

## Minnesota DNR Response to Public Comments on the 2017-2022 Fisheries Management Plan for Lake Vermilion

This document is a response to the topics most commonly expressed in public comments received by DNR between April 20, 2016 and August 16, 2017 regarding the 2017-2022 Fisheries Management Plan for Lake Vermilion.

Comments were collected from the following sources:

- Meetings (8) with the Lake Vermilion Fisheries Input Group between April 20 and November 20, 2016
  - The Lake Vermilion Fisheries Input Group (LVFIG) is made up of 20 stakeholders with diverse local, statewide, and tribal interests that provided critical input into the development of the Lake Vermilion Fisheries Management Plan.
- Emails and online comments from the public between July 17 and August 16, 2017

DNR staff completed a review of all comments received during the public comment period (77 via online questionnaire; 23 via email). These comments, along with input received from the LVFIG, provided critical information in the finalization of the management plan.

We are unable to provide individual responses to each comment. However, we will provide a brief summary of, and response to, the topics most commonly expressed in the comments we received. Common themes from comments received about individual fish species are summarized, followed by a brief response from DNR for each topic. Additional information was also incorporated into the final 2017-2022 Fisheries Management Plan for Lake Vermilion.

### Muskellunge (muskie)

#### *Comment:*

Muskellunge management received the most comments (88) during the public comment period. The LVFIG also spent a significant amount of time discussing the topic. The majority of these comments were targeted towards the muskie fingerling stocking program for Lake Vermilion. In particular, there was wide support for higher muskie stocking rates and increased frequency compared to what was originally proposed in the management plan. The original proposal was for stocking 4,000 fingerlings every other year as a base quota with an additional 4,000 fish surplus when available (8,000 fish maximum per 2-year period). Several commenters suggested returning stocking levels to the period from 1987 to 1994 when muskies were stocked at a rate of about 6,000

fish annually. In contrast, there were a few comments requesting muskie stocking be eliminated. There was also some support for the muskie stocking program as originally outlined in the plan.

### ***DNR Response:***

Based on public comment, input from the LVFIG, and input from the internal DNR Muskellunge Technical Committee, the stocking program has been changed to stock 3,000 Leech Lake strain muskie fingerlings annually as a base quota. Also, up to 2,000 additional (surplus) Leech Lake strain fingerlings will be stocked per 2-year period (8,000 fish maximum per 2-year period) when available. The base quota received has increased to 6,000 fingerlings per 2-year period (3,000 fish annually) compared to the previous proposal of 4,000 fingerlings every other year. This is important because in the recent past the abundance of surplus fish has been limited. Therefore, the likelihood of stocking more than 4,000 fish in a 2-year period was somewhat restricted. Lake Vermilion will now receive at minimum 3,000 muskie fingerlings per year. However, the maximum amount stocked per 2-year period will remain at 8,000 fish.

Stocking 6,000 fingerlings annually or more is not feasible for several reasons. First, we assume natural reproduction is occurring in Lake Vermilion likely providing recruitment to the muskie population that was not present during the initial intensive stocking period. We hope to gain a better understanding of the relationship between stocking and natural reproduction by implanting Passive Integrated Transponder (PIT) tags in all fingerling muskies stocked in Lake Vermilion beginning in 2017. This is a long-term project that will allow us to track individual fish and assess the contribution of stocked fish to the population among other things.

The goal for DNR is to produce about 30,000 muskie fingerlings annually for statewide distribution among 54 waters currently stocked, however muskie production is variable. In contrast, contracted private growers produced less than 1,000 fish in 2017. Minnesota's largest lakes that are stocked with muskie have quotas based on total numbers stocked and not on fish per littoral acre or fish per surface acre. It is not feasible for DNR to use per surface acre or per littoral acre formulas to stock large lakes like Vermilion, because it would require a significant amount of the statewide production, thus limiting the supply for other smaller stocked lakes. Lake Vermilion will now receive roughly 10% of the statewide production of muskie fingerlings on an annual basis. This was only possible due to upcoming scheduled changes in stocking strategies of other muskie stocked waters. Given current production, budget constraints, and biological knowledge, stocking above the amount in the plan is not feasible at this time.

We understand there is some opposition to muskie stocking in Lake Vermilion. However, the original goal for stocking Lake Vermilion with muskies was to provide a low density, high quality fishery with negligible impacts to other sport fishes. The current goal in the management plan is to support a muskie population that provides opportunity to catch trophy fish (50 inches or larger). We believe these goals will be met following the stocking strategy outlined.

## Walleye

### *Comment:*

Walleye management received the second most comments (41) during the public comment period and was thoroughly discussed with the LVFIG. Comments regarding walleye management were generally mixed. Overall, there was support for the goals and objectives defined in the plan. Several positive comments were received regarding the current state of the walleye population and the special regulations in place since 2006. In addition, various suggestions were received regarding changes to the new special regulation that took effect in May 2017. Several comments were received regarding the walleye population in West Vermilion, specifically the area west of Wakemup Narrows. Several commenters indicated a lack of harvestable-sized walleye in that area of the lake. In response to this issue, commenters suggested stocking fingerling walleye in that area of the lake to increase the abundance and angler catch rates of harvestable-sized fish.

### *DNR Response:*

A public review of the special walleye regulation occurred in 2016 and input from the LVFIG was essential, as was input from the general public collected as part of the required rulemaking process. The new regulation that took effect in 2017, a 20 to 26 inch protected slot limit with one fish over 26 inches allowed in a four fish possession limit, will remain in place for the foreseeable future. The goal of the regulation is to provide additional harvest opportunity while still maintaining sustainable harvest levels and protecting adequate female spawning stock. Changes to the regulation would be considered if mature female walleye biomass continues to exceed the objective range and other key population metrics (e.g., gill-net catch rates, growth, condition, and maturity) are outside of optimum ranges. Other key factors that will be taken into account are the fishing pressure and walleye harvest estimates in the next summer creel survey scheduled to occur in 2021. Future regulation adjustments will be used cautiously to avoid overreaction to short-term dynamics commonly observed in walleye populations, as rapidly changing regulations may negatively impact the population, fishery, and our overall understanding of specific regulation impacts.

DNR feels that walleye fingerling stocking is not currently a biologically sound management activity because it would not noticeably increase walleye abundance or angler harvest. Therefore, DNR will not propose walleye fingerling stocking using DNR funds and would be opposed to any fingerling stocking using private funding. Historically, walleye abundance in Lake Vermilion has been sustained primarily by natural reproduction. West Vermilion's walleye gill-net catch rate of about 11 fish/net has remained relatively stable over the last 20 years (1996-2015) and is already significantly higher than lakes where fingerling stocking has shown positive results. The estimated biomass (pounds/acre) of mature female walleyes and subsequently the amount of eggs they likely produce are at historic highs on Lake Vermilion, particularly on the west end. Adding more fish on top of the natural production would increase competition for resources (e.g., prey, habitat, etc.) and could negatively impact growth and survival. Historically, we have seen larger young-of-the-year walleye in West Vermilion during fall electrofishing surveys than we see in East Vermilion and first year growth is an important predictor of survival. Adding additional fish to compete with during the fall in West Vermilion would not be advantageous to their winter survival and overall success.

Additionally, it was suggested that walleye fingerlings should be stocked in a relatively small portion of West Vermilion. It has been shown in other large, natural walleye lakes in Minnesota that even at the fry stage or during the first summer of growth that fish will widely distribute. Fingerling walleye would need two or three years of growth before they would reach preferred harvest size and during this time they would freely disperse throughout the lake. Thus, providing any noticeable improvement in angler harvest is unlikely via fingerling stocking in Lake Vermilion. DNR will continue to manage Lake Vermilion as a whole because both fish and anglers are able to move freely throughout the lake.

The most effective management action DNR has to increase angler opportunity to harvest fish is a regulation change. The protected slot limit regulation for walleye has been adjusted from 17-26 inches, to 18-26 inches, and now 20-26 inches. The reduction of the protected slot size in 2017 should address the concern expressed by some anglers that they have not been able to catch harvestable-sized fish in West Vermilion. The more conservative protected slots from 2006-2016 played a role in the reduced harvest success, particularly in combination with some weak year classes that occurred. Our most recent gill-net surveys show that the walleye population has changed. We are seeing a greater portion of smaller walleye in our catch and more year classes are now available to harvest decreasing the impact of weak year classes. Therefore, more fish should be available for harvest by anglers.

Lastly, it is also worth mentioning that West Vermilion tends to have greater species diversity and higher abundances of cisco, yellow perch, northern pike, smallmouth bass, black crappie, and bluegill compared to East Vermilion. The higher abundance of cisco and yellow perch provide more prey availability which can make angling more challenging since anglers are competing with the natural abundance of prey fish.

## Northern Pike

### *Comment:*

Northern Pike management received the third most comments (32) during the public comment period and the LVFIG spent time discussing this topic. There were opposing views presented on the current state of the northern pike population and comments were primarily about regulations and harvest. There was support for both managing the fishery for trophy potential as well as allowing additional harvest.

### *DNR Response:*

Northern pike abundance in Lake Vermilion has historically been very low compared to other large lakes in the state, with gill-net catches typically about 1 fish/net. The fishery is currently managed with a special regulation to protect large pike while providing some harvest opportunities. In 2003, a 24-36 inch protected slot limit regulation with one northern pike over 36 inches allowed in a three fish possession limit was implemented for Lake Vermilion. The regulation change was part of a state-wide initiative to improve the size structure of pike populations in a number of lakes. There is some evidence in the creel and gill-net data that the average size of pike has increased following the regulation, but the total number of northern pike sampled in gill nets annually continues to be relatively small, limiting meaningful analysis. Information collected from spring ice-out trap-netting in 2017 will be used to assess changes in size structure. The last assessment of this type was done during

the springs of 1997 and 1998 prior to implementation of the special regulation. The higher samples sizes observed will allow meaningful comparisons to be made.

The DNR completed a rulemaking process that partitions Minnesota into three northern pike management zones (northeast, north-central, and southern zones) in 2017 and the resultant new regulations will be in effect for the May 2018 fishing opener. These zone regulations are designed to improve northern pike populations for anglers and dark house spearers. The northeastern management zone would include Lake Vermilion, however Lake Vermilion's existing special regulation will remain in place in 2018.

Some commenters and members of the LVFIG suggested allowing more harvest opportunity, expressed less concern about the size structure of the pike population, and were open to the idea of reviewing the slot regulation. Therefore, consideration of a regulation change to match the northeast northern pike management zone regulation will follow standard state rulemaking procedures with opportunity for general public input in 2018. The earliest implementation of the northeast zone regulation for Lake Vermilion would be in May 2019 if there is public support.

The northern pike zone regulation for the northeast zone will be:

- When taking northern pike by angling:
  - All northern pike from 30 to 40 inches in length must be immediately returned to the water
  - Only 1 fish over 40 inches in length may be in possession
  - 2 fish possession limit
- When taking northern pike by dark house spearing:
  - Only 1 fish over 26 inches in length may be in possession
  - 2 fish possession limit

## Other Comments

Various comments were received regarding other fish species of primary management concern and other aspects of the Lake Vermilion Fisheries Management Plan. Comments did not typically identify consistent issues or themes for these topics warranting a response from the DNR or, in some cases, the issues were already covered in the plan. These other comments were targeted towards the management of bass (19), panfish (19), and cisco (tullibee), lake whitefish, and white sucker (17). Additionally, comments were received about fishing tournaments (7), double-crested cormorant management (4), and aquatic invasive species (3). These topics are thoroughly addressed within the plan.