

# The IAH Australia Indigenous Groundwater Declaration:

## Why it's important and where to from here?



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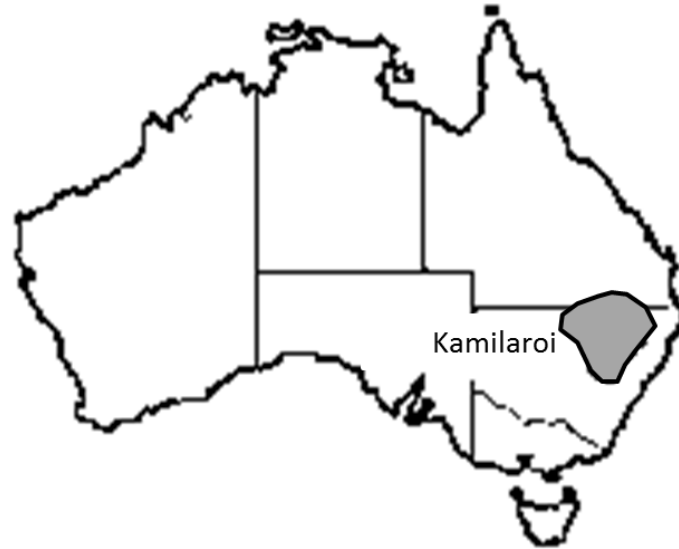
IAH Australia President, SLR Consulting



31st / May / 2023

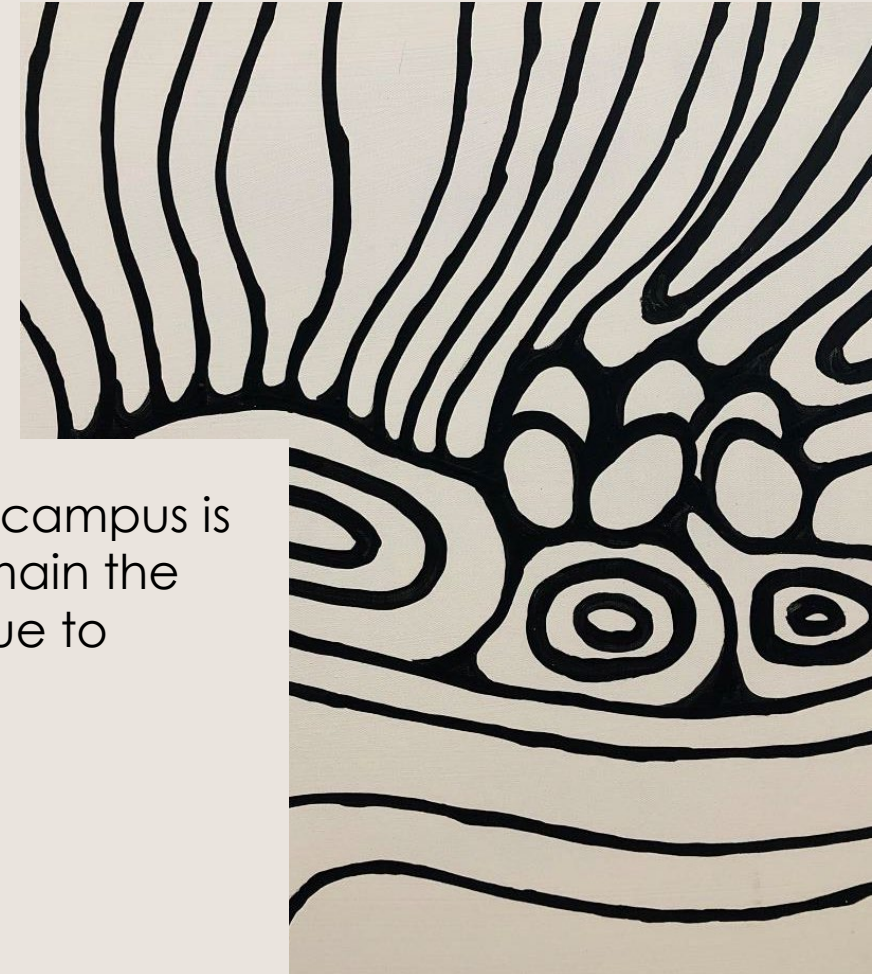
**Yaama, I Acknowledge Ngunnawal Country &  
respective Country's you stand/sit/Teams on today,**

**I am - Kamilaroi**



# Acknowledgement of country

The University of Western Australia acknowledges that its campus is situated on Noongar land, and that Noongar people remain the spiritual and cultural custodians of their land, and continue to practise their values, languages, beliefs and knowledge.



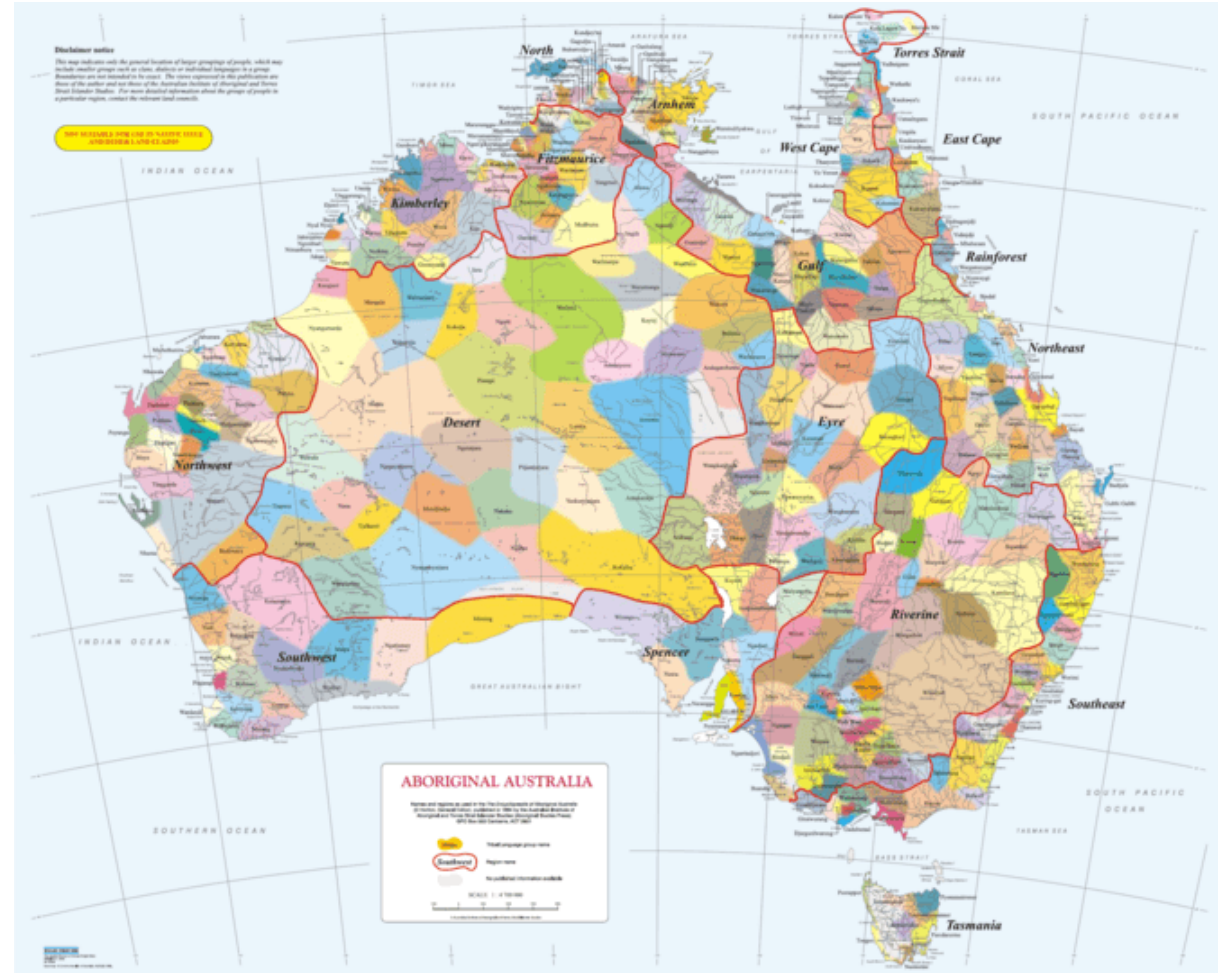


# Aboriginal and Torres Strait Islander people

Many different groups with distinct language and culture

Australian mainland has been inhabited by Aboriginal people for 65,000 years (predates European settlement)

Oldest continuous living culture(s) in the world



AIATSIS map of Indigenous Australia (1996)  
(<https://aiatsis.gov.au/explore/map-indigenous-Australia>)

# Cultural connections to water

- Deep Spiritual Connection to Country through Language, Songlines, Dreamtime and Lore
- Men's and Women's business - GW sites on Kamilaroi country are Women's business
- Water places were important ceremonial sites, burial sites and also sites of massacres
- Water maintains totem animals and cultural keystone species

## Concept of **Living Water** (Yu, 1999)

"Water is the life for us all. It's the main part. If we are gonna loose that I don't know where we are gonna stand. If that water go away, everything will die. That's the power of water. He connect with the land. *Pukarrikarra* (the dreaming) put 'em all together. One life."

*John 'Dudu' Nangkiriyn, Bidyadanga, August, 1998*



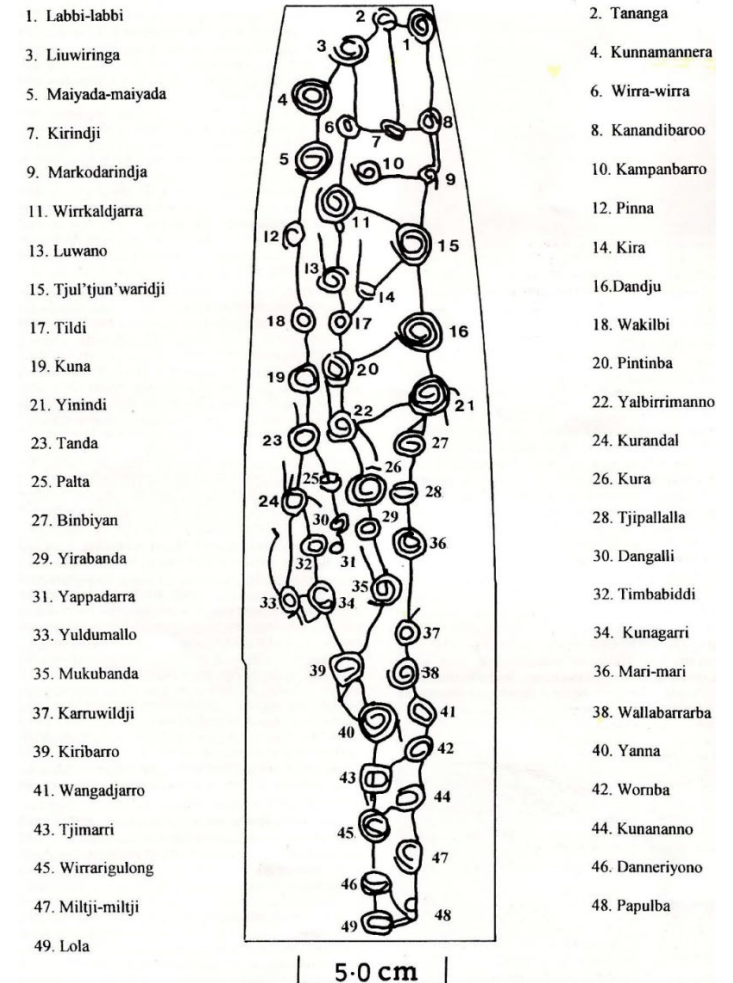
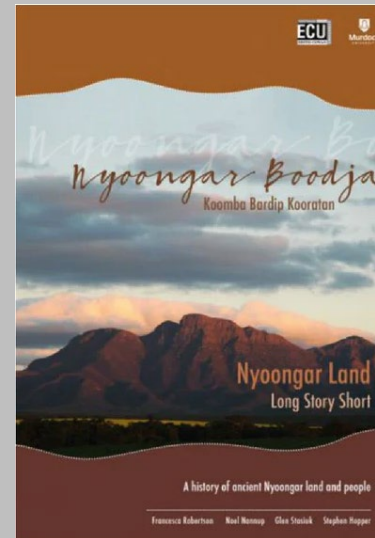
(Galup/Lake Monger, Perth – site of massacre<sup>5</sup>)

# Indigenous knowledge of water

Within Aboriginal language and culture there is **real knowledge** of surface water and groundwater through geological time

- Places with permanent water
- 'On top' and 'bottom' water (Yu, 1999)
- Knowledge of paleochannel aquifers
- Glacial cycles, sea level fluctuation (Robertson et al. 2017)

<https://www.youtube.com/watch?v=aeGqTpLDYjQ>



Map of the Western Australian water resources (wells, rock holes and claypans) of the Bindibu [=Pintupi], as carved into the back of a spear-thrower (Moggridge 2020, after Thomson 1962)



# Water assets and infrastructure

Water in the landscape is an essential source of potable water - often surface expressions of groundwater

Aboriginal people maintain infrastructure for water supply, groundwater dependent culturally significant sites (GWDCSS):

- Springs
  - Rock wells
  - Gnammas (rock holes)
  - Water trees
  - Jilla and Jumu (springs and soaks)
  - Mound Springs and Mud Springs
- Karst or cave systems  
Recharge areas  
Paleochannels  
Fractured Rock systems  
Porous Rock systems  
Hanging swamps

*Aboriginal people have a cultural responsibility to maintain the balance, to retain living water on Country (Yu, 1999)*



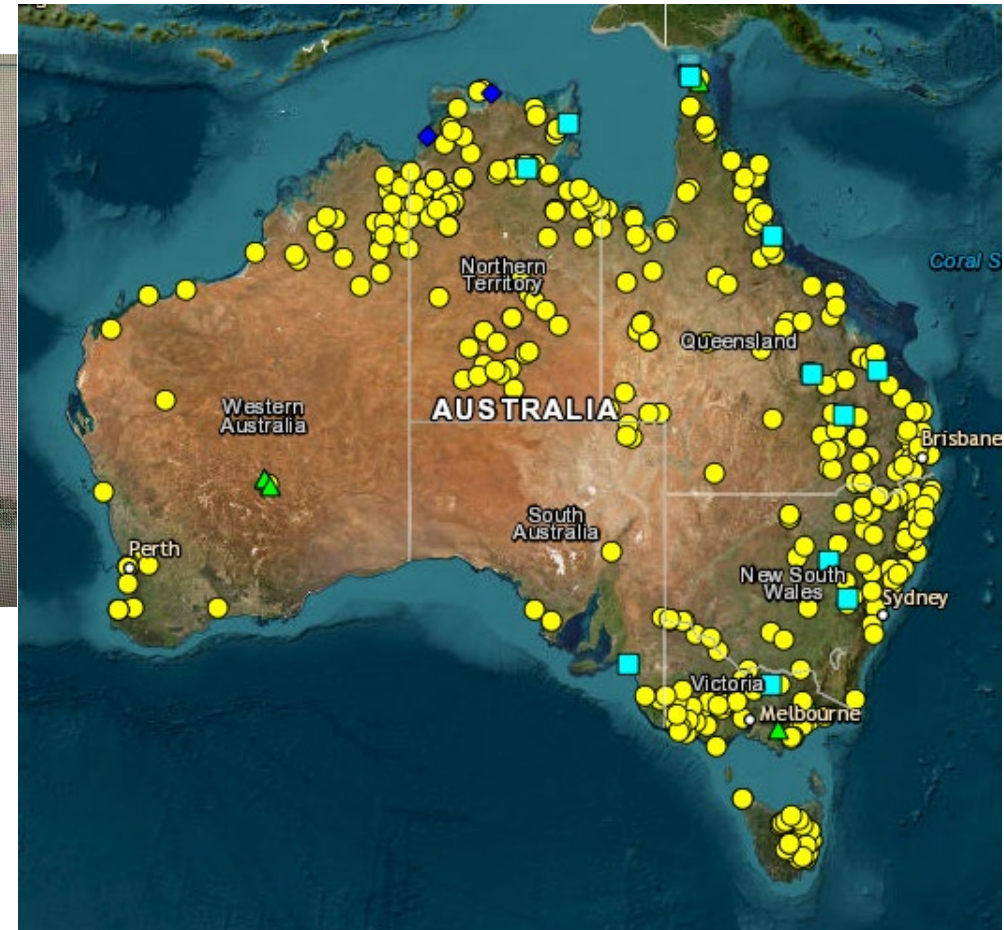
# Colonisation

British Colonies established on the principle of *Terra Nullius* –  
**No Treaty so No Veto**



Aboriginal people were systematically removed from their traditional country and children were removed from their families up until late 1960's

**Aboriginal people were not considered human.**



Frontier Wars – period of active resistance of British occupation by Aboriginal people

Colonial Frontier Massacres 1788 – 1930  
(<https://c21ch.newcastle.edu.au/colonialmassacres/map.php>)

<https://humanrights.gov.au/our-work/education/track-history-timeline-stolen-generations>



# Contemporary Australia

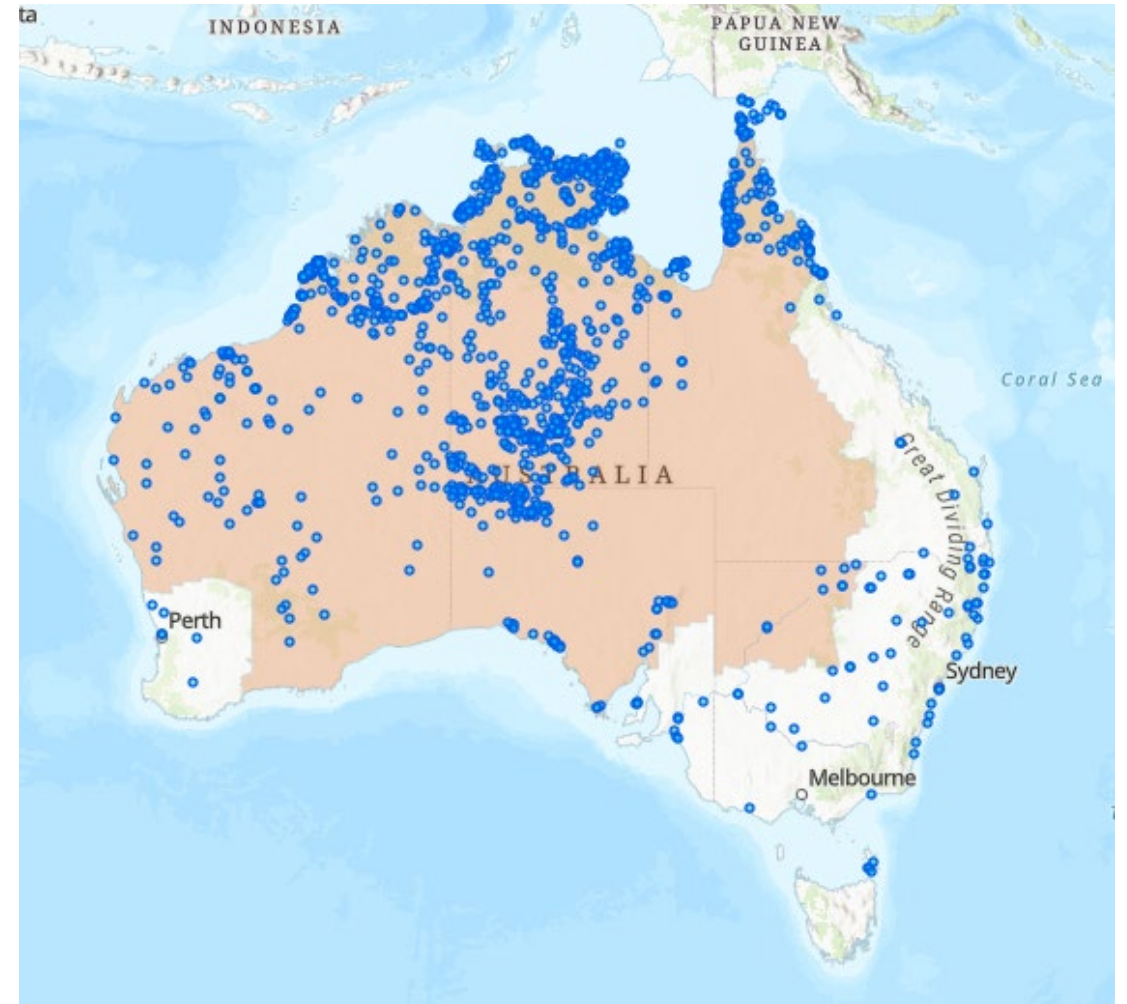
Native Title – established via High Court case 1992.  
Created pathway for legal recognition of Traditional  
Ownership

National Water Initiative 2004, was first time  
Indigenous people recognised in water policy

Australia signed on to the UN Declaration on the  
Rights of Indigenous Peoples in 2009

Some Aboriginal people have moved back to  
Country. Delivery of essential services remains  
challenging

Referendum to establish an Indigenous Voice to  
Parliament planned for later this year.



Map of Indigenous communities

(<https://www.niaa.gov.au/indigenous-affairs/economic-development/indigenous-procurement-policy/ripp-map>)

# Heading in the right direction?

- Aboriginal Corporations have Ranger groups actively caring for Country
- Water supply in remote communities managed by States and Territories
- Closing the gap targets; open questions around water security and potential health risks of groundwater use
- \$2.5 billion to fix (WSAA 2022), recent Federal funding \$150 million.
- Normalization of service delivery commencing for remote communities in W.A.



Working with Ngunnarr Rangers on Yanunijarra Country

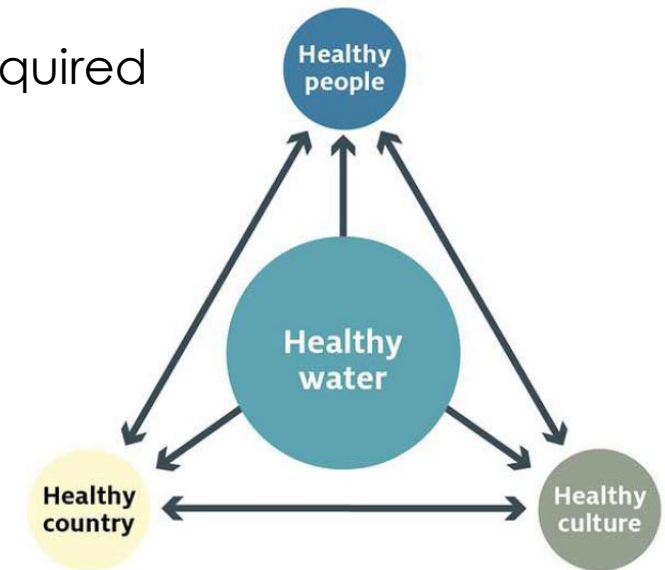
# What does this have to do with IAH?

- Groundwater professionals are often working on Aboriginal Country
- Most Aboriginal communities rely on groundwater for potable water supply
- Consultation with Traditional Owners (but not approval) often required
- Two-way learning opportunities being missed
- The IAH mission overlaps with Indigenous people who are caring for Country



**International Association of Hydrogeologists**  
the World-wide Groundwater Organisation

Our mission is to further the understanding, wise use and protection of groundwater resources throughout the world.



Australian Aboriginal people's view of the relationship between water, environment, culture and people. (Moggridge 2010).



## INDIGENOUS GROUNDWATER DECLARATION

## PREAMBLE

WE RECOGNISE AND REAFFIRM THAT INDIGENOUS PEOPLE OF AUSTRALIA HAVE NOT CEDED THEIR SOVEREIGNTY OVER THEIR LANDS AND WATERS AND HAVE BEEN CONNECTED TO THESE FOR OVER 65,000 YEARS. EACH INDIGENOUS NATION HOLDS THEIR OWN CULTURAL AND SPIRITUAL IDENTITY, SONGS, DANCES, AND STORIES, WHICH ARE EXPRESSIONS OF THEIR CONNECTIONS TO THEIR LANDS AND WATERS AND THE SOCIETIES THAT DEPEND ON THEM.

THE AUSTRALIAN CHARTER OF THE INTERNATIONAL ASSOCIATION OF HYDROGEOLOGISTS (IAH) WAS PUT FORWARD THIS DECLARATION ON THE 22 NOVEMBER 2022 AT THE AUSTRALASIAN GROUNDWATER CONFERENCE (AGC) IN GOOD PAST, WITH ARTICLES BORDERED BELOW, FOR SIGNATORIES TO ACKNOWLEDGE, CHAMPION AND SUPPORT, THROUGH ACTIONS FOR THE BETTERMENT OF INCLUDING AND RESPECTING INDIGENOUS KNOWLEDGE IN GROUNDWATER ACTIVITIES, DELIBERATIONS, DECISIONS, AND POLICIES.



NINETY-TO-WATER (GULI) B. MOORIDGE (KAMILANG) 2006

## ARTICLE 1

WE ACKNOWLEDGE, AS PER THE UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES (UNDRIP), INDIGENOUS PEOPLE'S RIGHT TO MAINTAIN AND STRENGTHEN THEIR DISTINCTIVE SPIRITUAL RELATIONSHIP WITH THEIR TRADITIONALLY OWNED OR OTHERWISE OCCUPIED AND USED LANDS, TERRITORIES, WATERS AND COASTAL SEAS AND OTHER RESOURCES AND TO UPHOLD THEIR RESPONSIBILITIES TO FUTURE GENERATIONS IN THIS REGARD<sup>1</sup>. WE RECOGNISE INDIGENOUS PEOPLE'S RIGHT TO MAINTAIN, CONTROL, PROTECT AND DEVELOP THEIR CULTURAL HERITAGE, TRADITIONAL KNOWLEDGE, AND TRADITIONAL CULTURAL EXPRESSIONS, AS WELL AS THE MANIFESTATIONS OF THEIR SCIENCES<sup>2</sup>.

## ARTICLE 2

WE ACKNOWLEDGE THE DEEP AND ANCIENT CULTURAL AND SPIRITUAL CONNECTION OF INDIGENOUS PEOPLE TO THE LAND AND WATERS OF AUSTRALIA. THIS CONNECTION INCLUDES THE GROUNDWATER THAT IS STORED WITHIN, AND EMERGES FROM, THE EARTH, AND CLASSES OF CULTURAL SIGNIFICANCE FORMED BY GROUNDWATER PROCESSES.

## ARTICLE 3

WE ACKNOWLEDGE THAT GROUNDWATER REMAINS AN INDISPENSIBLE COMPONENT OF INDIGENOUS LIFE AND WAYS OF KNOWING AND BEING. DEEP CULTURAL AND SPIRITUAL CONNECTIONS TO GROUNDWATER ARE MAINTAINED THROUGH LYRIC, LANGUAGE, STORIES, SONGS, AND DANCES (ALSO KNOWN AS SONGLINES AND DREAMTALK).

## ARTICLE 4

WE RECOGNISE AND RESPECT THE ROLE OF INDIGENOUS PEOPLE AS KNOWLEDGE-HOLDERS AND STEWARDS OF GROUNDWATER RESOURCES, FOR WHICH THEY HAVE CUSTOMARY LAW, THE FIRST LAW, WHICH THEY HAVE UPHOLD AND RELIED UPON FOR THOUSANDS OF YEARS.

## ARTICLE 5

WE RECOGNISE THE VALUE OF GROUNDWATER RESEARCH AND TEACHING THAT INCORPORATES INDIGENOUS KNOWLEDGE AND HIGHLIGHTS THE ROLE OF GROUNDWATER IN INDIGENOUS COMMUNITIES. WE SUPPORT THE INCLUSION OF INDIGENOUS VOICES IN DECISION MAKING REGARDING GROUNDWATER, SO THAT INDIGENOUS PEOPLE'S VALUES AND USES OF GROUNDWATER CAN BE PROTECTED.

## ARTICLE 6

WE RECOGNISE THE IMPORTANCE OF EFFECTIVE, RESPECTFUL ENGAGEMENT OF HYDROGEOLOGISTS AND WATER SCIENTISTS WITH INDIGENOUS PEOPLE, TO PRODUCE AND SHARE GROUNDWATER KNOWLEDGE AND TO DEVELOP SOLUTIONS TO THE GROUNDWATER-RELATED PROBLEMS THAT IMPACT INDIGENOUS PEOPLE AND THEIR LAND AND WATER RESOURCES.

## ARTICLE 7

WE DECLARE OUR INTENTION TO WALK TOGETHER SO THAT INDIGENOUS AND WESTERN SCIENTIFIC KNOWLEDGE CAN INFORM THE WAYS OF LEARNING AND COLLECTING DATA, THROUGH THE TWO-WAYS<sup>3</sup> APPROACH TO HYDROGEOLOGY AND SCIENCE. WE ACHIEVE OUR COMMON GOAL OF PROTECTING AND SECURING GROUNDWATER FOR THE FUTURE.

## INDIGENOUS GROUNDWATER DECLARATION

## SIGNATORIES

  
SARAH BOURKE

IAH REGIONAL VICE PRESIDENT AUSTRALASIA PACIFIC & AGC2022 CONFERENCE CHAIR

  
BRADLEY MOGGIDGE

AUSTRALIAN INDIGENOUS HYDROGEOLOGIST

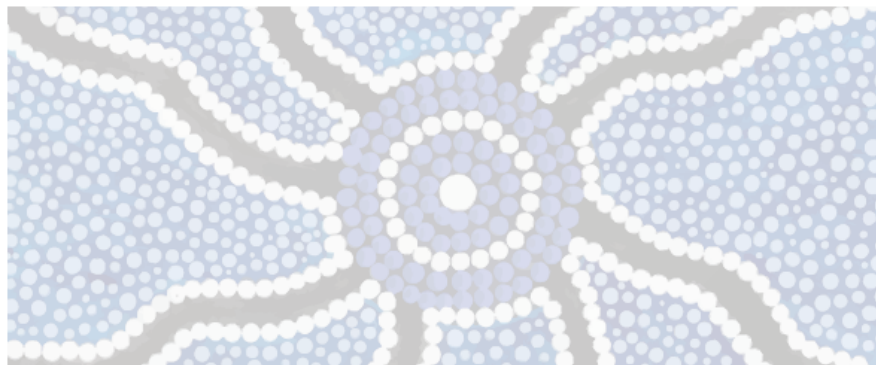
  
KELLY-JANE WALL

CHAIR IAH AUSTRALIA CHAPTER



International Association of  
Hydrogeologists Australia

## MAKING THE INVISIBLE VISIBLE IN 2022



<sup>1</sup>UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES (2007), ARTICLE 28: INDIGENOUS PEOPLES HAVE THE RIGHT TO MAINTAIN AND STRENGTHEN THEIR DISTINCTIVE SPIRITUAL RELATIONSHIP WITH THEIR TRADITIONALLY OWNED OR OTHERWISE OCCUPIED AND USED LANDS, TERRITORIES, WATERS AND COASTAL SEAS AND OTHER RESOURCES AND TO UPHOLD THEIR RESPONSIBILITIES TO FUTURE GENERATIONS IN THIS REGARD.

<sup>2</sup>UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES (2007), ARTICLE 31 (1): INDIGENOUS PEOPLES HAVE THE RIGHT TO MAINTAIN, CONTROL, PROTECT AND DEVELOP THEIR CULTURAL HERITAGE, TRADITIONAL KNOWLEDGE, AND TRADITIONAL CULTURAL EXPRESSIONS, AS WELL AS THE MANIFESTATIONS OF THEIR SCIENCES.

TECHNOLOGIES AND CULTURES, INCLUDING HUMAN AND GENETIC RESOURCES, SEEDS, MEDICINES, KNOWLEDGE OF THE PROPERTIES OF FAUNA AND FLORA, ORAL TRADITIONS, LITERATURES, DESIGNS, SPORTS AND TRADITIONAL GAMES AND VISUAL AND PERFORMING ARTS. THEY ALSO HAVE THE RIGHT TO MAINTAIN, CONTROL, PROTECT AND DEVELOP THEIR INTELLECTUAL PROPERTY OVER SUCH CULTURAL HERITAGE, TRADITIONAL KNOWLEDGE, AND TRADITIONAL CULTURAL EXPRESSIONS.

<sup>3</sup>TWO-WAY HYDROGEOLOGY IS AN APPROACH THAT CONNECTS THE TRADITIONAL GROUNDWATER KNOWLEDGE OF ABORIGINAL PEOPLE – THAT IS THE CULTURAL UNDERSTANDING OF PEOPLE, GROUNDWATER, AND COUNTRY – WITH WESTERN HYDROGEOLOGY AND SCIENCE INQUIRY.

## 1. UNDRIP



### ARTICLE 1

**W**E ACKNOWLEDGE, AS PER THE UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES (UNDRIP), INDIGENOUS PEOPLES' RIGHT TO MAINTAIN AND STRENGTHEN THEIR DISTINCTIVE SPIRITUAL RELATIONSHIP WITH THEIR TRADITIONALLY OWNED OR OTHERWISE OCCUPIED AND USED LANDS, TERRITORIES, WATERS AND COASTAL SEAS AND OTHER RESOURCES AND TO UPHOLD THEIR RESPONSIBILITIES TO FUTURE GENERATIONS IN THIS REGARD. WE RECOGNISE INDIGENOUS PEOPLES' RIGHT TO MAINTAIN, CONTROL, PROTECT AND DEVELOP THEIR CULTURAL HERITAGE, TRADITIONAL KNOWLEDGE, AND TRADITIONAL CULTURAL EXPRESSIONS, AS WELL AS THE MANIFESTATIONS OF THEIR SCIENCES.



## 2&3. Cultural connections



### ARTICLE 2

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## 4&5. Indigenous Knowledge



### ARTICLE 4

**W**E RECOGNISE AND RESPECT THE ROLE OF INDIGENOUS PEOPLE AS KNOWLEDGE-HOLDERS AND STEWARDS OF GROUNDWATER RESOURCES, FOR WHICH THEY HAVE CUSTOMARY LAW, THE FIRST LAW, WHICH THEY HAVE UPHELD AND RELIED UPON FOR THOUSANDS OF YEARS.

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## 6&7. Working together



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Declaration wording refined in consultation with Committee on Aboriginal Water Interests

Declaration signed at Australasian Groundwater Conference 2022 in Perth



View and sign at

<http://declaration.iah.org.au/>





# SLR Reflect Reconciliation Action Plan





# Developing our RAP



- Confirmed Eligibility and registration with Reconciliation Australia.
- Established RAP working group with state-based representatives across Australia to drive governance through the development process.
- Engaged and consulted various teams in the business to understand current engagements and areas for improvement.
- Drafted objectives and deliverables and consulted our Regional Management Team for review and internal endorsement.
- Submitted draft Reflect RAP to Reconciliation Australia for review and feedback November 2022.
- Received formal endorsement from Reconciliation Australia May 2023.
- Continuing to drive implementation within the business and engaging external stakeholders to assist in the delivery of set commitments.





# What Initiatives

SLR's formally endorsement Reflect RAP is publicly available via Reconciliation Australia's [website](#)

The following initiatives have been implemented within the business:

## **Cultural Awareness Training**

We have partnered with First Nations Training Provider, Evolve Communities and implemented mandatory Cultural Awareness Training for all current employees and future new starters.

## **Acknowledgment of Country**

Acknowledgment of Country applied across all Australian staff email signatures.

## **Engaged First Nations Artist**

SLR engaged local Brisbane artist, Leah from [Bunya Designs](#) to develop custom artwork for incorporation within our RAP.

Our RAP Chairperson sat down with Leah to discuss the artwork developed and the story behind the beautiful piece.

[Reflect Artwork Story Video](#)





# Implementation

1. Partnered with Evolve Communities and rolled out mandatory 'National Reconciliation Week' (NRW) Webinar for all employees.
2. Various NRW events happening across our offices (i.e. Locally sourced first nations catering for our Brisbane office Brisbane office).
3. We are continuing to work with various teams within the business to deliver on the commitments made as part of our RAP and continuously looking for avenues to implement further important initiatives across our business.



# What else can you do?

1. Find out who's country you're working on
2. Engage to build relationships
3. Be open to two-way learning opportunities



Boobera Lagoon (Moggridge 2006)



Annette Stokes - Wongatha  
Birni Aboriginal Corporation

# What can you do?

## 1. Find out who's country you're working on

- If there has been a Native Title determination a Prescribed Body Corporate will have been established: <https://nativetitle.org.au/find/psc>
- Aboriginal Land Councils and Registered Aboriginal Parties: <https://www.niaa.gov.au/indigenous-affairs/land-and-housing/native-title-representative-bodies-and-service-providers>
- Indigenous Land Use Agreements: <http://www.nntf.gov.au/searchRegApps/NativeTitleRegisters/Page/s/Search-Register-of-Indigenous-Land-Use-Agreements.aspx>
- Indigenous Protected Areas: [Indigenous land and sea management projects | National Indigenous Australians Agency \(niaa.gov.au\)](#)



<https://aiatsis.gov.au/explore/map-indigenous-Australia>





# What can you do?

## 2. Engage to build relationships

- Contact the traditional owners and start a dialogue before project inception
- Allocate the time and money required for consultation
- Invite participation where possible
- Think about reciprocity for the community
- Follow the Three T's (Brad)

You may need to be less linear than you are used to!

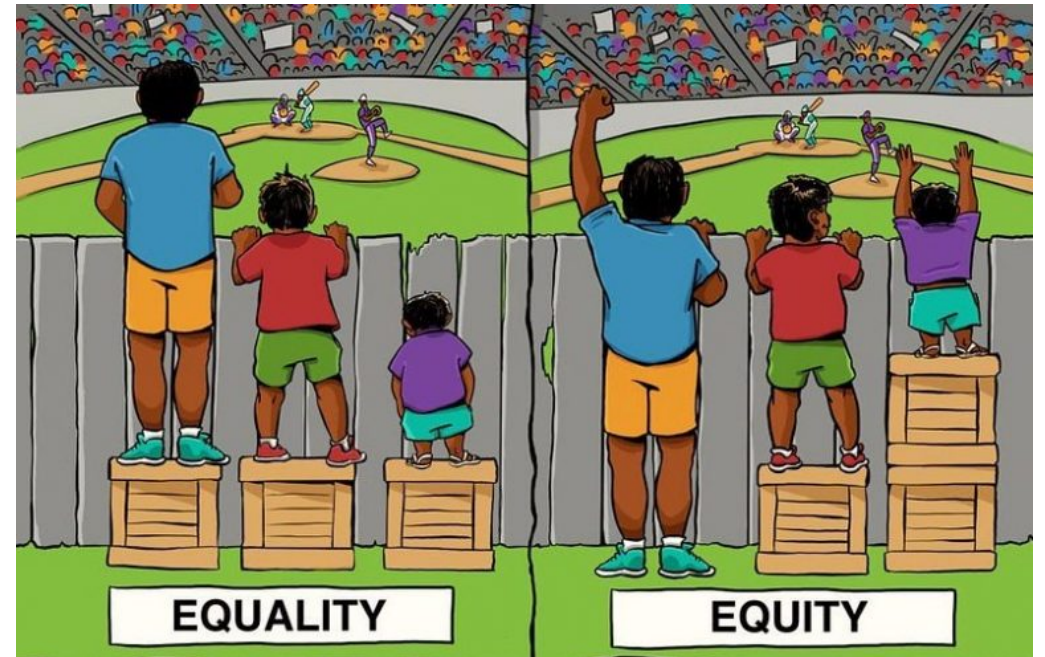
**Integrity is crucial – always be you**



# What can you do?

## 3. Be open to two-way learning opportunities

- Indigenous Australians are custodians of a rich cultural heritage – this is their IP
- Acknowledge differences, but find common ground
- Aim for equity – Indigenous people can be most effected but least empowered



[This Photo](#) by Unknown Author is licensed under [CC BY](#)



# Please read and sign the Declaration

<http://declaration.iah.org.au/>


It's not the destination, it's the beginning....




# IAH events still to come



Remote groundwater supplies: access and sustainability for First Nations Australians

 Thu, Jun 1, 2023, 4:30 - 5:30 pm SA time

 Online & In Person - SA Water Learning Centre, Level 1, SA Water House, 250 Victoria Square, Adelaide

Special screening of:  
Undermined – Tales from the Kimberley

 Thu, Jun 1, 2023, 5.00 - 7.00 PM AWST

 Central Park Conference Centre (Theatrette) 152-158 Saint Georges Terrace

# Thank you



International Association of  
Hydrogeologists Australia



UNIVERSITY OF  
CANBERRA



THE UNIVERSITY OF  
WESTERN  
AUSTRALIA

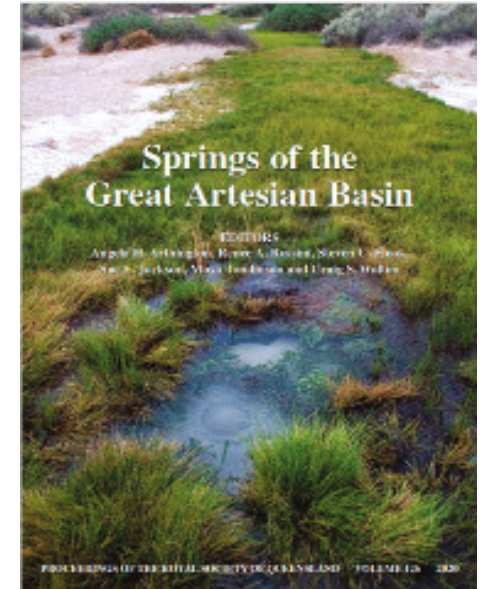
Moggridge, B. J., 2020 Aboriginal people and groundwater, In: Proceedings of the Royal Society of Queensland. Vol 126, p. 11-27 <http://www.royalsocietyqld.org/2020-springs-special-issue-vol-126/>

Yu, S., 1999, [Ngapa Kunangkul: Living Water](#), A report on the aboriginal cultural values of groundwater in the La Grange Sub-basin, Centre for Anthropology Research, University of Western Australia.

Moggridge, B., 2010, Aboriginal Water Knowledge & Connections, in: [Water and its Interdependencies in the Australian Economy](#), Australian Academy of Technological Sciences and Engineering, 22-23 June 2010, Sydney.

Robertson, F., Nannup, N., Stasiuk, G., Hopper, S. 2017, [Noongar Boodja: Koomba Bardip Kooratan](#) (Noongar Land: Long Story Short). Batchelor Institute Press, 39pp

WSAA 2022 Closing the Water For People and Communities Gap: Improving water services to First Nations remote communities. Water Services Association of Australia, 481pp



## UNESCO Underground Water Talks

## Water Justice Podcast