

Mackay Whitsunday Isaac

# Paddock to Reef

Regional Integrated Science Forum

May 25, 2023  
Harrup Park, Mackay



- Information on projects that are helping our region progress towards meeting Reef 2050 Water Quality Improvement Plan targets.
- What's happening to support industry to improve land management practices and how this improves catchment condition, water quality and Reef ecosystem health.



Australian Government



Queensland Government

This event is hosted by Reef Catchments as part of the Paddock to Reef Integrated Monitoring, Modelling and Reporting Program, jointly funded by the Australian and Queensland governments.



## SPEAKERS



### Renée Madsen

#### Create and Evaluate



Renée Madsen is a well-known facilitator in Queensland's agricultural and natural resources industry. Renée has facilitated several Paddock to Reef Forums and similar workshops with primary producers, industry, government, scientists and community groups. Based in Townsville, Renée helps regional communities to make better decisions and create positive change, drawing on the existing knowledge and strengths already in the room (or the paddock!).



### Carl Mitchell

#### Department of Environment and Science



Carl is a water quality scientist, aquatic ecologist with 20 years' experience managing water programs in Mackay Whitsunday, Queensland Murray Darling and the Great Barrier Reef. He led the team that won the 2012 Australian Riverprize, 2012 Banksia Environment Award - Water and 2013 United Nations Association of Australia World Environment Day Award – Biodiversity for restoring health to the Condamine River. Carl coordinates the Paddock to Reef Integrated Monitoring, Modelling and Reporting program for the Office of the Great Barrier Reef within the Queensland Department of Environment and Science and provides support to the Reef Water Quality Independent Science Panel.



### Dave Waters

#### Department of Environment and Science



With 30 years' experience, Dave has worked in natural resource management, research in agricultural industries and environment modelling across Queensland. Dave has led national and international projects, including the Catchment modelling program for the past 10 years.

# SPEAKERS



## Adam Northey

### Department of Agriculture and Fisheries

Adam is part of the Management Practice adoption team based in the Department of Agriculture and Fisheries in Rockhampton. The management practice adoption team has the responsibility to monitor the adoption of improved farm management as a result of Reef 2050 funding. This then gets reported into the Reef Water Quality Report Card and used in the modelling to track progress towards the water quality targets.



## Katerina Kanakis

### Department of Environment and Science

Katerina Kanakis is a behavioural scientist within the Human Dimensions team in the Office of the Great Barrier Reef and World Heritage and Department of Environment and Science. Within this role she enables accelerated practice change in agricultural activities to reduce their impact on the water quality of the Great Barrier Reef. Katerina's research experience has focused on the relationships between human, social and environmental factors, and their influence on sustainability.



## Aditya Singh

### Department of Environment and Science

Aditya is a Senior Catchment Modeller who has recently joined the catchment modelling team as the modeller for Mackay Whitsunday region. He has over 15 years of professional experience working as a consulting Environmental Engineer across a variety of sectors with a particular focus on modelling.



## Reinier Mann

### Department of Environment and Science

Dr Reinier Mann is the Science Leader within the Water Quality & Investigations group within the Science Division of the Department of Environment and Science. He received a PhD in Environmental Toxicology from Curtin University and has over 25 years of research experience in the field of environmental toxicology. Reinier oversees the Great Barrier Reef Catchment Loads Monitoring Program and has extensive involvement in pesticide monitoring, risk assessment for pesticides and communicating the science that underpins the Pesticide Risk Metric.



# SPEAKERS



## Rob Sluggett

**Farmacist**



Rob has extensive agronomic experience in a variety of crops and has formerly worked with BSES and Sucrogen Ag services. Working on practical farm management Rob is himself a cane grower. He has worked on development and extension of integrated farming systems and the establishment and management of research trials.



## Adam Keilbach

**Farmacist**



Adam has over 20 years of farming experience, with the past 10 years involving management of large-scale mixed farming operations in central Queensland. He is experienced in irrigation systems and practices for sugarcane and skilled in whole-farm chemical planning/management and geospatial data collection. Adam also has an interest in chemical management and precision agronomy.



## Ross Neivandt

**Catchment Solutions**



Since working as an agronomy researcher with BSES in the 1990's, Ross has worked across various environmental science fields with a focus on developing and delivering productivity and sustainability improvements in the farming and resource sectors. Since 2019, Ross has coordinated Project Catalyst and worked with growers on ag-innovation and best practice adoption projects in the Mackay Whitsundays, Burdekin and Wet Tropics. Ross is a champion for responsible and sustainable improvements in modern farming systems that allow growers to achieve better productivity and environmental performance gains.



## Chris Dench

**Mackay Whitsunday Water Quality Program**

Chris has worked in natural resource management in the Mackay Whitsundays for over 10 years and has been involved in sustainable agriculture, water quality monitoring and soil conservation. Currently, Chris is the program manager with the Mackay Whitsunday Water Quality project.



# AGENDA



Please have your phone handy as we will be using an online tool for audience feedback.

|                          |   |   |
|--------------------------|---|---|
| <b>8.15am Onwards</b>    | <b>Arrival, registration, coffee/tea</b>  |   |
| <b>8.45am - 9.15am</b>   | <b>Welcome</b> <ul style="list-style-type: none"> <li>Welcome to Country</li> <li>Purpose and agenda for the day</li> <li>Online Feedback - thoughts on Paddock to Reef at start of day</li> </ul>  | Yuwi Aboriginal Corporation:<br>Aunty Veronica<br><br>Renée Madsen, Facilitator |
| <b>9.15am - 9.45am</b>   | <b>Introduction to the Paddock to Reef Monitoring, Modelling and Reporting Program, and Scientific Consensus Statement update</b> <ul style="list-style-type: none"> <li>General overview and update</li> <li>Scientific Consensus Statement review update</li> </ul>   | Carl Mitchell<br>(Department of Environment and Science)                        |
| <b>9.45am - 10.15am</b>  | <b>Water Quality Monitoring Update</b> <ul style="list-style-type: none"> <li>Monitoring results for nutrients and pesticides in the MWI region.</li> </ul>   | Reinier Mann<br>(Department of Environment and Science)                         |
| <b>10.15am - 10.45am</b> | <b>Morning Tea</b>  |   |
| <b>10.45am - 11.15am</b> | <b>Management Practice Adoption</b> <ul style="list-style-type: none"> <li>Management Practice adoption review update</li> <li>Practice change and data survey</li> <li>Projector Tool Modelling Update</li> <li>Data transparency and trust</li> </ul>   | Adam Northey<br>(Department of Agriculture and Fisheries)                       |
| <b>11.15am - 11.45am</b> | <b>Human Dimensions</b> <ul style="list-style-type: none"> <li>Perceptions of practice survey for Human Dimensions program in Paddock to Reef Projector Tool</li> </ul>   | Katerina Kanakis<br>(Department of Environment and Science)                     |
| <b>11.45am - 12.00pm</b> | <b>Discussion</b>   | Renée Madsen, Facilitator   |
| <b>12.00pm - 12.30pm</b> | <b>Catchment Loads Modelling Update</b> <ul style="list-style-type: none"> <li>Modelling of the Mackay Whitsunday Isaac catchment and how models make use of water quality monitoring data.</li> </ul>  | Dave Waters and Aditya Singh<br>(Department of Environment and Science)         |
| <b>12.30pm - 1.15pm</b>  | <b>Lunch</b>  |   |
| <b>1.15pm - 1.45pm</b>   | <b>Great Barrier Reef Foundation Mackay Whitsunday Water Quality Program</b> <ul style="list-style-type: none"> <li>Overview of the program and grower outcomes.</li> </ul>   | Chris Dench<br>(Mackay Whitsunday Water Quality program)                        |
| <b>1.45pm - 2.15pm</b>   | <b>Project Bluewater 2</b> <ul style="list-style-type: none"> <li>Reducing pesticide loads - tailored pesticide management plans</li> <li>Equipment calibration and upgrades</li> <li>End of field water sampling of blocks and demonstration trial sites,</li> <li>Cooperative, interactive learning approach</li> </ul> | Rob Sluggett and Adam Keilbach<br>(Farmacist)                                   |
| <b>2.15pm - 2.45pm</b>   | <b>Project Catalyst - Case Studies</b> <ul style="list-style-type: none"> <li>Applying Project Catalyst field trial research, which has been proven to improve water quality, to a broader grower audience.</li> <li>Variety of improved practices implemented</li> </ul>   | Ross Neivandt<br>(Catchment Solutions)  |
| <b>2.45 - 3.15pm</b>     | <b>Wrap up and close</b> <ul style="list-style-type: none"> <li>Discussion</li> <li>Thoughts on Paddock to Reef at the end of the day and feedback on forum, final questions</li> <li>Clarify next steps and follow up actions</li> </ul>   | Renée Madsen, Facilitator   |
| <b>3.15pm - 4pm</b>      | <b>Afternoon Tea, discussion, networking</b>  |   |

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