Lake Ocheda Water Quality Charts

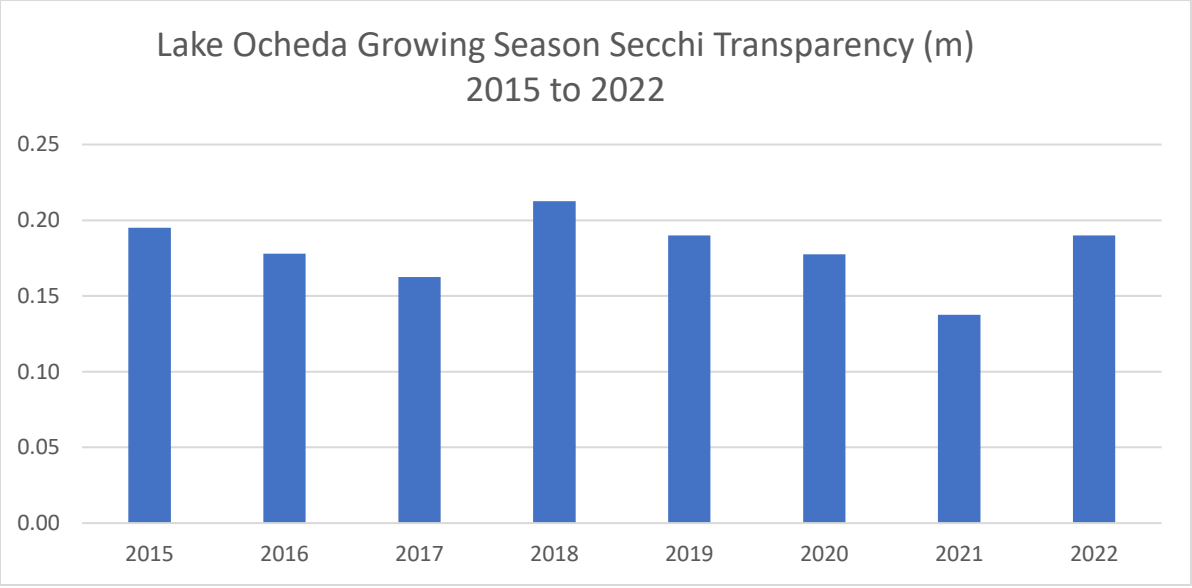
The Okabena-Ocheda Watershed District began testing water quality monthly during the growing season at one location in Ocheda's west basin in 2015 to prepare for implementing a lake management plan. The Lake Ocheda Management Plan was completed in 2017. It prescribed periodic lake level drawdowns to improve water clarity and stimulate vegetation regrowth by reducing the carp population.

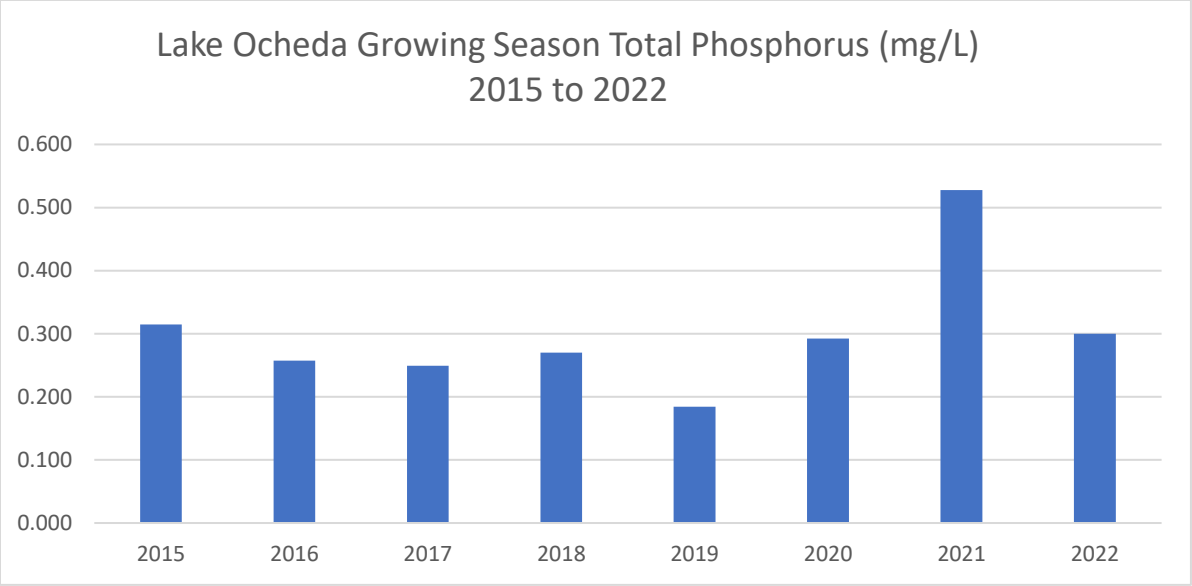
The first lake level drawdown began in September 2020 and ended in March 2021. Water levels were reduced to two feet below normal before freeze-up and briefly achieved the low dissolved oxygen levels required to kill a majority of the fish. Unfortunately, many carp survived. The lake elevation remained low and very turbid conditions persisted throughout the 2021 growing season. No vegetative regrowth was observed.

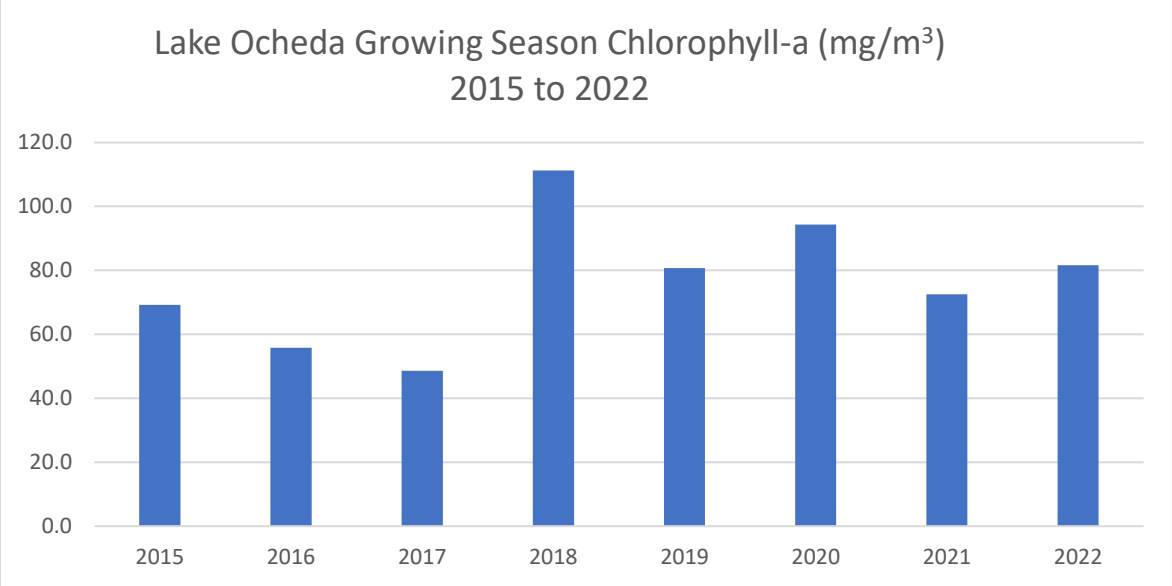
Another water level drawdown was attempted in fall 2021. Downstream channel vegetation prevented outflow from lake so lower levels were not achieved before winter. The lake's surface elevation remained close to normal from December through March and there was no fish winterkill. The district, DNR and residents will revisit and revise the management plan before doing future drawdowns.

Below are graphs showing annual averages for select parameters from 2015 through 2022. The total phosphorus chart shows an unexpected spike, probably as a result of the decaying winterkilled fish.

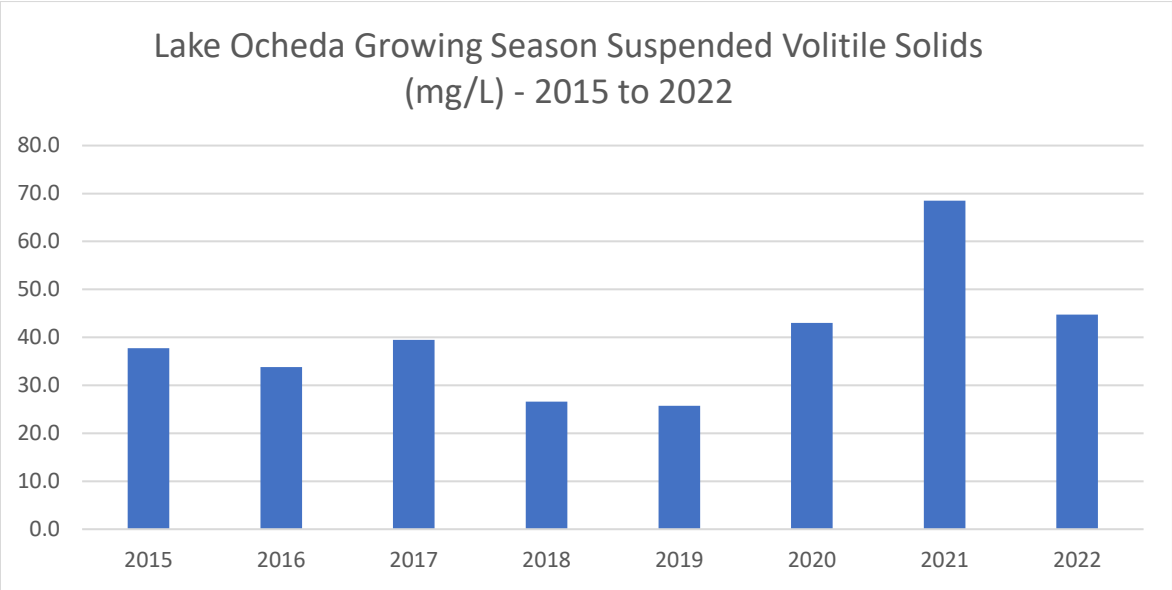
The district intends to continue monitoring the lake's water quality in the future.

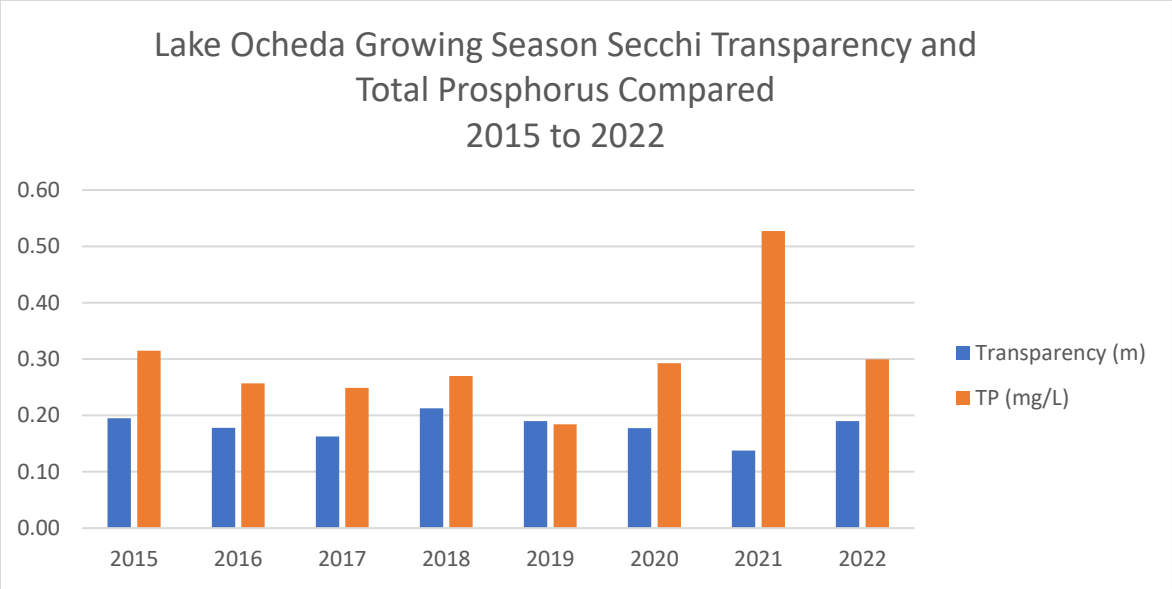


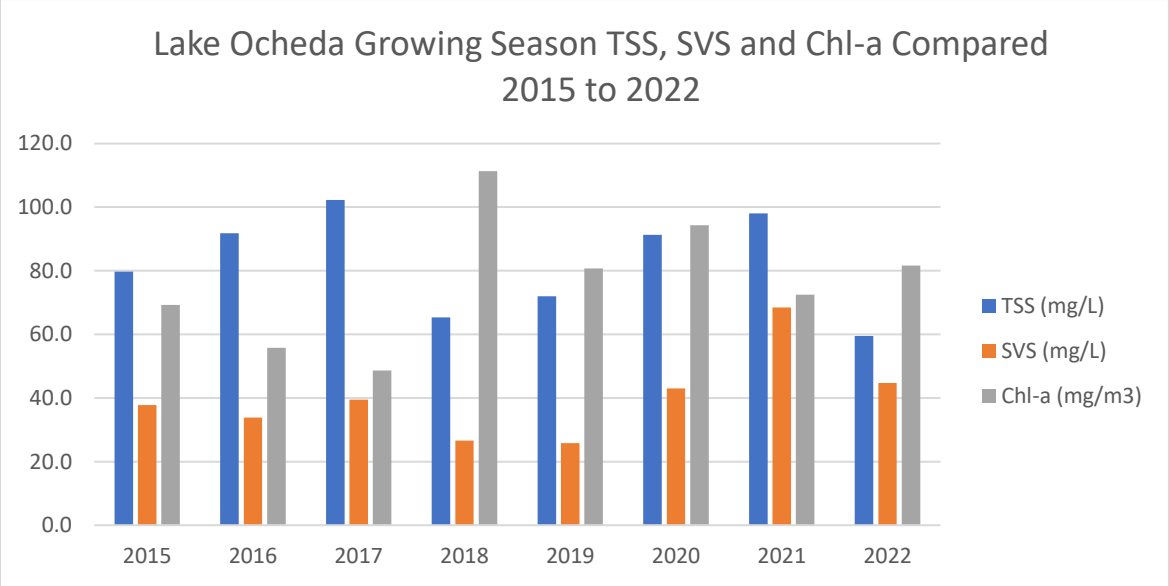

Lake Ocheda Growing Season Total Phosphorus (mg/L)
2015 to 2022
0.600
0.500
0.400
0.300
0.200
0.100
0.000
2015
2016
2017
2018
2019
2020
2021
2022


Lake Ocheda Growing Season Chlorophyll-a (mg/m3)
2015 to 2022
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022


Lake Ocheda Growing Season Total Suspended Solids (mg/L)
2015 to 2022
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022


Lake Ocheda Growing Season Suspended Volitile Solids
(mg/L) - 2015 to 2022
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022


Lake Ocheda Growing Season Secchi Transparency and Total Prosphorus Compared 2015 to 2022
0.60
0.50
0.40
0.30
0.20
0.10
0.00
2015
2016
2017
2018
2019
2020
2021
2022
Transparency (m)
TP (mg/L)


Lake Ocheda Growing Season TSS, SVS and Chl-a Compared 2015 to 2022
120.0
100.0
80.0
60.0
40.0
20.0
0.0
2015
2016
2017
2018
2019
2020
2021
2022
TSS (mg/L)
SVS (mg/L)
Chl-a (mg/m3)