

Lake Limerick C.C.



**LAKE LIMERICK COUNTRY CLUB
SEMI-ANNUAL MEETING
MINUTES
October 19, 2019 2:00pm**

President Brian Smith made opening comments and introduced the Board of Directors.

Roll Call: Present: President, Brian Smith, Vice President, Tim McKern, Secretary, Samantha Franklin, Directors, Norm Bartoo, Dean Dyson, Dave Kohler, Pat Paradise, Amanda Stephen, Don Bird (ex officio)

Limnologist Harry Gibbons gave a detailed presentation on the health of our Lakes. Both Leprechaun and Limerick are aging reservoirs trying to go back to meadows. The routine treatment that has been ongoing for many years will need to be supplemented by additional dredging, sediment retention and other measures. The time to prepare for these costly measures is now. Home owners can assist the health of the lakes by what they plant in their yards, how they maintain septic systems and other measures.

LAKE LIMERICK AND LEPRECHAUN

OCTOBER 19, 2019

GLSM, OH, drinking water source



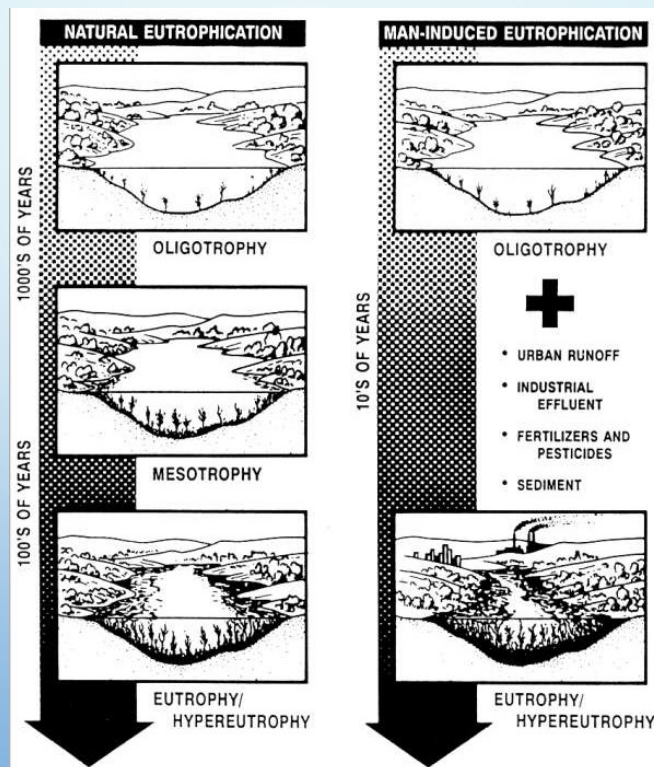
www.LakeAdvocates.org

LAKE LIMERICK AND LEPRECHAUN TECHNICAL HISTORIC PERSPECTIVE

- Until recently both lakes were in their early to mid-life development, but now they are starting transition from a clear blue lakes to a wetlands and dryland – however this process can be slowed down.
 - Physical, chemical, and biological state of the lakes in terms of human years are:
 - Limerick is in its early 60's
 - For the last 40 years it has been trying to get fat (over production of aquatic plants leading to increase in organics and decline in water quality)
 - Leprechaun is in its mid to late 70's
 - This shallower lake started out with more organics in its sediment and less flushing than Limerick so it aged faster.

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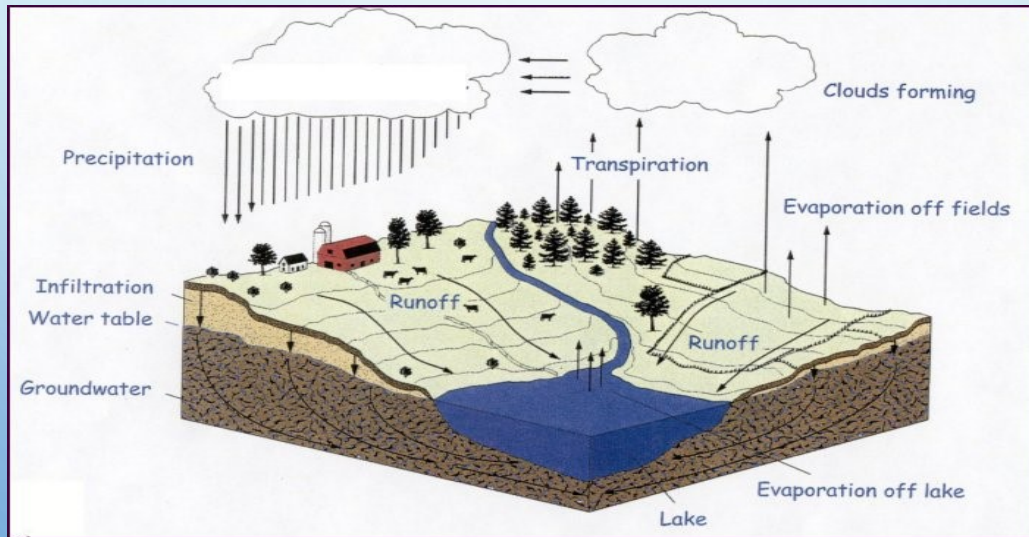
Nutrient Enrichment is controlled by Flushing, Retention, and Watershed to Storage Volume ratio. Note reservoirs have large watershed to water storage ratios, accelerating nutrient enrichment



Also climate change is enabling HABs, as well as over enrichment by human activities. This is due to increased nutrient delivery from watershed, more light, and higher temperatures.

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WATER CYCLE FROM A WATERSHED PERSPECTIVE



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WATER CYCLE IMPACTS

- Water retention, inflow and outflow define lake and reservoir:
 - Existence, physical morphology and sedimentation rate (capturing of nutrients and solids)
 - Rate of chemical interaction (leading to internal fertilization)
 - Availability of chemicals to drive biological growth
 - Biological residence time relative to flushing decreases with time.
 - Biochemical feed back rates increase over time.
- Key factors – [Residence Time and Flushing Rate, Climate Change](#)

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WHAT DRIVES AQUATIC LIFE

- WATER
- Light is the energy source
- Nutrients (carbon, nitrogen and phosphorus) are the building blocks for cells
- Temperature
- It all starts with plants driven by light and nutrients
 - Once in motion, carbon fixation (photosynthesis) controls the rate of nutrient cycling that is driven by biological metabolism
- Within the constraints of seasonality, plant and algal growth is driven by nutrient availability, which is in turn dominated at times by the biological community

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NUTRIENT LOADING

- THINGS TO KEEP IN MIND,
 - IMPERVIOUS VS PERVIOUS AREA
 - VEGETATED SURFACES RELATIVE TO STORAGE AND POLLUTION RETENTION VS NON-VEGETATION SURFACES
 - INDUSTRIAL SURFACES GENERATE UP TO 20 TIMES THAT OF FORESTED AREAS WITHOUT HARVESTING IN TERMS OF NITROGEN AND PHOSPHORUS
 - AG LANDS CAN GENERATE UP TO 40 TIMES THAT OF FORESTED OLD GROWTH AREAS IN TERMS OF NITROGEN AND PHOSPHORUS
 - SUBURBAN AND URBAN LAND-USE WILL GENERATE 10 TO 20 TIMES THE NUTRIENTS OVER BACKGROUND LEVELS.

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WHAT CAN LIMIT CYANOBACTERIA AND AQUATIC PLANT PRODUCTION

Light, C, N & P

- BGs and aquatic plants are well adapted to light, not truly limiting without 72 hours of no light (riparian shade or water depth).
- Carbon dioxide is increasing in the atmosphere as in lakes and reservoirs, so it is not a limiting factor.

Loading of N and P to water bodies from external source, watershed, can be 20 to 40 times background levels.

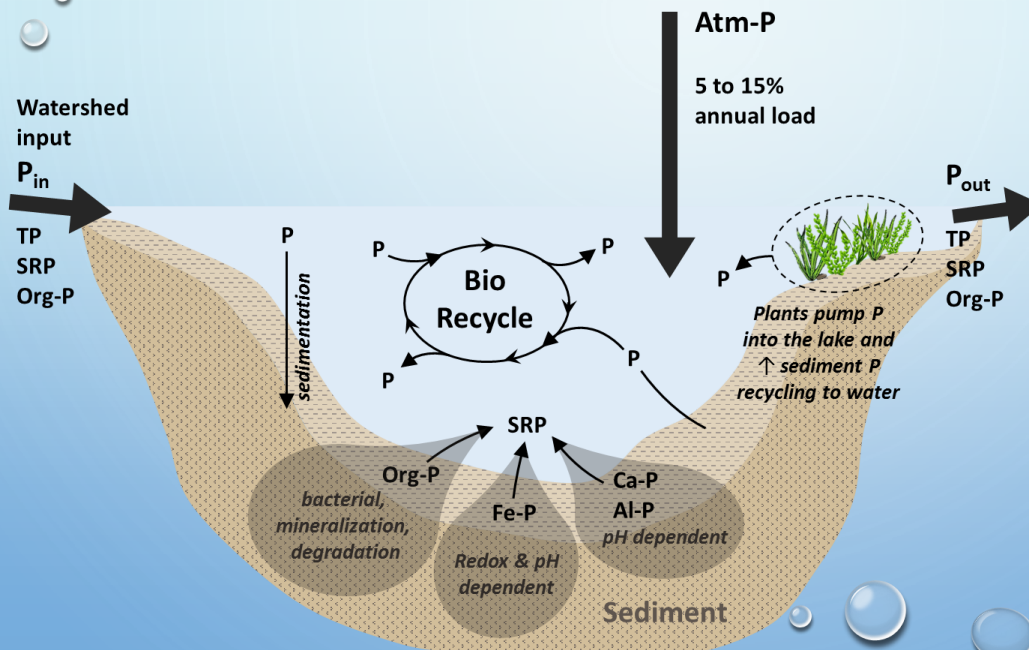
- That will stimulate 20 to 40 times the algal biomass because of lake internal recycling!
- Even with BMPs in place at 50% nutrient retention that is 10 to 20 times background, at 90% retention it is still 2 to 4 times the background rate!

That is why HABs (toxic algal blooms) and excessive plant growth occur, too much nutrients!



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PHOSPHORUS CYCLE



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WATERSHED MANAGEMENT

- Watershed management of phosphorus loading is the key to slowing accelerated eutrophication
- To prevent or slow premature hypereutrophy, phosphorus loading to lakes and reservoirs must be controlled.
- The watershed is the ultimate source of phosphorus for lakes and reservoirs
 - It is the source of sediment phosphorus,
 - It recharges sediment phosphorus, and
 - This leads to continued internal loading of phosphorus.
- Must always address watershed phosphorus control.

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BMP TREATMENT TRAINS (Multiple BMPs in Sequence)



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Proposed BMP Treatment Train for Cranberry Creek

- With a sedimentation pond near the mouth of Cranberry Creek both sediment and phosphorus loading into Limerick can be reduced.
 - High loads of sediment that brings in N & P into the lake during high flow events can be targeted to retain sediment, N & P from impacting Limerick.
 - This can be done by a high flow diversion pond(s) to capture sediment and with an alum or other flocculate injection to enhance retention of fine sediment and nutrients.
 - This would increase the time between dredging and reduce the excessive growth of filamentous algae and aquatic plants in the inlet bay.

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CRANBERRY CREEK DETENTION POND ...

- With enhanced sediment and nutrient capture this pond could be 90% effective in preventing sediment, N & P for getting into the Limerick
- Benefits to the lake will be:
 - Reduced need for dredging
 - Reduced lake aging through over-enrichment by nutrients
 - Increased aquatic habitat and recreational area
 - Reduced probability of a HAB event.
- Cost: Capital cost \$150K to \$350K with and annual O & M cost of \$8K to \$25K

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MANAGEMENT OF AQUATIC PLANTS

Must be integrated to ensure:

- Habitat for aquatic and other wildlife species
- Does not increase internal recycling of nitrogen and phosphorus so as not to increase the possibility of HABs
- Must address invasive species versus promotion of native plants for enhance water quality and habitat
- This is why direct aquatic plant management within Limerick and Leprechaun is on a 4 year revolving program

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PLANT MANAGEMENT IN PLAY

- On-going direct herbicide treatment on a 4 year cycle
- What more can we do?
 - Individual home owners can
 - Reduce N & P use in-house and yard
 - Maintain septic
 - Install bottom barriers (burlap fabric covers) round docks
- Implement Cranberry Creek sediment and nutrient removal
- Implement upper Leprechaun sediment removal
- Implement enhanced bird sanctuary plant and sediment management.

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UPPER LEPRECHAUN SEDIMENT MANAGEMENT

- To reduce excess aquatic plant growth and the potential for development of HAB events within the lake it is proposed:
 - Drawdown the lake to enable terrestrial equipment to remove lake sediment from the north half of the lake including a small area within the mid-west bay.
 - Sediment removal would be to a depth ranging from 0.5 meters to 3 meters of sediment without impacting the clay and/or glacial till seal for the lake.
 - Relative cost assuming LLCC on-site sediment disposal: \$150K to \$300K.
 - Benefits would be increased depth and nutrient removal that would result in:
 - Reduced plant growth, reduced risk of HAB event, and increase in aquatic habitat diversity and slowing of the lake's aging process.

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BIRD SANCTUARY SEDIMENT AND PLANT MANAGEMENT

- Due to vegetative and sediment build-up the open water area has been reduced by 20 to 35% of its original area.
- To prevent the loss of open water area, resulting from excess plant growth resulting in increased sedimentation the following is proposed:
 - One mechanical and manual removal of excessive established plants along the island shoreline areas,
 - Dredging of channel area to allow continued boat movement with sediment deposited on the island.
 - Placement of burlap bottom barriers on both lake and island near shore areas to inhibit emergent plant growth (i.e., white water lilies and cattails).
- Estimated cost: \$20K to \$40K per year for 4 to 8 years, then \$5K per year.

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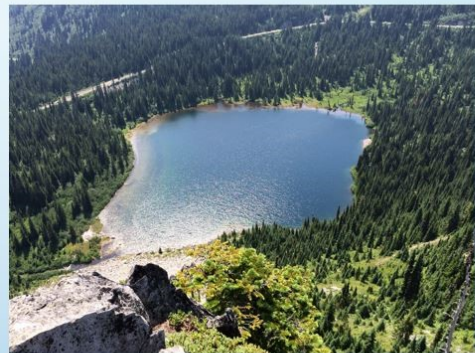
SUMMARY

- Internal phosphorus loading in both lakes is still and relatively small part of its annual load, but is growing more important with time than external phosphorus loading in summer that will in time result in HAB events.
- Continued aggressive aquatic plant management needs to be continued
- It is now time to start to plan for longer term sediment nutrient control that reduces internal phosphorus recycling that can enable a HABs event.
- Both lakes are healthy and in good shape, but are now at a point where to continue the beneficial uses of these lake, advanced planning to avoid problems has to occur and start implementation to reduce life-cycle costs.
- In human terms it is time to eat right, exercise and start preventative actions.



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QUESTIONS



What do you want your lakes to be?

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Brian Smith reviewed the budget assumptions that had been mailed out with ballots.

Roger Milliman, CAM, reviewed the budget process that was begun in April. The final 2020 budget was mailed to the membership with their ballots. He and Board members responded to questions from the members.

- Was there consideration given to charging a fee to boat or dock owners? Not for this budget. Members are welcome to attend a Lake Committee meeting and bring forth any suggestions but this is a multi-use lake with access to the public so any equitable distribution of fees would have to be considered.
- Is there to be increased security? Not in this budget. Brian gave the history of the security contracts we have tried in the past sometimes at great expense with less than desirable results. Neighborhood watches, home security, good lighting have all had some success.
- The reserve study was explained. This budgeted item will give us as a community an idea of what major repairs or projects are anticipated in the future and provide us with a guide to save for these events.

COMMITTEE PRESENTATIONS

Sharon Hamilton, Architecture

Sharon Hamilton, chair of the Architecture committee reported that she has spent the past year reviewing requests for new building projects and permits for new maintenance or additions. Her committee ensures compliance with Lake Limerick's CC&Rs and will work with the homeowners if modifications need to be made. 150 permits have been issued in the past year including permits to replace or repair docks. She works with the Lake Committee on dock issues. Emphasis has been placed on speeding up the process and in most cases permits will receive an initial review within a week of submission. The Architecture committee now consists of only two members and additional volunteers would be welcome.

John Ingemi, Compliance

Join a Committee! Help make this Community a better place!

1. 66 trailer letters were sent out over the past year. Now, while most of them have involved the issue of overwintering, we also have a number of them that are about living in a trailer/RV year-round. This is a violation of the CC&Rs both with and without a permanent residence.
2. 24 cases involving animals. Most are about dogs but we have – dogs, sheep, cats, chickens, pigs, etc. Some are easy to fix and we have done so but others are more difficult and at least one will probably go to litigation.
3. 29 trash issues – some of these are just outrageous and gross. We are now taking pictures and sending them along with the violation letters. A few are current.
4. 13 tree issues – dead trees hanging over neighbors, etc.
5. 70 general violations – noise, illegal fires, derelict Vehicles, other nuisance violations.
6. A number of the issues (around 20) have involved filing incident reports with the Mason County Environmental Health Department, the Fire Marshall's Office and in some cases, the Sheriff's Office.
7. All of the above usually involve getting a/the complaint, investigating it when possible, checking for violations of our CC&Rs and/or other rules, seeing if it is a "repeat offender." This does have an effect on how the issue is dealt with.
8. Address Project – we have put out over a hundred requests in all Divisions and currently have around a 90% success rate on this. It involved the entire committee.
We have also worked on various proposals, resolutions etc.
Our success rate is over 80% completion. Again, some things are much more easily fixed than others.
9. Lastly, the Trailer issue – we will be mobilized to go out early on the 16th of November. Anyone with a trailer on their lot that does not meet the requirements contained in the Architecture Guidelines, or the Resolution 2018 – 01 will be fined. Please review what the rules are. You can look them up easily on the Lake Limerick website or go to the HOA Office and they will be happy to provide you with a copy. For those of you who have received a reminder letter and have already removed your trailer, thank you. We will be doing a couple/few checks each week to update our listing.

Pro Shop 2019 Accomplishments

1. Revenues increased from \$124,483.84 to \$140,003 for the time frame March 20th to August 27.
(Used March 20th, 2018 because that was the first day of utilizing Golf Now.)
2. Offered a successful Kids golf clinic with 8 participants this first year. Two sessions this summer.
3. Replaced 10 moldy/gross golf cart seat cushions with new cushions with volunteer help from the men's club.
4. Hosted six successful golf tournaments

5. Hired quality, welcoming staff to engage all of our members and public customers. Lots of positive comments.
6. Replaced broken items on golf carts including windshields, brakes, sand bottles and added to new sand bottle holders to all carts.
7. Borrowed private golf carts on busy weekends to take care of our customers and raise an additional \$1,500 in green fees and cart rentals.
8. Built a strong supporting relationship with café staff to work together to serve the members and the public.
9. Marketing involvement with Golf Coupon Specials, 98 golfers total of \$3,341.80, Family Golf Special and 2 fore 1 Special
10. Acquired new customers through hot deal on GolfNow.

2019 GOLF COURSE ACCOMPLISHMENTS:

Our Goal: To achieve and maintain the highest quality of turf grass on a day to day basis for the greatest golf experience.

19' Accomplishments outside of daily maintenance:

1. Irrigation booster pump repair, refurbish, re-build. (Improved booster pumps efficiency)
2. Cut down leaning tree and remove stump on #4. (Hazardous tree that needed to be removed.)
3. Install blind wall/display wall by #3/#9 Santi-can. (Improved the look and adds as a display for information.)
4. Install shrubbery along cart path #7 incline. (Adds as a barrier from a steep slope.)
5. Install swinging door closure to bathroom doors #5.
6. Remove stump next to patio area at pro shop.
7. Install display case to wall on #3/#9.
8. Organize/inventory tool shed and pull barn at shop.
9. Build box to store cart rule signs for #1 tee yardage sign. (Allows greens maintenance to update cart rules for that day and saves time.)
10. Clean, insulate, and add pest deterrent in all irrigation control boxes.
11. Repair, level, build temporary green #7 for green rebuild in spring. (Allowed golfers to play on a nice green surface while construction was going on #7.)
12. Remove brush/small trees along right side of #2. by ditch culvert
13. Remove dead trees #3(1)/#4(1)/#5(1) (Removed hazardous dead trees.)
14. Insulate and fix electricity with waterproof conduit at Irrigation pump house. (Prevented an electrical problem and improved the safety. Also insulating the walls keeps the building warm and more soundproof.)
15. Install plywood and paint inside pump house.
16. Remove all bunker sand and fill in bunkers on #7. (Re-used bunker sand for newly renovated green side bunker. Saving \$1-\$2K)
17. Clear and clean line of sights between out of bounds markers. (Allows for faster pace of play.)

18. Pump out irrigation wet well and clean out any debris or sediment. (Prevents booster pumps from failing.)
19. Remove sand bags located next to irrigation pump house wall and clean inlet screens. (Maintains the flow out water into holding well)
20. Refresh and enhance landscapes located around pro shop and putting green. (Trimming and adding beauty bark to improve look and health of plants)
21. Clean and re-paint ballwasher's and yardage posts.
22. Drill and core greens and harvest plugs. (Plugs were harvested to re-build of nursery green on #3)
23. Topdress fairways with 225 tons of fairway blend mortar sand. (Greatly improves the turf grass and playability of the fairways)
24. Install culvert on #7 next to Jorgensen's property. (Would allow for big trucks to gain access to the #7 green re-build project without destroying cart path, turf grass, irrigation, and drainage)
25. Re-build #7 green. (With the help of a contractor and our greens crew, we re-built and expanded the green. Improved the putting surface, the shape, the playability, renovated and relocated bunker, installed a proper drainage system, new with proper spaced irrigation heads. Saved in-between 15\$-
26. \$20k by working in house and reusing some of our materials.)
27. Sprinkler head leveling system for irrigation heads that are too low. (Will help with leveling out the heads and recognize yardage on heads)
28. Clear out all drain basins around course. (Will improve the efficiency water draining to them during the rainy months)
29. Solid tine greens, tees, fairways and approaches. (Maintains good quality turf grass by relieving compaction and allows for soils to drain)
30. Trim and edge around #6/#7 pond and drains into pond.
31. Added a barrier and drainage to slope down #6 hill. (Greatly improves the safety of golf carts downhill and allows rain water to keep from washing
32. out hill side)

Don Hautala, Inn

Inn Committee List of accomplishments from October 2018 to year end 2019

1. Painting of walls in restaurant completed by volunteers.
2. Painting ceiling tiles in lounge by volunteers.
3. Replace lighting in restaurant and LLCC entrance completed and funded by volunteers.
4. Install wood window trim around windows in restaurant. Donated wood and labor in progress.
5. Install wood railing on stairway wall in lounge completed by maintenance.
6. Install infant changing table, women's restroom and one future located in restaurant restroom that will be ADA compliant.
7. Paint inside Inn entry, hallway to lounge in prep for new carpeting/tile installation.
8. Painted Snack Shack to compliment main building completed by volunteers.
9. Organized and promoted social activities throughout the year ranging from St Patrick's day in March, all major holiday buffets to Christmas tree lighting in December.
10. Worked with fishing derby committee and served record number of breakfast and lunch meals to adult and children participants.
11. Formed a joint committee with Greens committee to coordinate and promote advertising for our golf course and café. Offered coupon specials including food and golf featured in numerous county wide publications and social media outlets.
12. Coordinated with several committees and Magpies to present full day of activities during our Lake Limerick Daze festivities. Secured participation of Shelton High School Jr ROTC Color Guard and Central Mason County fire dept. personnel and equipment in parade. Other events included volleyball tournament with prizes for first and second place teams. Expanded youth activities spearheaded by Kayla Paradise saw youngsters enjoying a new bouncy house, rock painting, temp tattoos, hula hoop contests and bubble machine.
13. Hosted old street sign sale during community garage sale event that had all proceeds go to HOA general fund.
14. Secured funding to host three music events over the summer. Music from the Harlan Davis project. Pam Willey and Maile Mae ranged from classic rock to blues to country. Events were well attended and fun and brought in a lot of revenue for the HOA.
15. End of Year bash celebrating our community featured children's activities indoors due to weather and free hot dogs and root beer floats from the Magpies. A diverse field entered the corn hole contest capped off with prizes. Topped off by country style buffet and music.

Future events and projects

1. Christmas tree lighting, caroling and children's activities to be held on December 1. Check calendar for times.
2. Assist in design and completion of main floor restroom and office to be ADA compliant.
3. Capital budget projects to be completed during winter cleaning closure.
4. Assist in design and completion of women's second floor restroom to be one stall. Donated stall in storage. Comfort stalls purchased and stored.
5. Complete barn door installation.
6. Look into replacement of chairs and tables in lounge and restaurant to compliment flooring.
7. Feasibility study to see if Great hall fireplace can be turned into working gas fireplace
8. Replace carpet in Great Hall
9. Paint Great Hall.
10. Patio railing to be replaced after deck completed.

11. Install wood fireplace mantle on restaurant fireplace.
12. Begin acoustic music events in restaurant during winter months.
13. Expand music events next summer.

Dave Kohler, Lake Dam Parks

Lake Dam Accomplishments- October 2019 Annual Meeting

1. Park improvements
2. Leprechaun playground completed (swing set, spring toys, tables) Olde Lyme planning for new play equipment
3. Dog waste stations for all parks
4. Weed treatment coordination
5. Coordinate lake inspection and dissemination of treatment information
6. Geese mitigation project
7. Contracted with the USDA Agriculture Department
8. Support for lake safety and education
9. Lake patrol, rules communication and information sharing with members, family, and guests
10. Support the Fishing Derby
11. Support for Park Hosts
12. Recruiting and staffing, host rules updates, and general support of hosts
13. Styrofoam Dock Mitigation project
14. Dock survey, member compliance letters, lots of questions - this was a significant effort with 30 members impacted in the first wave and 30 more members impacted this next season
15. Dock permitting
16. Support for over 30 permits, many required significant consulting and coaching
17. Dock signage program
18. Provides fabrication of a professional Div/Lot number sign for member docks (51 so far)
19. Lake Management discussions
20. We need to manage the lakes in significantly expanded ways, including the initial scoping and education for three new projects: to create a Cranberry Creek sediment pond, dredging Lake Leprechaun and dredging the Bird Sanctuary
21. Inn Island Mitigation
22. Continue to find options for the Inn Island erosion, including exploring options to adjust the weir board
23. Ski course maintenance discussed and proposals sent to the Board
24. New no-wake buoys for strategic locations
25. Yellow Iris eradicate education
26. This is a noxious weed that must not be cultivated on member property
27. Investigate Lake Leprechaun dam spillway valve Maintenance may be required
28. Added new volunteers to the L/D committee

Brian Smith acknowledged the Magpies for all their contributions to the community.

Brian called for any last ballots to be turned in. Voting was closed and the votes tallied.

Final results are as follows:

Issue #1 2019/2020 LLCC Budget proposal

Approved: 265 Disapproved: 41 **Budget approved**

Issue #2 Water Department 2019/2020 Budget proposal

Approval: 255 Disapproved: 50 **Budget approved**

Issue #3 Independent Audit

Approved 128 **Disapproved 173** **Proposal failed.**