New Experimental/Special Regulation Proposal Form For proposing new experimental or special regulations

Region and Area: 3 – Sauk Rapids

Lake Name, DOW#: Clearwater Lake (86-0252-00) and connected lakes Grass Lake (86-0243-00), Augusta (86-0284-00), Otter Lake (73-0015-00) and Caroline (86-0281-00).

County: Wright/Stearns

Proposed Regulation Change (include whether Special or Experimental, current regulation, and whether proposed is in toolbox)

This is a <u>special</u> regulation change reducing the daily possession limit of Black Crappie from 10 to five (5) and Bluegill from 20 to 10. This is the same as other QSI lakes proposed in 2020 and 2021. The Black Crappie regulation is one of the existing toolbox regulations for that species.

Relevant background -- use to set up justification (e.g. key ecological considerations, current fishery, fish community, previous management activities)

Clearwater Lake is a 3,158-acre lake located two (2) miles north of the City of Annandale along the Wright/Stearns County border. The lake is highly developed and has a very active Lake Association. Clearwater Lake is in Lake Class 22, has a maximum depth of 73 feet and is within the Mississippi River – St. Cloud watershed. Water quality is moderate for the area with an average summer water clarity of seven (7) feet. The lake is a typical central Minnesota bass/panfish/pike lake that is also managed for Walleye. Walleye fry (1.5 million) are stocked by MNDNR during odd numbered years with contingency fingerling stocking as needed and when fish are available.

Clearwater Lake is the largest lake in the Sauk Rapids Fisheries Management Area and receives a tremendous amount of angling pressure. Previous creel surveys on Clearwater Lake have estimated angling pressure to be from 30 to 60 hrs/acre in summer and nine (9) to 20 hrs/acre in winter with a majority of anglers fishing for crappies (16 - 64% of anglers) and sunfish (29 - 36% of anglers) depending on the season (open water vs winter).

Clearwater Lake is known for being an excellent fishing lake for a variety of species, but the primary species sought tend to be bass and panfish (crappie and sunfish). Bass numbers are average for the area with plenty of bass longer than 15 inches in the population. The lake is a popular tournament destination and holds five (5) to seven (7) bass tournaments annually. Northern Pike are abundant and small with an average size of < 23 inches and despite the stocking the Walleye population remains low (1.7/gill net).

In 2013, the Clearwater Lake Association approached the DNR with concerns about the Black Crappie population. Their concern was that they perceived crappie fishing was not as good as it used to be and consequently, they were wondering if there was a fishing regulation that could improve the fishery. Upon review of past surveys, we did not feel comfortable making any regulation changes without further information.

In 2014 and 2015, DNR conducted spring targeted Black Crappie Assessments to answer some questions about the crappie population. The objective of this 2-year project was to determine if growth, mortality, and recruitment of the crappie population was sufficient to be considered for one of the regulations in the crappie toolbox. Results of the 2-year project were presented to the Lake Association with a recommendation of reducing the daily bag limit for crappies from 10 to five (5), but the Lake Association was not supportive at the time.

Results from 2014:

Spring trap netting

- 667 BLC collected; 661 used for age estimation
- Lengths ranged from 126-366 mm (5.0-14.4 in)
- Ages seen 2-13; every age class seen except for 12-year-olds
- Mean length at age 3 was 215 mm (8.4 in)
- Mean length at age 4 was 263 mm (10.3 in)
- 332 female; 340 male; 5 unknown
- Little difference was seen between males and females in either number of fish per size or age group

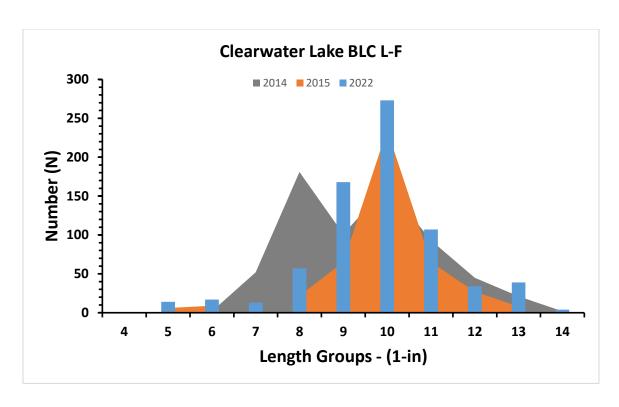


Figure 1. Length frequency of Black Crappie from Clearwater Lake, spring 2014 (gray area), 2015 (orange area), and 2022 (blue bars).

Statistic	2014	2015	2022
N	667	438	726
Avg. TL (in)	9.8	10.4	10.2
Max. TL (in)	14.4	13.9	14.4
% > 8"	91	96	94
% > 10"	49	77	63
% > 12"	10	8	11
Avg. TL (in) 10 largest fish	13.8	13.4	14.0

Table 1. Catch statistics from spring black crappie assessments from 2014, 2015, and 2022.

Bluegill abundance is about average for the lake class, but larger fish (> 8 inches) are present in the lake. While the size-structure of Bluegill collected during recent summer surveys and a spring targeted survey (2019) was relatively poor the lake still receives a tremendous amount of angling pressure for both sunfish and crappie. The targeted survey in 2019 was late in the season and likely missed the peak movement of the larger male and female sunfish. Another spring targeted survey was conducted in 2022 with better results (Figure 2 and Table 2).

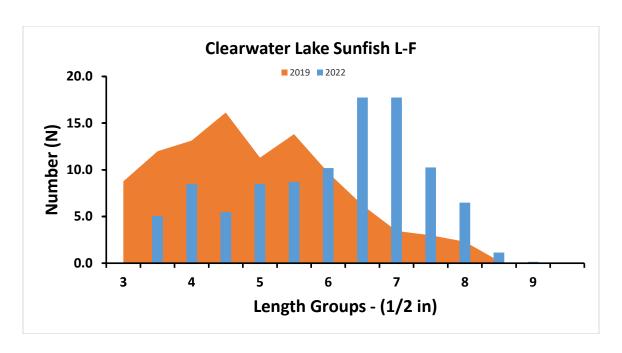


Figure 2. Length frequency of sunfish from Clearwater Lake sampled during the spring 2019 (orange area) and 2022 (blue bars).

Statistic	2019	2022
N	538	2,018
Avg. TL (in)	5.3	6.4
Max. TL (in)	8.7	9.9
% > 6"	29	66
% > 8"	3	9
Avg. TL (in) 10 largest fish	8.4	9.3

Table 2. Catch statistics from spring sunfish assessments from 2019 and 2022.

Documented problem or need

Clearwater Lake has historically been and continues to be a destination lake for panfish anglers especially during early ice and early spring. Winter fishing pressure has been estimated to be between nine (9) and 20 hrs/acre with a majority of anglers fishing for crappie and sunfish (MNDNR 1990 and 2006), while summer angling pressure has been estimated to be between (30 – 60 hrs/acre; MNDNR 1985 and 2006) and similar to other popular lakes in the area (Buffalo Lake – 31 hrs/ac; Pulaski – 33 hrs/ac; and Sugar – 46 hrs/ac). Sunfish and crappies are consistently two of the most sought-after species during the most recent creel surveys.

Justification (biological, social, political)

Based on DNR Roundtable discussions and human dimension surveys panfish anglers are generally satisfied with their overall angling experience and total catch; however, they are less satisfied with the size of the panfish that they catch. While most panfish anglers feel the current bag limits are "about right", anglers did support reduced bag limits and minimum size limits to improve the quality and quantity of panfish in a lake. Clearwater Lake has a history of producing large crappies (> 12 inches) and sunfish (> 8 inches) and we have sampled these fish during spring assessments, but standard summer surveys do not readily appear to sample these fish. While the size structure appears to be good for crappie and average for sunfish, a reduced bag limit would be a way to protect the size structure of the existing crappie population and a way to enhance the sunfish population while still allowing harvest to those anglers choosing to do so. These same regulations were put in place on East and West Sylvia and Indian (sunfish only) lakes in 2021 and it is presumed that these regulations will produce similar results here.

Goal (general statement about type of fishery proposal is trying to achieve)

Clearwater Lake receives high fishing pressure (observed) especially in the spring and throughout the ice fishing season, so the goal of the regulations is to redistribute some of the harvest across seasons and to protect/enhance the size quality of the crappie and sunfish populations that currently exist.

Specific objective(s) (objectives should be specific, measurable, and temporally bound – a way to tell whether you've achieved your goal):

Obtain a spring trap net or electrofishing catch with a minimum sample size of 300 fish characterized by at least 50% of the crappie sample exceeding eight (8) inches and 10% or more of the catch exceeding 10 inches or longer.

Obtain a spring trap net catch with a minimum sample size of 300 fish characterized by at least 65% of the sunfish sample exceeding six (6) inches and 10% or more of the catch exceeding eight (8) inches while maintaining the presence of fish nine (9) inches or longer.

Evaluation benchmarks for success may include the following: 1) a statistical increase in the percentage and/or number of fish over nine (9) inches for sunfish and 12 inches for crappie, 2) a statistical increase in the mean length of the top 10% of the fish sampled.

Modeling (or similar work to demonstrate why you expect regulation will achieve objective):

No simulation modeling will be done. Standard lake surveys will be conducted every six (6) years with targeted spring Black Crappie and Bluegill assessments conducted every three (3) years from 2022 – 2033.

Expected public response:

Similar proposals implemented throughout the state over the last two years showed overwhelming support by the public (85% support vs 15% non-support). I believe angler attitudes about panfish have changed over time and I believe they will support this regulation as well. The Clearwater Lake Property Owner's Association board and its membership have also indicated full support for the proposal. During the summer 2022 an open-water creel survey was conducted and of the 1,325 interviews 57% showed support for the Bluegill regulation change and 56% showed support for the crappie regulation change. A winter creel survey was also scheduled to begin December 15 and run through the end of March 2023, but was cancelled midway through due to an injury to the creel clerk.

Effect on other divisions: None foreseen

Alternatives:

1.) Do nothing, which would result in the status quo of the fishery. 2.) Try a minimum size limit for crappie and sunfish which would likely not achieve enough compliance and would likely have similar results to #1.

Proposed evaluation plan

Previous spring surveys have been conducted in 2014, 2015, and 2022 for crappie and 2019 and 2022 for Bluegill. Spring targeted BLC/BLG survey will be conducted every three (3) years from 2022 – 2032. Standard lake surveys are scheduled for 2022, 2025, 2028, 2031, and 2034. A yearlong creel survey was/is being conducted during 2022/2023. The open-water creel survey was conducted from April 26, 2023 to October 30, 2022 and the winter creel survey is scheduled from December 15 to March 30, 2023.

Area Fisheries Supervisor	Regional Fisheries Manager