

LAKE MANAGEMENT STATUS REPORT

Date of Report: 6/24/2024 **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 5/2/2023.

Jake Wolf Hatchery stocked 6,706 walleye at 1.9 inches on 5/30/2023.

Little Grassy stocked 3,900 channel catfish at 8 inches on 8/1/2023.

Jake Wolf Hatchery stocked 138 muskie at 12.25 inches on 9/27/2023.

IDNR District Biologist stocked a total of 2,000 Blacknose x White Crappie hybrids from the Banner Marsh Rearing ponds on 10/27 and 11/14/2023.

No aquatic vegetation treatments were required on the main lake in 2022. Lincoln Park ponds were treated with 15 gallons of Aquathol K on 5/11/2023.

IDNR fisheries completed annual fall electrofishing survey on 9/27/2023.

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Galesburg Park District completed the annual fall drawdown of Lake Storey from September through November 2023. The water level was lowered an additional 3 feet to allow repair to the boat ramp near the dam access.

		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
													LMP
Largemouth Bass													Objective
Stock Number		131	116	154	140	193	235	182	208	161	190	267	100
PSD		67	46	58	32	52	43	37	43	61	59	75	40-60
RSD14		41	27	19	15	11	13	17	18	25	25	48	
RSD15		22	22	12	13	9	8	10	13	18	17	35	
RSD16		12	15	7	6	6	3	2	7	10	11	29	
RSD18		3	6	1	2	3	2	1	2	3	4	8	5-10
RSD19										1	2	3	
Wr > 8"		101	105	100	100	101	101	96	100	95	97	98	90-110
YAR		0.5	1.5	0.6	1.4	0.9	1.2	1	0.6	0.1	0.1	0.06	
CPUE f/min		1.8	1.5	1.8	1.8	2.4	2	1.5	3.4	2.7	2.7	4	1/Min
Effort EL		72	80	86	80	79	120	120	61	60	70	67	
Effort NN										16	18	20	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Bluegill													
Stock #		319	201	369	261	281	3214	228	96	255	441	109	
PSD		46	46	48	62	66	2	25	35	62	32	4	
RSD7		7	0	2	3	4	1	3	2	15	3	0	
RSD8		0	0	0	0	0	0	0	0	0	0	0	
Wr > 5"		95	96	97	89	94	94	88	95	88	87	93	
CPUE f/min		2.9	3.6	3.4	2.5	4.2	64.3	4	3.1	4.3	6.3	1.6	
CPUE f/nn		7.1	2.8	5.5	2.9	6	2.4	1.9	--	2.6	7.3	1.7	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Redear													
Stock #		41	34	53	44	34	24	37	9	21	20	11	
PSD		44	97	96	86	94	46	49	100	100	40	55	
RSD9		15	0	9	34	44	33	14	11	14	10	0	

Wr > 5"		105	105	98	95	100	98	94	101	85	92	89	
CPUE f/min		0.5	0.4	0.4	0.5	0.5	0.8	0.5	0.3	0.4	0.3	0.2	
CPUE f/nn		0.5	0.2	1.4	0.2	0.4	0	0.4	--	0.3	0.5	0.2	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	LMP Obj
Black Crappie													
Stock#		392	403	306	233	374	94	371	5	180	50	282	
PSD		69	36	20	29	43	72	72	100	90	84	82	
RSD9		7	3	0	1	1	5	2	0	22	12	7	30-50
RSD10		0	0	0	0	1	2	0	0	3	0	3	20-40
RSD11		0	0	0	0	0.5	1	0	0	0	0	1	5-10
Wr > 8"		97	98	89	91	94	91	93	92	93	87	86	90-100
CPUE f/min		1.8	2	0.9	0.4	1.3	1.2	1.6	0.1	3	0.7	0.33	
CPUE f/nn		17.7	12.1	16.6	10.2	19.1	1.3	17.2	--	2.3	12.3	14.1	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	LMP Obj.
White Crappie													
Stock #		34	20	14	26	24	10	77	15	33	8	23	
PSD		91	60	50	89	96	90	94	100	100	100	96	
RSD9		79	45	36	54	79	70	49	93	100	100	96	30-50
RSD10		65	45	14	23	67	70	26	72	91	100	91	20-40
RSD11		50	20	14	8	29	40	21	27	27	50	83	5-10
Wr		95	96	86	85	90	88	89	90	89	90	99	90-100
CPUE f/min		0.4	0.2	0.1	0.3	0.2	0.1	0.9	0.3	0.6	0.1	0.33	
CPUE f/nn		0.5	0.3	0.3	0.3	0.8	0.1	1.6	--	1.1	2.7	1.2	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	LMP Obj.
Channel Catfish													
Stock#		23	16	7	13	50	19	22	7	35	65	23	
PSD		74	81	86	100	92	84	77	29	89	79	78	
RSD18		48	75	86	100	82	74	73	29	80	63	65	
Wr		100	101	100	109	112	93	100	97	104	105	111	90-110
CPUE f/min		0.2	0.1	0.03	0.1	0.3	0.3	0.06	0.1	1	0.2	0.22	
CPUE f/nn		0.7	0.3	0.3	0.3	2.1	0.2	0.9	--	2.2	3.6	1.2	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	LMP Obj.
Walleye													
Stock#		43	71	25	46	37	47	24	12	9	5	60	50-60
PSD		91	82	84	72	87	100	100	67	100	100	98	20-40
RSD18		61	68	60	59	46	53	88	67	100	100	85	

Wr		89	90	84	85	85	89	88	91	95	99	87	90-110
CPUE f/min		0.4	0.5	0.1	0.3	0.3	0.3	0.08	0.2	0.2	0.1	0.9	
CPUE f/nn		0.9	1.7	1.1	1.1	0.8	0.7	0.9	--	0.6	0.3	0.5	1/NN
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Mue													
Stock#		30	59	7	23	10	31	9	0	23	7	12	
PSD		87	85	86	100	100	90	78		87	86	75	
RSD42		20	12	14	4	20	26	33		9	0	8	90-110
Wr		86	88	87	86	82	92	85		83	112	100	
CPUE f/nn		2	2.9	0.5	1.1	0.4	1.7	0.6		1.4	0.4	0.6	.3/NN

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4. In 2023, the fish population was sampled by 20 trap net nights in the spring and 67 minutes of fall D.C. electrofishing. The largemouth bass population was evaluated by 267 stock size bass from electrofishing.

The largemouth bass population appears to be defined by a high percentage of fish from 4 to 19 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 2023 the values were at a PSD of 75, RSD15 of 35, RSD16 of 29 and the RSD18 of 8. The average body condition was at a Wr of 98. The CPUE was 4.0 fish per minute over 8 inches with pulse D.C. electrofishing. The Largemouth Bass population has dramatically improved since 2020 and is now rated very good!

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. From 2017 to 2020 the new bass regulation had not improved this population's indices. From 2021 thru 2023, the bass population showed dramatic improvements for the population over 15 inches in length. The expanding Gizzard Shad population that was first documented in the fall of 2020 and maybe providing the additional forage base for the largemouth bass population.

In 2023, the bluegill population was sampled by 109 fish in fall electrofishing survey. The current bluegill population is rated as average with the larger fish up to 7.0 inches in length. This population is of moderate density and in below average body condition with a Wr average of 93. 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 11 fish in fall electrofishing survey. The current redear population is rated as average with the larger fish up to 9.0 inches in length. This population is of low density and in average body condition with a Wr average of 89.

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 2023, the white crappie population was sampled by 23 stock size fish in spring trap net survey. The black crappie population was sampled by 282 stock size fish in spring trap net survey. The white crappie were sampled with a PSD of 96, RSD9 of 96, RSD10 of 91, and RSD11 of 83. The black crappie were sampled with a PSD of 82, RSD9 of 7, RSD10 of 3 and RSD11 of 1. Both species had average WR values of 91 and 84. 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 10 fish in the spring trap nets and 60 fish in the fall electrofishing survey in 2023. The current walleye population is rated as good with the larger fish up to 27 inches in length. The CPUE for electrofishing was at .9 fish per minute by electrofishing and .5 fish per net night of trap netting in 2023. This population is of moderate density and in good body condition with a Wr average of 91. 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. In 2022, 8,517 walleye at 1.5 inches were stocked. And in 2023, 6,706 walleye at 1.9 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 2023, 12 muskie were collected in the spring trap netting. These fish ranged from 25.2 to 44.1 inches long. The body condition of these fish was good with a Wr of approximately 100. 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, 147 fish at 12.5 inches in 2022, and 138 fish at 12.25 inches in 2023. 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 15 fish in fall electrofishing survey and 23 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 100. Little Grassy hatchery stocked 3,900 fish at 8.0 inches in 2023. 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.

13 common carp, 2 green sunfish, 13 flathead catfish, 5 golden shiners, and 142 gizzard shad were also sampled in 2023. 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.
Blacknose X White Crappie Hybrids: 1000/year at 4 inches.

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.

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)