

TAHOE:
**STATE
OF THE
LAKE**
REPORT
2024

CLARITY

Annual average Secchi depth

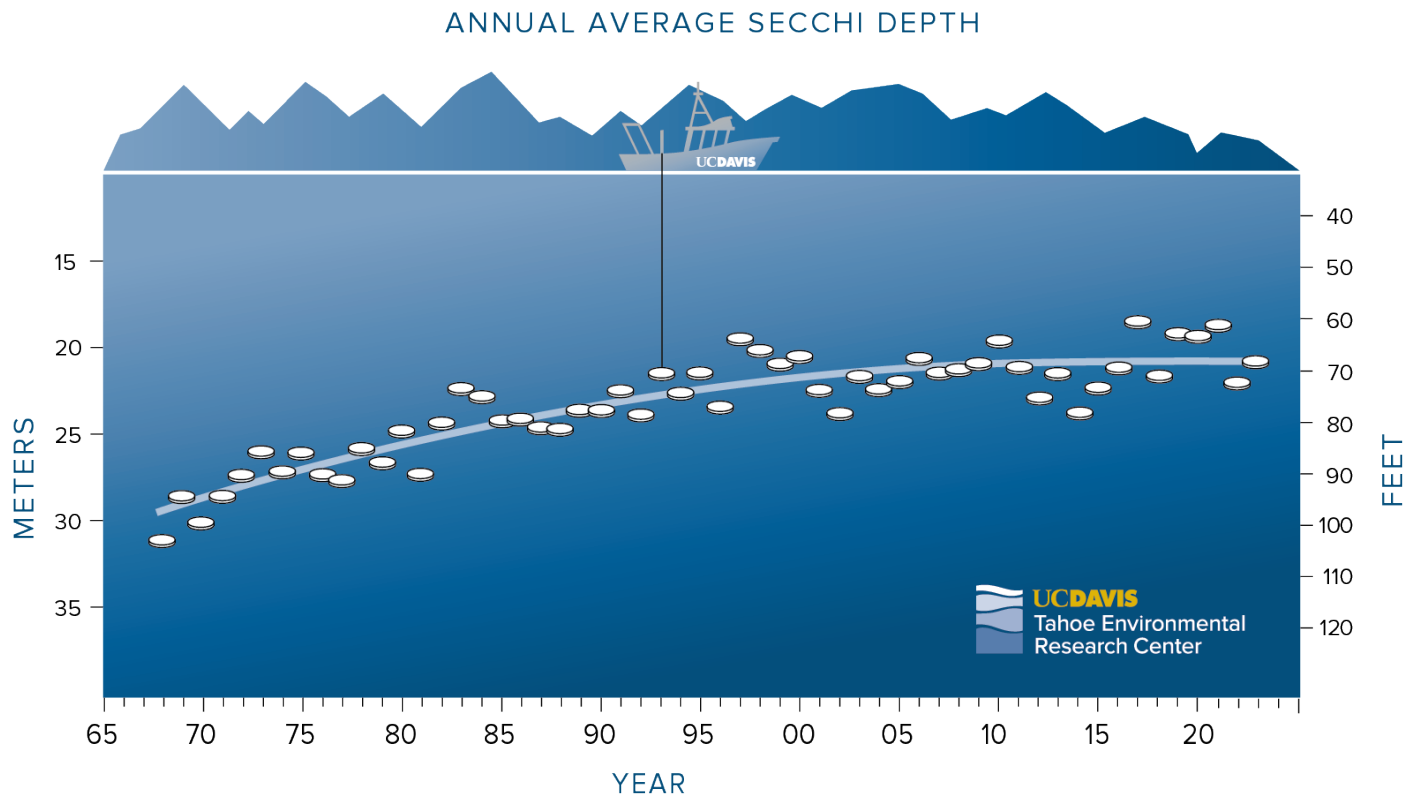
Yearly since 1968

The Secchi depth is the depth at which a 10-inch white disk, called a Secchi disk, remains visible when lowered into the water. In 2023, the annual average Secchi depth dropped to 68.2 feet (20.8 m) based on 27 readings from its 2022 value of 71.9 feet. The greatest individual

value recorded in 2023 was 123 feet (37.5 m) on March 2. This was the result of an ephemeral lake “upwelling.” Upwellings are episodic events produced by strong winds and are not reflective of the overall lake clarity and health. The lowest clarity reading was 26.2 feet (8 m) on May 24.

The clarity restoration target of an annual Secchi depth of 97.4 feet (29.7 m) set by federal and state regulators, is a goal that agencies and the Tahoe Basin community continue to work toward.

Data source: TERC lake monitoring.



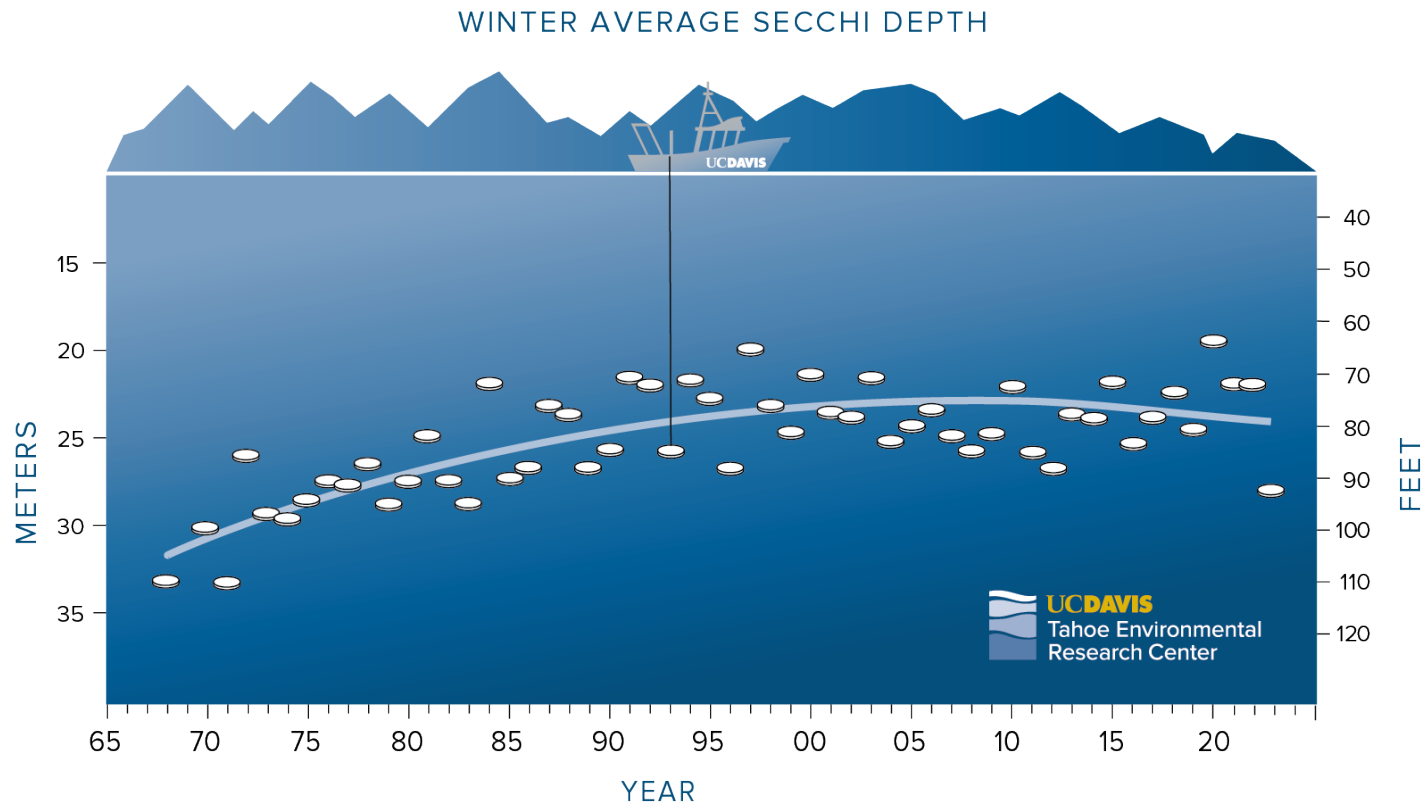
Winter Secchi depth

Yearly since 1968

Average winter lake conditions were the clearest observed since 1983 and the 10th best on record, with visibility of 91.9 feet (28 m) under the surface, compared with 72.2 feet (22 m) in 2022, based on ten

readings between December 2022 and March 2023. During the winter months this clarity is attributed to deep mixing events that brought clear water to the surface from the bottom of Lake Tahoe.

Data source: TERC lake monitoring.



Summer Secchi depth

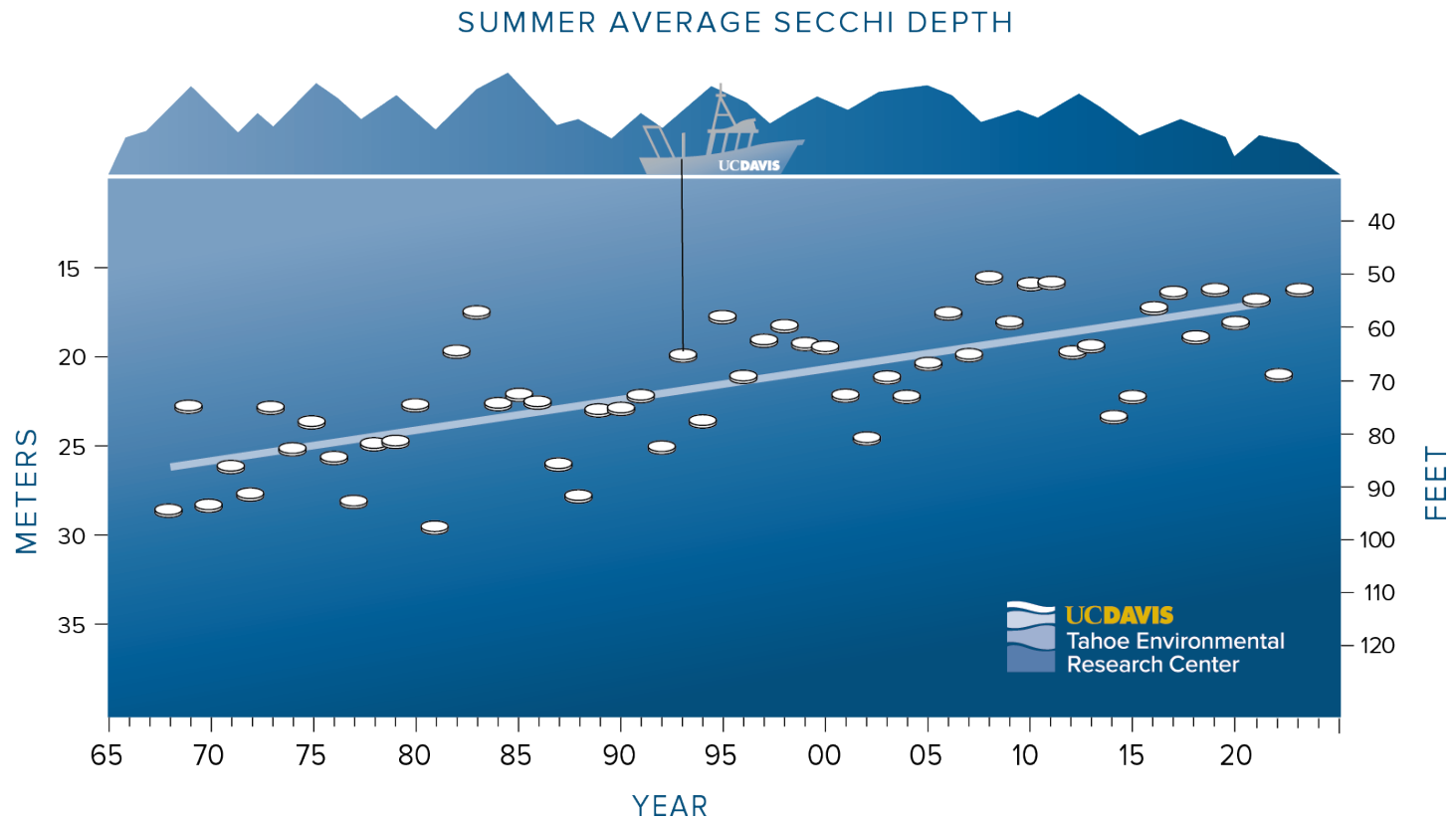
Yearly since 1968

Summer (June–September) clarity in Lake Tahoe in 2023 was 53.5 feet (m), a decrease of over 15.4 feet from the previous year. Runoff from the heaviest winter snowfall in 70 years brought

an influx of inorganic particles and a rapid drop in clarity in May. Summer is typically the season of poorest clarity. The long-term summer trend is dominated by a consistent degradation.

As is shown in Figure 11.4, the month of June was the commencement of improving clarity.

Data source: TERC lake monitoring.



Individual Secchi depths

2021, 2022, and 2023

The individual Secchi depth readings from the Index station on the west side of the lake for 2021, 2022, and 2023 are plotted. Secchi values can be seen to sometimes vary considerably over short time intervals. It is worth noting that

on March 2, 2023, when a Secchi depth of 123 feet (37.5 m) was observed. This is the 12th best Secchi depth ever recorded at Lake Tahoe and was the result of a wind-driven upwelling, a temporary phenomenon that brings very clear

hypolimnetic (bottom) water up to the surface. Conversely, on May 24, 2023, a reading of only 26.2 feet (8 m) was taken.

Data source: TERC lake monitoring.

