

SURVEY REPORT

OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION



FISH MANAGEMENT SURVEY AND RECOMMENDATIONS

FOR

WES WATKINS LAKE

2025

State: Oklahoma

Project Title: Wes Watkins Lake, Fish Management Survey Report

Period Covered: 2025

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Wes Watkins Lake

ABSTRACT

Wes Watkins Lake was surveyed by spring electrofishing (2025) techniques to monitor trends in fish populations. Largemouth Bass relative abundance and recruitment remained low. An increase in preferred size fish was observed.

Continued periodic electrofishing surveys will be conducted to monitor trends of the fish populations.

INTRODUCTION

Wes Watkins Lake was constructed in 1997 by the Pottawatomie County Development Authority and was opened to fishing in August, 1999 with a catch and release regulation in effect on all species. In October, 1999, harvest of all species except Largemouth Bass was allowed.

Lake Wes Watkins impounds North Deer Creek 0.6 miles south of McCloud in Pottawatomie County, Oklahoma. Wes Watkins covers 1142 acres. Recreational operations and lake management was transferred to the city of McCloud July, 1st 2010. Timber was mostly cleared from the lake bottom during construction except for the upper third of the lake. Wes Watkins Lake has a mean depth of 11 feet, a maximum depth of 31 feet, a shoreline length of 17 miles, a water exchange rate of 0.39, and a secchi disc visibility of around 15 inches in the main pool in August; turbidity is primarily from suspended sediment. Fish habitat consists primarily of aquatic vegetation. Standing timber is abundant in the west end of the lake and some coves on the south side of the lake.

Initial fish stockings were made in 1997, Florida Largemouth Bass fingerlings were first stocked in 2000 and 588 adult Northern Largemouth Bass were stocked in 2006 (Appendix 1). Largemouth Bass stockings continue to occur periodically as surplus stock is available. Aquatic vegetation (water willow and coontail) was introduced in 1997 and 1998. Also, two welded wire enclosures were constructed in 1999 and planted with coontail. Additional plantings of water willow were made in 2000 in areas susceptible to shoreline erosion. Water willow has covered a large portion of the shoreline however very little coontail has been observed in recent surveys.

Management problems for Wes Watkins Lake include high turbidity, low abundance and low recruitment of Largemouth Bass. A Largemouth Bass fish kill occurred in 2003 as a result of Largemouth Bass Virus. The Largemouth Bass population continues to show significantly lower abundance than pre fish kill abundance.

Fish attractor sites have been constructed of brush piles in an effort to improve angler success and are periodically refurbished (Appendix 2). Boating access work in cooperation with Oklahoma Department of Wildlife Conservation and the Pottawatomie County Development Authority has consisted of two boat ramps, two asphalt parking lots, and restrooms.

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RESULTS

Largemouth Bass

Largemouth Bass (LMB) were surveyed in spring of 2025 by means of boat electrofishing. Eighteen randomly selected shoreline units were sampled. Overall LMB abundance, catch per unit of effort (CPUE) was considered low during the 2025 survey (CPUE = 9.0). Virtually no change was seen in total relative abundance since the last survey in 2020 (CPUE = 9.3) (Table 1). Though a slight reduction in was observed for all size classes for preferred (15-20 in) size fish where and increase from CPUE = 4.2 (2020) to CPUE = 6.3 (2025). Relative weights or body condition for all size classes had decreased since the last survey but were still considered acceptable ($Wr \geq 90$).

The 2025 length frequency histogram continues to indicate poor recruitment, with no fish surveyed under eight inches in total length (Figure 1). However, it does show an increase in the percentage (74 %) of fish over 15 inches. The largest fish sampled during the 2025 survey measured 21.2 inches in total length and weighed 5.8 pounds. Age data was not collected during the 2025 survey due to the low numbers of LMB sampled.

Largemouth Bass and Florida Largemouth Bass (FLMB) have been stocked on a regular basis. With the hopes of reestablishing healthy bass populations since the Largemouth Bass Virus kill in 2003, however, little success has occurred. Supplemental stockings often only temporarily increase total fish abundance, this has been shown at Wes Watkins Lake where, supplemental stockings have failed to enhance the fishery. Due to limited hatchery resources, stockings should only occur when a surplus stock of hatchery raised fish are available. The last stocking occurred in 2025 with a surplus stock of Florida Largemouth Bass (Appendix 1).

Overall Largemouth Bass recruitment remained low and total abundance relatively unchanged, though an increase in relative abundance of memorable size fish occurred.

Table 1. Total number (No.), catch per unit of effort (CPUE), and relative weights (Wr) by size groups of Largemouth Bass collected by spring electrofishing from Wes Watkins Lake. Acceptable Wr values are ≥ 90 .

		Total CPUE	<u>Stock</u> 7.9 in		<u>Quality</u> 11.8 in		<u>Preferred</u> 15 in		<u>Memorable</u> 20.1 in		<u>Trophy</u> 24.8	
<u>Year</u>	<u>No.</u>	<u>CPUE</u>	<u>CPUE</u>	<u>Wr</u>	<u>CPUE</u>	<u>Wr</u>	<u>CPUE</u>	<u>Wr</u>	<u>CPUE</u>	<u>Wr</u>	<u>CPUE</u>	<u>Wr</u>
<u>2008</u>	184	40.9	0.2	94	2.2	102	11.8	99	2.4	94	.	.
<u>2010</u>	88	19.6	1.1	91	3.3	109	7.3	96	0.2	104	.	.
<u>2011</u>	38	9.5	.	.	2.8	95	4.8	97	1.25	98	.	.
<u>2018</u>	32	13.7	0.6	90	3.9	93	9.9	98	1.1	94	.	.
<u>2020</u>	28	9.3	3.2	106	3.7	108	4.2	101	0.5	106	.	.
<u>2025</u>	27	9.0	1.3	94	1.0	94	6.3	98	0.3	102	.	.

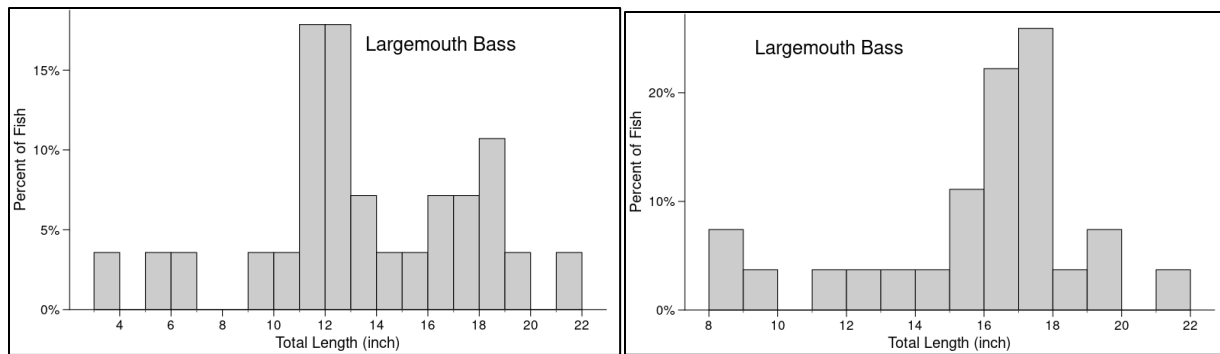


Figure 1. Largemouth Bass Length Frequency Histograms for Wes Watkins Lake 2020 (Left) and 2025 (Right).

RECOMMENDATIONS

Fish Stockings

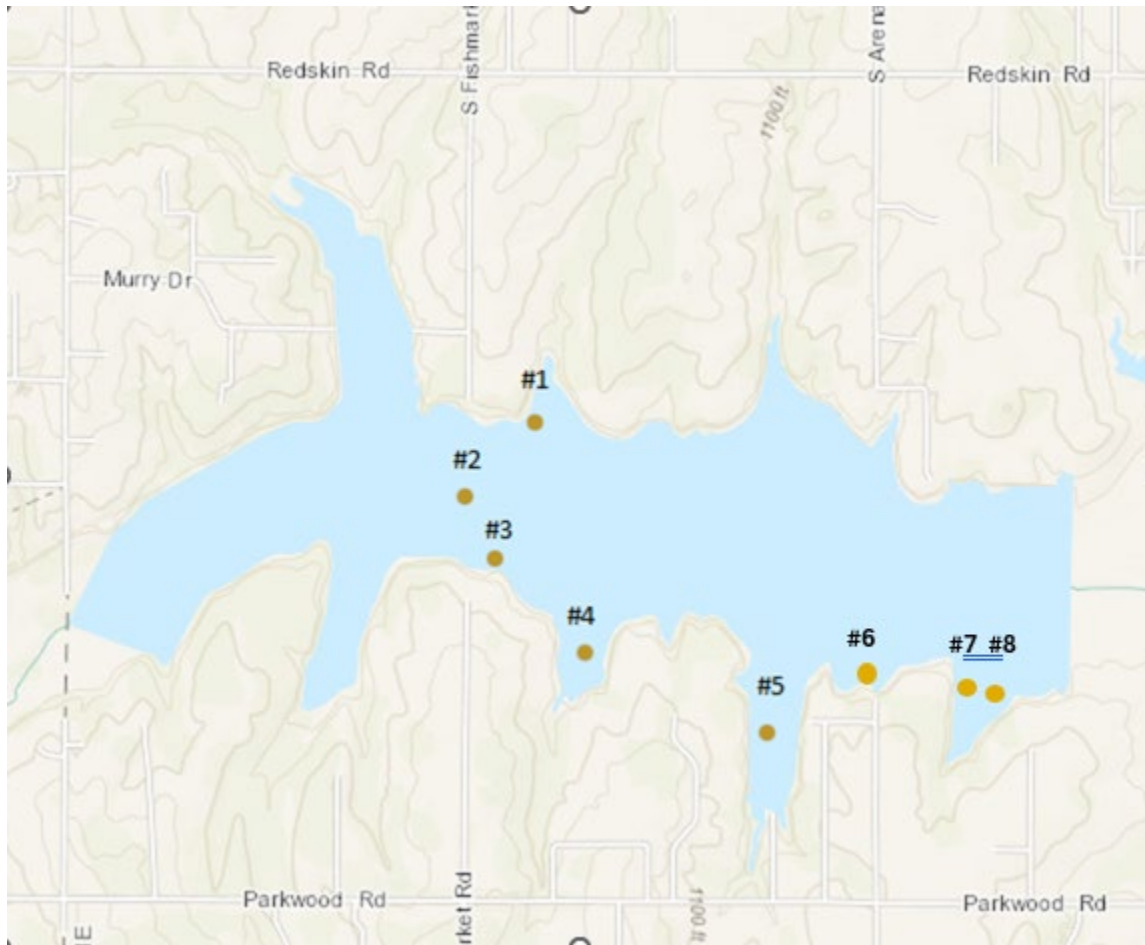
1. Largemouth Bass stockings should be continued when surplus stock is available.

Fish Surveys

1. Spring Electrofishing will be conducted periodically to monitor the Largemouth Bass population.
2. Fall Shad netting will be conducted periodically to monitor baitfish abundances.

Appendix 1. Species, number and size of fish stocked in Wes Watkins Lake since 2000.

Date	Species	Number	Size (inches)
2000	Florida Largemouth Bass	23,360	3
2001	Florida Largemouth Bass	22,950	3
2002	Florida Largemouth Bass	23,012	3
2003	Threadfin Shad	10,000	.
2004	Florida Largemouth Bass	22,930	3
	Inland Silversides	15,000	3.5
2006	Channel Catfish	100	14
	Northern Largemouth Bass	588	9
2007	Northern Largemouth Bass	346	15
2008	Northern Largemouth Bass	80,600	1.25
2013	Northern Largemouth Bass	17,680	1.25
2014	Hybrid Sunfish	75	4
	Northern Largemouth Bass	14,400	2
2015	Northern Largemouth Bass	30,000	1.5
2018	Northern Largemouth Bass	20,246	2.75
2025	Florida Largemouth Bass	1,496	4



Appendix 2. Wes Watkins Lake Fish Attractor Locations

Fish Attractor Site Information for Wes Watkins Lake.

Area Name	Site #	Latitude	Longitude	Habitat Type	Marked	Bank Access	Date
Railroad Bed By Fish Market Cove	1	N 35.408133	W -97.121666	30 Christmas Trees	Yes	No	2015
Fish Market Rd. Bridge	2	N 35.405483	W -97.1248	48 Christmas Trees	Yes	No	2015
Fish Market Ramp	3	N 35.403283	W -97.123416	30 Christmas Trees	Yes	Yes	2015
Cove SE of Fish Market Ramp	4	N 35.4	W -97.11955	30 Christmas Trees	Yes	No	2015
SE Cove	5	N 35.3972	W -97.111783	30 Christmas Trees	Yes	No	2015
South of Dam	6	N 35.39885	W -97.10728	Stake and Gravel Beds	No	Yes	2022
South of Dam	7	N 35.39846	W -97.10374	Gravel Bed	No	Yes	2022
South of Dam	8	N 35.39759	W -97.10239	Stake and Gravel Beds	No	Yes	2022