

# Lake Providence Watershed Council



## MANAGING LAKE PROVIDENCE WATERSHED RESOURCES

*2023 Update*

*An Annual Report to the Louisiana Legislature*

*April 2023*

*To the Distinguished Members of the House Committee on Natural Resources and Environment and Senate Committee on Environmental Quality of the Louisiana Legislature,  
and to the People of the Great State of Louisiana*

April 26, 2023

Dear Senators and Representatives:

We, the members of the Lake Providence Watershed Council, have completed this Annual report in accordance with House Concurrent Resolution No. 96 of the Regular Session 2020.

Specifically, the Lake Providence Watershed Council provides this update to the watershed management plan submitted to the legislature in April 2021. It is the intent of this Council, interested stakeholders, and all those involved in the project to preserve, protect, and enhance the quality of Lake Providence located in East Carroll Parish - now and for generations to come.

The citizens of Louisiana deserve to have a restored and viable Lake Providence. The lake restoration and revitalization can be accomplished through engineering, education, enticement, as well as, enforcement of existing and new regulations focused on best management practices.

This update report describes the on-going activities and efforts by the Lake Providence Watershed Council, East Carroll Parish Police Jury and local stakeholders, and offers background information, graphs, charts and maps, and further recommendations for your review. We look forward to any further guidance or feedback as we press forward with managing the Lake Providence Watershed Resources Project.

We appreciate the support of the Louisiana Legislature as we move forward with this plan of action.

Sincerely yours,

***The Members of the Lake Providence Watershed Council***

## Lake Providence Watershed Fact Sheet

### Lake Providence Watershed:

- East Carroll Parish
- Total area: ~17,000 acres
- Cultivated area: ~11,000 acres (64%)
- Developed area: ~1,600 acres (14%)
- Forested/Other Use area: ~2,700 acres (12%)
- Open water: ~1,700 acres (10%)
- Average Annual Precipitation: ~57 inches

### Lake Providence

- Owned by the State of Louisiana
- Oxbow/horseshoe lake – abandoned meander of the Mississippi River
- Area: ~1,380 acres (3,200 acres with associated wetlands)
- Shoreline (including the Chute): ~74,000 feet (14 miles)
- Developed shoreline: ~46,000 feet (9 miles)
- Pool stage: ~90 feet above mean sea level (NGVD)
- Maximum depth: ~37 feet
- Average depth: ~12 feet
- Primary Outfall - Tensas Bayou spillway
- Secondary Outfall - Baxter Bayou Structure

Sources: LDWF, LDNR, LDOTD, NRCS

**Members of the Lake Providence Watershed Council**

**(1) Kevin Wofford**

Designee of the Commissioner of the Louisiana Department of Agriculture and Forestry  
P.O. Box 631, 5825 Florida Blvd.  
Baton Rouge, LA 70821-0631  
Phone: (225) 925-3763/Email: [kevin\\_w@ldaf.state.la.us](mailto:kevin_w@ldaf.state.la.us)

**(2) Aimee Preau**

Designee of the Secretary of the Louisiana Department of Environmental Quality  
P.O. Box 4314  
Baton Rouge, LA 70821-4314  
Phone: (225) 219-3357/Email: [Aimee.Preau@la.gov](mailto:Aimee.Preau@la.gov)

**(3) Tyler Lollis**

Designee of the Secretary of the Louisiana Department of Health  
1525 Fairfield Avenue, Room 569  
Shreveport, LA 71101  
Phone: (318) 361-7210/Email: [Tyler.Lollis@la.gov](mailto:Tyler.Lollis@la.gov)

**(4) Thomas Van Biersel, Vice Chairperson**

Designee of the Secretary of the Louisiana Department of Natural Resources  
P.O. Box 44487, 617 North Third Street  
Baton Rouge, Louisiana 70804-4487  
Phone: (225) 342-1813/Email: [thomas.vanbiersel@la.gov](mailto:thomas.vanbiersel@la.gov)

**(5) Kristi Butler, Chairperson**

Designee of the Secretary of the Louisiana Department of Wildlife & Fisheries  
P.O. Box 98000, 2000 Quail Drive  
Baton Rouge, LA 70898  
Phone: (225) 765-2331/Email: [kbutler@wlf.la.gov](mailto:kbutler@wlf.la.gov)

**(6) Katrina Jackson**

Senator – District 34  
4106 DeSiard St.  
Monroe, LA 71203-4526  
Phone: (318) 343-2877/Email: [jacksonk@legis.la.gov](mailto:jacksonk@legis.la.gov)

**(7) C. Travis Johnson**

Representative – District 21  
200 Advocate Row, Suite D  
Vidalia, LA 71373  
Phone: (318) 336-5865/Email: [hse021@legis.la.gov](mailto:hse021@legis.la.gov)

**(8a) Donna Winters**

Appointed by the Senator from Senate District 34  
3560 Hwy 134, Lake Providence, LA 71254  
Phone: (318) 282-5210/Email: [dbwd@yahoo.com](mailto:dbwd@yahoo.com)

**(8b) Mark Brown**

Appointed by the Senator from Senate District 34  
988 Oswalt Rd., Lake Providence, LA 71254  
Phone: (318) 669-6606/Email: [northend1961@gmail.com](mailto:northend1961@gmail.com)

**(9a) Kenneth A. "Andy" Brister**

Appointed by the representative from House District 21  
Brister & Brister.  
318 Morgan Street, PO Box 266  
Lake Providence, LA 71254  
Phone: (318) 559-5800/Email: [andy@bristerlaw.com](mailto:andy@bristerlaw.com)

**(9b) Jim Lensing**

Appointed by the representative from House District 21  
Lensing, Lensing, Cunningham & Hager, Inc.  
500 Lake Street, Lake Providence, LA 71254  
Phone: (318) 669-5465/Email: [jimlensing@gmail.com](mailto:jimlensing@gmail.com)

**(10a) Roger Clement**

East Carroll Parish Police Juror - District 5  
100 Luke Dr., Lake Providence, LA 71254  
Phone: (318) 282-4609/Email: [LWOC@bellsouth.net](mailto:LWOC@bellsouth.net)

**(10b) Francis Lensing**

Appointed by East Carroll Parish Police Jury  
Lensing, Lensing, Cunningham & Hager, Inc.  
500 Lake Street, Lake Providence, LA 71254  
Phone: (318) 559-2648/Email: [francisllch@bayou.com](mailto:francisllch@bayou.com)

**(11) Reynold S. Minsky**

Appointed by the East Carroll Parish Sheriff  
506 Island Point Drive, Lake Providence, LA 71254  
Phone: (318) 559-1613/Email: [minsky@bayou.com](mailto:minsky@bayou.com)

**(12) Brian Howard**

Appointed by the town of Lake Providence  
Lake Providence, LA 71254  
Phone: (318) - /Email: [ba\\_howard@mac.com](mailto:ba_howard@mac.com)

**Other Contributors to the Report**

**Ryan Daniel**

Louisiana Department of Wildlife & Fisheries

Email: [rdaniel@wlf.la.gov](mailto:rdaniel@wlf.la.gov)

**William Finkbeiner**

Louisiana Department of Wildlife & Fisheries

Email: [wfinkbeiner@wlf.la.gov](mailto:wfinkbeiner@wlf.la.gov)

This third annual report update is submitted to the Louisiana Legislature, specifically the House Committee on Natural Resources and Environment, and the Senate Committee on Environmental Quality in accordance with HCR 96 of 2020. Ongoing Activities, Concerns and Maintenance Issues by the Lake Providence Watershed Council (LPWC) are as follows:

### ***1. Meetings of the Lake Providence Watershed Council***

The LPWC met in person in Lake Providence on May 4, 2022, October 19, 2022, January 18, 2023, and April 12, 2023, and by conference call on April 25, 2022 and August 17, 2022. The agendas and minutes of the council meetings can be found on the LPWC webpage on the LDNR website at <http://www.dnr.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=1316>.

### ***2. Repair at the Tensas Bayou Landing***

In 2022, the East Carroll Police Jury (ECPJ) contracted the repairs to the bulkheads at the Tensas Bayou Landing boat launch (see Appendix A).

### ***3. Sediment influx into the North Flats***

The council notes that by far the most successful action has been the cover crop program on the surrounding agriculture land that peaked in 2018 and has since diminished due to lack of public funding. During this period, there was high participation in the program administered by NRCS which funded the seeding of agriculture land which served to stabilize the soil and decrease the amount of sediment movement into the lake. It is obvious that this effort greatly enhanced the quality of the water which resulted in greatly improved quality of fish and overall recreational use of the lake.

It is acknowledged that the greatest threat to the viability of the lake is the large amount of sediment that continues to enter at the north end from Jack Falls Bayou (Figure 1). This waterway takes runoff from approximately 4,500 acres of agricultural land. So far, the council has not developed a plan to address this. Any remedy will be expensive and require a sacrifice of private lands. Some possible remedies are diversion of some of the runoff to outlet, sediment basins, or more intense soil stabilization measures.

### ***4. Lake Providence Water Quality***

The Lake Providence fish and wildlife propagation use, identified as impaired in 2016 due to high total dissolved solids, was fully restored as per the 2020 water quality assessment. The 2022 assessment, however, indicates that use is now impaired by low dissolved oxygen (DO) due in part to agricultural land uses. The water quality standard for DO in the lake is 5.0 mg/L. The data used for the 2022 assessment showed a DO excursion rate of 10.3%, exceeding the 10% threshold.

Nutrient and sediment runoff from agricultural fields contributes to low DO. Changes in the watershed potentially associated with the degraded water quality may include reduced conservation practice implementation on cropland due to the conclusion of the USDA NRCS' BMP incentives project in the watershed, and weather-related obstacles to implementation. NRCS' Mississippi River Basin Initiative work concluded in October 2020.



Figure 1: Lake Providence subbasin. Colored in yellow are field planted in 2022 in corn, in green soybeans, and in red cotton. All other areas represent undeveloped or developed land and open water (data: USDA CropScape)



Additional runoff from exposed streambanks after dredging/clearing/snagging or other structural work that disturbs streambanks and streambeds may exacerbate low dissolved oxygen (DO).

#### ***5. Ongoing damage and repairs to the Tensas Bayou Weir***

This older weir, which is the primary drain for the lake, does not allow for lake level manipulation (Appendix B). It is in disrepair and being bypassed along its side and underneath its base. In the past, the East Carroll Parish Police Jury has placed cement bags on the structure to maintain its integrity. The East Carroll Parish Police Jury has been in contact with the LDOTD and has hired an engineer to prepare plans to replace the weir. Current estimates suggest that the design work will begin in 2023.

#### ***6. Ongoing Damage to the Baxter Bayou Control Structure***

Baxter Bayou only allows water to flow out of the lake at high stage, otherwise reverse flow can occur at time of unevenly distributed precipitation. Currently, the structure does not allow for lake level manipulation as the gate valve is in disrepair and can no longer be operated. In addition, the structure is bypassed by the flowing water, both along the side and beneath the structure.

#### ***7. Ongoing Lake Level Monitoring***

The lake monitoring gage installed at the former swimming pier by the Louisiana Geological Survey was moved to a new location in September 2021 after a portion of the pier received damaged (e.g. collapse) during the June 2021 flood resulting in the gage no longer being able to be accessed from shore. The new location of the gage is on a private pier. Due to the pandemic restrictions and because the gage was not accessible for an extended period of time, some data (most of 2021) was lost, including that for the flood on June 2021 (Figure 2). To display the data of the 2021 flood, Figure 3 shows the stream stage data from the Corps gage on Tensas Bayou at Transylvania, LA.

#### ***8. Louisiana Watershed Initiative***

The East Carroll Parish Police Jury has had a representative participating in the Louisiana Watershed Initiative meetings since the onset of the program.

#### ***9. Current Plans to replace the Control Structures***

The East Carroll Parish Police Jury has been working for the past several years with the Louisiana Department of Transportation and Development to replace the weir on the Tensas Bayou. As reported in previous report, the weir built prior to 1970 to maintain the lake pool level, is in disrepair (see cover page and Appendix B) and currently being partially bypassed. Current estimates suggest that the design work will begin in 2023.

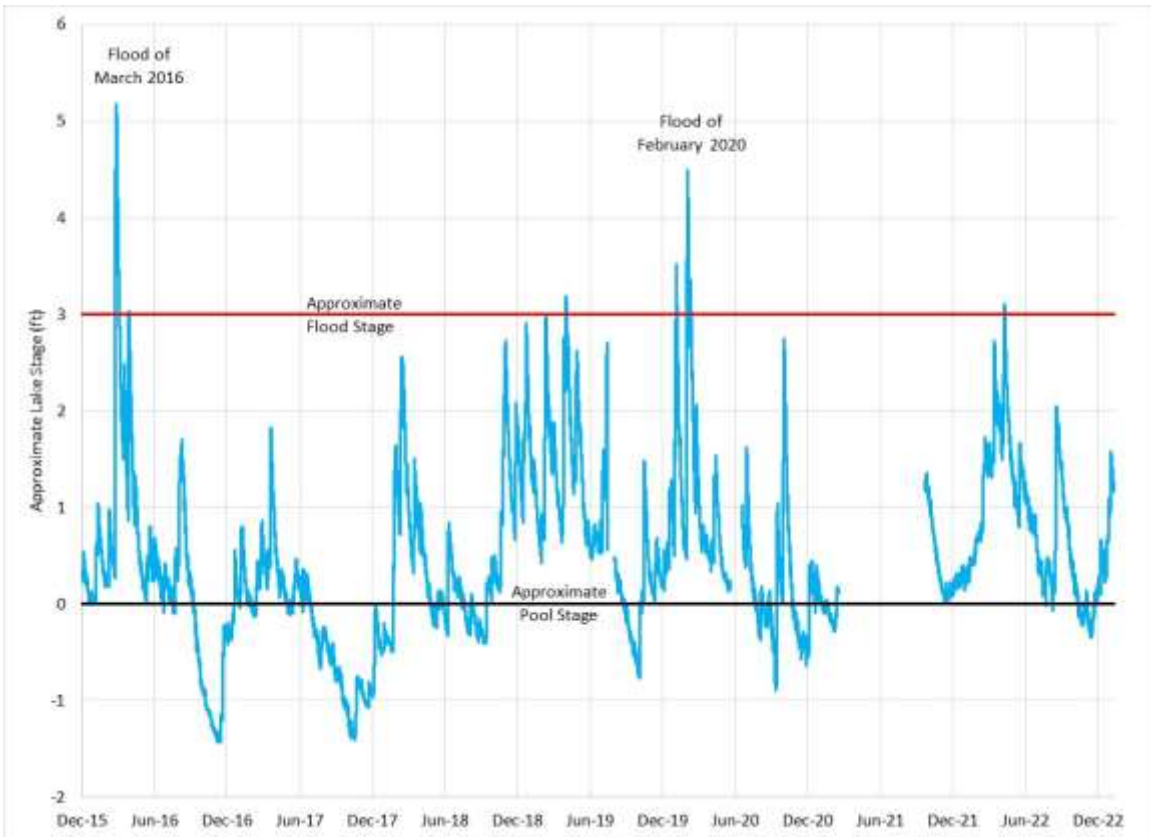


Figure 2: Recorded lake stage in feet above approximated pool stage (~90 ft.NAVD29).

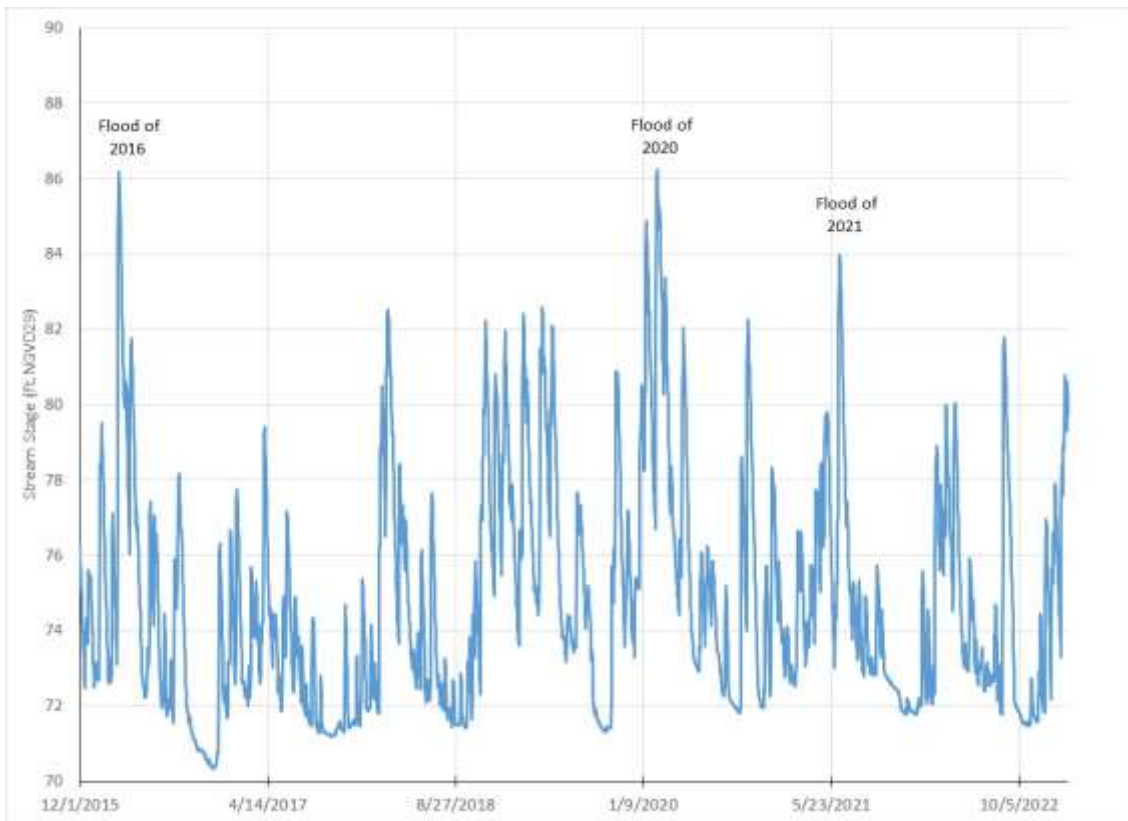


Figure 3: Recorded stream stage in feet (NAVD29) at the gage on Tensas Bayou at Transylvania.

## ***10. LDEQ Nonpoint Source, Clean Water Act Section 319 Program***

LDEQ 319 monitoring of the watershed concluded in October 2021, one year past the conclusion of NRCS' conservation practice implementation under the Mississippi River Basin Initiative. Monitoring continues through LDEQ's ambient water quality monitoring program as part of the statewide water quality assessment.

## ***11. Ongoing Fisheries Data Collection***

On February 6, 2023, LDWF, in conjunction with the Lake Providence Bass Club, deployed approximately 100 Christmas trees in four locations (see Appendix C). The tree reefs are intended to provide much needed shoreline and near-shore cover for various sport fish species in LP. The shoreline trees serve as desirable protective cover for young fish, especially recently hatched fry and fingerlings. The absence of native aquatic vegetation in LP makes any additional cover more important for the survival of several species, including Largemouth Bass, crappie, and bluegill. The near-shore reefs are attractive to both young and adult bass and crappie and provide convenient areas for anglers to fish.

Once they are added to the system, coordinates for the reef locations may be found on the LDWF Outdoor Explorer Map at

<https://ldwf.maps.arcgis.com/apps/MapSeries/index.html?appid=4c4a4d9526c248c080c3eaa4808b9bea>

Click on the "Get on the Water" Tab and select the Freshwater Artificial Reef Layer. . The trees are not marked but can be found at the following waypoints (given in decimal degrees):

- Iron Pier – 8 bundles placed directly in front of pier in 9 ft. depth; Coord.'s: N32.8148, W91.1807
- Tensas Hole – 6 bundles in Tensas Bayou at 10 ft. depth; Coord.'s N32.8092, W91.1939
- Old Swimming Pier – 8 bundles at 15 ft. depth; Coord.'s N32.8136, W91.1925
- Chute Shoreline – 6 floating bundles in 2 – 3 ft. depth; Coord.'s N32.82389, W91.19456

## ***12. Other Funding Sought and Supported***

### **12.1 Capital Outlay**

East Carroll Parish Police Jury submitted an \$800,000 request through capital outlay for the Tensas Bayou weir and drainage for FY22-23.

### **12.2 U.S. Army Corps of Engineers Project Cleaning Bayou Macon, Big Colewa Bayou and Tensas River**

The USACE in Coordination with the Fifth Levee District has applied for the flood mitigation money for the Tensas River clean out. The application is still pending, but the funding a survey of the Tensas River and the ensuing computer model development has been secured. The result of the model would reflect the impact of any work done on the Tensas River.

## **Bibliography:**

Lake Providence Watershed Council, 2016. An Interim Report to the Louisiana Legislature May 2016: report submitted to the House Committee on Natural Resources and Environment and the Senate Committee on Environmental Quality, pp. 125.

Lake Providence Watershed Council, 2020. An Interim Report to the Louisiana Legislature April 2020: report submitted to the House Committee on Natural Resources and Environment and the Senate Committee on Environmental Quality, pp. 42.

Lake Providence Watershed Council, 2021. An Annual Report to the Louisiana Legislature April 2021: report submitted to the House Committee on Natural Resources and Environment and the Senate Committee on Environmental Quality, pp. 19.

Lake Providence Watershed Council, 2022. An Annual Report to the Louisiana Legislature April 2023: report submitted to the House Committee on Natural Resources and Environment and the Senate Committee on Environmental Quality, pp. 41.

## Appendix A

# Photographs of the Repair at the Tensas Bayou Landing



Photo A1: On-going repair at the Tensas Landing boat launch. Photo taken 10/17/2022 by Francis Lensing



Photo A2: Finished repair at the Tensas Landing boat launch. Photo taken 10/17/2022 by Francis Lensing.



Photo A3: On-going repair at the Tensas Landing boat launch. Photo taken 10/17/2022 by Francis Lensing



Photo A4: Finished repair at the Tensas Landing boat launch. Photo taken 10/17/2022 by Francis Lensing





Photo A5: Finished repair at the Tensas Landing boat launch. Photo taken 10/19/2022 by Thomas Van Biersel

Appendix B  
Tensas Bayou Weir Photographs



Photo B1: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B2: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B3: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B4: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B5: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B6: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B7: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B8: Downstream view across the Tensas Bayou Weir. Notice the dislodged front apron (taken by Thomas Van Biersel on 10/19/22).



Photo B9: Downstream view across the Tensas Bayou Weir. North edge of the weir where water bypass the structure (taken by Thomas Van Biersel on 10/19/22).



Photo b10: View across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).



Photo B11: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).





Photo B12: Downstream view across the Tensas Bayou Weir (taken by Thomas Van Biersel on 10/19/22).

Appendix C  
Lake Providence Christmas Tree Aquatic Reefs Project  
Photographs



Photo C1: View of some of the tree provided by stakeholders and ballast to make aquatic reefs (taken by Ryan Daniel on 2/6/23).



Photo C2: Loaded tree and ballast to make aquatic reefs (taken by Ryan Daniel on 2/6/23).



Photo C3: Christmas tree aquatic reef (taken by Ryan Daniel on 2/6/23).