Largemouth Bass Management in Bella Vista Lakes

BELLA VISTA
PROPERTY OWNERS ASSOCIATION

Rick Echols
Fisheries, Lakes & Parks Superintendent
Bella Vista Property Owners Association

Please Hold Questions Until the End

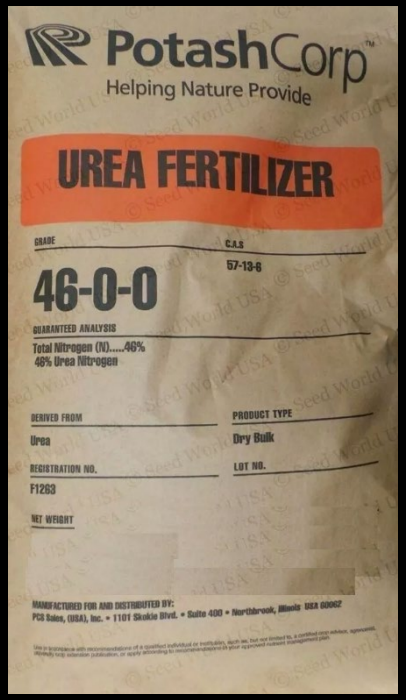
Thank You!

Past – New Lake

- Peak productivity occurs 8 to 12 years after a new reservoir is created. For Loch Lomond, the peak years were the late 1980s.
- Game fish exhibit fast growth to large sizes due to low competition and abundant food sources fueled by high nutrient inputs from decomposing organics in the soil within the lake.
- The largest fish that a lake will produce often comes during this time. Loch Lomond produced multiple largemouth bass over 10 pounds in the late 1980s and early 1990s.

Past – Fisheries Decline

- Nutrient inputs from the lake bottom became depleted.
- No aquatic vegetation.
- During the early 1990s, the subsequent fisheries decline became noticeable. Fertilization was implemented to revive productivity.

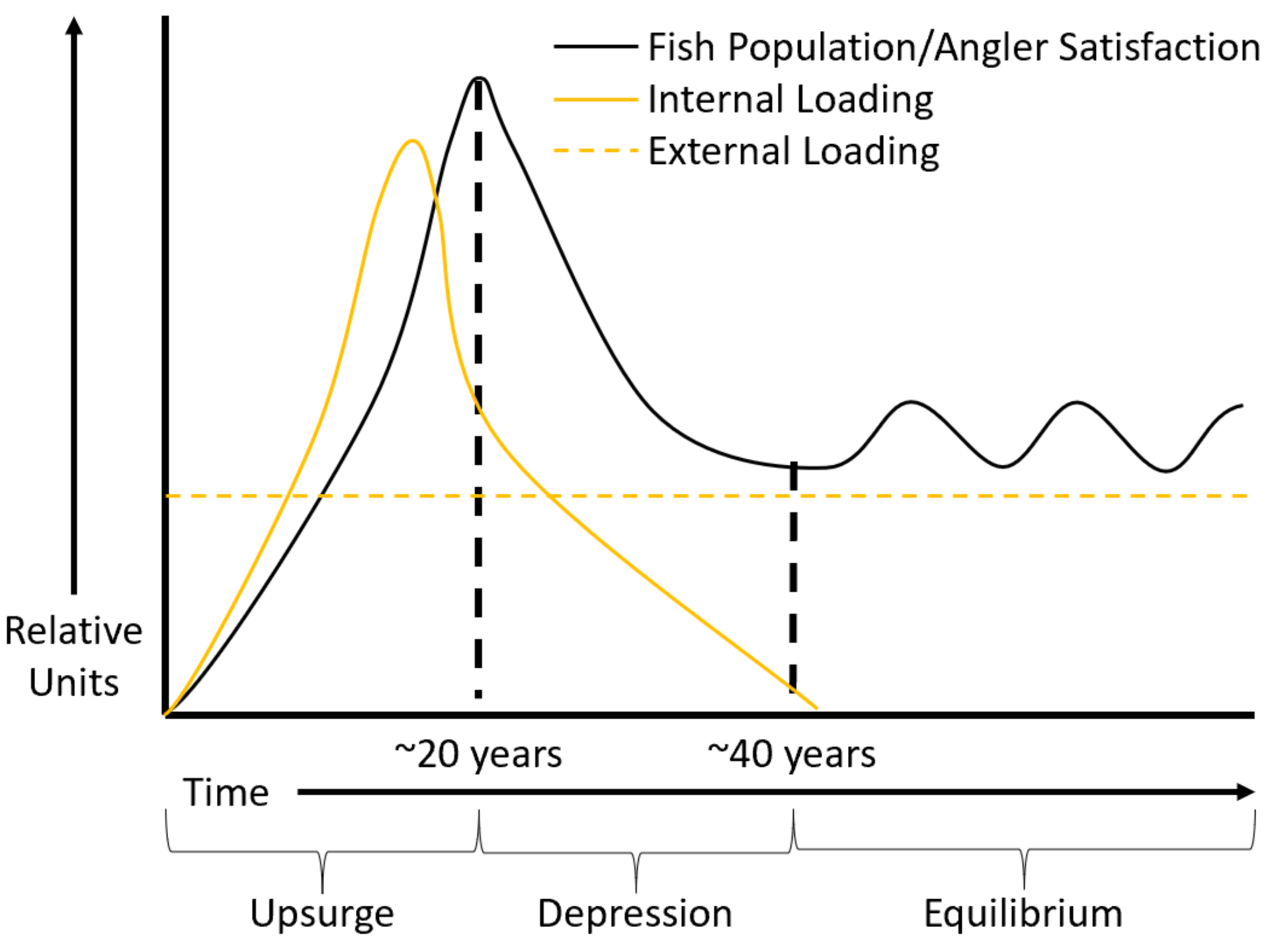


Past – Nutrient Augmentation

- A plan was developed and first implemented in the spring of 1994 with the assistance of AGFC to fertilize the water to artificially increase fertility, which increased plankton growth, which in turn increased productivity of bait fish and invertebrates and ultimately game fish.
- This program revived the quality of the largemouth bass fishery.
- The plan was not properly followed. More fertilizer was used than was appropriate which in turn produced pea soup green water.
- A citizen's group against fertilization was formed, which resulted in the cessation of the fertilization program at the end of 2002.
- Future fertilization without a nutrient management plan was made illegal.

Past – Nutrient Management Plan

- Fertilization was only allowed to resume with the approval of the Nutrient Management Plan for Bella Vista Lakes in 2010.
  - First of its kind in the state of Arkansas.
  - Developed with the assistance of the University of Arkansas.
  - Model was developed that tells us exactly how much fertilizer to use based on water clarity, which is a surrogate for the amount of plankton in the water.
  - Compromise between those who want clear water and those who want fish productivity.
  - Still in use today. The model works beautifully!
- We get our volunteer water clarity readings on Monday and fertilize before the end of the week.
- Consistency is important to maintain a plankton bloom and a stream of forage for small fish.
- **Water leaving Bella Vista has less nutrients than the water entering Bella Vista! Lakes are a nutrient sink!**


Fish Population/Angler Satisfaction
Internal Loading
External Loading
Relative Units
~20 years
~40 years
Time
Upsurge
Depression
Equilibrium

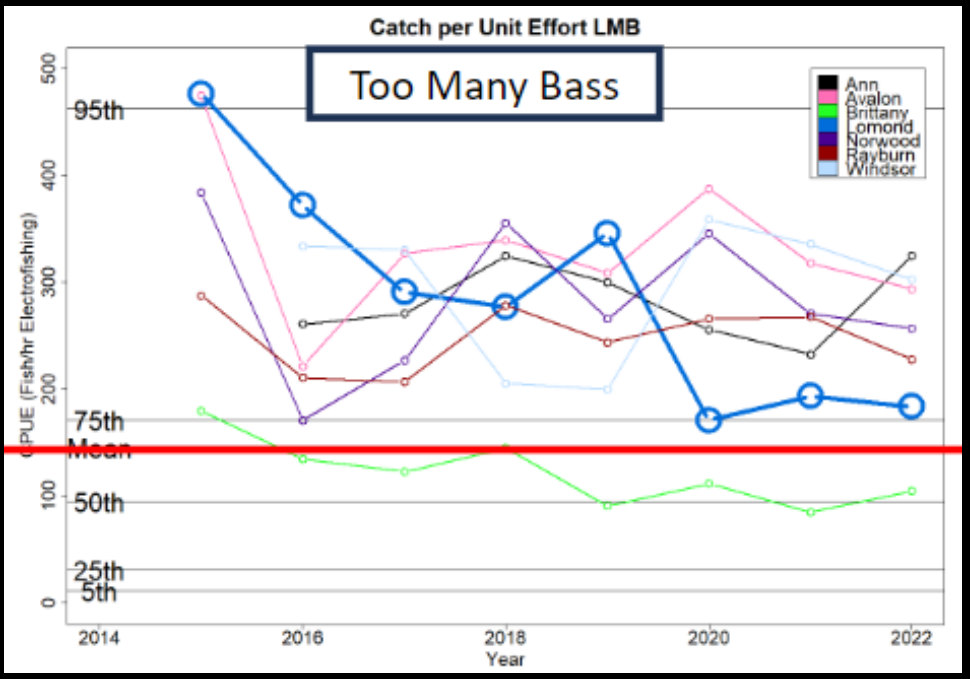
Past - Aquatic Weed Control

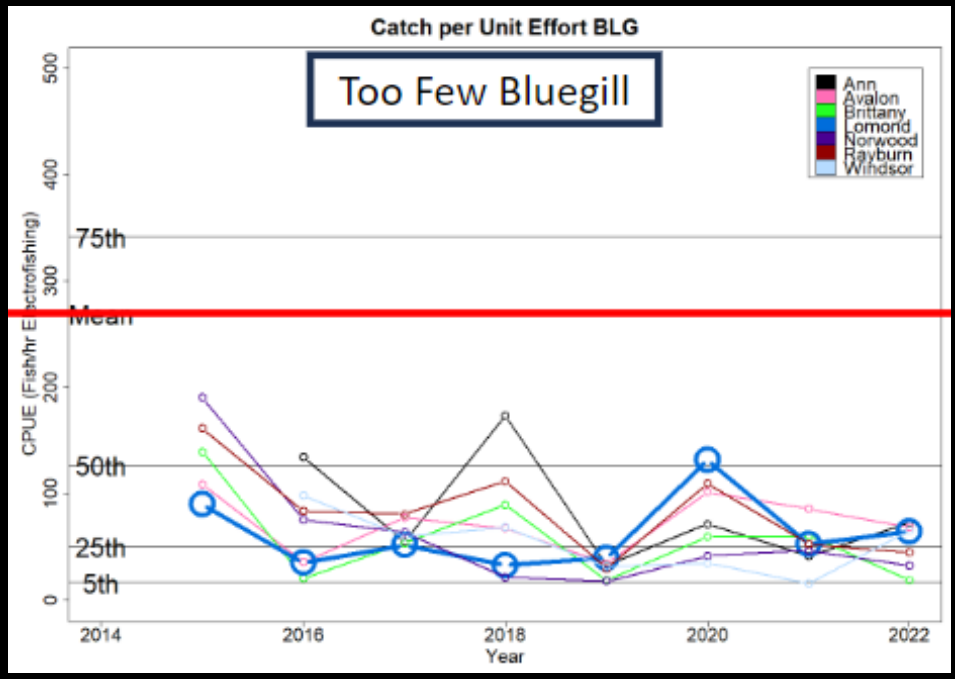
- Excessive aquatic weeds were controlled by spraying and the use of our weed harvester around docks, shorelines, and opening navigation channels.
- Aquatic vegetation was encouraged elsewhere as it provides excellent nursery habitat.
- This along with the fertilization resulted in a balanced fishery with plump largemouth bass from 2018 - 2021.

Past – Parrot Feather

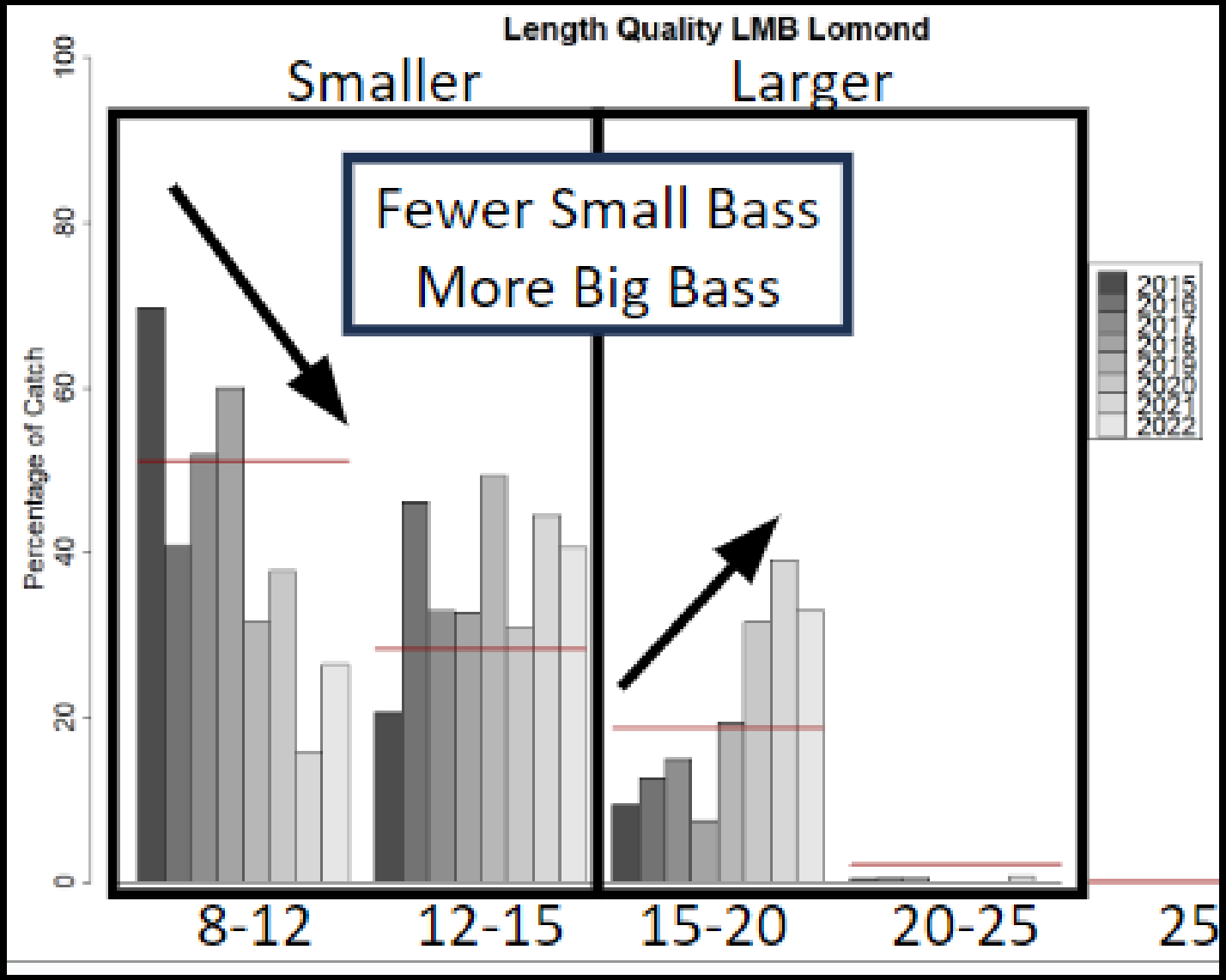
- Invasive aquatic plant first appeared on Lomond in 2018.
- Spread quickly. We soon discovered that we couldn't keep up with chemical treatments alone. The weed harvester causes fragmentation. Each fragment leads to a new plant.
- Stocked Lomond with grass carp to eradicate. Was a real threat to be spread to other lakes because of close proximity.
- By July 2021, parrot feather was largely under control. It was considered eradicated by the fall of 2022.

Present - Population Analysis

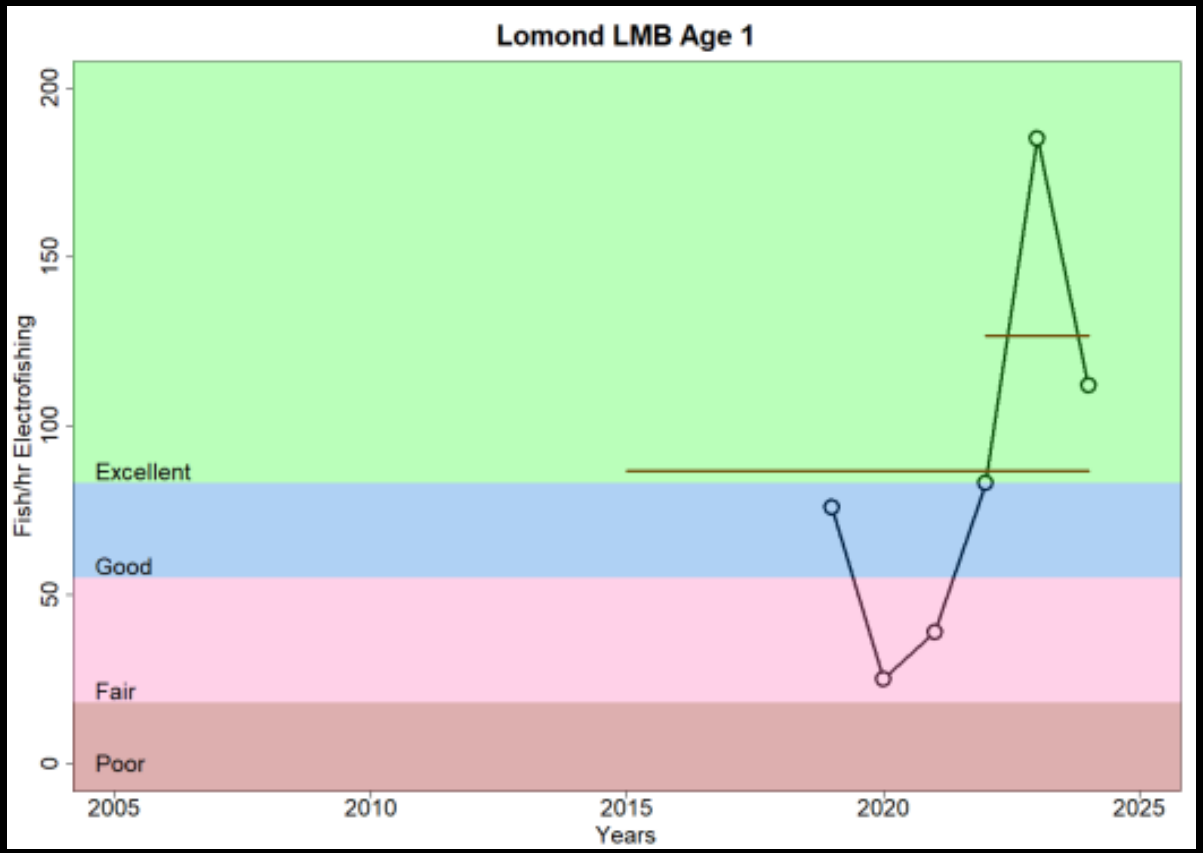




Present - Population Analysis

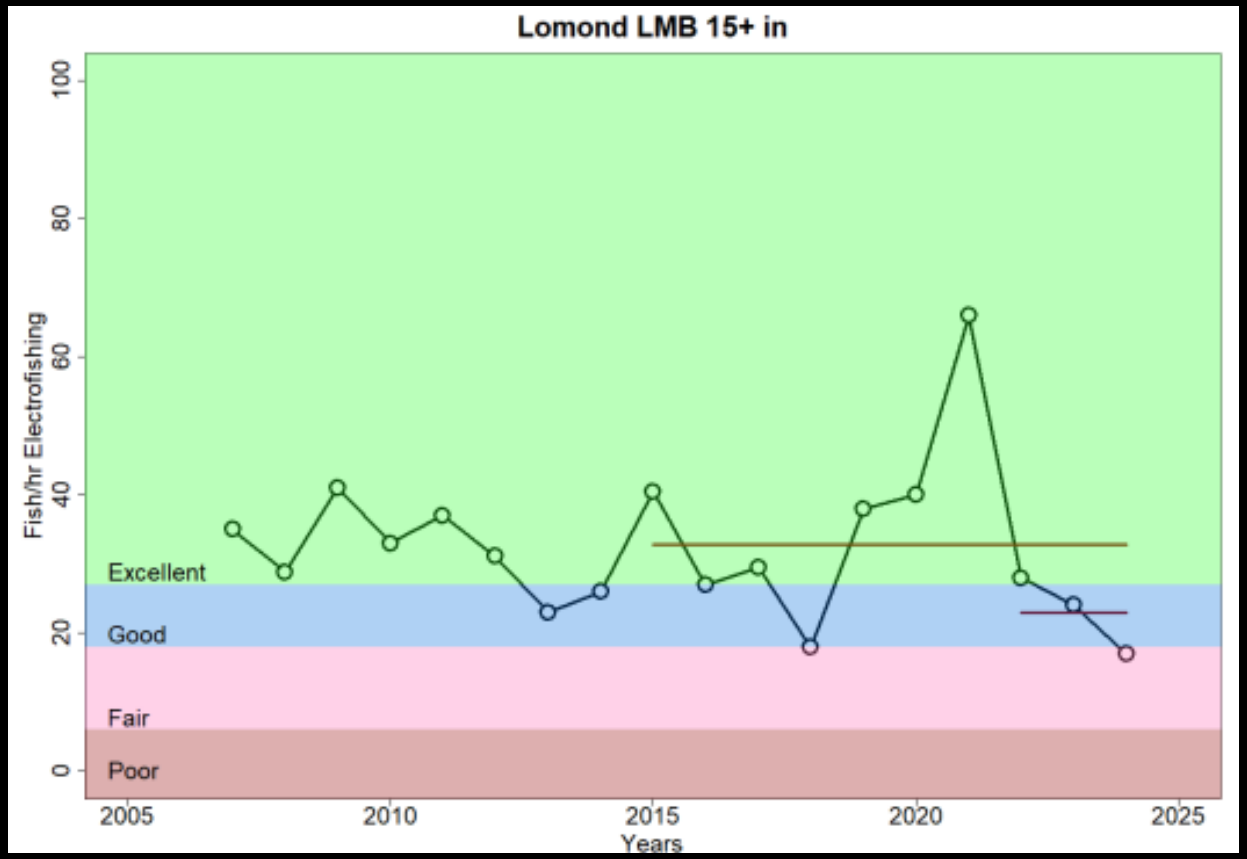


Present – Analysis



- Our lakes produce more bass than is necessary. Aggressive harvest remains necessary to allow those remaining fish to grow and reach larger size.

Present – Analysis

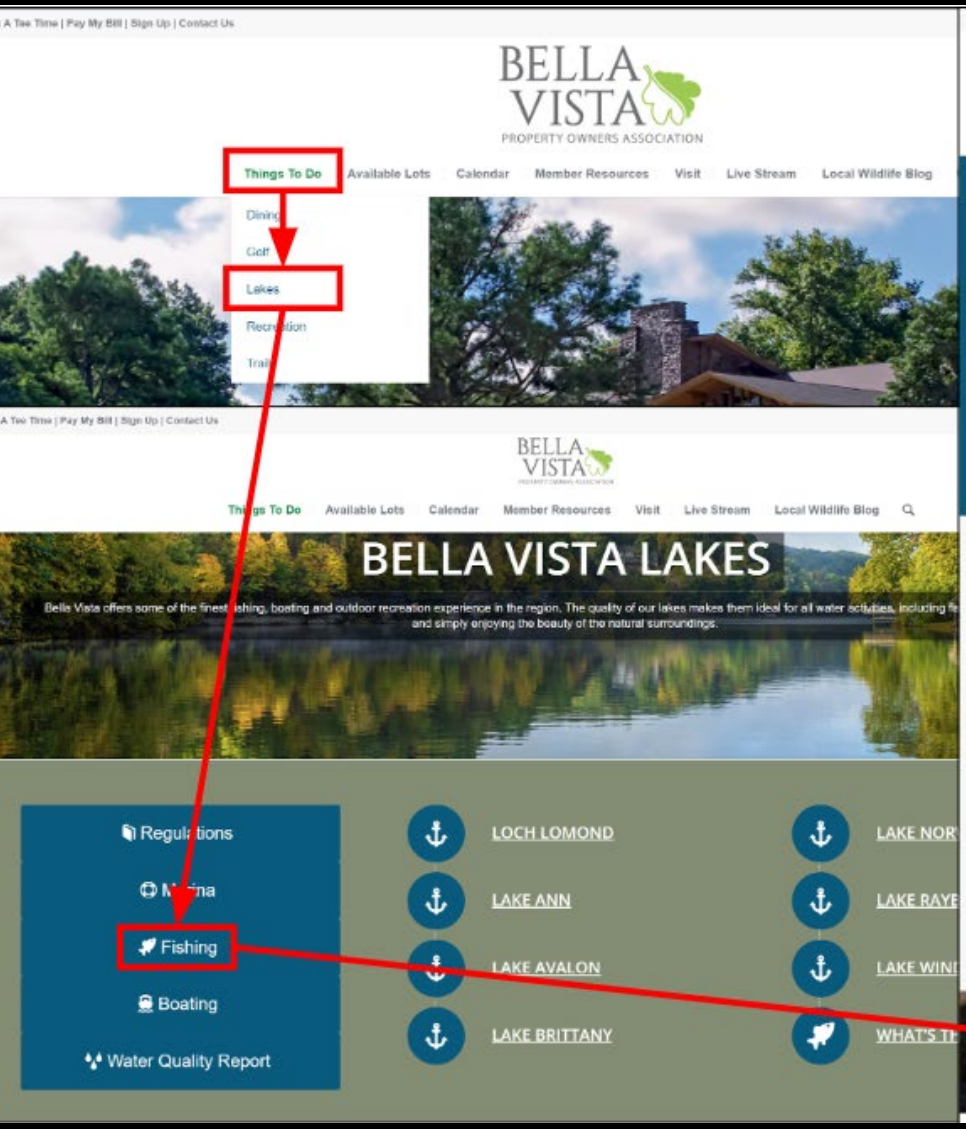


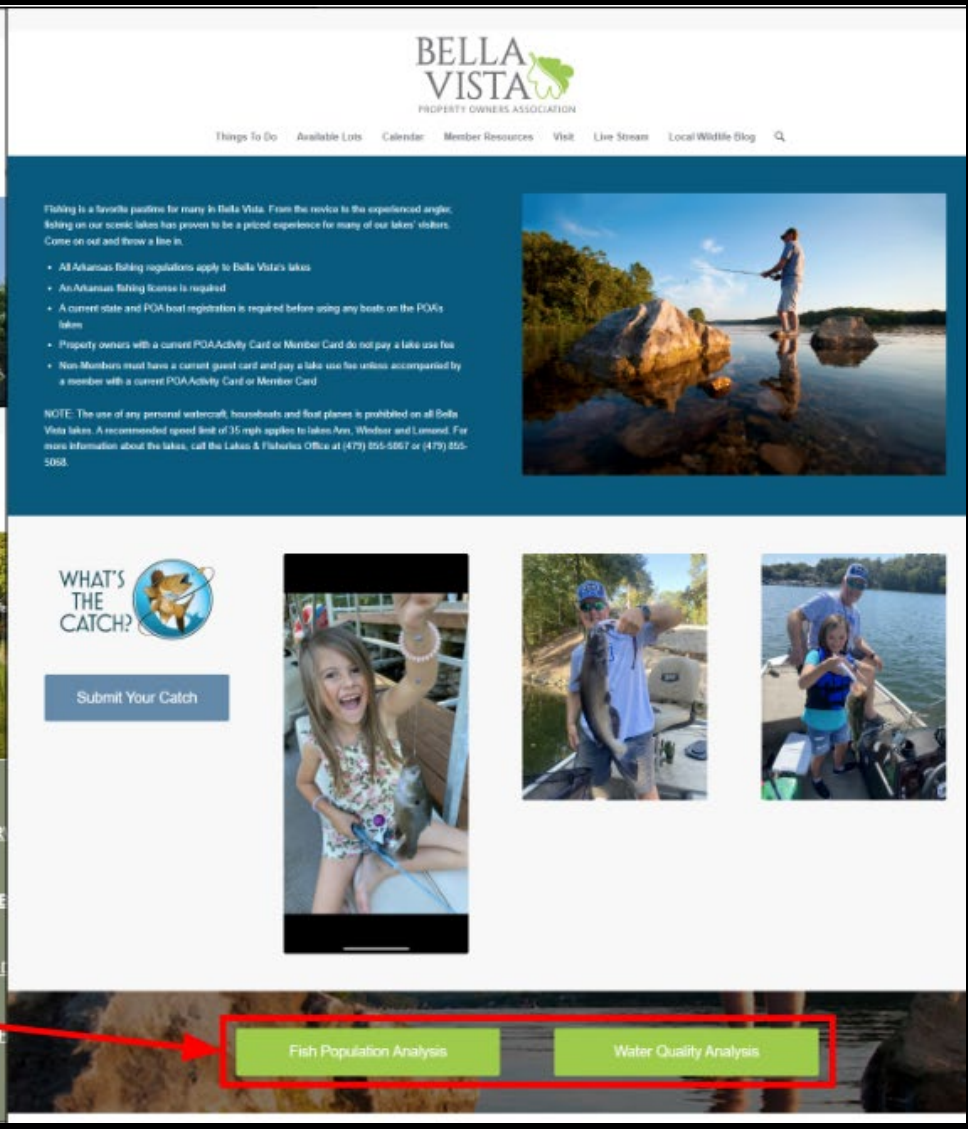
- **Numbers of preferred and larger bass related to the presence and absence of aquatic vegetation.**

Largemouth Bass

Keeping More of These

Ensures More of These


A Tee Time | Pay My Bill | Sign Up | Contact Us
BELLA VISTA
PROPERTY OWNERS ASSOCIATION
Things To Do
Available Lots
Calendar
Member Resources
Visit
Live Stream
Local Wildlife Blog
Dining
Golf
Lakes
Recreation
Trails
BELLA VISTA LAKES
Bella Vista offers some of the finest fishing, boating and outdoor recreation experience in the region. The quality of our lakes makes them ideal for all water activities, including fi
and simply enjoying the beauty of the natural surroundings.
Regulations
Marina
Fishing
Boating
Water Quality Report
LOCH LOMOND
LAKE ANN
LAKE AVALON
LAKE BRITTANY
LAKE NOR
LAKE RAYE
LAKE WIN
WHAT'S TH


BELLA VISTA
PROPERTY OWNERS ASSOCIATION
Things To Do
Available Lots
Calendar
Member Resources
Visit
Live Stream
Local Wildlife Blog
Fishing is a favorite pastime for many in Bella Vista. From the novice to the experienced angler, fishing on our scenic lakes has proven to be a prized experience for many of our lakes' visitors. Come on out and throw a line in.
All Arkansas fishing regulations apply to Bella Vista's lakes
An Arkansas fishing license is required
A current state and POA boat registration is required before using any boats on the POA's lakes
Property owners with a current POAActivity Card or Member Card do not pay a lake use fee
Non-Members must have a current guest card and pay a lake use fee unless accompanied by a member with a current POAActivity Card or Member Card
NOTE: The use of any personal watercraft, houseboats and float planes is prohibited on all Bella Vista lakes. A recommended speed limit of 35 mph applies to lakes Ann, Windsor and Loramel. For more information about the lakes, call the Lakes & Fisheries Office at (479) 855-5867 or (479) 855-5868.
WHAT'S THE CATCH?
Submit Your Catch
Fish Population Analysis
Water Quality Analysis

Present – Aquatic Vegetation

- Since the spring of 2023 we have been actively removing grass carp to allow native vegetation to return.
- We have installed a carp exclusion fence to allow plants to germinate and provide seed for the rest of the lake.
- “Arkansas Cubes” for the reestablishment of vegetation.
- We have also located a source for native coontail which is a preferred species to be placed in the cubes.

Present – “Arkansas Cube”

- Filled with native vegetation “Coontail”
- Acts like a salt shaker for seed dispersal while offering protection against grazing by grass carp.

Present – Artificial Habitat

- Christmas trees
- Porcupine cribs
- Minnow spawning structures
- Various structures based on materials available.
- Large project on Lake Norwood this year.

Future - Aquaculture

- The 4 aquaculture ponds that we worked hard to get approved at the base of Loch Lomond dam allow us to be responsive to the needs of our lakes.
- We currently have one pond of 4 – 5” bluegill to stock.
- In the spring, 2 ponds will be dedicated to growing bluegill and 2 ponds will be dedicated to growing threadfin shad.
- These fish will be stocked into Loch Lomond to supplement existing forage fish until vegetation can be reestablished to allow the lake to adequately produce its own forage.

Future – Fish Stocking

- Purchasing 60,000 threadfin shad to be stocked in Loch Lomond to provide forage for bass until vegetation returns which will allow the lake to produce its own forage (bluegill and crayfish).
- Why threadfin shad when we already have gizzard shad?
  - Gizzard shad only remain at the size where they can be consumed for a few months. Get up to 22 inches in length.
  - Threadfin shad remain at a consumable size for their entire life.
- We are at the northern extreme of the native range of the threadfin shad. We will eventually have a cold winter that kills them out.
- A few threadfin broodstock will be held back so we can produce our own shad in the future.

Future – What to Expect

- The return of aquatic vegetation will provide the nursery habitat to feed largemouth bass allowing more to reach trophy status.
- We ask that anglers remain vigilant in keeping boats and trailers free of vegetation to minimize the threat of future issues with invasive species.
- Success will be augmented if anglers continue to keep fish smaller than 15-inches.
- We will be conducting a creel survey in the spring to gather angler data and preferences.
- We will be conducting a raffle in the spring with a monetary payout for those who catch and remove grass carp. Specifics to come in future "Sporting Updates".
- This is a process. We ask for patience!

Frequently Asked Questions

- Can we empower the Lake Rangers to enforce harvest regulations? **No, harvest rules are set by the AGFC. We have imposed harvest recommendations. The Rangers do ask anglers to follow our recommendations.**
- Should we stock our lakes with Florida strain or other superior strains of largemouth bass or at least diversify our genetics? **No, Florida strain largemouth bass grow large and do well in Florida, the extreme southern Gulf Coast, and South Texas. Northern strain bass do better this far north. A previous study has shown that our Bella Vista bass have diverse genetics with a mix of Northern and Florida strain bass. Stocked bass in an established lake contribute very little to the overall population.**
- If you keep all the small bass, they will never attain trophy status because they will all have been harvested. **False, it is impossible to catch and keep all 10 – 15" fish. Remaining fish will experience accelerated growth because of less competition for food.**

To Review Action Steps

Remove Parrot Feather

Remove Grass Carp

Encourage Native Vegetation

Continue Fertilization Program

Add Artificial Habitat

Add Threadfin Shad and Bluegill

Harvest Small Bass

Return of Quality Largemouth Bass

This Process Will Take Time

Questions or Comments