



ANNUAL
PLANNING
EVENT



19 20

Annual Report

Healthy people, healthy lives, healthy planet



Strength in adversity



This has been a year of turbulence and shocks marked by catastrophic and unforeseeable events. Most notably the COVID-19 global pandemic but also, prior to this, many Australians faced a tough summer with bushfires wreaking havoc across water catchments and other land, and devastating communities across the country.

There have been many challenges and obstacles, and the resilience and resolve of individuals and organisations has been tested. Equally though, this year has offered opportunities for growth and allowed our members and our organisation to demonstrate the strength which lies within our BIG Team of members, alumni, trusted partners, staff and Board.

In these uncertain times, our focus on our core mission – healthy people, healthy lives and a healthy planet through the advancement of water science – has served us well.

Our capacity to adapt and our flexibility has enabled us to seize opportunities, adjust our approach to supporting members and develop responses to the new issues our country is facing. Through the commitment of our members we have been able to shape the water sector through science and meet the needs of a rapidly changing world.

We have listened intently and engaged tirelessly with our BIG Team, building on our strength of collaborative research to develop innovative, new and impactful responses to their needs.

Water Research Australia (WaterRA) has led the way through the rapid development of the ColoSSoS project – Collaboration on Sewage Surveillance of SARS-CoV-2 – an Australia-wide investigation which aims to track and monitor the presence of SARS-CoV-2 (the virus that causes COVID-19) and its persistence in the Australian sewerage network, that will provide vital information on where it is present in the population. This globally unique collaboration between national experts in health, microbiology, laboratory testing, wastewater-based epidemiology and policy communication, enabling vital integration of results of sewage testing with health data for COVID-19 on both a national and local basis to support governments' timely response.

In spite of the challenges presented in 2019-20, we have continued to achieve against our three-year strategy, comprised of four pillars:

- Optimising our business model to provide enduring value for members
- Strengthening and enhancing our engagement activities to give members increased pathways to become involved
- Tailoring our services to meet the evolving needs of our members
- Nurturing and developing the skills of our BIG Team

As an organisation we have:

- continued to grow our core business of impactful research through the unwavering support of our members. We have harnessed increased research value through member collaboration, completing 11 projects, representing \$2.5 million worth of investment. Our research portfolio covers all of our 11 focus areas and aligns with current challenges and strategic initiatives of water utilities across the country.
- enhanced our engagement activities and successfully transitioned to virtual events. This change has enabled us to reach new audiences, engage for longer through our online and on-demand content delivery, and in turn create valuable pathways for more members

to become involved and collaborate. Most notably, within a week of COVID-19 being classified as a global pandemic by the World Health Organization, we delivered our first ever virtual conference, the 2020 Catchment Forum: VIRTUAL, to great success. The event saw over 75 participating organisations from across the country log-in to hear from leading water industry experts, share information and connect with like-minded professionals to plan for a more resilient future. It was exciting to see the level of engagement online from all participants. We have since delivered six member events digitally, including Horizon our annual research planning workshop. Rest assured that our collective effort to transition to virtual events will not have been wasted as we gradually return to face-to-face meetings and events post COVID-19. Our plan is to develop a hybrid approach that caters for each member's preference for learning and interacting into the future and tailors our services to meet their evolving needs.

- continued to provide members with meaningful connections, learning opportunities and exposure to thought leaders in the water industry by becoming the new custodians of the Australian Water School (AWS). We re-launched the AWS with its own digital presence and are committed to delivering high-calibre online courses and webinars focusing on significant, innovative or critical advances in water science, technology and management.
- worked tirelessly across our Board and management to drive amendments to our Constitution which will benefit all current and future members. These amendments are designed to provide security for the organisation into the future, ensure clarity for our members and solidify flexible, future-ready pathways for collaboration across our membership and invaluable national and global partners.
- appointed a new chair of the WaterRA Board – Mark Gobbie – who along with the Board and members, will lead the strategic direction of WaterRA after the Annual General Meeting in October 2020.
- re-thought the way in which our exceptional team work. As with all organisations, COVID-19 has demanded WaterRA innovate to meet the demands of the new world. Our staff and Board have rapidly changed the way they undertake their roles, learning new skills and utilising new technologies to adapt to remote working environments. These changes will have long-lasting effects on our business and has ignited our imagination in how we can deliver meaningful and valuable services to our members in creative and innovative ways. We are exceptionally proud of the positivity and dedication of our team and the ways in which we have continued to deliver for our members while working and collaborating remotely.

In short, we are proud of our achievements during this very trying year and we would like to take this opportunity to acknowledge and thank our BIG Team. The active participation and commitment to collaboration, innovation and impact by our members, loyal partners and contributors, will always be the backbone of our organisation and the foundation of our success. It is only through your dedication, effort and support that we have been able to navigate these uncertain times and continue to help create healthy people, healthy lives and a healthy planet.

Our heartfelt thanks.



Shaun Cox
Shaun Cox Board Chair



Karen Rouse
Karen Rouse CEO

collaborate



In 2019-20 WaterRA's research program continued to develop – addressing urban, regional and remote water issues – embracing all aspects of drinking water, recycled water and wastewater.

As ever, collaborative research remains at the core of all we do, and bringing industry, research, regulators and consultants together from across our membership has never been more important.

This year we continued our subject-specific Communities of Interest (Cols), and Problem and Opportunity Definition (POD) workshops, while extending our Horizon Annual Research Planning event. Horizon is designed to engage industry members to establish the collective research needs, identify collaborative research opportunities and plan our research agenda and knowledge transfer activities for the upcoming year. In this year's event we incorporated 'moonshots', enabling members to discuss long-term research goals that will ensure safe and secure water for decades to come. Our members' 'moonshots' have formed the basis of a collaborative effort with trusted partner the Water Services Association of Australia (WSAA) which will see national water research priorities developed thereby providing an efficient and nimble approach to water challenges and solution implementation across Australia.

Another enhancement to Horizon in 2019-20 was the addition of online follow-up events which brought members back together throughout the year. These updates allowed members to revisit the collaborative research opportunities, add to our pipeline of research based on emerging needs, and receive updates on current projects and upcoming initiatives.

Through Horizon, our Cols and associated POD workshops, our research managers, together with our members, co-created 12 new projects designed to efficiently address shared industry challenges and identified numerous research projects which are currently being scoped.

Our Research Leadership Program also offered significant collaborative opportunities. Through the support of 11 sponsor organisations, 2019-20 saw three new PhD students and two new masters students commence their studies, making a total of 27 active students in the program. WaterRA's students are transforming businesses through research across operational areas such as customers, water quality, source water, wastewater, integrated catchment management and climate change. Partnerships and collaboration between universities and industry provide an invaluable connection to the next generation of high-calibre research leaders who work within businesses to solve focused and organisation-specific challenges and integrate the newest techniques and technologies into business services.

Our collaborative, better-together approach, additionally saw WaterRA welcome five new member organisations into our BIG Team – Sydney Water, CSIRO, University of Tasmania, Research Laboratory Services and SA Health. The diversity of our new members, who cover all aspects of the water sector, adds to the depth of our current membership and ensures that the sector as a whole can collaborate for mutual benefit.

\$2.5m worth of investment

\$1.8m cash **\$670,000** in kind

24 additional identified project opportunities

\$438,500k

New student sponsorship value

\$148,500 cash **\$290,000** in kind

50 active projects in our portfolio

12

projects started in 2019/20

8 workshops



4 Students Completed Higher Degrees

Matthew Kube | RMIT University & South East Water (PhD)
Harnessing algae for high rate municipal wastewater treatment: developing immobilised algae systems

Timothy Coggan | RMIT University & Melbourne Water (PhD)
Assessing the impact of wastewater derived perfluorinated chemicals on aquatic ecosystems

Cameron McPhail | University of Adelaide & SA Water (PhD)
Long-term robust scenario planning of water supply infrastructure in a deeply uncertain future using formal optimisation methods

Dean Mensinga | Griffith University & Seqwater (Honours)
Bayesian belief modelling of pathogen health risks associated with indirect stormwater reuse

Student Awards

Nancy Millis Memorial PhD Award for 2020
Minh Duc Nguyen

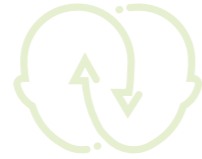
Victorian Student of the Year (AWA 2019)
Matthew Kube

Griffith University Award for Academic Excellence 2019
Dean Mensinga

Griffith University Medal 2020
Dean Mensinga

Stephen Joseph Abstract Award 2019 from Australia New Zealand Biochar Initiative Inc.
Ekaterina Selezneva

innovate



Working across our 11 focus areas, our projects during 2019-20 consolidated the breadth of our research and our ability to meet the diverse needs of our members.

During 2019-2020, 11 research projects were completed, representing the culmination of effort of 30 industry partners and nine research agencies. WaterRA leveraged more than \$670,000 in in-kind contributions, and approximately \$1.8m in funding from collaborating agencies, to create these projects for and with our members, with a total value of \$2.5m. 2019-20 has also seen 12 new projects started and 24 additional project opportunities identified.

We also commenced redefining our research process across the research value lifecycle in line with the preliminary findings of our flagship project, the Value of Research (Project #1118).

In the past year we have significantly increased our research outputs with 9 final project reports delivered and actively transferred via training activities, workshops and our new webinar series which has covered topics such as digital and data.

We have also delivered many presentations, both face-to-face and online, at national and international conferences including Cleanup 2019, Recycle Water 2019 and the European Commission Town Hall Gathering on SARS-CoV-2, 2020.

WaterRA research continues to fuel innovation within the industry, and our commitment to developing new knowledge and generating impactful and operationally applicable research is shown through our inaugural sponsorship of the Australian Water Association's National Research Innovation Award.

Management of environmental *E.coli* | Project 1101

Bertone, E., Gordon, D., King, B., Lau, M., Roiko, A., Sinclair, M., Gaget, V. and O'Toole, J.

Benthic cyanobacteria: an aesthetic and toxic risk to be evaluated | Project 1110

Gaget, V., Hobson, P. and Brookes, J.

Value of operator competency | Project 1111

Bartlett, S.

National carp control program | Project 1114

van der Linden, L., Kildea, T., Davies, D., Kozlik, E., Kapralos, C., Nedic, M., Trotta, E., Harris, M., Fanok, S., Lau, M., King, B., Pera, J., Marshall, J. and Catizone, I.

Good practice guide to water treatment plants update | Project 1117

McDonald, S., Northcott, K., Robertson, M., Sheehan, D., Sneddon, A., Westgate, S. and Wilson, M.

Fluorinated surfactants in wastewater treatment plants | Project 2046

Coggan, T.

PFAS exposure modeling and trigger points for investigation in recycled water irrigation applications | Project 3043

Stevens, D. with Executive Summary by Northcott, K.

+ 2 ARC final project reports

impact



143,000
research
downloads

In 2019-20 WaterRA research yielded many practical tools for members to apply within their business and keep pace with the industry's evolving challenges.

We rapidly responded to Australia's bushfire emergency by creating several factsheets that were immediately available, assisting our members to identify water quality risks to drinking water catchments and to prioritise their response.

A bushfire recovery planning day was also added to the 2020 Catchment Forum: VIRTUAL held in March to help support our members' recovery efforts.

The immediacy of our COVID-19 collaboration and knowledge sharing helped utilities deal with the emerging threat in real-time and better understand risks and public concern as the pandemic unfolded. As 'ColoSSoS' (Project #2060) commenced, we continued to share emerging collaborative tools on SARS-CoV-2 and viral surveillance through wastewater monitoring as new research was developed. These initiatives provided clear guidance, supporting our members' decision making during these challenging times, and providing instantly applicable knowledge.

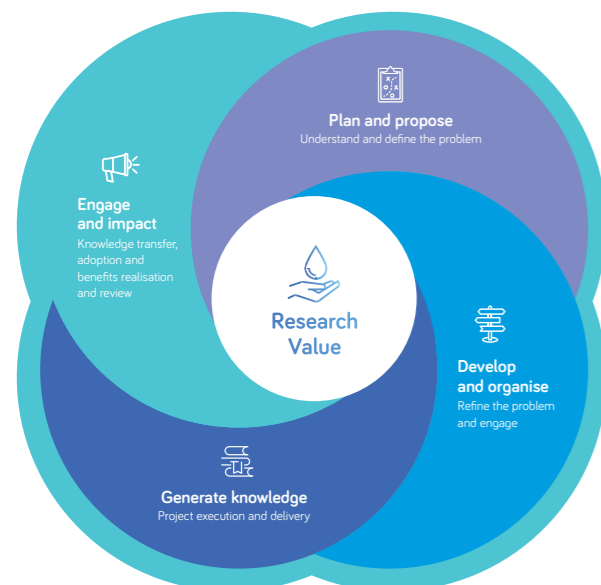
Another project which created impact for our members was 'Understanding impacts of recreational access to Drinking Water Catchments and Storages in Australia' (Project #1124). As various jurisdictions across Australia responded to requests for public access

to drinking water reservoir reserves, research was undertaken to ensure industry preparedness. WaterRA developed a range of tools to assist utilities to develop a clear policy position, complete preliminary investigations and initiate or further develop education initiatives, in order to be best prepared for access requests to reservoir reserves. The tools also help utilities better engage with elected officials and the community regarding the issue.

This year also saw the release of an updated 'Good Practice Guide to the Operation of Drinking Water Supply Systems for the Management of Microbial Risk Second Edition' (Project #1117). Originally published in 2015, the guide has been utilised by water utilities in the operation of more than 70 water supply systems and has now evolved into an evaluation and benchmarking tool that can be utilised to set system upgrade priorities and budgets. The update created a more refined benchmarking resource and provided an improved tool for utilities to ensure that microbial risks are successfully managed and customers' safety secured.

Through Project #1114, WaterRA has played a pivotal role in creating the Commonwealth-Government funded National Carp Control Plan (NCCP), addressing significant industry concerns around a successful virus release to control carp populations, including impacts on drinking water quality from dead and decaying carp near offtakes or water storages; water infrastructure; aquatic ecosystems; the logistics and costs involved in a large clean-up effort; and the need for further control measures.

The Value of Research Project enters Phase 2



WaterRA's Value of Research Project was created to ensure members derive maximum value from their investment in research, and that research benefits can be realised through all aspects of a business and at all stages of a project.

Having entered Phase 2 in 2019-20, the Value of Research (Project #1118) has continued to be one of WaterRA's flagship projects. Based on input from our utility, health and research members, we determined a successful pathway of how to best value research undertakings (including outcomes and outputs) that relies on a combination of evaluation processes and organisational culture. After extensive scoping efforts to define the project deliverables, which balanced the diverse experiences and expectations of project outputs across our members, the final scope of works was awarded to a consulting consortium. The consortium was tasked with providing connectivity between the Research Management Framework Elements (determined in Phase 1) to create a best practice approach to maximising the value of research.

This approach is being developed into the 'Good Practice Guide to Achieving Value of Research' (VoR GPG). The VoR GPG is being designed to ensure that current practices used by our members are included, while also allowing for continuous improvements. The VoR GPG will be underpinned by two key elements:

- the "Good Practice Research Lifecycle", which outlines the steps and considerations to create value at each stage of a research project
- the "Benefits Assessment Framework", which outlines the ways to identify and use tangible and non-tangible financial or economic assessment tools to better assist with value articulation.

The project has now entered the 'deep feedback' phase, with project stakeholders currently evaluating and reviewing the draft VoR GPG.



The ColoSSoS Project — Collaboration on Sewage Surveillance of SARS-CoV-2 — is delivering research to track and monitor the presence and persistence of fragments of SARS-Cov-2, the virus that causes COVID-19, in the Australian sewerage network, providing information on where the disease is currently or was recently present in the population.

Led by WaterRA and supported by our trusted partners WSAA and GWRC, ColoSSoS is a uniquely collaborative Australia-wide research program that sees our members from water utilities, universities and health departments working closely together to develop local monitoring capability in every state.

The collaboration between national experts in health, microbiology, laboratory testing, wastewater-based epidemiology and policy communication will enable the vital integration of the results of sewage testing

for the SARS-CoV-2 virus with health data for COVID-19 on both a national and local basis to support governments' timely response.

Early stages of the ColoSSoS Project have confirmed that sewage testing is feasible and promising as a tool to complement existing measures such as clinical testing, so that together they may provide a clearer and more timely picture of the presence of COVID-19 in the community.

The project has been successfully initiated with the rapid development of sampling, processing and laboratory testing methods for sewage surveillance. It is continuing to ensure initial detection methods used across the nation are robust, sensitive, specific and comparable, while also identifying any improvements that can deliver greater efficiency and ease of implementation.

WaterRA is involving all Australian state and territory health authorities both individually, and through the Environmental Health Standing Committee (enHealth), to ensure that the project can readily inform national COVID-19 control efforts.

Bushfire recovery for resilience | 'build back better'

The devastating bushfires in late 2019 and early 2020 have been heart breaking for communities who were left to rebuild their homes and livelihoods. The scale of the devastation, in terms of duration, extent and intensity, has provided our members — essential service providers such as water supply utilities and health services — with extraordinary immediate response to challenges and brought to light the need to develop long-term strategies and mechanisms for timely recovery and to increase resilience in the future.

With our research and consultancy membership at hand to provide expert knowledge, WaterRA was able to produce much needed information and guidance for our members in January 2020 even while the bushfires continued to rage.

Guidance documents covered key aspects of bushfire related treatment challenges as well as "no-regrets" mitigation measures. Our catchment and bushfire forum in mid-March 2020 showcased research efforts already undertaken by our research and utility members, and identified opportunities for working more specifically on resilience efforts.

To ensure preparedness for the approaching bushfire season, we continue to scope our members' research needs to ultimately 'build back better', with a significant focus on the four key areas which enhance bushfire resilience: prevention, preparedness/planning, response and recovery.



Our Big Team



In 2019-20 we were delighted to welcome new members:



Our Members

- Atom Consulting
- Australian Water Quality Centre
- Barwon Region Water Corporation
- Cairns Regional Council
- Central Gippsland Regional Water Corporation
- Central Highlands Water
- Centre for Appropriate Technology
- Charles Darwin University
- ChemCentre
- City West Water
- Coliban Region Water Corporation
- CSIRO
- Curtin University of Technology
- Deakin University
- Digital Content Analysis Technology (D-CAT)
- Department of Health - Environmental Health Northern Territory
- Department of Health & Human Services Tasmania
- Department of Health & Human Services Victoria
- Department of Health Queensland
- Edith Cowan University
- Federation University
- Flinders University
- GHD
- Goulburn Valley Regional Water Corporation
- Grampians Wimmera Mallee Water Corporation
- Griffith University
- Hydrology and Risk Consulting (HARC)
- Hunter Water Corporation
- Icon Water
- Lower Murray Water
- Melbourne Water
- Monash University
- Murdoch University
- National Measurement Institute
- Natural Logic
- NSW Health
- Power & Water Corporation
- Research Laboratory Services
- Risk Edge
- RMIT University
- SA Health
- Seqwater
- South Australian Water Corporation
- South East Water Corporation
- Suez Water
- Swinburne University of Technology

Our Trusted Partners*

- Australian Water Association
- Canadian Water Network
- Chinese Academy of Science
- Intelligent Water Networks (IWN)
- International Research Center On Water and Environment (C.I.R.S.E.E.)
- KWR Watercycle Research Institute
- Public Utilities Board Singapore
- STOWA Foundation for Applied Water Management Research
- TZW Water Technology Centre
- UK Water Industry Research
- Veolia Environnement Research and Innovation (VERI)
- WaterAid
- Water Environment & Reuse Foundation
- Water Industry Operators Association of Australia (WIOA)
- Water Research Commission South Africa
- Water Research Foundation
- Water Services Association of Australia
- Victoria University
- Wannon Region Water Corporation
- Water Corporation
- Water Futures
- WaterNSW
- WaterQ Plus
- Western Region Water Corporation
- Western Sydney University
- Yarra Valley Water

* through membership of the Global Water Research Coalition.

Our staff and board

In 2019-20 we were pleased to welcome Associate Professor Rita Henderson from UNSW as a new Board Member of WaterRA. Our team also expanded with six new staff members. We bade a fond farewell to several staff and Board members who left during the year and we thank them for their contribution to WaterRA and their dedication to our mission.



AWS continues serving the water industry

This year, WaterRA became the new custodian of Australian Water School (AWS). Originally launched by the International Centre of Excellence for Water Resources Management (ICEWaRM) in 2016, AWS was established with the purpose of facilitating key thought leadership and encouraging knowledge-transfer and capacity-building across the Australian and international water sector.

Since its establishment AWS has gone from strength to strength delivering high-calibre online short courses and webinars focusing on significant, innovative or critical advances in water science, technology and management.

AWS has a proud history and a vision and mission that aligns with WaterRA's values of collaboration, innovation and impact.

WaterRA is pleased to be able to continue this vital initiative and confident that under our stewardship AWS will continue to evolve and become an even more valuable training hub for water professionals.

AWS relaunched in June with its own digital presence and will continue to provide collaborative, innovative and impactful courses, programs and online opportunities to the global water community.

The full offering of webinars, live training and on-demand resources can be viewed at www.awschool.com.au

Finance

Financial Position As At 30 June 2020

WaterRA has been returning a positive operating surplus over many years and 2019-20 was no exception. Despite the uncertainty caused during the COVID-19 pandemic, we have been able to remain financially sustainable and flexible enough to take advantage of the opportunities that have arisen, including membership growth, the ColoSSoS project and the acquisition of AWS. We have been able to adapt to the changing environment by hosting many successful online events and, although we were not able to meet face-to-face for some of the year, any savings that were generated became available to be invested to fulfil strategic goals and benefit members. The WaterRA Board and management are committed to investing in, and improving member experience, the BIG Team and the organisation in line with our three-year strategy for the benefit of all. The summarised financial reports (below) have been derived from WaterRA's full report for the financial year.

For the detailed Financial Report please visit waterra.com.au

Income Statement For The Period Ended 30 June 2020

	2020	2019
	\$	\$
REVENUE		
Revenue from continuing operations	3,313,631	3,124,186
Other income	107,001	5,341
EXPENDITURE		
Research program	(787,646)	(876,917)
Education program	(186,372)	(184,182)
Operating	(1,948,883)	(1,771,976)
Depreciation and amortisation	(17,685)	(680)
Chairman & Independent Director remuneration	(47,650)	(46,000)
Surplus/(Deficit)	432,396	249,772

	2020	2019
	\$	\$
ASSETS		
Current assets		
Cash and cash equivalents	4,888,289	3,506,105
Trade and other receivables	12,920	5,115,589
Contract assets	1,248,950	-
Prepayments	46,633	21,739
Total current assets	6,196,792	4,039,433
Non-current assets		
Plant and equipment	2,306	-
Intangible assets	10,000	1,360
Right-of-use assets	63,983	-
Total non-current assets	76,289	1,360
Total assets	6,273,081	4,040,793

	2020	2019
LIABILITIES		
Current liabilities		
Trade and other payables	477,784	463,711
Contract liabilities	3,252,540	-
Lease liabilities	15,840	-
Employee entitlements	105,434	89,577
Revenue received in advance	558,759	2,105,630
Total current liabilities	4,410,357	2,658,918
Non-current liabilities		
Lease liabilities	48,453	-
Employee entitlements	-	-
Total non-current liabilities	48,453	-
Total liabilities	4,458,810	2,658,918

Net assets	1,814,271	1,381,875
EQUITY		
Retained earnings	1,564,271	1,131,875
Operating reserves	250,000	250,000
Total equity	1,814,271	1,381,875

Thank you

WaterRA is grateful for the support of our BIG Team, as they are the lifeblood of WaterRA. Their tireless efforts allow us to continue to develop research and tools that have a lasting impact and enable us to reach out to other professionals, organisations, and communities in the wider water sector.



Our Student Sponsors



Our Committees

Risk and Audit

Jamie Hollamby (Chair) | AWQC
Ken Murphy (non-Executive Board Director) | Independent
Gary Penn (non-Board member) | Independent

Human Resources

Dr Steve Capewell (Chair) | Water Corporation
David Sheehan | Coliban Water
Prof Christopher Saint | UniSA

Strategic Advisory

Amy Dysart (Chair) | Power & Water Corporation
Assoc Prof Rita Henderson (Deputy Chair) | UNSW
Dr David Cunliffe | SA Health
Dr Annette Davison | Risk Edge
Graham Hawke | Bureau of Meteorology
Prof Cynthia Mitchell | University of Technology, Sydney
Dr Greg Ryan | Water Services Association of Australia
Wendy Henderson | NSW Health
Karen Rouse (Secretary) | WaterRA

Research Leadership Program Advisory

Dr Louise McKenzie (Chair) | Hunter Water
Dr Michael Bartkow (Deputy Chair) | Seqwater
Dr Bradley Clarke | University of Melbourne
Peter Spencer | Water Corporation
Dr Melita Stevens | Melbourne Water
Dr Kathryn Linge | ChemCentre

Our Mentors

Jo O'Toole | Monash University
Cameron Veale | Seqwater
Shaun Cox | Inxure Strategy Group
Jason Barnett | TasWater
Stephanie Rinck-Pfeiffer | GWRC
Tony Priestley | Consultant
Peter McCafferty | ChemCentre

Tanja Stefanovic | Beyond Paradigms
Kathy Cinque | Melbourne Water
Amy Dysart | Power & Water
Stacey Hamilton | Water Corporation
Tara Callingham | Goulburn Valley Water
Kris Coventry | Melbourne Water
Kathy Northcott | Veolia

David Sheehan | Coliban Water
Melita Stevens | Melbourne Water
Arash Zamyadi | WaterRA
Michael Storey | Isle Utilities
Leon van der Linden | SA Water

A river of results

JULY 2019

Health Stream
Issue 94 JUL 2019



9 final reports



12 new projects



9 factsheets



5 new 71 total members



Health Stream 4 issues 20,000+ downloads



10+ workshops

Workshops including: communities of interest, project, wrap up, tech/knowledge transfer, Horizon and Catchment Forum.



3 webinars



3 member events were held (AGM in Melbourne and Constitutional update for members online) with national representation across our membership

Project 2044 JUL 2019
Ultrafiltration Membrane Integrity Test Using Novel Nanomaterials
Factsheet

New Project 4540
Beneficial reuse of sludge from water treatment processes
JUL 2019
Factsheet

New Member
Sydney WATER
Joined AUG 2019

Project 4957
Wetland sediment recreational activities and environmental and public health outcome
SEP 2019
Factsheet

Project 1107
Management of environmental E. coli
OCT 2019
Final Report

wise
WATER INDUSTRY SUBJECT EXPERTS
Getting WISE about remote sensing for the water sector
OCT 2019

2019 AGM
OCT 2019, Melbourne

ARC-EEsep Hub & WaterRA Joint Membrane Workshop
NOV 2019

New Project 1123
Early Warning System for Cyanobacteria
DEC 2019

ARC Project 3019
Understanding Wastewater Treatment Technologies for Alternative Water Use: Transformation of Inorganic and Organic Nitrogen
DEC 2019
ARC Report

New Project 2057
Saving Nemo: Reducing animal use in toxicity assessments of wastewater Part 2
DEC 2019

New Member
Government of South Australia
Joined AUG 2019

Lunch & Learn
The Water Research Foundation (US)
Aug 2019

Data Science R for Water Professionals
OCT 2019
Communities of Interest

New Project 1111
Value of Operator Competency
OCT 2019
Executive Summary

Project 1118
The Value of Research
AUG 2019

Project 1119 DEC 2019
Recent Australian research on cyanobacteria with implications for risk management within the water industry
Factsheet

Project 1114
National Carp Control Program: Risks, costs and water industry response
DEC 2019
Final Report

New Project 1116
The Value of Research Phase 2
DEC 2019

Health Stream
Issue 96 JAN 2020

COVID-19

Algal Bloom Management
FEB 2020

Project 1110
Benthic cyanobacteria: an aesthetic and toxic risk to be evaluated
MAR 2020
Final Report

Project 1123
Harmful Algal Blooms
APR 2020

Health Stream
Issue 97 APR 2020

Project 1118
The Value of Research
MAY 2020

Project 3043
PFOA, PFOS and PFHxS in recycled water
MAY 2020
Final Report

New Project 1125
Understanding the Cost of Algal Blooms
JUN 2020

Project 1117 Good Practice Guide for Drinking Water Supply Systems
JUN 2020

wise
WATER INDUSTRY SUBJECT EXPERTS

New Project 1133
Managing future low reservoir levels
JUN 2020

JUNE 2020

collaborate

innovate

impact

Global reach...

WaterRA papers downloaded across the world in...
USA, Canada, Mexico, Brazil, UK, France, Spain, the Netherlands, Germany, Austria, Italy, Hungary, Poland, Ukraine, Bulgaria, Russian Federation, Finland, Sweden, Norway, Turkey, Iran, Pakistan, India, UAE, Egypt, Algeria, Nigeria, Uganda, South Africa, China, South Korea, Japan, Vietnam, Thailand, Malaysia, Indonesia, and Australia!

"You may have also seen us at..."

Water Industry Operators Association Conference
AWA Specialist networks: Catchment Management, Recycled Water and, Education and Research



"You may have heard from us at..."

WaterRA presented at these major water industry events
Clean Up 2019 Conference
Recycle Water 2019 Conference
Water Industry Operators Association Conference

ColoSSoS
Collaboration on Sewage Surveillance of SARS-CoV-2

Project 4519 APR 2020
Improving current enteric viral surveillance through wastewater monitoring
Factsheet

Digital and Data
MAY 2020

Project 2046
Fate, Behaviour, and Ecological Impact of WWTP Derived Per- and Poly-fluoroalkyl Substances (PFAS)
MAY 2020
Final Report

New Project 3045
Removal of OPs using UV LED in new water sources (stormwater collection)
MAY 2020

New Project 2058
Understanding and Reducing the spread of Antibiotic Resistance in Anaerobic Sludge Digestion
FEB 2020

New Project 2055
GWRC Effect Based Monitoring for Water Safety Plans
MAR 2020

New Member
CSIRO
Joined FEB 2020

Project 1117
Good Practice Guide to the Operation of Drinking Water Supply Systems for the Management of Microbial Risk Second Edition
JAN 2020
Final Report

New Project 4301
Emerging vector-borne pathogens in Melbourne
FEB 2020

New Member
UNIVERSITY OF TASMANIA
Joined DEC 2019

Data Science R for Water Professionals
DEC 2019
Communities of Interest

ARC Project 1066
On-line monitoring of Cyanobacteria to predict coagulant doses and powdered activated carbon application in water treatment
OCT 2019
ARC Report

New Project 3047
SewAus Census 2021 - Understanding Australia through wastewater analysis (ARC Project)
DEC 2019

Project 1111
Value of Operator Competency
OCT 2019
Executive Summary

Project 1118
The Value of Research
AUG 2019

New Project 2055
Photolysis of emerging contaminants
JUL 2019

Data Science R for Water Professionals
JUL 2019
Communities of Interest

Project 2044 JUL 2019
Ultrafiltration Membrane Integrity Test Using Novel Nanomaterials
Factsheet

New Project 4540
Beneficial reuse of sludge from water treatment processes
JUL 2019
Factsheet

New Member
Sydney WATER
Joined AUG 2019

Project 4957
Wetland sediment recreational activities and environmental and public health outcome
SEP 2019
Factsheet

Project 1107
Management of environmental E. coli
OCT 2019
Final Report

wise
WATER INDUSTRY SUBJECT EXPERTS
Getting WISE about remote sensing for the water sector
OCT 2019

2019 AGM
OCT 2019, Melbourne

ARC-EEsep Hub & WaterRA Joint Membrane Workshop
NOV 2019

New Project 1123
Early Warning System for Cyanobacteria
DEC 2019

ARC Project 3019
Understanding Wastewater Treatment Technologies for Alternative Water Use: Transformation of Inorganic and Organic Nitrogen
DEC 2019
ARC Report

New Project 2057
Saving Nemo: Reducing animal use in toxicity assessments of wastewater Part 2
DEC 2019

aws
Australian Water School
New Custodians

Project 4519 APR 2020
Improving current enteric viral surveillance through wastewater monitoring
Factsheet

Digital and Data
MAY 2020

Project 2046
Fate, Behaviour, and Ecological Impact of WWTP Derived Per- and Poly-fluoroalkyl Substances (PFAS)
MAY 2020
Final Report

New Project 3045
Removal of OPs using UV LED in new water sources (stormwater collection)
MAY 2020

New Project 2058
Understanding and Reducing the spread of Antibiotic Resistance in Anaerobic Sludge Digestion
FEB 2020

New Project 2055
GWRC Effect Based Monitoring for Water Safety Plans
MAR 2020

New Member
CSIRO
Joined FEB 2020

Project 1117
Good Practice Guide to the Operation of Drinking Water Supply Systems for the Management of Microbial Risk Second Edition
JAN 2020
Final Report

New Project 4301
Emerging vector-borne pathogens in Melbourne
FEB 2020

New Member
UNIVERSITY OF TASMANIA
Joined DEC 2019

Data Science R for Water Professionals
DEC 2019
Communities of Interest

ARC Project 1066
On-line monitoring of Cyanobacteria to predict coagulant doses and powdered activated carbon application in water treatment
OCT 2019
ARC Report

New Project 3047
SewAus Census 2021 - Understanding Australia through wastewater analysis (ARC Project)
DEC 2019

Project 1111
Value of Operator Competency
OCT 2019
Executive Summary

Project 1118
The Value of Research
AUG 2019

New Project 2055
Photolysis of emerging contaminants
JUL 2019

Data Science R for Water Professionals
JUL 2019
Communities of Interest

Project 2044 JUL 2019
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