

Info from my analyzing Mel and David's 2021 Sacchi Green Lake water recorded/reported clarity data. ... thank you Dave and Mel 😊 SEE COLLECTED DATA BELOW>>>

In 2021, report clarity ranged from 2.8ft to 8.7ft!
The average is 5.26ft OR 1.6meters at same sampling place.

Mapping our 2021 numbers against Sacchi data found in lake reports going back to 1988 - 2018... not knowing details... the clarity also ranged from 3 ft to 9ft...
.. the accumulated Sacchi points averages out to be about 1.8 meters or 5.9 feet of clarity over 30 year period

**So 2021 Green Lake Sacchi Average was 5.26 feet
Compared to 30 year average of 5.9 feet with unknown amount of degrees of error.**

Could consider similar comparison finding somewhat okay news! 🎵...
.....however our lake is still on Minnesota Impaired list.

***"Green Lake is still considered impaired since TP and chlorophyll-a do concentrations do not currently meet State standards.
TP concentrations for Green Lake have averaged 61 µg/L over the most recent 10-year period, which is above the 40 µg/L standard for deep lakes in the North Central Hardwood Forest (NCHF) Ecoregion. Planktonic algae, which is measured by chlorophyll-a (chl-a), has averaged 25 µg/L which is above the 14 µg/L standard for deep lakes.***

Secchi depth, a measure of water clarity, is relatively good in Green Lake and has met the 1.4-meter Secchi depth standard in five of the seven years measured since 2009. Although Secchi depth has generally met State water quality standards over the past 10 years." reference Green Lake Diagnostics Study

It all depends on the year and complex lake variables.

We Still need to manage Green Lake nutrient loading. ✓
We Still need to monitor / record our Green Lake Sacchi readings. 😊



secchi data captured for Green lake for the 2021 summer.

Sample set: 1

Date: 5/4/21

Time: 6:45pm

Lake: Green Lake

Depth at Sampling Site: 27.5ft

Secchi Disk Depth: 6ft 6in

Physical Appearance: Clear

Recreational Suitability: Good

Weather/Wind: Sunny / 5-10 mph

Water Temp: 62 degrees

Sample set: 2

Date: 5/11/21

Time: 7:20pm

Lake: Green Lake

Depth at Sampling Site: 27ft

Secchi Disk Depth: 6ft 9in

Physical Appearance: Clear

Recreational Suitability: Good

Weather/Wind: Partly Cloudy / 5-10 mph

Water Temp: 65 degrees

Sample set: 3

Date: 5/14/21

Time: 6:30pm

Lake: Green Lake

Depth at Sampling Site: 27ft

Secchi Disk Depth: 5 feet 6in

Physical Appearance: Clear

Recreational Suitability: Good

Weather/Wind: Sunny / 5-10 mph

Water Temp: 61 degrees

Sample set: 4

Date: 5/22/21

Time: 6:07pm

Lake: Green Lake

Depth at Sampling Site: 27ft

Secchi Disk Depth: 5ft

Physical Appearance: Med Algae

Recreational Suitability: Fair

Weather/Wind: Sunny / 0-5 mph

Water Temp: 67 degrees

Recent weather: Very hot, low wind

Sample set: 5

Date: 6/10/21

Time: 7:51pm

Lake: Green Lake

Depth at Sampling Site: 27ft

Secchi Disk Depth: 8ft 7in

Physical Appearance: Low Algae

Recreational Suitability: Good

Weather/Wind: Sunny / 0-5 mph

Water Temp: 85 degrees

Recent Weather: 2 weeks of 90+ days, no rain, inlets don't seem to be flowing so quality is pretty good considering

Sample set: 6

Date: 6/23/21

Time: 7:40pm

Lake: Green Lake

Depth at Sampling Site: 27ft

Secchi Disk Depth: 4ft 2in

Physical Appearance: High Algae

Recreational Suitability: Fair

Weather/Wind: Sunny / 0-5 mph

Water Temp: 74 degrees

Sample set: 7

Date: 6/27/21

Time: 6:42pm

Lake: Green Lake

Depth at Sampling Site: 27ft

Secchi Disk Depth: 36in

Physical Appearance: Med Algae

Recreational Suitability: Good - Fair

Weather/Wind: Sunny / 5-10 mph

Water Temp: 75 degrees

Recent Weather: Recently got an inch of rain

Sample set: 8

Date: 7/18/21

Time: 3:25pm

Lake: Green Lake

Depth at Sampling Site: 31ft

Secchi Disk Depth: 6ft 6in

Physical Appearance: Clear (in middle, edges of lake have floating algae)

Recreational Suitability: Good (in middle)

Weather/Wind: Sunny / 0-5 mph

Water Temp: 81 degrees

Notes: Edges of lake are icky with yellow-ish algae on top of water

Green Lake Improvement District-Secchi Disk Readings

Date Time Air Temp Water Temp Depth Weather Clarity Reading

6/24/2021 10:15am 85 78 20 □. Sunny and dry 34"

7/4/2021 2:00pm 91 82 20 □. Sunny and dry 50"

7/11/2021 3:00pm 86 84 20 □. Sunny and dry 57"
7/18/2021 3:30pm 90 84 20 □. Sunny and dry 62'
7/24/2021 1:00pm 86 80 20□. Sunny and dry 61"
8/1/2021 3pm 77 80 2o□ p/c dry