

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



**OFFICE OF FISHERIES
INLAND FISHERIES SECTION**

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

CHICOT LAKE

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

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LAKE HISTORY

GENERAL INFORMATION

Date reservoir formed

Work on the lake site began in 1938 with partial clearing of the lake bottom, building of service roads and bridges, and construction of a one-mile levee and concrete spillway along the northeast boundary of the State Park. The lake was impounded in the late winter of 1942 by closing the dam alongside the spillway across Chicot Bayou, south of St. Landry, LA. A drawdown structure and system of drainage channels were constructed in 1963. In 1985, it was determined that the original floodgate structure needed to be replaced. In late 1985, the lake was drained to the main channel. The original spillway and floodgate was demolished. Construction of the new spillway and floodgate began in 1986. The spillway construction project was complete in December of 1987 and lake was allowed to refill.

Impoundment

Owners – Louisiana State Parks

Purposes for creation – Recreational Activities (fishing, boating, site seeing) On July 6, 1936, House Bill 338 was passed by the Louisiana Legislature which authorized and directed the State Parks Commission to purchase a site for development of a state park in Evangeline Parish: (Chicot State Park). The legislature would appropriate \$25,000 for the purchase of not less than a 4,000 acre park site, including all of Chicot Lake.

Size

1,642 acres

Watershed

Watershed size is approximately 24,000 acres

Watershed ratio is 14:1

Land cover in the watershed is composed of rolling upland forest hills (pine/hardwood).

There is little or no agricultural run-off.

Pool stage

46.2' above mean sea level (MSL)

Parish/s located

Located 7 miles north of Ville Platte, Louisiana in Evangeline Parish on Hwy 3042.

(Latitude – 30^o 47' 27'' N Longitude – 92^o 16' 13'' W)

Drawdown description

There is a 200-foot spillway with 3 gates used to conduct drawdowns.
Spillway – 200 ft.
Gate size – 3-4 ft. x 4 ft. openings
Number of gates - 3
Condition –Good
Flow rate – Two gates opened 24 inches each can drop the lake 4 inches per day.

Sluiceway location – N/A
Sluiceway opening - N/A
Condition – N/A
Flow rate – N/A

Who controls

Louisiana Department of Transportation and Development (DOTD)

LAKE AUTHORITY

Louisiana State Parks owns and operates Chicot State Park
Louisiana Department of Wildlife & Fisheries (LDWF) manages the fish population in Chicot Lake which lies entirely within the park
LDWF - Opelousas, LA (337) 948-0255

Authorization

Louisiana State Parks – Chicot State Park (337) 363 – 2403 or:
<http://www.crt.state.la.us/parks/>

Anyone fishing on OSP property must adhere to all state and federal laws and criteria regarding fresh and/or salt water fishing. The taking of fish by nets, traps or any means other than hook or line is prohibited at any and all sites, except for management purposes as authorized by special permit.: AUTHORITY NOTE: Promulgated in accordance with R.S. 56:1681-1690 and R.S. 36:204.

ACCESS

Locations of boat ramps and fishing piers are indicated on the maps located in [Appendix I](#).

Boat docks

Adjacent to 3 boat ramps, all within the state park

Piers

Two four hundred foot fishing piers are available. Artificial reef structures and gravel beds have been constructed adjacent to the piers to attract sport fishes thereby potentially increasing angler success.



Figure 1. District 6 LDWF personnel design artificial reefs for deployment in Chicot Lake, LA, during 2001.

Reefs

LDWF has constructed and deployed artificial reefs along the south fishing pier (Figures 1 and 2). These structures consist of feed pallets (17x24 inches) placed over a single PVC pipe (2 inches in diameter) that is anchored, using concrete, in a 2 gallon plant pot. There are nine artificial structures that parallel the south fishing pier. In Figure 1 LDWF personnel are designing poly reefs for the south fishing pier, and in Figure 2 deploying the reefs within easy access to anglers. All reefs are visibly marked with buoys. Reefs attract bait fish, which in turn attract preferred predators such as largemouth bass, crappie and bream.



Figure 2. LDWF personnel deploy artificial reefs on Chicot Lake, LA during 2001 which provide great cover for all species of fish.



Figure 3. LDWF personnel placing sand and gravel beds near a fishing pier on Chicot Lake, LA, during 2001.

In Figure 3, LDWF personnel wash sand and gravel onto the bottom of Chicot Lake next to the south fishing pier for the purpose of creating spawning habitat for sunfishes. The sand and gravel bed is approximately 4 to 6 inches in depth along both sides of the fishing pier. The bream in Chicot Lake spawn normally around the middle of April, depending on water conditions and temperature. However, spawning may continue into late summer. This will allow visitors to the Chicot State Park the opportunity to catch and harvest sunfish.

SHORELINE DEVELOPMENT

State/National Parks

Chicot State Park is approximately 6,000 acres. Chicot Lake lies entirely within the boundaries of the Chicot State Park. <http://www.crt.state.la.us/parks/>

Shoreline development by landowners

There is no privately owned shoreline adjacent to Chicot Lake.

PHYSICAL DESCRIPTION OF THE WATER BODY

Before impoundment, Chicot Lake was a cypress-tupelo swamp bordered by upland hardwood forest. After impoundment, cypress decreased in density in the deeper water, but increased abundance in the shallow littoral zone. Permanently flooded upland tree species

died, creating complex cover in the form of stumps and logs throughout the lake. A few bottomland hardwoods have survived in shallow water. A main channel runs through the center of the lake averaging 14 –16 feet deep. The fingers or coves off of the channel average 5 – 7 feet deep at pool stage. Numerous stumps, logs and submerged vegetation make up the majority of complex cover.

Shoreline length

32 miles of shoreline

Timber type

Cypress/tupelo

Average depth

7 feet

Maximum depth

16 feet

Natural seasonal water fluctuation

Water level fluctuation is typically about 1 –2 feet.

EVENTS / PROBLEMS

A drawdown program began on the lake in 1945 in an effort to combat the rapid spread of aquatic vegetation. The program was not successful because insufficient drainage allowed water to be trapped in the numerous wooded bays. The lake was drained in 1963 and a channel dredged to facilitate better drainage during fall drawdown periods. Restocking was conducted 1963-1964.

In 1985, it was determined that the original floodgate structure needed to be replaced. The lake was drained, and the spillway and floodgate were demolished. The spillway construction project was complete in December 1987, and the lake was allowed to refill. Restocking was initiated in 1988.

In 1988, measures intended to improve the Chicot Lake bass population were initiated, including the introduction of Florida largemouth bass (FLMB) and implementation of a 14 inch minimum length limit (MLL). In April 1989, a 16 inch MLL was implemented to continue protection of a strong year class. In April 1991, a 14 – 17 inch protected slot limit was implemented to establish a quality bass fishery.

In 1993, a restriction for Chicot Lake was adopted that restricts the use of yo-yos to the period from November 1 – March 1. Associated restrictions limited the number of yo-yos to 24 per boat, and required each yo-yo to be tagged with:

- the name of the responsible party
- the registration number of the boat
- the date and time the yo-yo was set

The restriction also required yo-yos to be attended and re-tagged at least every 48 hours.

In December of 2011 a new yo-yo restriction was adopted. Yo-yo's can be fished from January 1 – December 31 of each year. Associated restrictions limited the number of yo-yo's to 50 per fishermen and required each yo-yo to be tagged with:

- the name of owner or user
- the address of owner or user
- the phone number of owner or user

The restriction also required yo-yo's to be re-baited at least once every 24 hours.

As of January 1, 2013, restrictions on yo-yos in Chicot Lake are:

- No more than 50 yo-yos or trigger devices, shall be allowed per person
- Each yo-yo or trigger device shall be clearly tagged with the name, address and telephone number of the owner or user.
- All fish or any other animals caught or hooked, shall be immediately removed the device.
- Each yo-yo or trigger device must be re-baited at least once every 24 hours.
- No yo-yo or trigger device shall be attached to any metallic object.

A stock assessment of the largemouth bass population was conducted from 2010-2012 to evaluate the long standing protected slot limit regulation. The assessment showed that this regulation did not accomplish the intended goal of providing increased catches of larger quality-size bass. As a result of the evaluation, the 14-17 inch protected slot limit on largemouth bass was removed on April 20, 2014.

MANAGEMENT ISSUES

Aquatic Vegetation

Since impoundment, Chicot Lake has had an overabundance of submerged aquatic vegetation. Main species include coontail (*Ceratophyllum demersum*), fanwort (*Cabomba caroliniana*), American lotus (*Nelumbo lutea*), and invasive species including water hyacinth (*Eichhornia crassipes*) and hydrilla (*Hydrilla verticillata*). Control efforts for water hyacinth include applications of the herbicide 2,4-D (di-chlorophenoxy acetic acid). Sonar (fluridone) has been used for hydrilla control. Drawdowns are also used to control submerged vegetation.

In 2013, foliar herbicide applications were made to control nuisance plants such as water hyacinth, alligator weed and common salvinia. A total of 224 gallons were used to control 596 acres of vegetation. To control water hyacinth, 2,4-D was applied at a rate of 0.5 gallons per acre. Alligator weed was controlled with Imazapyr (0.5 gal/acre) and Inergy surfactant (0.25 gal/acre). A mixture of diquat (0.25 gal/acre) and glyphosate (0.75 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz/acre) surfactants was used to control common salvinia.

In October of 2013, 600 triploid grass carp (TGC) were released in Chicot Lake. Triploid grass carp are sterile and are effective in the control of hydrilla when stocked in appropriate numbers and contained within the waterbody. The stocking rate was 3 fish per vegetated acre. To reduce potential loss through predation, the minimum size for the stocked TGC was 12 inches in length.

A 3 foot drawdown in the fall of 2013 helped reduce aquatic plant coverage in Chicot Lake. The control structure was opened on September 11, 2013 to allow dewatering at a rate of 3 inches per day. The control structure was closed on September 19, 2013 when water levels reached three feet below pool stage.

In 2014, foliar herbicide applications were made on nuisance plants such as water hyacinth and common salvinia in Chicot Lake. A total of 41 gallons were used to control 58 acres of vegetation. A mixture of diquat (0.25 gal/acre) and glyphosate (0.75 gal/acre) with Aqua King Plus (0.25 gal/acre) and Air Cover (12 oz/acre) surfactants was used to control common salvinia and water hyacinth. Diquat (0.75 gal/acre) and glyphosate (0.75 gal/acre) were applied to control common salvinia and water hyacinth.

In May of 2014, an in-water herbicide treatment was made using granular fluridone near the north fishing pier in Chicot Lake to control hydrilla growth. This growth was hindering fishing opportunities from the pier. Twenty acres of hydrilla were treated near the north fishing pier with 120 pounds of Sonar Q & Sonar PR granular herbicide. Results from this application were minimal as hydrilla continued to be present after the application.

A 3 foot drawdown in the fall of 2014 continued to help minimize the submerged aquatic plant growth in Chicot Lake. The control structure was opened on September 2, 2014 to allow dewatering at a rate of 3 inches per day. The control structure was closed on September 10, 2014 when water levels reached three feet below pool stage.

In 2015, foliar herbicide applications were made on nuisance aquatic plants such as water hyacinth, giant salvinia and common salvinia. A total of 52 gallons were used to control 63 acres of vegetation. Diquat (0.75 gal/acre) and glyphosate (0.75 gal/acre) were applied to control common/giant salvinia and water hyacinth. * Giant salvinia was discovered in the lake in the fall of 2015.

In May of 2015, an Aquathol K herbicide treatment was applied near the north fishing pier in Chicot Lake to control hydrilla growth. This growth was hindering fishing opportunities from the pier. Approximately 10 acres of hydrilla were treated near the north end fishing pier

with 45 gallons of Aquathol K herbicide. Results from this application were minimal as hydrilla continued to be present after the application.

A three foot drawdown of Chicot Lake in the fall of 2015 has continued to help minimize the submerged aquatic plant growth. The control structure was opened on September 8th, 2015 to allow dewatering at a rate of approximately three inches per day. The control structure was closed on September 15th 2015 when water levels reached three feet below pool stage.

Nuisance Aquatic Vegetation Problems:

Plant growth projections for summer 2016:

Hydrilla - up to 150 acres on the north end of the lake

Other submerged vegetation (coontail, fanwort and naiad) – 350 acres

Water hyacinth, pennywort & American lotus - up to 125 acres located throughout the lake

Common salvinia - up to 150 acres located mainly on the south end of the lake

Giant salvinia – up to 200 acres located mainly on the north end of the lake

Aquatic Vegetation Type map

Aquatic vegetative type mapping has been conducted since 1985. Years in which sampling occurred was 1989, 2003, 2004, 2005, 2006, 2007, 2008, and 2009 which are included in the Chicot Lake MP-C archive. The recent type maps for 2014 and 2015 are included in [APPENDIX II](#).

Biomass

Sampling for measurement of aquatic biomass was conducted in 2002 only. Table 1 lists the species and weights measured during biomass sampling.

Table 1. Species and weight of aquatic plants sampled during the 2002 aquatic biomass assessment of Chicot Lake, Louisiana.

Species	Ski Lake	Turtle Island	South Landing	Blue Springs
Fanwort	25.7	0	33.7	0
Coontail	56.2	70	0	0
Hydrilla	2056.8	63.8	27.3	7.5
Note: All values expressed in grams per cubic meter				

Treatment history by year available

Biological

None

Chemical

The use of herbicides is an important component of the LDWF integrated vegetation management program. The proper selection and use of herbicides is essential to achieve cost effective benefits and to avoid damage to non-target species. Each product listed has been approved by the Environmental Protection Agency for aquatic use. Aquatic vegetation will be treated according to the Inland Fisheries Aquatic Herbicide Application Procedure.

Table 2 reports the herbicide applications that have been conducted annually to control emergent vegetation including water hyacinth, alligator weed, duckweed, and American lotus. In 2003, 2005, 2008 – 2012 and 2014, LDWF treated hydrilla with Sonar (fluridone).

Table 2. Herbicide applications conducted in Chicot Lake, Louisiana, from 1989 – 2014.

Chicot Lake Herbicide Applications				
Year	Gallons	Pounds	Acres	Vegetation
1989	750		1000	Willow trees[Rodeo (Aerial application)]
2003		2980	402	Hydrilla (Sonar Treatment north end of lake)
2005	55	2980	512	Hyacinth/Hydrilla (Sonar Treatment in north end)
2006	137		188	hyacinth/duckweed/alligator weed
2007	279		375	hyacinth/Am. Lotus/duckweed/C. salvinia
2008	511	4980	1,495	Hydrilla (Sonar treatment north end of lake) hyacinth/Am. Lotus/duckweed/C. Salvinia
2009	643		827	Duckweed/common salvinia/hyacinth/alligator weed
2010	135	4,870	632	Duckweed & Hydrilla (SONAR treatment)
2011	95	680	1,076	Hyacinth/Alligator weed Salvinia/Primrose/Pennywort/Frog's bit/Cut Grass & Hydrilla (SONAR treatment)
2012	335	680	977	Hyacinth/Alligator weed/C. Salvinia/ Primrose/Pennywort/cutgrass/duckweed & Hydrilla (SONAR treatment)
2013	158		298	Hyacinth/Alligator weed/Common salvinia
2014	46	120	94	Hyacinth/Alligator weed/Common salvinia & Hydrilla (SONAR treatment)
2015	97		73	Hyacinth/Common & Giant salvinia Hydrilla (Aquathol K)

HISTORY OF REGULATIONS

Recreational

Louisiana statewide recreational fishing regulations were in effect for Chicot Lake until 1988, when 14" minimum length limit (MLL) and 10 fish daily creel limit were implemented for black bass. The regulations were designed to increase abundance of quality-size bass by

protecting a strong 1988 year class. Post implementation sampling was conducted to determine the effects of size restrictions for bass in Chicot Lake.

In 1990, a 16" MLL with a 5 fish creel was implemented for black bass to continue to protect the strong 1988 year class.

In 1991, a protected slot limit of 14-17" with an 8 fish daily creel was implemented to protect 2-4 year old fish and allow fishermen to harvest quality-size largemouth bass. No more than 4 bass were allowed in the daily creel over 17" in total length.

In 2014, largemouth bass regulations were changed. As of April 20, 2014, the protected slot limit for largemouth bass was removed from Chicot Lake. A 10 fish daily creel with no MLL is the current regulation.

Additional regulations specific to Chicot Lake were implemented in 1993, 2011 and 2012 which pertain to the use of yo-yos. Yo-yo regulations and all other statewide recreational harvest regulations may be viewed at the following link:

<http://www.wlf.louisiana.gov/fishing/regulations>

Commercial

Commercial fishing is legally prohibited in Chicot Lake. However, because large rough fish species can limit the production and survival of sport fish, a controlled commercial harvest of buffalo was implemented in 1967, 1968, 1970 and 1980. Rotenone samples taken by LDWF in 1968 and 1980 averaged 94 and 250 pounds/acre of buffalo fish respectively.

Total pounds harvested in 1968 – 67,897 lbs.

Total pounds harvested in 1980 – 31,404 lbs.

No harvest data is available for 1967 and 1970.

During the drawdown period of 1985-1987, the existing fish population was eradicated with rotenone, an FDA approved fish toxicant. Re-establishment of commercial species including buffalo and common carp has not been documented to date.

Louisiana commercial fishing regulations may be viewed at the following link:

<http://www.wlf.louisiana.gov/fishing/regulations>

DRAWDOWN HISTORY

Chicot Lake became infested with submerged aquatic plants almost immediately after impoundment. A lake drawdown was conducted in 1945 in an effort to combat the problem. This first drawdown was ineffective because water was unable to drain properly. In 1963, a channel was constructed to better facilitate drainage. Since that time, Chicot Lake has been lowered regularly for control of aquatic vegetation.

Drawdown date

There have been a total of 25 Chicot Lake drawdowns for control of submerged aquatic

vegetation (Table 3). Drawdowns were all conducted from September – December (Fall/Winter). Partial drawdowns (2 feet below pool stage) were conducted in May/June of 2003, 2005, 2008, 2010, 2011 and 2012 to help facilitate application of the herbicide, Sonar for hydrilla control.

As indicated in Table 3, drawdowns have been an important tool in managing aquatic vegetation in Chicot Lake. From 1962 - 1992, native submerged vegetation was the primary target for control. In 1996, hydrilla was discovered. From 1996 – 2014, drawdowns and herbicide applications have been used in combination to control the spread of the invasive species, hydrilla.

Table 3. Drawdowns conducted on Chicot Lake, Louisiana by year from 1962 – 2015.

YEAR	PURPOSE	FISHING CLOSURE	DEPTH (ft)	% EXPOSED	FISH KILL
1962	Control of native submerged vegetation	No	4-5	35	No
1965	Control of native submerged vegetation	No	4-5	35	No
1966	Control of native submerged vegetation	No	4-5	35	No
1967	Control of native submerged vegetation	No	4-5	35	No
1968	Control of native submerged vegetation	No	4-5	35	No
1969	Control of native submerged vegetation	No	4-5	35	No
1970	Control of native submerged vegetation	No	4-5	35	No
1972	Control of native submerged vegetation	No	4-5	35	No
1974	Control of native submerged vegetation	No	4-5	35	No
1977	Control of native submerged vegetation	No	4-5	35	No
1979	Control of native submerged vegetation	No	4-5	35	No
1984	Spillway reconstruction	No	10-12	90	No
1992	Control of native submerged vegetation	Yes	7	60	No
1996	Hydrilla control	Yes	7	60	Yes
1997	Hydrilla control	Yes	7	60	Yes
2001	Hydrilla control	No	3-5	40	No
2003 *	Hydrilla control	No	2	15	No
2005 *	Hydrilla control	No	2	15	No
2008 *	Hydrilla control	No	2	15	No
2010*	Hydrilla control	No	2	15	No
2011*	Hydrilla control	No	2	15	No
2012*	Hydrilla control	No	2	15	No

2013	Control all submerged vegetation	No	3	15	No
2014	Control all submerged vegetation	No	3	15	No
2015	Control all submerged vegetation	No	3	15	No
*Partial drawdowns for hydrilla control					

Who operated structure

Louisiana Department of Transportation & Development

FISH KILLS / DISEASE HISTORY

Fish kills occurred during the 1996 and 1997 drawdowns, but were limited to the north end of lake. The drawdowns began the 1st of August and extended through the end of November. These fish kills occurred when water levels receded below 7 feet. The lake bottom was completely exposed with the exception of the main channel. High water temperatures and subsequent low dissolved oxygen levels were determined to be the cause of the die-off. In 2003, a sample of 30 largemouth bass was tested for Largemouth Bass Virus (LMBV). No fish were found to be positive for the virus.

CONTAMINANTS / POLLUTION

Water quality

Water quality parameters measured at the surface and near the bottom during each standardized fisheries sample include temperature, dissolved oxygen, pH, and conductivity.

The following Fish Consumption Advisory (Figure 4) was issued for Chicot Lake, Louisiana May 23, 2003. This advisory is still in effect: <http://new.dhh.louisiana.gov/index.cfm/page/902>

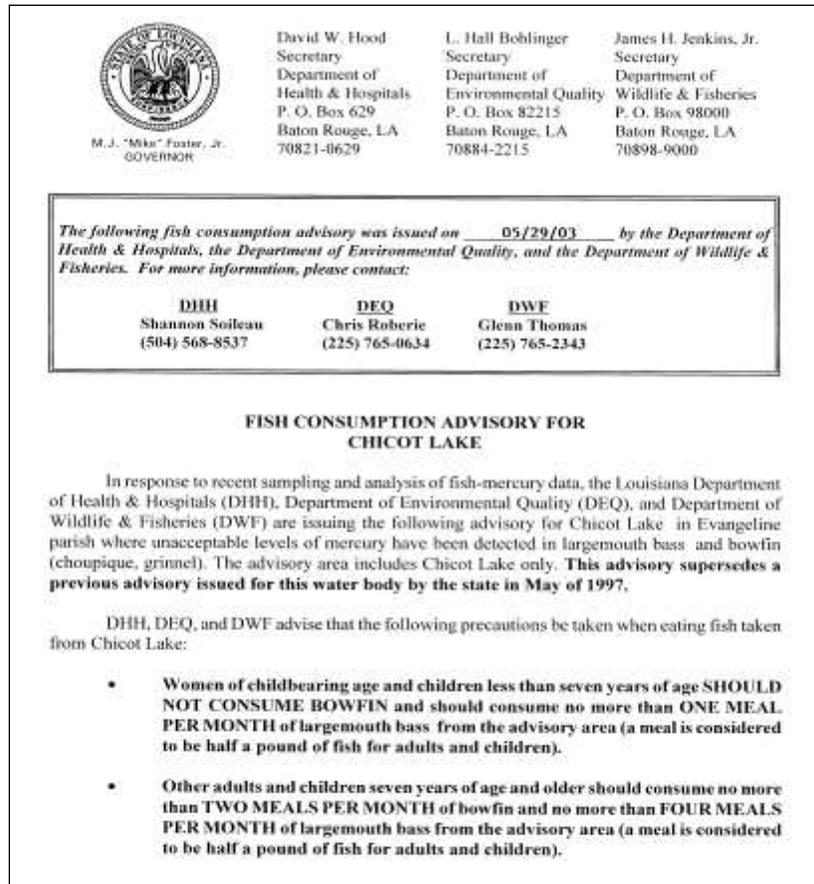


Figure 4. Fish consumption advisory notice issued for Chicot Lake, May 29, 2003 by DHH, DEQ, and DWF for bowfin, *Amia calva*.

BIOLOGICAL

Fish sampling history

From the 1960's through the early 1980's, biomass sampling (rotenone) was the standard fish population assessment sampling methodology. From the mid- 1980's to present, other techniques including electrofishing, creel surveys, gillnets, biomass (rotenone), haul seine, and water quality sampling have provided the necessary fisheries data related to the management of Chicot Lake.

Note: All standardized sampling data collected by Inland Fisheries from 1965 through present are computerized. Data collected prior to 1965 is in the form of paper documents or reports on file in the LDWF District 6 Office in Opelousas.

Gear

Biomass (rotenone) samples: Consist of one acre block-off net samples (3-4) between the months of May through September. The standard rotenone application rate is three pints of 5% active emulsified rotenone/acre-foot.

Biomass sampling was the most common fish sampling tool on Chicot Lake until 1988. Since that time, other sampling techniques, including electrofishing, creel surveys, and seine sampling were utilized.

Electrofishing utilizes a Smith-Root pulsator and generator which discharge a controlled electrical current into the water from a specially outfitted boat. This equipment temporarily stuns and surfaces fish. Fish are dipped from the water, measured, weighed. Sampled fish are returned to the water unless internal body structures are necessary for lab analysis.

Table 4. Historical, current and proposed fisheries sampling for Chicot Lake, Louisiana.

Chicot Lake Sampling	
Year	Sampling Method
1955, 1958, 1967, 1968, 1969, 1970, 1971, 1975, 1976, 1977, 1978, 1980, 1981, 1982	Biomass Fish Sampling (rotenone)
1988	Electrofishing, creel survey
1989	Electrofishing, seine, Biomass, creel survey
1990	Electrofishing, seine, gill nets, Biomass, creel survey
1991	Electrofishing, gill nets, Biomass, creel survey, LMB genetics, aquatic type maps
1992	Electrofishing, gill nets, creel survey
1993	Electrofishing, seine, frame nets, gill nets
1994	Electrofishing, seine, gill nets, Biomass, LMB genetics, aquatic type maps
1995	Electrofishing, seine, LMB genetics
1996	Electrofishing, seine, gill nets, Biomass, creel survey, drawdown
1997	Electrofishing, seine, gill nets, drawdown, LMB genetics
1998	Creel survey
2000	Electrofishing, seine, frame nets, hoop nets
2001	Electrofishing, seine, gill nets, LMB genetics
2002	Electrofishing, seine, gill nets, frame nets, creel survey, aquatic type maps
2003	Electrofishing, seine, gill nets, drawdown
2004	Electrofishing, seine, gill net, LMB genetics
2005	Electrofishing, gill nets, seine, lead nets, aquatic type maps, drawdown
2006	Electrofishing, seine, creel survey, aquatic type maps
2007	Electrofishing, gill nets, LMB genetics and age & growth
2008	Electrofishing, rotenone, lead nets, aquatic type maps, drawdown, LMB genetics
2009	Electrofishing, gill nets, seine, aquatic type maps
2010	Electrofishing, LMB population assessment, aquatic type map, creel survey
2011	Electrofishing, LMB population assessment, aquatic type map, seine samples
2012	Electrofishing, LMB population assessment, aquatic type map, gill nets
2013	Electrofishing, seine, gill nets, aquatic type map, drawdown
2014	Electrofishing, lead nets, aquatic type map, drawdown, gill nets
2015	Drawdown, aquatic type map
2016	Electrofishing, drawdown, aquatic type map
2017	Electrofishing, drawdown, LMB population assessment, aquatic type map
2018	Electrofishing, drawdown, LMB population assessment, aquatic type map, creel survey
2019	Electrofishing, drawdown, LMB population assessment, aquatic type map, gill nets

Lake records

From informal records maintained by LDWF fisheries biologists, the largest bass caught in Chicot Lake weighed 13.63 pounds (caught 1994).

Stocking

Table 5. Fish stocking history by year and by species for Chicot Lake, Louisiana

YEAR	FLORIDA BASS	CHANNEL CATFISH	BLUE CATFISH	THREADFIN SHAD	BLUEGILL	Triploid Grass Carp
1988	342,668		10,000			
1989	150,000					
1990	127,564			1,500		
1991	132,619			2,500		
1992	107,221			5,000		
1993	80,595					
1994	85,250					
1995	153,475	28,185				
1996	18,792					
1997	19,178	115,000				
1998	55,800	22,000				
1999	152,872	6,303	6,365		2,120	
2000	87,891					
2001	89,568					
2002	73,322					
2003	83,989					
2004	80,748					
2005	84,310					
2006	82,425					
2007	84,192					
2008	79,596					
2009	86,241					
2010	15,000					
2011	72,331					
2012	66,940					
2013	17,232					600
2014	*252,474					
2015	12,944					
Totals	2,695,237	171,488	16,365	9,000	2,120	600

*In 2014, FLMB fry (224,400) were stocked along with the 28,074 two inch fingerlings.

The majority of all largemouth bass stocked into Chicot Lake were fingerlings approximately 1- 2 inches in total length. All largemouth bass were released throughout the lake in various types of habitat, such as thick vegetation and complex woody cover.

Species profile

Table 6. Fish species collected by LDWF or are known to occur in the Bayou Chicot Watershed.

LIST OF INDIGENOUS FRESHWATER FISHES KNOWN FROM THE CHICOT BAYOU WATERSHED

Lamprey Family, PETROMYZONTIDAE

Southern brook lamprey, *Ichthyomyzon gagei* Hubbs and Trautman

Gar Family, LEPISOSTEIDAE

Spotted gar, *Lepisosteus oculatus* (Winchell)

Shortnose gar, *Lepisosteus platostomus* Rafinesque

Bowfin Family, AMIIDAE

Bowfin, *Amia calva* Linnaeus

Freshwater Eel Family, ANGUILLIDAE

American eel, *Anguilla rostrata* (Lesueur)

Herring Family, CLUPEIDAE

Gizzard shad, *Dorosoma cepedianum* (Lesueur)

Threadfin shad, *Dorosoma petenense* (Günther)

Minnow Family, CYPRINIDAE

Blacktail shiner, *Cyprinella venusta* (Girard)

Red shiner, *Cyprinella lutrensis* (Baird and Girard)

Common Carp, *Cyprinus carpio* Linnaeus

Cypress minnow, *Hybognathus hayi* Jordan

Mississippi silvery minnow, *Hybognathus nuchalis* Agassiz

Striped shiner, *Luxilus chrysocephalus* Rafinesque

Redfin shiner, *Lythrurus umbratilis* (Girard)

Shoal chub, *Macrhybopsis aestivalis* (Girard)

Golden shiner, *Notemigonus crysoleucas* (Mitchill)

Bigeye chub, *Notropis anbllops* (Rafinesque)

Emerald shiner, *Notropis atherinoides* Rafinesque

Blackspot shiner, *Notropis atrocaudalis* Evermann

Iron-colored shiner, *Notropis chalybaeus* (Cope)

Bluehead shiner, *Notropis hubbsi* Bailey and Robison

Silverband shiner, *Notropis shumardi* (Girard)

Weed shiner, *Notropis texanus* (Girard)

Mimic shiner, *Notropis volucellus* (Cope)

Bluenose shiner, *Notropis welaka* Evermann and Kendall

Pugnose minnow, *Notropis emiliae* Hay

Bullhead minnow, *Pimephales vigilax* (Baird and Girard)

Sucker Family, CATOSTOMIDAE

Lake chubsucker, *Erimyzon sucetta* (Lacépède)
Bigmouth buffalo, *Ictiobus cyprinellus* (Valenciennes)

Freshwater Catfish Family, ICTALURIDAE

Black bullhead, *Ameiurus melas* (Rafinesque)
Yellow bullhead, *Ameiurus natalis* (Lesueur)
Blue catfish, *Ictalurus furcatus* (Lesueur)
Channel catfish, *Ictalurus punctatus* (Rafinesque)
Black madtom, *Noturus funebris* (Gilbert and Swain)
Tadpole madtom, *Noturus gyrinus* (Mitchill)
Flathead catfish, *Pylodictis olivaris* (Rafinesque)

Pike Family, ESOCIDAE

Chain pickerel, *Esox niger* Lesueur

Pirate Perch Family, APHREDODERIDAE

Pirate perch, *Aphredoderus sayanus* (Gilliams)

Killifish Family, CYPRINODONTIDAE

Golden topminnow, *Fundulus chrysotus* (Günther)
Starhead topminnow, *Fundulus nottii* (Agassiz)
Blackstripe topminnow, *Fundulus notatus* (Rafinesque)
Blackspotted topminnow, *Fundulus olivaceus* (Storer)

Livebearer Family, POECILIIDAE

Western mosquitofish, *Gambusia affinis* (Baird and Girard)
Least killifish, *Heterandria formosa* Agassiz
Sailfin molly, *Poecilia latipinna* (Lesueur)

Silverside Family, ATHERINIDAE

Brook silverside, *Labidesthes sicculus* (Cope)
Inland silverside, *Menidia beryllina* (Cope)

Sunfish Family, CENTRARCHIDAE

Flier, *Centrarchus macropterus* (Lacépède)
Banded pygmy sunfish, *Elassoma zonatum* Jordan
Green sunfish, *Lepomis cyanellus* Rafinesque
Warmouth, *Lepomis gulosus* (Cuvier)
Orangespotted sunfish, *Lepomis humilis* (Girard)
Bluegill, *Lepomis macrochirus* (Rafinesque)
Dollar sunfish, *Lepomis marginatus* (Holbrook)
Longear sunfish, *Lepomis megalotis* (Rafinesque)
Redear sunfish, *Lepomis microlophus* (Günther)
Spotted sunfish, *Lepomis punctatus* (Valenciennes)
Bantam sunfish, *Lepomis symmetricus* Forbes
Florida largemouth bass, *Micropterus floridanus* Kassler et al.

Northern largemouth bass, *Micropterus salmoides salmoides* (Lacépède)
 White crappie, *Pomoxis annularis* Rafinesque
 Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Perch Family, PERCIDAE

Scaly sand darter, *Ammocrypta vivax* Hay
 Bluntnose darter, *Etheostoma chlorosomum* (Hay)
 Creole darter, *Etheostoma collettei* Birdsong and Knapp
 Swamp darter, *Etheostoma fusiforme* (Girard)
 Slough darter, *Etheostoma gracile* (Girard)
 Cypress darter, *Etheostoma proeliare* (Hay)
 Speckled darter, *Etheostoma stigmaeum* (Jordan)
 Redfin darter, *Etheostoma whipplei* (Girard)
 Logperch, *Percina caprodes* (Rafinesque)
 Blackside darter, *Percina maculata* (Girard)
 Dusky darter, *Percina sciera* (Swain)
 Saddleback darter, *Percina vigil* (Jordan and Gilbert)

Drum Family, SCIAENIDAE

Freshwater drum, *Aplodinotus grunniens* Rafinesque

Nomenclature and phylogenetic order follows Nelson, *et al.* 2004. Common and Scientific Names of Fishes from the United States, Canada, and Mexico, 6th Edition. American Fisheries Society Special Publication 29. 386 pp. Exceptions are noted.

Genetics

Largemouth bass are collected during fall electrofishing samples and tested for the Florida genome. Five bass per inch group are taken from the sample and brought back to the district office. Total length and weight are recorded for each specimen. Otoliths and livers are removed for age/growth and genetic analysis. Liver tissues are delivered to the LSU genetics laboratory for electrophoresis analyses. Samples were tested for the Florida genome from 1990 – 2012 (Table 7).

Table 7. Largemouth bass genetics results for Chicot Lake, LA, 1988 – 2012.

YEAR	FLMB STOCKED	GENETIC SAMPLING RESULTS				
		N	NLMB	FLMB	F _x	TOTAL FLORIDA INFLUENCE
1988	342,668					
1989	150,000					
1990	127,564	37	82%	02%	16%	18%
1991	132,619					
1992	107,221					
1993	80,595					

1994	85,250	52	56%	19%	25%	44%
1995	153,475	51	56%	15%	29%	44%
1996	18,792					
1997	19,178	152	54%	15%	31%	46%
1998	55,800	35	83%	0%	17%	17%
1999	152,872	33	58%	6%	36%	42%
2000	87,891					
2001	89,568	29	52%	3%	45%	48%
2002	73,322					
2003	83,989					
2004	80,748	33	76%	16%	8%	24%
2005	84,310					
2006	82,425					
2007	84,192	57	44%	2%	54%	56%
2009	86,241	51	56%	38%	6%	42%
2010	75,529	141	62%	11%	27%	39%
2011	72,331	156	70%	8%	22%	30%
2012	66,940	128	70%	6%	24%	30%

Threatened/endangered/exotic species

No threatened or endangered species have been documented in Chicot Lake to date.

Creel

Creel surveys were conducted in 1989-1992, 1996, 1998, 2002, 2006 and 2010. The angler survey method used is a dockside (access point) survey of completed fishing trips.

HYDROLOGICAL CHANGES

Chicot Lake was impounded in the late winter of 1942 by closing the dam alongside the spillway across Chicot Bayou, south of St. Landry, Louisiana. A drawdown structure and system of drainage channels were constructed in 1963. In 1985, it was determined that the original floodgate structure needed to be replaced. The lake was drained and the original spillway and floodgate was demolished. Construction of the new spillway and floodgate began in 1986. The spillway construction project was completed and Chicot Lake was allowed to refill in December 1987.

Water use

Hunting

No

Skiing

No

Scuba Diving

No

Swimming

No

Irrigation

No

APPENDIX I -
[\(return to Access\)](#)

Chicot Lake Map of Fishing Piers and Boat Ramps/Landings



APPENDIX II

[\(return to typemap\)](#)

Chicot Lake Vegetation Type Map

Aquatic Vegetation Survey of Chicot Lake 7/29/14

Personnel: J. David, M. Plonsky

Report by: M. Plonsky

The north area of Chicot Lake in the vicinity of the North boat launch, spillway levee from the north boat launch to the spillway structure, center portion of ski-lake and north fishing pier continued to be plagued by *Hydrilla verticillata*. A significant amount of American Lotus also exists within this area. These areas were treated with a limited amount of fluridone pellets in April of 2014. On the date of this survey, a slight reduction in hydrilla was seen within the treated areas. The lotus stand was just as thick as it was last year at the time of survey. The cold winter of 2013 appears to have had little effect upon the lotus. Six hundred grass carp were stocked into Chicot Lake at the north boat launch in October of 2013. The problem areas of hydrilla in Chicot Lake do not appear to have grown in aerial coverage with little to no hydrilla experienced outside of this defined vicinity. Conservation Cove, Turtle Island Cove and Walker's Branch were free of hydrilla infestations. An increase of native submerged vegetation was found in areas bordering the hydrilla laden area. Submerged vegetation seen occupying these areas were coontail and fanwort. No bladderwort was observed. Proceeding south out of the north flats, hydrilla occurrence diminished quickly except for a small patch in the area of the lake near the spillway. No hydrilla was observed south of Area 2 boat launch.

A significant amount of water primrose, alligator weed, swamp smartweed and taro continued to exist upon the shallow spoil bank area of the mid lake locations between Area 2 boat launch and the south boat launch. This vegetation had been treated twice with glyphosate during the spring and summer and appeared to be under control. Not all of this vegetation was eradicated since it is a popular fishing location and does provide successful fish cover. This area requires continual upkeep but, has proven manageable so far.

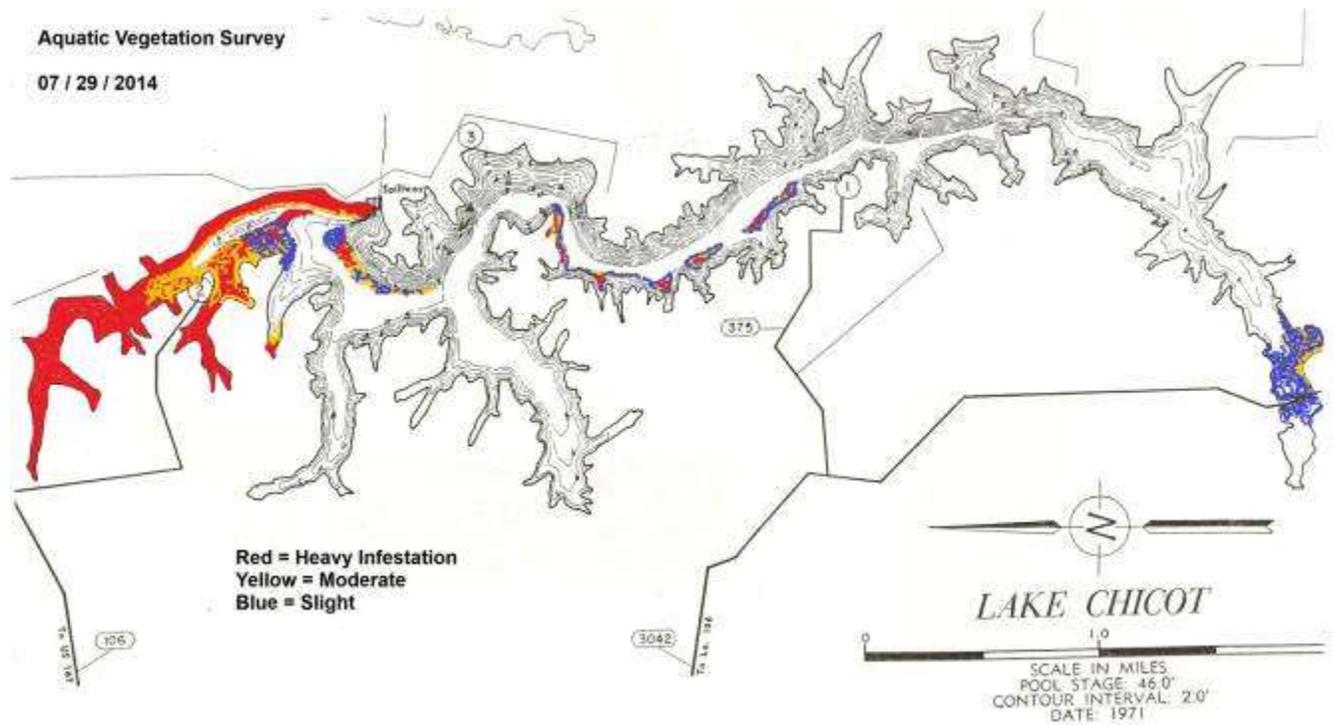
Primrose, taro and alligator weed were also found in moderate to heavy amounts on the western bank of the spoil mounds separating Turtle Island Cove from the spillway canal. This area has had continual maintenance by the herbicide spray crew, receiving treatments a couple of times per year, but has proven to be manageable and does offer good crappie fishing opportunities. Minimal amounts of primrose and alligator weed were seen in the terminal south end of Chicot Lake.

Little to no common salvinia was observed. What was seen was a light fringe of common salvinia throughout the lake, with no specific location holding large amounts. Salvinia was seen beneath the clumps of giant cutgrass found on many of the bank points of the lake. The cutgrass appears to have thinned some due to this past year's very cold winter weather with most clumps

being comprised of new growth rather than older brownish colored cutgrass typical of plants carried over from last summer. The cold winter more than likely was responsible for the common salvinia reduction. This was quite a difference from past years in which common salvinia was seen blanketing the lake surface. A reduction in common salvinia was seen throughout all District 6 lakes this year. NO GIANT SALVINIA OBSERVED.

A heavy amount of filamentous algae was observed in the hydrilla beds on the north flats and within the terminal end of Conservation Cove. These locations are both close to campground areas. The cove adjacent to the south end pier has also had a problem with algal growth in years past, but was free of any problem vegetation on the day of survey.

A partial de-watering of Chicot Lake was begun on Sep. 2, 2014. Water levels were dropped slowly to facilitate the stranding of embanked and shallow water vegetation. The spillway gates were closed in September and the lake allowed re-filling by late December. The spillway gates at Chicot Lake open at the bottom and allow for the gradual removal of poor quality water typically found within the bottom portions of the lake.



Chicot Lake Aquatic Vegetation Survey August 20, 2015

Personnel; B. Launey, P. Allemand

A survey of aquatic vegetation conducted on Chicot Lake revealed a moderate to heavy infestation of vegetation on the north end and southern tip of the lake. A very light infestation was observed in the remainder of the system. Water level in the lake on the day of the survey was five inches below pool.

The north area of Chicot lake in the vicinity of the north boat launch, spillway structure, center portion of Ski Lake, and north fishing pier flats continue to be heavily infested with submerged vegetation consisting of hydrilla (*Hydrilla verticillata*), fanwort (*Cabomba caroliniana*), coontail (*Ceratophyllum demersum*), and light patches of bladderwort (*Utricularia* spp.). Some light to moderate areas of filamentous algae were also observed in this area. A significant amount of American lotus (*Nelumbo lutea*) also exists from the spillway structure to the flats near the north boat launch.

Light to moderate amounts of submerged vegetation, hydrilla, fanwort, water milfoil (*Myriophyllum verticillata*), and coontail, were observed in Conservation Cove and in the wooded area just north of the mouth of Conservation Cove. A light fringe of common salvinia (*Salvinia minima*), water hyacinth (*Eichhornia crassipes*), and alligator weed (*Alternanthera philoxeroides*) was seen in Conservation Cove. The shallow end of the cove was heavily infested with aquatic vegetation. A significant amount of common salvinia with very light patches of Giant Salvinia was observed in the wooded area. Giant salvinia was also seen in the vegetative fringe of Conservation Cove. **This is the first discovery of giant salvinia in Chicot Lake to this date.**

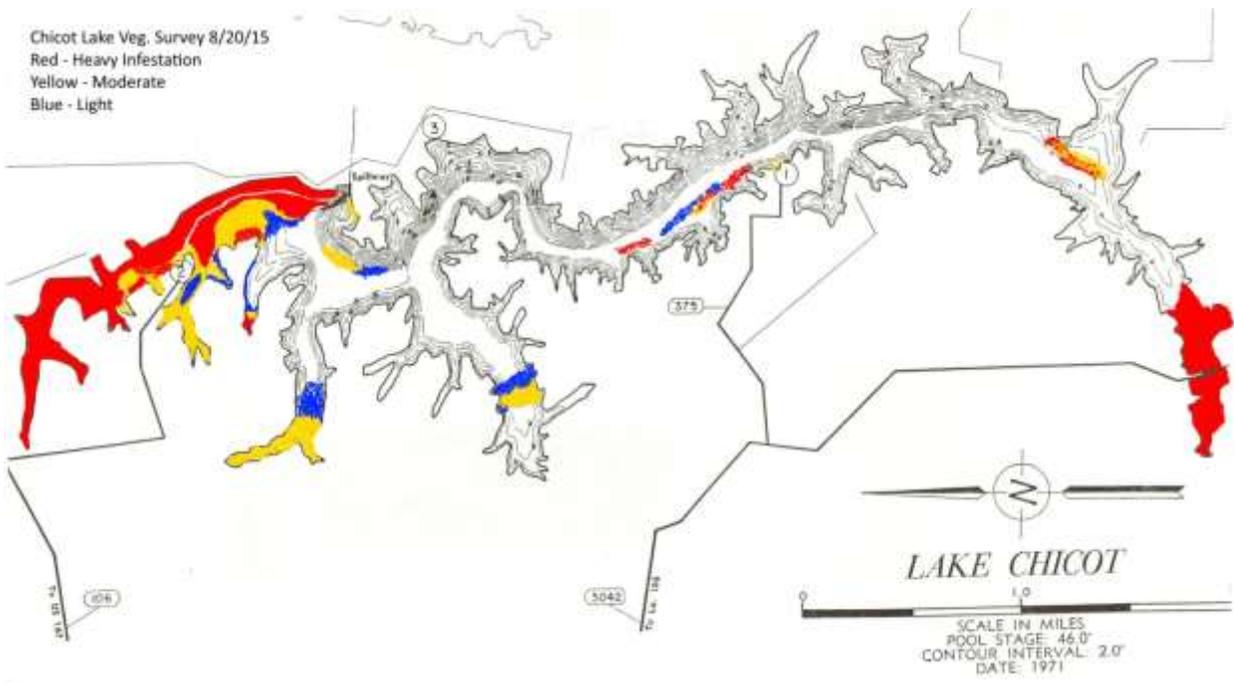
Turtle Island Cove and Walker's Branch contained light amounts of hydrilla, fanwort and coontail. A moderate amount of submerged vegetation and filamentous algae was observed in the open water area near the bridge in Walker's Branch. The predominant submerged species found in this area were fanwort and coontail. No bladderwort was observed. Primrose, taro (*Colocasia esculenta*) and alligator weed were also found in moderate to heavy amounts on the western bank of the spoil mounds separating Turtle Island Cove from the spillway canal (boat channel). This area near the spoil mounds is lightly treated annually. Being this is a popular fishing location, not all of this vegetation is eradicated. It provides fish cover and increases fishing success.

As you move south towards the vicinity of the Area 2 boat launch, the occurrence of submerged vegetation quickly diminishes. Very light patches of submerged vegetation were only observed in the shallow terminal ends of some small coves off the main lake. Area 2 boat launch was mostly free of vegetation with only light patches of hydrilla being visible. No hydrilla was observed south of the Area 2 boat launch except for a light fringe near the south boat launch. Light to moderate patches of common salvinia were also seen near the south boat launch.

A moderate amount of water primrose (*Ludwigia* spp.), alligator weed, swamp smartweed (*Polygonum hydropiperoides*) and taro continue to exist upon the shallow spoil bank area of the mid lake between Area 2 boat launch and the south boat launch. This vegetation is also lightly treated annually to keep it under control. Not all of this vegetation is eradicated since it is a popular fishing location and does provide fish habitat.

Light to moderate patches of primrose, water hyacinth, and alligator weed were seen in the terminal south end of Chicot Lake in the Blue Springs area and near the Indian Hills Bridge. A significant amount of duckweed was also observed near the Indian Hills Bridge.

Unfortunately, GIANT SALVINIA has made its way into Chicot Lake!



Map of where Giant Salvinia was observed

