



Memorandum

To: Bassett Creek Watershed Management Commission
From: Barr Engineering Co.
Subject: Item 5Ciii – Review Existing Data on Common Carp in Medicine Lake
BCWMC January 18, 2018 Meeting Agenda
Date: January 10, 2018

5Ciii. Review Existing Data on Common Carp in Medicine Lake

Recommendations:

1. For information only.

Background

At their October meeting, the Commission directed the Engineer to review Medicine Lake fish data to evaluate the carp population. Meg Rattei reviewed the MnDNR fisheries data from 1981 through 2017 (2017 is preliminary data) to evaluate changes in the lake's carp population. According to the City of Plymouth and Three Rivers Park District, aside from the MnDNR data, no additional fisheries data have been collected for Medicine Lake.

The data from 1981 to 2017 indicate that carp numbers have declined since 1991 and have been at low levels during the past 5 years (see attached graph). During the 2017 survey, only 1 carp was caught. That carp measured 30.5 inches in length and weighed 12.8 pounds. Daryl Ellison, the MnDNR West Metro Area Fisheries Manager, indicated the single large carp caught last summer indicates limited carp recruitment in Medicine Lake. (Recruitment is the number of fish surviving to enter the fishery.) Low recruitment occurs either when few fish are born or few fish survive to enter the fishery. The declining numbers of carp since 1991 indicate the fish barrier in Plymouth Creek (constructed in 1987) is effective and has reduced carp recruitment. Although MnDNR fish surveys are designed to understand a lake's entire fish community (not just carp), Mr. Ellison indicated the fish survey data provide enough of a picture of the carp numbers in the lake to be confident they are low.

However, some questions remain regarding the actual carp populations in the lake. Professionals with Carp Solutions (a private company specializing in developing management solutions for common carp) reported that to obtain robust knowledge of the carp population, surveys should be targeted toward carp. They note the MnDNR nets seem to deter adult carp and that survey timing can play a part in carp capture rates as well. Carp Solutions recommends performing electrofishing surveys and aging a sample of the carp to understand the population better. The Commission Engineers may suggest this work as part of the Medicine Lake monitoring in 2019.

Number of Carp Netted in MnDNR Fish Surveys of Medicine Lake During 1981-2017

