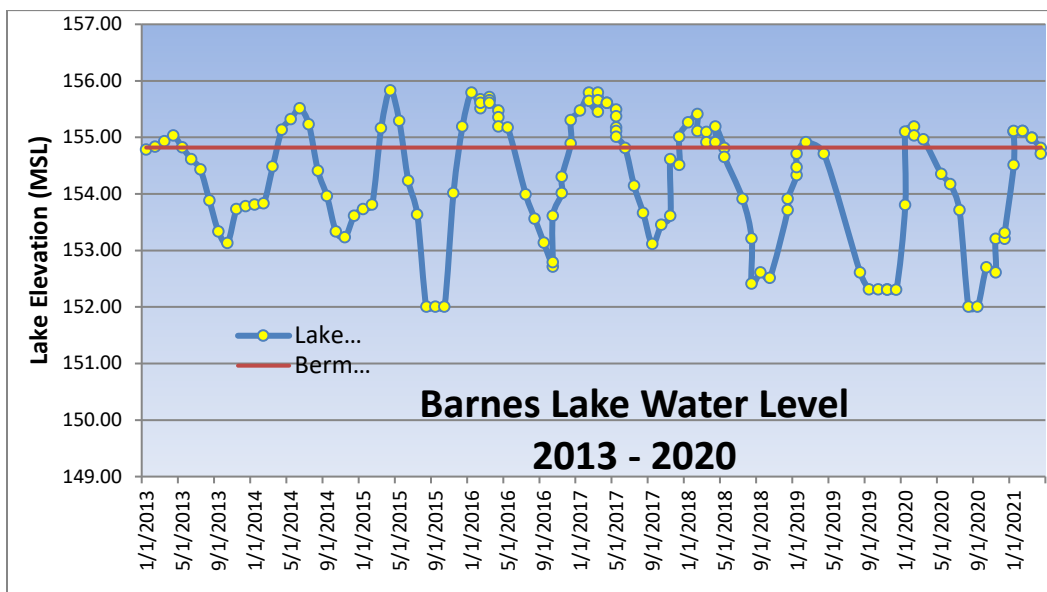
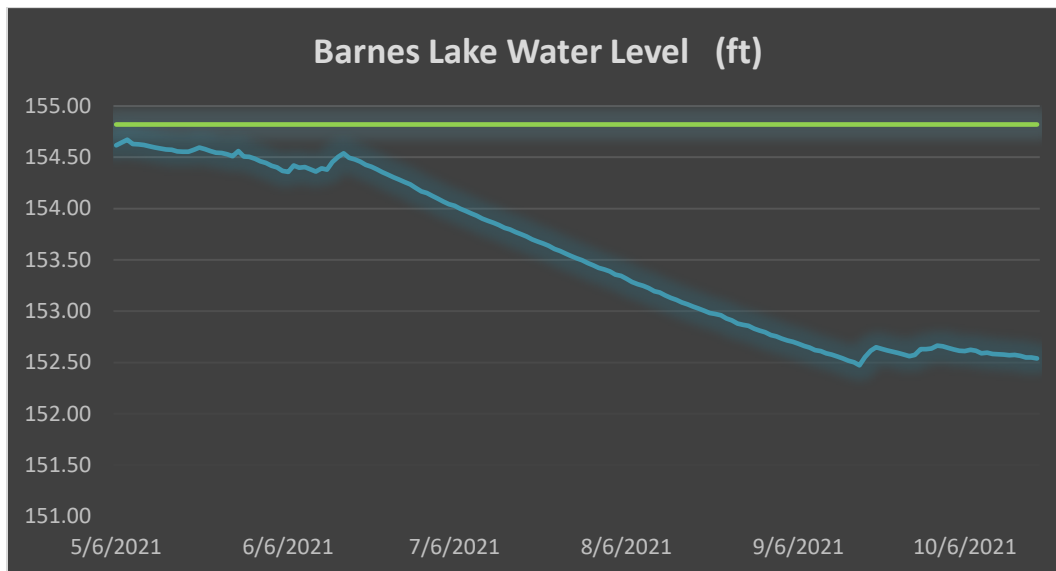
b. Lake Access Improvement Update (Dorling): Contractor Dorling was excused from the meeting. Member Day said that Contractor Dorling was supposed to coordinate contractors to notify Member Day when they would be coming to the lake access to formulate bids for the work. No contractors have contacted Member Day yet.

c. Lake Levels and Water Quality (Kangiser): Specialist Kangiser gave the water quality update. Laboratory analyses in 2021 were not very helpful. The results from all of the samples submitted for analysis came back as “Non-Detect” for Total Phosphorous and Total Nitrogen. There seems to be a shortage of staff at laboratories who conduct these analyses and the problems seem to be industry wide. Before next water quality sampling season, Specialist Kangiser will shop around for a new lab that is reliable.

Water temperatures and Dissolved Oxygen are becoming homogenized, which is typical of fall/winter characteristics of a shallow lake. No more sampling events are planned for 2021.



Water levels hit a low level of 152.5 ft. for 2021 before fall rains came to stabilize lake levels. The last water level reading was on October 19, 2021.



d. Floating Mats (added to agenda): There was a group discussion about floating mats. Several members dislike when mats move. There is a fear that some lake front residents could become land locked and unable to access the lake for recreation. The floating island that moved during the summer months to DOT Island is secured with rebar. Member Madison would like the floating islands managed to some degree. Several management questions came out of the discussion.

- What size of mat needs to be managed? Chair Bodeutsch cuts them up to manageable pieces and removes them from the water.
- Should this be something that is included in the NWAES contract?

The Steering Committee would like Contractor Dorling's input on what can be done to manage the floating mats. Discussions with Contractor Dorling would need to start early in the calendar year of 2022. Director Smith indicated that floating mats management should be included in the NWAES Contract if managed by Contractor Dorling.

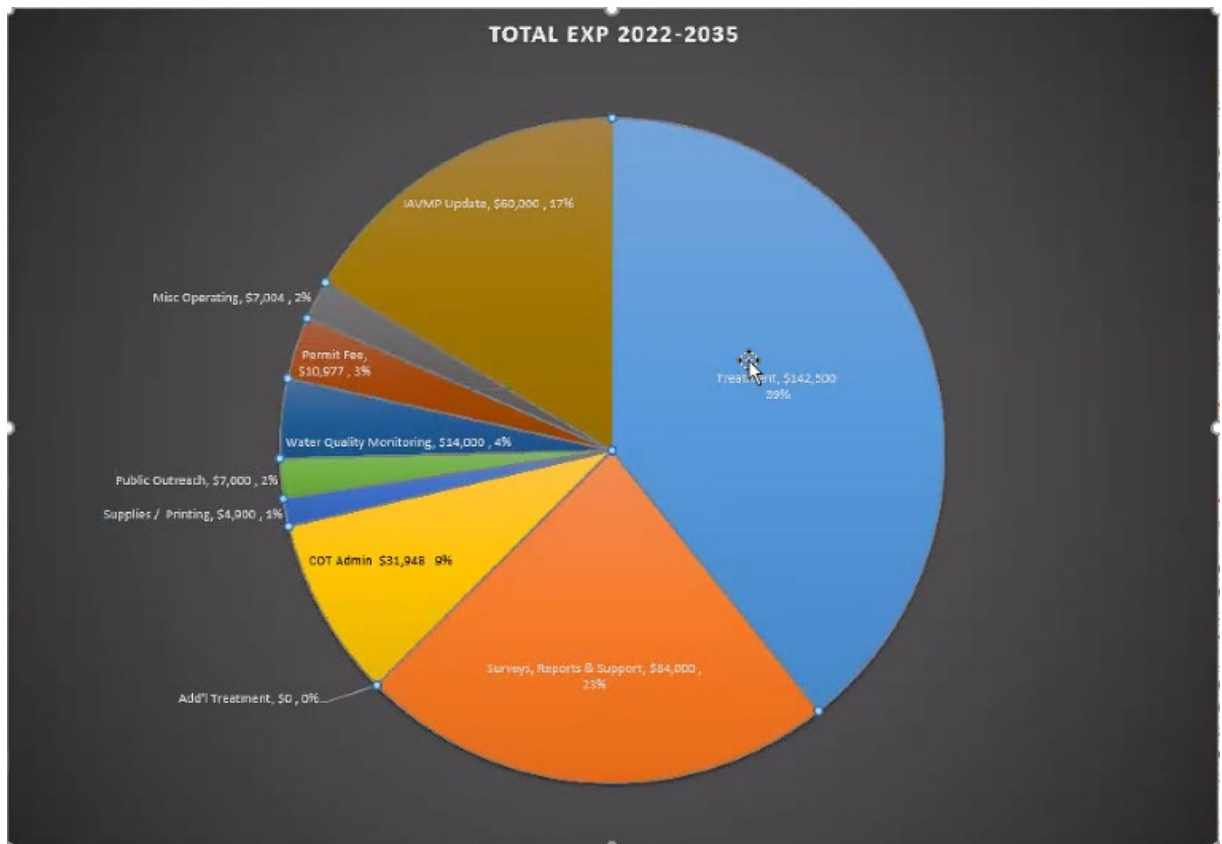
7. General Business

a. 2021 Budget, Assessment and Work Plan (Smith): Director Smith reviewed the budget. A few expenditures have not been realized (Ecology Permit, City of Tumwater administrative costs, and 2021 NWAES invoice). 2021 Assessment revenues are accurate and liens have been filed for non-payment. Assessments that are outstanding are only from last year and this year. The anticipated end balance for 2021 will be pretty close to zero this year.

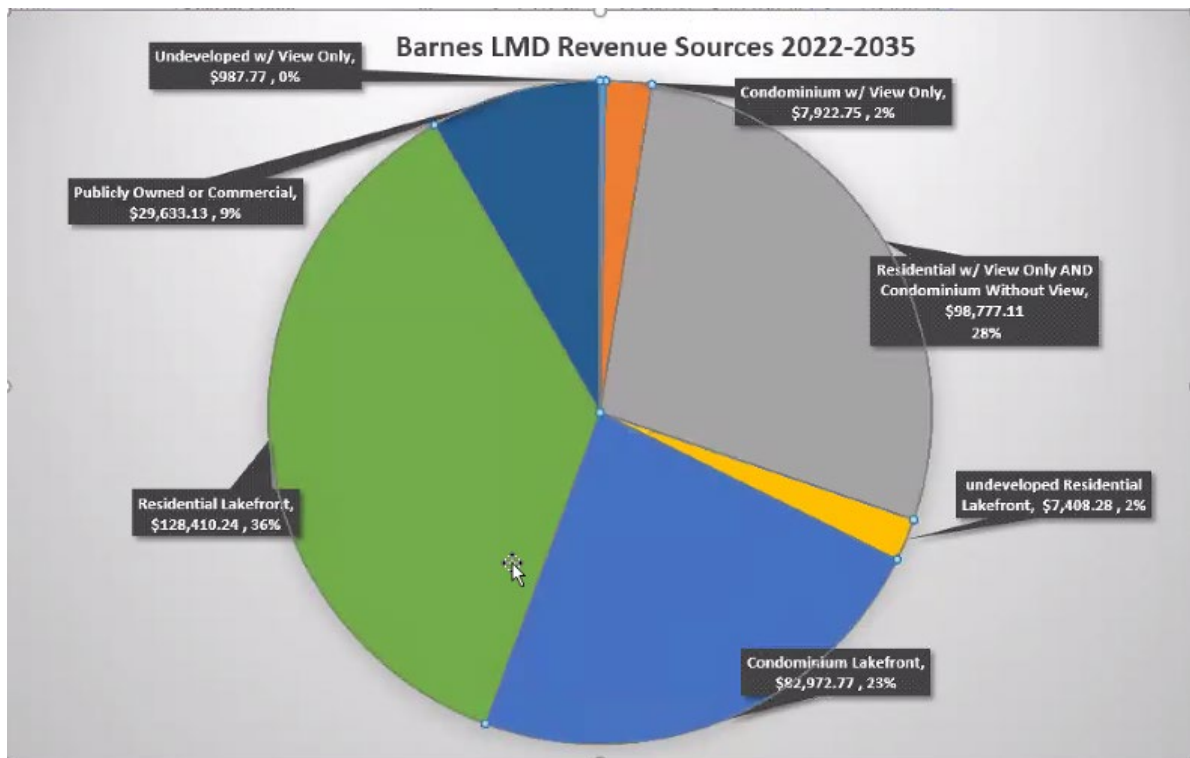
b. Work plan: Director Smith reviewed the 2021 work plan. Contractor Dorling scheduled aerial assessments for August and September; however, it is not clear whether the aerial assessments have been completed. The annual meeting had to be postponed in 2021 due to COVID restrictions.

c. Member Outreach Newsletter Assignment Updates (Assigned Committee Members): Member Peterson summarized an October 16 email to Steering Committee members about reaching out to their LMD neighbors regarding their thoughts relative to the status of the lake, and also to begin discussion about the need to discuss rate increases. Member Sparks explained some ideas for newsletter articles such as how the lake has improved by referencing the treatment reports. Another suggestion was to get some quotes from neighbors as well as solicit neighbors to see what they would like done with the lake such as private treatments or floating mats management. Vice-Chair Madison would like to focus on the assessment increases and encourage communication and feedback to the Steering Committee. Members Loft and Peterson volunteered to write articles about lake improvements and neighbor feedback as well as assessment increases.

d. Rate Increase Subcommittee Update (Peterson): Member Peterson shared that she has approached LMD members in her neighborhood regarding assessment increases and received positive feedback. She encouraged LMD members to sign up for notifications and updates through Constant Contact on the Barnes LMD Webpage. Director Smith noted that sufficient funds remained at the end of the financial forecast in 2033-2034 to prepare an update to the LMDs Integrated Aquatic Vegetation Management Plan that would consider lake management considerations for 2035 and beyond to identify any future lake management needs.



Director Smith shared a revenue breakdown:



Members discussed the usefulness of graphics to include in the newsletter. Director Smith will submit all visual data to Communications staff to for refinement. It was determined that a 98% increase in assessment revenue will be realized from beginning of the LMD to end of life of the LMD. State law caps the increase at 110% increase for the life of the LMD.

Director Smith shared the Fee Increase Adoption Process:

2022 Fee Increase Adoption Process

TASK	DUE DATE	LEAD
Plan Developed /Approved	November 10, 2021	Dave / Dan / Committee
Stakeholder Notification	January 13	
Informational Materials	January 13	Dave / Dan / Ann Cook
Committee Outreach	January - February	Kathy Peterson
E-News Update	January 31	Dave / Dan / Ann Cook
Steering Committee Listening Session	February 16	Gary
Public Works Committee Update	March 3	Dan
City Council Public Hearing	March 15	Dan /Gary
City Council Adoption	March 15	Dan / Gary

Additional Elements:

- Letter from Committee to LMD members signed by LMD Committee
- LMD increase limited to 110% of original assessment. 5% annual through 2031 is ~98%
- Periods of negative balance will be assessed a minimum interest charge from City

Applicable Laws:

- <https://app.leg.wa.gov/RCW/default.aspx?cite=36.61.270>
 - This just states we have the authority to impose rates, and can be flexible downward (low-income provisions).
- <https://app.leg.wa.gov/RCW/default.aspx?cite=36.61.180>
 - This requires a public hearing and notification. Objections can only be considered in writing.
- <https://app.leg.wa.gov/RCW/default.aspx?cite=36.61.170>
 - This caps any amendment at 110%.

The February 16 Steering Committee Listening Session would be encouraged for public attendance.

Member Sparks asked if there is a way to count who is signed up for notifications. Director Smith answered that the City of Tumwater has metrics available through Constant Contact.

The Barnes Lake Condominium's Annual Meeting is scheduled for February 5. This timeline aligns with the assessment increase process to gain feedback and would be an opportunity to engage condominium residents to participate in the Steering Committee Listening Session.

Member Peterson motioned to move forward with the timeline for assessment increase. Member Loft seconded the motion. The vote was unanimous.

e. Service Provider Agreement for NWAES Renewal: The Steering Committee came to a consensus to continue moving forward with NWAES for lake treatment services. Steering Committee leadership will check with Contractor Dorling to see if NWAES services are available for contract renewal. The contract renewal shall include floating mats management and lake access improvement coordination.

f. South Neighborhood Committee Member Vacancy: Member Sparks will try to recruit a new Steering Committee member to fill the vacancy.

g. Update Committee Contact List: Director Smith will send out contact list for members to update.

h. Committee Positions: Member Peterson motioned to keep Committee Chair, Co-Chair, and Recorder the same for 2022. Member Loft seconded the motion. The vote was unanimous.

i. 2022 meeting dates: Steering Committee regular meeting dates for 2022 were identified as follows:

January 12

February 16 (Listening Session)

March 9

March 15 (City Council Assessment Review)

May 11

June 8

September 14

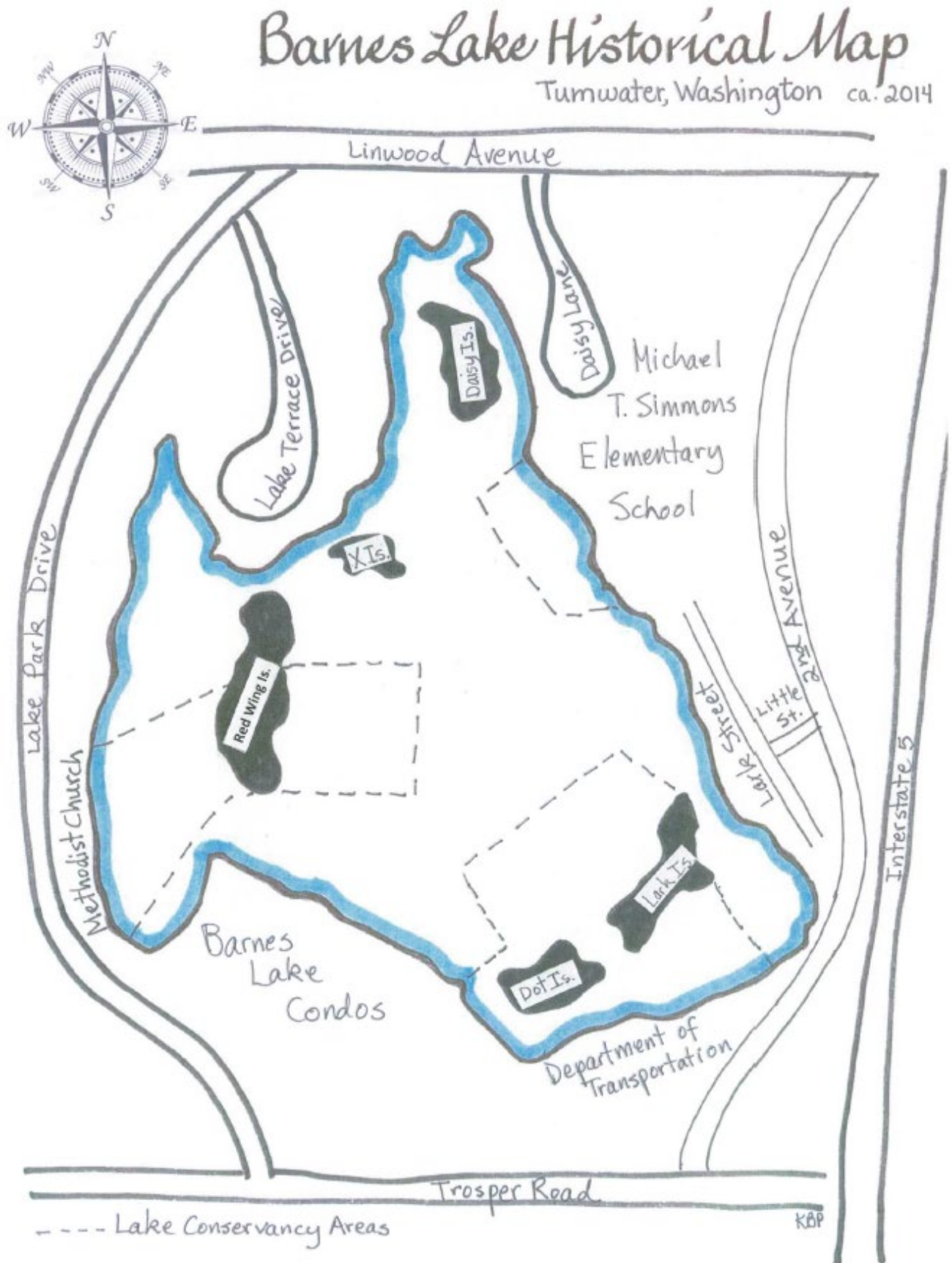
November 9

8. Agenda Items for Next Meeting:

- a. Floating Mats Management
- b. Assessment Update
- c. Newsletter Update
- d. Lake Level Update
- e. General Business

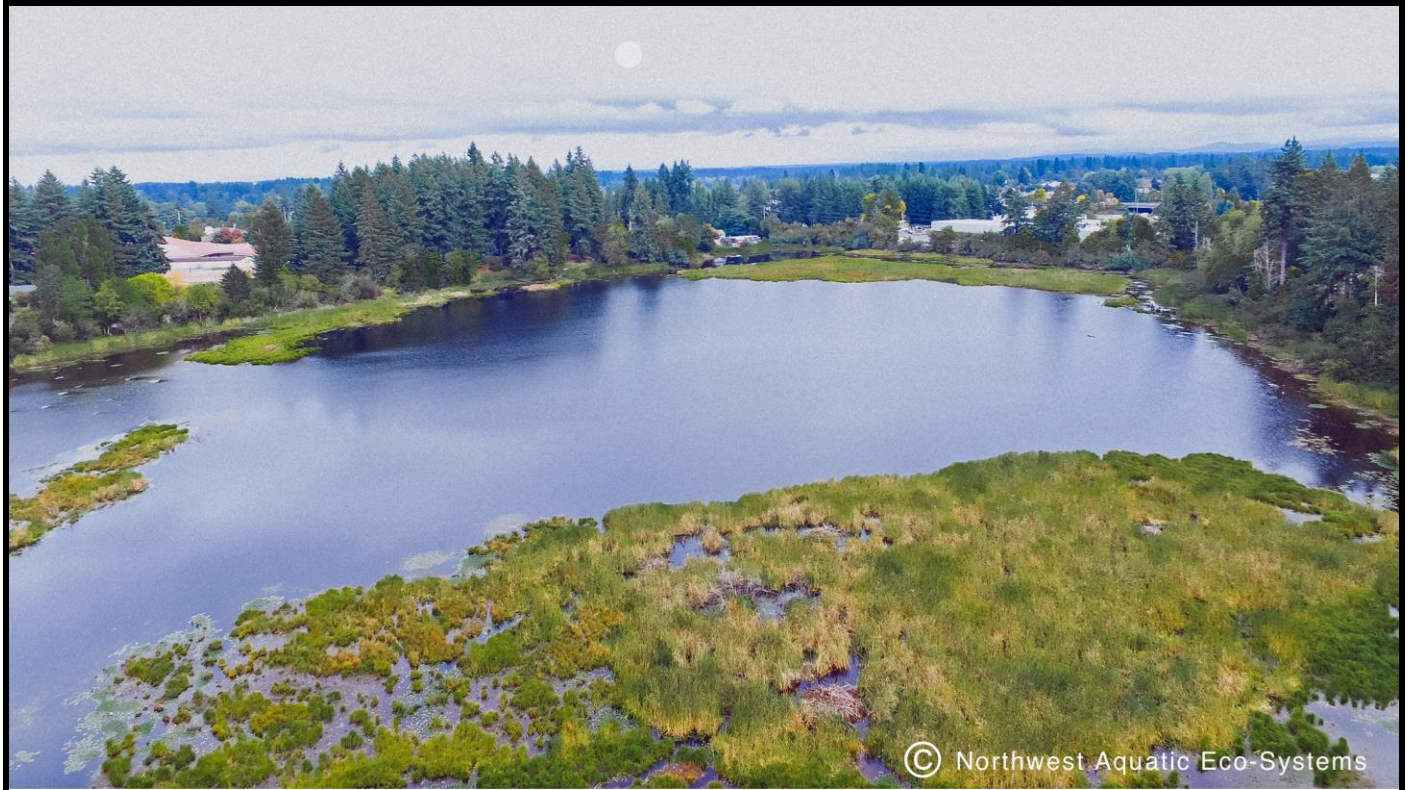
9. Adjourn

Chair Bodeutsch adjourned the meeting at 7:57 PM.



Barnes Lake

2021 Aquatic Macrophyte Control Program



Prepared By
Northwest Aquatic Eco-Systems
855 Trosper Road SW #108-313
Tumwater, WA 98512
360-357-3285
Pondweeds@comcast.net

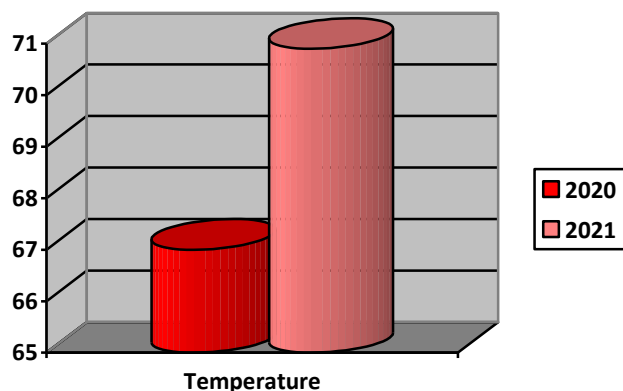
Project Overview

Program components were substantially reduced during 2021 as a result of the whole lake 2020 fluridone treatment. No submersed weed control activities were conducted under the LMD sponsored protocol. Floating plant control directed at lily pad growth was performed once during the season before water level issues restricted access. The major event that had previously occurred within the Barnes Lake system was the treatment of the lake with fluridone to control (eradicate) non-native bladderwort during the 2020 season. The 2020 fluridone application was initiated later in the year than the 2017 campaign and resulted in bladderwort control, fragrant water lily control and brasenias control. Fluridone use during 2020 was anticipated to mimic past protocol by eliminating large yearly treatment expenses during post treatment years. 2021 was the first post treatment year resulting from the 2020 application. The success of the treatment eliminated but did not eradicate the bladderwort infestation from Barnes Lake. Low water level and the late treatment start date required the second fluridone booster application to be applied earlier than anticipated. Water level issues likely created bladderwort plants that may have become landlocked within the floating islands resulting in a reduced exposure interval for these plants. High winter water levels may have dislodged untreated bladderwort into the main lake basin. Not only may low water levels have impacted bladderwort control, lily pads once floating on the water's surface may have also become victims of low water, remaining viable in the soft bottom sediment muck but without access to fluridone infused lake water. Anticipated reduced expenditures for the years 2021, 2022, 2023 and possibly 2024 were incorporated into the future planning model.

The main component for 2021 was to observe the lake's response related to past efforts and provide timely minimal shoreline control activities for lily pads and spot applications for submersed weeds when deemed appropriate.

Survey 5-15-21

The initial and only survey performed during 2021 was undertaken on May 15. This survey date was within a few days of the 2020 campaign. Water level was adequate to access all the lake areas. Noted was the elevated lake temperature from the 2020 survey. Lake temperature had increased from 67 degrees to 71 degrees.



Survey Protocol

A macrophyte survey map is produced each year and incorporated into the baseline IAVMP for Barnes Lake. The surveys are then utilized to monitor yearly weed growth and assist in establishing potential management sites. Electronic bottom surveys have been conducted since 2015.

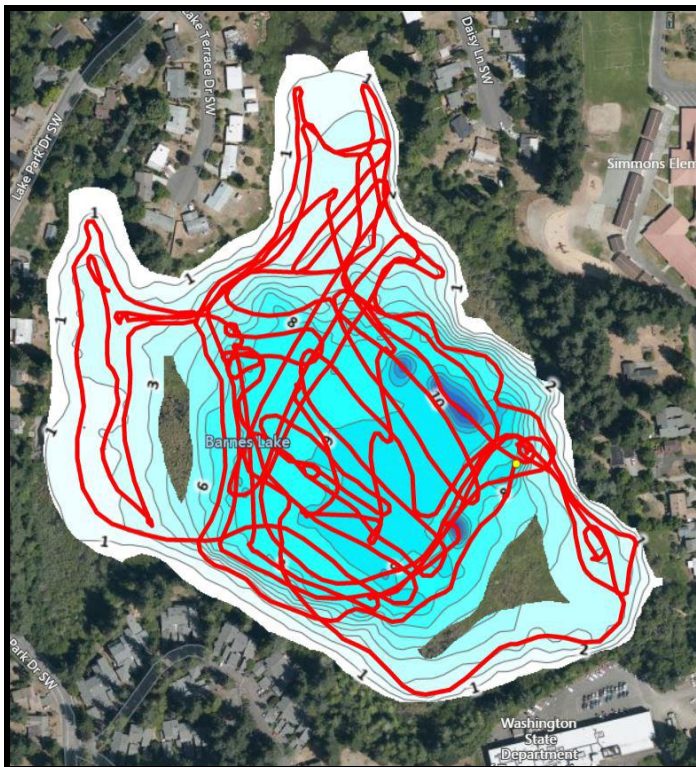
The NWAEE mapping protocol utilizes state of the art Bio Base mapping technology. This system produces three map types consisting of a bathymetric contour, a sediment composition profile and a macrophyte density map. All maps are GIS friendly and can be exported into any GIS program. Maps are color coded so they can be easily evaluated by any viewer.

Mapping technology utilizes specialized transducers that electronically collect thousands of data points as the survey boat transects the lake's littoral zone. Data is recorded and viewed onboard. Each file contains one hour of survey data. A completed survey may be comprised of one or more files. Upon completion, all the program files are downloaded and processed. The survey and sonar log produces a stored electronic file of the lake bottom that can be viewed in house at any time and allows the ability to view plant growth along the boat's survey track.

Our protocol encompasses a surface vehicle transecting the lake along the entire littoral zone. Boat tracks are designed to be approximately 150 feet apart. Sonar beam data collection extends approximately 150 feet from all directions surrounding the boat. To ensure the efficacy of the survey, a bottom sampling rake is thrown from the boat at various locations lake-wide. The rake is then drawn across the lake bottom, brought to the surface and into the boat. Plants attached to the rake are identified and confirmed as being the same species as noted through the structure scan or visually noted through the water column. This sampling point is then incorporated into the file data log as a single point reference, noting the species captured during the rake tow. These points are then added to the final project map.

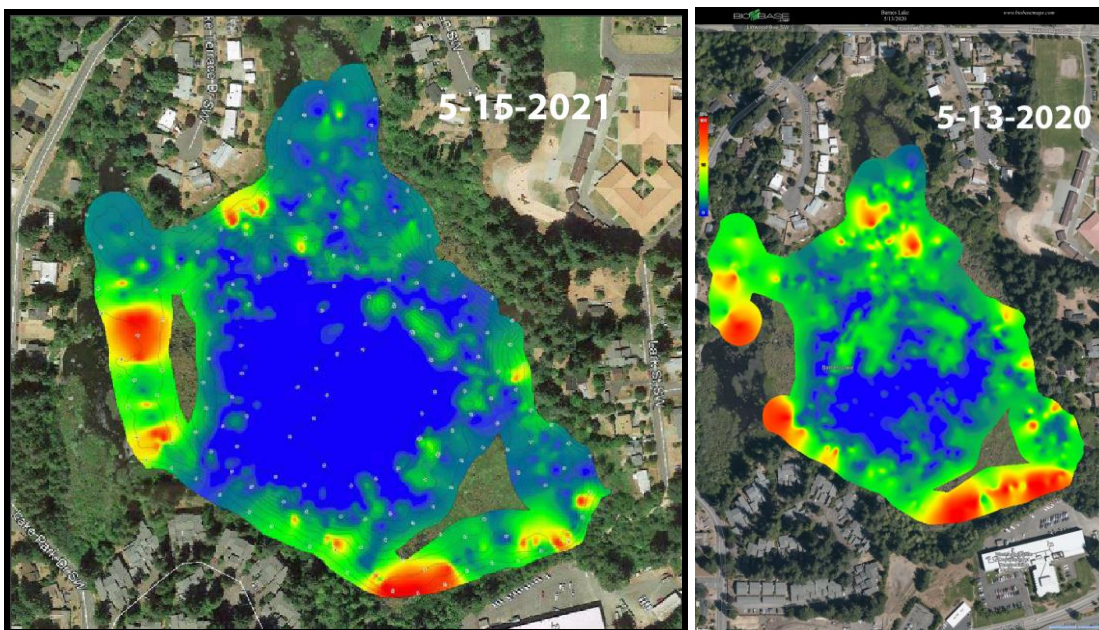
BioBase survey technology provides accuracy in water depths of greater than 2.5 feet. Data collected below the three foot threshold may be skewed because of signal related issues from the reflected bottom transducer readings from the shallow depths. These

depth issues and data acquisition distributions are typical for the Branes Lake shallow canal and island associated segments of the lake. In general, the surveys efficacy was limited to the main lake basin.



May 2021 Survey Tracks

NWAE had only one successful drone survey of the lake performed on Oct 3, 2021. Although an earlier spring survey was performed, the data was processed later in the year and the file was found to be corrupt. These drone surveys establish a clear visual interpretation of lake conditions at the time of the aerial survey. Pre-treatment pictures/video are typically evaluated against post treatment aerals taken at the end of the season.



All of the dark blue areas represent biomass densities within the water column of 0 %. The remaining green areas represent densities of less than 40%. While the red areas constitute densities of 100%.

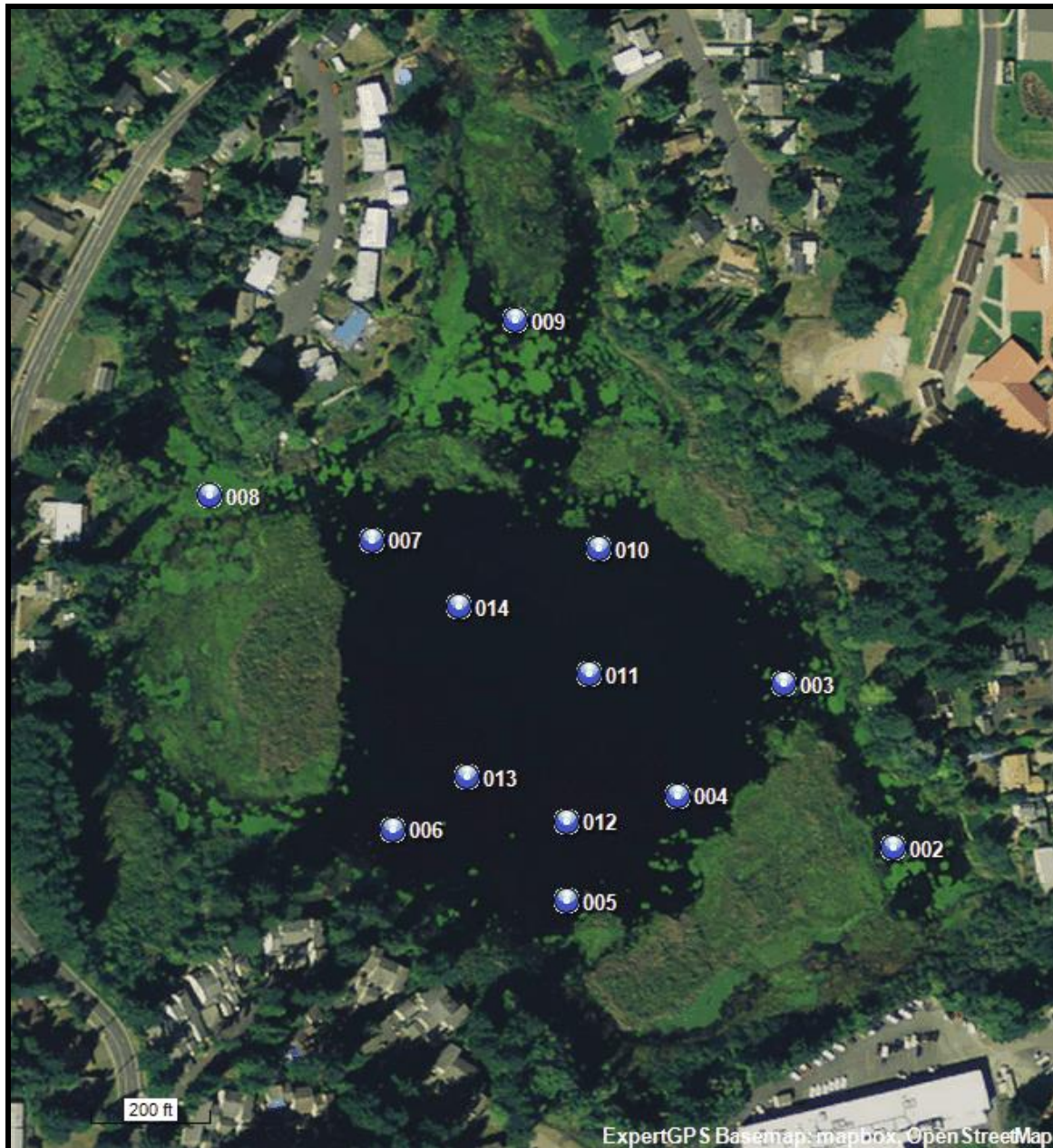
A majority of the green shaded areas were experiencing a filamentous algae growth, nitella. This plant looks similar to aquatic macrophytes but is an algae species. When trying to identify aquatic plants many residents misidentify this species as a plant simply because of its physical and growth characteristics. Nitella seldom creates water related recreational issues.



Nitella

GPS Grab Sample GPS Coordinates

During the survey, 13 sampling data points were collected. Additional sites can be incorporated into the file at any time if warranted. Only one site (003) identified bladderwort while the remaining sites exhibited no weed growth. Four sites exhibited the presence of nitella. These sampling points can now be used yearly to monitor changes in weed species at each site. Although only four sites identified nitella within the rake tows, visual observations as the boat conducted the survey noted a much greater range.



Data Point	Lat	Long	Species	Depth
002	N47 00.185'	W122 54.814'	NO	4.08
003	N47 00.230'	W122 54.858'	BLAD, NI	8.65
004	N47 00.199'	W122 54.900'	NO, NI	14.86
005	N47 00.171'	W122 54.945'	NO	8.65
006	N47 00.190'	W122 54.014'	NO, NI	8.20
007	N47 00.269'	W122 54.023'	NO, NI	6.95
008	N47 00.282'	W122 54.088'	NO	2.66
009	N47 00.330'	W122 54.965'	NO	2.54
010	N47 00.267'	W122 54.932'	NO	8.50
011	N47 00.233'	W122 54.936'	NO	9.71
012	N47 00.192'	W122 54.945'	NO	9.74
013	N47 00.205	W122 54.984'	NO	9.16
014	N47 00.251	W122 54.987'	NO	8.90

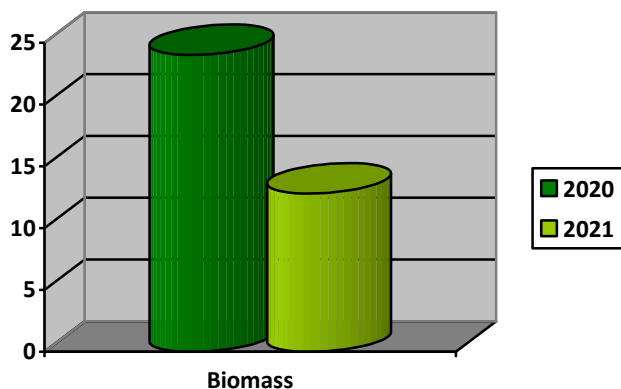
Grab Sample Point Dictionary

NO - No Macrophytes present, algae not included

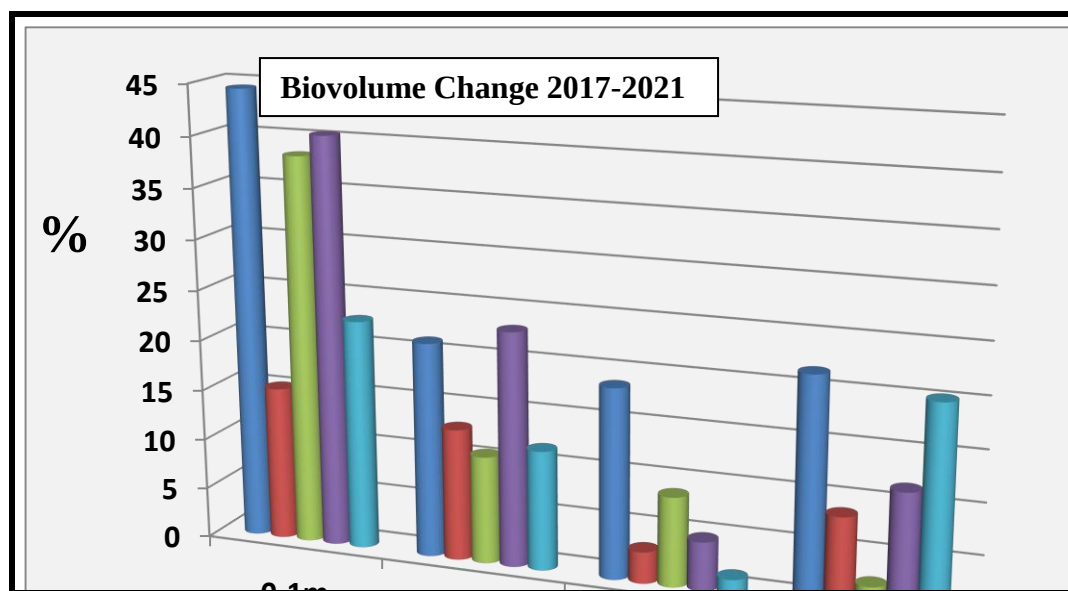
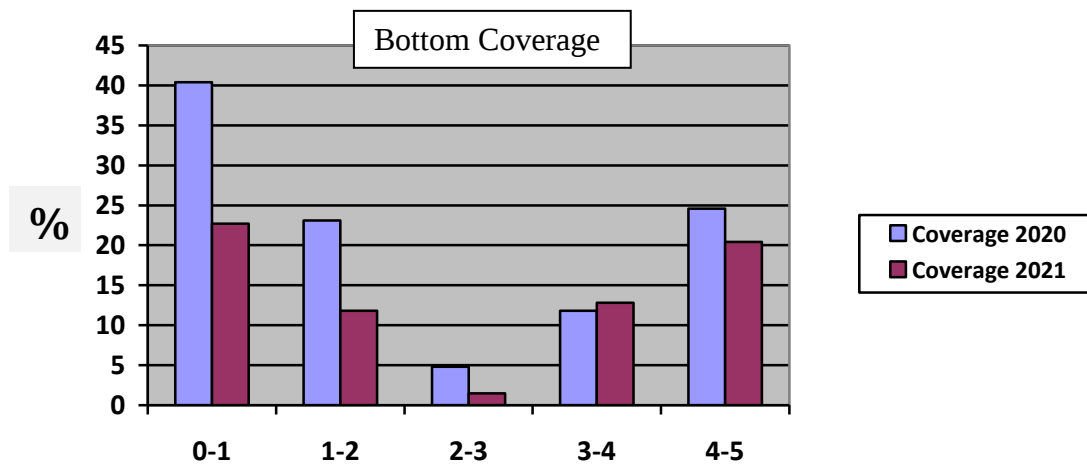
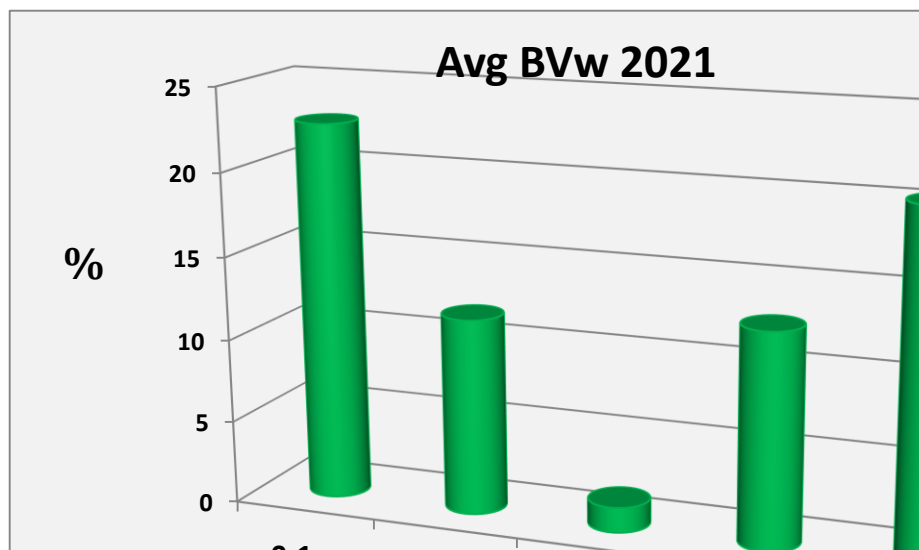
BLAD – Bladderwort

NI - Nitella

In evaluating all of the data utilizing a grid format (considered within the industry to be the most accurate summary of a surveyed area) and a plant bio volume matrix, the following volumes were noted. Plant biovolume is the percentage of plant biomass taken up in the water column by vegetation when plants exist. When no plants are noted a zero is added into the calculations. The complete 2021 survey identified that only 12.8% of the surveyed water volume supported plant growth in comparison to 24% in 2020.



One can further fine tune the analysis and determine bio volumes at one meter intervals.



Limited historical change was noted. Much of the shallow lake areas that are exposed during the late summer typically support varying densities of emergent, floating and submerged species. Mid basin growth through the years will increase and likely trigger the next fluridone treatment. Bladderwort is a free floating plant that resides dormant on the lake bottom in small ball like configurations. These free floating masses drift along the lake bottom eventually reaching the shoreline.

Pre-Treatment Residential Notice

Notices were mailed to all of the property owners within the lake management district from a mailing list provided by the City of Tumwater. The notice identified the materials to be used and the approximate time-frame when spraying would occur. Mailings were delivered on or about May 1, 2021.

6-03-2021 Treatment

Only one application was administered during the 2021 season. This application targeted floating lily pads, brasenias and yellow flag iris. Prior to treatment, shoreline residents were notified of the pending treatment. Notices were hand delivered to each parcel abutting the lake.

Imazapyr and triclopyr based herbicides were applied to the lake shoreline at a 1% tank solution. In addition to the herbicide, a spray adjuvant was added to the mixture. Spray adjuvants are wetting agent activators that allow for better penetration of the herbicide into the plants' leaf structures. Spraying was accomplished using a 16 foot Airgator airboat. The application boat was equipped with two 25-gallon spray tanks. Once the herbicide, adjuvant and water were mixed, the boat traveled along the shoreline spraying all infestations noted and that were within range of the application equipment.

Drone Survey 10-03-2021

An aerial survey of Barnes Lake was conducted on October 3, 2021. Imagery was collected from two shoreline locations. Although the water level was low, the data collected clearly identifies late seasonal Brasenias growth along a number of the shallow shoreline areas. Both an early and August spraying should be considered. Typically by August our ability to utilize the current launch site leaves few options to complete the August spraying. On other projects we have been able to hand carry and launch a smaller boat with the spraying operation being conducted utilizing a gas powered back pack sprayer.



Recommendations for 2022

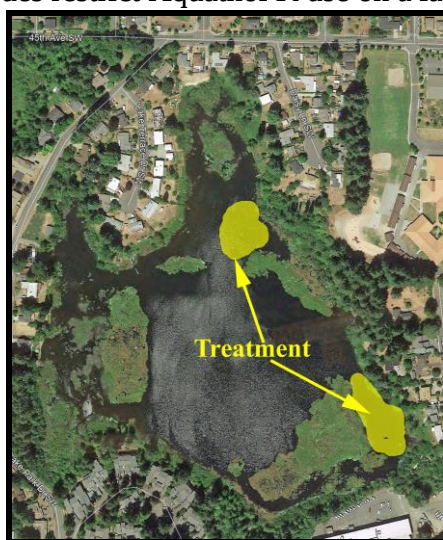
2022 will be the second year after the total lake fluridone application of 2020. We anticipate no bladderwort issues that would warrant spot treatments. Minor lily pad and pondweed control will, however, likely be required. Most all residential lily pad infestations lake wide have been reduced or eliminated. None restrict recreational lake use.

Our program on the lake continues to evolve as new issues may develop. Pondweed control, if necessary, will be accomplished with the use of Aquathol K. There are no label restrictions associated with swimming, fishing or irrigation. Herbicide costs have increased considerably over the last six months with some materials experiencing a 200% increase while other materials may not be available until late second quarter of 2022.

1. Continue early and late seasonal drone surveys of the lake. One early (late May) seasonal electronic and bottom sampling lake event. If water level provides access,

an additional electronic survey and bottom sampling event will be conducted. A late seasonal survey was not available for 2021. Now that survey data points have been established, these sites will be visited each year in an effort to document macrophyte changes on a per site basis. This will provide for an historical timeline, noting yearly changes at each site. These sampling stations will assist in determining the threshold for future fluridone treatments.

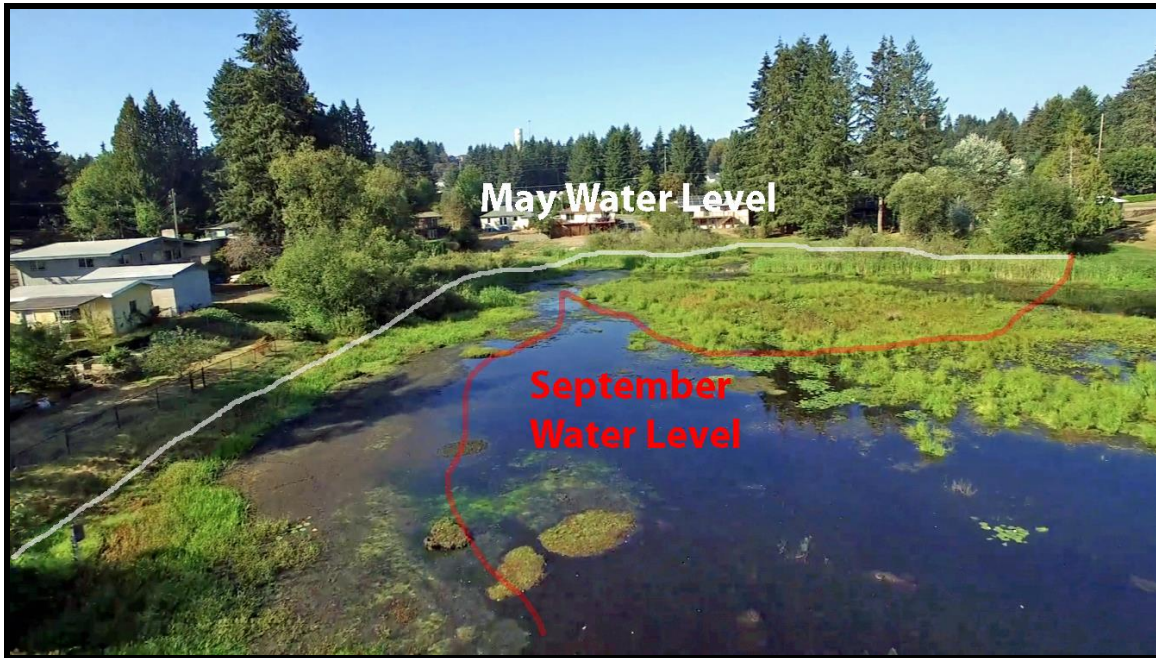
2. During 2019 two areas of the lake were identified as potential pondweed control candidates. Both these areas maintain water throughout the summer months and if inundated with submersed pondweed growth may restrict small craft access to the main water body. We have estimated both sites totaling no more than two acres. Control will be performed utilizing Aquathol K in either the liquid or granular formulations. Costs would range between \$910.00 and \$1,200.00 per treated acre. Budgetary issues restrict Aquathol K use on a large scale basis.



Potential Problematic
Weed Growth Areas.

3. Continue use of triclopyr and imazapyr in the control of lily pads and yellow flag iris. Spring and possible late summer applications will be scheduled.
4. Program essentials consist of planned fluridone applications when bladderwort densities impede lake use. Threshold levels that determine treatment are under the discretion of the LMD with recommendations being provided by the consultant. It is anticipated that such treatments will be required on a three to five year basis. Efficacy of fluridone applications is largely dependent on the water level allowing fluridone to reach infestations lodged within the floating islands. Untreated bladderwort, as water levels decline, will potentially refloat during the winter months as once exposed muck bogs are now submerged.

2018 Water levels



5. Modification to the current launch site will again be attempted. Failed attempts to correct the launch shortfalls during 2021 resulted in no changes to the site. Targeted changes would include removal of stumps and placement of large rock along the launch site shoreline.
6. Barnes Lake is currently in a maintenance mode requiring limited treatment.

Budget 2022

Funding for the 2022 program will require increases in associated labor related services as a result of the current available workforce. Material costs and transportation have skyrocketed with some products not being available until the second quarter of 2022. Some products will not be available at all. Pricing continues to change monthly with some materials already experiencing a 125% increase from 2021 levels.

2022 NPDES permit fee		\$ 725.00
Insurance		\$ 675.00
Spring Electronic Bottom Survey		\$ 2,000.00
Fall Electronic Bottom Survey		\$ 2,000.00
Aerial Survey (2)		\$ 1,000.00
Pre Treatment Mailing		\$ 175.00
Shoreline Posting Day of Treatment		\$ 210.00
Mobilization		\$ 500.00
Imazapyr 1 gal	@	\$ 175.00
Triclopyr 1 gal	@	\$ 150.00
Aquathol K 1 gal	@	\$ 95.00
Airboat Operator		\$ 100.00/hr.
Technician		\$ 75.00/hr.
Year End Report @ \$90.00/hr.		\$ 630.00

COSTS ASSOCIATED WITH ONE DAY ON THE LAKE

Mobilization		\$ 500.00
Airboat Operator	8 @ \$100.00	\$ 800.00
Technician	8 @ \$75.00	\$ 600.00

State of Washington
Department of Agriculture
Olympia, Washington 98504

PESTICIDE APPLICATION RECORD (Version 3)

NOTE: This form must be completed same day as the application and it must be retained for 7 years. (Ref. RCW 17.21)

3. **Date of Application-Year:** 2021 **Month:** June **Date:** 03 **Time:** 10:00

2. **Name of person for whom the pesticide was applied:** Barnes Lake Improvement District,
City of Tumwater

Firm Name (if applicable):

Street Address: 555 Israel Road **City:** Tumwater 98512

3. **Licensed Applicator's Name (if different from #2 above):** Douglas Dorling

Firm Name): Northwest Aquatic Eco-Systems
4426 Bush Mountain Drive SW.
Olympia, WA. 98512
360-357-3285

License # 375

4. **Name of person who applied the pesticide (if different than #3 above):**

License No(s). if applicable:

5. **Application Crop or Site:** Barnes Lake

6. **Total Area Treated (acre, sq. ft., etc.):** 1 acre

7. **Was this application made as a result of a WSDA Permit ?** No

8. **Pesticide information (please list all information for each pesticide in the tank mix):**

a) Product Name Pesticide Applied	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre or other measure)	e) Concentration Applied ppm
Imazapyr	81927-24	.25 gal		1.0%
Triclopyr	70506-176	1 gal		1.0 %

9. Address or exact location of application NOTE: If the application made to one acre or more of Agricultural land, the field location must also be shown on the map on page two of this form. Barnes :Lake Tumwater, WA. 98512, WA 98512

10. Date: 6-03-21

11. Name of person making application: Douglas Dorling

12. License No: 375

13. Apparatus License. Plate No.: G424

14. Start: 10:00

Stop: 2:30

15. Acres completed : 1

16. Wind Direction: SW

Wind Velocity: 0-5

17. Temperature: 76

Location of Application (If the application covers more than one township or range, please indicate the township & range for the top left section of the map only):

Township: T18N

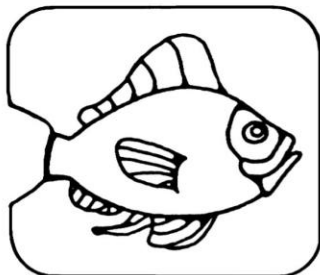
Range: E OR W (please indicate) 02W

Section(s): 34

County: Thurston

PLEASE NOTE:

The map is divided into 4 sections with each section divided into quarter-quarter sections. Please complete it by marking the appropriate section number(s) on the map and indicate as accurately as possible the location of the area treated.



Northwest Aquatic Eco-Systems

855 Trosper Road SW #108-313
Tumwater, Washington 98512
Telephone: (360) 357-3285

E-MAIL: PONDWEEDS @ COMCAST.NET

Herbicide Treatment Business and Residential Notice

Distribution Date: 05-01-21 Barnes Lake will be treated with herbocides to control non native pondweeds, lily pads and shoreline emergent vegetation from May 20 through July 30 as required. Treatment dates are dependent on lake water levels and the ability to access the lake. Targeted treatment dates will be May 25 through June 25. A secondary application may be applied later in the season depending on our ability to access the lake. Notices of applications will be hand delivered to each property owner no longer than 48 hours prior to treatment. Notices will state any water use restrictions or advisories.

Product(s) planned for use:

Diquat—diquat dibromide

Imazapyr (shoreline plant & iris control)

Aquathol K- dipotassium salt of endothall

Triclopyr—triclopyr

Location of Treatment(s): Lily pad control will take place anywhere throughout the lake. Shoreline emergent plant control will only occur at residential properties abutting the lake who have agreed to the treatment. Pondweed control will be limited if required to a few acres. The lake proper is adjacent to Daisy Lane SW, Tumwater. If you are withdrawing water for potable or domestic water use, livestock watering, or irrigation, and have no alternate water source, please contact the applicator Northwest Aquatic Eco-Systems at 360-357-3285 or pondweeds@comcast.net to arrange an alternate water supply.

If you would like to request additional notification prior to treatment, or have further questions, please contact Northwest Aquatic EcoSystems using the information above.

This herbicide treatment is regulated under a permit (NPDES) issued by the Washington State Department of Ecology. **Permit # WAG 994137**



Management Practices for Lakes • Watersheds • Aquatic Plants • Wetlands

Expense BudgetBarnes Lake Management
District**2021**PROJECT
#

2021005

Administrative	BARS #	Budget	Actual	\$ Balance	%
COT Admin	120.30.538.300.91.01	\$ 2,000	\$ 1,333	\$ 667	33%
Printing / Supplies	120.30.538.300.31.00	\$ 500	\$ -	\$ 500	100%
Misc Admin		\$ 250	\$ -	\$ 250	
Operating		Budget	Actual	\$ Balance	%
Contract Services	120.30.538.300.41.08	\$ 13,595	\$ -	\$ 13,595	100%
Vegetation Survey & Mapping		\$ 2,500	\$ -	\$ 2,500	
Vegetation Treatment		\$ 7,250	\$ -	\$ 7,250	
Fish survey		\$ -	\$ -		
Floating Mat Management		\$ -	\$ -	\$ -	
Admin Services*		\$ 3,845	\$ -	\$ 3,845	
Public Outreach	120.30.538.300.33.00	\$ 500	\$ -	\$ 500	
Water Quality Monitoring	120.30.538.300.41.08	\$ 1,800	\$ 551	\$ 1,249	
NPDES Permit Fee	120.30.538.300.49.18	\$ 700	\$ -	\$ 700	
Misc Operating	120.30.538.300.33.00	\$ 500	\$ -	\$ 500	
Operating Reserve		\$ 4,570	\$ -	\$ 4,570	
Total Expenses		Budget	Actual	\$ Balance	
		\$ 19,845	\$ 1,884	\$ 17,961	91%
Total Income		Budget	Actual	as of \$ (1,459)	
Assessments		\$ 17,305	\$ 15,846		
Misc Credits		\$ -	\$ -		
Fund Balance from Previous Year		\$ 7,110	\$ -		
Total		\$ 24,415	\$ 15,846		
Fund Balance		\$ 4,570	\$ 13,962		



Barnes Lake Management District – 2021 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. ☒ Review 2020 Treatment Summary Report and update IAVMP and work plan as needed
2. ☒ Submit 2021 Annual Work Plan & Operating Budget for Council review and approval
3. ☒ Begin preparation of Member Outreach letter to be distributed in March/April
4. ☒ Begin "Private Lake Treatment" opportunity outreach efforts
5. ☒ Review SOP for volunteer monitoring program

March / April

1. ☐ Distribute outreach postcard (or newsletter) to LMD members relating to 2021 work plan, budget, schedule, and 2020 Treatment Summary Report. Include treatment notice for NWAES
2. ☒ Update/acquire supplies for water quality monitoring program
3. ☒ Complete training of volunteers for summer water quality monitoring program

May / June

1. ☒ Conduct chemical treatment(s) on lake if possible (dependent on growth & water levels)
2. ☐ Contractor to provide floating mats to volunteer property owners for removal, as available.
3. ☒ Conduct aerial photo assessment of lake, as conditions permit
4. ☐ Review Steering Committee Appointments; announce vacancies as needed
5. ☒ Conduct May round of water quality monitoring
6. ☒ Conduct June round of water quality monitoring
7. ☒ Steering Committee's Annual Lake "Walk About"

July / August

1. ☒ Conduct shoreline treatment(s) on lake if possible (dependent on growth & water levels)
2. ☒ Conduct chemical treatment(s) on lake if possible (dependent on growth & water levels)
3. ☒ Conduct July round of water quality monitoring
4. ☒ Conduct August round of water quality monitoring

September / October

1. ☐ Conduct follow-up aerial photo assessment of lake, as conditions permit
2. ☐ Host annual information meeting for LMD Stakeholders
3. ☐ Conduct September round of water quality monitoring
4. ☒ Conduct final round of water quality monitoring
5. ☐ Update water quality summary report with 2021 data
6. ☐ Review permit compliance needs and requirements for 2022
7. ☒ Review budgetary needs for 2022; revise roll of rates & charges as needed
8. ☐ Submit revised roll of rates and charges to Tumwater Finance Department, as needed

November / December

1. ☐ Develop 2022 work plan based on 2021 activities, LMD needs and available budget
2. ☐ Develop draft Operational budget for 2022
3. ☒ Finalize meeting schedule for 2022
4. ☐ Annual election of Steering Committee officers – Chair, Vice-Chair, Recorder

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