

LOA Annual Meeting Agenda

July 10, 2021 @ 9:00AM (CST)



1. Welcome and introductions - Tom Johnson
2. Zoom procedures and protocol - Cheryl Clemens
3. Review of minutes from July 18, 2020 meeting
4. Lake manager report - Cheryl Clemens
5. Lake Owen research activities - Steve Schieffer
6. Lake Owen Protection and Preservation Endowment Campaign Kick-off—Amy Louis
6. Fishing report - Paul Rhodes
7. LP gas group purchase – Dave Berg
8. Treasurer’s report - Bill Hannaford
9. Proposed by-law amendment – Tom Johnson
10. Nomination of LOA Board of Directors (3 year terms)—
 Dave Berg Ed Ronkowski
 Jon Nymo Jerry Kollross
11. Questions from members (Zoom via Chat)
12. Adjourn

LOA Board Members

Tom Johnson, Pres.
Bill Hannaford, VP, Treas.
Jon Nymo, Secretary
Dave Berg
Clint Harris
Amy Louis
Terry Miller
Ralph Owen
Jodi Pfaff
Jill Stoebe
Mike Yankee



Lake Manager Team

Cheryl Clemens, Lake Manager
Steve Schieffer, Lead Scientist
Jake Macholl, GIS and Hydrologist
Assistant Scientists:
Nile Merton
Andy Otto

Fishery Representative

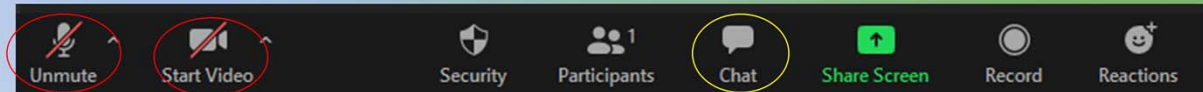
Paul Rhodes

Web Master

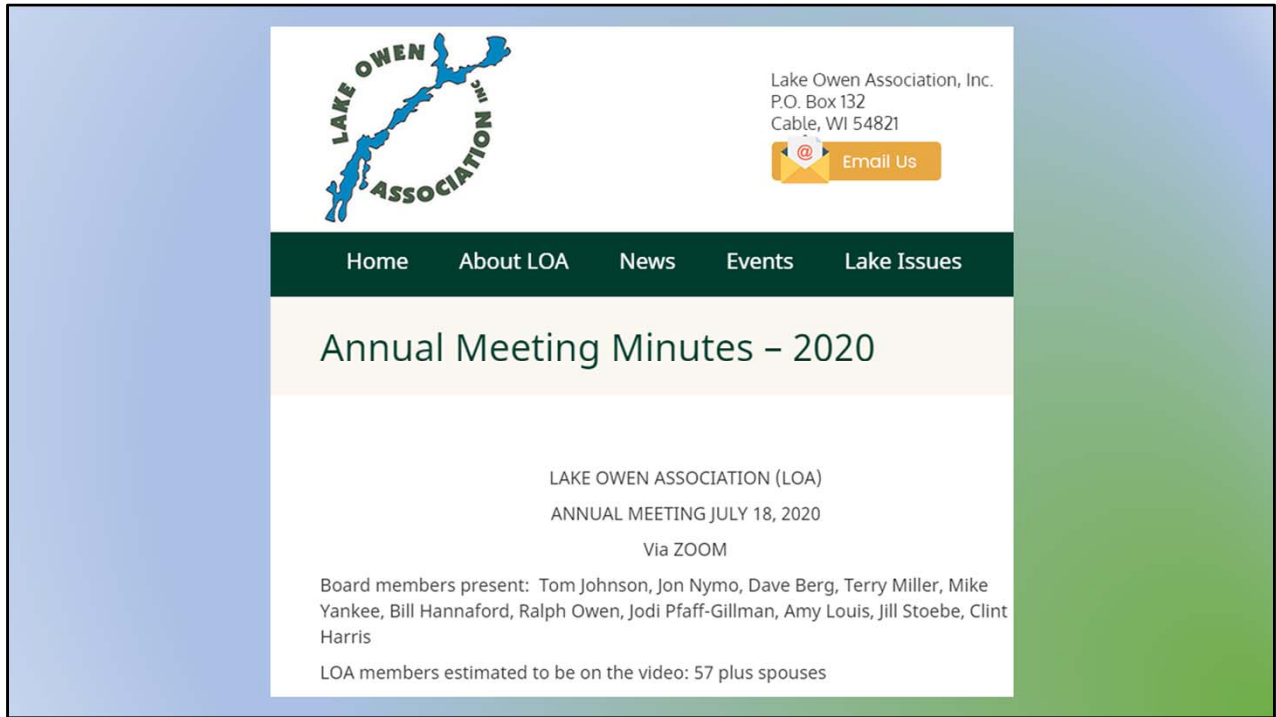
Ed Ronkowski

Meeting Procedures

- Members, please leave microphones muted and video off
- Type in your questions via chat
- Questions after each speaker (if time allows)
- Questions and answers will be posted on the web site
- Late question? Email harmonyenv@amerytel.net



Some members are joining us via Zoom.



Annual Meeting Minutes are on the website <https://lakeowen.org/about-loa/annual-meeting-minutes/>



Lake Owen Association, Inc.
P.O. Box 132
Cable, WI 54821



LAKE OWEN
WEATHER



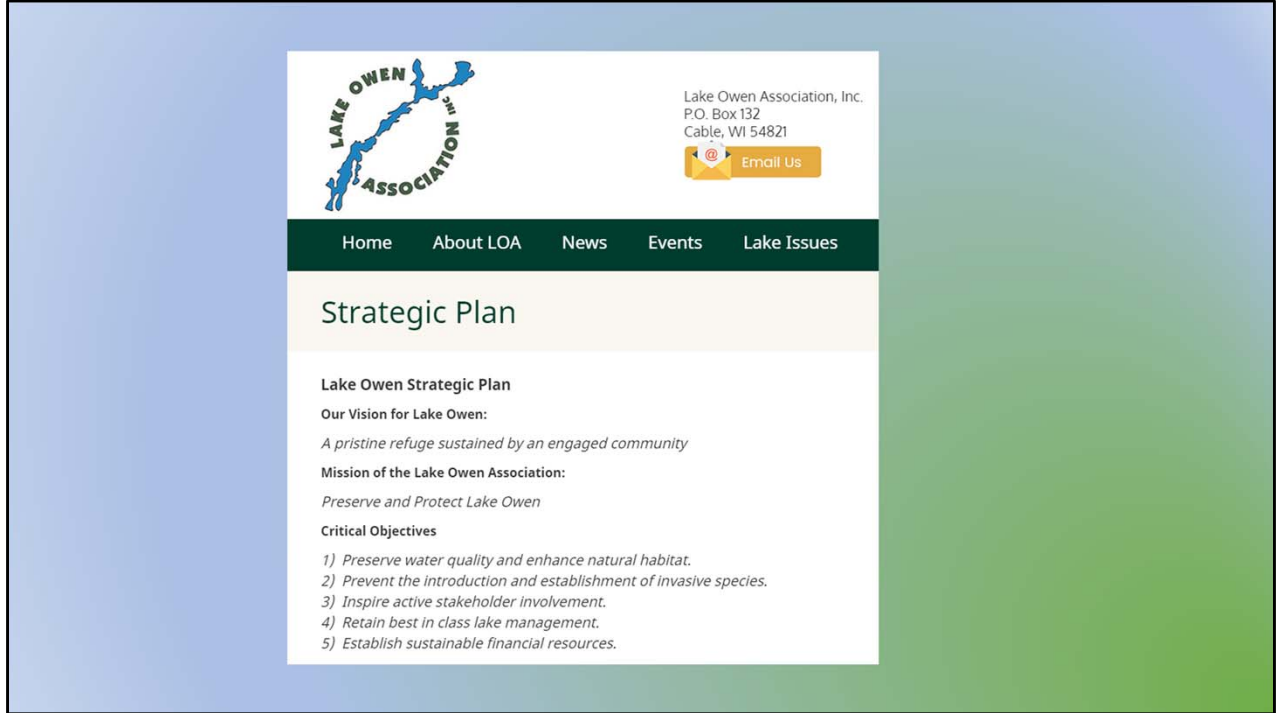
82°F
Clear

<https://lakeowen.org/>

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There is a lot of information on the website, including executive summaries and full reports from scientific studies. We encourage you to visit the web site to learn more. Thanks to volunteer Ed Ronkowski for keeping this up –to-date.



The Lake Owen Association Strategic Plan was developed by the board in 2019, and updated this year to reflect 2021 actions. You can find it on the website under "About LOA."

<https://lakeowen.org/lake-owen-association-strategic-plan/>

Aquatic Invasive Species Prevention

**Decontamination for
Aquatic Invasive Species REQUIRED
by BAYFIELD COUNTY ORDINANCE**

[Article 16-2-3]

Violations are subject to fines

[Article 16-2-5]

The LOA encouraged Bayfield County to pass an ordinance that requires boat landing visitors to use aquatic invasive species decontamination stations when they are available at a landing. The ordinance was passed July 28, 2020. We presented together with Bayfield County staff at a statewide conference about the ordinance update. The ordinance is important to the success of our decontamination efforts.

Aquatic Invasive Species Prevention

- Clean Boats, Clean Waters (North Outlet and Campground)
- Boat Washing Station (North Outlet)
- Sanitizing Station (Campground)
- Rapid Response Plan



The LOA obtained permission from the US Forest Service to place our hot water, high pressure boat washing system at the North Landing late in 2020, and it is operational there in 2021. Our staff follows an inspection procedure and checklist to identify which boats need to be decontaminated.

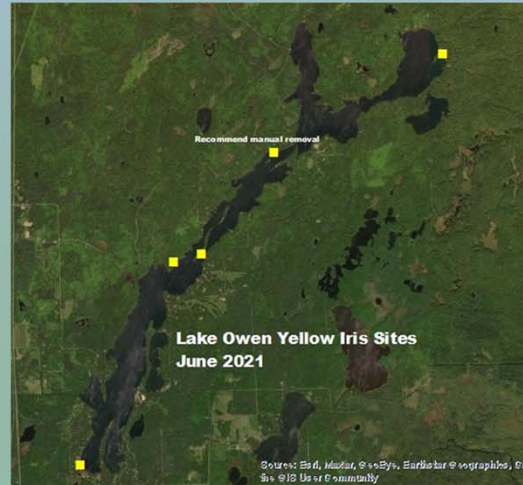
We also recently obtained permission from the Forest Service to place a sanitizing station which uses a mild bleach solution to remove aquatic invasive species at the Two Lakes Campground boat landing.

Clean Boats, Clean Waters staff are present at both landings to educate lake users.

The board developed an Aquatic Invasive Species Rapid Response plan in August 2020 so processes are in place to monitor the lake and respond quickly if aquatic invasive species are detected.

AIS-Yellow Iris

- In June we conducted an early-summer AIS meander survey.
- The emphasis of this survey is to view AIS species that are evident this time of year (i.e. flowering)
- Yellow iris (invasive) and blue flag iris (native) were both blooming during survey. This allows for discretion between these two species (Lake Owen has a large number of blue flag iris plants around the lake which we do not want to impact and the yellow iris is often amongst blue flag iris).
- We are recommending herbicide application (pending property owner approval and permit acquisition) on all locations except one, where we recommend hand removal due to presence on floating bog.



Residents with yellow iris from this map will be contacted to ask for permission to apply herbicide (except for the noted location for hand removal attempt) this summer/fall.

AIS-for-get-me-not

- Several locations were recorded with observed for-get-me-not.
- This plant is typically easy to remove since it has a shallow root structure.
- Our biggest concern is a couple of locations that it is growing in a small wetland area.
- These two locations are indicated on the map and recommend removal this summer (squares).
- For-get-me-not can become a big problem in wetland areas.



Example for-get-me-not issue on another lake...



This is a photo of an aquatic for get me not bed growing out of control on a lake in Polk County Wisconsin. This shows how this plant can take over a wetland area. This is the reason we should remove this plant when we see it in a wetland (two places on Lake Owen). The plant growing on the shore should be removed to stop spread, but are not likely to grow to this degree.

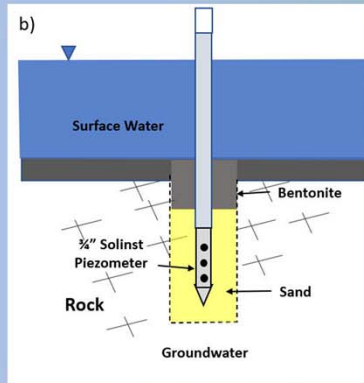
Groundwater model

- Groundwater contributes nearly 80% of the water budget in Lake Owen.
- It is important to better understand the volume of groundwater entering the lake, the rate of flow, and the potential areas that could affect groundwater.
- Human activity, such as septic systems, can adversely affect groundwater.
- The nutrient concentration of the groundwater is important, especially for a lake that receives so much of its water from the ground.
- A contracted hydrologist is producing the groundwater model.



The groundwater model is slated to be completed this year. This map shows that groundwater phosphorus concentrations are quite low, but there is some variation. This has led to the desire for more samples.

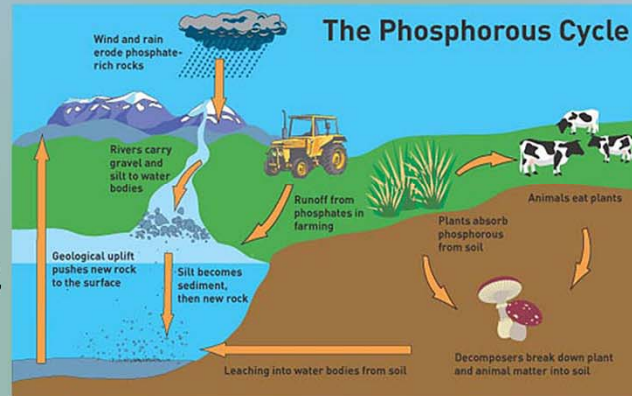
Added groundwater samples...to be collected in July.



These piezometers allow for the collection of groundwater entering the lake. Note the water level is above the piezometer, which indicates there is groundwater discharge into the lake. Most areas around Lake Owen are predicted to have discharge into the lake. The red dots on the map are proposed sample sites to have more samples to use for the groundwater study.

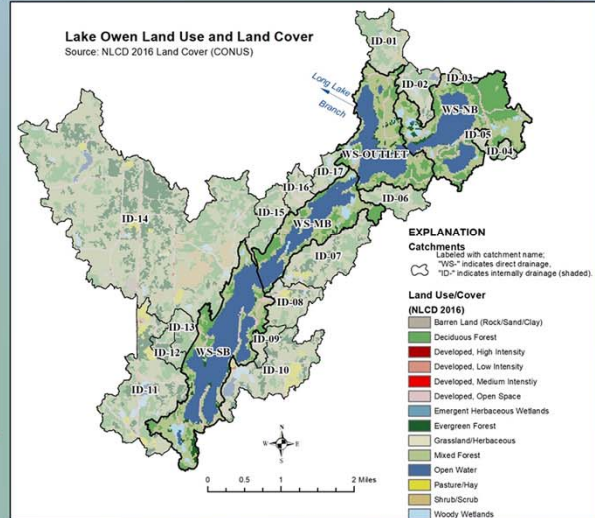
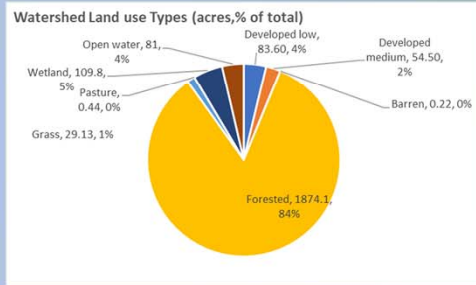
Nutrient Budget-phosphorus (limiting nutrient)

- The nutrient budget for Lake Owen was updated.
- This budget considers the sources of phosphorus into the lake.
- Sources are divided by atmospheric deposition, runoff, and groundwater (“external loading”) and release of phosphorus from sediment (“internal loading”)



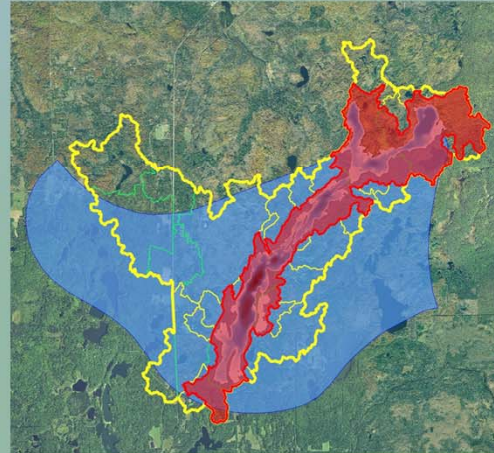
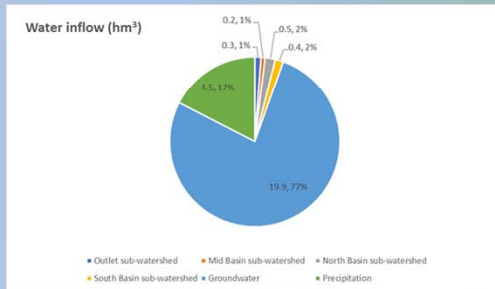
This basic phosphorus cycle outlines sources for a lake. Lake Owen has a large volume of high concentration phosphorus (P) that forms from sediment release deep in the lake. However, this water does not mix and is trapped all summer in the bottom. The majority of water into Lake Owen is groundwater, but the phosphorus is low so the amount of P entering the lake from groundwater is low compared to the flow of water. This makes the watershed the only area that P loading can be mitigated. (Note: land use practices such as septic systems can also affect P concentration in groundwater).

Lake Owen land cover



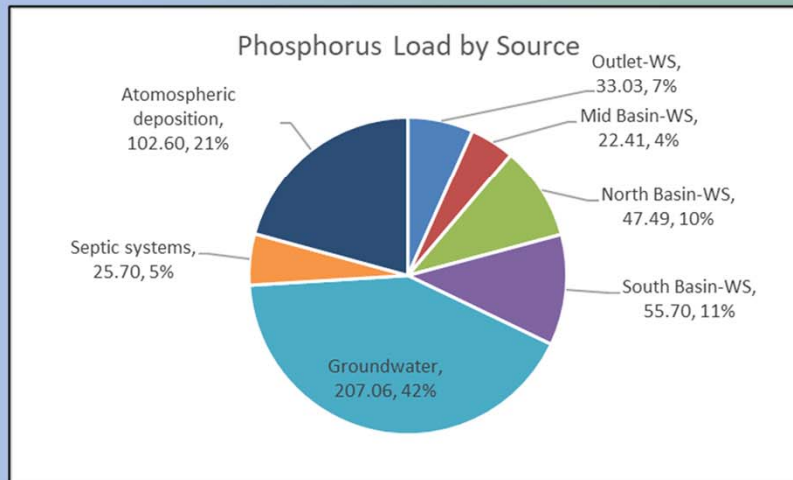
This shows that the main land cover around Lake Owen is forested. The black outline is the direct drainage watershed, with the remainder (watershed used in the past) is internally drained. This means the water does not directly flow off of this land into Lake Owen. It will flow into another body of water or wetland or depression before getting to Lake Owen. This direct watershed is small compared to the lake area, decreasing the impact of runoff into the lake. Furthermore, forested land cover has a much smaller runoff and nutrient concentration amount compared to residential and agriculture.

Lake Owen water budget (groundwater model may change this some)



These graphics show the direct drainage watershed (red), the internally drained watershed (yellow line) and the predicted (prior to groundwater model) groundwater influx. The pie chart shows that Lake Owen is a groundwater lake with nearly 80% of the water source estimated to be from groundwater (this may get adjusted upon the completion of the groundwater model).

Phosphorus sources into Lake Owen



Even though groundwater has low phosphorus (P) concentration, the large volume that flows into Lake Owen from groundwater makes it have the largest total load. This supports Lake Owen's clarity. Note the "basins" input of P. The South is the highest, followed by the north. However, the north is a larger area so the South is the most kg/unit area.

P load predictions in entire direct watershed

Change in P load (all sources)	Predicted mean GSM total P concentration (ug/L)	Predicted mean GSM chlorophyll-a (ug/L)	Predicted Secchi Depth (m)
Base from model (avg year)	11.2	1.9	6.8
20% increase	12.6	2.3	6.1
40% increase	13.9	2.6	5.5
-20% decrease	9.8	1.6	7.8
-40% decrease	8.3	1.2	9.2

This chart is the result of using a calibrated model and predicting the resulting parameter changes if the phosphorus load is changed. As this shows, the phosphorus concentration, chlorophyll-a and Secchi depth all respond noticeably to 20% increment increases and decreases in external loading. This indicates that Lake Owen will likely respond to human practices that could increase or decrease phosphorus loading.

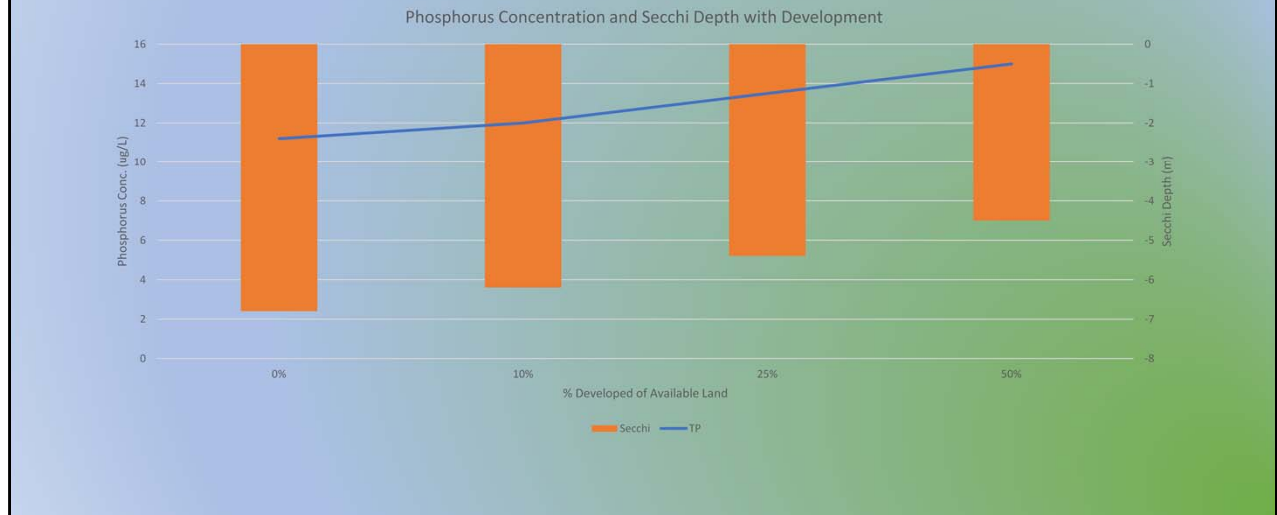
P load predictions from S basin only

Change in P load (South Basin (SB) Only)	Predicted mean GSM total P concentration (ug/L)	Predicted mean GSM chlorophyll-a (ug/L)	Predicted Secchi Depth (m)
Base from model (55.7 kg)	11.2	1.9	6.8
20% increase in SB	11.4	2.0	6.7
40% increase in SB	11.6	2.0	6.6
-20% decrease in SB	11.0	1.9	6.9
-40% decrease in SB	10.8	1.8	7.1

Since the South basin is estimated to be the highest contributor. The same calibrated model was used to predict changes from changes in phosphorus loading from the South basin only. This shows that the lake would likely respond to changes in human activity that increases or decreases phosphorus loading. As can be expected, the impact is less than considering all watershed (previous slide). However, it does show that management practices may be warranted in the South basin (and other basins as well).

Changes in development within direct watershed

(the potential development area is being studied more in-depth to determine a more precise acreage that could be developed)



Change in land cover from forested to residential/urban will increase phosphorus loading. This graph shows the result of developing the land available for development in the Lake Owen direct drainage watershed (the developable land is being reviewed and could change this graphic). Note that at 0% (which is present), the Secchi depth is near 7 meters and the total phosphorus (TP) concentration is about 11 ug/L. As % of land developed increases, the Secchi depth decreases and the TP increases, thus showing Lake Owen would likely respond to more developed land within the direct drainage watershed. This suggests that if development occurs, safeguards should be taken to reduce the impact of the development. Even the process of building can load phosphorus into a lake, even if the resulting property has little impact (i.e., erosion into lake during construction).

Otter Bay

2020 Otter Bay Data Comparison	Mean GSM Total Phosphorus	Mean GSM Chlorophyll-a
Otter Bay	13.9	4.0
North Basin	10.0	2.0
South Basin	8.6	1.6

Otter Bay has different characteristics than the rest of Lake Owen. Since this bay is a much smaller volume of water, it is more susceptible to human influence and phosphorus (P) loading. This chart shows the difference in readings in 2020 compared to other portions of Lake Owen. These values are not alarming (Otter Bay is still very nice), but supports the hypothesis that it could respond more profoundly to increases in runoff and other P sources.



Thank you for your interest
in this magnificent natural
resource!

Lake Owen is in very good shape and will continue to remain pristine with support from folks like you. This lake is somewhat unique in that we typically are trying to find ways to improve a lake that has already degraded. In the case of Lake Owen, we just don't want it to degrade in the first place.

Be diligent with mitigation of invasive species. This is still, in my opinion, the greatest threat for Lake Owen at this time.

Native Planting Assistance Available



Restore Shoreline Vegetation

- Reduce runoff to Lake Owen
- Improve habitat next to the water
- Create natural beauty

- Free technical assistance
 - Limited \$ for planting
- Contact Cheryl Clemens to schedule a visit: 715-268-9992
harmonyenv@amerytel.net



Good vegetative cover encourages runoff water to soak into the soil where it can be purified and enter the lake as groundwater. Native plants are also critical for habitat for creatures in and near the water.

The existing natural vegetation along the shoreline and in the watersheds of Lake Owen is one reason the lake is so clean and clear!

The WI Department of Natural Resources grant provides funding assistance to encourage planting native plants along the shorelines of Lake Owen. While there are minimum planting areas required, all are eligible for technical assistance.

Contact Cheryl Clemens if you are interested in learning more. There is also information about native plantings on the website. <https://lakeowen.org/restoring-native-plants-on-your-shore/>

Infiltration Assistance Available

Reduce runoff to Lake Owen

- Densely developed areas
- Resorts and condos
- Rain gardens and rock infiltration
- Grant expires end of 2021

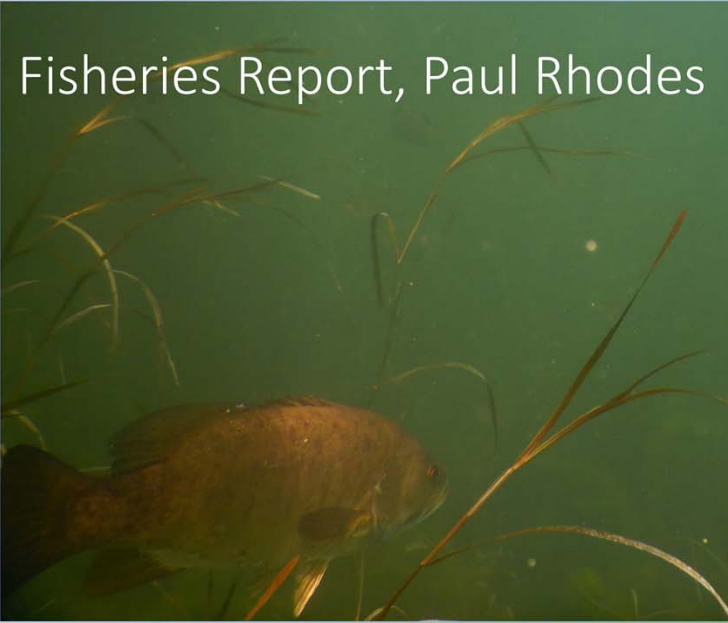
- Free technical assistance
 - \$ for landscaper install
- Contact Cheryl Clemens to schedule a visit: 715-268-9992
harmonyenv@amerytel.net



Cheryl has also worked with hundreds of property owners to encourage infiltration of runoff using diversions, rain gardens, and rock infiltration.

DNR grant funds are also available to assist with design and installation of infiltration projects to reduce runoff to the lake. The Lake Owen Association is concentrating this assistance on densely developed areas, especially on the south end of the lake.

Fisheries Report, Paul Rhodes



7" Walleyes are stocked in Lake Owen every other year. 12,625 were stocked in the fall of 2020.

DNR survey found 5 walleyes/mile with some evidence of natural reproduction
Smallmouth bass were found a 1/mile, which is a high number (because survey doesn't focus on smallmouth). Previous surveys found .2 and .05 smallmouth/mile.
2021 Tribal Harvest was 68 , this is the third lowest harvest on record.

Fisheries information is from Zach Lawson, Wisconsin Department of Natural Resources (However, we recently learned that Zach took another position, so we'll have a new fisheries biologist for Lake Owen.)

Propane Contract, Dave Berg



Dave Berg reported on the propane gas situation. It is a very difficult market and prices will be rising. Midland Energy in Ashland, is our current supplier. Midland is a CO-OP and they charge only for the propane, no additional charges to your bill. They are offering a summer fill price of \$1.39 per gallon, if ordered by August 15th, and filled by August 31st. Tanks must be less than 50% filled to qualify. A supplier will be selected later this fall when pricing is received from various vendors.

Treasurer's Report, Bill Hannaford LOA Budget: Income



Fiscal Year June 1 to May 31	Proposed 20-21	Actual 20-21	Budget 21-22
Dues	\$17,000	\$13,175	\$14,000
Donations, net of Endowment Fund contributions	\$15,000	\$20,077	\$10,000
CBCW Grant Income - Wisconsin DNR	\$8,000	\$8,000	\$8,000
Lake Planning Grant Income - Wisconsin DNR	\$50,000	\$35,310	\$62,500
Interest Income	\$1,500	\$1,369	\$1,500
Total Income	\$91,500	\$77,931	\$96,000

In the absence of Bill Hannaford, Tom Johnson presented the report. Dues were lowered to \$50 because of a DNR grant requirement.

LOA Budget: Expenses

Fiscal Year June 1 to May 31	Proposed 20-21	Actual 20-21	Budget 21 - 22
Lake Manager activities	\$24,000	\$20,350	\$25,000
Lake Researcher activities	\$37,500	\$11,470	\$30,000
Outside service fees (lab fees, etc.)	\$8,400	\$4,901	\$5,000
Wages for CBCW/AIS monitoring and decon station at main landing & Two Lakes Campground	\$23,000	\$22,237	\$25,000
Payroll taxes paid: federal and state	\$0	\$4,532	\$5,000
Decon Station site prep, fuel, equipment maintenance & storage	\$4,500	\$5,208	\$2,000
Technology and website services	\$500	\$500	\$500
Shoreline restoration expense (supplies, planting, maintenance)	\$2,000	\$0	\$5,000
Membership/Registration fees	\$350	\$100	\$100
Insurance: D&O, General liability, Worker's Comp	\$2,000	\$2,380	\$2,500
Legal/Prof fees, including Payroll Management Service Expense	\$2,000	\$1,648	\$2,000
Community Relations Donations	\$2,000	\$2,156	\$2,500
Postage, mailing, printing & promotion	\$1,500	\$2,288	\$3,500
Social Expense--Annual Meeting, Family Picnic, Golf outing awards	\$0	\$0	\$2,500
Bank charges (Check printing fees, Paypal fees)	\$200	\$274	\$300
Miscellaneous/software charges	\$50	\$80	\$100
Total Operating Expense	\$108,000	\$78,124	\$111,000

Treasurer's Report, Bill Hannaford LOA Budget: Summary



Fiscal Year June 1 to May 31	Proposed 20-21	Actual 20-21	Budget 21 - 22
Total income	\$91,500	\$77,931	\$96,000
Total expense	\$108,000	\$78,124	\$111,000
Net Profit (Loss) at Year end	-\$16,500	-\$193	-\$15,000

Note: \$75,000 left in grant funds for the calendar year 2021

The DNR Lake Planning Grant expires at the end of this year and is not renewable.

Treasurer's Report, Bill Hannaford LOA Budget: Projected 2025



Fiscal Year June 1 to May 31	Proposed 20-21	Actual 20-21	Budget 21 - 22	Projected 2025
Total income	\$91,500	\$77,931	\$96,000	\$27,000
Total expense	\$108,000	\$78,124	\$111,000	\$123,000
Net Profit (Loss) at Year end	-\$16,500	-\$193	-\$15,000	-\$96,000

(unknown donations and grants)

(\$117,500 Lake protection related)

Annual expenses are approximately \$100,000 per year, and without the \$2.5 million endowment funding we will have a \$96,000 deficit in 2025.

Treasurer's Report, Bill Hannaford

LOA Net Worth: 5/31/2021



ASSETS			
Cash And Bank Accounts	Restricted	Unrestricted	
24 Month CD (AIS Rapid Response Fund)	\$53,800		
Lake Owen Protection and Preservation Fund (Endowment Fund)	\$210,717		
Shares - Cable (required savings account)		\$25	
Shares Fed ID-C (required savings account)		\$25	
Money Market fund		\$144,688	
Payroll Checking Account		\$2,481	
Regular Checking Account		\$7,998	
TOTAL (Net Worth)	\$264,517	\$155,217	\$419,734
LIABILITIES			0.00
OVERALL TOTAL			\$419,734

Total net worth is \$420,000, with \$265,000 restricted; \$53,800 for AIS Rapid Response Fund and \$210,717 for the P & P Endowment Fund.

LOA Board Nominees

Jon Nymo, Incumbent

Dave Berg, Incumbent

Ed Ronkowski

Jerry Kollross



Dave Berg, Jon Nymo, Ed Ronkowski, and Jerry Kollross were nominated and approved for 3 year terms to the Board.

**Proposed
By-law Changes**



Proposed by-law amendment: By-laws were changed to reflect one vote per parcel.
Question was raised from the floor if the Tax ID is the same as a parcel, and this needs to be clarified before making the final changes.

Questions?

harmonyenv@amerytel.net

Look for questions and answers on the
Lake Owen Association website:

<https://lakeowen.org/>



No additional questions were received.