

HOW TO TAKE A SECCHI DISK MEASUREMENT



1. Find your weather window - it is important to pick a day with lots of sunshine, minimal wind, and the best time of the day is when the sun is high in the sky
2. Head to one of the measuring spots - see map
3. Adjust your eyes - once you are in the right spot, give your eyes time to adjust to looking into the water. *Turn your back to the sun and take of your sunglasses.*
4. It's time to get your measurements! Counting the knots as you go, slowly lower the secchi disk into the water. As soon as the disc disappears from sight stop and record that depth (D1).
5. Slowly - raise the disk back toward the surface, once the disk comes back into view, stop and take a second reading of the depth (D2).
6. Calculation time! From here, simply take the two readings and calculate the secchi depth using this formula: $\text{Secchi depth (SD)} = \frac{D1 + D2}{2}$
7. Repeat, repeat - repeat the measurement (steps 4-6), 3 times in total. *Scientists need trustworthy data, this means reducing the chance of mistakes.*
8. Find the average secchi depth - Your final secchi disk depth is the average of all 3 calculations from step 6: $\text{Final secchi depth} = \frac{SD1 + SD2 + SD3}{3}$
9. You have taken scientific data! Log your data on the app or email to getinvolved@waiwanaka.nz



CONGRATULATIONS!

You are now a Citizen Scientist.

MEASUREMENTS FIELD SHEET

	Depth when disk disappears (D1)	Depth when disk is visible again (D2)	Secchi depth (SD) = $\frac{D1 + D2}{2}$
Measurement 1	D1	D2	SD1
Measurement 2	D1	D2	SD2
Measurement 3	D1	D2	SD3
Final Depth Log this on the app or email			$\frac{SD1 + SD2 + SD3}{3}$

TRY THE APP LAKE OBSERVER APP

Download the Lake Observer App



1. Login - Username: team@waiwanaka.nz | Password: Volunteer1
or you are welcome to set up your own account (it's free)

2. Tick - Secchi Depth, Cloud Cover, Wind
Click 'Create Submission'

Lake Observer	Weather
Select data submission types:	Air Temperature <input type="checkbox"/>
Water/Ice	Precipitation <input type="checkbox"/>
Water Quality <input type="checkbox"/>	Cloud Cover <input checked="" type="checkbox"/>
Secchi Depth <input checked="" type="checkbox"/>	Wind <input checked="" type="checkbox"/>
Ice Cover <input type="checkbox"/>	

3. Choose your location - Click on the location icon
Choose the Waterbody name: "Lake Wānaka"
Choose your site location on the map

4. It's time to get your measurements! Counting the knots as you go, slowly lower the secchi disk into the water. As soon as the disc disappears from sight stop and record that depth (D1).

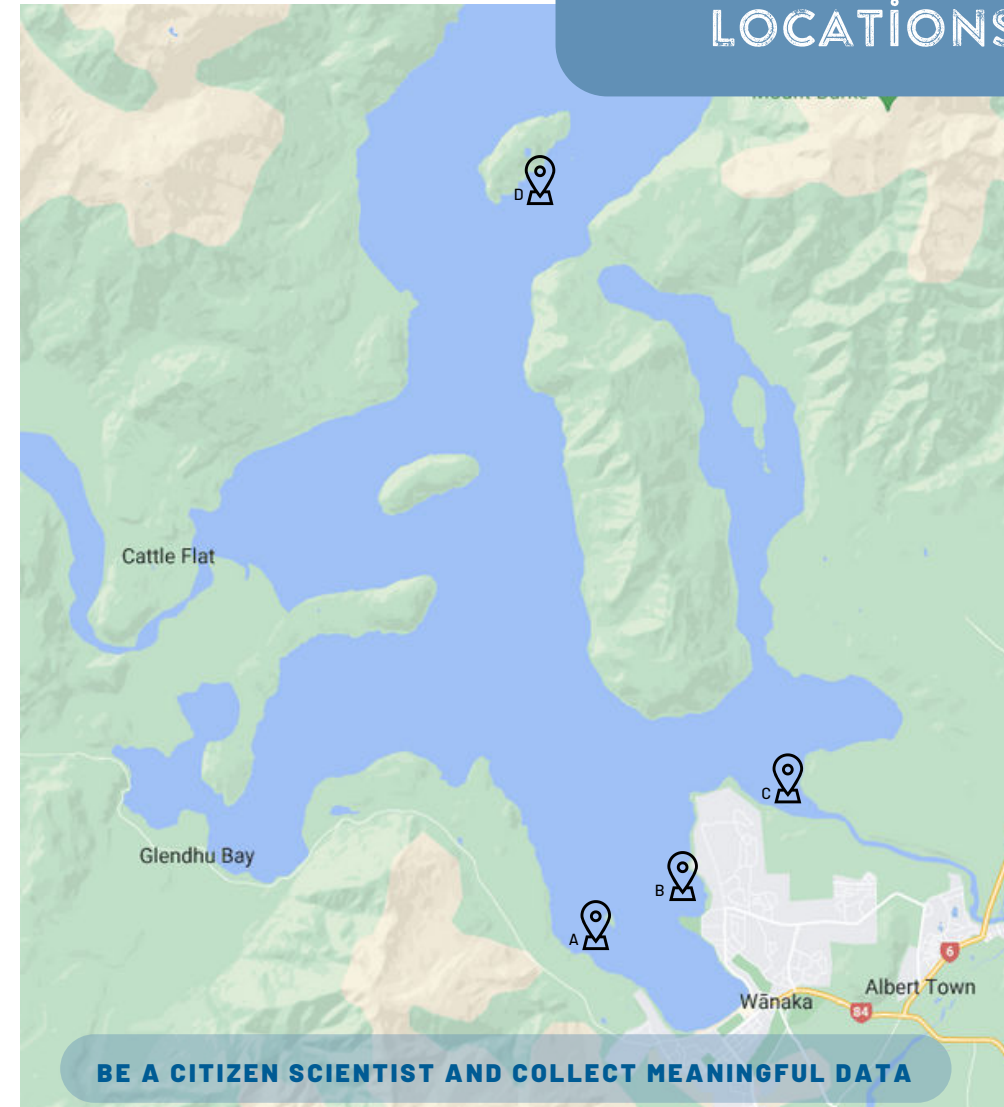
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7. Repeat, repeat - repeat the measurement (steps 4-6), 3 times in total. *Scientists need trustworthy data, this means reducing the chance of mistakes.*

8. Find the average secchi depth - Your final secchi disk depth is the average of all 3 calculations from step 6: $\text{Final secchi depth} = \frac{SD1 + SD2 + SD3}{3}$

9. You have take scientific data! Log your data on the app...



- A) Waterfall Creek:** Halfway between Waterfall Creek and Ruby Island
- B) Bremner Bay:** Deep enough out from the beach that the disk doesn't touch the bottom
- C) The Outlet:** In a safe location out from the Outlet Campground
- D) Mou Waho Island:** Deep enough out from the Wharf where the disk doesn't touch the bottom

Or choose your own spot where you think you might see some impacts from stormwater runoff when there is a lot of rain, where does lots of water enter the lake when it's raining?