

LOUISIANA DEPARTMENT OF WILDLIFE & FISHERIES



**OFFICE OF FISHERIES
INLAND FISHERIES DIVISION**

PART VI -A

WATERBODY MANAGEMENT PLAN SERIES

CHATHAM LAKE

LAKE HISTORY & MANAGEMENT ISSUES

CHRONOLOGY

DOCUMENT SCHEDULED TO BE UPDATED ANNUALLY

January 2009 – Prepared by
Jesse Bahm, Biologist Manager, District 2

TABLE OF CONTENTS

LAKE HISTORY	4
GENERAL INFORMATION	4
<i>Shoreline length</i>	4
<i>Average depth</i>	4
<i>Maximum depth</i>	4
<i>Natural seasonal water fluctuation</i>	4
<i>Date Lake formed</i>	4
<i>Size (surface area)</i>	4
<i>Watershed</i>	4
<i>Pool Stage</i>	4
<i>Spillway width</i>	4
<i>Drawdown description</i>	4
<i>Who controls</i>	4
LAKE AUTHORITY	5
<i>Association</i>	5
<i>Authorization</i>	5
ACCESS	5
<i>Boat Docks</i>	5
<i>Piers</i>	5
<i>State/Federal facilities</i>	5
<i>Two picnic areas were constructed in 2006.</i>	5
SHORELINE DEVELOPMENT	5
EVENTS / PROBLEMS	6
<i>Chatham Dam Leakage</i>	6
MANAGEMENT ISSUES	6
AQUATIC VEGETATION	6
<i>Aquatic Type map</i>	7
HISTORY OF REGULATIONS	7
<i>Recreational</i>	7
<i>Commercial</i>	8
DRAWDOWN HISTORY	8
<i>Drawdown Dates</i>	8
FISH KILLS / DISEASE HISTORY, LMBV	8
CONTAMINANTS / POLLUTION	8
<i>Water quality</i>	8
BIOLOGICAL	8
<i>Fish and Aquatic Vegetation Sampling</i>	8
<i>Lake records</i>	9
<i>Stocking History</i>	9
<i>Species profile</i>	10
<i>Largemouth Bass Genetics</i>	10
<i>Threatened/endangered/exotic species</i>	10
CREEL	10
<i>Historic Information/Type</i>	10
WATER USE.....	10
APPENDIX I – CHATHAM LAKE MAP	11

LAKE HISTORY

GENERAL INFORMATION

Shoreline length

3.4 miles

Average depth

5 feet

Maximum depth

10 feet

Natural seasonal water fluctuation

1 to 2 feet

Parish

Jackson

Date Lake formed

1952

Impoundment

Edwards Branch (tributary of Castor Creek)

Size (surface area)

158 acres

Watershed

10,229 acres drain into Chatham Lake.

The ratio of watershed to lake surface is large at 64.7 to 1.

Watershed characteristics: Commercial pineland forest, upland hardwood, pasture, rural residential. Soil is acidic, sandy, and infertile. Soil alkalinity and pH are low.

Pool Stage

Surface elevation of Chatham Lake is set at the spillway weir elevation of 165 MSL.

Spillway width

Spillway dam structure – total weir length – 150 feet.

Drawdown description

Gate Size – 18” slide gate with 18” diameter pipe

Number of gates - 1

Condition – good – new gate installed August, 2007

Who controls

Louisiana Department of Transportation and Development is responsible for the maintenance and operation of the Chatham Lake spillway.

LAKE AUTHORITY

Association

The Jackson Parish Watershed District shall consist of seven commissioners, each of whom shall be a qualified elector of the State of Louisiana who resides within the limits of Jackson Parish. The commissioners shall be appointed by the Jackson Parish Police Jury and serve terms of 4 years and until their successors have been appointed and have been qualified. Any vacancy in the office of commissioner, due to death, resignation or any other cause shall be filled by an appointment of the Jackson Parish Police Jury.

MEMBER NAME	ADDRESS	CONTACT #
John McCarty (Pres.)	2766 Highway 155, Quitman, LA 71268	(318) 259-9694
Kenny Cobb (VP)	PO Box 398, Jonesboro, LA 71251	(318) 259-9210
Fred Glover	1313 Ramsey Rd, Chatham, LA 71226	(318) 249-3312
Lamarr Davis	PO Box 620 Hodge, LA 71247	(318) 259-7598
Crawford Reed	800 Rome Rd, Jonesboro, LA 71251	(318) 259-7766
Updated 8/6/07		

Authorization

JPWD created in 1972 by LA R.S. 38:2900 as political subdivision and budgetary unit. LA R.S. 38:2900 creates the Jackson Parish Watershed District, out of the watershed of all streams located in Jackson Parish, and more particularly defined as all of Jackson Parish, Louisiana. The Jackson Parish Watershed District shall be an agency of the State of Louisiana and a budgetary unit thereof, which shall have as its purpose the conservation of soil and water, developing the natural resources and wealth of the district for sanitary, agricultural and recreational purposes, as the same may be conducive to the public health, safety, convenience or welfare or of public utility or benefit of the citizens of the State of Louisiana.

The Jackson Parish Game and Fish Preserve purchased property and acquired servitudes for the creation of Chatham Lake for a recreational fishery.

ACCESS

Boat Docks

The Chatham Public Boat Ramp is open to the public and is free of charge. The concrete ramp was renovated in late 2007. The location of the ramp is indicated on map in APPENDIX I.

Piers

The area few (<5) privately owned piers associated with shoreline properties. One public fishing pier was constructed on the south side of the lake in 2006.

State/Federal facilities

Two picnic areas were constructed in 2006.

SHORELINE DEVELOPMENT

The Chatham Lake shoreline is primarily residential but lightly developed. No commercial marinas are in operation.

EVENTS / PROBLEMS

Chatham Dam Leakage

July, 1998 - Letter from Mr. Mike Aghayan, Chief of DOTD Dam Safety, indicated that Chatham Lake Dam required immediate attention. DOTD personnel that inspected the dam were not able to determine the extent of damages. They suspected that the metal sliding gate (approx. 3' X 3') had deteriorated and was leaking. Funding was secured for the repairs by Rep. Jim Fannin through Rural Development Funds in 2006. The spillway gate was replaced in 2007. Because a drawdown was required for spillway repairs, renovation of the existing fish population and improvements to the boat ramp were planned to coincide with the project.



Chatham Lake Control Structure



Chatham Lake Spillway

MANAGEMENT ISSUES

AQUATIC VEGETATION

In Chatham Lake, complex cover is essentially limited to aquatic vegetation. Some live cypress trees remain, but most timber in the lake bottom was cut prior to impoundment. Common salvinia was first observed in Chatham Lake in 2004 and was not observed again until 2006. Common salvinia is currently in the lake but has not become problematic.

The upper half of Chatham Lake is very shallow (less than 3 feet). Aquatic vegetation covers the shallow water annually.



Cypress trees during 2007 drawdown

Aquatic Type map

Chatham Lake Aquatic Type Map August 22, 2005

L.D.W.F. Inland Fisheries personnel Ryan Daniel and Randy Lively performed a vegetation survey of Chatham Lake on August 22, 2005 for the purpose of constructing an aquatic type map. The lake level at the time of the survey was approximately 18 inches below pool stage due to evaporation and low amounts of rainfall. The east (spillway) end of the lake was mostly void of aquatic vegetation. There were some isolated water hyacinths on dry ground along the dam and around the fishing pier. There was also some alligator weed growing on the dam but not extending into the water. Filamentous algae was also observed growing in shallow water adjacent to the shoreline for much of the area around the dam but was not at problematic levels. Scattered small patches of alligator weed and water primrose were seen along the north and south banks in the mid portion of the lake. The majority of the vegetation in the lake is located on the western end which is mostly less than 3 ft. deep and scattered with clumps of cypress. Emerged vegetation includes water primrose and alligator weed forming large mats near the far west end. Submerged species include filamentous algae, small amounts of slender naiad, and scattered coontail. There was no submerged vegetation in water depths over 3 feet. The percent coverage for the western one-third of the lake is approximately 25%, not including the solid mat at the far west end. Only about 5% of the shoreline along the rest of the lake has any aquatic vegetation other than filamentous algae. Other than the extremely shallow west end, vegetation is very sparse in the lake, with the entire lake having between 5%- 10% of both submerged and emergent vegetation. L.D.W.F. had sprayed for nuisance plants on within the past 60 days.

HISTORY OF REGULATIONS

Recreational

Statewide regulations have been in effect for all fish species, since the creation of the lake.

Commercial

Statewide regulations have been in effect for all fish species, since the creation of the lake.

DRAWDOWN HISTORY

Drawdowns conducted in 1967 and 1975 for the purpose of aquatic vegetation control. Drawdown conducted in fall of 2004 for aquatic vegetation control, and for aeration of shallow substrate.

YEAR	PURPOSE	SUCCESS	FISHING CLOSURE	DEPTH	% EXPOSED	FISH KILL
1967	Vegetation Control	?	Yes	6 ft	100%	Yes
1975	Vegetation Control	?	?	5 ft	80%	?
2004	Habitat Improvement	Moderate	No	3 ft	50%	No
2007	Renovation of lake	Yes	Yes	6 ft	100%	Yes

Drawdown Dates

Drawdowns conducted in fall – typically after Labor Day.

FISH KILLS / DISEASE HISTORY, LMBV

No kills recorded due to poor water quality or toxins.

CONTAMINANTS / POLLUTION

Water quality

<http://www.deq.state.la.us/> Routine DEQ sampling discontinued in 1999. No fish consumption or swimming advisories issued.

BIOLOGICAL

Fish and Aquatic Vegetation Sampling

CHATHAM LAKE SAMPLING	
Note: All sampling conducted as per LDWF Standardized Sampling Guidelines.	
2002	Gill Netting – 1 24 hour sample with each of the following: <ul style="list-style-type: none"> • 300' 2.5 in. bar. • 300' 3.0 in. bar. • 300' 3.5 in. bar • 300' 4.0 in. bar
2003	Electrofishing 4-15 minute samples (daytime – November)
2005	Aquatic Vegetation Survey
2008	Aquatic Vegetation Survey
2009	Electrofishing 2-15 minute samples (Summer) Shoreline seining
2010	Shoreline seining

Lake records

No listing of lake records.

Stocking History

DATE	NUMBER / SPECIES STOCKED
1971	4,000 bluegill fingerlings
1997	904 blue catfish adults
1998	5,000 channel catfish fry
1999	9,982 channel catfish fingerlings
2000	15,525 channel catfish fingerlings
2007	136,250 sunfish fingerlings – 75% bluegill, 25% redear 420 channel catfish fingerlings
2008	1,000 threadfin shad 25,748 Florida largemouth bass 6,975 black crappie (blacknose)

Species profile

A rotenone application was made in August, 2007 to remove all fish in Chatham Lake in preparation for re-stocking. The following species were observed.

Gar Family, LEPISOSTEIDAE

Spotted gar, *Lepisosteus oculatus* (Winchell)

Herring Family, CLUPEIDAE

Gizzard shad, *Dorosoma cepedianum* (Lesueur)

Threadfin shad, *Dorosoma petenense* (Günther)

Freshwater Catfish Family, ICTALURIDAE

Yellow bullhead, *Ameiurus natalis* (Lesueur)

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)

Blackspotted topminnow, *Fundulus olivaceus* (Storer)

Livebearer Family, POECILIIDAE

Western mosquitofish, *Gambusia affinis* (Baird and Girard)

Silverside Family, ATHERINIDAE

Brook silverside, *Labidesthes sicculus* (Cope)

Sunfish Family, CENTRARCHIDAE

Green sunfish, *Lepomis cyanellus* Rafinesque

Warmouth, *Lepomis gulosus* (Cuvier)

Bluegill, *Lepomis macrochirus* (Rafinesque)

Longear sunfish, *Lepomis megalotis* (Rafinesque)

Redear sunfish, *Lepomis microlophus* (Günther)

Northern largemouth bass, *Micropterus salmoides salmoides* (Lacépède)

Black crappie, *Pomoxis nigromaculatus* (Lesueur)

Largemouth Bass Genetics

No genetics sampling conducted to date.

Threatened/endangered/exotic species

None identified.

CREEL

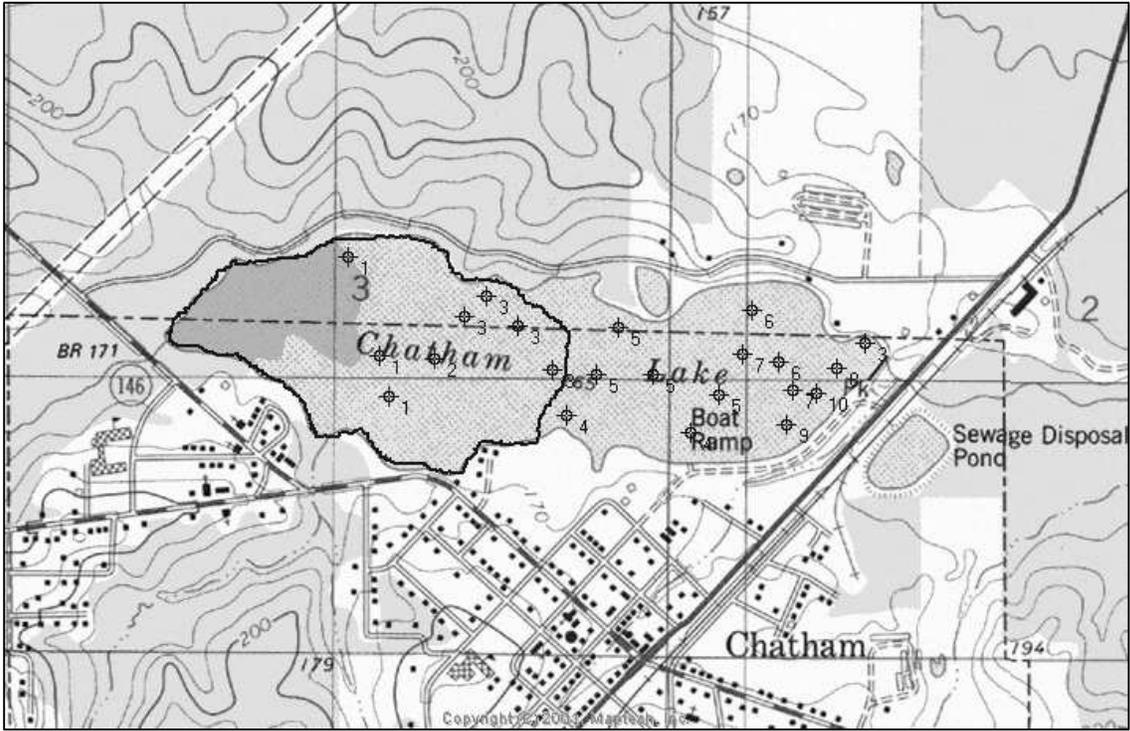
Historic Information/Type

No angler surveys conducted to date.

WATER USE

Skiing, Swimming, Fishing.

APPENDIX I – CHATHAM LAKE MAP



Map of Chatham Lake indicating depths of points at pool stage.