



Murray Darling Association Inc.

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Minutes of Meeting No. 102 of Adelaide Metro Region (7) On Thursday 24th Aug 2017 at the Town of Walkerville Walkerville Council Offices, 66 Walkerville Tce, Gilberton SA 5081

1. ATTENDANCE

1.1 Present

Cr Lynda Yates	Secretary, Holdfast Bay Council
Cr David Shetliffe	Region 7 Chair, Walkerville Council
Mayor Ray Grigg	Walkerville Council
CEO Kiki Magro	Walkerville Council staff
Nathan Silby	Wallbridge Gilbert Aztec – ERA Water
Tahlia Willey	Walkerville Council staff
Mayor Simon Brewer	Campbelltown Council
Cr Peter Jamieson	Port Adelaide Enfield Council
Cr Robin Coleman	Tea Tree Gully Council
Director Thornton Harfield	Tea Tree Gully Council staff
Cr Arthur Mangos	Region 7 Vice Chair, West Torrens Council
Cr Garth Palmer	West Torrens Council
Cr Shirley Halls	Playford Council
Cr Carol Muzyk	Playford Council
Pauline Frost	Life Member
Ray Najar	
Rex Adams	
Frank Verrall	
Gary Goland	
Matt Barwick	National Carp Control Plan Coordinator - via video link

1.2 Apologies

Mayor Lorraine Rosenberg	Onkaparinga Council
Mayor Glenn Docherty	Playford Council
Cr John Kennedy	Campbelltown Council
Cr Andrew Tilley	Mitcham Council
Cr Karen Hockley	Mitcham Council

2. WELCOME

- 2.1** Mayor Ray Grigg welcomed everyone to the meeting but apologized that he then had to leave for another commitment.
- 2.2** Cr David Shetliffe welcomed those attending.

3. MINUTES

The 101st meeting of the region was held on 29/06/17 at Mitcham Council.

Motion: That the minutes of the last Adelaide Metro meeting be accepted.

4. BUSINESS ARISING Nil

5. PRESENTATIONS

5.1 Carp Eradication Program by Matt Barwick, National Carp Control Coordinator (video link)

Some key points made included:

- No decision has yet been made to implement the proposed program
- The \$15m allocation is for a feasibility study and community consultation
- A herpes virus is proposed to be used
- It is quite species specific – effective on carp but does not affect other species
- Clean up operations will be funded but councils could be involved in these programs
- The benefits include clear water and increased native fish populations

5.2 ERA Water – Waterproofing Eastern Adelaide - Recycled Water Scheme by Nathan Silby of WGA (Wallbridge Gilbert Aztec)

Kiki Magro gave the history of the project and then introduced Nathan. The project commenced in 2009 with 7 councils but 2 councils went their own way in 2010 and this happened again in 2015, leaving the 3 councils of Walkerville, Burnside and Norwood, Payneham and St Peters to form ERA Water as it now is.

The aim of the project is to harvest 500ML per year of stormwater from Aquifer Storage and Recovery. Construction of wetlands commenced in March 2016 with completion due September 2017. Water that would have flowed into the River Torrens and then the sea will be harvested from Third and Fourth Creeks. It will be treated at Felixstow Wetlands and Hamilton Reserve Biofilters with 4 injection bores storing the treated water in a fractured rock aquifer 100-150m deep. There are 4 pump stations and 40km of distribution mains. The final part of the project, the Shakespeare Pump Station, will be completed in Jan 2018. Recycled water will then be available for summer 2018/19.

The water stored will provide the councils with water for council reserves and ovals. It will provide certainty of environmental watering during drought, thus continuing to provide green recreation areas for residents and avoiding the loss of trees that occurred during the 2001 - 10 drought. The wetlands will also provide residents with added amenity.

6. REPORTS

6.1 Chair's Report

Motion:

That the report be accepted

Moved Cr Shirley Halls, Seconded Cr Arthur Mangos, carried

Ray Najar and the Chair gave an indicative outline of water usage in Adelaide. Ray said that 200-210GL of water a year are used by Greater Adelaide. Our reservoirs could hold 200GL but never become full. In a wet year only about 35-40GLs is put into the reservoirs from the Murray but 100GL used to be taken in a dry year with an entitlement to take 135GL a year. Today with storm water and waste water recycling over 50GL a year and the desalination

plant (running at only 10-15% capacity) providing around 10-15GL a year, Adelaide relies less on the Murray (though it still provides between 40 – 90% of drinking water depending on rainfall) but regional SA depends heavily on the Murray for its water. On average, about 4000GL of water runs along the Murray into SA each year and Adelaide uses very little of that (around 0.5% to 1%).

The Chair indicated he was awaiting definitive numbers from the State Government

7. GENERAL BUSINESS

7.1 MDA Conference

Seven people advised they were attending – Cr David Shetliffe, Cr Lynda Yates, Cr Arthur Mangos, Cr Robin Coleman, Cr Shirley Halls, Ray Najar and Rex Adams. As all except Ray and Rex are council delegates, it was suggested they be made regional delegates.

Motion:

That Ray Najar and Rex Adams be Adelaide Metro regional delegates for the 2017 AGM.

Moved Cr Robin Coleman, Seconded Cr Shirley Halls, carried

7.2 MDA AGM – Proposed Motion from Region 7

Motion:

That the MDA calls on all state governments currently responsible for compliance with water allocations to ensure that the compliance regime be subject to independent audit. This to involve all licences including “sleeper licences”.

That the MDBA ensure that its compliance system, when introduced in 2019, is well resourced, robust and subject to independent audit.

Moved Cr Arthur Mangos, Seconded Frank Verrall, carried unanimously

7.3 Regional Plan Framework Update

The Chair’s 10 dot points were commended by the meeting and an 11th added at the suggestion of Cr Peter Jamieson:

1. Encourage investment in water saving measures across Adelaide
2. Exchange information about water saving measures
3. Encourage efficiency in water use
4. Understand the water supply system and water sources across Adelaide
5. Share information about water saving and efficiency across the Murray Darling Basin
6. Publicly inform communities across the Basin of Adelaide’s water supply system
7. Promote efficient use of water across the Basin
8. Seek to ensure adequate compliance and audit measures are in place
9. Promote understanding of water uses and environmental issues across Adelaide and the wider Basin
10. Promote the role of local government in being an integral part of water management across the basin
11. Promote an understanding of the economic importance to SA and the metro area of the River Murray and the Murray-Darling Basin.

Motion:

That the 11 dot points be adopted by the region and circulated to the other regions.

Moved Ray Najjar, Seconded Pauline Frost, carried

Gary Goland said that as wetlands become more common, water efficiency is being appreciated more.

It was mentioned that SA Water's Irrigated Public Open Space (IPOS) Program was launched by Karlene Maywald to encourage efficient water usage. Water Sensitive SA also has a capacity-building program for councils to use. The Goyder Institute has done excellent research on stormwater recharge systems.

7.4 SA Regional Forum with LGA

The forthcoming meeting at the LGA on 20th Sep will be attended by Cr David Shetliffe, Cr Arthur Mangos, Cr Robin Coleman, Cr Lynda Yates and either Ray Najjar or Rex Adams. Regions 5 and 6 are particularly interested in the carp issue. Ray Najjar mentioned that the late Allan Tume worked in the 1999 era in the Mid Murray Council area to ensure that the Morgan East and West Wetlands were built to allow easy removal of carp from them.

7.5 Other business

Regarding the Four Corners program on alleged water stealing, Mayor Simon Brewer said that there is a clash between the existing system and the new on the rules for taking out the full water allocation. The 390GL in water recovered from the Northern Basin has now been reduced to 320GL - this only contributes 20% to the lower system. The water alleged as stolen would never reach Adelaide but would have helped environmental watering of Menindie Lakes.

Ray Najjar tabled a media release made 4th Aug 2017 by Flinders Media and Communications (contact 8201 2092 flinders.edu.au) relating to the proposed Broken Hill pipeline (attached next page).

8. NEXT MEETING

23rd Nov 6pm for 6.30pm at Campbelltown Council Offices.

Future dates are all 4th Thursdays in the month - 22nd Feb, 24th May, 23rd Aug.

6. CLOSE 8.54pm

Secretary Lynda Yates lyates@holdfast.sa.gov.au ; Mob 0417 484 717

*The Murray Darling Association acknowledges and thanks
Walkerville Council for arranging and hosting this meeting of Region 7.*

MEDIA RELEASE

Scientists wade into Murray v Darling pipeline debate

Leading Australian hydrogeologists say the proposed \$500 million pipeline from the Murray River to Broken Hill will deliver much more expensive water than closer, plentiful high-quality groundwater supplies.

The groundwater experts say that the NSW Government has so far appeared to ignore published scientific evidence on the Darling River floodplain resource by calling for tenders for the costly 270km-long pipeline from the Murray.

The large fresh groundwater resources in the River Darling floodplain close to Menindee were reported publically in 2013 as a sustainable, good quality water supply for Broken Hill after a three-year scientific study, the Broken Hill Managed Aquifer Recharge (BHMAR) project, led by Geoscience Australia with input from CSIRO.

A recent groundwater investigation report on NSW Department of Primary Industries Water website states “The BHMAR project investigation focused on the identification of a managed aquifer recharge scheme in the investigation area known as GWR3 or Jimargil. This area was selected as the most suitable area for a managed aquifer recharge scheme due to the thickness of sands in the Calivil Formation, an overlying confining clay layer and suitable water quality characteristics. The site is about 15 kilometres to the south of weir 32 on the eastern side of the Darling River adjacent to Lake Emu.”

However, the report goes on to only describe an investigation 20km away on the north eastern side of Lake Menindee in a much deeper aquifer containing saline groundwater that would require desalination if it was to be used as a drinking water supply. There is no explanation of why the Jimargil site, now called Talyawalka, was not considered. It would seem to meet the four claimed criteria; security, service level, water quality and cost, comparably or significantly better than the proposed Murray pipeline.

The Department’s web site claims that “a shortlist of project options were evaluated” and “the analysis was performed in a transparent, robust and structured manner – overseen by experts from DPI Water, NSW Public Works and Infrastructure NSW.” However, no data or reports are presented to support this claim for the Talyawalka site that had previously been identified and extensively scrutinised by

Geoscience Australia and CSIRO. The International Association of Hydrogeologists (IAH) wrote several times to the department seeking clarification on this and has not received an explanation. No information or evidence has been provided publically that we are aware of, nor provided to IAH, for a scientifically defensible reason to rule out this Talyawalka option that could save taxpayers and Broken Hill residents hundreds of millions of dollars. Instead publically available comparisons are made with a very inferior groundwater option.

“Although the fresh groundwater storage contains a number of years supply, managed aquifer recharge can be used to augment and secure supplies in the event of extended drought, and ensure acceptable environmental impacts. It is widely practised internationally as a water resources

management measure, and has been growing in importance in Australia over the last 20 years,” says Flinders University Adjunct Professor Peter Dillon, co-chair of the International Association of Hydrogeologists [Commission on Managing Aquifer Recharge](#).

“Pumping from this groundwater resource would not deplete Darling River water at low flows due to the blanket of clay lining the lower bed in this area. As well, filtration through the sandy aquifers also means the groundwater is much cleaner than water currently drawn directly from the River Darling.”

“Hydrogeologists have developed advanced skills in characterising aquifers and the clay layers that separate them from each other and from streams,” says University of NSW senior lecturer [Dr Wendy Timms](#), the Vice-President of the IAH for the Australasia-Pacific region.

Extensive airborne geophysical surveys, drilling and coring and stratigraphic analysis, water quality evaluations, geomorphology, geochemistry and ecosystem impact assessments on the Menindee floodplain have far exceeded most if not all other groundwater investigations in Australia to date, she says.

Dr Dillon says the groundwater option for the mining and tourist destination would require expenditure on wells, a 27km pipeline to the existing Menindee water treatment plant, and maintenance to the existing 114km Menindee to Broken Hill pipeline. Managed aquifer recharge as supply assurance during sustained drought would require minor expansion to the Menindee treatment plant and be incorporated in new infrastructure.

A public information program to demonstrate the groundwater quality could assist in promoting this alternative.

“The NSW Government says it wants to drought-proof Broken Hill yet so far it appears to be ignoring the best available science,” says Professor Craig Simmons, director of the [National Centre for Groundwater Research and Training](#).

He says the extensive scientific work to prove the merit of the Talyawalka borefield on the River Darling floodplain is an example of the role of research to reveal Australia’s largely hidden natural resources.

With more than 30% of Australia’s water supply sourced from “hidden” underground water in such reserves, their usefulness in the future cannot be ignored.

“As our major rivers come under increasing pressure to provide adequate water for drinking, agriculture and the environment, particularly the Murray and Darling rivers, the use of groundwater will become ever more important,” Professor Simmons says.

“With evidence-based and transparent decision-making based on sound science and economics, and with careful management, these groundwater reserves can support outback communities such as Broken Hill.”

About the International Association of Hydrogeologists and National Centre for Groundwater Research and Training

The international peak scientific professional organisation engaged in groundwater resources management has more than 4,000 hydrogeologists, groundwater scientists and engineers, with 500 members in the Australian chapter. This joint release has been prepared by the National Centre for Groundwater Research and Training, headquartered at Flinders University, the Australian Chapter of IAH and the IAH Commission on Managing Aquifer Recharge.

Web: NCGRT www.groundwater.com.au and IAH – www.iah.org.au

For more information

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Website: <https://recharge.iah.org/>

References:

Geoscience Australia Record 2012/15, BHMAR Summary Report 5 of 5:

www.ga.gov.au/corporate_data/73823/Rec2012_015.pdf (2 graphics below are from this report)

Water NSW: public communications on water supply options, analysis and results, including report
Broken Hill emergency water supply investigation – Renmark group production bores

<http://www.water.nsw.gov.au/water-management/water-availability/brokenhill>

two hydrogeological graphics follow below

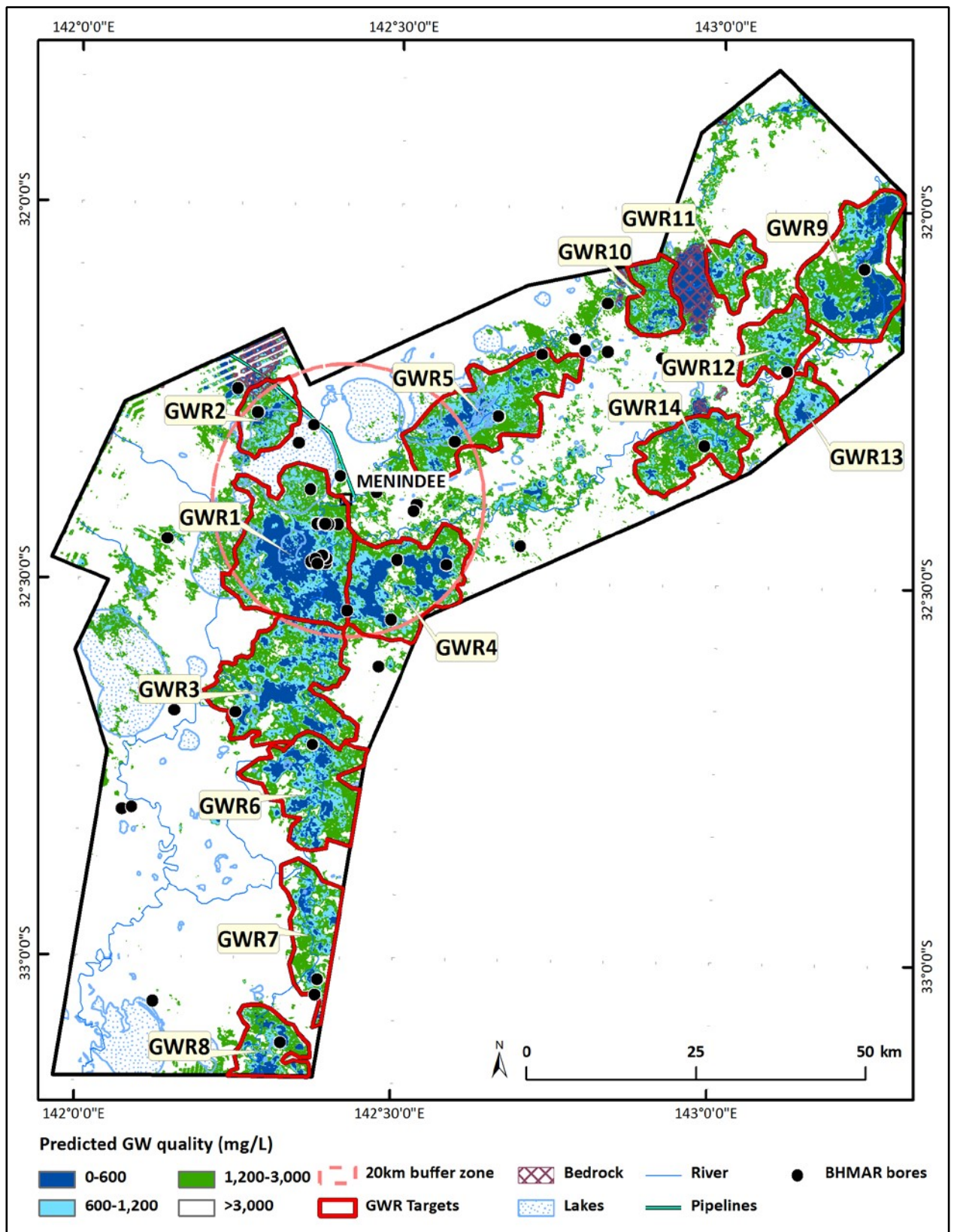


Figure B. Map of the BHMAR project area showing the distribution of groundwater resource (GWR) targets in Pliocene (Calivil Formation and Loxton-Parilla Sands) aquifers. The boundaries marked are the maximum spatial extent of the aquifer with predicted salinities <3000 mg/L. This maximum spatial extent of fresh to brackish groundwater is defined by the combined plotting of all the AEM depth slices most relevant to the Calivil Formation (22-61 m). From Lawrie et al (2012) pvii, Fig B.

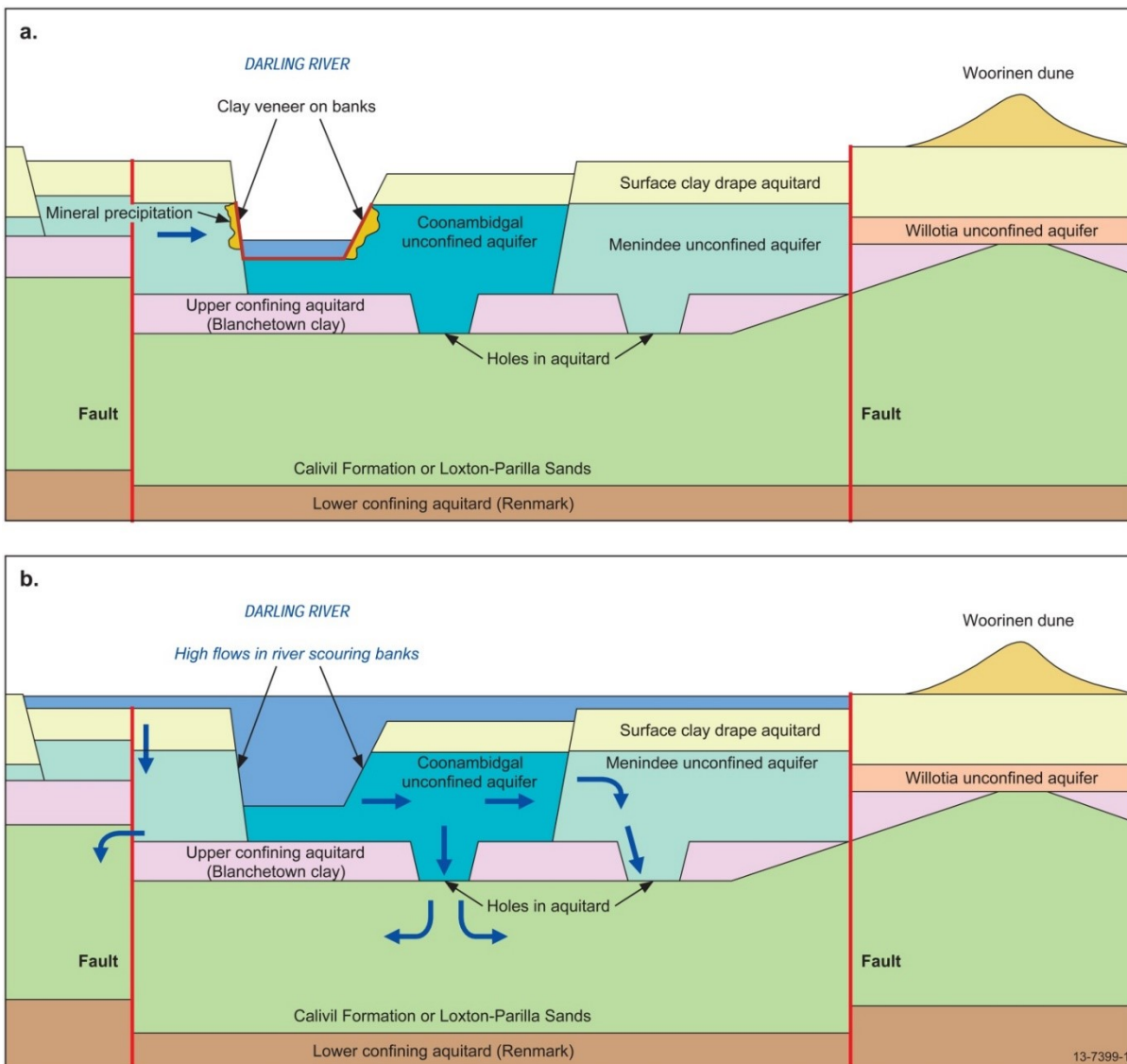


Figure H. Conceptual model for groundwater recharge in the Lower Darling Floodplain alluvial sediments in (a) low-flow phase when Darling River is isolated from Calivil aquifer by riverbed clay, and (b) high flow phases when the riverbed scours and flood water recharges the Calivil aquifer, the groundwater resource identified by Geoscience Australia. From Lawrie et al (2012) p24, Fig H.

Lawrie, K.C., Brodie, R.S., Dillon, P., Tan, K.P., Gibson, D., Magee, J., Clarke, J.D.A., Somerville, P., Gow, L., Halas, L., Apps, H.e>, Page, D., Vanderzalm, J., Hostetler, S., Christensen, N.B., Miotlinski, K., Brodie, R.C., Smith, M. and Schoning, G. (2012). Assessment of Conjunctive Water Supply Options to Enhance the Drought Security of Broken Hill, Regional Communities and Industries. Summary Report. Record 2012/15 Geocat # 73823, Report 5 of 5 Final Report July 2012. www.ga.gov.au/corporate_data/73823/Rec2012_015.pdf