# MT-PCR – A rapid, reliable and effective tool for assessing toxic 'algal' blooms in Victorian water supplies: aiding protection and preservation

This project addressed a need for a sensitive, accurate and reliable testing method to aid assessment of the toxicity of algal blooms and assist water management. Increasingly, diagnostic dilemmas are resolved through the use of DNA-based technologies which often provide high sensitivity and specificity and are efficient both in terms of costs and time. However to date, no such test was available to the Victorian water industries. This project sought to bridge this gap by developing an automated DNA-based diagnostic assay for cyanobacterial bloom assessment blooms in Victorian waters. The assay exceeds expectation in its ability to accurately quantify levels of toxigenic cyanobacteria in bloom samples, retains exceptionally high specificity and sensitivity and each assay out-performs common conventional PCR approaches established in the literature. Four toxigen assays (microcystin, nodularin, cylindrospermopsin and saxitoxin) were designed, tested and optimised.

This book is co-published with Water Research Australia

Authors: Aaron Jex, Louise Baker and Raechel Littman, University of Melbourne

Also available as part of your Water Inteligence Online subscription
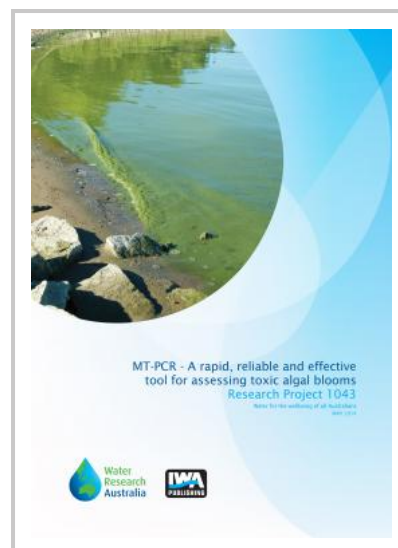
Print:
Standard price: £52 / €65 / $78
Member price: £39 / €49 / $59

eBook:
Standard price: £52 / €65 / $78
Member price: £39 / €49 / $59