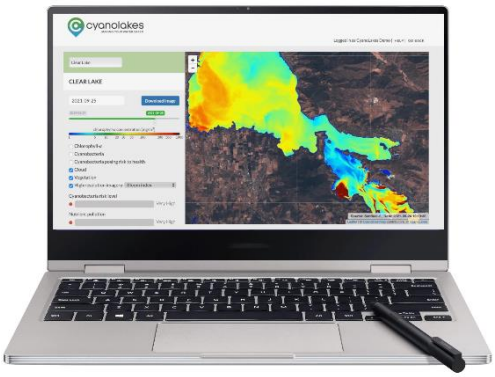
URBAN PLUNGE

Country of Origin: Australia
Technology Readiness Level: 9 – Fully commercial

cyanolakes
MAKING YOUR WATER SAFER

Description: CyanoLakes provides web and mobile applications for managing health risks from cyanobacteria blooms in lakes and reservoirs using satellite imagery. CyanoLakes is the only app that provides weather-like information for lakes around the world, including cyanobacteria health risk levels and recreational advisories based on World Health Organization guidelines. CyanoLakes provides water utilities with actionable information, including early warning notifications and forecasts (coming 2023), and a variety of powerful data analysis tools that merge satellite and ground data to make better decisions.



Applicability to Urban Swim Sites: CyanoLakes can be used to monitor the occurrence of cyanobacteria and harmful algal blooms at larger recreational swim sites (minimum size of 200 m x 200 m) by using the latest satellite imagery. Health risk alerts provided via mobile and web applications within 3 hours of detection and updated up to 6 times per week (cloud cover dependent), with site-specific near-term forecasts being rolled out in early 2023. The information can be used to alert the public to health risk concerns that can arise from cyanobacteria and algal blooms.

Technical Risk and Case studies: CyanoLakes is an approved technology listed with the US Water Research Foundation's Tech Link. It has been piloted by leading water companies in Australia such as WaterNSW and Hunter Water. As reported by Hunter Water, "Retrospective analysis of CyanoLakes® remote sensing data revealed evidence of the development of a past cyanobacterial bloom in Grahamstown Dam, almost three weeks in advance of detections via routine in situ monitoring. Early warning of this nature could be invaluable in providing sufficient time for operational decision making in preparation for severe bloom conditions". However, as regulations do not require utilities to issue early warnings for harmful algal blooms, or monitor timeously and in a spatially comprehensive manner, adoption by water companies has been lackluster and seen as optional, rather than an essential monitoring tool. Given technological limitations, 6-weekly updates are only available for sites larger than 1 km^2, with high-resolution imagery providing 2-3 weekly updates on smaller sites.

Cost & Business Case: CyanoLakes provides a 10x improvement on traditional monitoring programs, with thousands of data points across all your sites updated up to 24 times a month with unrivalled data visualization and analysis tools. Our cost-effective subscription-based service cost equivalent to less than five monthly water samples (taking into account staff hours, travel costs, and analysis costs). Pricing starts from just $2,600/month for enterprise web app, including all product features and historical data, with individual mobile app subscriptions starting at just $7.49/month.

CyanoLakes | Mark Matthews: mark@cyanolakes.com
https://www.cyanolakes.com