United States Environmental Protection Agency
Region 7
Decision Document

The EPA's Action to Add Waters to Missouri's 2020 Clean Water Act Section 303(d) List Water Quality Limited Segments Still Requiring TMDLs

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THE EPA'S ACTION TO ADD WATERS TO MISSOURI'S 2020 CLEAN WATER ACT SECTION 303(D) LIST
WATER QUALITY LIMITED SEGMENTS STILL REQUIRING TMDLS

Conclusion

The US Environmental Protection Agency (the EPA) hereby affirms its November 30, 2020 addition of forty waterbodies to Missouri's 2020 list of water quality limited segments requiring total maximum daily loads (TMDLs) pursuant to Clean Water Act Section 303(d) and 40 C.F.R. § 130.7(d).

The EPA identified these forty additional waterbodies because the existing and readily available water quality-related data and information for those waterbodies indicate impairment of the lake numeric nutrient criteria and thus require TMDLs. The EPA solicited public comment on this action beginning on December 7, 2020 and accepted comments through March 2, 2021. The comments received and the EPA's responses are summarized in the attachment. After consideration of public comments, the EPA affirms its November 30, 2020 addition of forty waterbodies to Missouri's 2020 list.

Appendix A contains the EPA's responses to comments received on the Missouri 2020 303(d) Public Notice between December 7, 2020 through March 22, 2021. For convenience of the reader, the agency has summarized the comments into 22 categories in Sections A-V. Section W also includes figures referenced in the EPA's response to comments.

All the Public Notice Comments received are provided in Appendix B. Comments are identified by number in the index provided in Appendix B. Each comment is numbered in the document. In some cases, more than one commenter provided identical or similar comments.

The following table provides the list of lakes that have been added. Missouri recently changed the Assessment Unit Identification for Greenly Lake to MO7754 and Prairie Lake to MO7755. Table 1. below reflects the updated ID's.

Table 1: Forty Waterbodies with Impairments of Lake Numeric Nutrient Criteria that the EPA is adding to the 2020 Missouri 303(d) List for Chlorophyll-a (W)

No.	Waterbody Name	Assessment Unit ID	County
1	Buffalo Bill Lake	MO7117	DeKalb
2	Cameron #1 (Century) Lake	MO7120	DeKalb
3	Cedar Lake	MO7199	Boone
4	City of Milan Lake (North)	MO7144	Sullivan
5	Dairy #1	MO7754	Boone
6	Deer Ridge Community Lake	MO7015	Lewis
7	Elmwood City Lake	MO7146	Sullivan
8	Gopher Lake	MO7383	Jackson
9	Greenly Farms	MO7630	Knox
10	Hamilton Lake	MO7124	Caldwell
11	Happy Holler Lake	MO7644	Andrew
12	Harry S. Truman Reservoir	MO7207	Benton, Henry, and St. Clair
13	Indian Lake (Indian Hills Lake)	MO7288	Crawford

No.	Waterbody Name	Assessment Unit ID	County
14	Jackrabbit Lake	MO7391	Jackson
15	Jamesport City Lake	MO7104	Daviess
16	Jamesport Community Lake	MO7105	Daviess
17	Jo Shelby (Fountain Grove Lake)	MO7147	Linn
18	King City (East) New Reservoir	MO7114	Gentry
19	King Lake	MO7112	DeKalb
20	Lac Carmel	MO7605	St. Francois
21	Lac Marseilles	MO7614	St. Francois
22	Lac Shayne	MO7606	St. Francois and Washington
23	Lake Nell	MO7403	Jackson
24	Lake of the Ozarks	MO7205	Benton, Camden, Miller, and Morgan
25	Lake Winnebago	MO7212	Cass
26	Limpp Community Lake	MO7111	Gentry
27	Macon Lake	MO7168	Macon

No.	Waterbody Name	Assessment Unit ID	County
28	Memphis Reservoir	MO7013	Scotland
29	Montrose Lake	MO7208	Henry
30	Peaceful Valley Lake	MO7241	Gasconade
31	Perry City	MO7047	Ralls
32	Pony Express	MO7118	DeKalb
33	Prairie	MO7755	St. Charles
34	Shelbyville	MO7036	Shelby
35	Shepherd Mountain Lake / Ironton	MO7333	Iron
36	Simpson Park Lake	MO7502	St. Louis
37	Sterling Price Community Lake	MO7149	Chariton
38	Sunnen Lake	MO7294	Washington
39	Thomas Hill Reservoir	MO7173	Macon and Randolph
40	Unionville Reservoir (Lake Mahoney)	MO7154	Putnam

Appendix A: Response to Comments

This Appendix contains the EPA's responses to comments received on the Missouri 2020 303(d) Public Notice between December 7, 2020 through March 22, 2021.

A. 70% of Commentors Provided Support for the EPA listing additional lakes

B. Plans approved by the EPA

C. Lake of the Ozarks

D. Ecoregion

E. Fish Kills

F. Nutrient Trends

G. Ideas to address pollution at Lake of the Ozarks

H. Fishing at Lake of the Ozarks

I. Using Additional Monitoring points (Sites)

J. Considerations of data quality

K. Considerations of data age

L. Request for Additional Data Used and Time Extension

M. Commentors supporting letters from others

N. Truman Lake and Lake of the Ozarks

O. Algal Blooms

P. Use of Category 2 and 3

Q. Comments on what nutrient level was used

R. Waterbodies or issues not included as part of Public Notice

S. Data not available at time of MoDNR assessment

T. Socioeconomic Impacts

U. Use of Response Endpoints

V. The EPA over-listing waters

W. Figures

A. 70% of Commentors Provided Support for the EPA Listing Additional Lakes

Comments from those supporting the EPA adding lakes to Missouri's 2020 303(d) list (Comments #2, 5, 7, 8, 9, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 33, 34, 35, 36, 37, 38, 39, 43, 45, 46, 47, 49, 56, 58, 60, 61, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 74, 75, 76, 77, 79, 80, 81, 82, 83, 84, 85, 86, 87).

Included are comments that specifically support the EPA's recommendation that Lake of the Ozarks and/or Truman Lake are both impaired and should be listed (Comments #2, 27, 31, 72, 75, 79, 80). Some comments also provided ideas on how the lakes' water quality can be improved or potential sources or specific pollution concerns at lakes (Comments #17, 26, 31, 49, 72, 75, 81, 82, 83, 86). Some comments state that clean water supports and brings in tourism or benefits the economy (Comments #19, 45, 79). One supportive comment described concerns about water quality and swimming, and potential causes of pollution, but did not mention specific lakes (Comment #43).

One comment expressed support for the EPA's action but not for MO's numeric nutrient criteria arguing that the criteria are not protective enough. The comment also expressed concern for drinking water and recreational uses including swimming and boating and impacts to protected conservation areas. The comment asserted MoDNR did not use all available data. The commentor provided declarations from citizens of Missouri that use lakes in Missouri and have noticed issues with water quality, odors, and algae growth (Comment #49).

One comment said that the EPA correctly added Truman Lake and Memphis Reservoir (Comment #56). One comment mentioned that the EPA properly considered data older than seven years (Comment #58). One comment stated that since the waters are impaired the EPA should take immediate steps to rectify this situation (Comment #61). One comment stated they wanted more rigorous monitoring of pollutants (Comment #71).

Another comment stated it represents 12,000 members and that 303(d) listing decisions should be based on the scientific data available and assessment of risk. "Implications of listing decisions" should not be a consideration. (Comment #72).

A comment noted an increasing amount of green scum on Lake of the Ozarks; fishing there over the last 20 years it noted the scum is now all over the bottom of the lake and suggested fishermen could help by providing GPS locations of the scum (Comment #75).

One comment stated that clean water was important for breweries (Comment #76).

One commentor has lived at Lake of the Ozarks for 33 years and stated the lake has gotten worse year after year and would not let her children swim in the lake and knows several people who will not eat the fish from the lake (Comment #80).

Response

The EPA acknowledges the comments in support.

B. Clarification that the Listing Methodology Document and Nutrient Criteria Implementation Plan are not approved by the EPA

Two comments stated that the Listing Methodology Document (LMD) and the Missouri Nutrient Criteria Implementation Plan (NCIP) were approved by the EPA (Comments #50 and 51).

Response

The EPA, appropriately, did not take any action, including an approval of the LMD or the NCIP. While the MoDNR did have the LMD go through a process of soliciting public comments, it did not go through state rulemaking. The NCIP did not go through either the public comment process or the state rulemaking process. Neither document is subject to the EPA review and approval. The EPA is not bound by these two documents, however the EPA opted to be guided by the methods contained in these documents to make the additional listing decisions for 40 lakes.

C. Comments that do not Support Listing the Lake of the Ozarks

Several comments stated beliefs that there is insufficient data to list the Lake of the Ozarks as an "impaired water" on the State's 2020 303(d) List, or request that the EPA reconsider listing the Lake (Comments #1, 10, 13, 24, 30, 32, 40, 41, 48, 50, 51, 53, 57, 62, 73, 78). One comment was concerned that the EPA did not give warning to the lake community that the lake was going to be listed as impaired (Comment #72).

Response

The EPA respectfully disagrees. The EPA applied the applicable Missouri water quality criteria and LMD in its review of data on fish kills from the Missouri Department of Conservation in its decision to list Lake of the Ozarks. The data demonstrate that the Lake of the Ozarks is impaired for aquatic life and the data described further in this response to comments below. Additional information specific to Lake of the Ozarks is also provided in the responses below.

In response to the comment about not informing the community in advance, the EPA adhered to all legally applicable requirements in its review and action on the State's Section 303(d) list including adequate public notice. The public comment period also included an extension beyond the regulatorily required time and comments were accepted between December 7, 2020 through March 22, 2021.

D. Ecoregion

Some comments suggested that the EPA assessed the Lake of the Ozarks against inappropriate ecoregional numeric lake nutrient criteria and that the Plains Ecoregion should have been used instead (Comments #1, 48, 50, 51, 56, 57, 73). One comment provided a nutrient analysis. (Comment #51). Another comment suggested site-specific criteria should be applied in the future (Comment #56).

Response

The EPA respectfully disagrees. As set forth in the Missouri water quality criteria, 10 CSR 7.031, the Lake of the Ozarks' designated ecoregion is the Ozark Highlands ecoregion. The ecoregional designation extends to the tributary arms Grand Glaze, Gravois and Niangua of the Lake of the Ozarks, as provided by 10 CSR 20-7.031(5). Any change in ecoregion designation would require a revision to the Missouri water quality standards pursuant to Missouri rulemaking process, and the EPA review and approval under Section 303(c) of the Clean Water Act. Similarly, site-specific criteria must be developed through Missouri water quality standards rule-making process and implemented only after the EPA approval. In the Missouri water quality criteria, 10 CSR 20-7.031 (1)(C), it states:

> "Lakes and reservoirs will be designated to one (1) of the following aquatic habitat protection uses based on limnological characteristics (such as temperature) and biological assemblages."

The numeric nutrient criteria were derived based on trophic status ranges by ecoregion. The richest diversity index from each ecoregion was used as the target for the trophic status based on a corresponding range of chlorophyll-a. The criteria were derived by finding the level of algal growth that promotes sustainable biotic diversity by being neither a limiting factor from its scarcity nor a limiting factor from its obstructive presence in large quantities. Changing the Lake of the Ozarks ecoregion would not be appropriate for this reason even if there is more nutrient loading from Truman Reservoir.

Missouri's Numeric Nutrient Criteria at 10 CSR 20-7.031 (4)(N) 1. B., provides the approach to categorizing lakes by Ecoregion:

> "Due to differences in watershed topography, soils, and geology, nutrient criteria for lakes and reservoirs will be determined by the use of four (4) major ecoregions based upon dominant watershed ecoregion."

HUC 8s and HUC12s (smaller units than HUC8s) are the two most utilized hydrologic units to describe watersheds. The Lake of the Ozarks is comprised of two HUC 8 Watersheds, Lake of the Ozarks, and the Niangua. While the Lake of the Ozarks is the dominant of the two (in both size and flow), both reside within the Ozarks Ecoregion. These regions were delineated by grouping the ecological subsections described in Nigh, T. A., & Schroeder, W. A. (2002). *Atlas of Missouri Ecoregions*. Jefferson City, MO: Missouri Department of Conservation.

Because Lake of the Ozarks spans two HUC 8 watersheds within the Ozarks Ecoregion, Lake of the Ozarks is categorized as an Ozark lake for purposes of nutrient criteria. A plain reading of the

State's criteria at 10 CSR 20-7.031 (4)(N) 3, which was promulgated by the State and approved by the EPA in 2018, provides clear direction to the State where they believe that the underlying criteria defined by the dominant watershed ecoregion is inappropriate. The concept of ecoregions as an organizing principle is a remnant of the earlier 2009 criteria, as evidenced by the 10 CSR 20-7.031 (1)(W), which states:

> "(W) Reference lakes or reservoirs—Lakes or reservoirs determined by Missouri Department of Natural Resources to be the best available representatives of ecoregion waters in a natural condition with respect to habitat, water quality, biological integrity and diversity, watershed land use, and riparian conditions"

Additionally, at 10 CSR 20-7.031 (4)(N)3:

> "Response Impairment Thresholds are listed in Table L. Nutrient Screening Thresholds are listed in Table M. Lake Site-Specific Criteria for TP, TN, and Chl-a are listed in Table N. Additional lake site-specific criteria may be developed in accordance with subsection (5)(S) to account for the unique characteristics of the waterbody that affect trophic status, such as lake morphology, hydraulic residence time, temperature, internal nutrient cycling, or watershed contribution from multiple ecoregions. (emphasis added)."

If either the State or Commenters believe that contribution from the Plains Ecoregion (most notably the Harry S. Truman Reservoir watersheds) are affecting the trophic status of Lake of the Ozarks, Missouri's regulations direct the State to develop site specific criteria, not re-categorize the lake based on the contribution from another watershed.

E. Fish Kills

Several comments state that the EPA's reliance on fish kills and/or fish kills that lack adequate water quality data is inappropriate (Comments #1, 4, 48, 50, 51, 53, 56, 57, 73). One comment also expressed concern about fish kills at Truman Reservoir (Comment #51). Another comment expressed concerns about fish kills at Lake of the Ozarks, Truman Reservoir, and Jackrabbit Lake (Comment #53). Some comments mention fish kills related to freezing weather, blunt force trauma, and disease (Comments #53, 56, 57, 73).

Response

The EPA respectfully disagrees that use of fish kill data was inappropriate. For Lake of the Ozarks, Truman Reservoir, and Jackrabbit Lake, the lakes geometric mean data for the year exceeded the nutrient screening criteria (and in some cases the Response impairment threshold for some monitoring locations) which then triggers reviewing the response assessment endpoints. Note in Figure 1. provided in Section W, the process for evaluating the response endpoints in the Missouri Ecoregional Numeric Nutrient Criteria Decision Framework.

The EPA reviewed all published fish kill reports and the Missouri Department of Conservation's spreadsheet provided by MoDNR. MoDNR confirmed in an email to the EPA on September 15, 2020 that there were four fish kills at Lake of the Ozarks that met the criteria in the listing

methodology, and two kills in 10 years occurred, thus meeting the response end point and language in the water quality standards. MoDNR also confirmed in the email that two fish kills in ten years also occurred at Truman Reservoir and Jackrabbit Lake and the lakes should be listed. The EPA used this information to make this listing decision. Below are excerpts from the MDC fish kill spreadsheet that MoDNR provided to the EPA. A copy of the fish kill spreadsheet is available and can be provided by the EPA via email upon request, or by contacting MoDNR or MDC. Figures 2, 3, 4, and 5 are provided at the end of this response to comments in Section W and show the locations of fish kills that were described in the MDC spreadsheet. Figure 2 provides a color-coded version of locations of fish kills for Lake of the Ozarks. The EPA is providing this graphic for additional clarity and emphasis for the public. The locations in the figures may not represent all fish kills at the lakes and additional fish kills may have occurred between 2018 and now. The figures only represent the locations available to the EPA at the time of the decision on the 2020 list.

Truman Reservoir

There are six entries of interest for Truman Reservoir in the MDC fish kill spreadsheet provided below. The entries address low D.O. and two algal related events in 2014, and blue green algae events in 2015 and 2017. Figure 3 identifies the locations of fish kills that occurred at Truman Reservoir.

- Truman Reservoir - June 11, 2014, Algal Bloom from the MDC Fish Kill Spreadsheet:
  "...several reports today of an extensive green slick on the S. Grand River Arm of Truman just south of Clinton...It turns out to be a massive planktonic algae bloom"

- Truman Reservoir - July 16, 2014 Algal Bloom from the MDC Fish Kill Spreadsheet:

  "Our regional fisheries biologist has received a few calls about a green paint-like substance on the South Grand River Arm of Truman Reservoir. We believe this is an algal bloom, potential blue-green algae. Toxin production unknown. The bloom area is a couple hundred acres in size and can be observed from the highway. This is located in the same location as the bloom observed mid-June...If you get any calls on this, you should let them know that we are not aware of any point source with any unusual discharge that would be causing this algal bloom independently. We also do not have any information at this time that would indicate unlawful introduction of pollutants to this area (i.e. ag chemical spill, bypass of sewage, etc.)...did confirm that it was a large algal bloom. It sounds like it may have grown considerably today...The bloom was massive in scale and covered nearly all of the Grand River branch of the lake. It extended for approx…½ mile E/W on both sides of the Hwy 13 bridge, and was shore to shore(N/S) across the branch."

- Truman Reservoir – South Grand River Arm – July 14, 2015, Blue-green algae cause listed in 2015 report.

- Truman Reservoir - August 1, 2017 Fish Kill from the MDC Fish Kill Spreadsheet, Low D.O.:

  "MDC reports the fish kill is a natural decrease in DO due to weekend storms in the area. Approximately 100 fish of various sizes and species were involved."

- Truman Reservoir - August 29, 2017 Fish Kill from the MDC Fish Kill Spreadsheet, planktonic algae bloom:

  "... went out to investigate a report of dead hybrid striped bass near Long Shoal Marina. We encountered about 30 dead hybrids around the mouth of the Grand River Arm. It was entirely hybrid striped bass over 5 pounds and there were no freshly dead fish. Oxygen levels were 5ppm at the surface but only 3ppm 6-10 feet deep. The affected area was fairly small and really only impacted the mouth of the Grand River Arm up to the Hwy 7 bridge. Oxygen levels were higher 14 miles above the mouth and at Bucksaw, although oxygen levels dropped quickly with depth at Bucksaw. There was a substantial planktonic algae bloom in the affected area, but not in other parts of the lake we visited. We also took oxygen levels in the mouth of the Osage Arm and water clarity was strikingly different and oxygen levels were 2ppm higher overall."

- Truman Reservoir - September 11, 2017 Fish Kill from the MDC Fish Kill Spreadsheet, Low D.O./Algal Bloom:

  "... received a phone call... on 9/11/2017 about a very large fish kill (thousands of shad) at G10...responded on site on the 11th and confirmed a kill of shad resulting from low dissolved oxygen at night due to an algal bloom. Dead fish were observed from G10 to G14 on the Grand River Arm...We received concern from a member of the public about a fish kill upstream of Long Shoal near lake mile marker G10. We investigated by boat today. We found many dead shad spread out sporadically. No other species of dead fish were observed. Some fish appeared fresher than others and we did see a few shad surface. We also noticed brown streaks in the water but nothing as drastic as images...that were supplied to us by the public."

Jackrabbit Lake

There are two entries of interest provided below for Jackrabbit Lake in the MDC fish kill spreadsheet. Figure 4 has locations of fish kills that occurred at Jackrabbit Lake.

- Jackrabbit Lake - August 2015 Fish Kill from the MDC Fish Kill Spreadsheet:

  "We had a fish kill of around 200 at Jackrabbit Lake last week. This included hybrid stripers, largemouth bass and some big sunfish. This kill was most likely due to high pH around (10) which in turn cause the ammonia levels to become toxic to some fish. These conditions were brought on by the large blooms of algae that are occurring on the area this year. So far it has not effected any of the other lakes. Please report to me if anyone sees or reports additional fish deaths at this lake or any others. This small kill should not have any effect on the quality of fishing at Jackrabbit. pH of 11 on Saturday."

- Jackrabbit Lake - May 2017 Fish Kill from the MDC Fish Kill Spreadsheet, as well as additional endpoint impairments for 2017:

  "We have about 150-200 large Redear and Bluegill dead at Jackrabbit lake. With the combination of up and down water temp. and spawning going on these deaths are most likely due to natural causes. (stress and disease)...There were 150-200 large Redear sunfish and Bluegill dead. The cause is weather related and believed to be a result of shifting temperatures combined with the ongoing spawning (stress and disease)."

Lake of the Ozarks

The following are entries of interest concerning Lake of the Ozarks in the MDC fish kill spreadsheet. Figure 2 shows the locations and color codes the known causes of fish kills. The EPA is providing this graphic for additional clarity for the public. Figure 5 also has locations of all fish kills that occurred at Lake of the Ozarks.

- Lake of the Ozarks - June 2016 Fish Kill from the MDC Fish Kill Spreadsheet

  "The spill line was contacted at 1230 hours...about a fish kill in the Gravois Arm of the Lake of the Ozarks near Sheldon Point...indicated that there were over 100 dead fish floating and that most were small...confirmed that the reported fish kill yesterday was in the Gravois Arm of Lake of the Ozarks in Morgan County. One caller reported that the fish had been dying for a few days, and initially only small fish were dying…received two calls from the public yesterday...Everything else was pretty far gone...estimate 70% drum, 25% catfish (primarily channel and nothing over 22"), and a few crappie, black bass and other species."

- Lake of the Ozarks - June 2017 Fish Kill from the MDC Fish Kill Spreadsheet

  "This fish kill started in mid-June and lasted until late June. It was originally reported by the public to our Camdenton Office. Questions from the public included concerns about consuming infected fish, requests to remove dead odorous carcasses, and questions about potential linkages to the Truman Dam paddlefish kills that were continuous throughout May in the upper miles of Lake of the Ozarks. The ultimate cause of the fish kill was hypoxia. Naturally warm summer conditions reduced available oxygen for fish in layers of water that had suitable temperatures and the surface layer of the lake was too warm for fish to survive. This is textbook temperature oxygen squeeze. Surviving fish in these conditions were isolated to a small portion of the watershed and became crowded. These are very stressful conditions for the fish which ultimately led to secondary bacterial infections." Occurred on MM 49, 50.

- Lake of the Ozarks - June 2018 Fish Kill from MDC Fish Kill Spreadsheet

  "Between 6/7/2018 and 6/14/2018, multiple calls from the public suggested an ongoing fish kill on the Gravois and Grand Glaize arms of Lake of the Ozarks. Callers reported seeing over 100 dead fish, including flathead catfish, channel catfish, crappie, and freshwater drum...suggested that high water temperatures and

> low dissolved oxygen were likely culprits for this event... Another fish kill near mile marker 2 (Osage channel) on LOTO... Reports 820 dead drum and a few dead catfish. Kill started June 26th. Says buffalo and carp are 'feeding shallow'. Says it's a smelly situation.

In MoDNR's December 2017 Rationale for Missouri Lake Nutrient Criteria Development it states:

> "Lakes that exceed regional NSTs [Nutrient Screening Threshold's] but are below the regional response impairment thresholds will be checked against MDC's fish kill database to determine if a kill event related to eutrophication has occurred within the last ten years. A "small kill' event is defined as involving less than 100 fish, while a "large kill" is one that involves a greater number of fish or a larger area of impact (MDC 2014). It is recommended that a single 'small kill' event (defined here as the death of <100 vertebrate aquatic organisms such as fish, amphibians, reptiles, etc.) should not be sufficient to be considered an impairment. A reoccurrence of 'small kill' events associated with eutrophication (2 or more within 10 years) however, would be considered evidence of impairment. A 'large kill' event (>100 vertebrate organisms) would only be considered as evidence of an impairment if the area affected was greater than 10 percent of the waterbody area; multiple 'large kill' events that occur within a 10 year period would be considered an impairment regardless of area affected during the individual events."

Some comments discounted or minimized the fish kills at Lake of the Ozarks. Of note, at the time of the fish kills, the local media interviewed MDC officials who corroborated the events memorialized in the fish kill database and stated to the public that they believed the fish kills to be caused by nutrients.

The fish kills were not small or seemingly random events, and they lasted over weeks. In addition to meeting response assessment endpoint of 2 fish kills in 3 years, and 2 fish kills in ten years set forth in Missouri's Numeric Nutrient Criteria and the LMD, there were also over a hundred fish killed. While no exact measurement of area impacted was provided, it is also possible that fish kills occurred over 10% of the lake based on the descriptions of the fish kill events.

The following article from Lake Expo June 29, 2018 has additional corroborating information: https://www.lakeexpo.com/boating/fishing_hunting/dead-fish-at-lake-of-the-ozarks-here-s-what/article_2657e894-7a28-11e8-badb-732f582098aa.html. The following is an excerpt from this article.

> "The lack of rain up until recently means nutrients that are normally flushed out of the Lake through the dam have been building up in the water. In shallow waters, the water heats up quickly, and when that combines with a high nutrient content, it fosters the perfect place for algae to grow. '' said Craig Gemming, Fisheries Regional Supervisor for Missouri Department of Conservation."

The Lake Expo Article references four fish kills in between June 10 and June 24, 2018:

1. Lower Glaize Arm beginning June 10;
2. A short time later, a larger die off showed up in the Gravois Arm;
3. A third die off also occurred between the 60–70-mile markers but was smaller and only seemed to affect young shad; and
4. A fourth fish kill was reported by neighbors at the 1 Mile Marker around June 24.

The following is an excerpt from a Lake News online article from June 22, 2018: (see, https://www.lakenewsonline.com/news/20180622/hot-spring-leads-to-green-lake-water-then-fish-kill).

> "On Wednesday, Greg Stoner confirmed reports of a fish kill on Lake of the Ozarks. Stoner is the Missouri Department of Conservation Fisheries Management Biologist for the Lake.
>
> According to Stoner, the kill appears to be restricted to the lower Gravois and Glaize arms, and is due to low dissolved oxygen in the water. He attributed the water conditions to high water temperatures which, before the rain, were approaching 90 degrees.
>
> Non-toxic algal blooms contributed to the fish kill. When a large volume of algae dies off, it causes the dissolved oxygen to dive, Stoner explained.
>
> Anyone concerned about swimming safety might want to avoid areas of water where there are large volumes of dead fish, but other than that the water is fine. It's not a pollution issue, he said.
>
> The early-season heat appears to be behind reports in the last week of two of the Lake of the Ozarks looking a little more green than usual.
>
> High temperatures, lots of light and little rain along with plenty of nutrients in the water may be causing algal blooms, but that doesn't mean they are toxic blooms.
>
> According to Stoner, algal blooms on the lower Gravois are fairly common each year during the summer."

Not only was MDC documenting the fish kills, MDC provided information to the public through the local media attributing the fish kills to nutrients and hypoxia. The Spring/Summer 2019 edition of the Ameren newsletter Lake News and Shoreline Views, had this quote from Greg Stoner, who was with MDC at the time. Below is an excerpt:

> "But temperature alone is not always the cause of low D.O. Many times, other biological processes going on at the same time can drive D.O. levels lower than what we would expect based only on water temperature. A good example of this occurred in June of 2018 producing fish kills on the Glaize, Gravois, and Lower Osage Arms. We were experiencing a dry spell with very little inflow entering the lake. As a result, the water was very clear which allowed for greater than normal growth of tiny plant-like organisms called algae. Algae is important to the ecology of the lake. It provides food for

> microscopic animals called zooplankton which in turn support the food chain all the way up to the largest sportfish. But with algae, like most things in life, you can get too much of a good thing. Living algae produces oxygen during the day just like plants through a process called photosynthesis. However, when algae dies, the decomposition process uses a great deal of oxygen. In this case, the combination of high water temperatures and an algae die-off resulted in a fish kill." There were also fish kills that the EPA did not consider as related to the nutrient criteria such as those caused by dam operation, blunt force trauma, or during freezing temperatures. However, it is important to note that algal blooms can occur during any month of the year and with changing climate, algal-bloom-caused fish kills may become more common and fall outside the typical months of May through October. Concerning the concept of natural disease of fish, some fish diseases are closely associated with stresses due to anoxia. There may be additional fish kills that occurred at Lake of the Ozarks where low oxygen conditions caused fish diseases to flourish."

Oxygen levels in lakes follow diurnal trends with the lowest levels occurring in early mornings. One caution, an overnight low D.O. event could cause a fish kill but may show normal D.O. levels later the next day. This could be especially true on a lake with a lot of boat traffic like Lake of the Ozarks, where mixing of the water may mask the underlying causes of a fish kill.

In addition to exceeding Missouri's recently adopted numeric nutrient water quality standards, the existing general narrative criteria at 10 CSR 20-7.031(4), was also violated in the Lake of the Ozarks. This narrative criteria states:

> "Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life."

There is sufficient toxicity in the Lake of the Ozarks to cause fish to die, frequently and in large numbers, evidencing that the narrative criteria are also not being met.

These following general narrative criteria may also be implicated, in some cases, by high nutrient levels:

- "Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses."
- Waters shall be free from oil, scum, and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
- Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
- There shall be no significant human health hazard from incidental contact with the water.
- There shall be no acute toxicity to livestock or wildlife watering.
- Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community."

An exceedance of any narrative water quality criteria is sufficient to list a waterbody as impaired, independently of any separate violation of the numeric nutrient or Chl-a concentration criteria.

Finally, a comment requested that MoDNR and MDC involve stakeholders and the EPA in future discussions about fish kills (Comment #53). The EPA notes the comment and reiterates that all public notice requirements were met or exceeded but is open to participating in future discussions.

F. Nutrient Trends

A comment stated that temporal nutrient trends in the Lake of the Ozarks are stable or potentially decreasing and MoDNR has properly considered all appropriate data (Comment #1).

Response

The EPA respectfully disagrees that trends in Lake of the Ozarks are stable or decreasing. MoDNR provided a trends analysis in their 2020 305(b) report showing that Lake of the Ozarks would be impaired in 2020, documenting that there is not a decreasing trend. The EPA conducted a trends analysis with the full data set that also showed a trend towards increasing impairment. The comment provided its own trends analysis, however, the commentor did not use the full data set and did not use the trends analysis methodology described in the MoDNR LMD.

G. Ideas to Address Pollution at Lake of the Ozarks

One comment provided suggestions on how to address pollution at Lake of the Ozarks. The comment included references to the presence of wastewater in the Lake of the Ozarks and the need to test septic systems, impose fines, having lake-wide city sewage, free leaf/grounds waste pick up and free recycling, and requiring waterfront bars to use paper versus Styrofoam or plastic (Comment #6).

Response

These potential solutions may be viable options that could be considered as part of future TMDL development or practices in the watershed to improve water quality. The EPA reminds the public that any Clean Water Act violation (e.g., discharges from a point source) may be reported to the MoDNR and/or the EPA:

- To report a pollutant spill and/or release in Missouri, call the 24-hour EPA Region 7 Emergency Response Line at 913-281-0991
- To report a harmful algal bloom with MoDNR: https://dnr.mo.gov/water/hows-water/pollutants-sources/cyanobacteria-harmful-algal-blooms-blue-green-algae/report-algal-bloom
- Call MoDNR's Environmental Response Spill Line at 573-634-2436
- Call MoDHSS' Public Health Emergency 24/7 Hotline at 1-800-392-0272

H. Fishing at Lake of the Ozarks

Two comments stated that fishing at Lake of the Ozarks is the best anywhere or best in the country (Comments #10, 13). Another comment provided information on the fish they have caught and health of the lake and that they swim in the lake (Comment #78).

Response

As stated previously, the numeric nutrient criteria were derived based on trophic status ranges by ecoregion. The richest diversity index from each ecoregion was used as the target for the trophic status based on a corresponding range of chlorophyll-a. The criteria were derived by finding the level of algal growth that promotes sustainable biotic diversity by being neither a limiting factor from its scarcity nor a limiting factor from its obstructive presence in large quantities. High nutrient levels may increase the number of some species, however these same nutrients under the same conditions can also cause fish to die. Fish kills at the lake have been documented by MDC and were considered in the listing decision. Listing the Lake of the Ozarks provides the opportunity for plans and practices to be put in place to address the aquatic life use impairment and in effect to help maintain Lake of the Ozarks sport fishing.

I. Using Additional Monitoring Points (Sites)

Some comments stated that the EPA used additional monitoring points to assess impairment (Comments #1, 50, 51).

Response

The EPA respectfully disagrees. To assess the additional 40 lakes, the EPA used the data at the point that is nearest the lake dam, which was consistent with the MoDNR approach. The EPA included additional information about the other points, when available, to further emphasize that the impairment was broader than just the one point and further supported the decision, but not required for the decision. In other words, the listing was supported regardless of the additional data.

Moreover, the recently the EPA-approved Missouri nutrient water quality criteria provide for use of all applicable data. The implementing regulations at 40 CFR 130.7(b) require that all data be used in future listing decisions consistent with the Missouri criteria unless there is a reasonable technical rationale for not doing so.

Most lakes in Missouri have only one monitoring site located near the dam. However, the EPA provides the following additional data evaluated for Lake of the Ozarks (the points generally follow the mile markers at the lake, for example Point 13 is at mile marker 13):

- Every monitoring point's results (using the geometric mean of at least four samples between May 1 and September, for each of the most recent three years of data) exceeded the Chl-a screening criteria of 6 µg/L and many of the points exceeded the impairment threshold of 15 µg/L.

- In 2017, the seasonal geometric mean for Chl-a for each of all ten of the points with data exceeded the impairment threshold of 15 µg/L.
- Point 13, exceeded the impairment threshold of 15 µg/L in 2015 and 2017.
- Point 31.1 exceeded the impairment threshold of 15 µg/L in 2016 and 2017.
- Point 4.10 exceeded the impairment threshold of 15 µg/L in 2017 and 2018, and was close to exceeding in 2016 at 14.91µg/L.
- Point 4.15 exceeded the impairment threshold of 15 µg/L all three years 2012-2014.
- Point 4.2 exceeded the impairment threshold of 15 µg/L in 2013 and 2014 and has not been monitored since 2014.
- Point 2.5, and 21 exceeded the impairment threshold of 15 µg/L at least once in the last three most recent years of data and were very close to exceeding 2 out of 3 years.
- Point 39 exceeded the impairment threshold of 15 µg/L from 2012-2014 and has not been monitored since 2014. In 2013 the Chl-a geometric mean was over 37 µg/L which would also exceed the Plains ecoregion criteria.
- Point 51 exceeded the impairment threshold of 15 µg/L from 2016-2018.
- Point 59 exceeded the impairment threshold 2012-2014 and has not been monitored since 2014. In 2012, the Chl-a geometric mean was nearly 33 µg/L which would also exceed the Plains ecoregion criteria.
- Point 61 exceeded the impairment threshold of 15 µg/L in 2016 and 2017.
- Point LN3 exceeded the impairment threshold of 15 µg/L from 2012-2014 and has not been monitored since 2014.
- Point LN5 exceeded the impairment threshold of 15 µg/L in 2012 and 2013 and has not been monitored since 2013.
- Lake of the Ozarks Villas Point exceeded the impairment threshold of 15 µg/L in 2004 and has not been monitored since.
- For total nitrogen and total phosphorus most points' yearly geometric means (from data May-September) have been above the screening threshold. A trends analysis of data since 2000 shows that there is an upward trend for Chl-a, TN, and TP for Lake of the Ozarks.

J. Considerations of Data Quality

Some comments stated that the EPA did not consider data quality (Comments #1, 48, 57).

Response

The EPA respectfully disagrees. In identification and assessment of the impaired waters, the EPA, consistent with and pursuant to CWA regulations, 40 C.F.R. § 130.7(b)(5), used the existing and readily available data. The data used includes data originating from University of Missouri related programs, including the Lakes of Missouri Volunteer Monitoring Program (LMVP) and the Statewide Lake Assessment Program (SLAP). Additionally, the EPA used fish kill information from the Missouri Department of Conservation. The EPA has no data quality concerns.

K. Considerations of Data Age

Some comments stated that the EPA should not use data older than seven years (Comments #1, 48, 50, 51, 53, 56, 57). Comment #52 referred to Comment #51's letter stating Comment #51's letter clarified that all the existing and readily available water quality-related data had been assembled. One comment stated that the data used may not accurately reflect the current conditions of the waterbodies and provided a list of 14 water bodies. These bodies of water include Cameron #1 Lake, Gopher Lake, Happy Holler Lake, Indian Hills Lake, Jamesport Community Lake, Lake Nell, Lake Winnebago, Macon Lake, Montrose Lake, Peaceful Valley Lake, Prairie Lake, Sterling Price Community Lake, Thomas Hill Reservoir and Unionville Reservoir (Comment #53). Another comment also mentioned specific lakes: Cameron #1 (Century) Lake, Macon Lake, Thomas Hill Reservoir, Unionville Reservoir (Lake Mahoney), and requested the EPA to reconsider including those lakes on the list due to the EPA using data older than seven years, and alternatively recommended these lakes be placed in Category 2 or 3 (Comment #56).

Response

The EPA respectfully disagrees. The CWA Section 303(d) implementing regulations at 40 C.F.R. § 130.7(b)(5), requires that: "Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list…."

Along with the Section 303(d) List, a state must submit,: (1) "[a] description of the methodology used to develop the list"; (2) "[a] description of the data and information used to identify waters"; (3) "[a] rationale for any decision not to use any existing and readily available data and information" for certain categories of water; and (4) "[a]ny other reasonable information requested by the Regional Administrator." 40 C.F.R. § 130.7(b)(6)

While Missouri explained that it did not use data beyond its 7-year cut-off, it failed to provide a valid technical or science-based rationale consistent with 40 CFR 130.7(b)(6)(iii) as to why the data should not be "used" to assess whether a waterbody is impaired. The EPA discussed with MoDNR the regulatory requirements and concern with the cut-off date before its official submittal. MoDNR confirmed it was only data age and no other technical or scientifically valid reason for not using older data. The 7-year data cut-off included in Missouri's LMD and the LMD in general is not reviewed and approved by the EPA for CWA purposes, and therefore, is not a part of the EPA approved water quality standards. In this instance, data cut-off is especially concerning given the nutrient criteria were developed with long term data, not just the most recent seven years of data.

L. Request for Additional Data and Time Extensions

Two comments requested that the EPA provide the additional data that was used (Comments #3, 54). One comment requested additional time to review the data and a 30-day extension (Comment #54). Two comments requested to extend the public comment period for at least an additional 60 days (Comments #55, 59).

Response

The EPA previously responded to these commenters and provided the data as requested. On December 22, 2020 the EPA uploaded a list of data sources used for the EPA's Decision to Partially Disapprove and Identify 40 Waters for Inclusion on Missouri's 2020 303(d) List to our public notice web site https://www.epa.gov/sites/production/files/2020-12/documents/mo-2020-303d-list-data-sources.pdf. The EPA also extended the public notice to March 22, 2021 to allow additional time for the review of the data sources. The EPA also received late comments which are included in the attached comments (Comments #88, 89, 90). While the EPA did not consider the late comments in the decision, they are similar in nature to other comments that were received on time and should be addressed in substance by the responses in this document.

M. Comments Supporting Comments from other Entities

Three comments referenced support for MoDNR's comments (Comments #4, 52, 57). Two comments referenced support for Ameren's comments (Comments #40, 41). One comment provided historical supporting historical background from agriculture, industry and municipal stakeholder groups during the nutrient criteria development and support for MoDNR and the Missouri Clean Water Commission (Comment #57).

Response

The EPA has responded comprehensively in this response to comments to every organization or individual that submitted a comment by the deadline. The comment numbers and associated entities are listed in Appendix B.

N. Truman Lake and Lake of the Ozarks

One comment expressed concern that the impacts of Truman Lake on Lake of the Ozarks has not been properly evaluated or considered (Comment #4). Another comment provided ideas on potential impacts of Truman Lake on causes of Lake of the Ozarks water quality issues (Comment #42). One comment provided a nutrient loading analysis showing interaction between the lakes (Comment #51).

Response

The interactions between the lakes have been understood for decades and were considered by MoDNR in its development of the Numeric Nutrient Criteria. In MoDNR's response to comments for the numeric nutrient water quality standards rulemaking process, it provided the following response to a citizen who commented that it does not make sense for Truman Lake to have less stringent nutrient criteria than Lake of the Ozarks since Truman Lake feeds into Lake of the Ozarks:

> "The proposed numeric nutrient criteria represent the desired condition for a water body that is necessary to protect the applicable designated uses assigned in rule. Because of differences in watershed topography, soils, and geology, nutrient criteria for lakes are determined by the use of four major ecoregions based upon the dominant watershed ecoregion. Using this approach, the dominant watershed ecoregion potentially

contributing nutrient loading to Truman Lake is the Plains Ecoregion. Because of the impoundment of Truman Lake, the dominant watershed contributions to Lake of the Ozarks would result from within the Ozark Highlands making that ecoregion's values the applicable nutrient criteria for Lake of the Ozarks. Although water from Truman Lake does eventually discharge into Lake of the Ozarks, some settling and nutrient attenuation is expected. Additionally, because the criteria are expressed as geometric means, any individual measurements greater than the numeric criteria values do not in and of themselves indicate an excursion of water quality standards. Further protection of Lake of the Ozarks will be implemented as a result of added general criteria at 10 CSR 20-7.031(4)(E), which requires that waters shall maintain a level of water quality at their confluences to downstream waters that provides for attainment and maintenance of the water quality standards of those downstream waters."

The nutrient loading analysis provided by comment #51 used multiple monitoring points to describe the nutrient loads. The use of all the monitoring points data further indicates the impairment of both Truman Lake and the Lake of the Ozarks. The EPA has provided additional information on all of the Lake of the Ozarks monitoring points in this document. In a future rulemaking, when looking to be protective of the Lake of the Ozarks, the impairment threshold of Truman Reservoir may need to be made more stringent to consider downstream uses. As part of TMDL development, waste load allocations that take into account the interactions between the lakes are likely needed. Non-point source prevention practices in the Truman watershed will benefit both lakes.

O. Algal Blooms

Comment states algal blooms occurring (Commentor #51):

> *"Three of the fish kills EPA cites (occurring in 2014 and 2015) on Truman Reservoir were not actually fish kills, but reported algal blooms. MDC's database also captures some algal bloom events. While this information is concerning, it was not accompanied with dissolved oxygen, pH, or algal toxin measurements. Algal blooms themselves are not one of the Response Assessment Endpoints and, therefore, EPA should not use these events in their decision on Truman Reservoir."*

Response

The EPA is very concerned about harmful algal blooms. To better understand algal blooms that occurred from 2016-2018 the EPA reviewed satellite data from the CyAN project. More information about CyAN is available here: https://www.epa.gov/water-research/cyanobacteria-assessment-network-cyan. Multiple times during the months of May through September in the years 2016-2018 CyAN images showed approximate cyanobacteria biomass of over 100,000 cells/ml occurred at Truman Reservoir and Lake of the Ozarks. Figure 6. in Section W includes three CyAN images of Truman Reservoir and Lake of the Ozarks. The statement that Algal blooms themselves are not one of the response assessment endpoints is factually incorrect. Cyanobacteria more than 100,000 cells/ml are one of the response assessment endpoints and specifically described in the State's criteria at 10 CSR 20-7.031 (4)(N)(6)(C).

Further, the frequency and extent of blooms visible by CyAN can provide additional information than what can be captured at fixed monitoring points that are potentially only visited four times per year.

P. Use of Category 2 and 3 of the Integrated Report

Comments suggest that Categories 2 and 3 could be used for additional lakes listed by the EPA (Comments #1, 4, 48, 50, 51, 56, 57). Category 2 is for waterbodies where available data indicate that some, but not all, designated uses are fully attained. Category 3 is for waterbodies where there are insufficient data and/or information to assess any designated uses.

Response

The EPA respectfully disagrees. The CWA Section 303(d) implementing regulations at 40 C.F.R. § 130.7(b)(5) require that: "Each State shall assemble and evaluate all existing and readily available water quality-related data and information to develop the list…." The existing and readily available data shows impairment of the 40 lakes, that Categories 2 and 3 are not applicable, and not listing these lakes for the 2020 listing cycle would be inconsistent with the CWA. The discussion above in Section K on data age also provides additional information. Comments #48 and #51 provided a list of sampling schedule and planned sampling, the data from this sampling can be used to assess the lakes in future Integrated Report cycles.

Q. Comments on what Nutrient Level was Used

Comment asked if the EPA used a more restrictive nutrient level then MoDNR for phosphorus and nitrogen (Comment #11).

Response

Pursuant to Section 303(d) of the CWA and its implementing regulations at 40 C.F.R. § 130.7, EPA used the approved Missouri water quality standards. Additional detail on the process used is provided in the decision document and elsewhere in this response to comments.

R. Waterbodies or issues not included as part of Public Notice

Commenters referenced other water bodies that they were concerned about or had questions about that were not included in the list of 40 lakes in the EPA's Public Notice (Comments #11, 44). Two comments mentioned other MoDNR actions or other state's regulatory actions of concern that were not part of the EPA's public notice concerning the addition of 40 lakes to the Missouri 2020 303(d) list (Comments #72, 77).

Response

The EPA addressed these other waters bodies in the partial approval of the Missouri 2020 impaired waters list. The purpose of the EPA's public notice was for the public to be aware of

and to comment on the EPA's decision to add certain water bodies that are not meeting the approved Missouri water quality standards. We encourage citizens to review and comment on the Missouri 2022 303(d) list during the state's public notice time frame and provide any applicable data during the state's request for data. The comments on water bodies not included in the EPA's public notice are also being provided to MoDNR. We recommend that MoDNR review the comments and the EPA's response to comments in advance of preparation of the 2022 IR and 303(d) list.

S. Data not available at time of MoDNR assessment

Some commenters expressed concern about the EPA using data that was not available at time of MoDNR's assessment (Comments #50, 51, 57). Comment #52 referred to Comment #51's letter and made a statement that the documentation presented by MDNR in support of the proposed modifications clarifies that all existing and readily available water quality-related data and information have been assembled and evaluated as required by the federal Clean Water Act.
Response

The EPA respectfully disagrees. The data was available or should have been available to MoDNR at the time of MoDNR's assessment. Moreover, the data reviewed by the EPA was collected by the University of Missouri Limnology lab through grants from MoDNR. The University provides data to MoDNR at the end of every year that the data was collected. Therefore, MoDNR had, or should have had, all the same data the EPA used within the data time frame for the 2020 IR cycle.

While nearly all of MoDNR's lake data may be accessed via MoDNR's website, a more publicly accessible and more complete dataset may be found here:
https://doi.org/10.6073/pasta/86d8d176e91410566b4de51df44c2624

Through the review of the data set the EPA found that an entire year of data that was collected in 2013 had not yet been added to the MoDNR assessment database. The EPA evaluated the data and determined additional lakes were impaired. All data that was used by the EPA was collected during the data time frame for the assessment (May 1 through September 30 for each year). The MDC fish kill information was available to MoDNR, is also published annually, and publicly available.

We encourage MoDNR and data providers to continue to work on improving processes that allow for correct and timely assessment of Missouri waters.

T. Socioeconomic Impacts

Some commenters are concerned about socioeconomic impact of listing Lake of the Ozarks and/or Truman Reservoir (Comments #48, 57, 73). One commenter is concerned about burdensome impacts to their member communities (Comment #55).

Response

It is important to note that the listing of the Lake of the Ozarks and Truman Reservoir is based on an impairment to the Missouri aquatic life use, which is a water quality data driven decision, and is independent of socioeconomic impacts. It is the EPA's expectation that implementation of this CWA process will help ensure that these lakes sustain the aquatic life use that is valuable to Missouri citizens (as well as visitors from other states).

U. Use of Response Endpoints

A commenter suggested that the response endpoints for City of Milan Lake (North) should not be used and provided an analysis of pH and dissolved oxygen data (Comment #56).

Response

While the commenter provided a subset of data to make their conclusion, the data did not support a change to the EPA's inclusion of Milan Lake to Missouri's 303(d) List. The University of Missouri Limnology Lab has been collecting data and training data collectors for decades. Additionally, the Lab and MoDNR were contributors for a recent Nature journal article: Jane, S.F., Hansen, G.J.A., Kraemer, B.M. *et al*. Widespread deoxygenation of temperate lakes. *Nature* **594,** 66–70 (2021). https://doi.org/10.1038/s41586-021-03550-y. The EPA relied on the Lab's data based on their experience and expertise. Furthermore, the Lab's data was the underlying data used for MoDNR's numeric nutrient criteria. The EPA encourages MoDNR to carefully evaluate City of Milan Lake (North) data appropriateness as part of the 2022 IR cycle, as well as all data provided by the MU Limnology Lab. We also encourage MoDNR to evaluate all data carefully and work with data providers to assure that quality assurance and data collection processes are being followed correctly and provided to MoDNR in a timely and usable form.

V. The EPA Over-Listing Waters

One comment was unaware of previous time that the EPA has listed new waterbodies as impaired after the Department finalized the State's list (Comment #57).

Response

Consistent with the CWA, the EPA's must approve or disapprove state submitted 303(d) lists. If the EPA disapproves a state's list, Section 303(d)(2) requires it to identify any additional waterbodies that should have been included. The EPA Region 7 has partially disapproved Missouri's list previously and added additional waters as recently as the 2016 Missouri 303(d) list. Additionally, the EPA has added waters to other states' lists in other of the EPA regions. Such listings are not unusual or unprecedented.

W. Figures

Figures referenced in response to comments:

- Figure 1. Missouri Ecoregional Numeric Nutrient Criteria Decision Framework
- Figure 2. Fish kills at Lake of the Ozarks, color coded by cause

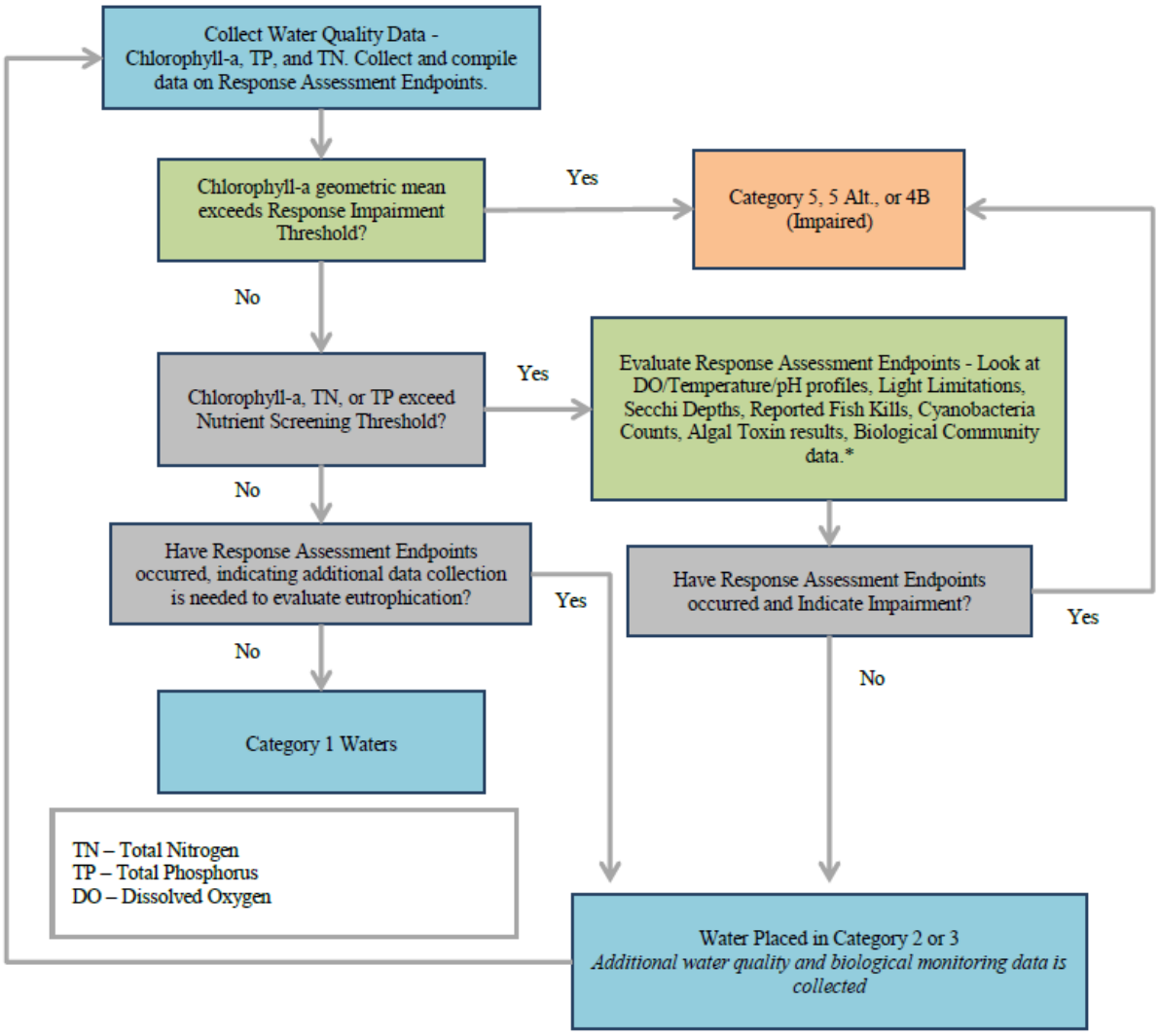


Figure 1: Image of flowchart for the Missouri Ecoregional Numeric Nutrient Criteria Decision Framework based on the Bioconfirmation Approach from the Missouri Listing Methodology (labeled Figure 3. in MoDNR document).

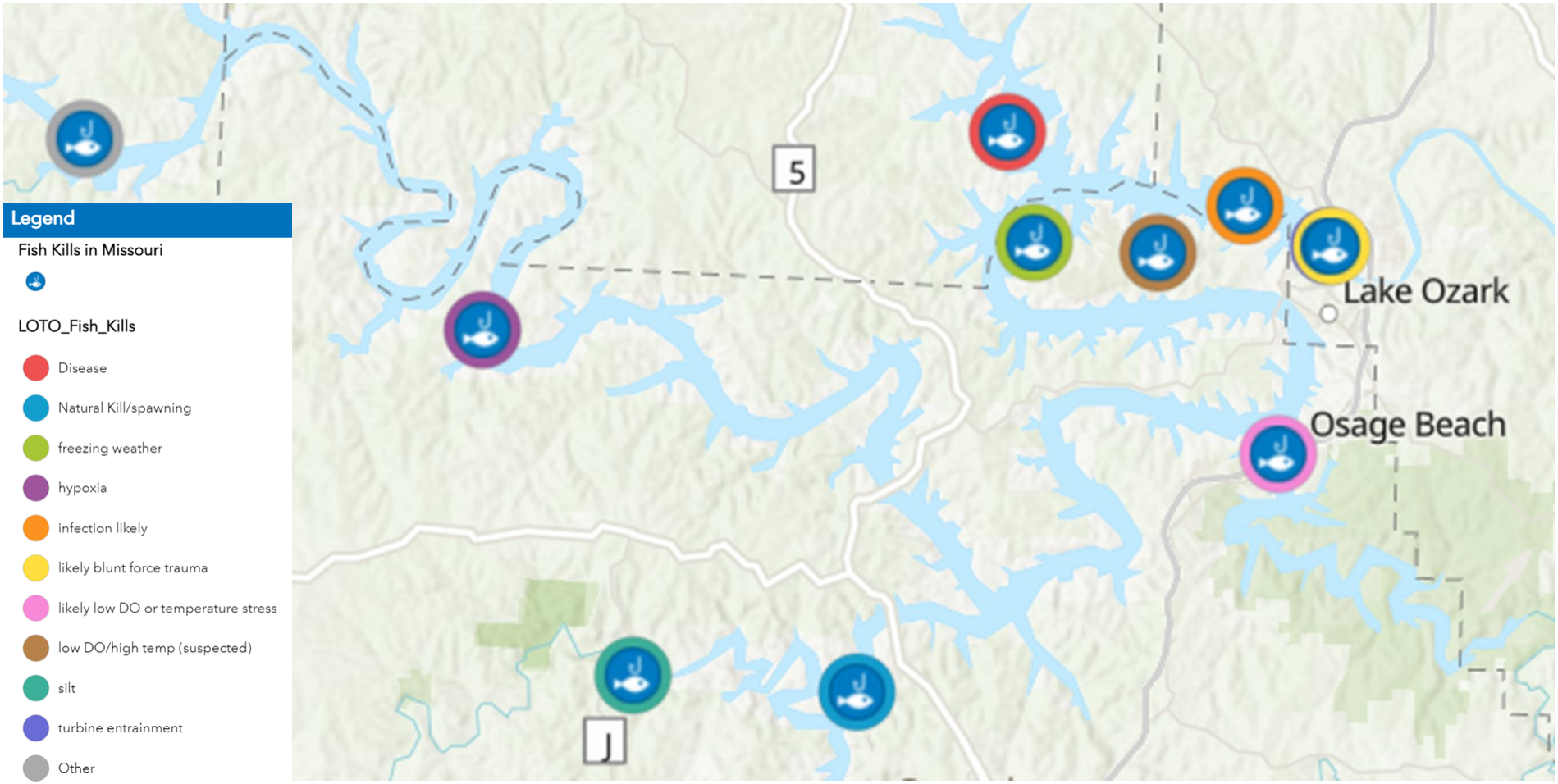


Figure 2. Map showing location and causes of fish kills at Lake of the Ozarks listed in the MDC Spreadsheet.

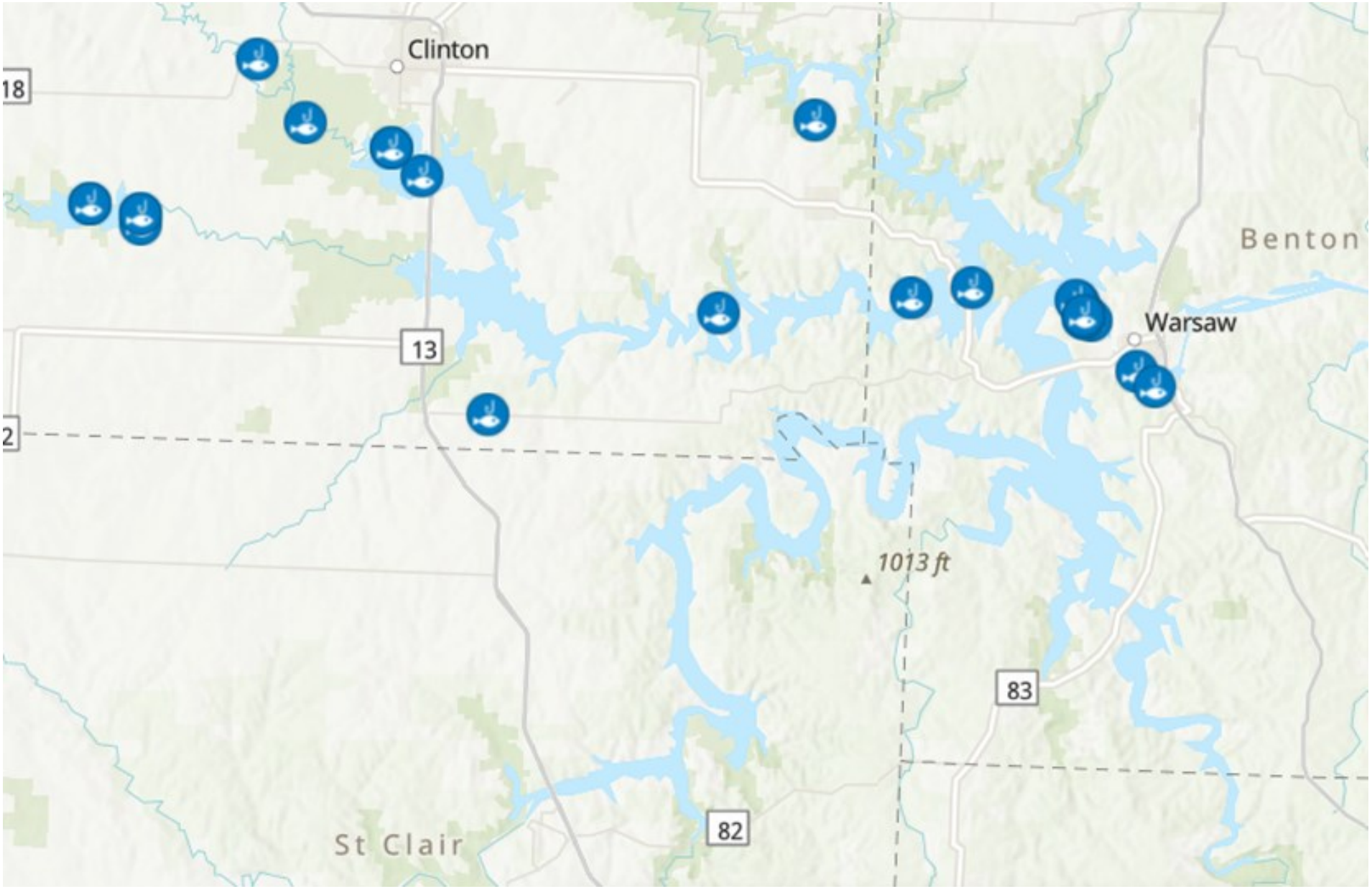


Figure 3. Locations of fish kills at Harry S. Truman Reservoir listed in the MDC spreadsheet.

Figure 4. Locations of fish kills at Jackrabbit Lake listed in the MDC spreadsheet.

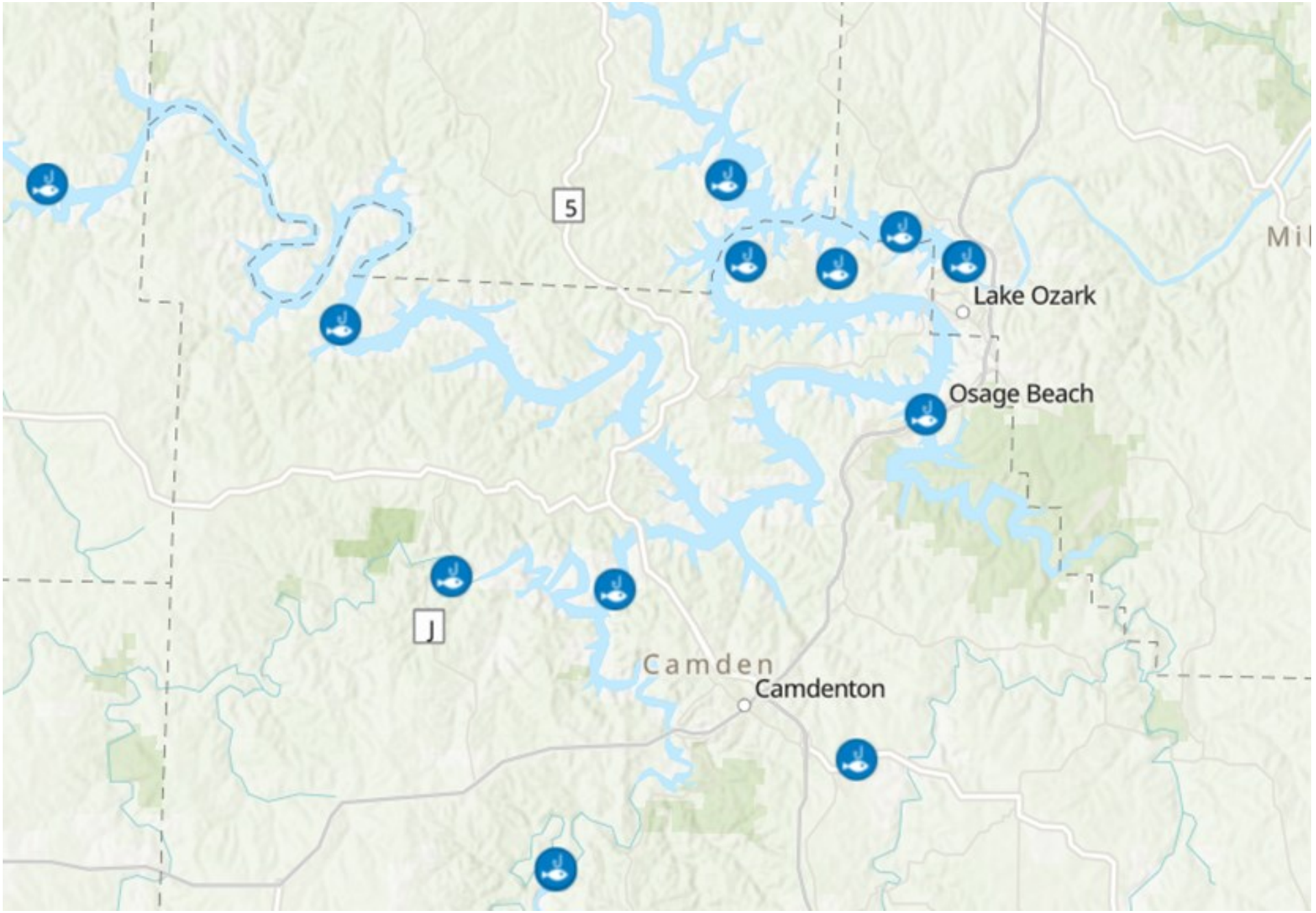
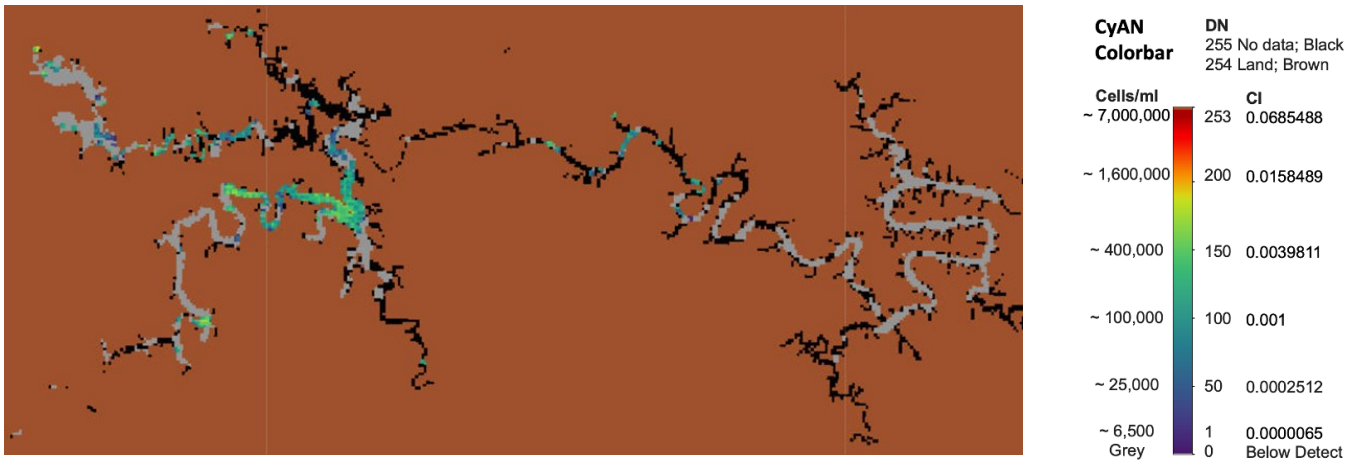
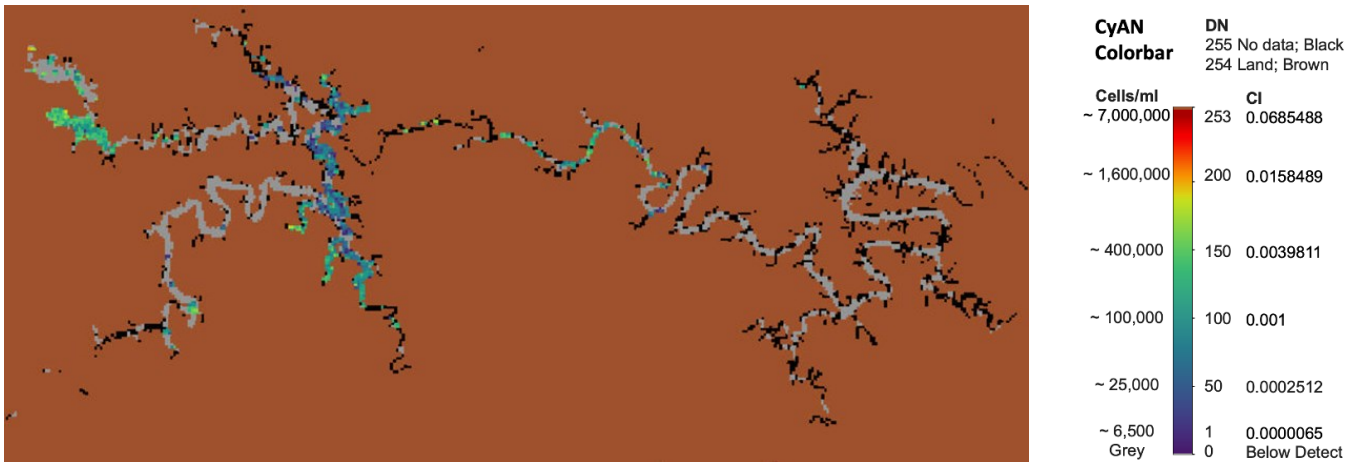


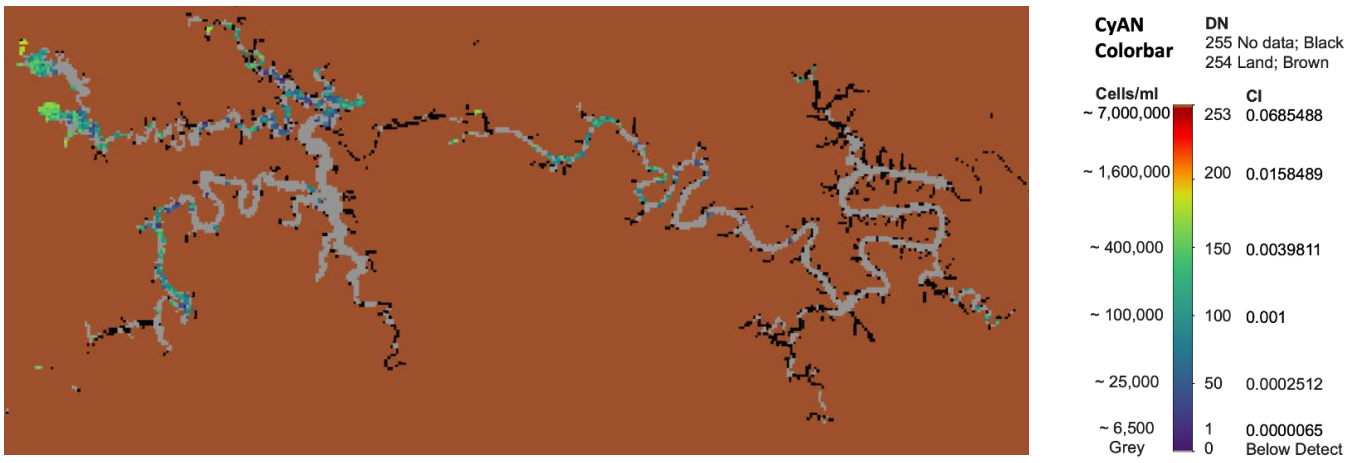
Figure 5. Locations of fish kills at Lake of the Ozarks listed in the MDC spreadsheet.



CyAN image from June 10-16, 2018 showing blooms in both Truman and Lake of the Ozarks. Note the correlation with the June fish kill events occuring at Lake of the Ozarks in the fish kill section of the document.



CyAN image from July 23-29, 2017 showing blooms in both Truman and Lake of the Ozarks. Note the correlation with the August 1 entry in the fish kill section of the document.



CyAN Image from September 25-October 1, 2016 showing blooms in both Truman and Lake of the Ozarks.

Figure 6. Three CyAN images of Harry S. Truman Reservoir and Lake of the Ozarks for dates in 2016, 2017, and 2018. For the CyAN colorbar, areas with no data, land, and cloud cover are flagged. Grey color indicates below threshold of CI detection limits, brown color is land, black is no data (e.g., a cloudy pixel), 1-253 is available data with colors blue through red, corresponding to an approximate cyanobacteria biomass.

Table of Comments for Missouri
303(d) List of Impaired Waters
EPA Public Notice

Comment #	Commentor	Email Date
1	Ameren, Missouri	3/16/2021
2	Asbee, Joan	1/30/2021
3	Association of Missouri Cleanwater Agencies, Extension Request	12/15/2020
4	Association of Missouri Cleanwater Agencies	3/22/2021
5	Baker, Denise	2/10/2021
6	Boelens, Jacki	1/21/2021
7	Brunner, Linda, Comment 1	1/17/2021
8	Brunner, Linda, Comment 2	3/18/2021
9	Burgess, Antonia	3/18/2021
10	Butler, R	12/26/2020
11	Caraccio, Rob	12/9/2020
12	Catalano, Peter	1/17/2021
13	Colliver, Gary	3/15/2021
14	Cooper, Nicole	1/19/2021
15	Dolson, Kathleen, Comment 1	1/15/2021
16	Dolson, Kathleen, Comment 2	2/5/2021
17	Draper, Harold	3/18/2021
18	Duffy, C.E., Comment 1	1/15/2021
19	Duffy, C.E., Comment 2	3/18/2021
20	Dunn, Matthew	1/15/2021
21	Elderfallout3	3/19/2021
22	Elwell, Tim	3/21/2021
23	Fedecker, D	1/17/2021
24	Fisher, Carol	2/11/2021
25	Fort, Garth F	3/18/2021
26	Frazier, Marisa	3/22/2021
27	Hansen, Nick	1/28/2021
28	Hegel, Robert	1/15/2021
29	Heisel, Edward J	3/18/2021
30	Hennkens, Terry	1/29/2021
31	Hess, Lori	12/23/2020
32	Hohl, Jeffrey	2/8/2021
33	Hughes, Pam	1/15/2021
34	Hunt, Ross	3/21/2021
35	Jost, Neil	3/22/2021

Comment #	Commentor	Email Date
36	Katranides, Margaret	3/18/2021
37	Kellerman, Alli	1/15/2021
38	Koehler, Francine	3/18/2021
39	Kriege, Bill	1/15/2021
40	Lake Area Chamber of Commerce; Cloke, K.C.	3/18/2021
41	Lake of the Ozarks Council of Local Governments	3/22/2021
42	Larson, Les	2/8/2021
43	LeCorgne, Scott	3/18/2021
44	Light, Joe	2/5/2021
45	Lorenz, Paul	1/15/2021
46	McKee, Patrick	1/16/2021
47	Melies, Katie	3/18/2021
48	Missouri Clean Water Commission	3/18/2021
49	Missouri Coalition for the Environment and The Washington University Interdisciplinary Environmental Clinic	3/22/2021
50	Missouri Congressional Delegation, House of Representatives, Congress of the United States	3/22/2021
51	Missouri Department of Natural Resources	3/16/2021
52	Missouri Agribusiness Association and Missouri Farm Bureau	3/22/2021
53	Missouri Municipal League, Policy and Membership Association.	3/22/2021
54	Missouri Public Utility Alliance, Data and Extension Request	3/22/2021
55	Missouri Corn Growers, Missouri Farm Bureau, Missouri Public Utility Alliance, Missouri Soybean Association	1/08/2021
56	Missouri Public Utility Alliance	3/22/2021
57	Missouri Corn Growers and Missouri Soybean Association	3/22/2021
58	Missouri Stream Team Watershed Coalition	3/19/2021
59	Missouri Water Environment Association	1/8/2021
60	Myers, Haley	1/25/2021
61	OReilly, Charlie	3/21/2021
62	Parks, Diane	2/9/2021
63	Payton, Renee	1/16/2021
64	Power, Brian	1/15/2021
65	Primm, Cathy	3/22/2021
66	Rainey, Steven	3/18/2021
67	Ribaudo, Ginny	3/19/2021
68	Roper, Keith	3/18/2021
69	Ruzicka, Ray	1/15/2021
70	Sager, Tom	3/18/2021

Comment #	Commentor	Email Date
71	Scharenborg, Thomas	1/31/20121
72	Sierra Club, Missouri Chapter	3/22/2021
73	Steen, Darrick	3/20/2021
74	Stiffman, Jeffrey	1/16/2021
75	Thompson, James	2/8/2021
76	Troutman, Ashley	1/21/2021
77	Turner, Jim R	3/21/2021
78	Vogts, Melanie and Tim	12/21/2020
79	Warsaw, City Administrator and Planner	2/10/2021
80	Washia, Rebecca	2/11/2021
81	Webster University, Student (Robles, Briana)	3/18/2021
82	Wilkinson, Amy	2/18/2021
83	Wilkinson, Carol	3/5/2021
84	Witek, Paige	1/15/2021
85	Wulff, C.	1/16/2021
86	Wulff, S.	3/18/2021
87	Zimmerman, Paulette	2/6/2021
88	LATE SUBMITTAL, Cheong, Eileen	3/31/2021
89	LATE SUBMITTAL, Missouri Coalition of the Environment	3/31/2021
90	LATE SUBMITTAL, City of Osage Beach	3/30/2021

Comment 1. Ameren Missouri

White, Debby

From: Epplin, Julianne <[redacted]>
Sent: Tuesday, March 16, 2021 9:49 AM
To: R7-WaterDivision
Cc: Witt, Warren A; Frerking, Matthew K; Greer, Jeff W; Lobbig, Michael O; Meyer, Todd D; Lynn, Kenneth W; Giesmann, Craig J; Whitworth, Steven C; Hart, Travis M; Brown, Brad; Knowles, Susan B
Subject: Ameren Missouri Comments - EPA 303d
Attachments: Ameren Missouri Comments - EPA 303d for MO_03152021.pdf

Dear Mr. Robichaud,

Please see attached Ameren Missouri's comments regarding the Missouri Department of Natural Resources' (MDNR or State) Clean Water Act (CWA) 2020 303(d) List of Impaired Waters as it may apply to the Lake of the Ozarks in Missouri. Ameren Missouri owns and operates Bagnell Dam and the Osage Hydroelectric Power Plant pursuant to the terms of a license issued by the Federal Energy Regulatory Commission (FERC). We believe that sufficient data does not warrant inclusion of the Lake of the Ozarks as an
"impaired water" on the State's 2020 303(d) List.

We appreciate the opportunity to comment.

Thank you,
Julianne

Please note I am working remotely and would appreciate any correspondence to be sent via e-mail.

JULIANNE EPPLIN, PMP, PWS, CE : : Environmental Scientist : : C 314.941.2402
Ameren Missouri : : [redacted]

Ameren MISSOURI

March 15, 2021

Submitted via email to: R7-WaterDivision@epa.gov

United States Environmental Protection Agency, Region 7
Mr. Jeffery Robichaud
Director, Water Division
11201 Renner Blvd.
Lenexa, Kansas 66219

Re: **Public Comment to the Missouri 2020 303(d) List of Impaired Waters under Clean Water Act, Section 303(d): Lake of the Ozarks**

Dear Mr. Robichaud,

Ameren Missouri (Ameren) appreciates the opportunity to provide comments to the United States Environmental Protection Agency (USEPA) regarding the Missouri Department of Natural Resources' (MDNR or State) Clean Water Act (CWA) 2020 303(d) List of Impaired Waters as it may apply to the Lake of the Ozarks in Missouri. Ameren Missouri owns and operates Bagnell Dam and the Osage Hydroelectric Power Plant pursuant to the terms of a license issued by the Federal Energy Regulatory Commission (FERC). Under the terms of its FERC license, Ameren Missouri implements a shoreline management and permitting program and therefore is in a unique position to provide additional information to the USEPA. We believe that sufficient data does not warrant inclusion of the Lake of the Ozarks as an "impaired water" on the State's 2020 303(d) List.

Over the past two decades, Ameren has worked with stakeholders around the Lake of the Ozarks to implement many beneficial projects designed to improve water quality, aquatic life, habitat, and recreational opportunities for the public. Some of these important enhancements include installation of state-of-the-art aerating turbines (supplying additional dissolved oxygen to the downstream aquatic communities), installation of a high strength fish protection net in the front of Bagnell Dam to protect paddlefish, and multiple fish and habitat enhancements throughout the lake. Ameren also developed a comprehensive lake shoreline management plan and provided extensive support for the USEPA approved 9-element watershed based plan for the first 20 miles of the Lake of the Ozarks.

On June 26, 2020, MDNR submitted its 2020 303(d) List to the USEPA proposing to list 481 waterbody/pollutant impairment pairs and delist 44 waterbody/pollutant impairment pairs. While USEPA approved in large measure, MDNR's decisions, USEPA disapproved the State's decision not to list 40 lake waterbodies for nutrient impairment. Instead, USEPA proposes to add 40 lake waterbody/pollutant impairment pairs to the Missouri CWA Section 303(d) List and has solicited public comment. The technical basis for USEPA's proposal is set forth in reports entitled: *Data Sources Used for Missouri 2020 303(d) List*, *Missouri Fish Kill Report 2014*, *Missouri Fish Kill Report 2015*, *Missouri Fish Kill Report 2017*, and *Missouri Fish Kill Report 2018*.

As a preliminary matter, USEPA assessed the Lake of the Ozarks against inappropriate ecoregional numeric lake nutrient criteria. According to Appendix C of USEPA's Decision Document, the Lake of

the Ozarks was assessed against the Ozark Highlands ecoregion numeric lake nutrient criteria. According to USEPA's Decision, data supporting the USEPA's 303(d) listing included: "*Exceeded nutrient criteria in 2017, exceedance screening in 2016 and 2018, Eutrophication Factor A, multiple fish kills have occurred. In 2018, June 14, 2018, low dissolved oxygen fish kill over 100 fish killed. Also, additional monitoring points in lake are impaired."* In addition, USEPA's decision to list Lake of the Ozarks as impaired for nutrients is improper for the reasons set forth below.

1. **USEPA assessed the Lake of the Ozarks against inappropriate ecoregional numeric lake nutrient criteria.**

With respect to Missouri's lake nutrient criteria (10 CSR 20-7.031(5)(N)1) approved by USEPA in 2018, "*due to differences in watershed topography, soils, and geology, nutrient criteria for lakes and reservoirs will be determined by the use of four major ecoregions based upon dominant watershed ecoregion*." The four major ecoregions are Plains, Ozark Border, Ozark Highlands and Big River Floodplain. While the Lake is physically located in the Ozark Highlands ecoregion, the dominant watershed ecoregion is the Plains ecoregion (see **Table 1**). Jones et al. 2000 observed similar seasonal nutrient patterns and nutrient responses to inflow and destratification in Mark Twain Reservoir (Plains ecoregion) and the Lake of the Ozarks in the same time frame.

TABLE 1. Ecoregion Percentage of Watershed.

	Plains	Ozark Highlands
Lake of the Ozarks	61%	39%

In addition, approximately 70% or more of the Lake of the Ozarks water originates from Truman Reservoir, which is in the Plains ecoregion. Jones et al. (1988) noted the influence of Truman Reservoir. They observed total phosphorus loading in the Lake of the Ozarks is decreasing and algae (chlorophyll-a) is more productive because inorganic suspended solids are lower after Truman Reservoir was constructed. Accordingly, the Lake of the Ozarks should be assessed against the Plains ecoregional numeric lake nutrient criteria. When comparing the Lake of the Ozarks chlorophyll-a data to the appropriate Plains ecoregional criteria, the Lake of the Ozarks does not exceed the nutrient criteria impairment threshold in any of the last three years of data.

2. **USEPA's reliance on an isolated fish kill that lack adequate water quality data is inappropriate.**

In assessing fish kill events, it is important to fully assess the cause and magnitude of such events. As MDNR notes in Appendix F, 2018 Nutrient Criteria Implementation Strategy: "*The MDNR will review reports for information pertaining to the cause of death as well as the potential sources. Fish populations can have seemingly random small die-offs related to disease, virus, or other natural sources. More than one fish kill within ten years or one large (>100 fish and covering more than ten percent of the lake area) fish kill documented by dissolved oxygen excursions, pH, algal blooms or the toxins associated with algal blooms will constitute evidence of impairment*." Here, USEPA's Decision appears to be based on a single fish kill event at the Lake of the Ozarks of 100 fish that covers less than 10 percent of the lake area. Furthermore, this fish kill was only reported to the Missouri Department of Conservation (MDC) by a third party and not verified by MDC fish biologists.

The *Missouri Fish Kill Report 2018* from the Missouri Department of Conservation (MDC) attributed the fish kill event to low dissolved oxygen or temperature stress. However, according to the 2018 report and the summary spreadsheet developed by MDC, the extent of the fish kill (i.e., number of fish) was not determined. Without documented field data (e.g., dissolved oxygen, water temperature,

pH, algal toxins, etc.) supporting the hypothesis that "likely low dissolved oxygen or temperature stress" was the cause of the June 14, 2018 fish kill, the cause of the event is speculative. Because the cause of the fish kill was not supported by adequate water quality data, this event should not be used as evidence of Eutrophication Factor A.

3. **Temporal nutrient trends in the Lake of the Ozarks are stable or potentially decreasing and MDNR has properly considered all appropriate data.**

Nutrient data collected each year at the nearest location to the outflow of the dam were compiled and assessed to evaluate temporal trends. Nutrient data (total chlorophyll, total nitrogen and total phosphorus) from 2007 to 2018 were assessed using the geometric mean of annual samples collected between May 1 and September 30 (**Table 2**). (Chlorophyll-a was not consistently collected between 2007 and 2018, therefore total chlorophyll was used.) A distribution free Mann-Kendall trend test was used to assess the presence of a temporal monotonic trend upward or downward for nutrients. Results of the trend test indicate total chlorophyll concentrations are stable while total nitrogen and total phosphorus concentrations are likely decreasing (**Table 3**). The results of the trend analysis demonstrate water quality in Lake of the Ozarks has remained stable or is improving. The occurrence of small fish kills is likely due to natural processes occurring in isolated areas of the lake.

TABLE 2. Lake of the Ozarks Annual (May 1 – September 30) Geometric Mean Nutrient Data. Data sourced from the lake location nearest the outflow and are presented in micrograms per liter.

Year	Total Chlorophyll ug/L	Total Nitrogen ug/L	Total Phosphorus ug/L
2007	17.5	596	44
2008	11.4	614	33
2009	15.2	672	35
2010	18.4	579	33
2011	10.9	454	20
2012	12.3	523	17
2013	20.8	590	30
2014	10.1	381	15
2015	19.0	563	35
2016	11.6	430	18
2017	27.5	789	47
2018	7.2	444	15

TABLE 3. Mann-Kendal Nutrient Trend Results.

Analyte	Mann-Kendall (S)	Probability	Confidence in Trend	Trend
Total Chlorophyll	-2	0.473	0.527	Stable
Total Nitrogen	-20	0.096	0.904	Likely Decreasing
Total Phosphorus	-21	0.084	0.916	Likely Decreasing

4. USEPA improperly used "*additional monitoring points*" to assess impairment.

USEPA's has improperly applied Missouri's numeric lake nutrient criteria to make the determination that "additional monitoring points in lake are impaired". The USEPA approved the State's criteria values and assessment criteria in 10 CSR 20-7.031(5)(N)4…"*All Total phosphorus total nitrogen and chlorophyll-a concentrations must be calculated as the geometric mean of a minimum of four representative samples per year for the purposes of comparison to lake ecoregion criteria thresholds. All samples must be collected from the lake surface, near the outflow of the lake and during the period of May 1 to September 30."* The criterion clearly states impairments will be assessed "near the outflow" and the use of data from additional monitoring locations is not consistent with the nutrient criterion nor the Methodology for the Development of the 2020 Section 303(d) List in Missouri (LMD).

5. USEPA did not properly consider data quality and data age when adding 40 lake waterbody/pollutant impairment pairs to the State's 2020 303(d) List.

USEPA determined the State did not evaluate all readily available data or information for lakes with chlorophyll-a impairments when developing its CWA Section 303(d) List. The State's LMD is updated every two years following numerous publicly announced stakeholder meetings and input with specific regards to data quality, data age and representativeness of data, and clearly outlines the State's process for data considerations when making Section 303(d) decisions. The LMD states that while more recent data are preferable, **older** (i.e. all available) data are used to assess present conditions if the data remain representative of present conditions. For data older than seven years, the LMD identifies the State will provide written justification for use of such data to make a Section 303(d) listing. The LMD also indicates that if a waterbody has not been previously listed and **all data** indicating an impairment are older than 7-years, the waterbody shall be placed into Category 2B or Category 3B and given high priority for future monitoring. The State's LMD also outlines consideration for the age of data relative to significant events (representativeness) that have an effect on water quality (point source discharge, spill, reclamation, overflow elimination, etc.). This process mirrors that of which the USEPA supported in its approval of 481 waterbody/pollutant impairment pairs in the 2020 303(d) List. USEPA should evaluate the placement of water bodies in Category 2B or Category 3B following the State's approved LMD.

In conclusion, Ameren Missouri requests that USEPA reconsider the placement of Lake of the Ozarks on the 2020 303(d) List of Impaired Waters. Lake of the Ozarks is a popular recreational destination for both Missouri residents and tourists. Enjoyment of the Lake, its nationally recognized sports fishery, and the tourism industry it supports are vitally important to Ameren Missouri as well as the State's economy.

Sincerely,

Steven C. Whitworth
Sr. Director, Environmental Policy & Analysis
Ameren Missouri

Comment 2. Asbee, Joan

White, Debby

From: Joan Asbee <[redacted]>
Sent: Saturday, January 30, 2021 10:49 AM
To: R7-WaterDivision
Subject: Lake of Ozarks and Trumann lake

I support the EPA recommendation that both Lake of the Ozarks and Trumann Lake are impaired bodies of water and should be listed as such. The contamination of these important bodies of water is threatening to many species of fish and mammals and a health hazard to the general public that also greatly affects water downstream including the Osage and Missouri river.
Please continue with efforts to monitor and clean up these rivers.
Joan Asbee
[redacted]

Comment 3. Association of Missouri Cleanwater Agencies

White, Debby

From: Shields, Amy
Sent: Tuesday, December 15, 2020 9:31 AM
To: R7-WaterDivision
Cc: White, Debby; Daniels, Jason
Subject: FW: Missouri 2020 303(d) List - EPA Listing of Additional Lakes
Attachments: AMCA Ltr - MO 2020 303d List 12.15.2020.pdf

Amy Shields, Ph.D. | Branch Chief, Standards and Water Quality Branch, Water Division
U.S. Environmental Protection Agency Region 7 |11201 Renner Boulevard, Lenexa, KS 66219 | Mail Code: WD/SAW| ☎ (913) 551-7396 | m: (816)-206-8097 | pronouns: just use my name, please

---

From: Michelle Ashworth [redacted]>
Sent: Tuesday, December 15, 2020 9:25 AM
To: Shields, Amy <Shields.Amy@epa.gov>
Cc: Daniels, Jason <Daniels.Jason@epa.gov>
Subject: Missouri 2020 303(d) List - EPA Listing of Additional Lakes

Good Morning,

Please see the attached letter, submitted on behalf of the Association of Missouri Cleanwater Agencies, regarding EPA Region 7's listing of additional Missouri lakes as impaired. As noted therein, please contact me with any questions.

Thank you,

Michelle Ashworth
Paralegal
AquaLaw
(804) 716-9021 ext:222
[redacted]
www.AquaLaw.com

Comment 3. Attachment

AQUALAW

F. PAUL CALAMITA
PAUL@AQUALAW.COM
PH: 804.716.9021
FAX: 804.716.9022

December 15, 2020

By Email shields.amy@epa.gov

Ms. Amy Shields, Chief
Standards and Water Quality Branch
U.S. Environmental Protection Agency Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Re: Missouri's 2020 303(d) List of Impaired Waters
EPA's Listing of Additional Lakes

Dear Ms. Shields:

I am writing on behalf of the Association of Missouri Cleanwater Agencies ("AMCA") to request the water quality data used by the Region in listing 40 additional Missouri lakes as impaired, beyond the listings included in the State's submitted 2020 Integrated Report. What we request are the data in addition to (and not including) the data used by the State.

As you may know, AMCA is a statewide organization whose members include the municipal owners and operators of Publicly Owned Treatment Works. The membership includes a substantial fraction of the sewered population of Missouri. AMCA's mission is the promotion of water quality through sound science, and effective resource management.

AMCA's members are of course directly affected by decisions involving the listing of impaired waters in Missouri.

We appreciate your assistance in this matter. Please feel free to contact Michelle Ashworth, Paralegal, at the number noted below (ext. 222) or mashworth@aqualaw.com in regard to the format in which the requested data may be provided.

Sincerely,

F. Paul Calamita

F. Paul Calamita
Counsel to AMCA

Copy to: Mr. Jason Daniels, EPA Region 7 (daniels.jason@epa.gov)
AMCA Board of Directors

Comment 4. Association of Missouri Cleanwater Agencies

White, Debby

From: Michelle Ashworth <[redacted]>
Sent: Monday, March 22, 2021 10:31 AM
To: R7-WaterDivision
Cc: Dick Sedgley; Paul Calamita
Subject: Comments on EPA Proposal to Add Waters to Missouri 2020 303(d) List
Attachments: AMCA Comments - 303d List - 3.22.2021.pdf

Good Morning,
On behalf of the Association of Missouri Cleanwater Agencies and its members, please accept the attached comments on EPA Region 7's proposed additions to the Missouri Department of Natural Resources' 2020 listing of impaired waters under CWA § 303(d).

Thank you,

Michelle Ashworth
Paralegal
AquaLaw
[redacted]
www.AquaLaw.com

Comment 4. Association of Missouri Cleanwater Agencies Agencies, Attachment

ASSOCIATION OF MISSOURI CLEANWATER AGENCIES

By email: R7-WaterDivision@epa.gov

Mr. Jeff Robichaud, Director
Water, Wetlands and Pesticides Division
Region 7
U.S. Environmental Protection Agency
11201 Renner Boulevard
Lenexa, Kansas 66219

Re: EPA Proposed Decision on Missouri 2020 303(d) Listings of Impaired Waters

Dear Mr. Robichaud:

On behalf of the Association of Missouri Cleanwater Agencies and its members, please accept the following comments on the Regional Office's proposed additions to the Missouri Department of Natural Resources' 2020 listing of impaired waters under Clean Water Act section 303(d). As you may know, the Association is an incorporated group of municipal owners and operators of Missouri Publicly Owned Treatment Facilities. The Association's purpose and mission is the promotion of good science and effective public policy, for the protection of the surface waters of Missouri and the protection of the beneficial uses of those waters. The Association's members represent collectively a substantial majority of the sewered population of the State.

As you also know, the 2020 303(d) listings are the first under Missouri's EPA-approved nutrient water quality criteria for lakes. Those criteria are the product of more than a decade of work by DNR, EPA and others on nutrient criteria for lakes that are protective of water quality, while properly addressing the very complex impacts of nutrients on lakes. Those criteria are relatively complex, combining a system of Response Impairment Thresholds, Nutrient Screening Thresholds, and real-world Response Assessment Endpoints. Combined with DNR's Implementation Guidance, this represents a process that the State has determined to best and most effectively allow for proper and accurate

assessments of impairment and non-impairment status. In light of the careful crafting of this system of criteria and implementation procedures, and its first use for 303(d) assessment, the current decisions on listing and non-listing of Missouri lakes are potentially precedent-setting and should be made cautiously.

We also emphasize that DNR has listed no less than 46 Missouri lakes as impaired for nutrient effects. The Region has proposed the overlisting of an additional 40 lakes. The process of addressing these lakes through the TMDL process will not be easy or quick; DNR and EPA should proceed with this process using as one priority their level of confidence in individual lake listing decisions; and there need be no rush to judgment on listing decisions where the data on water quality and water quality impacts are unclear. In this regard, we note that impairment determinations under the Clean Water Act are primarily state decisions, although with an important EPA review role, and under the circumstances to which we refer below, DNR's determinations should not be altered.

The Association and its Members Support the March 16 Comments of DNR

DNR's comments succinctly detail the bases on which its 2020 lakes listing decisions did not include the additional 40 lakes that the Region proposes. Those comments and the requests of DNR are carefully based on the nutrient criteria themselves and the Implementation Guidance. Although the guidance is not a regulatory part of the nutrient criteria, it is integral to their implementation, and importantly, it is guidance with which the Region has not disagreed. In fact, the guidance has figured critically in the Region's defense of its Clean Water Act approval of the criteria themselves in a current challenge before the U.S. District Court.

Accordingly the Association and its members support the DNR comments and listing decisions. In particular, but not intended as a limitation on our support of any of DNR's points, we also note the following.

There are Substantial Quality Assurance and Confirmation Problems with Some of the Factors on Which the Region Relies

The quality of data and the strength of the science that goes into water quality determinations is a critical part of the mission of the Association, as well as that of DNR and EPA. DNR's comments outline the serious concerns about some of the data on which the Region has relied, and they note the lack of correlation between some reported fish kills (which appear to be the primary basis for the proposed overlisting of some of the lakes) and any indication of coincident eutrophication of the relevant lake waters. Unless the Region is able to identify and verify the data supporting that correlation, in each such case the Region should reverse its preliminary decision to overlist.

The Impacts of Truman Lake on Lake of the Ozarks has not Been Properly Evaluated or Considered

DNR has also succinctly described the interactions between Truman Lake and Lake of the Ozarks, the absence of considerations of these interactions, and in light of these factors the reasons why the Lake of the Ozarks listing is unverified and at best premature.

The Integrated Report Category 2 and 3 Classifications are Available Precisely for Cases Such as the Additional Lakes

The absence of relevant data and substantial uncertainties in 303(d) impaired waters listings and the data supporting them illustrate why the states and EPA have available to them Category 2 and 3 options. The Association and its members support DNR's request that the Region agree to the DNR classifications rather than listing waters as impaired and needing TMDLs at this time, in those cases identified where data are absent or where there are some data or indication suggesting impairment, but where more data or analysis are needed. For these reasons, and in light of the recent effectiveness of the Missouri nutrient criteria for lakes, there is no need to list the additional 40 lakes that the Region has proposed. The substantial issues that DNR has raised illustrate much of the basis for the every-two-years 303(d) listing process, that allows the states to defer decisions for which there is less than adequate support. The relatively brief two year cycle is there to allow proper data and determinations, at the same time avoiding any opportunity for nonproductive delay.

We appreciate the Regional Office's full consideration of these issues and the specific DNR requests and recommendations.

Sincerely,

F. Paul Calamita
General Counsel

CC: AMCA Board of Directors

Comment 5. Baker, Denise

White, Debby

From: Denise Baker <[redacted]>
Sent: Wednesday, February 10, 2021 12:00 PM
To: R7-WaterDivision
Subject: Support for adding 40 MO water bodies to List of Impaired Waters

Hello,

I support the EPA's adding 40 water bodies on Missouri's 2020 CWA Section 303(d) List for chlorophyll-a (W).

Thank you,

--
Denise Baker
Executive Assistant
She/Her/Hers
[redacted]

Comment 6. Boelens, Jacki

White, Debby

From: Jacki Boelens <[redacted]>
Sent: Thursday, January 21, 2021 11:34 AM
To: R7-WaterDivision
Subject: Comment

Hi! I would like to comment on the EPA and the Lake of the Ozarks. We moved from the Lake after owning a house there for fourteen years. The Lake is beautiful, BUT it is appalling the LACK of effort in keeping wastewater out of the lake! Possible solutions: 1. Require all residents to have their septic systems tested every two years with dye. Severe fines for failure to do so/rectify any problems! 2. Have lake-wide city sewage! 3. Have FREE leaf/grounds waste pick-up! 4. Have free recycling. 5. Require all water front bars to use paper straws, silverware, etc. and NO styrofoam or plastic!!! Thank you! Jacqueline Boelens

Sent from my iPhone

Comment 7. Brunner, Linda (Comment 1 of 2)

White, Debby

From: Linda Brunner [redacted]
Sent: Sunday, January 17, 2021 8:51 PM
To: R7-WaterDivision
Subject: adding Missouri rivers to the list of impaired rivers

Sir or Madam, we are MO residents and love the outdoors and value it not only for our enjoyment but for it's contribution to the well being of animals and plants that inhabit it. In that spirit we support clean and vibrant waterways and urge you to add the additional MO rivers to the list of rivers in MO that deserve attention.

Sincerely,
The Brunners
[redacted]

Comment 8. Brunner, Linda (Comment 2 of 2)

White, Debby

From: Linda Brunner <[redacted]>
Sent: Thursday, March 18, 2021 8:22 PM
To: R7-WaterDivision
Subject: Missouri lakes

Sir or Madam, we understand that 40 lakes in Missouri have been added to a list of "impaired waters." We live rurally in Missouri and love the lakes and waterways.

We recognize your efforts and totally support keeping an eye on the quality and health of all Missouri waterways.

Thank you,
Neil and Linda Brunner
[redacted]

Comment 9. Burgess, Antonia

White, Debby

From: Antonia Burgess <[redacted]>
Sent: Thursday, March 18, 2021 10:27 AM
To: R7-WaterDivision
Subject: EPA

I thank and support your organization for adding 40 Missouri lakes to the protection list of the EPA.

Thank you

Antonia Burgess
Administrator for advocacy group Black People Who Hike Board of Directors Missouri Coalition for the Environment

[redacted]

Comment 10. Butler, R.

White, Debby

From: R Butler [redacted]
Sent: Saturday, December 26, 2020 6:25 PM
To: R7-WaterDivision
Subject: Lake of the Ozark

I have been at lake of the Ozark since 1967, Water has never been better than it is today. WE don't want your help. The lake is fine as is. 80% of the lake front homes are part time. Fishing is the best any were. Go spend you money in FL it needs your help, there fish are gone. We have great fishing, they are under my dock. RE Butler [redacted]

Comment 11. Caraccio, Rob

White, Debby

From: Rob Caraccio <[redacted]
Sent: Monday, December 7, 2020 7:38 PM
To: R7-WaterDivision
Subject: Public Comment Period – EPA's Action to Add Waters to Missouri's Impaired Waters List

Hello,

Thanks for offering a public comment period on Missouri's impaired waters list.

My comment/question is this: of the 40 water bodies listed for reconsideration, did the EPA consider a more restrictive nutrient level for total phosphorus and total nitrogen when evaluating nutrient levels in these water bodies? If so, what nutrient level did EPA region VII use to evaluate their decision, for this total list? Will EPA region VII consider a more restrictive nutrient level for phosphorus, consistent with the other EPA regions, such as a phosphorus effluent limit of less than 1 PPM? or a lower Nitrogen Level?

Also, for the water bodies listed and removed from the list in the former lead mining areas of Missouri, such as Washington, Reynolds, St. Francois, and Crawford counties, how did the EPA determine they are no longer impaired waterways? I thought the Army Corps of Engineers was getting involved with superfund cleanups of some waterways in these counties due to the extent of the damage and pollution.

Again, thank you for allowing public comment.
Rob Caraccio

Comment 12. Catalano, Peter

White, Debby

From: Peter Catalano <[redacted]>
Sent: Sunday, January 17, 2021 1:17 PM
To: R7-WaterDivision
Subject: Cleaner Water in Missouri

We SUPPORT the EPA's recent proposal to add 40 water bodies as impaired by nutrients to Missouri's 2020 List of Impaired Waters under Clean Water Act (CWA) Section 303(d).

We are longtime residents of Missouri and enjoy the beauty of nature here. Addressing lakes and other polluted bodies of water will:

1. Allow children and adults to enjoy these natural environments
2. Improve the ability of farmers to raise livestock
3. Add to the Missouri economy by encouraging more tourism.

Thanks you for considering our views.

Linda & Peter Catalano
[redacted]

Comment 13. Colliver, Gary

White, Debby

From: Gary Colliver [redacted]
Sent: Monday, March 15, 2021 11:12 AM
To: R7-WaterDivision
Subject: Lake of the Ozarks Impaired Water List

The Lake of the Ozarks is a very healthy lake, and does not need to be listed as Impaired Waters due to chlorophyll-a levels. The Lake is not greatly different than it has been in during its entire existence, ie, 1930. We have some of the best fishing in the country, and it is not impaired. Please leave us alone.
Thank you,

--
Gary Colliver
[redacted]

Comment 14. Cooper, Nicole

White, Debby

From: Nicole Cooper <[redacted]
Sent: Tuesday, January 19, 2021 6:07 PM
To: R7-WaterDivision
Subject: I support adding/restoring 40 Missouri water bodies!

Hello. I wanted to write to tell you I am pleased that first steps have been made to clean up 40 Missouri Lakes, which you've just added to your impaired waters list. As a Missouri resident, clean water is extremely important to me.

Thank you for your action.
- -
Nicole Cooper
[redacted]

Comment 15. Dolson, Kathleen (Comment 1 of 2)

White, Debby

From: Kathy Dolson [redacted]
Sent: Friday, January 15, 2021 3:36 PM
To: R7-WaterDivision
Subject: Missouri waters

I support the EPA's decision to add/restore 40 water bodies to the Missouri's list of impaired waters. It is important to protect our bodies of water and keep them clean.

Sincerely,
Kathleen Dolson
[redacted]

Comment 16. Dolson, Kathleen (Comment 2 of 2)

White, Debby

From: Kathy Dolson [redacted]
Sent: Friday, February 5, 2021 10:53 AM
To: R7-WaterDivision
Subject: Missouri's 2020 List of Impaired Waters

I very strongly support the EPA recognizing and adding 40 Missouri lakes to the list of impaired waters. I hope this will ensure steps are taken to clean them up.

Sincerely,
Kathy Dolson
[redacted]

Comment 17. Draper, Harold

White, Debby

From: Harold Draper [redacted]
Sent: Thursday, March 18, 2021 10:23 AM
To: R7-WaterDivision
Subject: additions to Missouri's impaired waters list

I wish to support adding 40 lakes to Missouri's impaired waters list. Nutrient pollution is a continuing problem, including cyanobacteria pollution. Adding these lakes to the list will encourage actions to clean up their watersheds, including perhaps production of shoreline management plans for addressing the impacts of residential and commercial shoreline development.

Harold Draper
[redacted]

Comment 18. Duffy, C.E. (Comment 1 of 2)

White, Debby

From: Account service [redacted]
Sent: Friday, January 15, 2021 2:15 PM
To: R7-WaterDivision
Subject: cleaning up our lakes

EPA, I stand behind the clean up of 440 so named lakes. The beauy, health and usrfulness makes this essential . thank you, c.e. duffy

Comment 19. Duffy, C.E. (Comment 2 of 2)

White, Debby

From: Account service <ceduffy[redacted]>
Sent: Thursday, March 18, 2021 2:06 PM
To: R7-WaterDivision
Subject: water ways in Missouri

We needclean water ways. They are vital to the health of animals, fish and fowl. If we have clean water ways Tourism will draw outsiders to come here. thank you, ce Duffy

Comment 20. Dunn, Matthew

White, Debby

From: Matthew Dunn [redacted]
Sent: Friday, January 15, 2021 3:35 PM
To: R7-WaterDivision
Subject: Comment on 40 water bodies on Missouri's 2020 CWA Section 303(d) List for chlorophyll-a (W)

Good day,

I am writing to submit a public comment in response to the open solicitation regarding EPA's inclusion of 40 water bodies on Missouri's 2020 CWA Section 303(d) List for chlorophyll-a (W).

I have only a simple message; it is to convey appreciation to the agency for giving careful and thorough consideration to the available data and advising MO DNR to include these 40 bodies of water in their Section 303(d) scope.

Thank you,

-Matt

[redacted]

Comment 21. Elderfallout3

White, Debby

From: elderfallout3 [redacted]
Sent: Friday, March 19, 2021 10:19 AM
To: R7-WaterDivision
Subject: 40 Missouri Lakes

I'm sending this to confirm support. Let's get 40 steps closer to a clean planet!

[redacted]

Comment 22. Elwell, Tim

White, Debby

From: Tim Elwell [redacted]
Sent: Sunday, March 21, 2021 6:00 PM
To: R7-WaterDivision
Subject: Comment to support adding water bodies

To the leaders of EPA Region 7

I appreciate the opportunity to comment on the state of Missouri's 2020 Impaired Waters list.

I support the EPA's decision to add 40 additional lakes and reservoirs to the state's list of impaired water bodies. Listing these water resources as impaired is the first step in improving them.

Like many Missourians I appreciate and enjoy our state's rivers, streams and lakes. But as our state grows, so does the risk of nutrient pollution. It's important to evaluate and recognize this problem sooner instead of later. Thanks for helping our state move forward in protecting our lakes and reservoirs from pollution.

Thanks for your time,

[redacted]

Comment 23. Fedecker, D

White, Debby

From: dfedecker[redacted]
Sent: Sunday, January 17, 2021 5:31 PM
To: R7-WaterDivision
Subject: Missouri water bodies.

I support the decision to add 40 water bodies that meet impairments of nutrient criteria. I appreciate all improvements.

[redacted]

Comment 24. Fisher, Carol

White, Debby

From: carol fisher [redacted]
Sent: Thursday, February 11, 2021 3:15 PM
To: R7-WaterDivision
Subject: Lake of the Ozarks

Please do not allow the DNR to come anywhere near our lake. They destroyed a few bodies of water in Colorado during the Obama years and we would like you to not try to fix this one. When you overreact, things go awry. Our lake is just fine, nature is making the correction. Please go justify your job elsewhere.

Comment 25. Fort, Garth F.

White, Debby

From: garth fort [redacted]
Sent: Thursday, March 18, 2021 2:08 PM
To: R7-WaterDivision
Subject: Clean-up of Missouri waters

I support the clean-up
Garth F. Fort
[redacted]

Comment 26. Frazier, Marisa

White, Debby

From: Marisa Frazier <[redacted]
Sent: Monday, March 22, 2021 4:32 PM
To: R7-WaterDivision
Subject: Please List Additional 40 Lakes and Reservoirs to Missouri's 303d List

Dear EPA Region 7,

Thank you for the opportunity to comment on the state of Missouri's 2020 Impaired Waters list.

I support EPA's determination that the 40 additional lakes and reservoirs included in Appendix C be added to Missouri's 303d list. These water bodies should be included because data indicates that these water bodies have experienced significant nutrient pollution and are in a position to likely suffer that contamination again.

Our state is well known for its many rivers, streams and lakes which enhance our natural environment and are a source of drinking water, recreation, education, tourism and protection of our state's biodiversity.

Our state struggles with nutrient pollution from a variety of sources, including agricultural runoff, confined animal feeding operations (CAFOS), septic tank systems, urban runoff and more. At the same time our state regulatory system is sometimes faced with limited resources and lack of commitment to monitoring and enforcement of nutrient standards. There are no trends in our state which indicate that the risk of nutrient pollution is decreasing.
As our state grows, so does the risk of nutrient pollution. It's important to evaluate and recognize this problem sooner instead of later. Thanks for helping our state move forward in protecting our lakes and reservoirs from pollution.

Thank you for your evaluation of Missouri's waters and for helping our state progress in protecting those waters.

Sincerely,
Marisa Frazier

Comment 27. Hansen, Nick

White, Debby

From: Nick Hansen <[redacted]
Sent: Thursday, January 28, 2021 6:15 PM
To: R7-WaterDivision
Subject: Lake Ozark, Missouri water quality.

The water quality of Lake of the Ozarks is poor. In the last 10 years the decline of water quality has been significant. State and local government as well as the local tourism industry choose to ignore the decline to prevent a reduction in tourism income. My family will not swim or even "float" in the lake because the water has become "nasty". Their words, not mine. While I still enjoy fishing at the lake I do not keep my catch out of concern of possible contamination. I urge the EPA and Missouri State DNR to direct action to improve and restore the water quality of both Lake of the Ozarks as well as Truman Reservoir.

Regards,

L. Nick Hansen
[redacted]

Comment 28. Hegel, Robert

White, Debby

From: Hegel, Robert <[redacted]
Sent: Friday, January 15, 2021 2:39 PM
To: R7-WaterDivision
Subject: Support the plan to restore or clean up 40 bodies of water in Missouri

Dear Friends:

Thank you for adding forty bodies of water in the state of Missouri to your list of impaired waters slated for clean up. The preservation and promotion of clean bodies of water is of primary importance in preserving wildlife habitat and providing healthy places for our communities to relax and enjoy the natural world. As a citizen I am truly concerned that we preserve and protect our natural resources so that our grandchildren and their grandchildren in time to come may enjoy the blessings of these natural places.

Thank you for this decision; I look forward to this important work going forward.

All best wishes,

Robert E. Hegel, Ph.D.
[redacted]

Comment 29. Heisel, Edward J.

White, Debby

From: Edward Heisel <[redacted]>
Sent: Thursday, March 18, 2021 12:05 PM
To: R7-WaterDivision
Subject: Missouri 303(d) List

Dear EPA,

Over many years, the Missouri DNR has proven unreliable at best in implementing the federal Clean Water Act. I urge you to fully use your oversight role under the CWA to protect the roughly 40 lakes that you have proposed adding to the state's 303(d) list.

Thank you.

Edward J. Heisel
[redacted]

Comment 30. Hennkens, Terry

White, Debby

From: Terry Hennkens <[redacted]>
Sent: Friday, January 29, 2021 5:05 PM
To: R7-WaterDivision
Subject: Lake of the Ozarks

The Lake of the Ozarks should be removed from the "impaired waters" list.

Comment 31. Hess, Lori

White, Debby

From: Lori H [redacted]
Sent: Tuesday, December 22, 2020 6:03 PM
To: R7-WaterDivision
Subject: Water Quality Watch List Lake of the Ozarks

Lake of the Ozarks should absolutely be on the watch list. The water quality is horrible. A friend of mine got in the water last Summer and almost lost his foot because he had a crack in his skin and there was ecoli in the water. It's been steadliy getting worse over the last 10 years. Now that the Lake area has recovered from the recession, developers have started building condo developments in mass on the water. It is going to get nothing but worse if something isn't done quickly.
Lori Hess

Comment 32. Hohl, Jeffrey

White, Debby

From: Jeffrey Hohl [redacted]
Sent: Monday, February 8, 2021 12:20 PM
To: R7-WaterDivision
Subject: Lake ozark water quality

It is very sad that parts of our government can't stand to see Americans having fun with family and friends. So let's show them, we will reclassify some bogus stats and teach them, probably all Trump flags didn't help. Defund the EPA

[redacted]

Comment 33. Hughes, Pam

White, Debby

From: Pam Hughes [redacted]
Sent: Friday, January 15, 2021 5:55 PM
To: R7-WaterDivision
Subject: Support the clean up of 40 bodies of water in Missouri

Dear EPA,

As a concerned citizen and resident of Missouri, I am pleased to see that you have added 40 bodies of water in Missouri to the list of waters needing clean up. I support and applaud your decision. And I vote.

Thank you,
Pam Hughes
[redacted]

Comment 34. Hunt, Ross

White, Debby

From: Ross Hunt [redacted]
Sent: Sunday, March 21, 2021 7:54 PM
To: R7-WaterDivision
Subject: 2020 Impaired Waters List

To EPA Region 7

Thank you for the opportunity to comment on the state of Missouri's 2020 Impaired Waters list.

I understand that the EPA has determined that it is worthwhile to add 40 additional lakes and reservoirs to the state's list of impaired water bodies. Listing these water resources as impaired will bring attention to the need to clean them up.

It's time that Missouri rectifies its nutrient pollution problems. I appreciate that the EPA is looking at these problems.

Ross Hunt
[redacted]

Comment 35. Jost, Neil

White, Debby

From: Neil Jost [redacted]
Sent: Monday, March 22, 2021 1:00 PM
To: R7-WaterDivision
Subject: Make DNR do the job it should do

To EPA Region 7

Thank you for the opportunity to comment on the state of Missouri's 2020 Impaired Waters list.

I support the EPA's decision to add 40 additional lakes and reservoirs to the state's list of impaired water bodies. Listing these water resources as impaired is the first step in improving them.

Like many Missourians I appreciate and enjoy our state's rivers, streams and lakes. But as our state grows, so does the risk of nutrient pollution. It's important to evaluate and recognize this problem sooner instead of later. Thanks for helping our state move forward in protecting our lakes and reservoirs from pollution.

Comment 36. Katranides, Margaret

White, Debby

From: Margaret Katranides [redacted]
Sent: Thursday, March 18, 2021 11:15 AM
To: R7-WaterDivision
Cc: [redacted]
Subject: clean water

Dear people,

The Missouri Coalition for the Environment has notified us that you have added 40 lakes to Missouri's list of impaired waters. I want you to know how pleased I am that you have recognized this situation. I hope to hear in the future about how you are working with landowners and municipalities to reduce pollution in these lakes and the streams that feed them. There are many pressures that lead to more pollution, but people of good will, recognizing the value of clean water, will be willing to negotiate and create new processes that help everyone involved achieve more of their dreams.

Sincerely,
Margaret Katranides
[redacted]

Comment 37. Kellerman, Alli

White, Debby

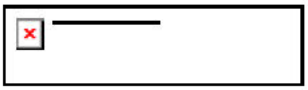
From: Alli Kellerman <[redacted]>
Sent: Friday, January 15, 2021 4:22 PM
To: R7-WaterDivision
Subject: Note of Support
Attachments: ATT00001.txt

Hello,

I support the decision to add/restore 40 water bodies to the Missouri list of impaired waters.

Sincerely,

Alli Kellerman
[redacted]



[redacted]

Comment 38. Koehler, Francine

White, Debby

From: Francine Koehler <[redacted]
Sent: Thursday, March 18, 2021 8:37 PM
To: R7-WaterDivision
Subject: Thank you

I want to thank the EPA for the opportunity to comment on your support of 40 water bodies in my home state of MO. Thank you so much for adding them to your efforts to provide clean, healthy, water and marine life to us Missourians.

Sincerely,
Francine Koehler, SSND
[redacted]

Comment 39. Kriege, Bill

White, Debby

From: Kriege, Bill [redacted]>
Sent: Friday, January 15, 2021 3:27 PM
To: R7-WaterDivision
Subject: Public Comment

Dear Madam or Sir,

I understand that the EPA just added 40 bodies of water as impaired by nutrients to Missouri's 2020 list of Impaired Waters under Clean Water Act Section 303. As a fisherman, environmentalist, and parent of two children, I am in favor of adding those lakes in the hope that they will soon be restored!

Thank you,
Bill Kriege

Comment 40. Lake Area Chamber of Commerce; Cloke, K.C.

White, Debby

From: K.C. Cloke <[redacted]
Sent: Thursday, March 18, 2021 12:04 PM
To: R7-WaterDivision
Cc: Paige Jones; 'Luke Hagedorn'
Subject: Public Comment to Missouri 2020 303(d) List of Impaired Waters under Clean Water Act, Section 3030(d):Lake of the Ozarks
Attachments: Missouri 2020 303(d) Public Comment - LACC.PDF

Good afternoon,
Please find the Lake Area Chamber's public comment attached in regards to the Missouri 2020 303(d) List of Impaired Waters under Clean Water Act, Section 3030(d):Lake of the Ozarks.

Sincerely,

K.C. Cloke
K.C. Cloke
Outgoing Executive Director | Lake Area Chamber of Commerce
PO Box 1570
Lake Ozark, MO 65049
Office: (573)964-1008 | Fax: (573)964-1010

Comment 40. Attachment

Lake Area Chamber of Commerce

PO Box 1570
#1 Willmore Lane
Lake Ozark, MO 65049
Office:(573)964-1008
Fax:(573)964-1010
info@lakeareachamber.com

www.LakeAreaChamber.com

March 18, 2021

Submitted via email to:R7-WaterDivision@epa.gov

United States Environmental Protection Agency, Region 7
Mr. Jeffery Robichaud
Director, Water Division
11201 Renner Blvd. Lenexa, Kansas 66219

Re: Public Comment to the Missouri 2020 303(d) List of Impaired Waters under Clean Water Act, Section 303(d): Lake of the Ozarks

Dear Mr. Robichaud,

The Lake Area Chamber of Commerce appreciates the opportunity to provide comments to the United States Environmental Protection Agency (USEPA) regarding the Missouri Department of Natural Resources' (MDNR or State) Clean Water Act (CWA) 2020 303(d) List of Impaired Waters as it may apply to the Lake of the Ozarks in Missouri.

The Lake Area Chamber has reviewed the public comment submitted by Ameren Missouri and agrees with the information provided in that statement. We, the Lake Area Chamber of Commerce request that USEPA reconsider the placement of Lake of the Ozarks on the 2020 303(d) List of Impaired Waters. Lake of the Ozarks is a popular recreational destination for both Missouri residents and tourists. Enjoyment of the Lake, its nationally recognized sports fishery, and the tourism industry it supports are vitally important to the Lake Region as well as the State's economy.

Sincerely,

Lake Area Chamber of Commerce Board of Directors

Comment 41. Lake of the Ozarks Council of Local Governments

White, Debby

From: linda.conner[redacted]
Sent: Monday, March 22, 2021 9:59 AM
To: R7-WaterDivision
Subject: Comments EPA 303(d) Impaired Waters List Missouri 2020
Attachments: LOCLG EPA Comments 03222021.pdf

Please find attached the comments from LOCLG. Thanks for the opportunity to submit.

Best Regards,
Lake of the Ozarks Council of Local Governments

Comment 41. Attachment

SERVING CAMDEN, LACLEDE, MILLER AND MORGAN COUNTIES

March 19, 2021

United States Environmental Protection Agency, Region 7
Mr. Jeffery Robichaud
Director, Water Division
11201 Renner Blvd.
Lenexa, Kansas 66219

RE: Public Comment to the Missouri 2020 303(d) Lis of Impaired Waters under Clean Water Act, Section 303 (D): Lake of the Ozarks

Dear Mr. Robichaud,

Lake of the Ozarks Council of Local Governments (LOCLG), the Regional Planning Commission serving the lake area is submitting comments on behalf of the region, including Camden, Laclede, Miller and Morgan Counties, along with the communities within those counties. Protecting the lake is the number one priority of the leadership within the region, protecting it from being on the 303(d) impaired list is also a priority as this will significantly impact our primary economic base of tourism.

MoDNR submitted the 2020 303(d) list on June 26, 2020 in which Lake of the Ozarks was NOT included on the list. The region's leadership stands behind the authority of the state environmental agency to know what is best in regard to the water quality and needs for water quality improvement within the state of Missouri, and believe that Lake of the Ozarks should remain off the list of impaired waters.

Ameren Missouri, the owner and operator of the Bagnell Dam and Osage Hydroelectric Power Plant has shared with our region's leadership their comments and concerns with the EPA findings and proposed inclusion of Lake of the Ozarks on the 303(d) list. Attached is the copy of the comments submitted and consider it a part of the LOCLG's comments being submitted as well.

The region's leadership asks that you carefully consider all comments submitted and the significant negative impacts that will occur if Lake of the Ozarks is put on the 303(d) impaired waters list. Let the local leadership take ownership of taking local action making sure that the lake remains the gem of the Ozarks and a recreational and family fun destination for all to enjoy.

Sincerely,

Tom Wright, LOCLG Chairman Miller County Presiding Commissioner

Lake of the Ozarks Council of Local Governments
P.O. Box 3553 Camdenton, MO 65020
Phone: 573-346-5692 Fax: 573-346-9686

March 15, 2021

Submitted via email to: R7-WaterDivision@epa.gov

United States Environmental Protection Agency, Region 7
Mr. Jeffery Robichaud
Director, Water Division
11201 Renner Blvd.
Lenexa, Kansas 66219

Re: **Public Comment to the Missouri 2020 303(d) List of Impaired Waters under Clean Water Act, Section 303(d): Lake of the Ozarks**

Dear Mr. Robichaud,

Ameren Missouri (Ameren) appreciates the opportunity to provide comments to the United States Environmental Protection Agency (USEPA) regarding the Missouri Department of Natural Resources' (MDNR or State) Clean Water Act (CWA) 2020 303(d) List of Impaired Waters as it may apply to the Lake of the Ozarks in Missouri. Ameren Missouri owns and operates Bagnell Dam and the Osage Hydroelectric Power Plant pursuant to the terms of a license issued by the Federal Energy Regulatory Commission (FERC). Under the terms of its FERC license, Ameren Missouri implements a shoreline management and permitting program and therefore is in a unique position to provide additional information to the USEPA. We believe that sufficient data does not warrant inclusion of the Lake of the Ozarks as an "impaired water" on the State's 2020 303(d) List.

Over the past two decades, Ameren has worked with stakeholders around the Lake of the Ozarks to implement many beneficial projects designed to improve water quality, aquatic life, habitat, and recreational opportunities for the public. Some of these important enhancements include installation of state-of-the-art aerating turbines (supplying additional dissolved oxygen to the downstream aquatic communities), installation of a high strength fish protection net in the front of Bagnell Dam to protect paddlefish, and multiple fish and habitat enhancements throughout the lake. Ameren also developed a comprehensive lake shoreline management plan and provided extensive support for the USEPA approved 9-element watershed based plan for the first 20 miles of the Lake of the Ozarks.

On June 26, 2020, MDNR submitted its 2020 303(d) List to the USEPA proposing to list 481 waterbody/pollutant impairment pairs and delist 44 waterbody/pollutant impairment pairs. While USEPA approved in large measure, MDNR's decisions, USEPA disapproved the State's decision not to list 40 lake waterbodies for nutrient impairment. Instead, USEPA proposes to add 40 lake waterbody/pollutant impairment pairs to the Missouri CWA Section 303(d) List and has solicited public comment. The technical basis for USEPA's proposal is set forth in reports entitled: *Data Sources Used for Missouri 2020 303(d) List*, *Missouri Fish Kill Report 2014*, *Missouri Fish Kill Report 2015*, *Missouri Fish Kill Report 2017*, and *Missouri Fish Kill Report 2018*.

As a preliminary matter, USEPA assessed the Lake of the Ozarks against inappropriate ecoregional numeric lake nutrient criteria. According to Appendix C of USEPA's Decision Document, the Lake of

the Ozarks was assessed against the Ozark Highlands ecoregion numeric lake nutrient criteria. According to USEPA's Decision, data supporting the USEPA's 303(d) listing included: "*Exceeded nutrient criteria in 2017, exceedance screening in 2016 and 2018, Eutrophication Factor A, multiple fish kills have occurred. In 2018, June 14, 2018, low dissolved oxygen fish kill over 100 fish killed. Also, additional monitoring points in lake are impaired."* In addition, USEPA's decision to list Lake of the Ozarks as impaired for nutrients is improper for the reasons set forth below.

1. **USEPA assessed the Lake of the Ozarks against inappropriate ecoregional numeric lake nutrient criteria.**

With respect to Missouri's lake nutrient criteria (10 CSR 20-7.031(5)(N)1) approved by USEPA in 2018, "*due to differences in watershed topography, soils, and geology, nutrient criteria for lakes and reservoirs will be determined by the use of four major ecoregions based upon dominant watershed ecoregion*." The four major ecoregions are Plains, Ozark Border, Ozark Highlands and Big River Floodplain. While the Lake is physically located in the Ozark Highlands ecoregion, the dominant watershed ecoregion is the Plains ecoregion (see **Table 1**). Jones et al. 2000 observed similar seasonal nutrient patterns and nutrient responses to inflow and destratification in Mark Twain Reservoir (Plains ecoregion) and the Lake of the Ozarks in the same time frame.

TABLE 1. Ecoregion Percentage of Watershed.

	Plains	Ozark Highlands
Lake of the Ozarks	61%	39%

In addition, approximately 70% or more of the Lake of the Ozarks water originates from Truman Reservoir, which is in the Plains ecoregion. Jones et al. (1988) noted the influence of Truman Reservoir. They observed total phosphorus loading in the Lake of the Ozarks is decreasing and algae (chlorophyll-a) is more productive because inorganic suspended solids are lower after Truman Reservoir was constructed. Accordingly, the Lake of the Ozarks should be assessed against the Plains ecoregional numeric lake nutrient criteria. When comparing the Lake of the Ozarks chlorophyll-a data to the appropriate Plains ecoregional criteria, the Lake of the Ozarks does not exceed the nutrient criteria impairment threshold in any of the last three years of data.

2. **USEPA's reliance on an isolated fish kill that lack adequate water quality data is inappropriate.**

In assessing fish kill events, it is important to fully assess the cause and magnitude of such events. As MDNR notes in Appendix F, 2018 Nutrient Criteria Implementation Strategy: "*The MDNR will review reports for information pertaining to the cause of death as well as the potential sources. Fish populations can have seemingly random small die-offs related to disease, virus, or other natural sources. More than one fish kill within ten years or one large (>100 fish and covering more than ten percent of the lake area) fish kill documented by dissolved oxygen excursions, pH, algal blooms or the toxins associated with algal blooms will constitute evidence of impairment*." Here, USEPA's Decision appears to be based on a single fish kill event at the Lake of the Ozarks of 100 fish that covers less than 10 percent of the lake area. Furthermore, this fish kill was only reported to the Missouri Department of Conservation (MDC) by a third party and not verified by MDC fish biologists.

The *Missouri Fish Kill Report 2018* from the Missouri Department of Conservation (MDC) attributed the fish kill event to low dissolved oxygen or temperature stress. However, according to the 2018 report and the summary spreadsheet developed by MDC, the extent of the fish kill (i.e., number of fish) was not determined. Without documented field data (e.g., dissolved oxygen, water temperature,

pH, algal toxins, etc.) supporting the hypothesis that "likely low dissolved oxygen or temperature stress" was the cause of the June 14, 2018 fish kill, the cause of the event is speculative. Because the cause of the fish kill was not supported by adequate water quality data, this event should not be used as evidence of Eutrophication Factor A.

3. **Temporal nutrient trends in the Lake of the Ozarks are stable or potentially decreasing and MDNR has properly considered all appropriate data.**

Nutrient data collected each year at the nearest location to the outflow of the dam were compiled and assessed to evaluate temporal trends. Nutrient data (total chlorophyll, total nitrogen and total phosphorus) from 2007 to 2018 were assessed using the geometric mean of annual samples collected between May 1 and September 30 (**Table 2**). (Chlorophyll-a was not consistently collected between 2007 and 2018, therefore total chlorophyll was used.) A distribution free Mann-Kendall trend test was used to assess the presence of a temporal monotonic trend upward or downward for nutrients. Results of the trend test indicate total chlorophyll concentrations are stable while total nitrogen and total phosphorus concentrations are likely decreasing (**Table 3**). The results of the trend analysis demonstrate water quality in Lake of the Ozarks has remained stable or is improving. The occurrence of small fish kills is likely due to natural processes occurring in isolated areas of the lake.

TABLE 2. Lake of the Ozarks Annual (May 1 – September 30) Geometric Mean Nutrient Data. Data sourced from the lake location nearest the outflow and are presented in micrograms per liter.

Year	Total Chlorophyll ug/L	Total Nitrogen ug/L	Total Phosphorus ug/L
2007	17.5	596	44
2008	11.4	614	33
2009	15.2	672	35
2010	18.4	579	33
2011	10.9	454	20
2012	12.3	523	17
2013	20.8	590	30
2014	10.1	381	15
2015	19.0	563	35
2016	11.6	430	18
2017	27.5	789	47
2018	7.2	444	15

TABLE 3. Mann-Kendal Nutrient Trend Results.

Analyte	Mann-Kendall (S)	Probability	Confidence in Trend	Trend
Total Chlorophyll	-2	0.473	0.527	Stable
Total Nitrogen	-20	0.096	0.904	Likely Decreasing
Total Phosphorus	-21	0.084	0.916	Likely Decreasing

4. USEPA improperly used "*additional monitoring points*" to assess impairment.

USEPA's has improperly applied Missouri's numeric lake nutrient criteria to make the determination that "additional monitoring points in lake are impaired". The USEPA approved the State's criteria values and assessment criteria in 10 CSR 20-7.031(5)(N)4…"*All Total phosphorus total nitrogen and chlorophyll-a concentrations must be calculated as the geometric mean of a minimum of four representative samples per year for the purposes of comparison to lake ecoregion criteria thresholds. All samples must be collected from the lake surface, near the outflow of the lake and during the period of May 1 to September 30."* The criterion clearly states impairments will be assessed "near the outflow" and the use of data from additional monitoring locations is not consistent with the nutrient criterion nor the Methodology for the Development of the 2020 Section 303(d) List in Missouri (LMD).

5. USEPA did not properly consider data quality and data age when adding 40 lake waterbody/pollutant impairment pairs to the State's 2020 303(d) List.

USEPA determined the State did not evaluate all readily available data or information for lakes with chlorophyll-a impairments when developing its CWA Section 303(d) List. The State's LMD is updated every two years following numerous publicly announced stakeholder meetings and input with specific regards to data quality, data age and representativeness of data, and clearly outlines the State's process for data considerations when making Section 303(d) decisions. The LMD states that while more recent data are preferable, **older** (i.e. all available) data are used to assess present conditions if the data remain representative of present conditions. For data older than seven years, the LMD identifies the State will provide written justification for use of such data to make a Section 303(d) listing. The LMD also indicates that if a waterbody has not been previously listed and **all data** indicating an impairment are older than 7-years, the waterbody shall be placed into Category 2B or Category 3B and given high priority for future monitoring. The State's LMD also outlines consideration for the age of data relative to significant events (representativeness) that have an effect on water quality (point source discharge, spill, reclamation, overflow elimination, etc.). This process mirrors that of which the USEPA supported in its approval of 481 waterbody/pollutant impairment pairs in the 2020 303(d) List. USEPA should evaluate the placement of water bodies in Category 2B or Category 3B following the State's approved LMD.

In conclusion, Ameren Missouri requests that USEPA reconsider the placement of Lake of the Ozarks on the 2020 303(d) List of Impaired Waters. Lake of the Ozarks is a popular recreational destination for both Missouri residents and tourists. Enjoyment of the Lake, its nationally recognized sports fishery, and the tourism industry it supports are vitally important to Ameren Missouri as well as the State's economy.

Sincerely,

Steven C. Whitworth
Sr. Director, Environmental Policy & Analysis
Ameren Missouri

Comment 42. Larson, Les

White, Debby

From: Les Larson [redacted]
Sent: Monday, February 8, 2021 9:14 AM
To: R7-WaterDivision
Subject: Lake of the Ozarks

Concerning the EPA's concerns for water quality and Algae content, it seems that a logical approach would be to not only study Lake of the Ozarks but also to look at Truman Lake at Warsaw Missouri. Truman dam area has a major impact on the Lake of the Ozarks water quality, current and levels.
My understanding is that Ameren at Bagnell Dam work closely for flood control etc.
Water run off and water shed are factors and flood control from the Corps of Engineers at Truman into The Lake of the Ozarks is imperative.
Just like down stream control of the Osage river from Bagnell dam.

Les Larson
[redacted]

Comment 43. LeCorgne, Scott

White, Debby

From: Scott LeCorgne [redacted]
Sent: Thursday, March 18, 2021 10:53 AM
To: R7-WaterDivision
Subject: EPA action

To whom it may concern,
Thank you for the opportunity to submit my comments in regard to the U.S. Environmental Protection Agency (EPA)'s proposal to add 40 lakes to the Missouri Impaired Waters 303(d) list. My name is [name] and I am a resident of [City/Town], Missouri. I enjoy [insert activity/activities] at [insert lake(s)] which the EPA recommended be added to the Missouri 303(d) list.
Under the Clean Water Act (CWA), each individual state's 303(d) list must include all lakes which are impaired or threatened within that state.1 Ensuring the accuracy of Missouri's 303(d) list will allow the EPA, Missouri, and individual Missourians to keep track of the water quality in Missouri's lakes. However, the proposed 303(d) list submitted to the EPA in 2020 did not include all impaired lakes. As demonstrated by the EPA's Decision Letter, some lakes were erroneously left off of the list due to data and procedural errors. 2 In order to ensure the proper protection for lakes in my state, I support EPA's recommendation to add [insert lake(s)] to the 303(d) list for the following reason(s):
1. I am worried about the general environmental quality of the lakes in Missouri. Nutrient pollution is causing degradation of water quality in many parts of the state. This impacts Missouri residents like me in many ways, whether we use lakes for drinking water or recreation, or simply live near a lake. In addition, because nutrient pollution creates unsightly algal blooms which go on to create toxins and can damage boats, it greatly interferes with the enjoyment of Missouri's lakes. It is therefore important that affected lakes be added to the state's 303(d) list.
2. I am worried about the drinking water quality of [lake name(s)]. I understand that excess nitrogen and phosphorus causes algae growth which can be detrimental to my health, so I am increasingly worried about becoming sick if I continue drinking this water. The same applies for my family who also regularly consumes water from [lake name(s)].
3. I am worried about living next to [lake name]. Because I understand that exposure to nutrient pollution can be detrimental to my health and that of others, I worry about exposure. The lakeside community includes children and pets, both of whom may not understand the need to limit exposure to polluted water. Secondarily, the algae blooms that occur in polluted water are unsightly and can negatively affect property values nearby to the lake.
4. SWIMMING OPTION 1 (if water bullet is included): Because [lake name(s)] is overly polluted and doesn't have safe drinking water, I also worry about swimming. I see large swaths of green algae in [lake name(s)] which I believe to be algal blooms; I don't feel safe swimming in murky water when I can no longer see below the surface. In addition, I am concerned that I will get sick if I accidentally drink some of the water while swimming.3

1 https://www.epa.gov/tmdl/overview-identifying-and-restoring-impaired-waters-under-section-303d-cwa
2 https://dnr.mo.gov/env/wpp/waterquality/303d/docs/2020-11-30-epa-decision-letter-missouri-2020-303d-public-notice.pdf
3 The impacts of nutrient pollution on human health are detailed here:

5. SWIMMING OPTION 2 (if water bullet is excluded): I no longer feel comfortable swimming in [lake name(s)]. I see large swaths of green algae in [lake name(s)] which I believe to be algal blooms; I don't feel safe swimming in water of which I can no longer see below the surface. Moreover, I am concerned that I will get sick if I accidentally drink some of the water while swimming because polluted water is known to cause health issues among people who drink it.4
6. I am worried about the impact of nutrient pollution on [Conservation/wildlife/park] areas like [area name], which includes [lake name(s)]. These areas are important to me and my community because of their recreational and conservation value. Because nutrient pollution can be harmful to the ecosystem and to people, it is a threat to the special character of [area name]. As such, I believe that [lake name(s)] deserve(s) to be protected and included on the impaired waters list. This will ensure that its value to the public will be preserved for the future.
7. Maintaining productive recreational fishing in [lake name(s)] is a top priority for me. I have spent [XXX years/months/trips] fishing at [lake name(s)] and have grown increasingly worried about the quantity and quality of fish that are available for me to. I have noticed that the [diversity, quantity, quality, look, etc] of the fish that I am catching has changed which I believe is due to the increase in phosphorus and nitrogen in [lake name(s)]. Excess toxins can harm aquatic life and algae blooms can cause fish kills, I am concerned that excess nutrient pollution may cause these impacts to [lake name(s)].
8. I am concerned about boating in [lake name(s)] because of the nutrient pollution in the lake(s). The algal blooms which I am observing stain boats and damage their motors. Overall, the additional maintenance needs reduce the accessibility of boating in [lake name(s)] and generally make boating less fun.5
9. I am concerned about the impact of fertilizer runoff from farms in my community on [lake name(s)]. The fertilizers that are used in the farms to grow crops contain nitrogen and phosphorus which I understand are harmful if they get into [lake name(s)]'s waters. I am worried that these chemicals are contaminating the water and that it is no longer safe for fishing, drinking, and other recreational activities.
In summary, I support EPA's proposal to add [lake name(s)] to the 303(d) list in order to begin the process of ensuring that the water is [safe to drink/available for safe and quality fishing/safe for swimming]. I cannot emphasize enough how concerned I am for my health and the health of [my kids/my friends/my family/my community/etc]. I am counting on the Missouri Department of Natural Resources and EPA to keep me safe and to ensure that [lake name(s)] are safe for me to [swim in/drink water from/fish in].
Thank you for the opportunity to provide comments during this process.

Scott LeCorgne
[redacted]

Comment 44. Light, Joe

White, Debby

From: joe@[redacted]
Sent: Friday, February 5, 2021 11:18 AM
To: R7-WaterDivision
Subject: St. Louis Creeks

In regards to Deer Creek in St. Louis County / City, I have seen children playing in it, thus it needs to be protected. I also have seen children playing in Gravois Creek in St. Louis County.

I have kayaked in Mattese Creek in St. Louis County.

I have a surprising large amount of people in the River Des Peres in St. Louis City. I have seen people fishing in it. I have a picture of a jet skier on it.

My requests are based on this document
https://www.epa.gov/sites/production/files/2020-12/documents/mo2020303dpartialapproval.pdf

Joe Light

Comment 45. Lorenz, Paul

White, Debby

From: Paul Lorenz <[redacted]>
Sent: Friday, January 15, 2021 1:55 PM
To: R7-WaterDivision
Subject: Protect our valuable water bodies from pollution.

Water is now being traded as a valuable commodity in our financial markets. It is good business, good for the environment, and good for people and their progeny.

[redacted]

Comment 46. McKee, Patrick

White, Debby

From: Patrick McKee <[redacted]>
Sent: Saturday, January 16, 2021 2:12 PM
To: R7-WaterDivision
Subject: Missouri lakes

I support the decision to add 40 lakes to Missouri's list of impaired waters.

Now that the problem has been acknowledged we can begin taking steps to address it.

Until the cover up was called out it would have been impossible for the clean up to begin.

There's a lot of work to do. Here's hoping that effective January 21 we can get going on it.

Thank you,

Patrick McKee
[redacted]

Comment 47. Melies, Katie

White, Debby

From: katie melies [redacted]
Sent: Thursday, March 18, 2021 10:46 AM
To: R7-WaterDivision
Subject: Missouri Lakes

Please continue to monitor and act accordingly to preserve the safety and beauty of the Missouri lakes and waterways.

Thanks,

Katie Melies

Comment 48. Missouri Clean Water Commission

White, Debby

From: Wieberg, Chris <chris.wieberg@dnr.mo.gov>
Sent: Thursday, March 18, 2021 1:25 PM
To: R7-WaterDivision
Subject: FW: Missouri's 2020 CWA Section 303(d) Comments
Attachments: MO CWC Comment Letter to EPA - PN MO 2020 303d Decision_FINAL.docx.pdf

Thanks,

Chris Wieberg
Director
Water Protection Program
573-522-9912

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://www.surveymonkey.com/r/MoDNRsurvey. Thank you.

From: Wieberg, Chris
Sent: Thursday, March 18, 2021 1:08 PM
To: 'EPAR7WaterDivision@epa.gov' <EPAR7WaterDivision@epa.gov>
Cc: 'Robichaud, Jeffery' <Robichaud.Jeffery@epa.gov>; Ashley McCarty [redacted] 'Patricia N. Thomas' <pat@patthomas.us>; Duggan, Timothy <Tim.Duggan@ago.mo.gov>; [redacted]; 'STAN & PENNY CODAY' [redacted]; [redacted]; Welschmeyer, Krista <Krista.Welschmeyer@dnr.mo.gov>; Hoke, John <john.hoke@dnr.mo.gov>; Galbraith, Ed <Ed.Galbraith@dnr.mo.gov>
Subject: Missouri's 2020 CWA Section 303(d) Comments

To Whom it may concern, please see the attached comment letter from the Missouri Clean Water Commission related to EPA's decision to add water bodies to Missouri's 2020 303d list.

Thanks,

Chris Wieberg
Director
Water Protection Program
573-522-9912

We'd like your feedback on the service you received from the Missouri Department of Natural Resources. Please consider taking a few minutes to complete the department's Customer Satisfaction Survey at https://www.surveymonkey.com/r/MoDNRsurvey. Thank you.

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

The Commission requests that EPA reconsider the decision in its November 30, 2020, action to list as impaired numerous Missouri waters without recent data. Instead, EPA should assign waters lacking data within the past seven years as category 2B or 3B, if those data suggest the possibility of a current impairment. The Commission believes this is a reasonable approach that will prevent erroneously listing waters and the consequences of listing such waters.

This approach aligns with the Department's rationale regarding the age of data that specifies its commitment to collect current data for a number of lakes (see attached document "Rationale for Implementing Data Age LMD Requirements," which was included in the 2020 Integrated Report submitted to EPA). Many of the lakes listed in that rationale were targeted for sampling under the most recent cooperative agreement with the University of Missouri in calendar year 2020. Going forward, the Commission will continue to direct the Department to prioritize data collection on lakes that are suspected of impairment, in order to accurately and timely identify impairments. Information on the status of sampling efforts for these lakes can be found in Appendix 1.

In regard to the proposed listing of Lake of the Ozarks (LOTO), the Commission requests EPA categorize the water body as a 3B water body for three reasons:

1. The available fish-kill data that EPA relied upon in its decision are not appropriate for a listing decision. Fish kills used to document evidence of impairment should not rely solely on public reporting that lacks agency verification and documentation of cause. Unverified fish-kill reports do not pass the Quality Assurance/Quality Control (QA/QC) needed for use in assessments pursuant to Missouri's LMD. Of particular concern is the June 2018 fish kill that EPA used to justify designating LOTO as impaired, which was not verified by the Missouri Department of Conservation (MDC), Department staff, or any other qualified individual, and therefore does not meet the requirements of quality-assured data pursuant to the Commission's approved LMD. Additionally, the fish-kill report in question is not clear as to the cause of the event and aspects of the report appear to not meet the characteristic of eutrophication outlined in the Missouri Nutrient Criteria Implementation Plan.

2. The ecoregional assignment of LOTO as a solely Ozark Highlands Ecoregion reservoir must be reevaluated. The Department has indicated that preliminary modeling indicates Truman Reservoir, which is a Plains Ecoregion reservoir, accounts for the majority of the flow and nutrient loading in LOTO. Further evaluation and study is needed to accurately assign LOTO's ecoregional designation before an accurate listing designation is possible.

3. The socioeconomic impact of listing LOTO is significant. The combined Harry S. Truman Reservoir and LOTO system are a substantial economic and tourism driver for the State of Missouri, and an impairment listing without just cause could severely and unfairly impact the reputation of these reservoirs in the mind of the public. Additionally, an impairment decision would result in costly, unnecessary wastewater infrastructure upgrades.

For these reasons, the Commission requests that EPA defer a final decision or designate LOTO as category 3B, until such time as the Department can complete its evaluation and recommendation for the appropriate designation of the lake. A decision at this moment is not critical to the immediate ecological health of the lake.

Thank you again for the opportunity to comment on your agency's decision regarding Missouri's 303(d) list.

Respectfully,

Ashley McCarty

Ashley McCarty, Chair
Missouri Clean Water Commission

c: Missouri Clean Water Commission
Chris Wieberg, Director, Water Protection Program

Appendix 1. Sampling Schedule for Lakes Identified During Assessments as Needing More Data

WBID	Water body Name	Sampled	Planned Sampling
7029	Hunnewell Lake	2019, 2020	2021-2024
7036	Shelbyville Lake	--	2021-2024
7105	Jamesport Community Lake	--	2021-2024
7112	King Lake	2020	2021-2024
7120	Cameron Lake #1	2020	2021-2024
7121	Cameron Lake #2	2020	2021-2024
7149	Sterling Price Community Lake	--	2021-2024
7173	Thomas Hill Reservoir	--	2021-2024
7208	Montrose Lake	--	2021-2024
7241	Peaceful Valley Lake	2020 - 3 samples	2021-2024
7288	Indian Lake	2020	2021-2024
7391	Jackrabbit Lake	2020	2021-2024
7015	Deer Ridge Community Lake	2019, 2020	2021-2024
7018	Lancaster City Lake - New	--	2021-2024
7061	Savannah City Reservoir	--	2021-2024
7104	Jamesport City Lake	--	2021-2024
7110	Worth County Community Lake	--	2021-2024
7111	Limpp Community State Lake	--	2021-2024
7113	King City Old Reservoir	--	2021-2024
7114	King City New Reservoir	--	2021-2024
7118	Pony Express Lake	--	2021-2024
7119	Cameron Lake #3	2020	2021-2024
7143	Linneus Lake	--	2021-2024

WBID	Water body Name	Sampled	Planned Sampling
7147	Fountain Grove Lakes	--	2021-2024
7154	Unionville Reservoir	2020	2021-2024
7159	Bucklin Lake	--	2021-2024
7160	Marceline Reservoir	--	2021-2024
7183	Peters Lake	--	2021-2024
7186	Ben Branch Lake	2020	2021-2024
7207	HS Truman Lake	2020	2021-2024
7212	Lake Winnebago	--	2021-2024
7230	Drexel City Reservoir South	2020	2021-2024
7234	Atkinson Lake	2020	2021-2024
7304	Timberline Lakes	2019	2021-2024
7333	Shepard Mountain Lake	2020	2021-2024
7378	Coot Lake	--	2021-2024
7379	Cottontail Lake	2020	2021-2024
7383	Gopher Lake	--	2021-2024
7403	Lake Nell	2020	2021-2024
7025	Edina Lake	--	2021-2024
7124	Hamilton Lake	--	2021-2024
7153	Lake Thunderhead	--	2021-2024
7365	Belcher Branch Lake	--	2021-2024

Comment 49. Missouri Coalition for the Environment and The Washington University Interdisciplinary Environmental Clinic

White, Debby

From: Cyr, Alexander <[redacted]>
Sent: Monday, March 22, 2021 2:02 PM
To: R7-WaterDivision
Cc: Dayna Stock; Jim Karpowicz; Hubertz, Elizabeth; [redacted] Greensfelder, Julia
Subject: Missouri Coalition for the Environment MO 303(d) List Comment Letter
Attachments: Missouri Coalition for the Environment MO 303(d) List Comment Letter.pdf

Mr. Robichaud,

Please find attached a comment letter on the Environmental Protection Agency's proposed addition of 40 lakes to the Missouri 2020 Section 303(d) Impaired Waters List. The Washington University Interdisciplinary Environmental Clinic is submitting this letter on behalf of the Missouri Coalition for the Environment.

Best,

Alex Cyr
[redacted]

Comment 49. Attachement

Washington University in St. Louis
SCHOOL OF LAW

Interdisciplinary Environmental Clinic

March 22, 2021

Jeffrey Robichaud
Director, Water Division
11201 Renner Boulevard
Lenexa, KS 66219

Submitted via email to R7-WaterDivision@epa.gov

Re: Missouri 2020 Section 303(d) Impaired Waters List

Dear Mr. Robichaud,

On behalf of the Missouri Coalition for the Environment ("MCE"), the Washington University Interdisciplinary Environmental Clinic is submitting this letter to comment on the Environmental Protection Agency's ("EPA") proposed addition of 40 lakes to the Missouri 2020 Section 303(d) Impaired Waters List ("303(d) list").[1] MCE is an environmental advocacy organization with offices in St. Louis City and Columbia. MCE has over 800 members throughout Missouri. MCE's members have advocated since 1969 for the protection of all streams, rivers, wetlands, and floodplains throughout the State of Missouri. MCE's members frequently pursue activities which involve drawing drinking water from, swimming and fishing in, and floating on Missouri's waters. Thus, MCE has a substantial interest in MDNR's proposed 303(d) list.

MCE supports the EPA's recommended listing of these lakes which are impaired for the protection of aquatic life use under Missouri's nutrient criteria.[2] MCE supports this decision because it is concerned with the environmental and social impact of nutrient pollution in lakes which may be used for drinking water or recreation and believes the listing of these 40 waters is a positive step toward remediating nutrient pollution in Missouri. This comment letter presents

[1] See EPA Region VII's public notice for the proposal at https://www.epa.gov/mo/state-missouri-2020-list-impaired-waters MDNR's 2020 303(d) list is located at https://dnr mo.gov/env/wpp/waterquality/303d/docs/2020-303d-list-cwc-approved-2020-04-02.pdf

[2] MCE does not support the nutrient criteria themselves and is currently challenging EPA's approval of them. *See Missouri Coalition for the Environment v. Wheeler,* No. 19-cv-4215 NKL (W.D. Mo. Filed December 3, 2019). MCE continues to argue for more stringent standards for protection of aquatic life and for standards protecting the drinking water and recreation uses, it recognizes that the placement of a lake on the 303(d) list for any impaired use is a positive step toward the improvement of water quality in Missouri.

information and MCE's concerns regarding the following issues: drinking water reservoirs, swimming, conservation areas, residential areas, fertilizer runoff, and boating. This comment letter will also discuss the data and methodological errors that led to the non-listing of many of the lakes by the Missouri Department of Natural Resources (MDNR).

Drinking Water Reservoirs Must Be Protected and Cleaned Up

MCE supports the EPA's recommendation because it will help ensure cleaner water in the Missouri reservoirs that produce water that is safe for drinking. Excessive nutrient pollution can make it harder to treat water to ensure its safety for human consumption. Byproducts of treating nutrient polluted water can also cause problems. Fourteen out of forty of the lakes proposed for addition to the 303(d) list have been assigned the Drinking Water Use under Missouri regulations[3] and are used as drinking water reservoirs. While Missouri has chosen not to promulgate nutrient criteria to protect drinking water, EPA's proposed addition of the reservoirs designated for drinking water use to the 303(d) should at least reduce some of the nutrient loading to these impaired waterbodies, even though it is not a fully adequate solution.

Lakes Proposed for the 303(d) List That Have Drinking Water Designated Use

Lake	County
Cameron #1 (Century) Lake	DeKalb
Elmwood City Lake	Sullivan
Hamilton Lake	Caldwell
Harry S. Truman Reservoir	Benton, Henry, St. Clair
Jamesport City Lake	Daviess
Jamesport Community Lake	Daviess
King City (East) New Reservoir	Gentry
King Lake	DeKalb
Macon Lake	Macon
Memphis Reservoir	Scotland
Perry City	Ralls
Shelbyville	Shelby
Shepherd Mountain Lake/Ironton	Iron
Thomas Hill Reservoir	Macon, Randolph

[3] 10 CSR 20-7.031 Water Quality Standards

Excess Nutrient Pollution Can Adversely Affect Whole Body Contact Recreational Activities Such As Swimming

All forty lakes proposed by EPA to be added to the 303(d) list have the designated use of whole body contact or primary recreation. Human health impacts from algae growth include rashes, stomach or liver illness, difficulty breathing, and neurological effects.[4] Excess phosphorus and nitrogen can cause algae growth which can be detrimental to human and aquatic health. MCE members have testified in the federal court nutrients lawsuit that the lakes they use for recreation are "covered in algae," or cloudy with suspended algae, making them reluctant to swim in or otherwise use the lakes for recreation. While Missouri has also chosen not to promulgate nutrient criteria to protect primary recreational uses, EPA's proposed addition of the reservoirs designated for primary recreational use to the 303(d) list is a positive first step toward reducing some of the nutrient loading to these impaired waterbodies.

Excess Nutrient Pollution Can Impact Fishing and Boating

Maintaining productive recreational fishing in Missouri lakes is also important to MCE and its members who use Missouri lakes for these activities. Excess nutrients can harm aquatic life, causing the mix of fish and other creatures to change, and can lead to fish kills. Algal blooms stain boats and damage boat motors, requiring additional maintenance at additional cost. MCE members have testified that the algae in the lakes they use to boat becomes tangled in the boat propellers.[5]

MCE has advocated for more stringent nutrient criteria to fully protect aquatic life so that Missouri's lakes can begin to be restored. The addition of these 40 lakes to the 303(d) list is a positive step toward repairing aquatic life and better boating. MCE supports their addition.

Nutrient Pollution Negatively Affects Protected Conservation Areas.

MCE is additionally concerned about the impact of nutrient pollution on the protected areas that contain 10 of the 40 lakes.[6] These areas are important to MCE because of their

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[4] https://www.epa.gov/nutrientpollution/effects-human-health

[5] Secondarily, studies show the algae blooms that occur in polluted water are unsightly and can negatively affect property values nearby to the lake. See Schleich, J., D. White, and K. Stephenson, Cost implications in achieving alternative water quality targets, *Water Resources Research,* Vol. 32, No. 9, pp. 2879-2884, September 1996; and Michael, Holly J., Kevin J. Boyle, and Roy Bouchard. "Water Quality Affects Property Prices: A Case Study of Selected Maine Lakes." Maine Agricultural and Forest Experiment Station, University of Maine. February 1996; and Donald N. Steinnes, Measuring the Economic Value of Water Quality: The Case of Lakeshore Land, *Annals of Regional Science*, Vol. 26, No. 2, pp. 171-176, June 1992.

[6] Those lakes are: Buffalo Bill Lake, Deer Ridge Community Lake, Harry S. Truman Reservoir, Jackrabbit Lake, Jamesport Community Lake, Jo Shelby (Fountain Grove Lake), Lake of the Ozarks, Limpp Community State Lake, Pony Express Lake, and Shelbyville Lake.

recreational and conservation value. Limpp Community State Lake is one such example, as the land around the lake has been set aside as conservation land in order to protect the lake. This allows various recreational uses of the lake to be protected, by reducing various forms of pollution in the lake, including nutrient pollution. Because nutrient pollution can be harmful to the ecosystem and to people, it is a threat to the lakes' special character – degradation of water quality in the lake strikes at the purpose of the conservation area. As such, MCE believes that these lakes deserve to be protected and included on the impaired waters list. This will ensure that their value to the public will be preserved for the future.

MCE Agrees That MDNR Did Not Use All Data Available in Creating the 303(d) List.

Missouri's use of existing lake data to make decisions about impairment and placement on the 303(d) list has been a concern of MCE throughout the nutrient criteria rule-making process. Missouri's 2020 designation, and its exclusion of 40 lakes from the impaired list, makes concrete MCE's point, especially the state's use of screening criteria and bioconfirmation endpoints.

MCE agrees with EPA's finding that MDNR did not use all of the data available to it in creating its 303(d) list. As specifically noted, MDNR did not use data older than seven years, did not use the entire data set from 2013, and left out other available data. MCE supports EPA's efforts to ensure that Missouri uses all available data when making decisions about impairment. MCE will therefore continue to monitor MDNR and EPA's compliance with the CWA.

Conclusion

In summation, MCE urges EPA to finalize its decision to add the 40 lakes it identified to Missouri's 303(d) list. The factors identified support listing and MCE urges EPA to do so.

Sincerely,

Elizabeth J. Hubertz
Attorney for Missouri Coalition for the Environment

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
CENTRAL DIVISION

MISSOURI COALITION FOR THE ENVIRONMENT FOUNDATION, a non-profit corporation,	)	
Plaintiff,	)	**CIVIL NO. _____**
v.	)	**COMPLAINT**
ANDREW R. WHEELER, in his official capacity as the Administrator of the United States Environmental Protection Agency;	)	
Defendant.	)	

DECLARATION OF STEVE BREWER

1. My name is Steve Brewer, and I reside in St. Louis County, Missouri. I am over the age of 18 and am competent to testify as to the matters set forth herein and would so testify if called upon to do so.

2. I have personal knowledge of all of the matters set forth herein, except statements of my understanding based upon information and belief, which matters I believe to be true.

3. I am a member of the Missouri Coalition for the Environment.

4. I use several lakes in Missouri for activities such as pleasure boating, kayaking, canoeing, and fishing.

5. I am concerned about nutrients pollution in the Lake of the Ozarks.

6. Although I still use Lake of the Ozarks for pleasure boating, I used to also use that lake for water skiing and swimming before the lake became covered with algae.

7. After Truman Reservoir was impounded the sediment in Lake of the Ozarks was reduced. which allowed the excess nutrients in Lake of the Ozarks to develop into an algae bloom. Since that time. I no longer use Lake of the Ozarks for any use that requires bodily contact because I no longer dare come in contact with water from the lake.

8. I also use Creve Coeur Lake for canoeing and kayaking.

9. I am concerned about excess nutrients in Creve Coeur Lake.

10. I believe the water quality of Creve Coeur Lake is too poor due to growth of algae to allow for bodily contact. I will not even put a foot in Creve Coeur Lake.

11. I intend to continue participating in activities like those described above for the foreseeable future on my property and on lakes throughout Missouri.

12. Pursuant to 28 U.S.C. § 1746. I declare under penalty of perjury that the foregoing is true and correct.

Executed on Oct 13. 2019. in St Louis County. Missouri.

Steve Brewer

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
CENTRAL DIVISION

MISSOURI COALITION FOR THE ENVIRONMENT FOUNDATION, a non-profit corporation,	)	**CIVIL NO. _____**
Plaintiff,	)	
v.	)	**COMPLAINT**
ANDREW R. WHEELER, in his official capacity as the Administrator of the United States Environmental Protection Agency;	)	
Defendant.	)	

DECLARATION OF JOE PITTS

1. My name is Joe Pitts, and I reside in Christian County, Missouri. I am over the age of 18 and am competent to testify as to the matters set forth herein and would so testify if called upon to do so.

2. I have personal knowledge of all of the matters set forth herein, except statements of my understanding based upon information and belief, which matters I believe to be true.

3. I am a member of the Missouri Coalition for the Environment.

4. I use several lakes in Missouri, including Lake Springfield, for activities such as kayaking and fishing.

5. I am concerned about nutrients pollution in Lake Springfield.

6. I have made use of Lake Springfield since about 1965 and over time have witnessed the lake change from having relatively clear water to having cloudy water that is full of suspended algae most of the time.

7. I rarely go kayaking on Lake Springfield during the middle of summer because the water stinks. It has a putrid smell like decaying vegetation.

8. I used to eat fish I caught from Lake Springfield, but I no longer eat the fish I catch from that lake because of my concerns about the water quality.

9. I believe there is a lack of concern on the part of the regulatory community regarding nutrients pollution.

10. I intend to continue participating in activities like those described above for the foreseeable future on my property and on lakes throughout Missouri.

11. Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on _November 8, 2019, in _Christian County, Missouri.

Joe Pitts

Joe Pitts

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
CENTRAL DIVISION

MISSOURI COALITION FOR THE ENVIRONMENT FOUNDATION, a non-profit corporation,	)	**CIVIL NO. _____**
Plaintiff,	)	
v.	)	**COMPLAINT**
ANDREW R. WHEELER, in his official capacity as the Administrator of the United States Environmental Protection Agency;	)	
Defendant.	)	

DECLARATION OF VINCENT COLLETTI

1. My name is Vincent Colletti, and I reside in Franklin County, Missouri. I am over the age of 18 and am competent to testify as to the matters set forth herein and would so testify if called upon to do so.

2. I have personal knowledge of all of the matters set forth herein, except statements of my understanding based upon information and belief, which matters I believe to be true.

3. I am a member of the Missouri Coalition for the Environment.

4. I own property in Gasconade County, Missouri, which is located on Peaceful Valley Lake.

6. I use Peaceful Valley Lake for fishing, swimming, and boating.

7. I am concerned about changes in the water quality of Peaceful Valley Lake.

8. I have observed a significant increase in algae growth in Peaceful Valley Lake.

9. In particular, there is a shallow area of the lake that I had previously been able to use for fishing, swimming, and boating. However, the algae growth has become so severe that it wraps around boat propellers such that it can no longer be used for boating. The water quality in this part of the lake is so poor that it is also no longer usable for swimming or fishing.

10. I intend to continue participating in activities like those described above for the foreseeable future on my property and on lakes throughout Missouri.

11. Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on NOV 6, 2019, in Jasper County, Missouri.

Vincent G. Colletti

Vincent Colletti

Comment 50. Missouri Congressional Delegation, House of Representatives, Congress of the United States

White, Debby

From: Wood, Jordan <Jordan.Wood@mail.house.gov>
Sent: Monday, March 22, 2021 5:46 PM
To: R7-WaterDivision
Cc: Esser, Carley; Schmidtlein, Meghan
Subject: EPA - Missouri 2020 303(d) List Decision
Attachments: EPA Missouri 2020 303(d) List Decision.pdf

Good evening,
Attached you will find comments pertaining to the Nov. 30, 2020 EPA decision on Missouri's 2020 303(d) List on from members of the Missouri Congressional delegation.
If you need any additional information or have any questions, please do not hesitate to contact me.
Best,

Jordan Wood | Legislative Assistant
Congressman Blaine Luetkemeyer (MO-3)
2230 RHOB | (202) 225-2956

Comment 50.
Attachment

Congress of the United States
House of Representatives
Washington, DC 20515

March 22, 2021

Mr. Edward H. Chu
Acting Regional Administrator
U.S. Environmental Protection Agency Region 7
11201 Renner Boulevard
Lenexa, Kansas 66219

Dear Regional Administrator Jim Gulliford –

Thank you for your efforts in protecting the environmental interests for communities in the State of Missouri. We appreciate the opportunity to comment on the Environmental Protection Agency's (EPA) proposed addition of 40 lakes to Missouri's 2020 List of Impaired Waters under Clean Water Act (CWA) Section 303(d) and are grateful the EPA extended the public comment period an additional 45 days.

We request that EPA reconsider its listing recommendation on some of the lakes in Missouri where incomplete and inconsistent data was utilized. The Missouri Department of Natural Resources (DNR) and Missouri Clean Water Commission (Commission) are committed to working with the EPA to ensure the EPA and public have the most relevant data available. However, more time is needed to gather new data and evaluate existing data before prematurely listing some of the lakes.

On April 2, 2020, the Missouri Clean Water Commission (Commission) approved Missouri's 2020 303(d) List, which contained 46 lakes that do not meet Missouri's new numeric-nutrient criteria for chlorophyll-a. In proposing these lakes to the Commission for listing, the Missouri Department of Natural Resources relied upon the Listing Methodology Document (LMD) approved by the Missouri Clean Water Commission, the Missouri Nutrient Criteria Implementation Plan (NCIP) approved by EPA, and the data available within the review timeframe the Department established in order to meet EPA's requirements for submittal of the list.

There are several concerns surrounding the EPA's decision to list the lakes we would like to bring to your attention.

1. **The EPA's listing of the Lake of the Ozarks relies on unverified data.** We request the EPA re-assign the Lake of the Ozarks to Category 3B since the EPA's proposing listing was based on insufficient fish-kill data that was not verified by the Department of Natural Resources or the Missouri Department of Conservation (MDC).

2. **Some of the EPA's proposed listings are based on data that have a low probability of being representative of current conditions; listing decisions for these lakes should be varied to allow additional data collection.** Older data may not represent the current water quality of individual lakes since they can vary widely. We request the EPA categorize waters lacking recent water quality data as category 2B or 3B to avoid any consequences resulting from errors associated with old data.

3. **Some data EPA used to justify some additional lake classifications was not available to DNR at the time of DNR's assessment.** This included data published not only after DNR completed its assessments, but also after public notice and the Missouri Clean Water Commission's approval the 2020 303(d) List on April 2, 2020. In summation, all data published after the approved and legal listing processed followed by DNR for the 2020 303(d) List should be excluded from EPA's decision. All data in question will be incorporated into DNR's next regularly scheduled assessment.

4. **EPA notes multiple points of impairment, inconsistent with their own criteria.** EPA's criteria specifies that the point of compliance when it pertains to sampling certain lakes is intended to be near the dam or outflow of the lake. However, EPA cited multiple sample points that were not near dams or outflows, in contrast to their own criteria. Therefore, DNR is requesting that the numeric criteria should not be applied to any other sample point when determining whether to list these addition lakes to the 2020 303(d) List.

5. **The assessment of Lake of the Ozarks is complex and needs additional review.** We request the EPA categorize Lake of the Ozarks as 3B to allow the Department to analyze new information that would facilitate additional refinement of the LMD and determine the appropriate water-quality endpoint for the lake or portions of the lake. Additionally, the Missouri Department of Natural Resources is currently reevaluating the assignment of the Lake of the Ozarks to the Ozark Highlands Ecoregion and conducting additional analysis of regarding the nutrient loading in that water body. Lake of the Ozarks is most appropriately categorized as 3B while these evaluations take place.

The listing of these additional water bodies should not be taken lightly and necessitates thorough and analytical consideration as it would have significant impacts on families, landowners, small businesses, and the State and region's economy. We appreciate the EPA working with our state agencies and stakeholders to ensure our bodies of water are in compliance with the 303(d) listing process with the most relevant data available. We appreciate your careful consideration of our recommendations as you finalize your approval of Missouri's 303(d) list.

Sincerely,

Blaine Luetkemeyer
Member of Congress

Vicky Hartzler
Member of Congress

Roy Blunt
United States Senator

Josh Hawley
United States Senator

Jason Smith
Member of Congress

Ann Wagner
Member of Congress

Billy Long
Member of Congress

Sam Graves
Member of Congress

Comment 51. Missouri Department of Natural Resources

White, Debby

From: Wieberg, Chris <chris.wieberg@dnr.mo.gov>
Sent: Tuesday, March 16, 2021 12:41 PM
To: R7-WaterDivision
Cc: Yancy, Holly; Welschmeyer, Krista; Alexander, Jennifer; Uptegrove, Ashley; john.hoke@dnr.mo.gov; robert.voss; Robichaud, Jeffery; Galbraith, Ed
Subject: Missouri DNR comments on EPA decision to add waters to the Missouri's 2020 303d list
Attachments: DNR Comment Letter to EPA - PN MO 2020 303d Decision 2021_0227 FINAL 3-2021.pdf

To whom it may concern, Attached are the Missouri DNR comments regarding the EPA decision to add waters to the Missouri 2020 303d list. Please let me know if you have any questions

Thanks,

Chris Wieberg
Director
Water Protection Program
573-522-9912

Comment 51. Attachment

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Michael L. Parson, Governor
Carol S. Comer, Director

March 16, 2021

Jeff Robichaud, Director
Water, Wetlands, and Pesticides Division
U.S. Environmental Protection Agency, Region 7
11201 Renner Boulevard
Lenexa, KS 66219

RE: Comments on EPA Decision to Add Waters to Missouri's 2020 303(d) List

Dear Jeff Robichaud:

The Missouri Department of Natural Resources appreciates the opportunity to comment on the U.S. Environmental Protection Agency's (EPA) proposed addition of 40 lakes to Missouri's 2020 303(d) List of Impaired Waters (the 303(d) List). The Department also appreciates EPA extending the public comment period an additional 45 days.

On April 2, 2020, the Missouri Clean Water Commission (Commission)[1] approved Missouri's 2020 303(d) List, which contained 46 lakes that do not meet Missouri's new numeric-nutrient criteria for chlorophyll-a. In proposing these lakes to the Commission for listing, the Department relied upon the Listing Methodology Document (LMD) approved by the Commission, the Missouri Nutrient Criteria Implementation Plan (NCIP) approved by EPA, and the data available within the review timeframe the Department established in order to meet EPA's deadline for submittal of the List.

The Department requests that EPA reconsider its listing recommendation on some of the lakes where listing would be premature. The consequences of listing are serious, and therefore impairment determinations require a level of confidence we have not yet reached for these lakes. Missouri's EPA-approved regulatory structure is designed to provide adequate opportunity to gather and evaluate data before making an impairment determination. We ask that EPA acknowledge that more time is needed to gather new data, evaluate existing data, or both, in order to avoid incorrect listing decisions and potentially unwarranted consequences. The Department offers the following comments in support of this recommendation.

1. **EPA's listing of the Lake of the Ozarks relied on unverified data**.

The Department requests that EPA re-assign Lake of the Ozarks to Category 3B. EPA's proposed listing decision was based on fish-kill data that were not verified by the Department of

[1] The Missouri Clean Water Law grants authority to the Commission to promulgate, rescind, or modify regulations, including those related to adopting the LMD, and to approve Missouri's 303(d) List. See § 644.026, RSMo.

Natural Resources or the Missouri Department of Conservation (MDC). Those data are not of sufficient quality to support a listing determination.

The Department met with MDC fishery biologists on January 11, 2021, to confirm our understanding of MDC's process for documenting fish kills. MDC staff record in their database the various reports they receive regarding fish kills, but they do not verify all the reports. Some events are reported by the public with the details supplied by the person reporting the event. If MDC staff are available, they verify the event and record other details. If MDC staff are not available, the event is recorded but not verified and lacks the information needed to determine the cause of the fish kill. This type of event is equivalent to data of unknown quality or assurance.

Consistent with the LMD and NCIP, data of unknown quality or assurance are not appropriate bases for listing waters as impaired. Unverified fish kills are not suitable for assessment purposes because of the lack of quality assurance and documentation of potential causal indicators. The LMP requires both of these items in order to be confident in the assessment. Likewise, the NCIP references MDC investigations of fish kills that have documentation (i.e., "a summary report of the species, size, and number of fish and other aquatic organisms killed") as a usable source of information for this response assessment endpoint.

The June 2018 fish kill EPA relied on was not verified by MDC staff and does not have any corroborating measurements of dissolved oxygen, temperature, pH, nutrients, or other factors which would point to eutrophication as the cause of the fish kill. It is not clear by the report whether nutrient-related eutrophication caused the fish kill, and aspects of the report do not meet the characteristics of eutrophication outlined in the NCIP. Department staff have consulted with MDC staff and confirmed that MDC's measurements of high temperature and low dissolved oxygen coinciding with the event were recorded at Lake Niangua, not Lake of the Ozarks. Lake Niangua is a much smaller and shallower lake that is not representative of conditions at Lake of the Ozarks. Therefore, this fish-kill report does not meet minimum data-quality requirements for consideration in an impairment determination.

The June 2018 fish-kill report should not be relied upon as evidence of impairment through Response Assessment Endpoint A. Accordingly, Category 3B is the appropriate category for Lake of the Ozarks.

2. **Some of EPA's proposed additional listings are based on data that have a low probability of being representative of current conditions; listing decisions for these lakes should be deferred to allow additional data collection**.

It is well-documented that water quality in individual lakes can be widely variable and older data may not represent current conditions. To avoid erroneous or arbitrary listings based on data that no longer reflect the conditions of the water body, the LMD established a methodology for

evaluating and utilizing older data. Waters without recent evidence of impairment are categorized as "suspect," and then the Department collects additional data to support or refute an impairment determination on a future 303(d) list. This approach aligns with the Department's rationale regarding the age of data that specifies its commitment to collect current data for a number of lakes (see attached document "Rationale for Implementing Data Age LMD Requirements," which was included in the 2020 Integrated Report submitted to EPA).

EPA is proposing to list fourteen lakes that lack recent data regarding whether the water is currently impaired. The Department requests that EPA categorize these lakes, which lack any water-quality data from the past seven years, as Category 2B or 3B. Please see Appendix 1 for a listing of these lakes. The Department has directed the University of Missouri to sample these lakes, pursuant to the existing cooperative agreement between the Department and the University. The University has collected data on five of the lakes already and will sample the remainder during the coming seasons. Future cooperative agreements will continue to target lakes where the use attainment is inconclusive, focusing on those lacking current data.

Information on the status of sampling efforts for these lakes can be found in Appendix 2. As EPA is aware, Missouri's 2020 303(d) List is the first listing cycle incorporating the newly implemented lake numeric-nutrient criteria. Water-quality monitoring takes time to plan, prioritize, and conduct, and the Department uses each assessment cycle to reprioritize data collection needs. The Commission and Department are committed to prioritizing data collection on lakes that are suspected of impairment to ensure the right listing decision is made timely.

3. Missouri's approach for older data is consistent with the relevant case law.

EPA has expressed concern regarding whether the Commission's approach regarding data age is consistent with opinions from the U.S. Court of Appeals for the Eighth Circuit and the U.S. District Court for the District of Columbia relating to data age and listing. It is.

Thomas v. Jackson, 581 F.3d 658 (8th Cir. 2009), is distinguishable from the situation here. In *Thomas*, Iowa's Credible Data Law created a presumption that all data older than five years is not credible for purposes of developing a 303(d) list. Although in that lawsuit EPA conceded plaintiffs' argument that the Credible Data Law was inconsistent with the Clean Water Act, the court did not decide that issue. In addition, Missouri's LMD differs from Iowa's approach in important respects. Iowa was automatically discrediting all data older than five years; Missouri does not ignore data based on an age cutoff. Pursuant to the LMD, the Department can and did rely on data older than seven years in developing the 303(d) List, and considered that data in relation to newer data or the absence of newer data. For water bodies where the *only* data indicating potential impairment are older than seven years, the Department defers its impairment determination to allow the timely collection and evaluation of additional data that are more likely to be representative of current conditions in the water body. Rather than ignoring the older data,

the Department utilizes the data age to propel additional evaluation that is essential to a fully-informed impairment determination.

As referenced in the *Potomac Riverkeeper* case discussed below, an agency may decide "to not use" data, as long as it has "assembled and evaluated" the data and articulated a "rationale" for its decision. See 40 CFR § 130.7(b)(6)(iii). In preparing the 303(d) List, the Department applied the approach described in the preceding paragraph to evaluate the data for each water body. As required by 40 CFR § 130.7(b)(6)(iii), the Department provided in its 2020 Integrated Report submittal its rationale, "Rationale for Implementing Data Age LMD Requirements" (enclosed), for gathering additional data before making an impairment determination on each of the water bodies for which the only data indicating potential impairment were older than seven years. EPA's November 30, 2020, decision letter confirms EPA was provided and reviewed that rationale as part of Missouri's 303(d) List submission.

Potomac Riverkeeper, Inc. v. Wheeler, 381 F. Supp. 3d 1 (D.D.C. 2019) pertains to a state's decision to not list a water due to uncertainty about whether the data collected is representative of the conditions of the water body. In this case, EPA gave the state deference and time to collect additional data—four cycles, to be exact. Ultimately, it was the state's lack of responsiveness in collecting the additional data that resulted in the ruling in EPA's favor. The uncertainty in the data at the outset was not the issue. The Department has demonstrated its commitment to collecting additional data to reach timely impairment determinations. The Department historically has been responsive to requests to collect additional data and, as noted above, has already taken concrete actions to collect additional data on the lakes that do not have data representing current conditions.

4. **Some of EPA's proposed listings prematurely incorporated data that was not available to the Department at the time its review**.

EPA has applied data that were not available to the Department at the time of assessment, were not appropriate to apply, or both. That data is more appropriately provided to the Department for consideration in the next 303(d) evaluation cycle, or at the very least provided to the Department during EPA's review period so the Department can attempt to address it before EPA reaches a decision based on it.

Over the past two decades, the Department has consistently produced timely 305(b) Reports and 303(d) Lists that meet EPA's biennial deadlines. The Department undergoes an extensive data solicitation effort to assemble and evaluate "all existing and readily available water quality-related data and information" pursuant to 40 CFR § 130.7(b). Nevertheless, the Department was unaware of some of the eutrophication data EPA considered in its recommendation. As noted above in the case of Lake of the Ozarks, some of these data may not meet the minimum sufficiency required by the LMD and we are unable to determine whether EPA has fully addressed this concern. Accordingly, EPA should re-categorize these waters as 3B to allow the

Department sufficient time to review and quality assure this new information. A list of these lakes, and the rationale for listing as 3B, can be found in Appendix 1.

The Department tracks fish kills reported by MDC and related to potential violations of the Department's environmental requirements; these reports contain agency-verified information and measurements. After the Commission approved the 2020 303(d) List, the Department became aware that EPA was relying on additional MDC fish-kill reports not tracked by the Department for enforcement purposes. Department staff have not yet had the chance to fully investigate these events for relevancy and verification, but will do so for the next assessment cycle. As noted above in our assessment of data on Lake of the Ozarks, however, our review of these data has revealed barriers to their use for assessment purposes.

Three of the fish kills EPA cites (occurring in 2014 and 2015) on Truman Reservoir were not actually fish kills, but reported algal blooms. MDC's database also captures some algal bloom events. While this information is concerning, it was not accompanied with dissolved oxygen, pH, or algal toxin measurements. Algal blooms themselves are not one of the Response Assessment Endpoints and, therefore, EPA should not use these events in their decision on Truman Reservoir.

5. **EPA applied multiple compliance points, inconsistent with Missouri's EPA-approved rules.**

In Appendix C of EPA's decision letter, EPA comments on three lakes (Harry S. Truman, Lake of the Ozarks, and Unionville Reservoir) for which criteria were exceeded at sample points other than near the dam. Missouri's EPA-approved rules specify that the compliance point is near the dam or outflow of the lake. The numeric criteria should not be applied to any other sample point.

6. **The assessment of Lake of the Ozarks is complex and needs additional review**.

The Department requests EPA categorize Lake of the Ozarks as 3B to allow the Department to analyze new information that would facilitate additional refinement of the LMD and determine the appropriate water-quality endpoint for the lake or portions of the lake. Placing Lake of the Ozarks in Category 3B will provide EPA and the Department additional opportunity to collect more data and resolve recently identified issues with the current assessment.

Information increasingly indicates that flow and nutrient loading from Truman Reservoir are driving nutrient loading in Lake of the Ozarks. Based on current conditions, the Department estimates 71 percent of total nitrogen loading and 63 percent of total phosphorous loading to Lake of the Ozarks come from Truman Reservoir. The hydrology and chemistry of these lakes are intimately linked and the dynamics of nutrient loading merit closer examination during assessment. Loading to Lake of the Ozarks from Ozark Highland tributaries is less of a factor to water quality than releases from Truman Reservoir.

Enclosed is the Department's current evaluation of nutrient loading for the paired Truman Reservoir and Lake of the Ozarks system (Lake of the Ozarks Watershed and Nutrient Loading Analysis). This analysis indicates that assigning Ozark Highlands criteria for the entire Lake of the Ozarks may not be warranted because the majority of the Lake of the Ozarks watershed (including the watershed of Truman Reservoir) is located in the Plains Ecoregion. Initially, the Department applied simplified geographic, rather than hydrologic, assumptions on the appropriate watershed to use when assessing Lake of the Ozarks. This recent analysis indicates that methodology does not reflect the hydrologic and chemical reality of the system.

Accordingly, the Department is reevaluating the assignment of the Lake of the Ozarks to the Ozark Highlands Ecoregion and conducting additional analysis regarding nutrient loading in that water body. Lake of the Ozarks is most appropriately categorized as 3B while these evaluations take place.

Thank you again for the opportunity to comment on this important matter. Through the 303(d) listing process the Department is committed to designating all of Missouri lakes that are impaired, and none of our lakes that are not. We appreciate your careful consideration of our recommendations as you finalize your approval of Missouri's 303(d) list.

Sincerely,

Carol S. Comer
Director

Enclosures

c: Missouri Clean Water Commission
Chris Wieberg, Director, Water Protection Program

Appendix 1. Lakes with Data Age and Fish Kill Issues to Include in Category 3B

WBID	Lake Name	Size	County	Ecoregion	Category
7120	Cameron #1 (Century) Lake	25	Dekalb	Plains	Data Age
7383	Gopher Lake	38	Jackson	Plains	Data Age
7644	Happy Holler lake	68	Andrew	Plains	Data Age
7207	Harry S. Truman Lake	55600	Benton	Plains	Fish Kills
7288	Indian Hills Lake	279	Crawford	Ozark Highland	Data Age
7391	Jackrabbit lake	28	Jackson	Plains	Fish Kills
7105	Jamesport Community Lake	27	Daviess	Plains	Data Age
7403	Lake Nell	26	Jackson	Plains	Data Age
7205	Lake of the Ozarks	59520	Camden	Ozark Highland	Fish Kills
7212	Lake Winnebago	272	Cass	Plains	Data Age
7168	Macon lake	189	Macon	Plains	Data Age
7208	Montrose Lake	1444	Henry	Plains	Data Age
7241	Peaceful Valley Lake	158	Gasconade	Ozark Highland	Data Age
7630	Prairie lake	22	St. Charles	Plains	Data Age
7149	Sterling Price Community Lake	23	Chariton	Plains	Data Age
7173	Thomas Hill Reservoir	4400	Randolph	Plains	Data Age
7154	Unionville Reservoir (Lake Mahoney)	74	Putnam	Plains	Data Age

Appendix 2. Sampling Schedule for Lakes Identified During Assessments as Needing More Data

WBID	Water body Name	Sampled	Planned Sampling
7029	Hunnewell Lake	2019, 2020	2021-2024
7036	Shelbyville Lake	--	2021-2024
7105	Jamesport Community Lake	--	2021-2024
7112	King Lake	2020	2021-2024
7120	Cameron Lake #1	2020	2021-2024
7121	Cameron Lake #2	2020	2021-2024
7149	Sterling Price Community Lake	--	2021-2024
7173	Thomas Hill Reservoir	--	2021-2024
7208	Montrose Lake	--	2021-2024
7241	Peaceful Valley Lake	2020 - 3 samples	2021-2024
7288	Indian Lake	2020	2021-2024
7391	Jackrabbit Lake	2020	2021-2024
7015	Deer Ridge Community Lake	2019, 2020	2021-2024
7018	Lancaster City Lake - New	--	2021-2024
7061	Savannah City Reservoir	--	2021-2024
7104	Jamesport City Lake	--	2021-2024
7110	Worth County Community Lake	--	2021-2024
7111	Limpp Community State Lake	--	2021-2024
7113	King City Old Reservoir	--	2021-2024
7114	King City New Reservoir	--	2021-2024
7118	Pony Express Lake	--	2021-2024
7119	Cameron Lake #3	2020	2021-2024

WBID	Water body Name	Sampled	Planned Sampling
7143	Linneus Lake	--	2021-2024
7147	Fountain Grove Lakes	--	2021-2024
7154	Unionville Reservoir	2020	2021-2024
7159	Bucklin Lake	--	2021-2024
7160	Marceline Reservoir	--	2021-2024
7183	Peters Lake	--	2021-2024
7186	Ben Branch Lake	2020	2021-2024
7207	HS Truman Lake	2020	2021-2024
7212	Lake Winnebago	--	2021-2024
7230	Drexel City Reservoir South	2020	2021-2024
7234	Atkinson Lake	2020	2021-2024
7304	Timberline Lakes	2019	2021-2024
7333	Shepard Mountain Lake	2020	2021-2024
7378	Coot Lake	--	2021-2024
7379	Cottontail Lake	2020	2021-2024
7383	Gopher Lake	--	2021-2024
7403	Lake Nell	2020	2021-2024
7025	Edina Lake	--	2021-2024
7124	Hamilton Lake	--	2021-2024
7153	Lake Thunderhead	--	2021-2024
7365	Belcher Branch Lake	--	2021-2024

MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Lake of the Ozarks Watershed and Nutrient Loading Cursory Analysis

Water Protection Program

Watershed Protection Section

1/7/2021

Background

Lake of the Ozarks (LOTO) is a man-made reservoir and an impoundment of the Osage River, Grand Glaize Creek, Gravois Creek, Niangua River, as well as many other smaller streams. Bagnell Dam (the dam of LOTO) impounds the Osage River for more than 90 miles up the Osage River to the dam of Harry S. Truman Reservoir (Truman) and has a surface area of approximately 59,520 acres and a an immediate watershed area of approximately 2,413 square miles. The immediate watershed of LOTO is comprised of approximately 78 percent forested land, 12 percent pastureland, 9 percent urban land cover, and 1 percent or less of cropland. The immediate watershed of LOTO is located in the Ozark Highlands lake ecoregion.

Truman Reservoir is also a man-made reservoir and an impoundment of the Osage River, South Grand River, Pomme de Terre River, Tebo Creek, as well as many other smaller streams. Truman Reservoir has a surface area of approximately 55,600 acres and a watershed area of approximately 11,535 square miles. The immediate watershed of Truman Reservoir is comprised of approximately 42 percent forested land, 33 percent pastureland, 20 percent cropland, and 5 percent urban land cover. The immediate watershed of Truman Reservoir is located in the Plains lake ecoregion.

The appropriateness of assigning LOTO criteria based on the Ozark Highlands criteria have been raised due to the size and makeup of the Truman Reservoir watershed and the fact that Truman Reservoir has a hydrologic and chemical connection to LOTO.

Department staff performed a preliminary analysis of the hydrology and nutrient loading of LOTO with the intent to calculate overall flow and nutrient loading to the reservoir. Department staff used the following resources for flow or water quality data in the analysis.

1. USGS 06926000 Osage River near Bagnell, MO (1925-2020)
2. USGS 06924000 Niangua River near Decaturville, MO (1930-1969)
3. USGS 06923950 Niangua River at Tunnel Dam near Macks Creek, MO (1995-2021)
4. USGS 06923700 Niangua River at Bennett Spring, MO (1982-2020)
5. USACE Truman Dam Outflow - Includes hydropower and floodgate releases (12/19/2015 – 12/19/2020 pulled latest five years on 12/19/2020)
6. USGS StreamStats
7. Jones, J.R., A. Argerich, D.V. Obrecht, A.P. Thorpe, and R.L. North. 2020. Missouri Lakes and Reservoirs Long-term Limnological Dataset ver 1. Environmental Data Initiative. https://doi.org/10.6073/pasta/86d8d176e91410566b4de51df44c2624
8. USACE Water Quality Data

Analysis consisted of gathering or estimating the hydrology and nutrient concentrations of both reservoirs and their tributaries, calculating loading from different sources, and then comparing the proportional contributions of each of the general inputs to LOTO. Staff then identified any correlations between discharge from Truman Reservoir and attainment of lake numeric nutrient criteria near Bagnell Dam.

Hydrology

Department staff used the online USGS application "StreamStats" to delineate tributary watersheds around LOTO. Staff retrieved annual average flows from USGS's National Water Information System (NWIS) for both gages on the lower Niangua (06924000 and 06923950), then averaged the yearly values to create an average yearly discharge for the Niangua River Staff then delineated the Niangua watershed both from the point of gage 06923950 and the point on the arm of LOTO closest to the main channel for which StreamStats would perform a delineation. StreamStats can be used to calculate several low flow statistics including: 1 Day 10 Year Low Flow, 2 Day 10 Year Low Flow, 3 Day 10 Year Low Flow, 7 Day 10 Year Low Flow, 10 Day 10 Year Low Flow, 30 Day 10 Year Low Flow, and 60 Day 10 Year Low Flow. Staff used the low flow statistics from the delineated watershed of gage 06923950 to create a ratio between the StreamStats low flow statistics and the average annual flow from gage 06923950. Staff then used this ratio to estimate flow from delineated watersheds around LOTO, excluding H.S. Truman Dam (Truman). Staff then used StreamStats to delineate individual watersheds surrounding LOTO by choosing a point on each arm or cove of LOTO closest to the main channel for which StreamStats would perform a delineation. Staff attempted to capture as large of an area as possible using StreamStats, but in some areas, StreamStats could not delineate the larger watershed. In these cases, staff delineated the smaller watersheds that compose the larger watershed.

For each watershed delineation, StreamStats provided the low flow statistics mentioned previously. In some cases, StreamStats did not have a value for the Streamflow Variability Index from Grid. StreamStats needs this variable to compute the low flow statistics. Where this value was missing, staff used a value from a nearby previously delineated watershed for which StreamStats provided a value. Staff then multiplied the low flow statistics by the Niangua River ratio to estimate average flow for the watershed. Staff categorized and summed estimated flows as follows: Niangua River Arm (includes Linn Creek watershed), Gravois Arm, Grand Glaize Arm, and Tributaries below Truman Dam and up-reservoir of the Niangua Arm.

Nutrient Concentrations

Department staff utilized data from the Jones et. al. dataset to calculate yearly geometric means for locations throughout LOTO. Department staff utilized data from USACE and the Jones et.al. dataset to calculate yearly geometric means within Truman Reservoir near the dam. Department staff averaged the yearly geometric means to represent average long-term concentrations flowing into LOTO. Department staff paired sample data with the discharge estimation locations where possible.

Truman Dam: For the nutrient contribution from Truman Dam, Department staff used geometric mean concentrations from samples collected from near the surface and near Truman Dam. These concentrations represent overflow through the tainter gates. For hydropower generation, the release of water comes from the hypolimnion. Hypolimnetic water nutrient concentrations in reservoirs can be similar to or slightly elevated when compared to epilimnion concentrations

when the reservoir is not stratified (typically fall through the following spring). When reservoirs stratify, nutrient concentrations are much different, typically increasing with depth below the thermocline. The difference between surface and hypolimnion nutrient concentrations varies among reservoirs, anywhere from two or more times the epilimnion concentration. Due to the mixed nature of release from Truman Dam, department staff conservatively used the surface concentrations to estimate loading from Truman.

Tributaries between Truman Dam and the Niangua Arm: Department staff did not have reliable instream nutrient concentrations for any of the tributaries in this portion of LOTO. Surface samples from the lake are available from the Jones et. al. dataset. These samples were collected from mile markers (approximate locations) 39, 45, 51, and 60 of the Osage Arm or main channel of LOTO. Department staff used surface water concentrations from these LOTO locations as the input load from the tributaries in this portion of LOTO.

Niangua and Linn Creek Arms: USGS nutrient data is available for the Niangua River near Bennett Spring, but that location is far upstream of LOTO as well as upstream of Lake Niangua. Additionally, the USGS data does not encompass the Little Niangua arm of LOTO. Department staff used surface water sample concentrations collected within the Niangua Arm of LOTO to estimate input loads from the Niangua Arm.

Grand Glaize Arm: In-stream nutrient concentration data is not available upstream of the Grand Glaize Arm of LOTO. Department staff used surface water sample concentrations collected within the Grand Glaize Arm of LOTO to estimate input loads from the Grand Glaize Arm.

Gravois Arm: In-stream nutrient concentration data is not available upstream of the Gravois Arm of LOTO. Department staff used surface water sample concentrations collected within the Gravois Arm of LOTO to estimate input loads from the Gravois Arm.

NPDES Loading: Department staff utilized GIS layers for NPDES permitted facilities to select domestic sanitary wastewater treatment facilities within the immediate watershed of LOTO. Department staff then summed the actual flows for these facilities as reported in the GIS layer. Department staff used total nitrogen concentrations of 30 mg/l and total phosphorus concentrations of 5 mg/l based on best professional judgment and erring on the side of higher loading contributions. Actual NPDES loading may be lower.

Loading Calculations

Department staff used the nutrient concentrations obtained above to calculate annual loads to LOTO by multiplying stream or facility discharge by concentration, then converting to tons per year. Table 1 below depicts the current average conditions. Department staff then created additional scenarios to predict how loading to LOTO may change if the different inputs were meeting the nutrient screening thresholds for certain ecoregions. Staff also computed these tables for an analysis aimed at protecting the downstream use.

Table 1.

Current Average Conditions

Site	Average Discharge (CFS)	Geomean Chl-a (ug/l)	Geomean TN (ug/l)	Geomean TP (ug/l)	TN Load (ton/year)	%	TP Load (ton/year)	%
Truman Dam	10,181.0	20.43	781.50	41.60	7,851	71.5%	418	63.4%
Niangua and Linn Creek Arms*	1,394.0	22.03	527.00	43.00	725	6.6%	59	9.0%
Tribs Between Truman and Niangua Arm*	1,343.0	21.11	725.75	61.00	962	8.8%	81	12.3%
Grand Glaize Arm*	1,412.0	15.24	542.00	27.00	755	6.9%	38	5.7%
Gravois Arm*	835.0	12.55	525.00	24.00	433	3.9%	20	3.0%
LOTO NPDES Facilities (n = 462) - Actual Flow	8.8		*30,000.00*	*5,000.00*	261	2.4%	43	6.6%
Total	**15,173.8**				**10,986**	**100%**	**659**	**100%**
Bagnell Dam Outflow - Osage	10,471.6	12.1	532.0	25.0	5,497	50.0%	258	39.2%

** Estimated average flow; Estimated high nutrient concentrations for NPDES outfalls. Discharge from Truman is a seven year average from USACE (2014-2020). NPDES discharge summed from NPDES permits. Bagnell Dam percentages are the proportional load flowing out vs. into LOTO.*

Table 2.

Scenario 1 - Assume Nutrient Screening Thresholds from Truman Reservoir

Site	Average Discharge (CFS)	Geomean Chl-a (ug/l)	Geomean TN (ug/l)	Geomean TP (ug/l)	TN Load (ton/year)	%	TP Load (ton/year)	%
Truman Dam	10,181.0	18.00	843.00	49.00	8,469	73.0%	492	67.2%
Niangua and Linn Creek Arms*	1,394.0	22.03	527.00	43.00	725	6.2%	59	8.1%
Tribs Between Truman and Niangua Arm*	1,343.0	21.11	725.75	61.00	962	8.3%	81	11.0%
Grand Glaize Arm*	1,412.0	15.24	542.00	27.00	755	6.5%	38	5.1%
Gravois Arm*	835.0	12.55	525.00	24.00	433	3.7%	20	2.7%
LOTO NPDES Facilities (n = 462) - Actual Flow	8.8		*30,000.00*	*5,000.00*	261	2.2%	43	5.9%
Total	**15,173.8**				**11,604**	**100%**	**733**	**100%**
Bagnell Dam Outflow - Osage River	10,471.6	12.1	532.0	25.0	5,497	47.4%	258	35.2%

Highlighted cells - Plains ecoregion nutrient screening thresholds used to calculate loading from Truman Reservoir.
**Estimated average flow.*

Table 3.

Scenario 2 - Assume Nutrient Screening Thresholds at all inputs to LOTO

Site	Average Discharge (CFS)	Geomean Chl-a (ug/l)	Geomean TN (ug/l)	Geomean TP (ug/l)	TN Load (ton/year)	%	TP Load (ton/year)	%
Truman Dam	10,181.0	18.00	843.00	49.00	8,469	79.1%	492	80.1%
Niangua and Linn Creek Arms*	1,394.0	6.00	401.00	16.00	552	5.2%	22	3.6%
Tribs Between Truman and Niangua Arm*	1,343.0	6.00	401.00	16.00	531	5.0%	21	3.5%
Grand Glaize Arm*	1,412.0	6.00	401.00	16.00	559	5.2%	22	3.6%
Gravois Arm*	835.0	6.00	401.00	16.00	330	3.1%	13	2.1%
LOTO NPDES Facilities (n = 462) - Actual Flow	8.8		*30,000.00*	*5,000.00*	261	2.4%	43	7.1%
Total	**15,173.8**				**10,702**	**100%**	**614**	**100%**
Bagnell Dam Outflow - Osage River	10,471.6	12.1	532.0	25.0	5,497	51.4%	258	42.0%

*Highlighted cells - Plains ecoregion nutrient screening thresholds used to calculate loading from Truman Reservoir; Ozark Highlands ecoregional nutrient screening thresholds used to calculate loading from LOTO arms. * Estimated average flow.*

Table 4.

Scenario 3 - Assume Ozark Border Nutrient Screening Thresholds from Truman Reservoir

Site	Average Discharge (CFS)	Geomean Chl-a (ug/l)	Geomean TN (ug/l)	Geomean TP (ug/l)	TN Load (ton/year)	%	TP Load (ton/year)	%
Truman Dam	10,181.0	13.00	733.00	40.00	7,364	70.1%	402	62.5%
Niangua and Linn Creek Arms*	1,394.0	22.03	527.00	43.00	725	6.9%	59	9.2%
Tribs Between Truman and Niangua Arm*	1,343.0	21.11	725.75	61.00	962	9.2%	81	12.6%
Grand Glaize Arm*	1,412.0	15.24	542.00	27.00	755	7.2%	38	5.9%
Gravois Arm*	835.0	12.55	525.00	24.00	433	4.1%	20	3.1%
LOTO NPDES Facilities (n = 462) - Actual Flow	8.8		*30,000.00*	*5,000.00*	261	2.5%	43	6.8%
Total	**15,173.8**				**10,499**	**100%**	**643**	**100%**
Bagnell Dam Outflow - Osage River	10,471.6	12.1	532.0	25.0	5,497	52.4%	258	40.2%

*Highlighted cells - Ozark Border ecoregion nutrient screening thresholds used to calculate loading from Truman Reservoir. * Estimated average flow.*

Table 5.

Scenario 4 - Assume Ozark Highland Nutrient Screening Thresholds from Truman Reservoir

Site	Average Discharge (CFS)	Geomean Chl-a (ug/l)	Geomean TN (ug/l)	Geomean TP (ug/l)	TN Load (ton/year)	%	TP Load (ton/year)	%
Truman Dam	10,181.0	6.00	401.00	16.00	4,029	56.2%	161	40.0%
Niangua and Linn Creek Arms*	1,394.0	22.03	527.00	43.00	725	10.1%	59	14.7%
Tribs Between Truman and Niangua Arm*	1,343.0	21.11	725.75	61.00	962	13.4%	81	20.1%
Grand Glaize Arm*	1,412.0	15.24	542.00	27.00	755	10.5%	38	9.4%
Gravois Arm*	835.0	12.55	525.00	24.00	433	6.0%	20	4.9%
LOTO NPDES Facilities (n = 462) - Actual Flow	8.8		*30,000.00*	*5,000.00*	261	3.6%	43	10.8%
Total	**15,173.8**				**7,164**	**100%**	**402**	**100%**
Bagnell Dam Outflow - Osage River**	10,471.6	12.1	532.0	25.0	5,497	76.7%	258	64.3%

*Highlighted cells - Ozark Highlands ecoregion nutrient screening thresholds used to calculate loading from Truman Reservoir. * Estimated average flow.** Due to a significant drop in loading in this scenario, loads flowing out of LOTO would likely also see an appreciable drop, though the amount is unknown.*

Variability

Precipitation and stream flow can be highly variable. Department staff conducted the initial analysis using long-term averages. Truman Reservoir releases water for both flood control and hydropower purposes and these releases can vary considerably in wet and dry years. Department staff analyzed yearly discharges from Truman Dam to determine if any correlation exists between annual average outflow volume from Truman Dam and geometric means of nutrients and chlorophyll observed near Bagnell Dam.

Table 6 below indicates there is correlation between Truman Dam releases and exceedances of the Response Impairment Threshold for chlorophyll-a (Chl-a). Note that in 2019, releases from Truman Dam were exceptionally high. While the observed chl-a response in Truman appears to have been limited in some way (as evidenced by the Chl-a/TP ratio); the Chl-a response in LOTO was not limited.

Table 6.

Year	Average Truman Outflow	% Above/ Below Average	LOTO				Truman			
			Chl-a Geomean (µg/l)	TN Geomean (µg/l)	TP Geomean (µg/l)	Chl-a/TP Ratio	Chl-a Geomean (µg/l)	TN Geomean (µg/l)	TP Geomean (µg/l)	Chl-a/TP Ratio
2014	3,347	-67%	9.7	434	15	0.64	15.3	537	25	0.61
2015	10,773	6%	16.6	563	35	0.47	20.3	730	47	0.43
2016	9,431	-7%	10.1	430	18	0.56				
2017	10,372	2%	16.3	555	34	0.48	50.0	1215	79	0.63
2018	4,639	-54%	6.2	444	15	0.41	14.3	627	29	0.49
2019	20,289	99%	20.3	690	49	0.41	15.2	810	115	0.13

Discussion

The loading and variability data above indicate the hydrology and nutrient loading from Truman Reservoir is a significant, if not the dominant, contribution of nutrients to LOTO,. The variability data indicate the ability of LOTO to meet a particular criterion at Bagnell Dam is heavily reliant on how much loading is coming from Truman Reservoir in any given year. A robust modeling analysis and further study of the two hydrologically connected systems is needed to determine what criteria is protective both for Truman Reservoir as well as LOTO.

Rationale used in implementing data age requirements outlined in Missouri's 2020 Listing Methodology Document

With this document, the Missouri Department of Natural Resources is providing supplemental information and rationale to the United States Environmental Protection Agency (EPA), Region 7 to accompany the 2020 303(d) List of Impaired Waters. The supplemental information and rationale is primarily focused upon data age and availability and the decision to either list or not list waters based on those data.

The Department evaluated all readily available data for the draft 2020 303(d) List through October 31, 2018, the cutoff date for receiving data. Additionally, the Department reviewed quality-assured data collected more recent than October 31, 2018, received during the public notice period. The Department incorporated this data into individual assessments, where appropriate, some of which resulted in changes to listing decisions proposed by the Department

During the Department's assessment process, some data was determined to be not recent enough for the Department to make a confident assessment of the attainment status of certain water bodies. The Department's 2020 Listing Methodology Document (LMD) explicitly states that if a water body is not already impaired, and all data indicating impairment is older than seven years, then the Department will categorize the water as inconclusive (attainment category 2B or 3B) and prioritize the water for further data collection. Throughout the Department's assessment process, if data was collected more recently than seven years, and that data confirmed or agreed with data older than seven years, then the Department incorporated data older than seven years into the assessment and used all of the data to justify listing a water as impaired.

The 2020 303(d)/305(b) assessment cycle was the first cycle that the Department was able to assess lakes against Missouri's approved Numeric Nutrient Criteria. The Department identified a number of lakes that were deficient in data and did not allow the assignment of an attainment or non-attainment status. As a result, additional data will need to be collected for these waters. The Department has a cooperative agreement with the University of Missouri – Columbia (MU), College of Forestry and Natural Resources' Statewide Lake Assessment Program (SLAP) and Lakes of Missouri Volunteer Program (LMVP). SLAP and LMVP have been collecting nutrient and other data relevant to assessing lakes since the 1990's. The Department establishes a new cooperative agreement with MU each year and works with the SLAP and LMVP to identify priorities. The Department has been in communication with SLAP and LMVP following the 2020 assessment process and has submitted a list of lakes to be prioritized for additional sample collection over future sampling seasons (April through October) starting with the 2020 season. All lakes are of higher priority for data collection, but of the list in the table following, a priority of 1 is higher than a priority of 3. Additional data collected under the SLAP and LMVP program should allow the Department to make confident listing decisions on these waters during the 2022 and 2024 303(d)/305(b) assessment cycles.

Table of Lakes and Data Collection Priorities:

WBID	Waterbody Name	Priority	Assessment Comments
7029	Hunnewell Lake	1	Chlorophyll-a data is trending toward impairment. Non-parametric trending indicates exceedance within 5 years of 2018 sampling year.
7036	Shelbyville Lake	1	Not enough data for nutrient criteria assessment, 2014 chlorophyll-a geometric mean exceeds criteria. Need more data.
7105	Jamesport Community Lake	1	Lake does not meet nutrient criteria, but all data is older than 7 years. Per LMD need to collect more data.
7112	King Lake	1	Likely impaired for chlorophyll-a, also exceeds eutrophication factor E, but data is all older than 7 years.
7120	Cameron Lake #1	1	Nutrient data inconclusive. Need more data.
7121	Cameron Lake #2	1	Nutrient data inconclusive. Need more data.
7149	Sterling Price Community Lake	1	Data too old to make impairment for chlorophyll-a.
7173	Thomas Hill Reservoir	1	Needs more nutrient and chlorophyll-a data. 2008 data
7208	Montrose Lake	1	Older data suggests impairment due to chlorophyll-a. Needs more data.
7241	Peaceful Valley Lake	1	Nutrient data too old for assessment, likely impaired. Need more data.
7288	Indian Lake	1	Data is too old for chlorophyll-a assessment. Need more data.
7391	Jackrabbit Lake	1	Suspect impairment by chlorophyll-a, needs more data.
7015	Deer Ridge Community Lake	2	Nutrient data is inconclusive.
7018	Lancaster City Lake - New	2	Nutrient data is inconclusive, but on the edge of impairment.
7061	Savannah City Reservoir	2	Nutrient data has one exceedance of chlorophyll-a in 2012. Need more data.
7104	Jamesport City Lake	2	Nutrient data shows lake is inconclusive for chlorophyll-a criteria. Need more data.
7110	Worth County Community Lake	2	Chlorophyll-a levels near criteria.
7111	Limpp Community State Lake	2	Nutrient data looks high but is old and not enough for assessment. Need more data.
7113	King City Old Reservoir	2	Total chlorophyll and chlorophyll-a levels are high. Need more data.
7114	King City New Reservoir	2	Total chlorophyll levels are high, need more data.

WBID	Waterbody Name	Priority	Assessment Comments
7118	Pony Express Lake	2	Meeting nutrient criteria, but one exceedance in 2017. Need more data.
7119	Cameron Lake #3	2	Meeting nutrient criteria, but lake has exceeded eutrophication factor E in the past.
7143	Linneus Lake	2	Nutrient data is inconclusive. Need more data.
7147	Fountain Grove Lakes	2	Nutrient data is inconclusive. Need more data.
7154	Unionville Reservoir	2	Nutrient data is inconclusive. Total chlorophyll shows likely impairment, but not enough chlorophyll-a data for assessment.
7159	Bucklin Lake	2	Suspect impairment due to Chlorophyll-a, needs more data.
7160	Marceline Reservoir	2	Potential light limitation, suspect impairment, needs more data.
7183	Peters Lake	2	Nutrient criteria assessment is inconclusive.
7186	Ben Branch Lake	2	Nutrient criteria assessment is inconclusive.
7207	HS Truman Lake	2	Nutrient data is inconclusive. Chlorophyll-a exceedance in 2017.
7212	Lake Winnebago	2	Chlorophyll-a impairment suspected, needs more data.
7230	Drexel City Reservoir South	2	Inconclusive for nutrient data, possibly impaired. Need more data.
7234	Atkinson Lake	2	Nutrient data is inconclusive, but lake has a history of potential impairment.
7304	Timberline Lakes	2	Potential exceedance of total nitrogen criteria, data is too old. Need more data.
7333	Shepard Mountain Lake	2	Chlorophyll-a exceeds nutrient screening threshold, but has not met criteria in response assessment endpoints to be considered impaired.
7378	Coot Lake	2	Suspect impairment by Chlorophyll-a as well but needs more data to confirm.
7379	Cottontail Lake	2	Potentially impaired by chlorophyll-a, needs more data.
7383	Gopher Lake	2	Potentially impaired for chlorophyll-a, need more data.
7403	Lake Nell	2	Possibly impaired for chlorophyll-a, needs more data.
7025	Edina Lake	3	Need more data.
7124	Hamilton Lake	3	Meeting nutrient criteria, but one exceedance in 2017.
7153	Lake Thunderhead	3	Nutrient data is borderline but meeting.
7365	Belcher Branch Lake	3	Ecoregional Nutrient criteria look to be being met but more data is needed for assessment. Data is older than 7 years.

Comment 52. Missouri Agribusiness Association and Missouri Farm Bureau

White, Debby

From: Robichaud, Jeffery
Sent: Monday, March 22, 2021 9:52 AM
To: R7-WaterDivision
Subject: FW: Comments Regarding EPA's Proposed Additions to Missouri Impaired Waters List
Attachments: epaimpairedwaters_signed.pdf

Jeffery Robichaud
Director, Water Division, Region 7
United States Environmental Protection Agency
11201 Renner Blvd.
Lenexa, KS 66219
913-551-7146
Pronouns: He/Him/His

From: Holloway, Leslie [redacted]
Sent: Monday, March 22, 2021 9:48 AM
To: Robichaud, Jeffery <Robichaud.Jeffery@epa.gov>
Subject: Comments Regarding EPA's Proposed Additions to Missouri Impaired Waters List

Jeff: Please find attached written comments submitted jointly by the Missouri Agribusiness Association and Missouri Farm Bureau. Thank you for your consideration. Leslie

MISSOURI FARM BUREAU

Leslie Holloway | Senior Director, Regulatory Affairs | Missouri Farm Bureau Federation
PO Box 658 | Jefferson City, MO 65102 | Ph: 573-893-1409 | Cell: 573-619-5250 | Fax: 573-893-1560

Comment 52. Attachment

March 22, 2021

Comments Regarding EPA's Action to Add Waters to Missouri's Impaired Waters List

On behalf of Missouri Farm Bureau, the state's largest general farm membership organization, and the Missouri Agribusiness Association (MO-AG), representing businesses that provide goods and services to farmers and ranchers, thank you for extending the comment period on EPA's Action to Add Waters to Missouri's Impaired Waters List.

We support the modifications proposed by the Missouri Department of Natural Resources (MDNR) to EPA's proposed action. We believe the documentation presented by MDNR in support of the proposed modifications clarifies that all existing and readily available water quality-related data and information have been assembled and evaluated as required by the federal Clean Water Act. Moreover, MDNR has explicitly committed to prioritizing data collection on lakes suspected of impairment. By collaborating with state and federal partners, MDNR is well positioned to leverage resources for targeted water quality data collection and analysis.

In responding to points addressed in EPA's letter of approval/disapproval, MDNR has articulated sound reasons for its decisions, proposed adjustments and formulated a transparent plan of action going forward to assure waters in question are reassessed expeditiously. Therefore, we respectfully request that EPA approve MDNR's modifications as proposed.

Sincerely,

Garrett Hawkins
President
Missouri Farm Bureau

Steve Taylor
President
MO-AG

Comment 53. Missouri Municipal League, Policy and Membership Association

White, Debby

From: Ramona Huckstep <[redacted]
Sent: Monday, March 22, 2021 3:48 PM
To: R7-WaterDivision
Subject: Missouri's 2020 CWA Section 303(d) Comments
Attachments: EPA 303 d listing comment letter 2021.pdf

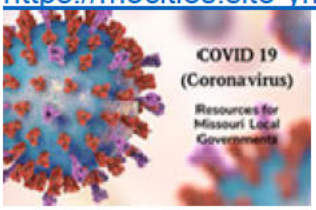
Mr. Robichaud,

Attached please find comments and suggestions from the Missouri Municipal League regarding comments on EPA suggested additions to Missouri's 303(d) list. Please let me know if you have any concerns or questions regarding this information.

Many thanks,
Ramona

Ramona Huckstep, M.S., M.P.A.
Policy and Membership Associate
Missouri Municipal League
1727 Southridge Drive
Jefferson City, MO 65109
www.mocities.com
(573) 635-9134

Click on this MML page for Missouri local government resources on Covid 19:
https://mocities.site-ym.com/page/Corona



This material is provided as general information and is not a substitute for legal advice. Consult your attorney for advice concerning specific situations.

Comment 53. Attachment

Missouri Municipal League

Growing Our Communities Together

March 22, 2021

Jeff Robichaud, Director
Water, Wetlands, and Pesticides Division
U.S. Environmental Protection Agency, Region 7
11201 Renner Blvd.
Lenexa, KS 66219

RE: Comments on EPA suggested additions to Missouri's 303(d) list

Dear Mr. Robichaud:

On behalf of the Missouri Municipal League, I would like to thank the U.S. Environmental Protection Agency (EPA) for the opportunity to provide comments on the EPA suggested additions to Missouri's 2020 303(d) list. The Missouri Municipal League, as an association that represents 650 cities and villages, we have a responsibility to represent the interests of our members and to protect their interests. We have a number of comments that we would like to share with you and hope that they are taken into consideration as the EPA moves through the final decision-making process on listing of impaired waters

First, we at the League, are concerned that EPA's proposed listing of the Lake of the Ozarks may not be a logical decision at this time. EPA's Data Supporting Listing, we believe, incorrectly applies fish kill data when making assessment decisions for Lake of the Ozarks. It appears the supporting data are not backed up by corresponding water quality or site-investigation information required to support listing the Lake as impaired. The 2020 303(d) Listing Methodology Document (LMD) clearly states that fish kills must be "caused by dissolved oxygen excursions, pH, algal blooms, or the toxins associated with algal blooms" to be used as evidence of a eutrophication-related impairment. Investigative fish kill reports compiled by the Missouri Department of Conservation (MDC) are used by the Missouri Department of Natural Resources (MDNR) for assessing such incidents however, fish kill data from Lake of the Ozarks lack supporting information.

Most of the Lake of the Ozarks fish kill events referenced by EPA could be attributed to non-eutrophication factors such as freezing weather, blunt force trauma, and natural disease. In several instances, MDC suggested that eutrophication factors may have

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contributed to fish kills but water quality data or other evidence were not provided to support this conclusion. Based on the requirements of the LMD, it is inappropriate to consider Lake of the Ozarks without corresponding verified evidence of nutrient impacts. The Lake of the Ozarks is ecologically important and recreationally significant lake in the state of Missouri. However, the fish kills that are noted by the EPA and are used as evidence for listing are not linked with eutrophication factors in Lake of the Ozarks. There are similar issues with the listing of the Harry S Truman Lake and Jackrabbit Lake regarding unvalidated data. Therefore, we at the League suggest that Lake of the Ozarks, the Harry S Truman Lake and Jackrabbit Lake should not be placed on the 2020 303(d) as an impaired water at this time however, additional water quality monitoring should be conducted to better inform future assessments.

Second, the Missouri Municipal League would respectfully request that a number of water bodies with old sampling data, in this case in excess of seven years, not be listed on the impaired waters list at this time and instead be sampled further. EPA is proposing to list 14 lakes based on water sampling data, that according to MDNR technical documents, may not accurately reflect the current conditions of the water bodies. Of these 14 water bodies, a majority of them are in or near municipalities. These bodies of water include Cameron #1 Lake, Gopher Lake, Happy Holler Lake, Indian Hills Lake, Jamesport Community Lake, Lake Nell, Lake Winnebago, Macon Lake, Montrose Lake, Peaceful Valley Lake, Prairie Lake, Sterling Price Community Lake, Thomas Hill Reservoir and Unionville Reservoir. We believe this would cause them an undue burden in additional sampling and monitoring, as well as potentially putting stress on their recreational use. We would be supportive of MDNR and their partners conducting water sampling events to update the date set.

In conclusion, going forward, the League believes it is imperative that MDNR work closely with MDC to develop a more effective and transparent process for collaboratively tracking, characterizing, and documenting fish kills in Missouri reservoirs before the next 303(d) assessment cycle. We will also be requesting that MDNR and MDC involve stakeholders in this process and hope that EPA will also actively participate in these discussions. The League also believes that additional sampling and monitoring of numerous lakes and reservoirs should be conducted before they are listed on the 2020 303(d) list of impaired waters.

Sincerely,

Ramona J. Huckstep

Ramona Huckstep
Policy and Membership Association
Missouri Municipal League

Comment 54. Missouri Public Utility Alliance, Data and Extension Request

White, Debby

From: Daniels, Jason
Sent: Wednesday, December 30, 2020 10:59 AM
To: R7-WaterDivision
Subject: FW: EPA's Action to Add Waters to Missouri's Impaired Waters List

Forwarding a comment.

From: Shields, Amy <Shields.Amy@epa.gov>
Sent: Wednesday, December 30, 2020 10:41 AM
To: Daniels, Jason <Daniels.Jason@epa.gov>
Cc: Bagley, Melissa <Bagley.Melissa@epa.gov>; Robichaud, Jeffery <Robichaud.Jeffery@epa.gov>
Subject: FW: EPA's Action to Add Waters to Missouri's Impaired Waters List

Jeff will respond to Lacey and cc Jason.

Amy Shields, Ph.D. | Branch Chief, Standards and Water Quality Branch, Water Division
U.S. Environmental Protection Agency Region 7 |11201 Renner Boulevard, Lenexa, KS 66219 | Mail Code: WD/SAW| ☎ (913) 551-7396 | m: (816)-206-8097 | pronouns: just use my name, please

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From: Robichaud, Jeffery <Robichaud.Jeffery@epa.gov>
Sent: Friday, December 18, 2020 12:19 PM
To: Lacey Hirschvogel [redacted]>
Cc: Shields, Amy <Shields.Amy@epa.gov>
Subject: RE: EPA's Action to Add Waters to Missouri's Impaired Waters List

Hello Lacey. We used only MDNR and MDC data, so there isn't an EPA data set per se. We are working to see if we can provide links to direct folks to the publicly available data, but need to make sure all of the MDNR data is accessible first. Regarding you second issue I will work with our staff and with CNSL and provide you an answer as quick as we can. Make sure to include your request as part of the public comment submittal so that it is contained within our formal record.

I hope you have a great Holiday Season

Jeffery Robichaud
Director, Water Division, Region 7
United States Environmental Protection Agency
11201 Renner Blvd.
Lenexa, KS 66219
913-551-7146
Pronouns: He/Him/His

From: Lacey Hirschvogel <[redacted]
Sent: Friday, December 18, 2020 11:30 AM
To: Robichaud, Jeffery <Robichaud.Jeffery@epa.gov>
Subject: EPA's Action to Add Waters to Missouri's Impaired Waters List

Hi Jeff,

I hope you are doing well as I know 2020 has been quite the year for most.

I am writing to ask for the dataset used to determine EPA's action to add waters to Missouri's 303(d) list. As this determination likely results in more stringent effluent limits for utilities that are members of MPUA, MPUA is evaluating this decision and may make a public comment on this determination. However, without the additional data used by EPA (especially the supporting information for the "data supporting listing" column in Appendix C of your 11/30 decision document) I am finding it difficult to assess the discrepancies that EPA has pointed out. This information is greatly appreciated.

In addition, I am requesting a 30-day extension for stakeholders to make public comment. Once we receive the dataset from EPA, we will get to work to ensure an appropriate public comment is prepared. However, it is likely that we will need the 30-day extension for the detailed analysis that needs to be completed.

Thank you for your time. Please let me know if you have any questions or concerns.

Thanks,

Lacey Hirschvogel
Environmental and Public Policy Manager
Missouri Public Utility Alliance
1808 I-70 Drive SW, Columbia, MO 65203
573-445-3279 Office / 573-825-7244 Direct
[redacted]
MPUA.ORG

"Improving local quality of life through hometown utilities"

Comment 55. Missouri Corn Growers, Missouri Farm Bureau, Missouri Public Utility Alliance, and Missouri Soybean Association

White, Debby

From: Lacey Hirschvogel [redacted]
Sent: Friday, January 8, 2021 3:23 PM
To: R7-WaterDivision
Cc: Darrick Steen; 'Holloway, Leslie'; Carol Comer
Subject: Re: EPA's Action to Add Waters to Missouri's 2020 Impaired Waters List
Attachments: public comment extension_010821.pdf

Please see the attached document for comments regarding "EPA's Action to Add Waters to Missouri's 2020 Impaired Waters List" from Missouri Public Utility Alliance, Missouri Corn Growers Association, Missouri Soybean Association, and Missouri Farm Bureau. Thank you.

Thanks,

Lacey Hirschvogel
Environmental and Public Policy Manager
Missouri Public Utility Alliance
1808 I-70 Drive SW, Columbia, MO 65203
573-445-3279 Office / 573-825-7244 Direct
[redacted]
MPUA.ORG

"Improving local quality of life through hometown utilities"

Comment 55. Attachment

United States Environmental Protection Agency, Region 7
Attn: Jeffery Robichaud
11201 Renner Boulevard
Lenexa, Kansas 66219

Dear Mr. Robichaud

We, Missouri Public Utility Alliance (MPUA), Missouri Corn Growers Association (MCGA), Missouri Soybean Association (MSA), and Missouri Farm Bureau (MOFB), respectfully request that the United States Environmental Protection Agency (EPA) extend the public comment period on the above-referenced proposed rule by a minimum of sixty (60) days beyond the currently scheduled public comment deadline.

On December 7, 2020, EPA published "Public Comment Period – EPA's Action to Add Waters to Missouri's Impaired Waters List." The notice provides a 60-day public comment period, which currently closes on February 6, 2021. Thoughtful and analytical comments require an evaluation of the dataset used in EPA's decision to partially disapprove and identify 40 waters for inclusion on Missouri's 2020 303(d) List. However, the data used to recommend listing the additional waters was not added to the public notice page until 12/22/20.

MPUA is a not-for-profit service organization representing municipally owned utilities throughout the State of Missouri. EPA's decision to list 40 additional lakes will consequently have burdensome impacts to our member communities.

MCGA and MSA are both not-for-profit statewide member organizations representing several thousand Missouri corn and soybean farmers. Our members own and farm substantial amounts of land within and around watersheds of listed lakes. For this reason, nutrient regulation and subsequent impairment decisions within these watersheds are of utmost importance to our members.

MOFB is the largest general farm organization in the state.

Again, MPUA, Missouri Corn Growers Association, Missouri Soybean Association, and Missouri Farm Bureau respectfully request that EPA extend the public comment period for at least an additional 60 days, or until no earlier than April 6, 2021. Thank you for considering this request.

Sincerely,

Missouri Corn Growers Association
Missouri Farm Bureau
Missouri Public Utility Alliance
Missouri Soybean Association

cc: Darrick Steen, Missouri Corn Growers Association & Missouri Soybean Association
Leslie Holloway, Missouri Farm Bureau
Carol Comer, Director, Missouri Department of Natural Resources

Comment 56. Missouri Public Utility Alliance

White, Debby

From: Robichaud, Jeffery
Sent: Monday, March 22, 2021 4:02 PM
To: R7-WaterDivision
Subject: FW: EPA's Action to Add Waters to Missouri's 2020 List of Impaired Waters
Attachments: MPUA_USEPA_Missouri_303d_2020.pdf

Jeffery Robichaud
Director, Water Division, Region 7
United States Environmental Protection Agency
11201 Renner Blvd.
Lenexa, KS 66219
913-551-7146
Pronouns: He/Him/His

From: Lacey Hirschvogel <[redacted]>
Sent: Monday, March 22, 2021 3:24 PM
To: R7-WaterDivision <R7-WaterDivision@epa.gov>
Cc: Robichaud, Jeffery <Robichaud.Jeffery@epa.gov>; Ewell Lawson <[redacted]>; John Twitty <[redacted]>; 'Nick Muenks' <[redacted]>
Subject: EPA's Action to Add Waters to Missouri's 2020 List of Impaired Waters

Mr. Robichaud,

Please see the attached document for MPUA's comments on EPA's action to add waters to Missouri's 2020 list of impaired waters. We appreciate the opportunity to provide comments on this subject. We look forward to further discussion on this topic. Please contact me with any questions or concerns you may have regarding our comments within the attached letter.

Thank you,

Lacey Hirschvogel
Environmental and Public Policy Manager
Missouri Public Utility Alliance
1808 I-70 Drive SW, Columbia, MO 65203
573-445-3279 Office / 573-825-7244 Direct
[redacted]
MPUA.ORG

"Improving local quality of life through hometown utilities"

Comment 56. Attachment

MPUA

Serving Hometown Utilities

March 22, 2021

Submitted via email to: R7-WaterDivision@epa.gov

United States Environmental Protection Agency, Region 7
Mr. Jeffery Robichaud
Director, Water Division
11201 Renner Blvd.
Lenexa, Kansas 66219

Re: **EPA's Action to Add Waters to Missouri's 2020 List of Impaired Waters**

Dear Mr. Robichaud,

The Missouri Public Utility Alliance (MPUA) appreciates the opportunity to provide comments to the United States Environmental Protection Agency (USEPA) regarding the Missouri Department of Natural Resources' (MDNR or State) 2020 Clean Water Act (CWA) Section 303(d) List of Impaired Waters. MPUA provides the following comments to USEPA on behalf of our municipal members throughout the State of Missouri.

On June 26, 2020, MDNR submitted its 2020 303(d) List to the USEPA proposing to list 481 waterbody/pollutant impairment pairs and delist 44 waterbody/pollutant impairment pairs. The June 26th submittal was drafted following MDNR's "Methodology for the Development of the 2020 Section 303(d) List[1]," approved by the Clean Water Commission on July 22, 2019. The State's Listing Methodology Document (LMD) is updated every two years following numerous publicly announced stakeholder meetings and input with specific regards to data quality, data age, and representativeness of data. The state provides appropriate and transparent opportunities for stakeholder involvement and input assisting LMD development. Public comment periods provide the opportunity for entities to challenge the State's data considerations when making Section 303(d) decisions. The LMD states, "more recent data are preferable; however, older data may be used to assess present conditions if the data remains representative of present conditions." For data older than seven years, the LMD identifies the State will provide written justification for use of such data to make a Section 303(d) listing. The State's LMD further outlines consideration for the age of data relative to significant events (representativeness) that have an effect on water quality (point source discharge, spill, reclamation, overflow elimination, etc.). This data consideration process mirrors that of which the USEPA supported in its approval of 481 waterbody/pollutant impairment pairs in the 2020 303(d) List.

USEPA's decision on the submitted 303(d) list will be precedent setting and should closely adhere to the State's approved water quality standards and the LMD. We are concerned that the proposed revisions do not follow the forementioned documents and will cause detrimental impacts to Missouri. Based on the specific comments below, USEPA should consider the placement of the listed water bodies below in Category 2B or Category 3B following the State's approved 2020 LMD and EPA's 2006 guidance[2]. Category

2B and 3B waters are given high priority for additional water quality monitoring if the available data, using best professional judgment, suggest non-compliance with Missouri's Water Quality Standards or other quantitative threshold for determining use attainment.

Figure 1, shown below, is a map of the watersheds of the lakes of concern within the ecoregions laid out in the State's approved Water Quality Standards[3], 10 CSR 20-7.031(5)(N)B.

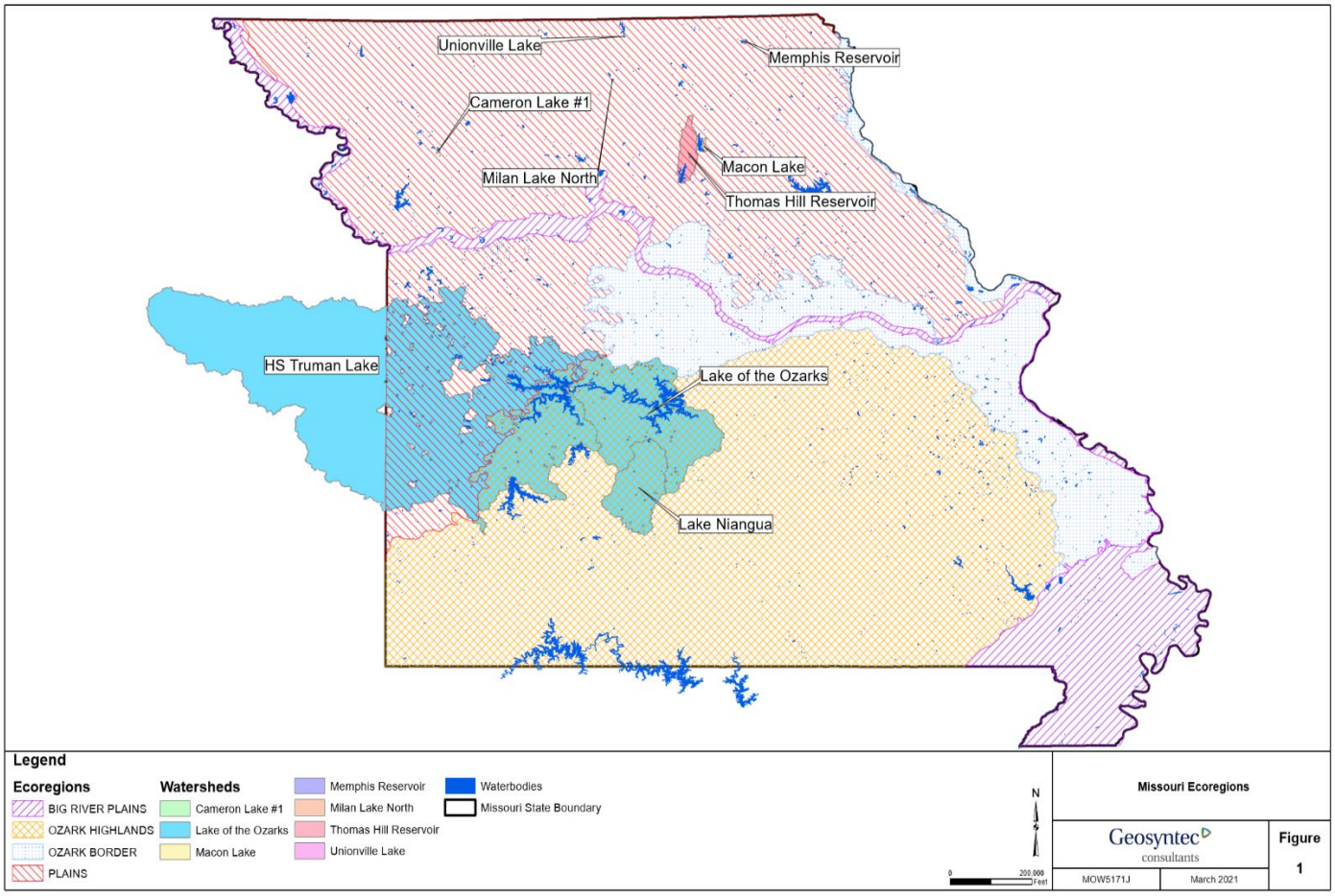


FIGURE 1. Map of Ecoregions and Lake Watersheds

Lake of the Ozarks: USEPA proposes to add Lake of the Ozarks to the State's 2020 303(d) list for the following reason: "*Exceeded criteria 2017, exceeded screening in 2016 and 2018, Eutrophication Factor A, multiple fish kills have occurred. In 2018 6/14/18 Low DO fish kill over 100 fish killed. Also, additional monitoring points in lake are impaired*."

The first concern about this listing is the incorrect use of the Ozark Highlands ecoregion numeric lake nutrient criteria **(Figure 1**). The State's water quality standards specifically state in 10 CSR 20-7.031 (5)(N)B., "*Lake ecoregions—Due to differences in watershed topography, soils, and geology, nutrient criteria for lakes and reservoirs will be determined by the use of four (4) major ecoregions based upon dominant watershed ecoregion.*" As shown in **Figure 1**, the Lake of the Ozark's dominant watershed ecoregion is the Plains ecoregion. While MPUA believes that the current WQS apply, and the Lake of the Ozarks should be assessed using Plains numeric nutrient criteria, we also understand that this warrants a

discussion for possible site-specific criteria applied at the Lake of the Ozarks in the future. We believe the Lake of the Ozarks should be placed on the State's Category 2B or Category 3B and given high priority for future monitoring in accordance with the State's approved LMD.

Our second concern is that the LMD specifically indicates that fish kill data should be linked to eutrophication to justify nutrient impairments. The WQS specify that mortality and morbidity events trigger a nutrient impairment determination if they are related to eutrophication. Following this rule, the LMD specifies that fish kills "documented to be caused by dissolved oxygen excursion, pH, algal blooms, or the toxins associated with algal blooms will constitute evidence of impairment." Based on a review of EPA's decision document, for the following reasons, the Lake of the Ozarks should be placed on the State's 2B or Category 3B and given high priority for future monitoring in accordance with the State's approved LMD and EPA's 2006 guidance.

- Fish kill reports referenced as evidence of nutrient related impairments should be clearly specified. For example, EPA references "multiple fish kills" as evidence of impairment at Lake of the Ozarks. They also reference a single fish kill on 6/14/18. From the description provided, it is not clear which event EPA is relying on to drive their impairment decision. We also note that the Lake of the Ozarks fish kill reports are largely attributed to non-eutrophication factors such as freezing weather, blunt force trauma, and disease.
- We note that for many of the fish kill incidents in the MDC database, causal factors were suggested but water quality data or other evidence were not provided to demonstrate that the incidents were in fact caused by nutrients. Instead, MDC speculated that causal factors included conditions such as "possible blue-green algae bloom," "low DO suspected", and "likely low DO or temperature stress." Given the brevity and lack of supporting information provided by MDC, it is clear that they did not intend for these notes and assumptions to be used in support of Clean Water Act beneficial use assessments. In accordance with the LMD requirements outlined above, EPA should not rely on these interpretations to make assessment decisions; EPA should instead provide water quality data or other evidence that clearly demonstrates that these fish kills were caused by nutrient-related factors.

In contrast to the listing of the Truman Reservoir, the assessment decision for Lake of the Ozarks does not reflect an appropriate use of the fish kill data because it lacks supporting information that links the events to eutrophication-related impacts. Further the Statewide Lake Assessment Program (SLAP) data that were not included in MDC's fish kill database, but are available to EPA, indicate that nutrients did not contribute to documented events in Lake of the Ozarks. For example, EPA specified a fish kill report dated June 14, 2018 as evidence of a nutrient impairment in Lake of the Ozarks. The fish kill report noted that MDC received multiple calls from the public between June 7 and 14, 2018 suggesting an ongoing fish fill on the Gravois and Grand Glaize arms of Lake of the Ozarks. The fish kill report states that MDC "suggested that high water temperatures and low dissolved oxygen were likely culprits for this event."

However, the report does not include any measured or observed evidence that the event was related to nutrients. Furthermore, data collected in June 2018 from Lake of the Ozarks as part of SLAP suggest that chlorophyll-*a* and nutrient concentrations during that period were well below levels that would contribute to eutrophication impacts (**Table 1**). Notably, chlorophyll-*a* levels throughout most of the lake were generally below 15 ug/L and were even lower in the Gravois and Grand Glaize arms (7.3 – 11.1 ug/L) where the fish kills occurred. Additionally, the SLAP dataset only included a single dissolved oxygen sample from June 2018, which was 9.3 mg/L.

Table 1. June 2018 SLAP Data from Lake of the Ozarks

Site	n	Chlorophyll-a, ug/L		Total Phosphorus, mg/L		Total Nitrogen, mg/L	
		Min	Max	Min	Max	Min	Max
Lake of the Ozarks 1[1]	5	5.0	11.8	0.016	0.022	0.36	0.49
Lake of the Ozarks 1.2[2]	2	8.7	11.1	0.019	0.021	0.38	0.47
Lake of the Ozarks 1.6[2]	1	7.3	7.3	0.015	0.015	0.41	0.41
Lake of the Ozarks 2.5[3]	2	7.9	8.0	0.017	0.019	0.34	0.40
Lake of the Ozarks 3	2	4.7	6.8	0.026	0.042	0.46	0.54
Lake of the Ozarks 4.10	2	9.1	10.2	0.017	0.018	0.36	0.40
Lake of the Ozarks 31	2	11.1	11.1	0.021	0.022	0.56	0.85
Lake of the Ozarks 31.1	2	13.4	13.4	0.029	0.034	0.45	0.52
Lake of the Ozarks 21	2	9.1	15.2	0.029	0.032	0.36	0.43
Lake of the Ozarks 51	2	15.9	33.1	0.057	0.058	0.46	0.71

[1.] Near dam
[2.] Gravois arm
[3.] Grand Glaize arm

Cameron #1 (Century) Lake: USEPA proposes to add Cameron #1 (Century) Lake to the State's 2020 303(d) list for the following reason: "*Exceeds criteria 2016, 2001, and 2000 (three most recent years of data).*"

Cameron #1 (Century) Lake's watershed is located in the Plains ecoregion; therefore, appropriate Plains ecoregion numeric lake nutrient criteria apply (**Figure 1**). USEPA cites Chl-acriterion exceedances during 2016, 2001 and 2000. However, only one of the three years of available data from Cameron #1 (Century) Lake were collected within the last seven years, which is not a sufficient representative data set to support a new 303(d) listing in accordance with the intent of the State's approved LMD. Since Cameron #1 (Century) Lake has not been previously listed, the waterbody should be placed into the State's Category 2B or Category 3B waters for future monitoring in accordance with the State's approved LMD.

City of Milan Lake (North): USEPA proposes to add City of Milan Lake (North) to the State's 2020 303(d) list for the following reason: "*Exceeds screening threshold for Chl-ain 2014 and 2016. Eutrophication factor B. in 2014 pH, and 2016 DO. Also exceeded screening for TP and TN in 2014.*"

City of Milan Lake (North) is a 13-acre lake located in the watershed of the Plains ecoregion; therefore, appropriate Plains ecoregion numeric lake nutrient criteria apply (**Figure 1**). When considering all DO measurements collected from City of Milan Lake (North) surface in the last seven years (2013 to 2016), only two of sixteen measurements are below 5.0 mg/L, which is in compliance with the State's dissolved oxygen criterion using the binomial probability assessment.

Ecoregional nutrient screening threshold values have been exceeded at City of Milan Lake (North); however, Eutrophication Factor B was incorrectly evaluated during USEPA's review of the submitted 303(d) list. Eutrophication Factor B is applied to the epilimnion (surface) of lakes where more than 10% of pH measurements are outside of the 6.5 standard units (SU) to 9.0 SU range and dissolved oxygen (DO) measurements are below 5.0 milligrams per Liter (mg/L) to protect aquatic life. Appendix F of the State's approved LMD outlines the binomial probability will be used to determine whether the pH and DO criterion have been exceeded.
USEPA reviewed collected data from the University of Missouri Limnology Laboratory[4]. The laboratory's 2014 data set from City of Milan Lake (North) contains 4 total pH measurements; however, 2 pH measurements were collected on June 17, 2014 at approximately the same time but at different lake

depths. Therefore, only one of three field pH measurements collected from the lake surface was outside of the pH criterion range. In accordance with the states LMD and binomial probability evaluation, City of Milan Lake (North) did not exceed Eutrophication Factor B for pH in 2014.

In 2016, two of four collected DO measurements were below 5.0 mg/L (4.1 mg/L on June 22 and 4.6 mg/L on July 20), which may indicate Eutrophication Factor B. It is important to note that only four nutrient and water quality measurements have been collected from City of Milan Lake (North) in a given year, which represents the minimum sample size for numeric lake nutrient criteria and eutrophication factor assessment. When considering all DO measurements collected from City of Milan Lake (North) surface in the last seven years (2013 to 2016), only two of sixteen measurements are below 5.0 mg/L, which is in compliance with the State's dissolved oxygen criterion using the binomial probability assessment.

In addition, we thoroughly reviewed DO data collected by the Statewide Lakes Assessment Program (SLAP) reported by the University of Missouri Limnology Laboratory which were used by USEPA to make the determination of Eutrophication Factor B DO in 2016 at City of Milan Lake (North). Within the last seven years of data, MPUA notes an anomalous shift in statewide lake DO criterion compliance in the 2016 data set (**Table 2**). Climate information was obtained from the nearest weather station in Kirksville, Missouri to provide comprehensive understanding of potential climate impacts (**Table 3**). Further, MPUA plotted three years of DO data to understand what may have led to the dramatic compliance difference in 2016 compared to other years. MPUA notes a dramatic DO change occurred in Missouri lake data after June 20, 2016, which then persisted for the remainder of the 2016 summer season (**Figure 2**). Data prior to June 21, 2016, DO concentrations align similarly with other years DO data (**Figure 2**). The dramatic and consistent change in 2016 DO may be indicative of an improperly functioning, improper calibration, or uncalibrated DO sensor.

Based on the anomalous increased frequency of SLAP DO data below criterion in 2016 (**Table 2**), normal climatic conditions in 2016 (**Table 3**), and dramatic and consistent DO change in the 2016 SLAP dataset after June 20, 2016 (**Figure 2**), MPUA request USEPA and MDNR verify that the 2016 SLAP DO data meet the quality assurance and quality control requirements of the State's LMD by confirming and/or providing DO sensor(s) maintenance and calibration records. If the DO sensor(s) were malfunctioning, calibration was not performed, or calibration records cannot be provided, field DO data should be considered invalid and removed from the State's and USEPA's 303(d) assessment data set.

TABLE 2. University of Missouri Limnology Laboratory SLAP DO Data.

Year	# of Records >= 5.0 mg/L	# of Records <5.0 mg/L	Total # of Records	Percentage Below 5.0 mg/L Criterion
2018	275	4	279	1.43%
2017	236	1	237	0.42%
2016	228	55	283	19.43%
2015	620	13	633	2.05%
2014	522	14	536	2.61%
2013	685	24	709	3.39%
2012	575	27	603	4.48%

TABLE 3. Missouri May to September Climatic Conditions. Data obtained from nearest Midwest Regional Climate Center weather station in Kirksville, Missouri.

Year	Total Precipitation (inches)	Average High Temperature (Degree Fahrenheit)	Average Temperature (Degree Fahrenheit)
2018	18.44	85.7	74.6
2017	16.35	81.5	70.1
2016	18.19	81.5	71.2
2015	36.45	79.6	69.7
2014	22.22	79.5	69.5
2013	15.10	80.7	69.9
2012	11.28	86.8	74.2

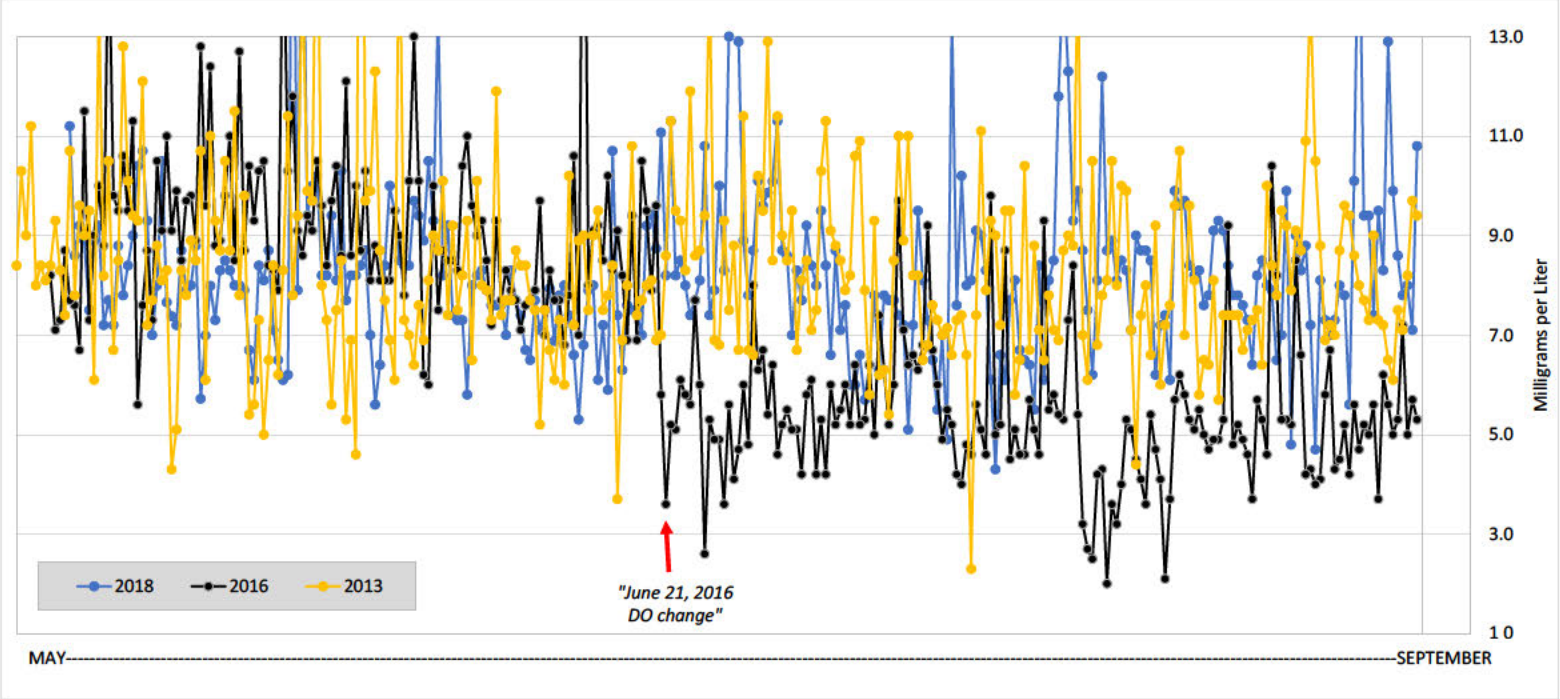


FIGURE 2. SLAP DO Annual Timeseries Plot.

Macon Lake: USEPA proposes to add Macon Lake to the State's 2020 303d list for the following reason: *"Exceeds screening threshold for Chl-aand TN in 2005, Eutrophication Factor B, DO. Also exceeds screening for Chl-a 2003, 2005, and 2009, TN 2005, TP 2009."*

Macon Lake's watershed is located in the Plains ecoregion (**Figure 1**); therefore, appropriate Plains ecoregion numeric lake nutrient criteria apply. Ecoregional nutrient screening threshold values have been exceeded at Macon Lake; however, USEPA inappropriately evaluated unrepresentative data (i.e. data older than seven years), which is not sufficient to support a new 303(d) listing in accordance with the State's approved LMD. Since Macon Lake has not been previously listed, the waterbody should be placed into the State's Category 2B or Category 3B and given high priority for future monitoring in accordance with the State's approved LMD.

Thomas Hill Reservoir: USEPA proposes to add Thomas Hill Reservoir to the State's 2020 303d list for the following reasons: "*Exceeds screening for TN and TP in 2008, Eutrophication Factor E."*

Thomas Hill Reservoir's watershed is located in the Plains ecoregion; therefore, appropriate Plains ecoregion numeric lake nutrient criteria apply (**Figure 1**). Ecoregional nutrient screening threshold values have been exceeded at Thomas Hill Reservoir; however, USEPA inappropriately evaluated unrepresentative data (i.e., data older than seven years), which is not sufficient to support a new 303(d) listing in accordance with the State's approved LMD. Since Thomas Hill Reservoir has not been previously listed, the waterbody should be placed into the State's Category 2B or Category 3B and given high priority for future monitoring in accordance with the State's approved LMD.

Unionville Reservoir (Lake Mahoney): USEPA proposes to add Unionville Reservoir (Lake Mahoney) to the State's 2020 303d list for the following reasons: "*Exceeds Criteria in 2009 and 2010. Also exceeded criteria at point Mahoney 2 in 2009 and 2010."*

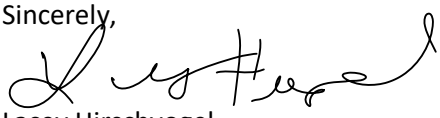
Unionville Reservoir (Lake Mahoney) is located in the watershed of the Plains ecoregion; therefore, appropriate Plains ecoregion numeric lake nutrient criteria apply (**Figure 1**). Ecoregional nutrient screening threshold values have been exceeded at Unionville Reservoir (Lake Mahoney); however, USEPA inappropriately evaluated unrepresentative data (i.e. data older than seven years), which is not sufficient to support a new 303(d) listing in accordance with the State's approved LMD. Since Unionville Reservoir (Lake Mahoney) has not been previously listed, the waterbody should be placed into the State's Category 2B or Category 3B and given high priority for future monitoring.

Memphis Reservoir: USEPA proposes to add Memphis Reservoir to the State's 2020 303d list for the following reason: "*2013 data provided a second Chl-a criteria exceedance and resulted in lake being listed as impaired*."

Memphis Reservoir is located in the Plains ecoregion; therefore, appropriate Plains ecoregion numeric lake nutrient criteria apply (**Figure 1**). MPUA agrees with USEPA in their inclusion of Memphis Reservoir on the 2020 303(d) list with the addition of the 2013 data. It is important to note that USEPA specifically sites the 2013 data as evidence, which are within seven years from the 2020 303(d) listing cycle, when other data from 2009 and 2006 also supported the inclusion of Memphis Reservoir. USEPA did not consider all available data, rather followed the LMD procedures. We are supportive of this approach.

Thank you for the opportunity to provide comments regarding EPA's Action to Add Waters to Missouri's 2020 List of Impaired Waters. We want Missouri's waters to be protected based on their designated uses and are supportive of placing several of the lakes references above on the Category 2B or Category 3B list and given high priority for future monitoring in accordance with the State's approved LMD. Please feel free to contact me with any questions that you may have regarding the information within this comment letter.

Sincerely,



Lacey Hirschvogel
Environmental and Public Policy Manager
Missouri Public Utility Alliance
[redacted]

Comment 57. Missouri Corn Growers and Missouri Soybean Association

White, Debby

From: Darrick Steen [redacted]
Sent: Monday, March 22, 2021 1:57 PM
To: R7-WaterDivision
Cc: [redacted]; Casey Wasser; Ben Travlos [redacted]; Baylee Siegel; Chris Wieberg (chris.wieberg@dnr.mo.gov)
Subject: Comments on MO 2020 303(d) List Decision
Attachments: MCGA_MSA 303d List letter_final.pdf

Dear US EPA Region 7 Water Division – on behalf of the Missouri Soybean Association and the Missouri Corn Growers Association, please find attached comments pertaining to the Nov. 30, 2020 EPA decision and EPA action on Missouri's 2020 303d List.

Darrick Steen
Environmental Director
Missouri Soybean Association
Missouri Corn Growers Association
[redacted]

Comment 57. Attachment

March 22, 2021

Jeff Robichaud
Water, Wetlands, and Pesticides Division
US EPA Region 7
11201 Renner Boulevard
Lenexa, KS 66219

RE: EPA Proposed Decision on Missouri's 2020 303(d) List

Dear Mr. Robichaud:

On behalf of the Missouri Corn Growers Association (MCGA) and the Missouri Soybean Association (MSA) we would like to thank you for the opportunity to provide comments on U.S. Environmental Protection Agency (EPA) proposed decision on Missouri's 2020 303(d) List of Impaired Waters (hereinafter called the 2020 303d list). In addition to our comments, MSA and MCGA also fully supports comments submitted by the Missouri Department of Natural Resources (Department) and the Missouri Clean Water Commission (CWC).

For over 50 years, MCGA and MSA has worked with several generations of crop farmers to achieve major milestones and advances in Missouri's agriculture industry. As grassroots organizations, MCGA & MSA invests considerable time and resources in supporting and promoting policies, education and research that is advancing crop production, sustaining grower profitability and improving environmental stewardship. MCGA and MSA are committed to working with both our growers and governmental partners in developing policies, practices and technology that benefit Missouri farmers and their local communities.

MCGA and MSA purposely engaged on Missouri's lake numeric nutrient criteria (Lake NNC) rule at a very early stage. Contributing technical expertise and suggestions on policy development, our staff participated on stakeholder committees and met directly with Department and EPA staff, voicing our positions, providing farmer perspectives, and contributing to the rule's content and eventual adoption. We, along with many other agriculture, industry and municipal stakeholder groups, understood the importance of getting the Lake NNC rule developed right for Missouri, and more importantly, understood the potential unintended consequences of getting it wrong. After all, farmers, their families, and the communities in which they live and work, would ultimately bear much of its cost.

To that end, MSA and MCGA recognize the tremendous effort and the extensive amount of time and stakeholder engagement that the Department and EPA invested in both Missouri's Lake NNC rule as well as development of Missouri's 2020 303d List. The 2020 303d list is a significant milestone and precedent-setting and we appreciate the leadership shown by Department staff on it over the last 24 months. The Department has followed a scientifically sound and defensible path to accomplish the goal of developing the Missouri 2020 303d list, the first listing developed under the Department's recently adopted Lake NNC rule.

General Background:

The US Clean Water Act sets forth a required water quality assessment process that States undertake every two years. As corresponding sound evidence and science supports, States add and remove waterbodies from the

States' list of impaired waters once every two years. This process is intended to follow a two-year cycle assessment process. On November 30, 2020, EPA Region 7 issued a "proposed decision", an action that proposes to add 40 new water bodies (all lakes) as "impaired" for nutrients onto Missouri's 2020 303d List. EPA proposed this action approximately nine months after the Department and the CWC finalized Missouri's 2020 listing decisions in April of that same year.

Upon reviewing EPA's proposed decision, we respectfully request that EPA reconsider its proposed listing decision and follow the recommendations provided in the Department's comments. We view EPA's decision to "over-list" the State of Missouri on its 303d list as unusual, if not unprecedented, and seems contrary to Clean Water Act goals for cooperative federalism. We are unaware of a previous time when EPA listed new waterbodies as impaired after the Department finalized the State's list.

Within the Clean Water Act's federalism approach, Congress emphasized and gave states primary responsibility for developing and adopting water quality standards and assessing state waters. Given that state agencies are also primarily responsible for implementing standards and developing corrective actions, it is self-evident that states should also be given broad discretion and decision-making authority when implementing water quality standards. States have the firsthand knowledge of how to get complex regulations implemented and on the ground successfully; they also know how to reduce unnecessary costs and regulatory impacts, and how best to work with stakeholders, the regulated community, and communities being impacted.

States have a finite amount of resources to implement, identify, and address impairments, therefore the criteria, the assessment process, and impairment decisions must accomplish goals efficiently as well as cost-effectively, and it must seek to minimize unintended impacts. In other words, applied to the 2020 303d List, it must reliably and accurately identify only the lakes that are truly not meeting designated uses. Assessments and impairment decisions that create false positives would consume State and permittee resources unnecessarily and potentially cause reckless harm to the state's economy.

In view of Clean Water Act's federalism goals and EPA's own recognition of the importance of state-led solutions to nutrient pollution, **we strongly encourage that EPA fully consider Department's comments and revise the EPA's proposed decision accordingly**. In addition, we ask that you consider our comments below.

Specific Comments:

We ask for EPA to be more accommodating in this first Lake NNC listing decision - This is the first 303d list developed under the State's recently adopted lake numeric nutrient criteria (Lake NNC). Because of this, impairment decisions, as well as the steps and protocol taken by both Department and EPA will be precedent-setting. We ask that EPA provide Department additional flexibility and ask that EPA honor and adhere to the State's Water Quality Standards (WQS) and Listing Methodology Document (LMD) when reviewing Missouri's 2020 303d list.

We ask that EPA honor Missouri Clean Water Commission policy on data age; a policy that helps ensure sound scientific decisions. - Flexibility is needed in 303d listing decisions to ensure that sound scientific decisions are being made. Missouri does not ignore data based on an age cutoff. According to the LMD, the Department can and did rely on data older than seven years in developing the 2020 303(d) List, and considered that data either together with newer available data or otherwise in absence of newer data. For water bodies where the only data indicating potential impairment was older than seven years, the Department deferred its impairment determination to allow collection and evaluation of additional data that would be more likely representative of current conditions in the water body. Rather than ignoring the older data, the Department utilizes the data age

policy to prioritize and focus additional resources and evaluation that ensures scientifically sound and fully informed impairment determinations.

Having recent high-quality data for listing decisions is imperative to ensuring sound and scientific decisions are being made. If older data alone suggests a water body could be impaired but lacks more recent supporting data, we support the Department's recommendation that the water body be assigned attainment category 2B or 3B rather than being placed on the 303d list. This is a move which will allow time for the state to collect additional data to confirm whether 303d listing is truly warranted.

EPA should honor and abide by clear listing and data cutoff dates set by the state - The 303d assessment cycle is intended to be a two-year cycle process. However, EPA included and based some of their decisions on data that became available well after the Department finished their 2020 water quality assessment. A two-year cycle is not really a cycle if there is no clear cut off date for data being enforced. If EPA intends to bring new data into an assessment decision at any point in time, then there is no justifiable reason for following the CWA's two-year assessment cycle for the 303d list. Put simply, not abiding by cut off dates undermines the process.

More importantly, setting a cut-off date is important to ensure only quality and fully vetted data is relied upon. By not abiding by a clear cut-off date, data is likely to be rushed into the assessment and decision process without proper data quality controls. We believe that some of the data EPA allowed in after the Department's cut-off date, and relied upon for its decision-making process, resulted in flawed decision making.

Lake of the Ozarks should not have been listed by EPA - The Department had strong sound reasoning for not listing the Lake of the Ozarks as an impaired waterbody. We trust the State to protect water quality and we believe EPA should not have overruled the Department on this issue.

This decision in particular brings with it the potential for grave economic consequences for the entire state, not to mention the Lake of the Ozark region. This is because of the Lake's large and important contribution to the state's economy through tourism. The Lake also has a direct impact on the local economy, including its public schools and other entities that rely on its strong tax base and economic drivers.

Lake of the Ozarks is both ecologically important and recreationally significant to Lake area residents, businesses, public schools, and the entire state. According to the Missouri Department of Economic Development (DED), total tourism spending in the central Missouri region, which is dominated by the tourism draw of Lake of the Ozarks, is over $1.2 billion annually. That economic impact is irrefutably linked to water tourism and by extension the perception of Lake of the Ozarks having safe quality water.

As such, safe water quality is vitally important to the lake community. Listing the Lake of the Ozarks as "impaired" suggests that the water in the Lake of the Ozarks is not safe for fish and wildlife, and we feel that conclusion is patently wrong.

The Lake of the Ozarks community will indeed rally to do what is necessary to protect its Lake water quality, however, limited tax dollars and resources must be spent wisely. Not only would EPA's decision bring an unnecessary and damaging "black eye" to the Lake community, it also may lead to higher water utility bills for residents; all to fix a problem that simply does not exist.

In our view, EPA's decision to add the Lake of the Ozarks to the 303d list appears to have been a rushed decision by EPA. We believe the methods that EPA relied upon to propose listing the Lake of the Ozarks as impaired for nutrients did not appropriately adhere to the State's Water Quality Standards (WQS) and Listing

Methodology Document (LMD) and is not supported by corresponding water quality data or site-investigation information. Examples include:

- Lake of the Ozarks' Ecoregion - EPA's decision to list the Lake of the Ozarks as impaired is perpetuating an ecoregion assignment error which was unintentionally made for this Lake. We strongly believe the Lake of the Ozarks was previously assigned to the "Ozarks Highland" ecoregion by mistake. We believe the Lake of the Ozarks should have been assigned to the "Plains" ecoregion. The Department has also strongly acknowledged the Ozarks Highland ecoregion may not be a proper fit for the Lake, and has indicated they wish to re-evaluate the ecoregion status because of its significant drainage and flow nexus with Truman Reservoir. Truman Reservoir is assigned to the Plains ecoregion.

- Evidence does not support listing - In the fish kill data that EPA used to determine the impairment status at the Lake, there is no conclusive evidence that these events were caused by nutrients. Most of the Lake of the Ozarks fish kill events referenced by EPA are clearly attributed to freezing weather, blunt force trauma, and natural disease, none of which have anything to do with nutrients. It is blatantly wrong to list the Lake of the Ozarks as impaired for nutrients without direct corresponding evidence of nutrient impacts. However, based upon EPA's supporting information, it appears EPA used this fish kill data to base their decision at Lake of the Ozarks.

- Data quality issues abound - Data EPA relied upon at Lake of the Ozarks came in after the State's "cut-off date" and/or after the Department finished their 303d assessment process. The department did not have the opportunity to properly examine this data internally, nor with stakeholders or with the Missouri Department of Conservation, the agency whom actually collected it. There are many quality control issues within this data, namely lacking solid evidence or a clear connection to eutrophication factors or nutrient related causes. EPA should not have relied upon its own speculation or interpretations to make assessment decisions. We believe that the Lake of the Ozarks should be removed from EPA's proposed listing decision.

Conclusion

Keeping Missouri in the lead role in developing and administering its water quality standards and assessment program best serves the CWA's federalism policy and best serves Missouri waters. We strongly encourage EPA to consider these comments as well as comments submitted by the Department and make the requested changes.

Again, thank you for the opportunity to provide comments.

Regards,

Jay Fischer, President
MISSOURI CORN GROWERS ASSOCIATION

Ronnie Russell, President
MISSOURI SOYBEAN ASSOCIATION

cc: Chris Wieberg, Missouri Department of Natural Resources

Comment 58. Missouri Stream Team Watershed Coalition

White, Debby

From: Mary Culler <[redacted]>
Sent: Friday, March 19, 2021 1:50 PM
To: R7-WaterDivision
Subject: comment Missouri 2020 303d list
Attachments: 2020 Missouri 303dlist comment_MSTWC_03192021.pdf

Dear EPA Region 7 staff,

Please see attached comment from the Missouri Stream Team Watershed Coalition. We are providing our support for the addition of the 40 lakes listed in Appendix C for Missouri's 2020 303(d) List.

Can you confirm receipt of this email?

Thank you for your consideration of our comment,

Mary

Mary Culler

Executive Director

[redacted]

[redacted]

www.streamteamsunited.org

We are the Missouri Stream Team Watershed Coalition

Bringing Stream Teams Together Since 1999

To donate towards Education, Stewardship,

And Advocacy For Missouri Streams, visit

https://www.streamteamsunited.org/donate.html

Comment 58. Attachment

stream teams united

PO Box 483
Shelbina, MO 63468
www.streamteamsunited.org

US EPA Region 7
Water Division
R7-WaterDivision@epa.gov

March 19, 2021

Dear staff of EPA Region 7 Water Division:

Our organization is writing in support of the EPA's proposal to add 40 lakes (found in Appendix C of the EPA's 11/30/2020 decision letter) to the 2020 Missouri 303(d) list. Stream Teams United is a coalition of Missouri Stream Teams Associations located throughout the state of Missouri, with 22 Stream Team Associations each working in their local watershed to improve and conserve local waterways. The EPA's review of data for the 40 additional lakes indicates impairment for eutrophication of the lakes in Appendix C. Adding these 40 lakes to Missouri's 303(d) list will begin the process of development of a TMDL or pollution management plan for each lake, which ultimately will help to reduce future pollution and extend the lifetime of these reservoirs.

In the state of Missouri, our lake systems are constructed impoundments, created when dams have been built to impound a creek or river. Because of this, our lake systems in Missouri act as catchments of sediment and nutrients from the upstream watershed, and Missouri's lakes would be expected to have decreased water quality over time as the impoundment ages and sediments/nutrients accumulate within the reservoir. Maintenance or improvement of water quality for these lakes through TMDL or other pollution management plans will help extend the number of years that these lakes will be able to be used for their intended purposes.

In the EPA decision letter, it states that certain data were not used by the Missouri DNR in their assessment of these lakes, including data older than seven years and the entire Missouri lake data set from 2013. Considering that the Missouri review did not include this data, but the EPA review did include this data, we support the use of the fully available data set for the assessment of Missouri's lakes.

stream teams united

PO Box 483
Shelbina, MO 63468
www.streamteamsunited.org

We appreciate the opportunity to provide comment on Region 7's analysis of the Missouri 2020 303(d) list. As an organization made up of Missouri citizens that utilize and care for Missouri's rivers, lakes, and streams, we offer our support for the addition of the lakes listed in Appendix C for exceeding chlorophyll-a criteria.

Sincerely,

Mary Culler

Mary Culler, Executive Director

[redacted]

Comment 59. Missouri Water Environment Association

White, Debby

From: Jay Hoskins [redacted]
Sent: Friday, January 8, 2021 1:41 PM
To: R7-WaterDivision
Cc: Lacey Hirschvogel [redacted]; Burks, Jim
Subject: Public Comment Period – EPA's Action to Add Waters to Missouri's 2020 Impaired Waters List

On behalf of the Missouri Water Environment Association (MWEA), Missouri's member association of the Water Environment Federation, I am writing to request a 60-day extension of the public comment period on EPA's action to add 40 water bodies (lakes and reservoirs) as impaired for nutrients to Missouri's 2020 List of Impaired Waters. As EPA Region 7 staff is aware, this is the first time that the new statewide numeric lake and reservoir nutrient and chlorophyll water quality criteria [10 CSR 20-7.031(5)(N)] have been considered in the impaired waters list. This additional time is important for the public to review EPA's action, to further research the science and data driving this action, and to prepare thoughtful comments.

Sincerely,

Jay Hoskins, P.E.
MWEA Government Affairs Committee, Chair
[redacted]

Comment 60. Myers, Haley

White, Debby

From: Haley Myers <[redacted]>
Sent: Monday, January 25, 2021 1:16 PM
To: R7-WaterDivision
Subject: In support of Appendix C additions to 303(d) list

Hello,

I am a lifelong resident of [redacted] Missouri and I support adding the 40 water bodies in Appendix C as impaired. We desperately need to work towards a future in which Missouri respects and stewards its waterways and protects them as habitat for plants, wildlife and future generations of humans.

Haley Myers

Comment 61. OReilly, Charlie

White, Debby

From: Charlie OReilly [redacted] >
Sent: Sunday, March 21, 2021 4:21 PM
To: R7-WaterDivision
Subject: 40 Bodies of water in Missouri

These bodies of water have been declared “impaired”, and I respectfully request that you take immediate steps to rectify this situation. All Missouri will appreciate your help. Thank you,
Charlie OReilly
[redacted]

[redacted]

Comment 62. Parks, Diane

White, Debby

From: Diane Parks <[redacted]>
Sent: Tuesday, February 9, 2021 11:26 AM
To: R7-WaterDivision
Subject: Lake of the Ozarks

Our lake is a clean lake! All summer, while swimming, you can see down into the water at least 6 feet. It's clear!

I understand you are talking about something we may not see. However, this is a big lake and should not be penalized for something found in a small area.

Why make a big deal out of something that could be damaging to the lake area/businesses????

Diane

Comment 63. Payton, Renee

White, Debby

From: Renee Payton <[redacted]>
Sent: Saturday, January 16, 2021 10:07 AM
To: R7-WaterDivision
Subject: Thank you

Thank you for adding/restoring 40 lakes to Missouri's list of impaired waters. I appreciate that the EPA is working to clean up these lakes.

Be well,
Renée Payton
[redacted]

"Nothing will work unless you do."
Maya Angelou

Comment 64. Power, Brian

White, Debby

From: Brian Power <[redacted]>
Sent: Friday, January 15, 2021 2:03 PM
To: R7-WaterDivision
Subject: Listing of additional lakes and rivers for clean up.

Thank you for adding additional lakes and rivers to your list for clean up in Missouri. Clean water is an increasingly valuable natural resource which will help every citizen of Missouri who fishes, hunts, or supports outdoor activities in the state.

Again, thank you,

Brian Power
[redacted]

Sent from my iPhone

Comment 65. Primm, Cathy

White, Debby

From: Cathy Primm <[redacted]
Sent: Monday, March 22, 2021 5:03 PM
To: R7-WaterDivision
Subject: Missouri's 2020 CWA Section 303(d) Comments

Dear EPA Friends,

I am writing to say I agree with your decision to add 40 more MO lakes to the list of MO impaired waters. Thank you!

Cathy Primm
[redacted]

Comment 66. Rainey, Steven

White, Debby

From: steven rainey [redacted] >
Sent: Thursday, March 18, 2021 9:11 PM
To: R7-WaterDivision; [redacted]
Subject: Write the EPA

Hi everyone,
What can we do to help to sustain our beautiful state of Missouri, and the waterways that we all love!
If the attached comes through, and you can write the EPA, that is something we can do.
I'm beginning to think, with the total unmovable efforts of our national politicians to even try to work together, we need to work harder at the state levels. Many states were working on environmental needs over the past 4 years, even though the US dropped out of the Paris agreement. Many states are working to become more fiscally sound, given the total ignoring of the National budget in Washington D.D. I don't know how Missouri's governor thinks on this matter.
Anyway, I know many of you love the hills and streams of Missouri, so if you can sent a note, please do! 😊

Cheryl

[redacted]

Comment 67. Ribaudo, Ginny

White, Debby

From: Ginny Ribaudo [redacted]>
Sent: Friday, March 19, 2021 8:55 AM
To: R7-WaterDivision
Subject: Missouri's 40 lakes

Thank you, EPA, for recognizing Missouri's lakes as impaired waters and for ensuring that steps will be taken to clean them up.

Comment 68. Roper, Keith

White, Debby

From: Keith Roper [redacted]
Sent: Thursday, March 18, 2021 10:15 AM
To: R7-WaterDivision
Subject: MIssouri's "impaired" Waters

To Whom It May Concern:

I'm grateful that the EPA recognized our waters that need help. I totally support the priorities that can restore the 40 lakes and/or rivers.

Thank you.

Keith Roper
[redacted]

Comment 69. Ruzicka, Ray

White, Debby

From: Ray Ruzicka <[redacted]>
Sent: Friday, January 15, 2021 1:55 PM
To: R7-WaterDivision
Subject: EPA List of 40 Missouri Waters

I support the EPA's decision to add 40 Missouri bodies of water to the "impaired waters" list.
This is an important step to keeping our waters safe and usable for the people of Missouri.
Ray Ruzicka

Comment 70. Sager, Tom

White, Debby

From: Tom Sager <[redacted]>
Sent: Thursday, March 18, 2021 11:02 PM
To: R7-WaterDivision
Subject: We support the cleanup of Missouri's impaired waterways

Dear EPA:

Thank you for adding 40 Missouri lakes to the list of impaired waterways in Missouri.

We wholeheartedly support the cleanup of these waterways.

Yours sincerely,

Tom and Helen Sager
[redacted]

Comment 71. Scharenborg, Thomas

White, Debby

From: Thomas Scharenborg [redacted]
Sent: Sunday, January 31, 2021 10:19 AM
To: R7-WaterDivision
Subject: Please add the Water sources to the 2020 list.

To whom it may concern,

Please except this letter as my submission of comments regarding the action to add 40 water bodies as impaired by nutrients to Missouri's 2020 List of Impaired Waters under Clean Water Act (CWA) Section 303(d).

We should include these additional 40 locations.

These and all other locations need to be monitored more rigorously for pollutants. Additional measures need to be taken to make every effort to clean our Missouri waterways and water bodies extensively. I am a lifelong Missouri resident and I am concerned for the future of our state. Please make every effort to increase the monitoring of these waterways and add them to the list.

Respectfully submitted,
Thomas P. Scharenborg

Thomas Patrick Scharenborg

Comment 72. Sierra Club, Missouri Chapter

White, Debby

From: CAROLINE PUFALT [redacted] >
Sent: Monday, March 22, 2021 4:07 PM
To: R7-WaterDivision
Cc: caroline Pufalt
Subject: Missouri's 2020 CWA Section 303(d) Comments

Dear EPA Region 7

Thank you for the opportunity to comment on the state of Missouri's 2020 Impaired Waters list.

These comments are submitted on behalf of the Missouri Chapter of the Sierra Club. Our chapter includes 12000 members in Missouri all of whom value our state's natural resources and the many benefits they provide. Our state is well known for its many rivers, streams and lakes which enhance our natural environment and are a source of drinking water, recreation, education and protection of our state's biodiversity.

Our state also struggles with nutrient pollution from a variety of sources, including agricultural runoff, confined animal feeding operations (CAFOS), septic tank systems, urban runoff and more. At the same time our state regulatory system is sometimes faced with limited resources and lack of commitment to monitoring and enforcement of nutrient standards. There are no trends in our state which indicate that the risk of nutrient pollution is decreasing.

We support EPA's determination that the 40 additional lakes and reservoirs included in Appendix C be added to Missouri's 303d list. These water bodies should be included because data is present to indicate that they have experienced measurable nutrient pollution and are in a position to likely suffer that contamination again. EPA has supported relevant data to support their decision. The fact that some of the data is over 3 years old, does not make it irrelevant, especially in the absence of updated data.

On March 18, 2021 Missouri's Clean Water Commission met publically to consider several items. One of those items was consideration of loosening ground water protections for CAFO operations in Missouri, based on excluding "perched water" from protection. This has caused local residents to be concerned about nutrient pollution to the nearby Lake Poosey Conservation Area. Unfortunately the Commission appears willing to permit this increased nutrient pollution risk.

Another item on the Commission's agenda was a response to EPA's Nov 2020 decision on the addition of lakes and reservoirs to the impaired list. In the draft letter available to the public and the oral arguments presented on the 18th, Missouri Department of Natural Resources (MDNR) argued that they had the authority under the Clean Water Act to follow

the standards but also to have authority to establish and implement those guidelines which " balance protection of Missouri's waters with the Department's resources and the implications of listing decisions."

We believe that 303 (d) listing decisions should be based on the scientific data available and assessment of risk. "Implications of listing decisions" should not be a consideration. If a decision is made to list a water body, after that is the time to consider the implications of how and on what schedule remediation can be implemented.

Most of MDNR's comments on the 18th were directed at the listing of the Lake of the Ozarks (LOTO). MDNR stated in the public forum that EPA's decision to list LOTO was based on old and unverified fish kill reports. EPA's decision clearly states that is not the case. EPA cites three sources of criteria and screening data exceedances and impaired monitoring points at LOTO, in addition to low DO fish kill. The fact that some of this data goes back to 2017 should not be a barrier to its consideration, especially in light that monitoring points may not be functional.

LOTO is a popular recreation site in Missouri. Excepting the recent drop in activity due to the pandemic, LOTO continues to see increased development along its shores, increased septic tank use, and increased boating and other lake recreation; all risks of nutrient pollution. Climate change may also bring increased pressures as the area experiences periods of greater heat and drought. If LOTO is to continue to be enjoyed by Missourians it is important not to delay taking action on pollution risks. We appreciate the EPA bringing this issue forward.

Thank you for your evaluation of Missouri's waters and for helping our state progress in protecting those waters.

Sincerely,

Caroline Pufalt,
on behalf of the Missouri Chapter Sierra Club
[redacted]
[redacted] -

Comment 73. Steen, Darrick

White, Debby

From: Darrick Steen [redacted]
Sent: Saturday, March 20, 2021 11:17 AM
To: R7-WaterDivision
Cc: chris.wieberg@dnr.mo.gov; [redacted]; Lisa.Thomas@house.mo.gov; Willard.Haley@house.mo.gov
Subject: EPA Proposed Decision on Missouri's 303d List
Attachments: EPA Mo 303d Letter_Steen.pdf

Dear US EPA Region 7 – please find attached my comments pertaining to EPA's proposed decision to add 40 water bodies, including Lake of the Ozarks, onto Missouri's 2020 List of Impaired Waters, as explained on EPA's website:
https://www.epa.gov/mo/state-missouri-2020-list-impaired-waters
Thanks,
Darrick Steen

Comment 73. Attachment

[redacted]

March 22, 2021

Jeff Robichaud
Water, Wetlands, and Pesticides Division
US EPA Region 7
11201 Renner Boulevard
Lenexa, KS 66219

RE: EPA Proposed Decision on Missouri's 2020 303(d) List

Dear Mr. Robichaud:

Thank you for the opportunity to provide comments on U.S. Environmental Protection Agency (EPA) proposed decision on Missouri's 2020 303(d) List of Impaired Waters (303d list). My family and I are lifelong area residents of Lake of the Ozarks. I am a practicing environmental engineer with 20 years of professional experience, currently serving as the Environmental Director for two major statewide trade associations. I also serve on the School of the Osage Board of Education, one of several K-12 public schools in the Lake area. In addition to my comments below, I would also like to support the comments submitted by the Missouri Department of Natural Resources (Missouri DNR).

On November 30, 2020, EPA Region 7 issued a "proposed decision" to designate 40 additional lakes as "impaired" for nutrients and place them on Missouri's 2020 303d List. For myself and many other residents and businesses in the Lake of the Ozarks area, I was shocked to learn that, without any forewarning by EPA, both Lake of the Ozarks and Truman Reservoir was being listed by EPA as "impaired" for nutrients; a decision that Missouri DNR did not support in its own 303d listing decision just nine months prior.

To start with, I view EPA's decision to "over-list" the Missouri DNR on its 303d list as unnecessary, potentially reckless and certainly within the realm of poor public governance. EPA's decision was made with no prior warning or previous conversation with community leaders at the Lake; a decision that frankly I believe blindsided the entire Lake community!

After speaking directly with Water Protection Program staff at Missouri DNR, this much was made clear, Lake of the Ozarks <u>should not be listed</u> as impaired for nutrients. The fact is Missouri DNR had sound reasoning for <u>not</u> listing the Lake of the Ozarks as impaired. I trust the State to protect water quality at the Lake and I believe EPA should not have overruled Missouri DNR on this delicate and enormously consequently issue.

I'd like to point out, if you're not aware already, that EPA's decision on Lake of the Ozarks and Truman Reservoir in particular, poses grave economic consequences for the Lake of the Ozark's

region, not to mention the entire state. This is because these two Lakes provide a substantial and important contribution to the state's economy via its bustling tourism and recreation industry. The tourism industry at the Lake of the Ozarks also has a direct impact on the local economy of many neighboring communities and counties around the Lake of the Ozarks. This includes many public schools, hospitals and other public entities that rely heavily on the local tax base and economic drivers that the Lake supports.

Lake of the Ozarks is both ecologically important and recreationally significant to Lake area residents, businesses, public schools, and the entire state. According to the Missouri Department of Economic Development (DED), total tourism spending in the central Missouri region, which is dominated by the recreational draw of Lake of the Ozarks, is over $1.2 billion annually. This economic impact is irrefutably linked to water related recreation, boating, fishing and by extension, the general perception of Lake of the Ozarks as having safe quality water.

As such, safe water quality is vitally important to the Lake community. Listing the Lake of the Ozarks as "impaired" suggests that the water in the Lake of the Ozarks is not safe for fish and wildlife, and this conclusion is just patently wrong.

While I am confident that the Lake of the Ozarks community would indeed do whatever is necessary to ensure Lake of the Ozarks is safe, limited tax dollars and resources must be spent wisely. Not only would EPA's decision bring an unnecessary and damaging "black eye" to the Lake community, it also would force local governments and the State to spend limited tax dollars to fix a problem that simply does not exist.

In my view, EPA's decision to add the Lake of the Ozarks to the 303d list was a rushed and premature decision by EPA that should have been evaluated and considered during the State's next 303d listing cycle in 2022. Here are a few reasons why:

- Lake of the Ozarks' Ecoregion Status - I strongly believe the Lake of the Ozarks was recently assigned to the "Ozarks Highland" ecoregion by mistake. I believe the Lake should have been assigned to the "Plains" ecoregion. The Missouri DNR has also acknowledged the Ozarks Highland ecoregion may not be a proper assignment for the Lake, and has signaled that they plan to re-evaluate the Lake's ecoregion status. This is because of the Lake's significant watershed drainage and flow nexus with Truman Reservoir, a "Plains" ecoregion lake. Had the Lake been correctly assigned to the Plains ecoregion, it seems apparent that EPA would not have included Lake of the Ozarks on its proposed 303d list. Furthermore, if EPA moves forward with listing the Lake of the Ozarks, it will be perpetuating an ecoregion assignment error for the Lake, which ultimately will make the process of fixing this error more complex.

- Evidence does not support EPA's listing decision - The fish kill data that EPA relied upon to determine the impairment status at the Lake of the Ozarks provides no conclusive evidence that these events were caused by nutrients. Most of the Lake's fish kill events referenced and relied upon by EPA are clearly attributed to freezing weather, blunt force trauma, and natural disease. None of these factors have anything to do with nutrients.

Furthermore, some of the data EPA relied upon at Lake of the Ozarks became available after the Missouri DNR finished their 303d assessment process. It is unclear why EPA felt it necessary to rush unverified data into its own internal review after the State had finished its assessment process. The assessment process is a two-year cycle process, and this data should have been evaluated during the 2022 assessment. Because the data was rushed by EPA, the State and other public stakeholders were unable to properly review, vet and conduct proper quality control measures on the data. This left EPA to speculate and make assumptions about the data. EPA's assumptions appear to be wrong as the fish kill data for the Lake of the Ozarks lacks solid scientific evidence or clear connections to nutrient and eutrophication causes.

It is clear that Missouri DNR chose not to list Lake of the Ozarks as impaired for nutrients because there was no clear compelling evidence of nutrient impacts. Accordingly, the Lake of the Ozarks should be removed from EPA's proposed listing decision.

I respectfully request that EPA reconsider the proposed listing decision for Lake of the Ozarks and follow the recommendations provided in the Missouri Department of Natural Resources' detailed comments. Keeping Missouri in the lead role in developing and administering its water quality standards and assessment program best serves it citizens and all of Missouri's waters.

Again, thank you for the opportunity to provide comments.

Sincerely,

Darrick Steen, P.E.
Environmental Engineer
Lake of the Ozarks Area Resident
Board of Education-School of the Osage

cc:
Mr. Chris Wieberg, Missouri DNR
Mr. Tom Wright, Miller County Presiding Commissioner
Mr. Greg Hasty, Camden County Presiding Commissioner
Mr. Tony Stephens, Morgan County Presiding Commissioner
Honorable Willard Haley, Missouri House of Representatives District 58
Honorable Lisa Thomas, Missouri House of Representative District 124

Comment 74. Stiffman, Jeffrey

White, Debby

From: Rabbi Jeffrey Stiffman [redacted]
Sent: Saturday, January 16, 2021 11:40 AM
To: R7-WaterDivision
Subject: Missouri water bodies

To Whom It May Concern:

I support the decision to add/restore 40 water bodies to the Missouri's list. I hope that the EPA will concur.

Jeffrey Stiffman
[redacted]

Comment 75. Thompson, James

White, Debby

From: James Thompson <jthomps8326@att.net>
Sent: Monday, February 8, 2021 9:23 AM
To: R7-WaterDivision
Subject: Water Quality - Lake Of The Ozarks

Importance: Low

Dear Sir,
I have Bass fished LOZ quite a bit over the last 20 years and I have noticed an increasing amount of green scum on the bottom of the lake. If I am bottom fishing with a jig I in veritably have to clean 6" long green strands of scum off my lure. This cannot be healthy for the lake. This is most predominant in certain coves. Sometimes on secondary points & sometimes all the way back.

My personal opinion is it is caused by certain property owners with faulty septic tanks. The green scum mostly occurs around certain property. We end up leaving. The scum is all over the bottom.

I recommend you initiate a reporting system that would allow fisherman to report areas of the lake where they are finding this green scum. Most Bass fisherman have GPS they could report coordinates or at least cove & mile marker.

Let's make it a better healthier environment.

Jim Thompson
[redacted]

Comment 76. Troutman, Ashley

White, Debby

From: Ashley Troutman [redacted]
Sent: Thursday, January 21, 2021 8:43 AM
To: R7-WaterDivision
Subject: Message of Support - MO's impaired waters

I am sending this message as my show of support for the EPA's decision to add/restore 40 water bodies to Missouri's list of impaired waters. As an employee of a regional brewery, which relies heavily on clean water sources, and as a resident of Missouri, this is a great step in the right direction.

Thank you,

Ashley Troutman
[redacted]

Comment 77. Turner, Jim R.

White, Debby

From: Jim R Turner [redacted]
Sent: Sunday, March 21, 2021 5:22 PM
To: R7-WaterDivision
Subject: Fwd: Support adding 40 lakes and reservoirs to MO's impaired list

To EPA Region 7

Thank you for the opportunity to comment on the state of Missouri's 2020 Impaired Waters list.

I support the EPA's decision to add 40 additional lakes and reservoirs to the state's list of impaired water bodies. Listing these water resources as impaired is the first step in improving them.

Like many Missourians I appreciate and enjoy our state's rivers, streams and lakes. But as our state grows, so does the risk of nutrient pollution. It's important to evaluate and recognize this problem sooner instead of later. Thanks for helping our state move forward in protecting our lakes and reservoirs from pollution.

I am aware that Mead Nebraska has water problems caused by poor operation of an ethanol plant (https://www.1011now.com/2021/03/01/nebraska-attorney-general-files-lawsuit-against-alten-mead-based-ethanol-plant/), and that highlights the need for vigilance in protection of our water resources.

Sincerely,
James R Turner
[redacted]

Comment 78. Vogts, Melanie and Tim

White, Debby

From: Melanie Weiland [redacted]
Sent: Saturday, December 19, 2020 11:03 AM
To: R7-WaterDivision
Subject: Fwd: Missouri's 2020 CWA Section 303(d) Comments

Please see below. My e mail keeps saying undeliverable for my public comment.

---------- Forwarded message ---------
[redacted]
Date: Sat, Dec 19, 2020, 10:49 AM
Subject: Missouri's 2020 CWA Section 303(d) Comments
To: <EPAR7WaterDivision@epa.gov>

I am a homeowner on the [redacted]. My home is in [redacted] off of [redacted] at approximately the [redacted] marker on the lake. My address is [redacted]. I have lived at the lake since July 2015 and bought this home in January 2018. We love our lake, the waters, the quality of big fish and healthy fish we've seen and or caught and released. We've caught and eaten nice healthy and clean large catfish. We've caught and released big nice clean healthy bass, blue gill, and crappy. We have witnessed every year enormous schools of shad each fall and watch as they grow. We swim in our cove and our grandchildren swim in our cove. We believe our lake is clean and much cleaner than ever before. We've seen the water run thru a hose from the lake and it runs clear. Please don't place our lake on your list we feel it's being cared for properly and have faith that will continue.

Sincerely
Melanie Vogts and Tim Vogts
[redacted]

Comment 79. Warsaw, City Administrator and Planner

White, Debby

From: Randy Pogue [redacted]
Sent: Wednesday, February 10, 2021 8:26 AM
To: R7-WaterDivision
Cc: Lynette Stokes; Eddie Simons
Subject: Truman Lake and Lake of the Ozarks

It is my understanding that the action by the EPA is to assure better water quality in both lakes. If this is the case, better water quality will assure a sense of comfort for those who visit and live in our area as users of the lakes. This should be a positive for our tourism efforts.

Respectfully,

Randy Pogue
City Administrator and Planner

Comment 80. Washia, Rebecca

White, Debby

From: Rebecca Washia <[redacted]
Sent: Thursday, February 11, 2021 2:09 PM
To: R7-WaterDivision
Subject: MO Comment

I've lived at the lake of the ozarks for 33 years and I have watched this lake water go from being comfortable to swimming to what it is today. This lake has gotten worse year after year. When my children were little, my oldest is 26 and youngest 16, I never allowed them to swim in the lake. I'd take them to the creek because the water was always moving and cleaner than the lake. I mean I always said if you had an open wound and swim in the lake good luck with not getting an infection of some sort. I also know several people who will not eat the fish from the lake except maybe bass and catfish and even the catfish are bottom suckers and thats taking a chance.
I'm agreeing with the EPA and everyone else that they need to do what's best for this lake and if it means saying that this lake is impaired then I have to stand behind the EPA and conservation departments and everyone involved.

Comment 81. Webster University, Student (Robles, Briana)

White, Debby

From: Briana Robles [redacted]
Sent: Thursday, March 18, 2021 11:45 AM
To: R7-WaterDivision
Subject: I Support Clean Rivers

To whom it may concern,

I support the EPA's decision to add 40 lakes to Missouri's list of impaired waters under CWA 303(d) as a first step towards doing what is necessary to stop water pollution from fertilizer runoff, animal waste, septic systems, domestic wastewater and other sources, as well as working to clean and restore MO water ecosystems. Clean water is essential for a sustainable future, including human and wildlife welfare.

Thank you for your decision and work towards protecting and restoring MO's bodies of water.

Best,

Briana Robles
[redacted]

Comment 82. Wilkinson, Amy

White, Debby

From: Amy Wilkinson [redacted]
Sent: Thursday, February 18, 2021 7:22 PM
To: R7-WaterDivision
Subject: Clean our waters

The EPA added 40 lakes to Missouri's list of impaired waters — which is a very good thing. We live near a CAFO and we know what comes out of them.

We support cleaning up our state's impaired waters. And we support fining the CAFOs for the cost of cleaning them up.

Amy Wilkinson
[redacted]

Comment 83. Wilkinson, Carolyn

White, Debby

From: Carolyn Wilkinson [redacted]
Sent: Friday, March 5, 2021 11:04 AM
To: R7-WaterDivision
Subject: 40 Water Bodies

Living near a cattle CAFO definitely opens eyes as to why we have such water problems. With water and air being a necessity in life, it makes no sense that we do not get serious about protecting them,

For sure, Department of Natural Resources is not a good overseer of our water.
Too many times they have approved and allowed CAFO's to destroy our water. There should be an enforceable way to have these same entities clean up these water bodies and a way to enforce the regulations.

Comment 84. Witek, Paige

White, Debby

From: Paige Witek [redacted]
Sent: Friday, January 15, 2021 4:00 PM
To: R7-WaterDivision
Subject: Public Comment Period – EPA's Action to Add Waters to Missouri's Impaired Waters List

Hello,

I support the decision to add and restore 40 water bodies to the state's list. It is imperative to the health of not only our water system but our own health as well to restore these Missouri lakes.

Thank you.

Paige Witek
[redacted]

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Comment 85. Wulff, C

White, Debby

From: S. Wulff [redacted]
Sent: Saturday, January 16, 2021 10:36 AM
To: R7-WaterDivision
Subject: Missouri impaired waters

Please help cleanup Missouri's impaired waterways. Missouri is an outdoorsy kind of state. We do lots of fishing. We are not supposed to eat many of the fish caught because of pollution.

Missouri submitted its 2020 CWA Section 303(d) List to EPA on June 26, 2020. Based on its review, EPA has determined that Missouri's impaired waters list partially meets the requirements of Section 303(d) of the CWA and EPA's implementing regulations.
These waters need to be cleaned up to allow sport fishers to safety enjoy (eat) their catch.
Sincerely,
C. Wulff

Comment 86. Wulff, S

White, Debby

From: S. Wulff [redacted]
Sent: Thursday, March 18, 2021 11:48 AM
To: R7-WaterDivision
Subject: Missouri's impaired waterways

Please clean up Missouri's impaired waterways!
I am worried about the general environmental quality of the lakes in Missouri. Nutrient pollution is causing degradation of water quality in many parts of the state. This impacts Missouri residents like me in many ways, whether we use lakes for drinking water or recreation, or simply live near a lake. In addition, because nutrient pollution creates unsightly algal blooms which go on to create toxins and can damage boats, it greatly interferes with the enjoyment of Missouri's lakes. It is therefore important that affected lakes be added to the state's 303(d) list.
I would love to take my grandchildren fishing and then have a big fish fry to celebrate and enjoy our catch.
Unfortunately it's not safe to eat fish caught in Missouri's lakes and streams.
We need a major commitment to repair our wonderful resources for all our grandchildren and their children.
Sincerely,
C. Wulff

Comment 87. Zimmerman, Paulette

White, Debby

From: Zimmerman, Paulette [redacted]
Sent: Saturday, February 6, 2021 2:30 PM
To: R7-WaterDivision
Subject: Missouri Lakes

Dear Sir/Madam:

I strongly support EPA's decision to add 40 lakes to Missouri's list of impaired waters. I am glad that the need to clean up these water bodies is being recognized and that steps are being taken to restore them to their natural purity.

Sincerely,

Paulette Zimmerman
[redacted]

Comment 88. Late Submittal, Cheong, Eileen

White, Debby

From: Eileen Cheong <[redacted]>
Sent: Wednesday, March 31, 2021 11:54 AM
To: R7-WaterDivision
Subject: Clean Water Act (CWA)- Missouri Impaired Waters 303

To whom it may concern,

Thank you for the opportunity to submit my comments in regard to the U.S. Environmental Protection Agency (EPA)'s proposal to add 40 lakes to the Missouri Impaired Waters 303(d) list.

My name is Eileen Cheong and I am a resident of Saint Louis, Missouri. I enjoy swimming at Peaceful Valley Lake which the EPA recommended be added to the Missouri 303(d) list. Under the Clean Water Act (CWA), each individual state's 303(d) list must include all lakes which are impaired or threatened within that state. Ensuring the accuracy of Missouri's 303(d) list will allow the EPA, Missouri, and individual Missourians to keep track of the water quality in Missouri's lakes. However, the proposed 303(d) list submitted to the EPA in 2020 did not include all impaired lakes. As demonstrated by the EPA's Decision Letter, some lakes were erroneously left off of the list due to data and procedural errors.

In order to ensure the proper protection for lakes in my state, I support EPA's recommendation to add Peaceful Valley Lake to the 303(d) list for the following reason(s): I am worried about the general environmental quality of the lakes in Missouri. Nutrient pollution is causing degradation of water quality in many parts of the state. This impacts Missouri residents like me in many ways, whether we use lakes for drinking water or recreation, or simply live near a lake. In addition, because nutrient pollution creates unsightly algal blooms which go on to create toxins and can damage boats, it greatly interferes with the enjoyment of Missouri's lakes. It is therefore important that affected lakes be added to the state's 303(d) list.

I am worried about the drinking water quality of Peaceful Valley Lake. I understand that excess nitrogen and phosphorus causes algae growth which can be detrimental to my health, so I am increasingly worried about becoming sick if I continue drinking this water. Because Peaceful Valley is overly polluted and doesn't have safe drinking water, I also worry about swimming. I see large swaths of green algae in Peaceful Valley Lake which I believe to be algal blooms; I don't feel safe swimming in murky water when I can no longer see below the surface. In addition, I am concerned that I will get sick if I accidentally drink some of the water while swimming.

I am worried about the impact of nutrient pollution on Shepherd Mountain lake areas. These areas are important to me and my community because of their recreational and conservation value. Because nutrient pollution can be harmful to the ecosystem and to people, it is a threat to the special character of Shepherd Mountain. As such, I believe that Shepherd Mountain deserve(s) to be protected and included on the impaired waters list. This will ensure that its value to the public will be preserved for the future.

I am concerned about the impact of fertilizer runoff from farms in my community on Cedar Lake. The fertilizers that are used in the farms to grow crops contain nitrogen and phosphorus which I understand are harmful if they get into Shelbyville's waters.

I am worried that these chemicals are contaminating the water and that it is no longer safe for fishing, drinking, and other recreational activities. In summary, I support EPA's proposal to add Peaceful Valley, Shepherd Mountain, Cedar Lake and Shelbyville to the 303(d) list in order to begin the process of ensuring that the water is [safe to drink/available for safe and quality fishing/safe for swimming]. I cannot emphasize enough how concerned I am for my health and the health of my community. I am counting on the Missouri Department of Natural Resources and EPA to keep me safe and

to ensure that Peaceful Valley, Shepherd Mountain, Cedar Lake and Shelbyville are safe for me to swim in/drink water from/fish in.

Thank you for the opportunity to provide comments during this process.

Sincerely,
Eileen Cheong
[redacted]

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There is really nothing you must be and there is nothing you must do. There is really nothing you must have and there is nothing you must know. There is really nothing you must become. However, it helps to understand that fire burns, and when it rains, the earth gets wet.
-Rumi

[redacted]

Comment 89. Late Submittal, Missouri Coalition for the Environment (Cyr, Alexander)

White, Debby

From: Cyr, Alexander [redacted]
Sent: Wednesday, March 31, 2021 6:17 PM
To: White, Debby
Subject: RE: Thank you for your Comment

Ms. White,

Will the EPA be publishing the public comments which were received? I have not been able to find an EPA docket ID for this issue.

Best,

Alex Cyr

From: White, Debby <White.Debby@epa.gov>
Sent: Monday, March 22, 2021 6:39 PM
To: [redacted]
Subject: Thank you for your Comment

Thank you for your comment regarding the addition of 40 water bodies to Missouri's 2020 CWA Section 303(d) List for chlorophyll-a (W). The input of concerned citizens is critical to our nation's water quality. After considering public comments and making any revisions EPA deems appropriate, EPA will transmit the listing to the state and to commentors' email addresses. Public comment will end on **March 22, 2021**.

Sincerely,
Debby White
Environmental Specialist

EPA, Region 7 Water Division
Water Quality and Standards Branch

Debby White
Regional ATTAINS Data Management Coordinator
CONTACT INFORMATION: 913-551-7886 / WHITE.DEBBY@EPA.GOV / USEPA REGION 7 / WATER DIVISION-SAW / 11201 RENNER BOULEVARD / LENEXA, KANSAS 66219

Learn about your water at *How's My Waterway?*

Comment 90. Late Submittal, City of Osage Beach

White, Debby

From: Angel Quade <[redacted]>
Sent: Tuesday, March 30, 2021 2:10 PM
To: R7-WaterDivision
Cc: Jeana Woods; John Olivarri
Subject: Impaired Waters Status for Lake of the Ozarks
Attachments: 20210330 LTR_USEPA_IMPAIRED WATERS.pdf

Mr. Robichaud,

Please see attached letter from Osage Beach Mayor John Olivarri.

Thank you,

Angel Quade
City of Osage Beach
Administrative Assistant
1000 City Parkway
Osage Beach, Missouri 65065
573-302-2000 ext 1012
573-302-2039 FAX
[redacted]

Comment 90. Late Comment Attachment

City of Osage Beach
1000 City Parkway • Osage Beach, MO 65065
Phone [573] 302-2000 • Fax [573] 302-0528 • www.OsageBeach.org

March 30, 2021

United States Environmental Protection Agency, Region 7
Mr. Jeffery Robichaud
Director, Water Division
11201 Renner Blvd.
Lenexa, Kansas 66219

Via Email R7-WaterDivision@epa.gov

Dear Mr. Robichaud:

The City of Osage Beach appreciates the opportunity to provide comments to the United States Environmental Protection Agency (USEPA) regarding the Missouri Department of Natural Resources' (MDNR or State) Clean Water Act (CWA) 2020 303(d) List of Impaired Waters, as it may apply to the Lake of the Ozarks in Missouri. The City of Osage Beach is in the heart of Lake of the Ozarks, the Midwest's premier lake destination with world-class boating, fishing, state parks, and other outdoor recreation for residents and visitors. The Lake region's recreation and tourism industry is vitally important to our economy as well as the State of Missouri's economy.

The City of Osage Beach has reviewed the public comment submitted by Ameren Missouri and agrees with the information provided in that statement. The City requests USEPA reconsider the placement of the Lake of the Ozarks on the 2020 303(d) List of Impaired Waters.

Sincerely,

John Olivarri
Mayor

JO: jw