

## LAKE MANAGEMENT STATUS REPORT

Date of Report: 12/28/2020	Fisheries Manager: David Wyffels	District: 2
Lake Name: LaSalle Lake	County: LaSalle	Water No: 00023
Ownership (STATE, PUBC, PUBO):		Acreage: 2058

### LM STATUS REPORTS WILL INCLUDE THE FOLLOWING SECTIONS:

1. List of the Sport Fish Regulations in Effect.
2. Listing of Stocked Fish
3. Vegetation Treatments
4. Fish Surveys
5. Lake Management Plan Progress Table
6. Recommendations for Observed Problem Trends.

### 1. SPORT FISH REGULATIONS IN EFFECT:

All Fish . . . . . 2 Pole and Line Fishing Only  
 Large or Smallmouth Bass . . . . . 1 Fish Daily Creel Limit (18" Minimum Length Limit)  
 Bluegill or Redear Sunfish . . . . . Statewide Regulations  
 Channel Catfish . . . . . Statewide Regulations  
 Striped, White, or Hybrid Striped Bass . . . 10 Fish Daily Creel Limit , no more than 3 of which may be greater than or equal to 17 inches  
 Walleye, Sauger, or Hybrid Walleye . . . . Statewide Regulations  
 White, Black, or Hybrid Crappie . . . . . Statewide Regulations

### 2. FISH STOCKING :

#### Fish Stocked:

6/16/2020	SBH	20748	1.4"	LaSalle
6/22/2020	LMB	20345	1.4"	LaSalle
7/20/2020	LMB	5922	4.0"	LaSalle
7/21/2020	SMB	2939	4.0"	LaSalle
7/27/2020	LMB	7466	4.0"	LaSalle
7/28/2020	SMB	2767	4.0"	LaSalle
8/3/2020	LMB	7512	4.2"	LaSalle
8/4/2020	SMB	9312	4.1"	LaSalle
8/11/2020	SMB	2277	4.0"	LaSalle
8/18/2020	LMB	1692	4.0"	LaSalle
8/18/2020	SMB	1965	4.1"	LaSalle
9/9/2020	BLG	112687	1.0"	LaSalle
9/22/2020	BLG	33304	1.3"	LaSalle
9/28/2020	BLG	11910	1.3"	LaSalle
10/07/2020	BCF	6174	4.8"	Little Grassy
10/07/2020	BLG	25676	1.3"	LaSalle

### 3. AQUATIC VEGETATION TREATMENTS:

No vegetation treatments are required at LaSalle Lake

**4. FISH SURVEYS**

10/21/2020: Low Pulse DC Blue catfish survey, 2 sites- 30min each site (1 and 2). All sites used a chase boat. EIU was also part of this survey doing to additional sites that were not included in this data set. EIU goal was to collect BCF for tagging and to pull pectoral spines for age and growth data. Data will be beneficial for future stocking evaluations.

**5. FISH KILLS:**

In early July one fish kill was identified, stressed and dead fish were noticed just before the July 4<sup>th</sup> holiday. By July 6<sup>th</sup> the inlet temps had reached 103.4 F. I investigated the extent of the kill on July 7<sup>th</sup> and 8<sup>th</sup>. The D.O. on the main lake was fine it seemed that fish were trying to avoid the warm water and going in into areas outside of the cooling loop which were cooler but these areas had low D.O. levels. Large schools of fish could be seen going from the cooling loop to the marina area and back to the cooling loop. The marina area contained many dead fish due to the stress of low D.O. I did take a trip on the lake on the 8<sup>th</sup> and many large floating islands of fish were in the cool pool. These islands mainly contained Shad but all species were affected. Interesting notes: In the stream coming from the Hatchery to the inlet, large numbers of Common Carp and Flathead catfish congregated. It was interesting to see numbers of rough fish species that are not normally seen during a survey. Many Catfish sp. (Blue Catfish, Flatheads ad Channel) were dead near the first shad net area. Other species identified in the event were True Bass sp., Black Bass sp., Freshwater Drum, and Buffalo Sp. The lake finally started to cool near the 10<sup>th</sup> of July and no other fish kills were identified other than this event.

**6. LAKE MANAGEMENT PROGRESS TABLES:**

**Black Bass:**

Limited reproduction of Black bass began occurring in LaSalle Cooling Lake after the two units came on line in the mid-1980's. This is similar to the fate that Black bass experienced in other cooling lakes. To protect the bass in the lake, a minimum length limit of 18 inches and a daily creel of 1 fish per day was implemented in 1986. An annual stocking program of Largemouth and Smallmouth Bass began in 1991. Very few numbers of Largemouth bass were sampled in 2016. The Smallmouth bass sample consisted of just two year classes. Numbers for PSD and RSD below should be used with caution due to the small sample size of Largemouth bass. Black bass numbers at LaSalle Lake have been up and down but for the past few years it has been extremely difficult to sample Black bass. Black bass fishermen still catch good numbers (personal communication). Historic data does show that is same issue came about in the early 2000s but then corrected in 2003. The goal for 2020 was to switch to a spring sample but because of COVID protocols no sample was done.

1.Management Plan Fall:Goal		2016	2017	2018	2019	2020
# Stock (200mm)	>100	1	NS	NS	NS	NS
PSD	40-60	100				
RSD 15	10-40	0				
RSD 18	0-10	0				
Effort(Min)		180	0	0	0	

**2.Fall diurnal DC electrofishing CPUE (fish/hr) of each length group of Largemouth bass collected at LaSalle**

Year	<8	8-12	12.1-15	15.1-20	> 20	Total
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2016	3.0	0.0	0.3	0.0	0.0	3.3
2017	NO SAMPLE					
2018	NO SAMPLE					
2019	NO SAMPLE					
2020	NO SAMPLE					

**Smallmouth Bass:**

<u>1.Management Plan Fall:</u>	<u>Goal:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
# Stock (180mm)	>100	7	NS	NS	NS	NS
PSD		43				
RSD 15		0				
RSD 18		0				

2.Fall diurnal DC electrofishing CPUE (fish/hr) of each length group of Smallmouth bass collected at LaSalle

<u>Year</u>	<u>&lt;7</u>	<u>7-11</u>	<u>11.1-14</u>	<u>14.1-17</u>	<u>17.1-20</u>	<u>&gt; 20</u>	<u>Total</u>
2016	16.7	1.3	1.0	0.0	0.0	0.0	19.0
2017	NO SAMPLE						
2018	NO SAMPLE						
2019	NO SAMPLE						

**Hybrid Striped Bass:**

Hybrid Striped Bass were not sampled in 2017. Future goals are to evaluate the Hybrid striped bass population by short set experimental gill nets

**Bluegill:**

<u>1.Management Plan:</u>	<u>Goal:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
#Stock(80mm)	>100	508	NS	NS	NS	NS
PSD	20-60	44				
RSD 7	10-15	1				
RSD 8	5-20	0				

2.Fall diurnal DC electrofishing CPUE (fish/hr) of each length group of Bluegill collected at LaSalle

<u>Year</u>	<u>&lt;3</u>	<u>3.1-6</u>	<u>6.1-8</u>	<u>8.1-10</u>	<u>Total</u>
2016	4.3	95.0	74.3	0.0	173.6
2017	NO SAMPLE				
2018	NO SAMPLE				
2019	NO SAMPLE				
2020	NO SAMPLE				

**Blue Catfish:**

Blue catfish were first stocked in 1999 (70,563 - 4.8 inches). They came from Joe Hogan Fish Hatchery in Arkansas. A creel completed in 2007 reported that more pounds of blue catfish were caught and harvested than any other species. It was also the number 1 sought after species by anglers at LaSalle Lake. Trophy sized fish are reported by anglers but do not show up in the annual low pulse DC electrofishing surveys. The 2017

annual low pulsed DC survey sampled 293 individuals ranging from 340mm to 827mm. Blue catfish continue to have very good relative weights as previous years. The 2018 sample was cut short due to weather issues that made for a memorial day for all. A total of 172 Blue Catfish and 2 Flatheads were sampled. The low plus DC electrofishing is very effective at sampling fish up to 35 inches. Larger individuals have been caught by fishermen. One reported to me by the Chicago Tribune was 73 pounds. The 2019 sample was again cut to the sample sites 1 and 2 (Warm and Middle pools). Catch rates were similar to previous years with the exception to the fish greater than 30 inches. The 2020 sample had the lowest CPUE of fish 20-30 inches in the past 5 years. Catch rates for fish 20-30 inches has averaged around 45 fish per hour in the last 4 years. The 2020 sample had very few larger sized fish even seen during sampling. Larger individual population numbers may have been greatly impacted by the summer fish kill. Monitoring will continue to evaluate the impacts of the fish kill.

<u>1.Management Plan</u>	<u>:Goal</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
# Stock (300mm)	>100	250	293	172	147	147
PSD		35	27	32	20	6
RSD 30		3	1	2	0	1
RSD 35		1	0	1	0	0
Effort(Min)		90	90	60	60	60

## 2.Fall diurnal low pulse electrofishing CPUE (fish/hr) of each length group of Blue catfish collected at LaSalle

<u>Year</u>	<u>&lt;12</u>	<u>12-20</u>	<u>20.1-30</u>	<u>30.1-35</u>	<u>&gt; 35.1</u>	<u>Total</u>
2016	0.0	109.0	53.3	4.0	0.7	167.0
2017	0.0	143.3	49.3	2.6	0.0	195.2
Avg Wr		(88)	(99)	(114)		
2018	0.0	117.0	51.0	2.0	2.0	172.0
Avg Wr		(91)	(96)	(112)	(124)	
2019	0.0	117.0	30.0	0.0	0.0	147.0
Avg Wr		(88)	(89)			
2020	0.0	138.0	8.0	0.0	0.0	147.0
Avg Wr		(81)	(93)			

### **Channel Catfish:**

LaSalle Cooling Lake has a large population of channel catfish. These fish are characterized by poor Relative Weights and small size despite the large Threadfin shad, Gizzard shad and mussel population to feed on.

### **Gizzard Shad:**

Gizzard shad numbers remain stable with fish from 3.9 -9.4 inches collected in the 2016 sample. Gizzard shad less than 7 inches dominated the 2016 sample.

<u>Management Plan:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
YOY Present	X	NS	NS	NS	NS
CPUE (fish/hr) < 6inches	41.7				
CPUE (fish/hr)	126.7				

### **Threadfin Shad:**

Threadfin shad numbers remain stable with fish from 2.8 -5.5 inches collected in the 2016 sample. Threadfin shad less than 4 inches dominated the 2016 sample. These fish will provide good forage for the predator population going into the winter and spring of 2017.

<u>Management Plan:</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
YOY Present	X	NS	NS	NS	NS
CPUE (fish/hr) < 4inches	181.3				
CPUE (fish/hr)	183.7				

## **6. RECOMMENDATIONS FOR OBSERVED PROBLEM TRENDS:**

1. Something is causing low Largemouth bass and Smallmouth bass collection rates. History has shown problems with gas embolism and secondary bacterial infections. I will also be looking back in the history for pH and conductivity readings. We will continue to stock both Largemouth bass and Smallmouth bass in the future. I hope that history holds true like in 2003 and the population shows back up in good numbers in the sample. There is some history of night time electrofishing before 9/11 but security concerns discontinued that sample. In 2021 I will attempt a spring diurnal sample just for Black bass to see if we can get a better sample.
2. Evaluate the Large Blue catfish size class with gill nets. Lacking data on age and growth of older fish would be beneficial for stocking adjustments.
3. Evaluate the Hybrid Bass population with gill nets