

Resetting Our Understanding of the GAB

Carlos Miraldo Ordens¹, Neil McIntyre¹, Jim Underschultz², Helen Schultz³

¹The University of Queensland Sustainable Minerals Institute ²The University of Queensland Centre Energy Initiative ³The University of Queensland Centre for Coal Seam Gas

Introduction

- **Simple, outdated mental models** about the nature and connectivity of the GAB exist. These concepts can result in **over-simplistic / incorrect** understanding of the basin and therefore about **perceived risks to groundwater**
- **Understanding of the GAB** has significantly **improved** over the **last 10 years** due to a rapid increase in acquisition of data and research (e.g. associated with coal seam gas and other resource developments), and this **information** needs to be **compiled and shared**

Project Objectives

- To develop a **freely available publication** providing the **latest scientific** understanding of the **hydrological functioning of the GAB** and associated **aquifer management**
- To **communicate** the **key findings** from this body of research to **everyone** who has an interest in how the **GAB functions** and is **managed**

Publication

Hydrogeology Journal

Special Issue (SI) and Topical collection (TC)

SI – Advances in hydrogeologic understanding of Australia's Great Artesian Basin 32 – 37 papers

Context and factors affecting GAB's hydrogeology

Tribute to Eminent researcher

Groundwater flow processes

Hydrochemistry and use of tracers

Surface-groundwater interactions, recharge, springs, GDEs

TC – Advances in groundwater management of Australia's Great Artesian Basin 10 – 12 papers

Citizen science

Traditional owners

Social research

Water use and balance

Groundwater management approaches



Special thanks to

100+ authors from **Research institutions, Industry and Government** for their contributions with articles, resulting in **2 scientific publications** reporting on research from across the **whole of GAB**

Public engagement

July 2019 – April 2020

Publication launch

IAH AGC 2019, 24-27 November 2019, Brisbane

Dissemination activities & materials

Videos Articles in The Conversation

Website Printed material

Webinars Presentations to Professional Associations

Parliamentary Science briefing

Target

General public

Rural communities

Traditional owners

Informed, non-expert public

Hydrogeology community

Water managers

Consultants

Politicians