SURVEY REPORT

OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION

FISH MANAGEMENT SURVEY AND RECOMMENDATIONS

FOR

HASKELL LAKE

2024-2025

PERFORMANCE REPORT

State: Oklahoma
Project Title: Haskell Lake Survey Report
Period Covered: January 1, 2024 - December 31, 2025
Prepared by: Chris Whisenhunt
Date Prepared: December 2025

HASKELL LAKE

ABSTRACT

Haskell lake was sampled in the Spring of 2025 via boat electrofishing for black bass population structure. Seven sites were selected and sampled in discrete 10-minute units of effort. Catch of largemouth bass was high in abundance (C/f = 164.0) but was below the previous survey in 2022 (C/f = 214.5). Relative weights (W_r) for all size groups were slightly higher than the 2022 sample, but still below the acceptable value for a quality fishery with the exception of fish ≥16 inches (W_r = 92). Probable illegal stockings of large bass by unknown individuals may be impacting the validity of the samples and our ability to accurately calculate growth as a result of the system verses what may have been stocked.

Recommendations include conducting spring electrofishing for largemouth bass in 2028 and collecting a subset of the sample for age and growth analysis. Stockings of threadfin shad to increase forage should occur on a semi-annual basis if conditions allow. Haskell City Lake falls under the new bass regulations of 6 bass per day and harvest of only 1 fish greater than 16 inches is allowed. This new regulation should allow Haskell Lake anglers to harvest more largemouth bass to help reduce competition and help overall bass growth.

INTRODUCTION

Haskell City Lake impounds Coal Creek, within the city limits of Haskell in Muskogee County, Oklahoma. Haskell City Lake covers 20 surface acres and was constructed by the City of Haskell for water supply. Haskell City Lake has a mean depth of 10 feet and a maximum depth of 30 feet, a secchi depth of approximately 13 inches in the main pool in August, turbidity is primarily from plankton. Fish habitat mainly consists of fallen trees and aquatic vegetation, both emergent and submerged, which dominate the shallower upper reaches of the lake.

Recent Haskell City Lake stockings consist of channel catfish (Appendix 1.) A fishing dock and boat ramp were constructed under a cooperative agreement between ODWC and the City of Haskell in the late 1980's that utilized Federal Aid monies. Several improvements around the lake have recently occurred and maintenance of the grounds has increased leading to a rejuvenation of the area as a recreational destination for locals. Haskell City Lake falls under statewide regulations for creel and length limits.

Fish attractor sites in Haskell consist of spider blocks placed around the courtesy dock in 2008 (Tabel 6).

RESULTS

Largemouth Bass

1. Largemouth Bass (LMB) were surveyed in the spring of 2025 via boat electrofishing. Sample sites were discrete 10-minute units of effort, and the entire shoreline was sampled in a counterclockwise fashion. Overall LMB abundance, measured by catch per unit of effort (CPUE, C/f), was 164.0, which is less than the previous sample, but still very high for the lake (Table 1, Figure 1). Overall catch rates for a quality fishery are ≥40 fish per hour, however, a catch rate that is too high is indicative an overpopulation.
2. LMB body condition, measured as relative weight (W_r), was below acceptable levels for all size classes ($W_r \geq 90$) in all size classes except for fish ≥16 inches ($W_r = 92$; Table 1).
3. Proportional size distribution (PSD) shows a population that falls within the balanced guidelines, with an increase in the preferred category from the 2022 survey (Table 4). The 2025 length frequency histogram shows a bimodal distribution with the 6- and 9-inch size classes being the most dominant and 25.6% of bass sampled were at or above 12 inches (Figure 2).
4. Age and growth analysis shows Haskell LMB to be slow growing, taking between 4 and 5 years to reach 14 inches in length (Table 3). Ages 1-10 were represented with the two- and four-year-old classes being the most dominant. The data doesn't show a stunted bass population, however, the high abundance, poor body condition and slow growth does highlight the need for increased harvest of bass from Haskell Lake.
5. Stochastic large year classes and fish longevity seem to be driving the bass population dynamics in Haskell city lake. Also, illegal fish stockings by individuals outside of ODWC could be negatively influencing growth and fish condition as several fish were sampled in 2025 that were unlikely to have originated within the system.

RECOMMENDATIONS

Habitat

1. Current habitat locations are listed in Table 6.
2. No new habitat projects are currently being planned for Haskell City Lake.

Fish Stockings

1. All fish stockings are listed in Table 5.
2. No other fish stockings are currently recommended.

Fish Surveys

1. Spring boat electrofishing surveys for Largemouth Bass should be conducted in 2028 to evaluate population abundance and condition and to evaluate effectiveness of the new bass regulation passed in 2022.
2. Otoliths should be collected from a subsample of Bass to determine growth rates and mortality for the population.

Fishing Regulations

1. Current regulations are the same as statewide regulations for all species.
2. No new regulations are currently recommended.

Table 1. Total number (No.), catch rates (C/f), and relative weights (Wr) by size groups of **Largemouth Bass** collected by spring boat electrofishing from Haskell City Lake. Numbers in parenthesis represent acceptable C/f values for a quality fishery. Acceptable relative weights are ≥90.

	Total (<40)		<200 mm (15-45)		200-330 mm (15-30)		≥300 mm (≥15)		≥356 mm (≥10)		≥406 mm (≥10)	
Year	No.	C/f	C/f	W_r	C/f	W_r	C/f	W_r	C/f	W_r	C/f	W_r
1993	68	68.0	32.0	91	24.0	97	12.0	87	5.0	90	-	-
1997	49	49.0	32.0	87	9.0	96	8.0	80	2.0	79	-	-
2007	70	93.3	5.3	-	85.3	78	25.3	72	1.3	78	1.3	78
2016	120	144.0	49.2	85	52.8	83	58.8	83	30.0	85	4.8	83
2019	131	157.2	38.4	81	79.2	81	51.6	84	25.2	86	10.8	92
2022	143	214.5	22.5	68	123.0	78	100.5	83	54.0	84	30.0	84
2025	82	164.0	40.0	86	92.0	83	42.0	87	24.0	88	16.0	92

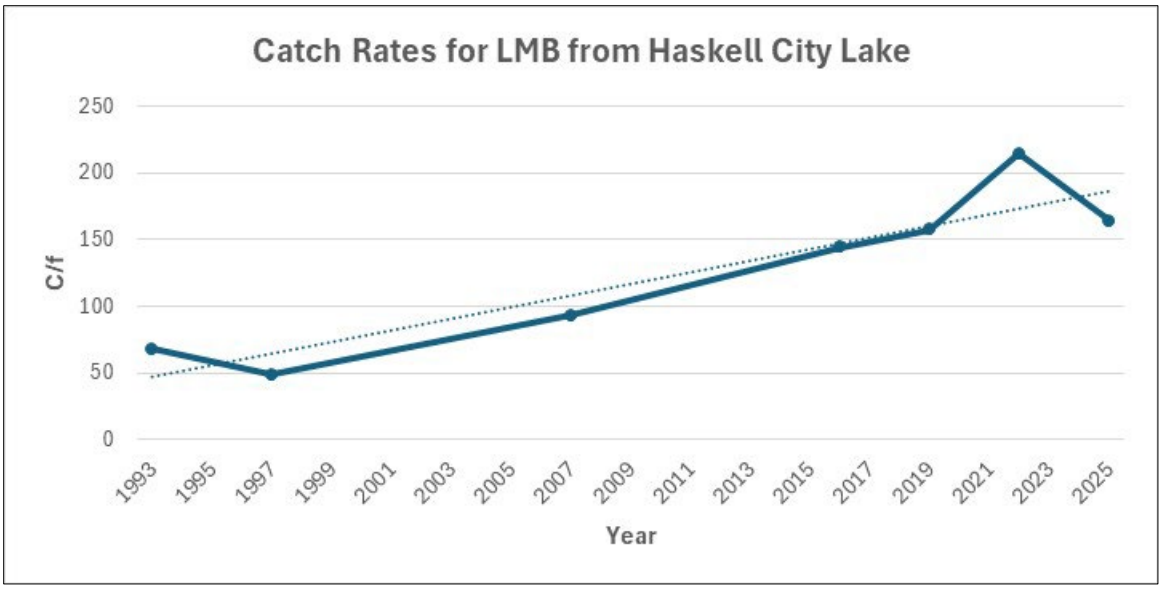

Figure 1. Haskell City Lake Largemouth Bass catch rate trend, 1993 – 2025.

Table 2. Total number (No.), catch per unit effort (CPUE), and relative weights (Wr) by **PSD** size groups of **Largemouth Bass** collected by spring electrofishing from Haskell City Lake. Acceptable Wr values are ≥90 (OFAT analysis).

			Substock 0-7.8 in	Stock 7.9 in		Quality 11.8 in		Preferred 15 in		Memorable 20.1 in		Trophy 24.8	
Year	No.	Total CPUE	CPUE	CPUE	Wr	CPUE	Wr	CPUE	Wr	CPUE	Wr	CPUE	Wr
2007	70	93.3	-	62.7	80.9	24.0	72	1.3	78.2	-	-	-	-
2016	120	144.0	-	-	-	-	-	-	-	-	-	-	-
2019	131	157.2	-	67.2	84.7	36.0	81.1	12	88.6	3.6	94	-	-
2022	143	214.5	-	90	80.1	58.5	82.4	39	83.4	6.0	84	-	-
2025	82	164.0	36.0	84.0	85.7	24.0	86.3	8.0	80	12.0	92.3	-	-

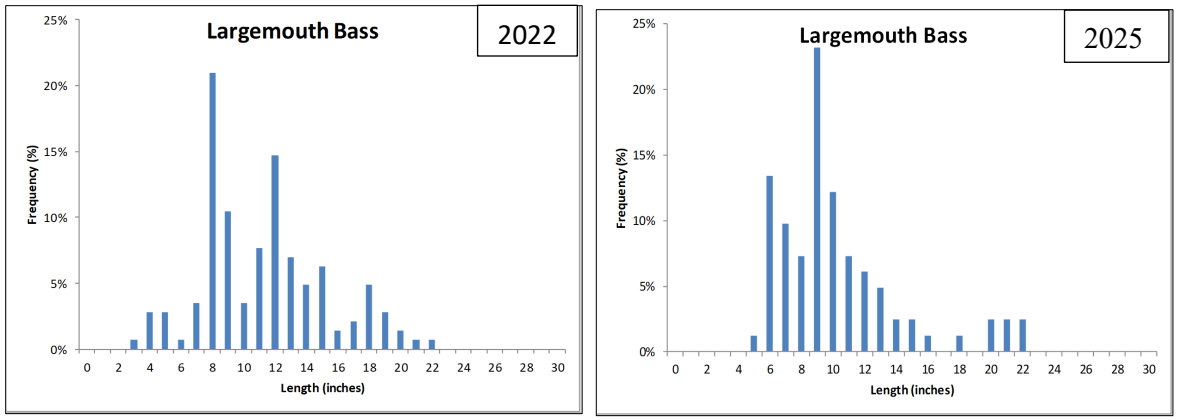

Figure 2. Haskell City Lake Largemouth Bass length frequency histograms for 2022 and 2025.

Table 3. Haskell city Largemouth mean length at age

Year	Age 1	Age 2	Age 3	Age 4	Age 5	Age 6	Age 7	Age 8	Age 9	Age 10
2016	6	9.9	12	14.7	14.1	-	-	16.6	-	-
2019	5.9	9.3	10.8	13.1	15.2	18.1	-	20.5	19.3	-
2022	7.2	8.7	11	12.9	14.7	16.1	18.8	19.2	18	22.2

Table 4. Haskell Largemouth Proportional Size distribution: PSD

Year	PSD-Q	PSD-P	PSD-M
2007	29	2	0
2016	61	12	1
2019	43	13	3
2022	53	23	3

Balanced PSD Values	
PSD-Q	40-70
PSD-P	10-40
PSD-M	0-10

Table 5. Haskell City Lake Stocking History

Year	Species	Number	Size
1941	Largemouth Bass	1500	Unk
1941	Channel Catfish	2000	Unk
1941	Crappie	500	Unk
1941	Bluegill Sunfish	2000	Unk
1949	Largemouth Bass	250	6-10”
1950	Largemouth Bass	75	12-14”
1950	Largemouth Bass	300	Unk
1950	Channel Catfish	1000	Unk
1950	Largemouth Bass	300	Unk
1952	Channel Catfish	1500	Unk
1953	Largemouth Bass	1500	Unk
1953	Crappie	1500	Unk
1953	Redear Sunfish	700	Unk
1958	Largemouth Bass	500	Unk
1958	Crappie	500	Unk
1958	Redear Sunfish	500	Unk
1982	Channel Catfish	390	10”
1982	Channel Catfish	1700	3”
1983	Channel Catfish	850	6”
1984	Channel Catfish	3000	3”
1985	Channel Catfish	1008	4”
1986	Channel Catfish	900	10”
1987	Channel Catfish	2000	8”
1989	Channel Catfish	2000	3”
1990	Channel Catfish	2250	9”
1992	Channel Catfish	1400	5”
1997	Channel Catfish	900	7”
1998	Channel Catfish	900	7”
1999	Channel Catfish	930	7”
2000	Channel Catfish	510	7”
2001	Channel Catfish	530	7”
2005	Channel Catfish	1200	7”
2006	Channel Catfish	1000	7”
2016	Channel Catfish	1000	7”
2021	Channel Catfish	5000	3”

“Unk” = *Unknown* size

Table 6. Habitat location on Haskell City Lake.

Lake	Habitat Type	Date	Lat	Long
Haskell	Spider Blocks	2008	35.841573	-95.714788