

LAKE MANAGEMENT STATUS REPORT

Date of Report: 3/7/2023 **Fisheries Manager:** Rob Hilsabeck
District No.: 4 **LAKE NAME:** Lake Storey **County:** Knox
Water No.: 0026 **Ownership:** Public-Coop **Acreage:** 133

1. All Fish - 2 pole and line fishing only.

Large or Smallmouth Bass:

- Protected Slot Length Limit from 12 to 18 inches with 3 fish daily harvest limit.

Bluegill or Redear Sunfish:

- 25 fish Daily Harvest Limit.

Pure Muskellunge:

- 42 inch minimum length limit with 1 fish daily harvest limit.

All fish:

- 2 Pole and line fishing only.

Channel Catfish or Blue Catfish:

- 6 fish daily harvest limit.

Walleye, Sauger, or Hybrid Walleye:

- 3 fish daily harvest limit.

Recreational Use Restrictions:

- All live bait greater than 8 inches must be rigged with a quick set rig.

2. IDNR fisheries completed annual spring trapnet survey on 5/3/2022.

Jake Wolf Hatchery stocked 8,517 walleye at 1.5 inches on 5/31/2022.

Little Grassy stocked 3,900 channel catfish at 6.8 inches on 8/1/2022.

Jake Wolf Hatchery stocked 147 muskie at 12.5 inches on 9/28/2022.

No aquatic vegetation treatments were required on the main lake in 2022. Lincoln Park ponds were treated with 15 gallons of Aquathol K on 5/2/2022.

IDNR fisheries completed annual fall electrofishing survey on 10/18/2022.

Galesburg Park District completed the annual fall drawdown of Lake Storey from September through November 2022.

		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Mue													
Stock#		5	30	59	7	23	10	31	9	0	23	7	
PSD		80	87	85	86	100	100	90	78		87	86	
RSD42		0	20	12	14	4	20	26	33		9	0	90-110
Wr		84	86	88	87	86	82	92	85		83	112	
CPUE f/nn		0.3	2	2.9	0.5	1.1	0.4	1.7	0.6		1.4	0.4	.3/NN

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4. In 2022, the fish population was sampled by 18 trap net nights in the spring and 70 minutes of fall D.C. electrofishing. The largemouth bass population was evaluated by 190 stock size bass from electrofishing.

The largemouth bass population appears to be defined by a high percentage of fish from 4 to 18 inches in length with good average Relative weights. In 2017, the bass regulation for Lake Storey was changed from a 1 fish greater than or equal to 15 inches and/or 5 fish less than 12 inches daily, to a protected slot length limit from 12 to 18 inches with 3 fish daily harvest limit. The goal of the new bass regulation is to increase the density of the bass population from 14 to 18 inches.

The 5 year averages from 2012 to 2016 were RSD15 of 18, RSD16 of 10, and RSD18 of 3. And a 5 year average CPUE 1.8 fish per minute over 8 inches with pulse D.C. eletrofishing.

In 2022 the values were at a PSD of 59, RSD15 of 17, RSD16 of 11 and the RSD18 of 4. The average body condition was at a Wr of 97. The CPUE was 2.7 fish per minute over 8 inches with pulse D.C. electrofishing.

The goal of the protected slot length limit is to create a high density bass population that is composed of fish large enough to be efficient predators upon the panfish population. The benefit to bass anglers will be more fish surviving past 15 inches to catch, and for the anglers wanting to harvest bass will be the opportunity to still harvest fish under 12 inches. The current indices levels will need to be evaluated over the next 3 years

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to determine if progress is being made to increase the number of fish from 15 to 18 inches in length. From 2017 to 2022 the new bass regulation has not improved this population indices. The expanding Gizzard Shad population that was first documented in the fall of 2020 maybe provide an additional forage base for the largemouth bass population.

In 2022, the bluegill population was sampled by 441 fish in fall electrofishing survey. The current bluegill population is rated as average with the larger fish up to 7.5 inches in length. This population is of moderate density and in below average body condition with a Wr average of 87. The expanding Gizzard Shad population that was first documented in the fall of 2020 will continue to decrease the growth and body condition of the bluegill population.

The redear sunfish population was sampled by 22 fish in fall electrofishing survey. The current redear population is rated as average with the larger fish up to 9.5 inches in length. This population is of low density and in average body condition with a Wr average of 92.

The white and black crappie populations have been an average rating in recent years. The 5 year averages from 2012 to 2016 were an RSD10 of 37 for white crappie and an RSD10 of less than 1 for black crappie. The black crappie population has become the dominant species. The 5 year trapnet catch per unit of effort was 16 black crappie per net night and less than 1 white crappie per net night.

In 2022, the white crappie population was sampled by 8 fish in fall electrofishing survey. The black crappie population was sampled by 50 fish in fall electrofishing survey. The 15 stock size white crappie were sampled with a PSD of 100, RSD9 of 100, RSD10 of 100, and RSD11 of 50. The 50 stock size black crappie were sampled with a PSD of 84, RSD9 of 12, RSD10 of 0 and RSD11 of 0. Both species had average WR values of 90 and 87. The white crappie indices have improved over the last 5 years, while the black crappie have remained low. Anglers can continue to apply harvest pressure upon the dense black crappie population that is from 7.5 to 9 inches in length.

The walleye population was sampled by 5 fish in the spring trap nets and 9 fish in the fall electrofishing survey in 2022. The current walleye population is rated as good with the larger fish up to 27 inches in length. The CPUE for electrofishing was at .13 fish per minute by electrofishing and .3 fish per net night of trap netting in 2022. This population is of moderate density and in good body condition with a Wr average of 99. Jake Wolf hatchery stocked 6696 fish at 1.5 inches long in 2016. No walleye were stocked in 2017, 2018 and 2019. In 2020, 6,819 walleye at 1.4 inches were stocked. In 2021, 8,970 walleye at 1.5 inches were stocked. And in 2022, 8,517 walleye at 1.5 inches were stocked from Jake Wolf Hatchery. The expanding Gizzard Shad population that was first documented in the fall of 2020 maybe provide an additional forage base for the walleye population.

In 2022, 7 muskie were collected in the spring trap netting. These fish ranged from 29.6 to 38.8 inches long. The body condition of these fish was good with a Wr of 112. A moderate density of quality size muskie are present. 43 muskie have been recaptured with PIT tag data from Lake Storey since 2002. The 2014 recapture growth rate for a male over 10 years old was .21 inches and .26 lbs per year. And the growth rate for 2 females over 10 years old was 1.1 inches and 1.40 lbs per year. Jake Wolf stocked 136 muskie at 10.75 inches in 2016. Jake Wolf stocked 135 at 12.5 inches in 2017, 136 fish at 12.5 inches in 2018, 142 fish at 13.5 inches in 2019, no stocking in 2020, 138 fish at 13 inches in 2021, and 147 fish at 12.5 inches in 2022. An annual stocking is now scheduled to maintain a moderate density of healthy muskie. The expanding Gizzard Shad population that was first documented in the fall of 2020 maybe provide an additional forage base for the muskie population.

The channel catfish population was sampled by 12 fish in fall electrofishing survey and 65 fish in the spring trap net survey. The current channel catfish population is rated as good with the larger fish up to 27 inches in length. This population is of moderate density and in good body condition with a Wr average of 105. Little Grassy hatchery stocked 3,900 fish at 6.8 inches in 2022. An annual stocking of non-vulnerable channel catfish has occurred in the recent past. These stockings have established a

population with anticipated high angler harvest pressure.

3 common carp, 14 green sunfish, 1 blue catfish, 1 flathead catfish, 7 golden shiners, and 196 gizzard shad were also sampled in 2022. All of these species, except for the gizzard shad, have been maintaining a low density in the recent past in Lake Storey. The gizzard shad population is now well established and maintaining a moderate density.

Recommended Lake Management Activities with Rationale for Implementation:

Supplemental stocking is required for the following species due to no natural recruitment currently occurring in Lake Storey.

Walleye: 6700/year at 2 inches which is 50/acre.
Muskie: 136/year at 10 inches which is 1/acre.
Channel Catfish: 3500/year at 8 inches which is 25/acre.

Biological Surveys - Conduct annual surveys to measure trends in fishery population dynamics, angling regulations and progress toward management goals. In the fall, utilize D.C. electrofishing to sample a target number of at least 100 stock-size largemouth bass and the other sportfish. In the spring, assess the saugeye, muskie, black and white crappie, bluegill, redear and channel catfish populations by a trap net survey.

Aquatic Vegetation Control - IDNR Fisheries will apply aquatic herbicides as needed to manage exotic or nuisance aquatic plants for fishing access or sportfish management.

Lake Access - Coordinate with the Galesburg Park District on the development of shoreline fishing areas, the boat dock and scheduled improvements for the boat ramp. No fishing tournaments were scheduled in 2022.

Water Level - coordinate with the Galesburg Park District on the annual fall drawdown and the documentation of the water level utilizing the installed staff gauge.

Site Map - update the site map of the water bodies as needed.

Fish stocking from 2012 to 2022 for Lake Storey.

Waterbody	Species	Size (in)	Count	Delivery Date	Source
Lake Storey (00026)	Muskellunge	12.5	147	9/28/2022	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	6.8	3900	8/1/2022	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Walleye	1.5	8517	5/31/2022	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Muskellunge	13	138	9/8/2021	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	7.5	3900	8/9/2021	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Walleye	1.5	8970	5/25/2021	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	7.7	3900	8/4/2020	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Walleye	1.4	6819	5/28/2020	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Muskellunge	13.5	142	9/18/2019	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	8.7	2730	8/20/2019	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Muskellunge	12.5	136	9/13/2018	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	7	3990	8/15/2018	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Muskellunge	12.5	135	8/31/2017	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	8.6	3900	8/30/2017	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Muskellunge	10.75	136	8/26/2016	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	7	1500	7/21/2016	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Walleye	1.5	6696	5/25/2016	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Muskellunge	11.9	137	9/3/2015	#2 Jake Wolf Hatchery (09000)
Lake Storey (00026)	Channel Catfish	8	980	8/31/2015	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Channel Catfish	8	3900	8/26/2014	#1 Little Grassy Hatchery (09050)
Lake Storey (00026)	Muskellunge	11	135	8/24/2012	#2 Jake Wolf Hatchery (09000)