Peake, Roby and Sherlock PWA Data Review Report

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Department for Environment and Water
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Government of South Australia
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Acknowledgement of Country

The Department for Environment and Water acknowledges Aboriginal people as the First Peoples and Nations of the lands and waters we live and work upon and we pay our respects to their Elders past, present and emerging. We acknowledge and respect the deep spiritual connection and the relationship that Aboriginal and Torres Strait Islander people have to Country.

The Department works in partnership with the First Peoples of South Australia and supports their Nations to take a leading role in caring for their Country.

Disclaimer

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Foreword

The Department for Environment and Water (DEW) is responsible for the management of the State's natural resources, ranging from policy leadership to on-ground delivery in consultation with government, industry and communities.

High-quality science and effective monitoring provides the foundation for the successful management of our environment and natural resources. This is achieved through undertaking appropriate research, investigations, assessments, monitoring and evaluation.

DEW's strong partnerships with educational and research institutions, industries, government agencies, Landscape Boards and the community ensures that there is continual capacity building across the sector, and that the best skills and expertise are used to inform decision making.

Ben Bruce
CHIEF EXECUTIVE
DEPARTMENT FOR ENVIRONMENT AND WATER

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1. Introduction

This report presents the data associated with the groundwater system beneath the Peake, Roby, Sherlock (PRS) Prescribed Wells Area (PWA).

The PRS PWA is located about 120 km southeast of Adelaide and is underlain by sedimentary aquifers of the Murray Basin. The Water Allocation Plan (WAP) for the PRS PWA was first adopted in 2011 (Department for Environment and Water, 2021).

To the north of PRS PWA is the Mallee PWA, while to the south is the Tintinara – Coonalpyn PWA (Figure 1). Groundwater is prescribed under the *Landscapes South Australia Act 2019* and a WAP provides for the sustainable management of the groundwater resources (SAMDB NRM Board, 2012). The PWA includes part of the traditional lands and waters of the Ngarrindjeri Nation and the First Peoples of the River Murray and Mallee First Peoples (SAMDB NRM Board, 2017).

The ten-year review of the WAP was completed in 2021 as required under the *Landscape South Australia Act 2019* (Landscape SA, 2026). The boundaries of the WAP and monitoring well locations are shown in Figure 1.

DEW was approached by the Murraylands and Riverland Landscape Board (MRLB) to conduct a data review within the PRS PWA. This review has been limited in scope to only examine groundwater data related to monitoring wells within the PWA and any additional monitoring wells sufficient to inform the study as necessary. The primary driver of this review is the concerns raised by the community regarding the accuracy of some of the groundwater data in the area. This report comprises a range of information such as rainfall data, yearly extraction, hydrographs, salinity time series plots, historical potentiometric surfaces and a recent salinity surface.

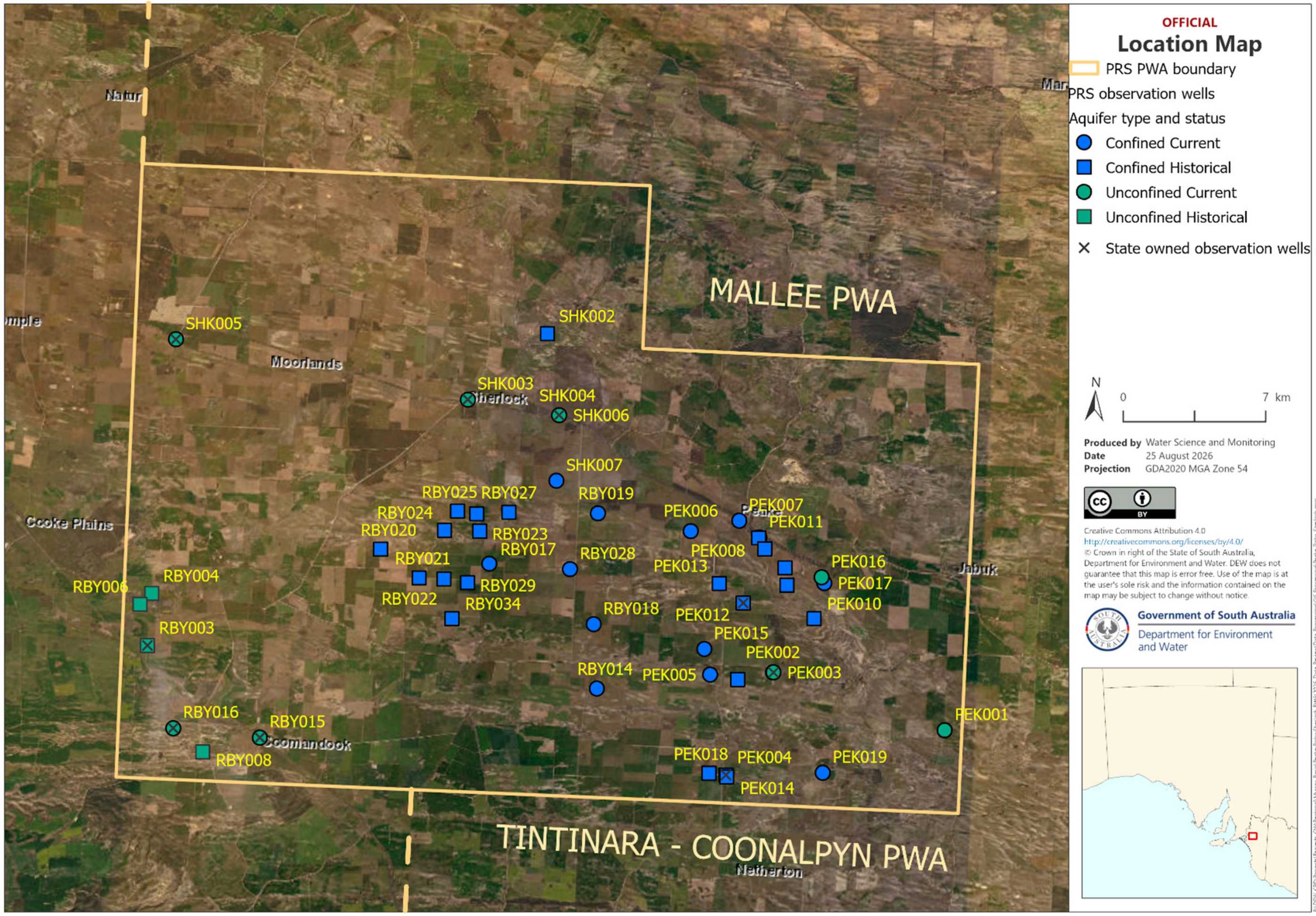

Figure 1: Location of the Peake, Roby and Sherlock Prescribed Wells Area with Monitoring Well locations

2. Regional setting

The PRS PWA is located within the Murray Basin, a large groundwater basin which extends from the Mount Lofty Ranges eastward towards the Great Dividing Range. The basin consists of layers of sand, clay and limestone sediments.

The PWA is underlain by two main aquifer systems from which groundwater is extracted – a shallow unconfined aquifer and the underlying confined aquifers.

Figure 2 shows a schematic cross section of the region (not to scale).

The unconfined and confined aquifers are separated by the Ettrick formation (confining layer) in the east of the area, but the formation is progressively absent towards the west due to the complex erosion and depositional history.

The limestone in the unconfined aquifer extends across the entire PWA and can be sub-divided into two regions: the Mallee Highland in the east; and the Coastal Plain in the west. Beneath the Mallee Highland, the unconfined aquifer is contained within the calcareous sandstone and tertiary limestone (~30 million years old) of the Murray Group Limestone Formation. To the west the flat, low-lying Coastal Plain is underlain by the Coomandook and Bridgewater Formations. These sediments unconformably overlie the Murray Group Limestone to which they are hydraulically connected. The Coomandook and Bridgewater Formations are composed of Quaternary limestone less than ~1 million years old. The unconfined aquifer is recharged by local rainfall and lateral flow of groundwater (Figure 2).

The confined aquifer lies underneath the unconfined aquifer and is comprised of the Buccleuch Group and Renmark Group. This is the primary aquifer for the licensed wells within the PWA. The Buccleuch Group consists of a consolidated bryozoal limestone or 'coral' that lies at a depth of 90-100 m below the ground surface and varies in thickness from 5 to 25 m. This coral layer begins to merge laterally with the Renmark Group in the eastern area of the PWA (

Figure 2). The Renmark Group comprises interbedded sands and clays – there are very few wells that extract water from this aquifer. As the Buccleuch and Renmark Group aquifers are confined, they are not recharged by local rainfall. The primary source of recharge is the lateral inflow of groundwater from aquifers that are recharged in south-western Victoria (Barnett & Yan, 2008).

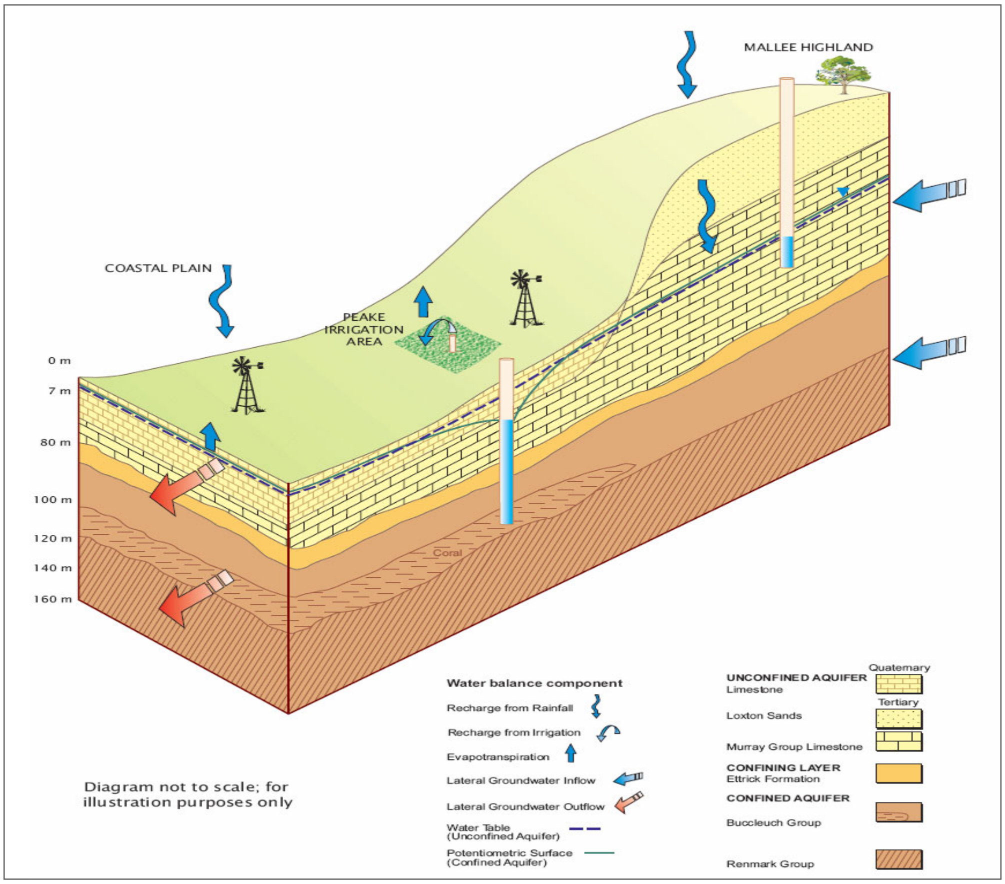

Figure 2: Schematic cross-section of the Peake, Roby and Sherlock PWA (Water Allocation Plan for the Peake, Roby and Sherlock Prescribed Wells Area, 2017)

3. Rainfall

The rainfall data for the region was obtained from the Bureau of Meteorology (BoM).

The BoM website indicates that there are stations within the PRS PWA (Figure 3); however, from the dates indicated below, several of these stations do not currently collect rainfall data and are listed as closed, namely:

- Warrana (Sherlock) (1969-2024), and
- Peake (1908-2023)

The nearest identified open BoM rainfall station is Geranium (1908-2026).

The Warrana (Sherlock) station has now become part of the Landscape SA's Automatic Weather Station (AWS) Network and is currently collecting rainfall data (2023-2026).

The Landscape SA's AWS Network also maintains a station at Roby which has collected rainfall data since 2022 (2022-2026). BoM rainfall data for all three stations is shown in Figure 4.

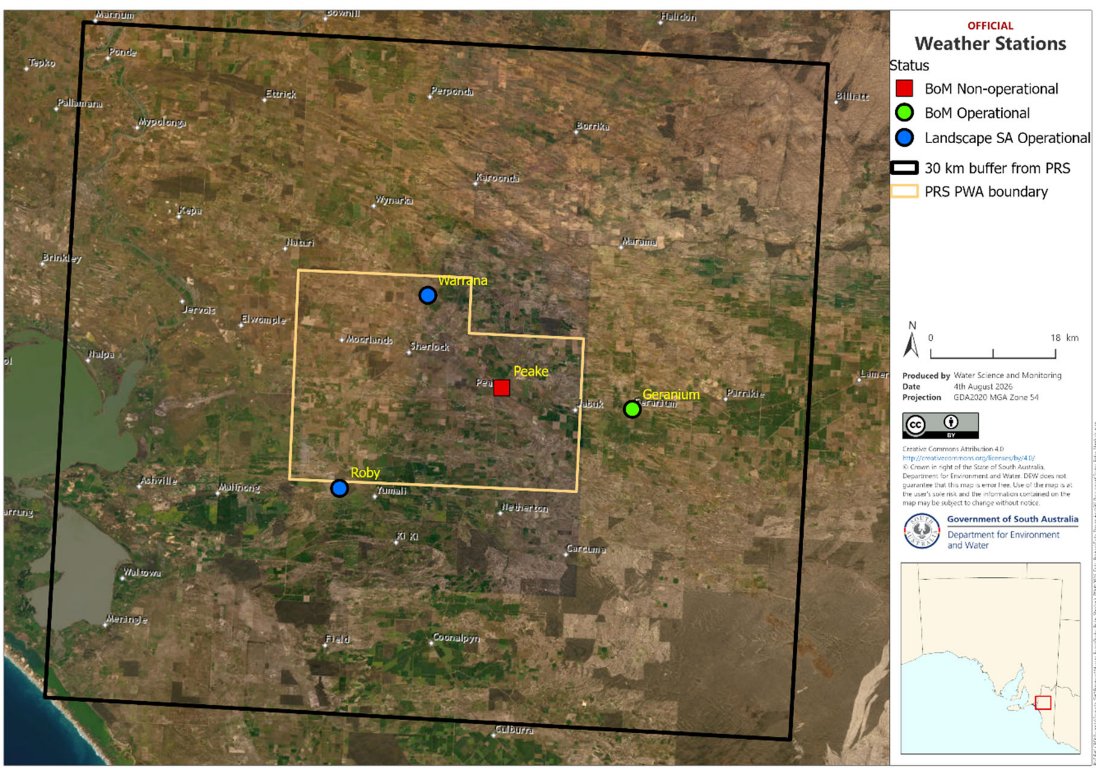

Figure 3: Weather stations

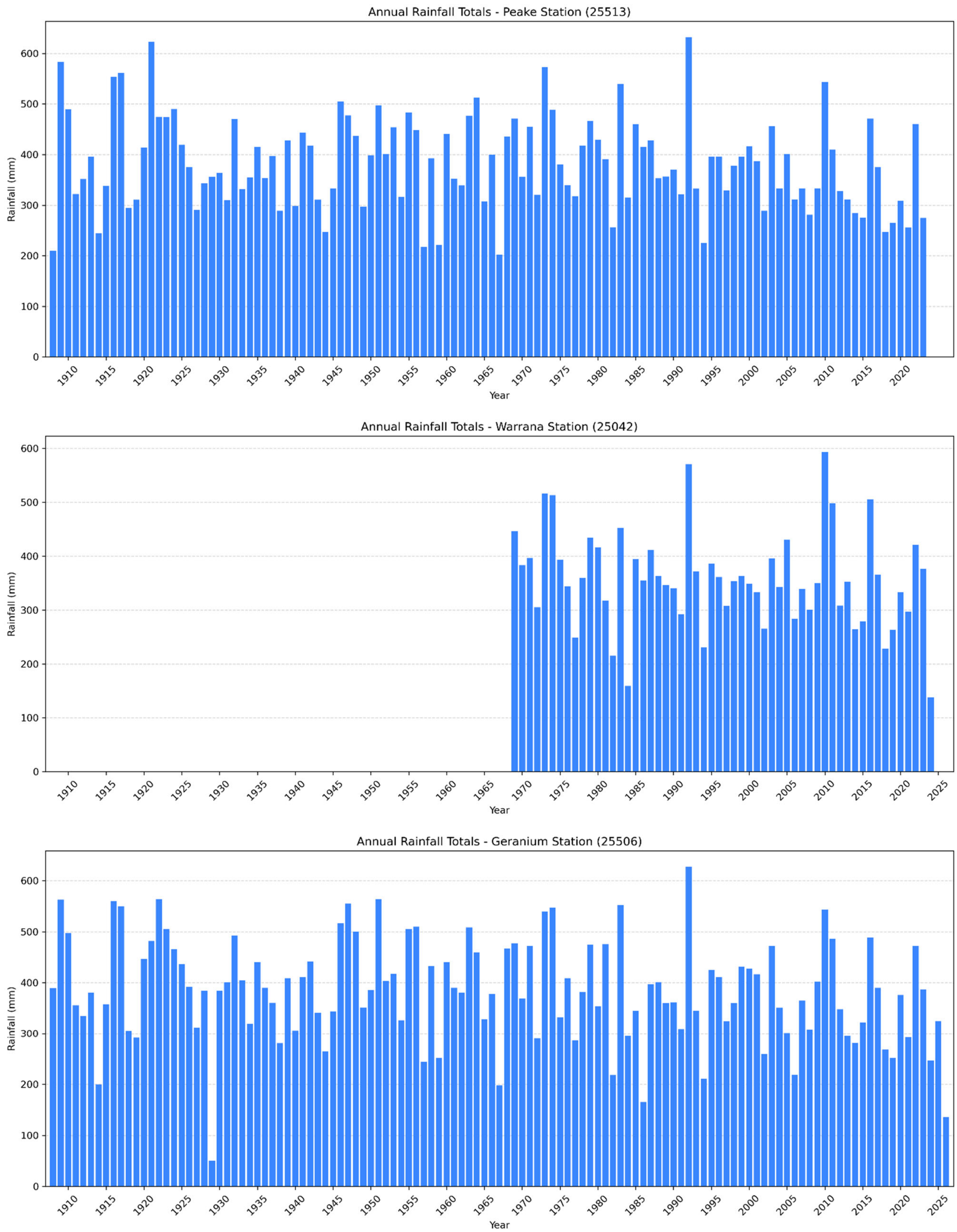

Figure 4: Historic rainfall records for Peake (#25513), Warrana (#25042) and Geranium (#25506) BoM rainfall stations

4. Groundwater Extraction

Groundwater extraction data were obtained from DEW Licensing and compared against data extracted from previously published Water Resource Assessments (WRA) (Department for Environment and Water, 2026)

Data provided by DEW licensing extends back to 2011 and the prescription of the PRS PWA.

DEW WRA reports were collated from individual irrigator extraction data prior to prescription and reported on an annual basis from the 2003/04 water-use year. Minor discrepancies between the data supplied by DEW Licensing and totals obtained from DEW WRA reports are identified for the 2015-16 and 2019-20 water-use years. The remaining extraction volumes match.

Groundwater extraction volumes from DEW licensing were examined for accuracy. Only one data entry error was identified. This was located in the 2025 dataset. This was easily corrected, and the remaining data are considered reliable within the bounds of meter reading error.

There are currently 5 groundwater extraction licences within the PRS PWA with groundwater extracted from 15 locations. Only one of these is located within the unconfined aquifer.

Groundwater extraction amounts from each of the aquifers are shown in Figure 5 and Figure 6. Note the scale is significantly different between these two figures.

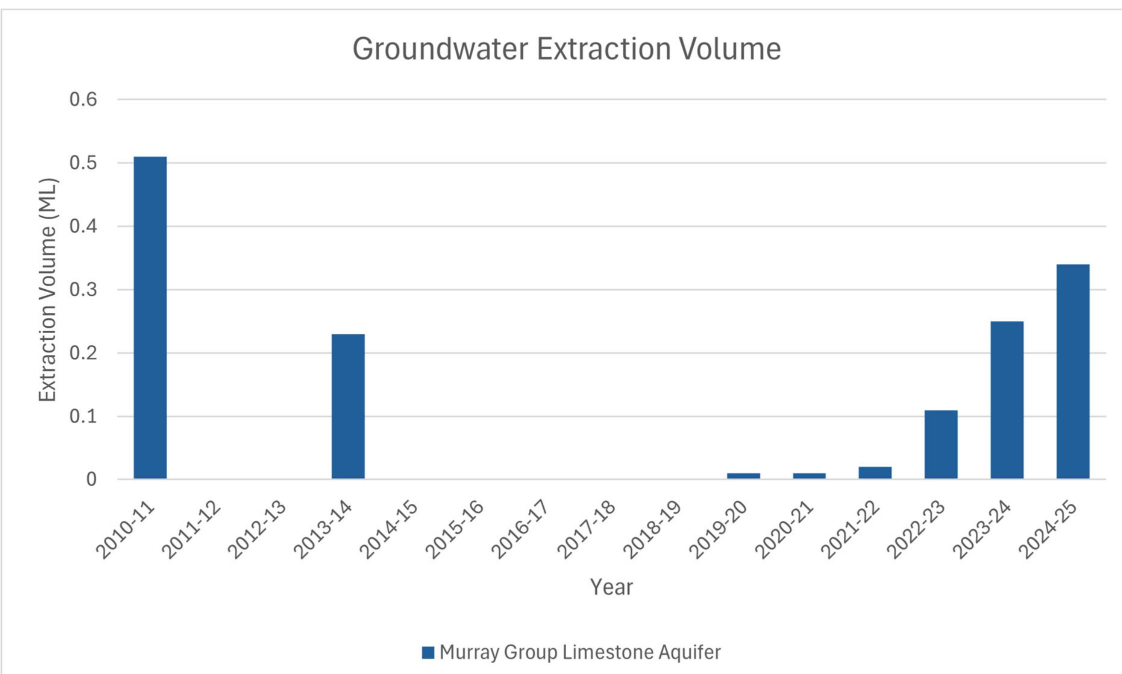

Figure 5: Groundwater extraction from the unconfined aquifer

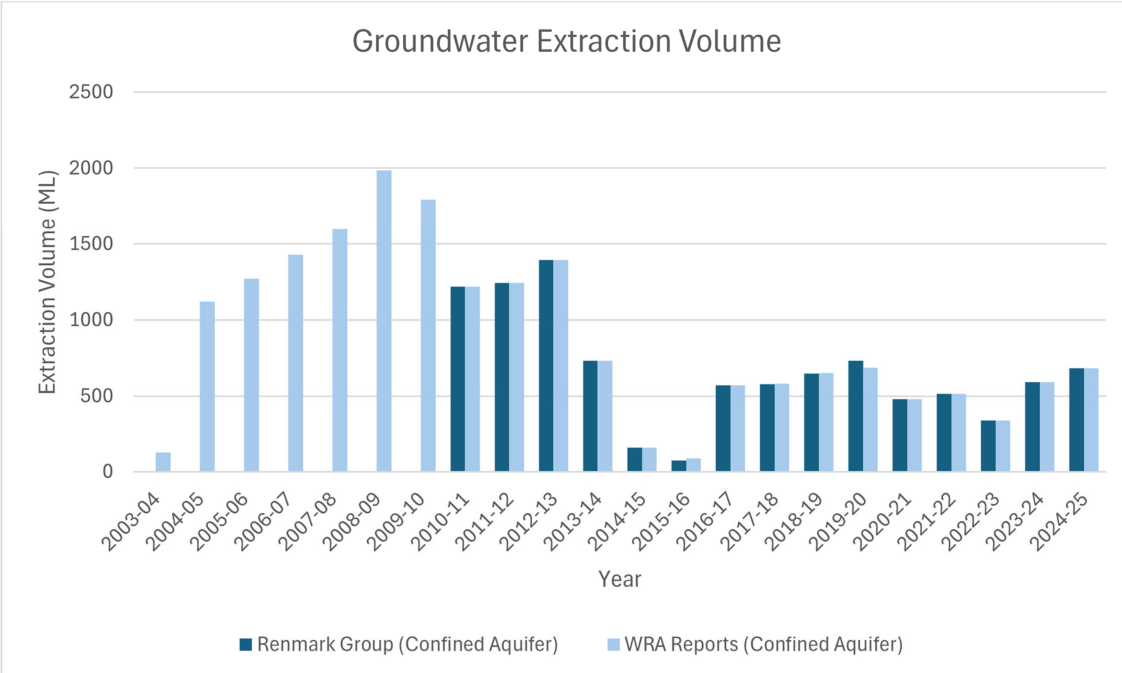

Figure 6: Groundwater Extraction from the confined aquifer

5. Monitoring Wells

5.1. Monitoring Well Status

DEW Monitoring wells have historically been derived from a mix of DEW constructed dedicated monitoring wells and privately owned wells (Figure 1). Privately owned wells may or may not be equipped with a pump or windmill which can affect the groundwater level readings.

There are 50 monitoring wells. Of these, 12 are completed in the unconfined aquifer and 38 are completed in the confined aquifer. There are 8 current monitoring wells in the unconfined aquifer and 16 current monitoring wells in the confined aquifer.

5.2. Elevation

For this exercise only the Monitoring Wells from the Peake Roby Sherlock Monitoring Well Network and other monitoring wells within a 30-kilometre buffer from the Peake Roby Sherlock PWA boundary were considered. For each well, the reference elevation was checked from the database. The confidence in the technique used to determine the ground elevation was assigned against each entry. Monitoring wells with low confidence survey techniques were filtered out from the dataset. This resulted in a dataset where each of the remaining monitoring wells in the PRS Monitoring Well Network had been surveyed. There is a high confidence in the elevation data associated with these wells. The wells with high confidence elevation data were used to generate potentiometric surfaces.

5.3. Aquifer Completion

The lithological data for all the monitoring wells, within a 30-kilometre buffer of the PRS boundary, were downloaded from WaterConnect (www.waterconnect.sa.gov.au). Of the 85 monitoring wells that fall within the area of interest, 27 had drillers logs, 36 had hydrostratigraphic logs and 2 had lithology logs.

For the 36 wells that have hydrostratigraphic logs, there are no corresponding lithology logs that can verify the reliability of the inferred hydrostratigraphic logs. However, it is acknowledged that this study does not use adjacent data such as engineering wells to identify different strata.

There are 19 wells which have both hydrostratigraphic logs and driller's logs. However, it is noted that driller's logs do not have sufficient description to scientifically categorise stratigraphic layers on the basis of grain size, lithology and aquifer connectivity. For a robust hydrostratigraphic interpretation, a set of detailed lithological logs must support the depth assumptions. In the absence of detailed lithological data, well completions were verified by comparing the corresponding driller's log against the standard subsurface section from Coonalpyn township bore TWS RB4600057 (Ludbrook, 1958) and assigning a completion based on the depth of the well and the sediment type described by the driller. In the majority of cases the Buccleuch Formation has been identified by the drillers as "coral" and (where it occurred) this marker bed was used to determine the completion of the well above, below or within the Buccleuch Formation.

6. Hydrographs

Only monitoring wells within the PRS PWA were considered. Groundwater levels were downloaded from www.waterconnect.sa.gov.au on the 5th of May 2026.

All hydrographs are presented at the same y-axis scale to allow a comparison across the region.

6.1. Unconfined Aquifer

The unconfined aquifer within PRS PWA comprises Quaternary Bridgewater Formation (Qpcb), Quaternary Pleistocene marine sediments (Qpm) and Murray Group Limestone (MGL). For ease of data presentation, Qpcb and Qpm have been grouped under Quaternary, while the acronym 'MGL' has been used in the title to denote the Murray Group Limestone aquifer.

The Quaternary aquifers display stable and consistent groundwater levels (Figure 7). The MGL aquifer displays stable to increasing trends in groundwater level. Four representative hydrographs across both Quaternary and MGL units of the unconfined aquifer have been presented in Figure 7; the remaining hydrographs are provided in Appendix A1.

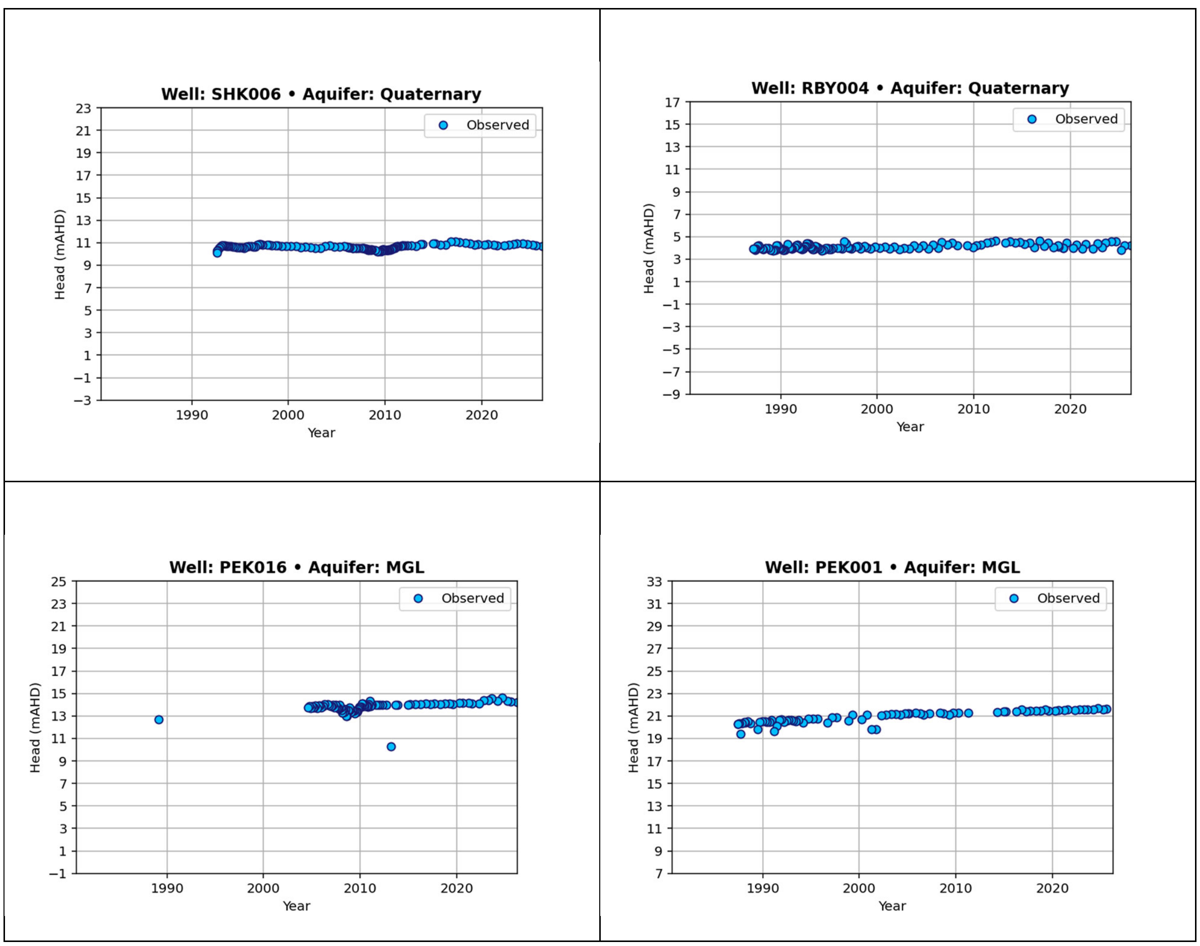

Figure 7: Unconfined aquifer hydrographs

6.2. Confined Aquifer

The confined aquifer within PRS PWA is the primary source of groundwater in the region and is comprised of the Buccleuch Formation and the Renmark Group. The groundwater level patterns for the aquifers can be seen in the hydrographs presented in Figure 8.

Where it has been monitored, the Buccleuch Formation shows a steady groundwater level trend till the mid-2000s, then it gradually drops to the lowest point around 2010. In some of the wells located in areas of significant extraction, the groundwater level decreases by ~24 metres during pumping, recovering to a decrease of ~5m when groundwater is not being pumped (Figure 8). After 2010, groundwater levels start recovering but at notably lower levels than pre-development. The remaining hydrographs for the confined aquifers are presented in Appendix A2.

Although the number of wells completed in the Renmark Group is less compared to those completed in the Buccleuch Formation, (and the record is often discontinuous) Renmark Group monitoring wells present a very similar trend. PEK002 (completed in the Buccleuch Formation) and PEK019 (completed in the Renmark Group) display a similarly timed response in groundwater level despite being completed in different formations and being greater than ~5km apart. The similarity in groundwater level trends between the two formations suggest that these formations are hydraulically connected; however, because there are few wells completed in the Remark Group aquifer (Figure 9), it is difficult to develop a definitive correlation to establish hydraulic connectivity and the change in groundwater level may be due to localised pumping activity.

Figure 9 shows that monitoring wells within the confined aquifer are not uniformly distributed across the PWA. Monitoring wells are clustered within the central area of the PWA and other than 2-3 wells in the southeast corner there are no wells in the peripheral areas of the PWA. The absence of monitoring wells in the peripheral areas of the PWA impacts our ability to interpolate data through these regions.

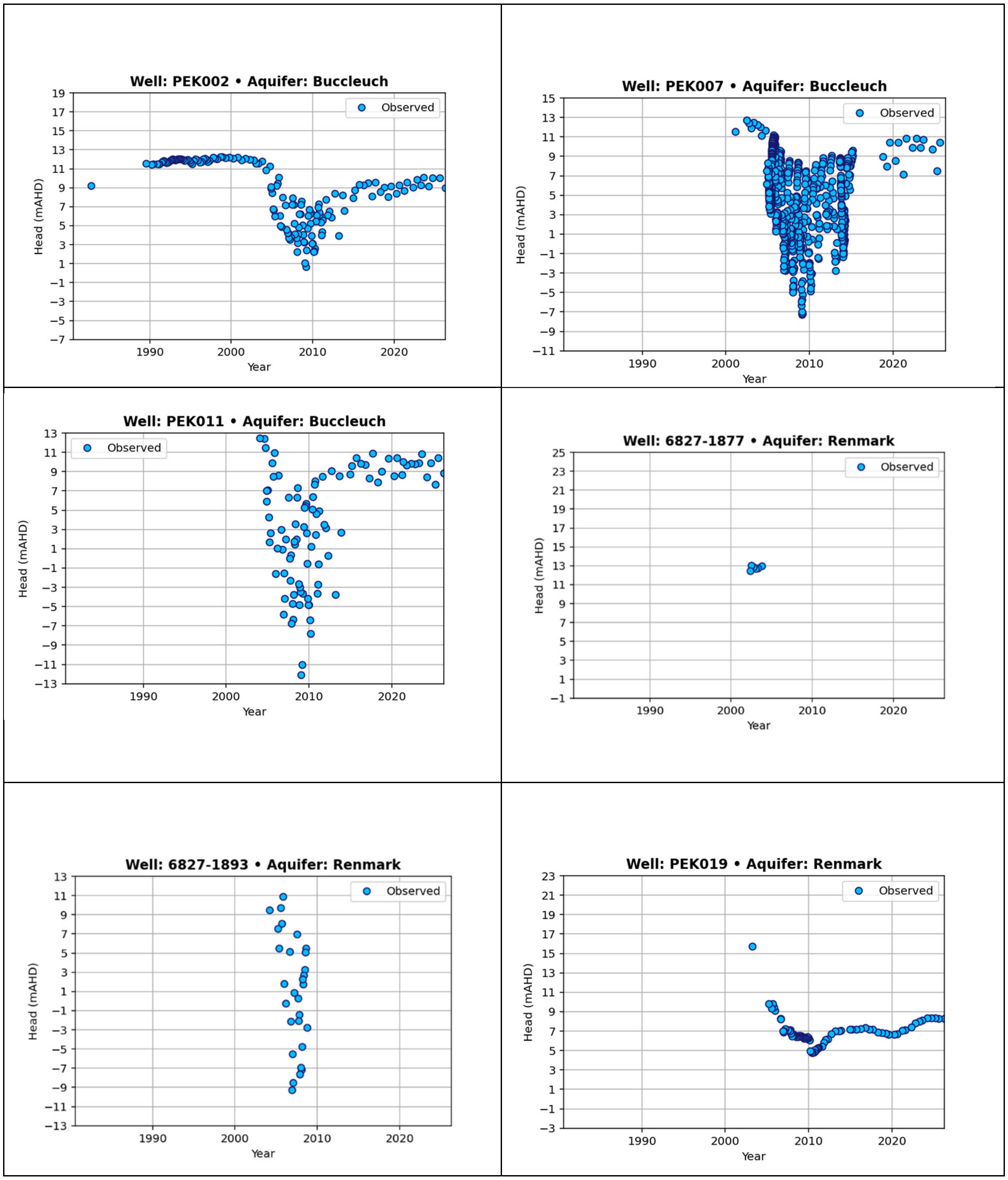

Figure 8: Confined aquifer hydrographs

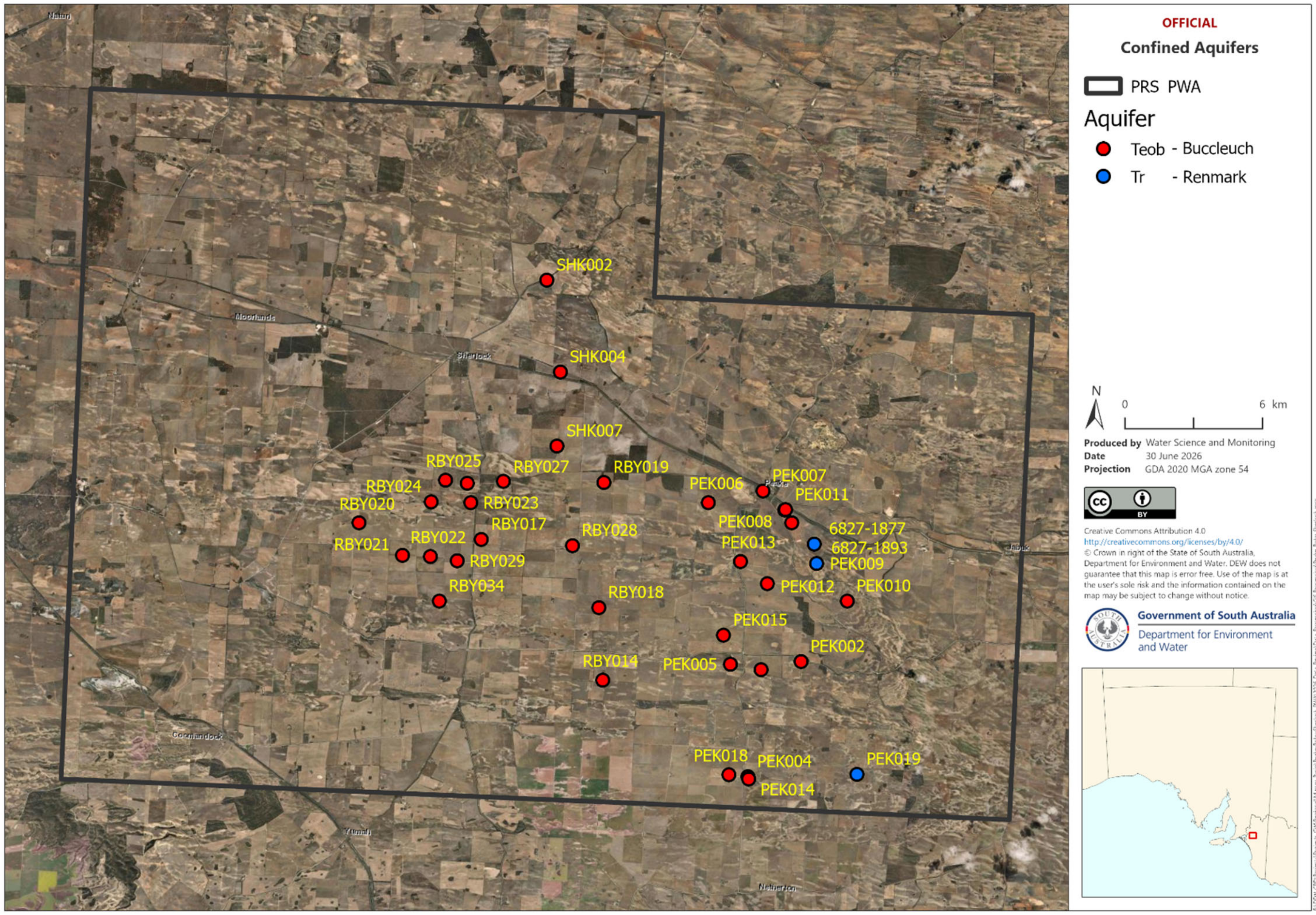

Figure 9: Location of wells within the Buccleuch Formation and the Renmark Group aquifers

7. Salinity Time Series

Representative salinity time series plots for both the unconfined aquifer and the confined aquifer are shown in Figure 10 and Figure 11, respectively. Salinity timeseries plots for remaining salinity monitoring wells are presented in Appendix B.

7.1. Unconfined Aquifer

Indicative salinity time series data for the unconfined aquifer (Figure 10) shows inconsistent records over time. Often the overall record is restricted to a few data points. Effectively, the unconfined aquifer is not monitored for salinity.

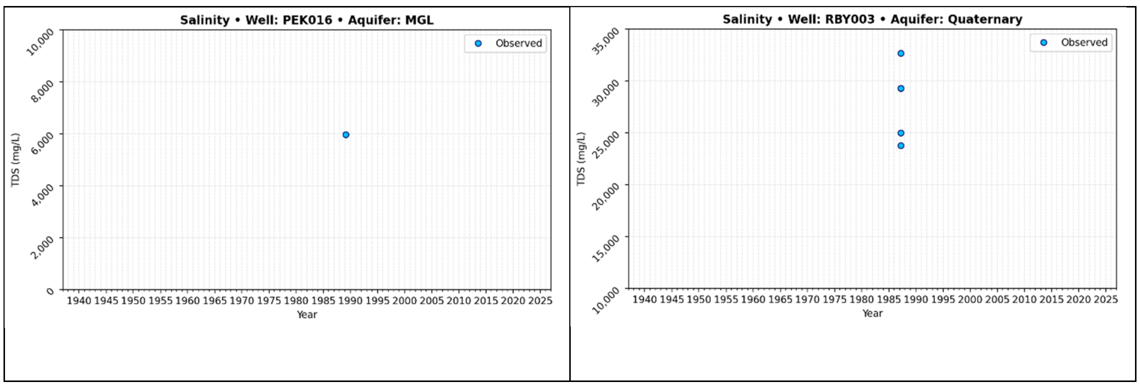

Figure 10: Unconfined aquifer salinity time series

7.2. Confined Aquifer

The salinity time series data for the confined aquifer (Figure 11) displays a more consistent record when compared to the unconfined aquifer. Regular salinity measurements have been taken since around 2010–2011, when the WAP was established. Salinity levels within the PRS PWA are stable.

PEK006 displays a significant jump in the salinity measurement. There are two readings of >8,000 mg/L, significantly higher than the background salinity measurement of ~1800 mg/L. These two significant outliers are likely erroneous. Similar outliers occur in RBY023 and RBY027 (Appendix B)

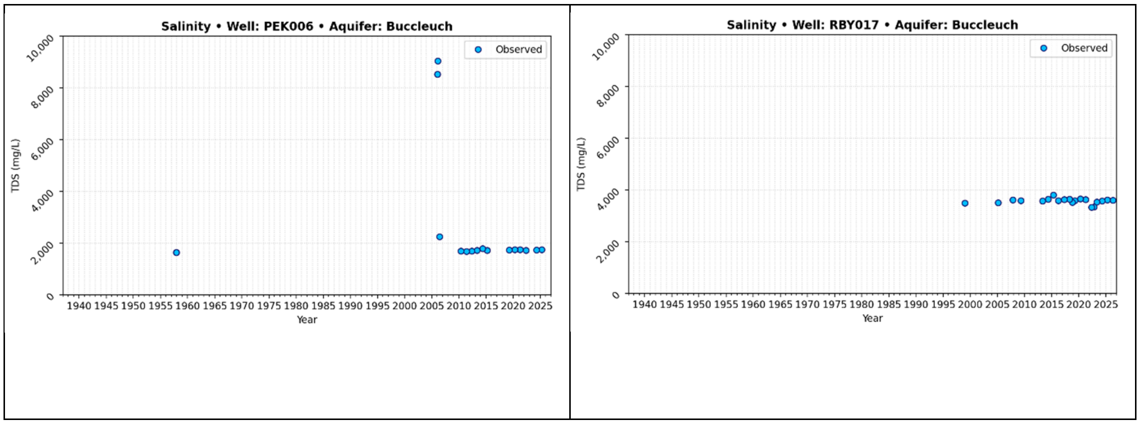

Figure 11 : Confined aquifer salinity time series

8. Potentiometric Surfaces

The previous sections on monitoring well elevation, well completion and groundwater level measurements were aimed at identifying a dataset of good quality data from which potentiometric surfaces could be generated. The potentiometric surface is used to infer the direction of groundwater flow based on the gradient of the groundwater surface. It is important to note that groundwater surfaces are dynamic entities that change over time, and each potentiometric surface represents a snapshot of the time period sampled.

Potentiometric surfaces are generated by interpolating data from point values. Without evenly distributed data points, the contouring algorithm will be biased towards the data it does have. If the data point (groundwater level data) distribution is not evenly dispersed, the accuracy of the generated surface beyond the zone of good quality data is questionable. Significant effort went into identifying control points for the potentiometric surfaces outside the PRS PWA; however, the lack of information in these areas presents a challenge for producing reliable potentiometric surfaces outside of the PRS PWA. Monitoring wells, with labelled well name and groundwater levels, have been included on the maps to indicate where groundwater levels are available. Where there are no data the distribution of the potentiometric surfaces and the interpretation of flow direction in these areas should be viewed with healthy scepticism.

Potentiometric surfaces were developed for 2000, representing pre-development conditions, 2010, representing the time of greatest groundwater extraction within the confined aquifer (i.e., the summer extraction period of 2010) and 2025 representing current conditions during the most recently recorded irrigation season. These time periods were chosen so that a comparison could be made between them to assess the effectiveness of PRS PWA WAP policy decisions over the lifetime of the WAP. Summer and winter potentiometric surfaces are provided to determine the level of groundwater level recovery (winter) following the irrigation season (summer).

Summer and winter potentiometric surfaces were based on groundwater level observations collected within a three-month window centred on February and August, respectively (±1 month). Where data density was inadequate for contouring, the observation period was extended to incorporate additional data from adjacent months, up to a maximum six-month window ((±3 months). Insufficient data were available to generate a potentiometric surface for the confined aquifer in 2000.

8.1. Unconfined Aquifer

Figure 12 to Figure 17 present the summer and winter potentiometric surfaces for the years 2000, 2010 and 2025. The potentiometric surfaces, show an east to west groundwater flow direction.

There are considerable differences in the distribution of groundwater contours between the potentiometric surfaces as a result of the different data points available at each of the specified years. The difference in data availability significantly changes the shape and distribution of the potentiometric contours. The hydrographs for wells completed in the unconfined aquifer show that the groundwater levels are stable and the changes in the contours of the potentiometric surface are due to data availability and not pumping.

The summer 2000 surface (Figure 12) shows that the groundwater levels are stable and range between 1.7 to 12 mAHD across the PRS PWA. Winter groundwater levels range from 1.6 to 14 mAHD (Figure 13).

In summer 2010, the groundwater levels vary from between 4 to 14 mAHD within the PRS PWA (Figure 14). The winter groundwater levels vary between 1.55 to 14.08 mAHD within the PRS PWA (Figure 15).

The summer 2025 values are significantly different from summer 2000 and 2010. The groundwater levels vary between 1.65 to 21.68 mAHD within the PRS PWA (Figure 16). The inclusion of data from PEK001 significantly increases the observed groundwater level in its vicinity. Similar to the previous two winter examples, the recovered groundwater levels of winter 2025 show stable values (Figure 17).

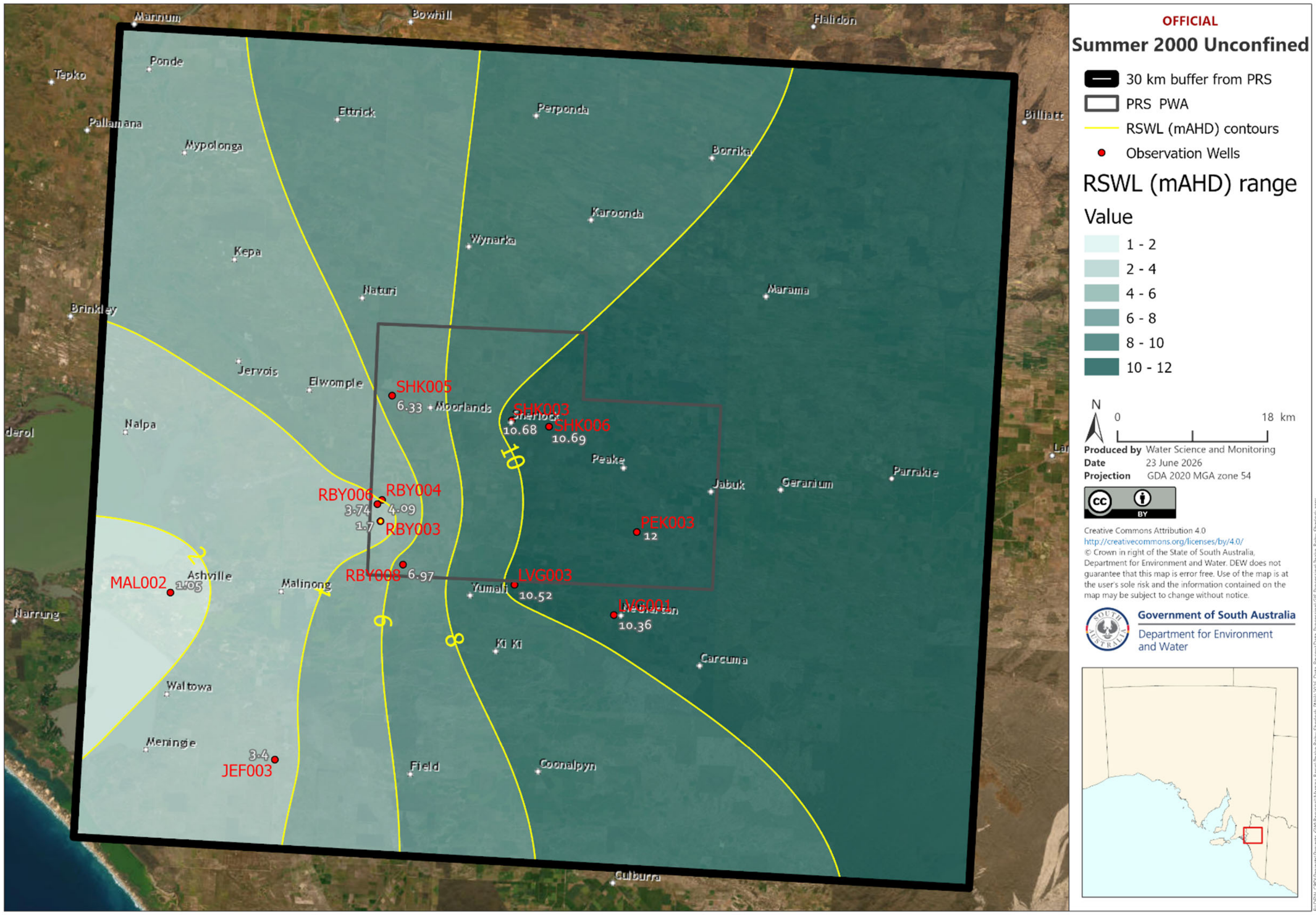

Figure 12 : Potentiometric surface of unconfined aquifer in Summer 2000

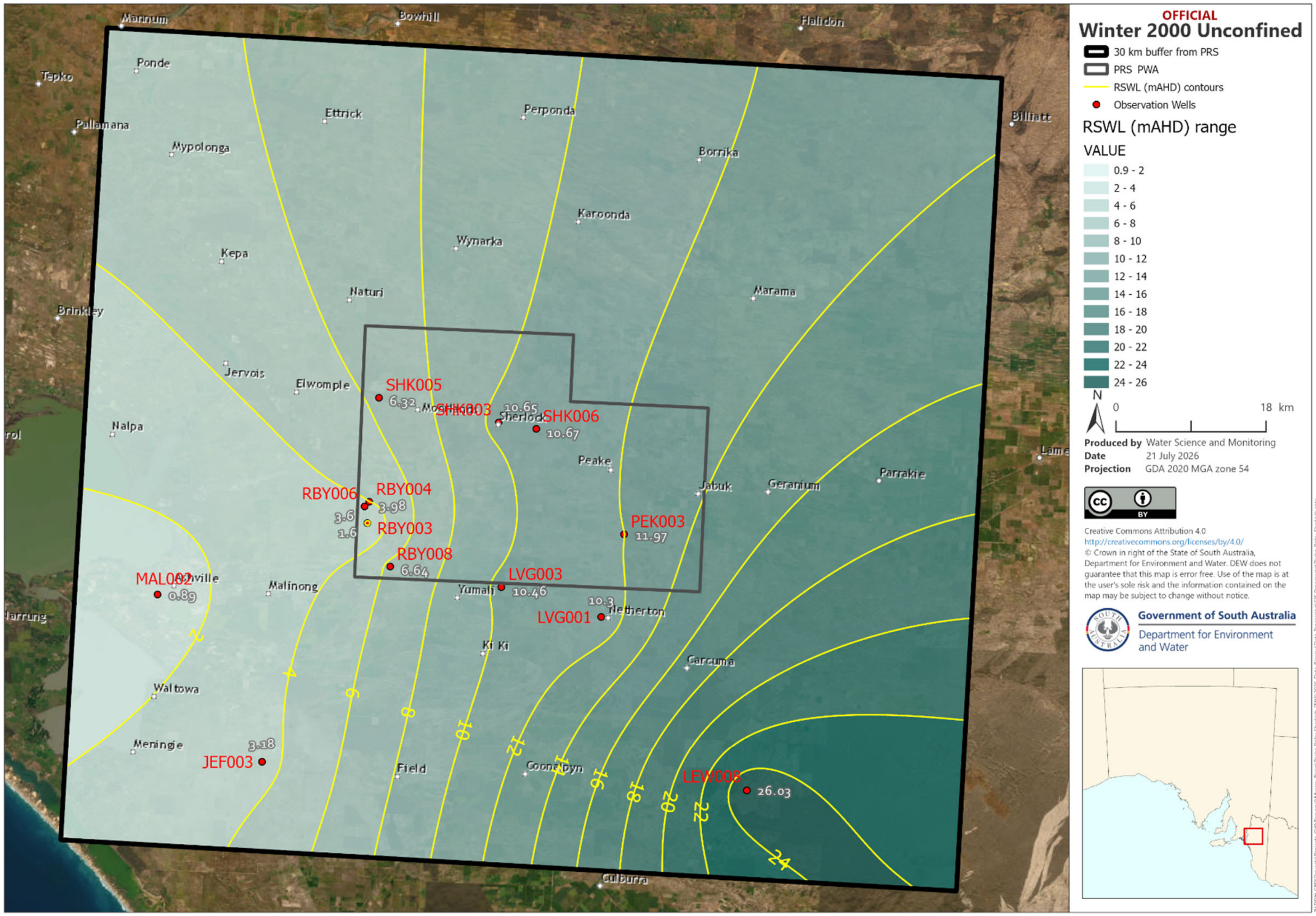

Figure 13: Potentiometric surface of unconfined aquifer in Winter 2000

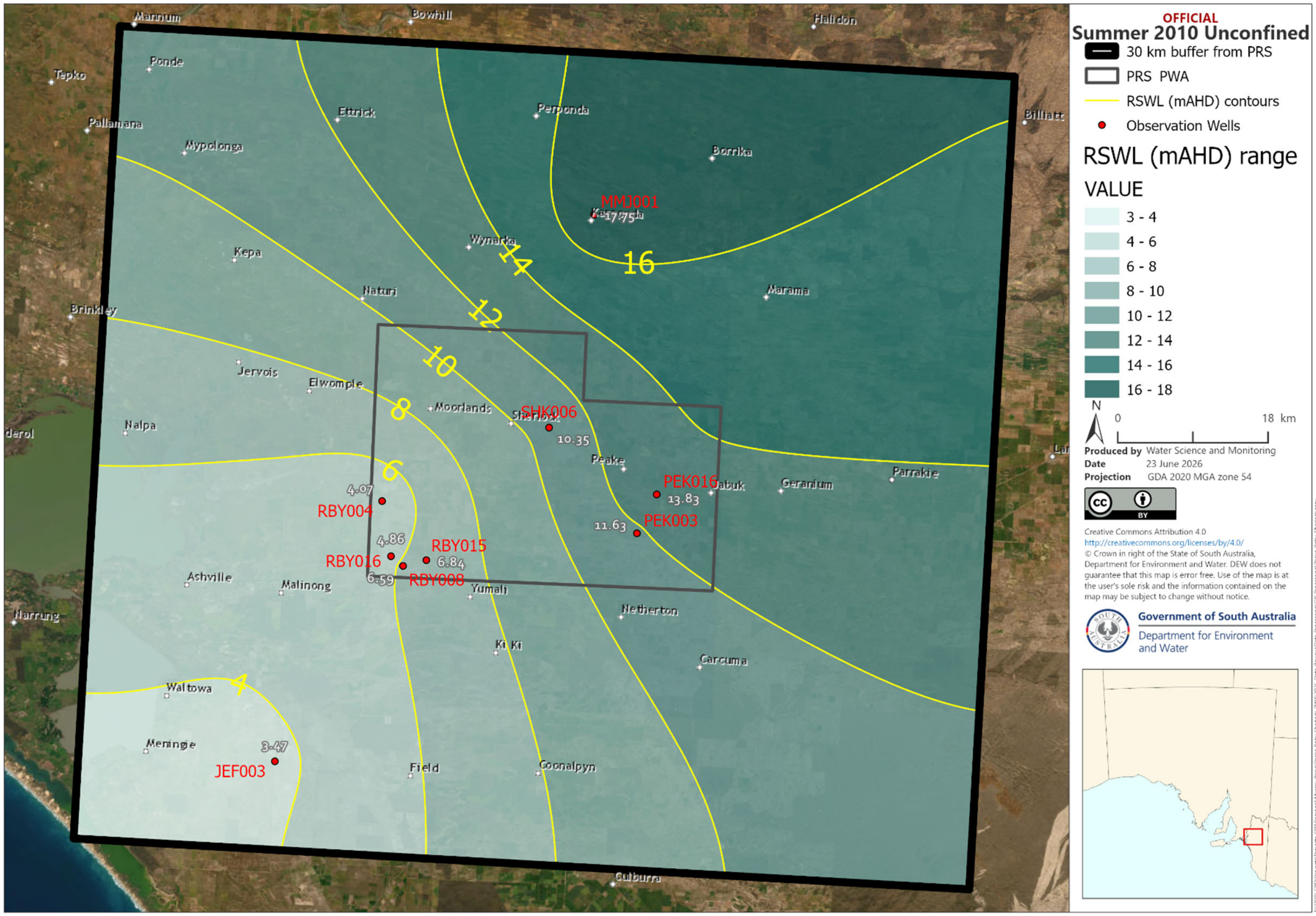

Figure 14: Potentiometric surface of unconfined aquifer in Summer 2010

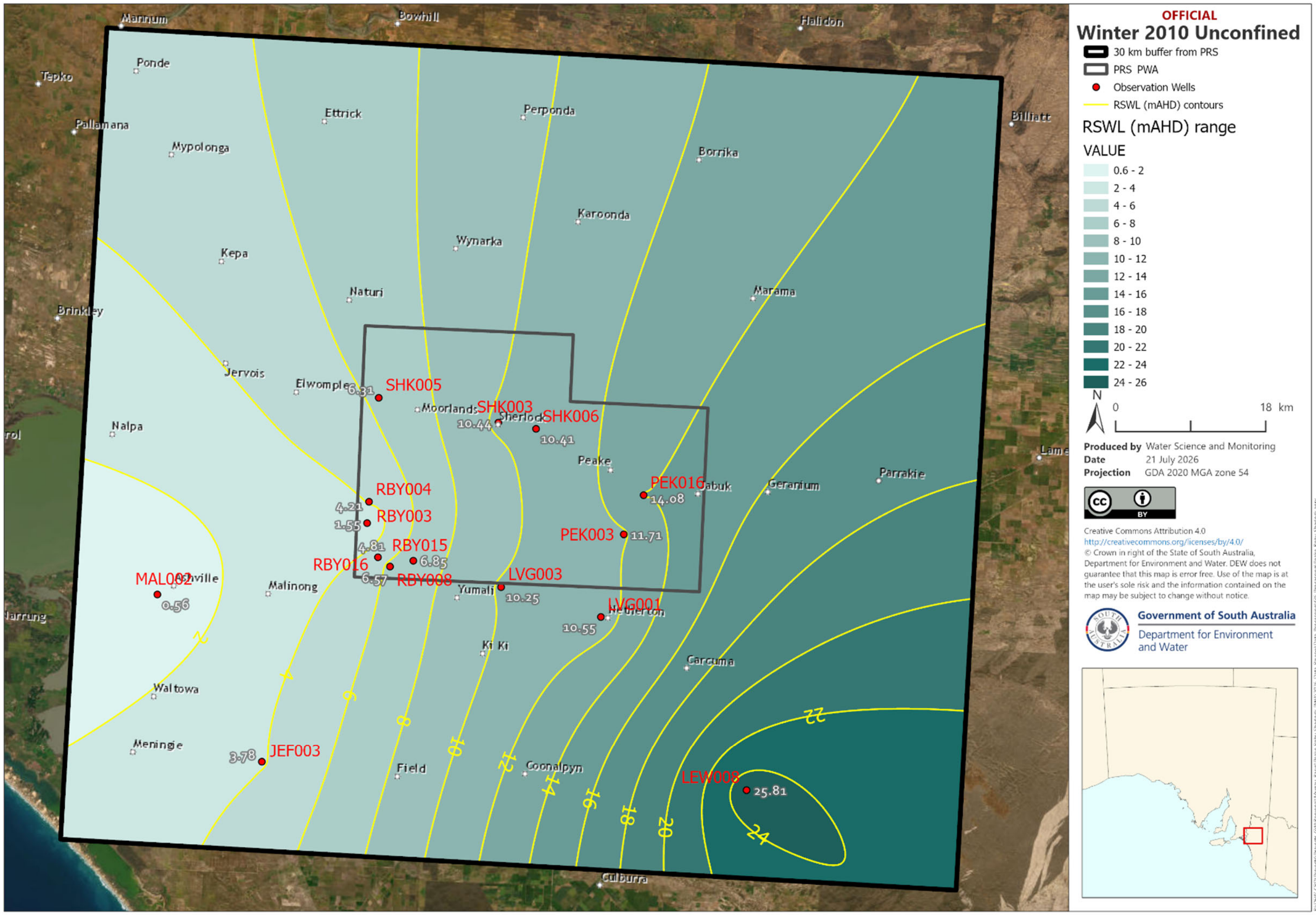

Figure 15: Potentiometric surface of unconfined aquifer in Winter 2010

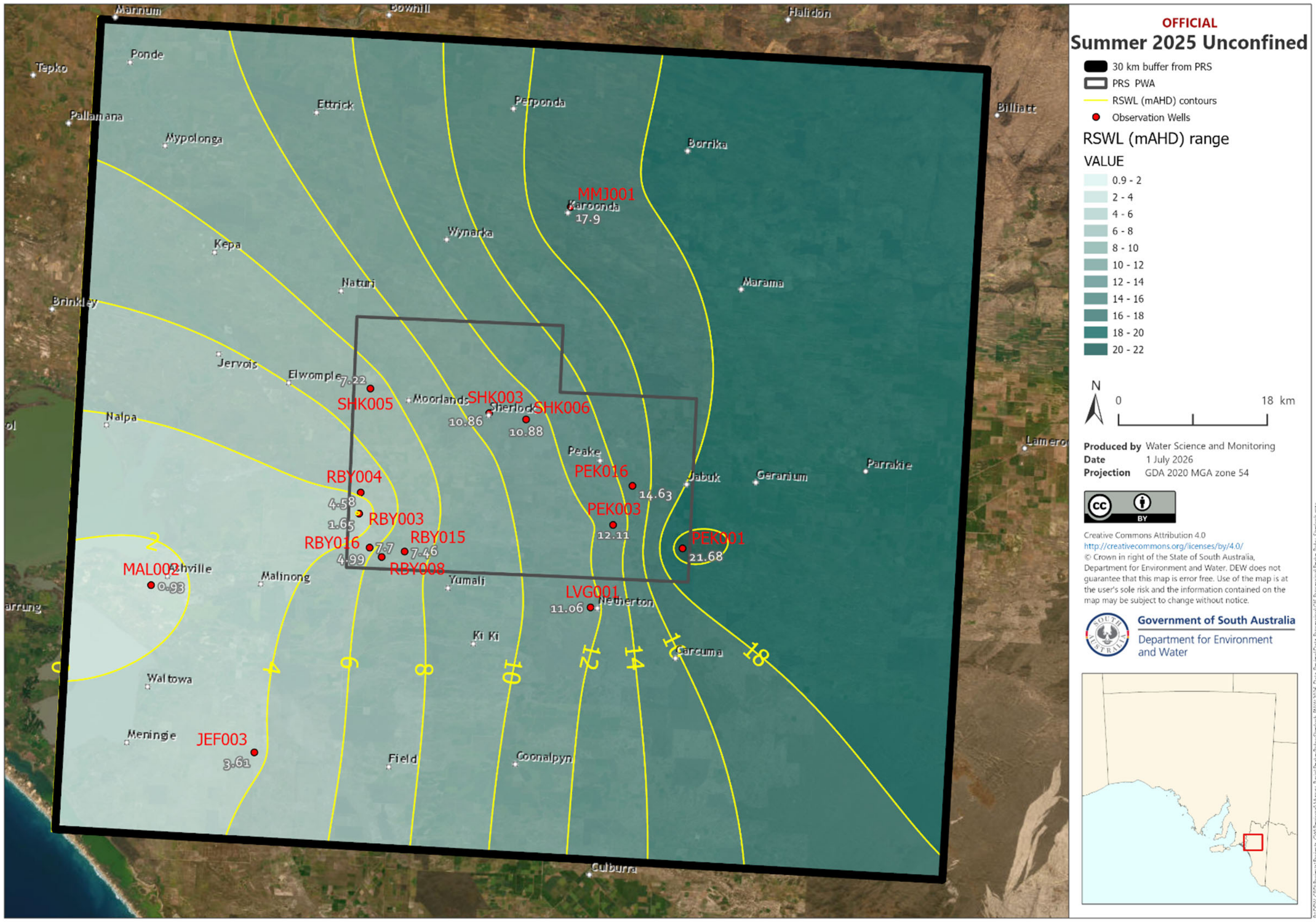

Figure 16 : Potentiometric surface of unconfined aquifer in Summer 2025

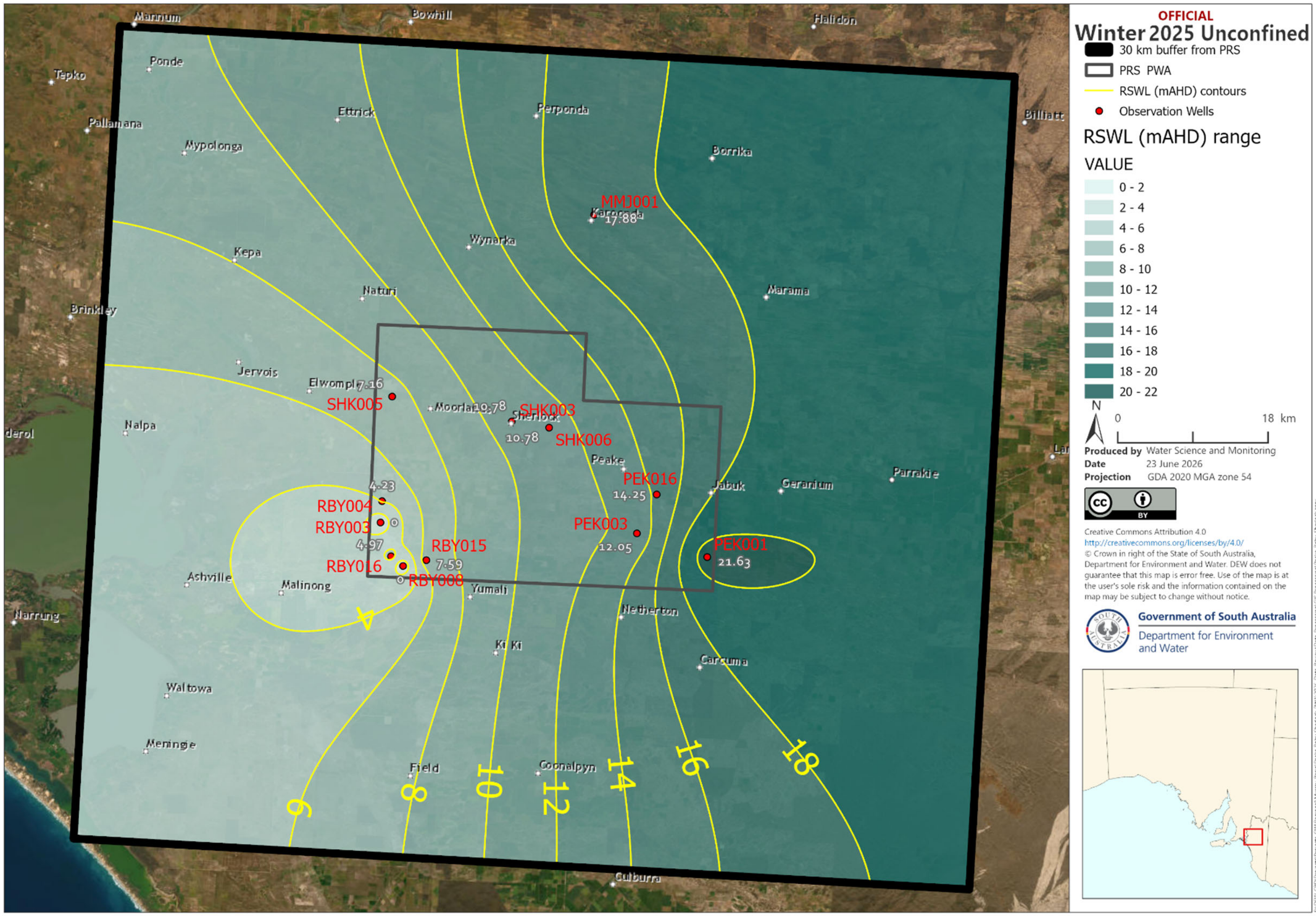

Figure 17: Potentiometric surface of unconfined aquifer in Winter 2025

8.2. Confined Aquifer

As mentioned earlier, there are insufficient data to produce potentiometric surfaces for the confined aquifer in 2000. The summer and winter potentiometric surfaces for the years 2010 and 2025 are presented in Figure 18 to Figure 21. The potentiometric surfaces show an approximately north to south flow of groundwater, except winter 2010 which shows a gentle slope towards the east. However, the winter 2010 potentiometric surface is unconstrained outside of a small area in the centre of the PRS PWA and this surface should be used with extreme caution outside of that zone.

Summer 2010 confined aquifer groundwater level values within the PRS PWA range between – 6 to 10 mAHD (Figure 18). The contours delineate a cone of depression in the eastern part of the PWA consistent with significant extraction of groundwater. In and around the cone of depression, the groundwater levels and patterns are consistent with the hydrographs for the confined aquifers shown in Figure 8.

The winter 2010 potentiometric surface shows a positive recovery of the system with a much tighter range. Groundwater level values range between 5 to 8 mAHD (Figure 19), again consistent with the hydrographs for the confined aquifer (Figure 8).

Summer 2025 groundwater levels range between approximately 7 to 12 mAHD within the PRS PWA (Figure 20). Winter values are very similar and range between approximately 8 to 11 mAHD (Figure 21). The convoluted contour pattern in summer 2025 is due to occasional low values, attributed to localised pumping effects. Overall, there isn't a significant change between the groundwater levels in winter 2025 compared to the groundwater levels in summer 2025.

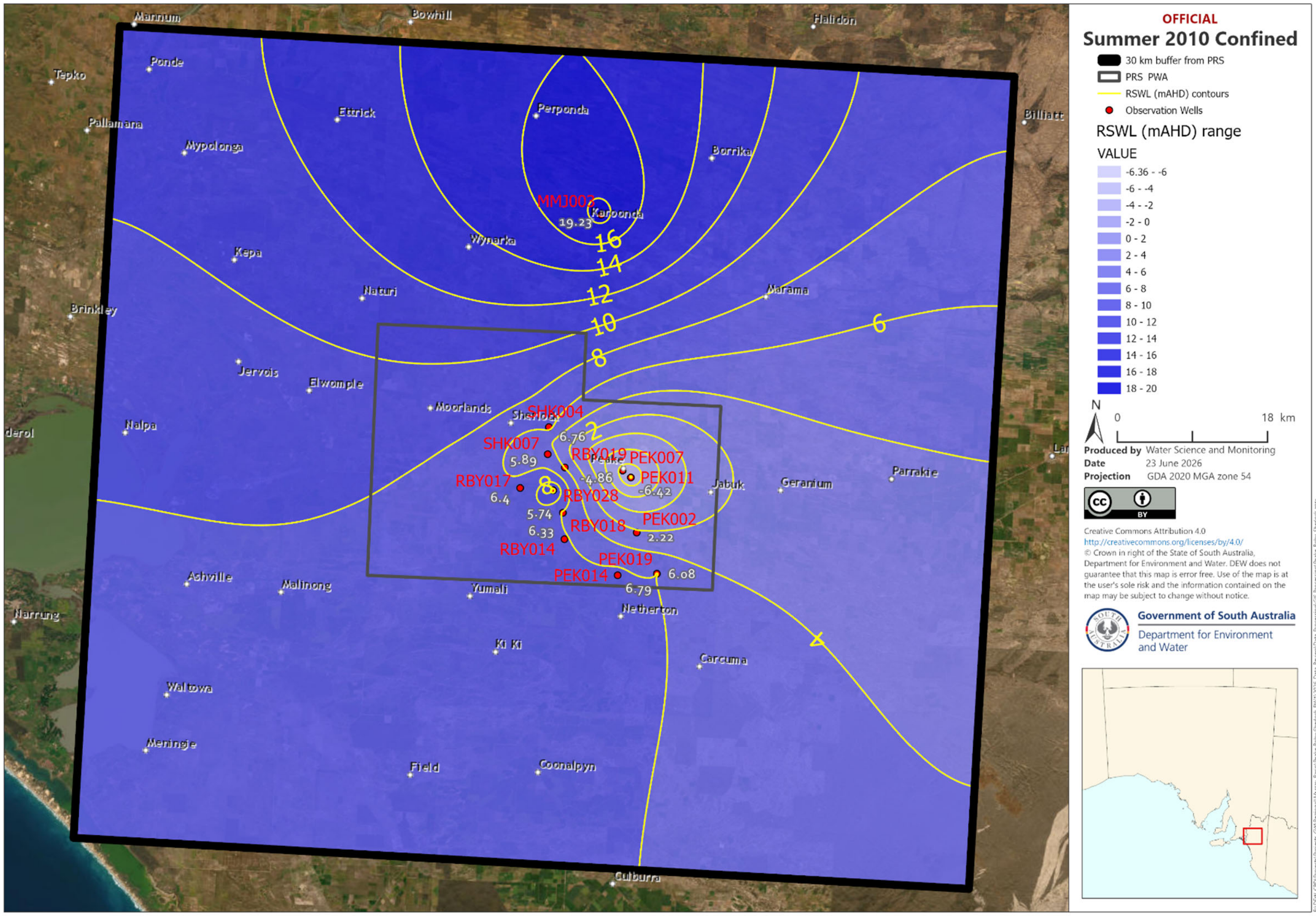

Figure 18: Potentiometric surface of confined aquifer in Summer 2010

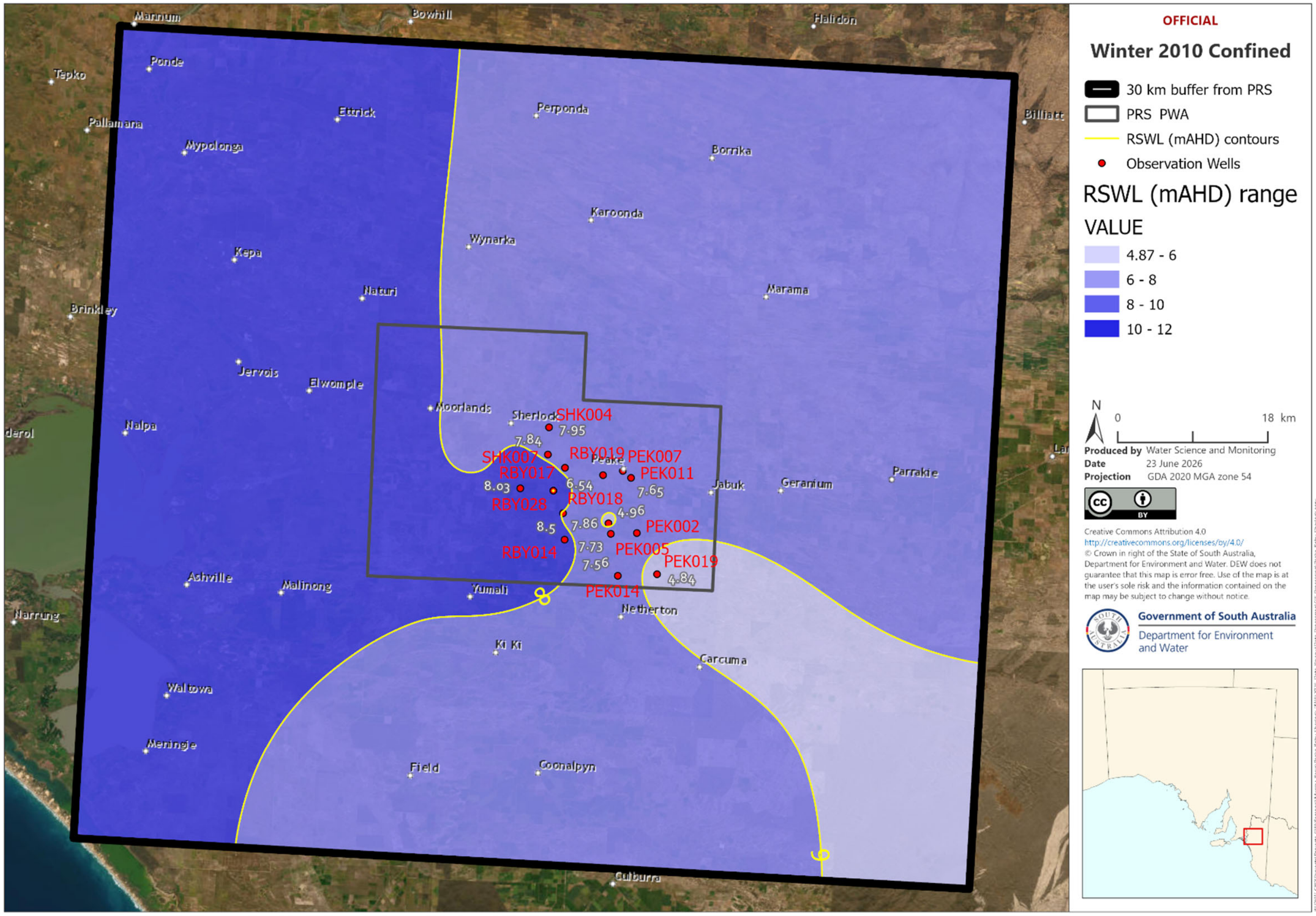

Figure 19: Potentiometric surface of confined aquifer in Winter 2010

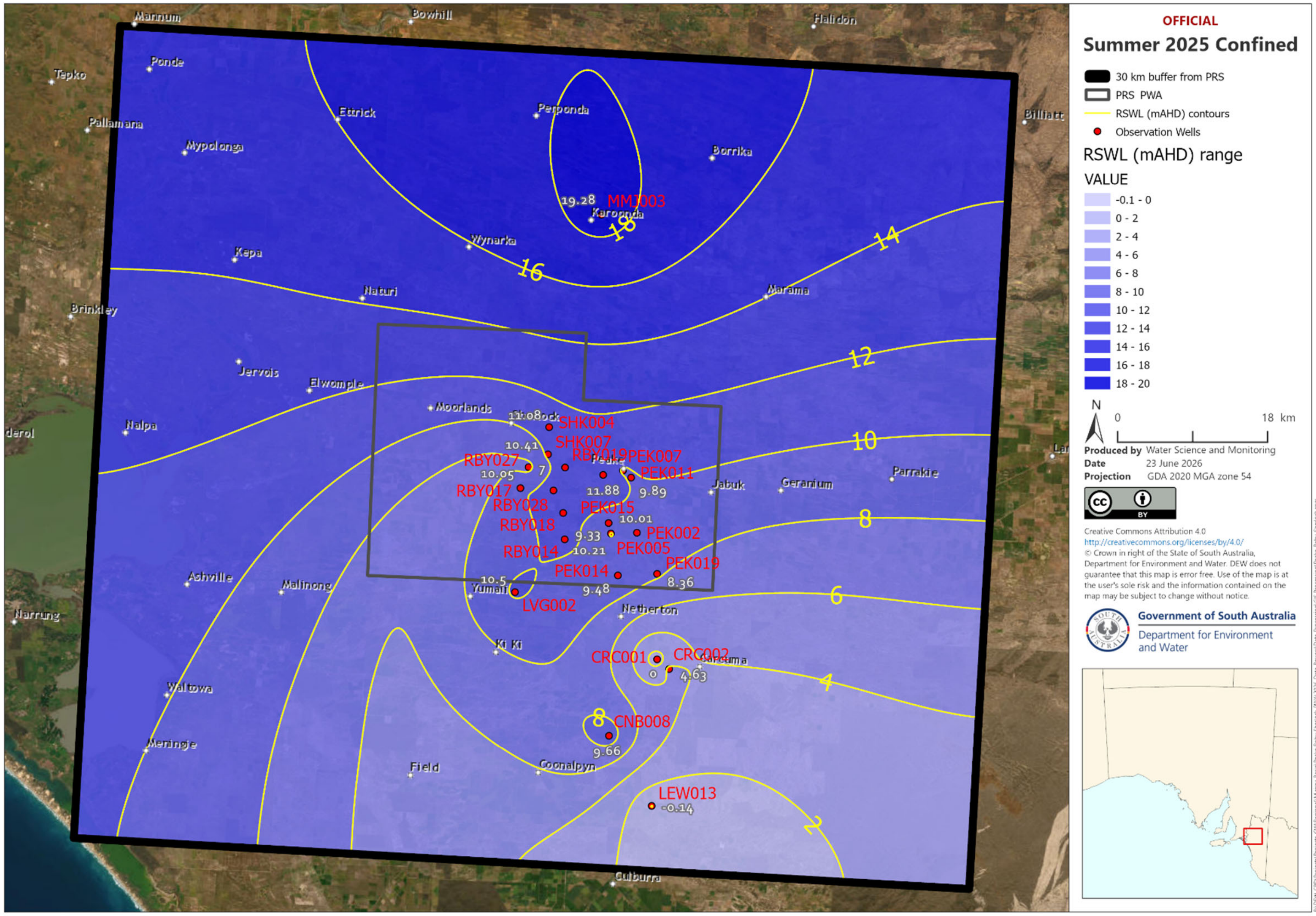

Figure 20: Potentiometric surface of confined aquifer in Summer 2025

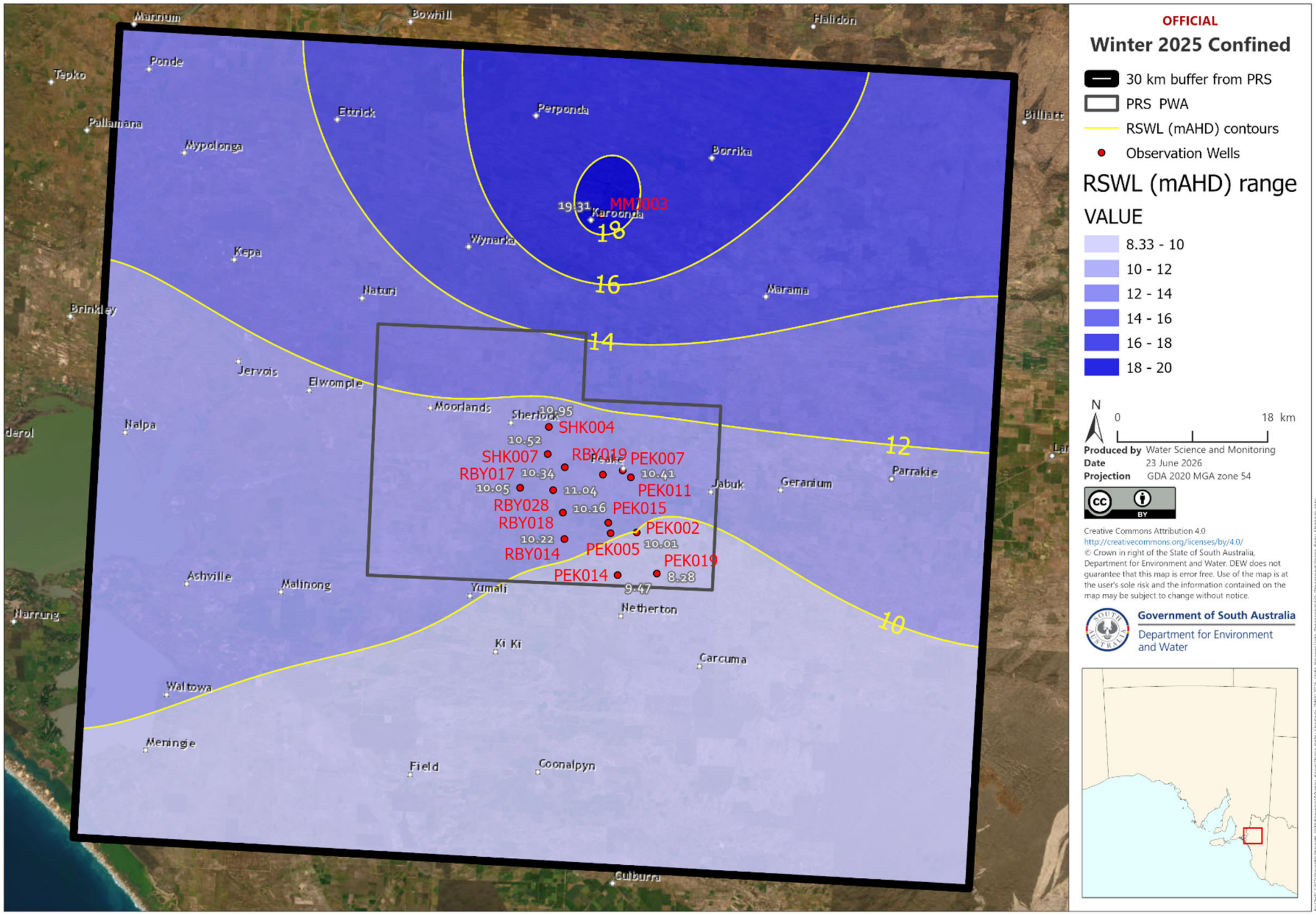

Figure 21: Potentiometric surface of confined aquifer in Winter 2025

9. Salinity Surfaces

The salinity surface (Figure 22) has been generated from data contained within the PRS PWA region. There is no salinity data available within a buffer region of 30 kilometres surrounding the PRS PWA boundary. There was insufficient data to create a salinity surface for the unconfined aquifer. Figure 22 shows the 2025 salinity surface for the confined aquifer. Data for this aquifer were only available from the Buccleuch Formation. No data were recorded from the Renmark Group. Interpolation is controlled by the distribution of data points and data distribution is concentrated within the central part of the PRS PWA. There is a lack of constraining wells along the boundary and as such the gradient and contours around the peripheral part of the PWA should be interpreted with healthy scepticism. The salinity gradient slopes from the south-west to the north-east of the region, with values ranging from 800 mg/L to 6000 mg/L.

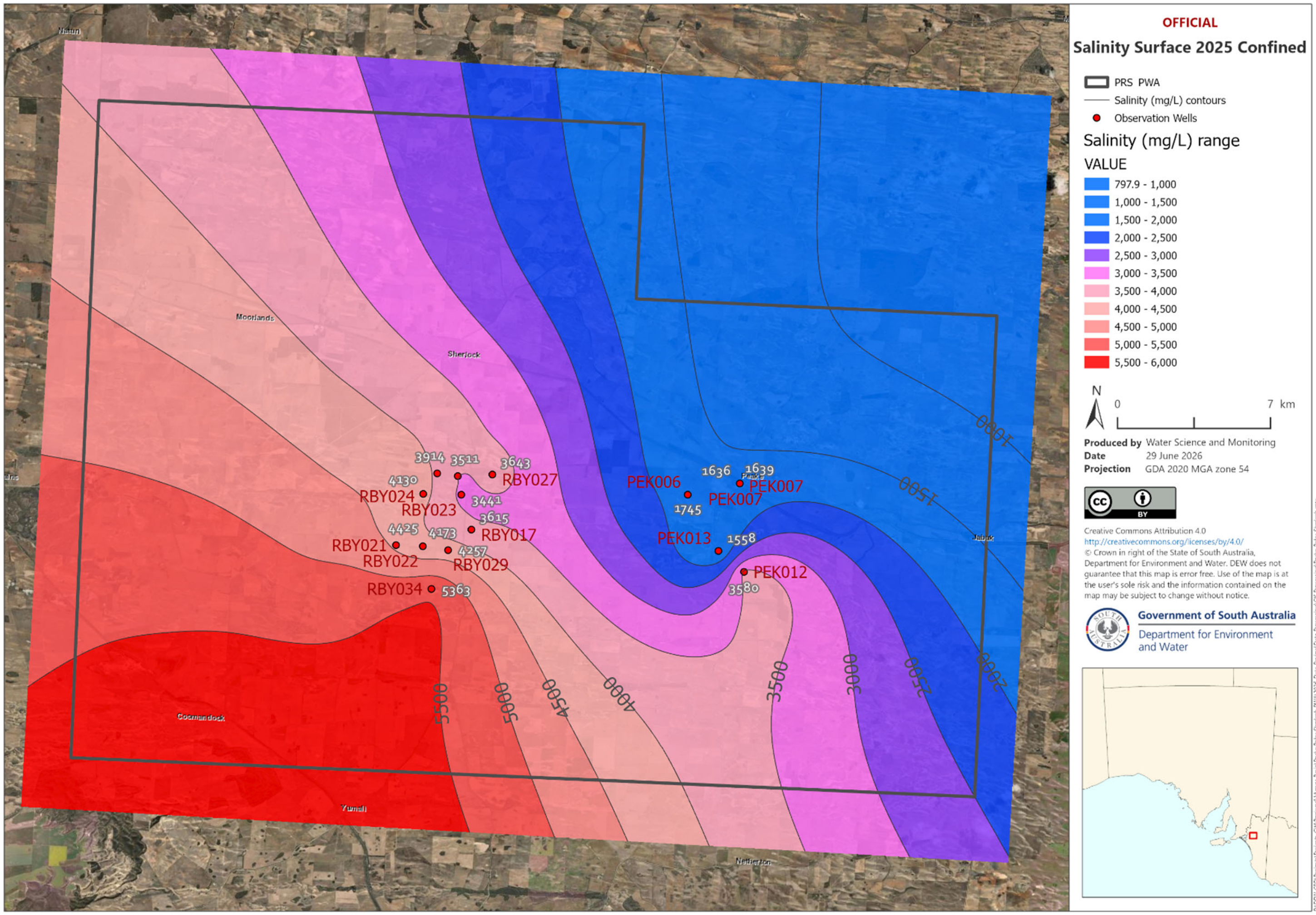

Figure 22: Salinity Surface for confined aquifers for 2025

10. Summary & Conclusions

A data review conducted primarily on the monitoring well data within the PRS PWA and surrounding area identified several key findings.

Rainfall records within the PRS PWA are generally good, although recent station closures represent a data-gap risk going forward.

Ground surface elevations for the monitoring wells are largely well surveyed and accurate, and groundwater levels derived from these are assumed to be accurate as well.

Monitoring wells have been confirmed to be completed in their assigned aquifer.

Hydrostratigraphic interpretations based solely on monitoring well lithology have proven unreliable in this area. It should be noted that the scope of this study was limited to information derived from monitoring well data and did not include assessment of additional datasets.

Groundwater levels observed in the unconfined aquifer are generally increasing. The drivers for any increase will vary dependant on the location of each well. These drivers have not been examined in this study.

Groundwater levels observed in the confined aquifer show a marked decline around 2010 in response to significant groundwater extraction in the PRS PWA. By 2015 groundwater levels had recovered to approximately pre-development levels and display ongoing exponential recovery toward equilibrium conditions.

Potentiometric surfaces can be interpolated for both aquifers within the PRS PWA; however, there are insufficient data to determine pre-development conditions in the confined aquifer.

While there are sufficient data within the PRS PWA boundary to develop reliable potentiometric surfaces, data outside the PRS PWA are often insufficient to adequately control the interpolation process, and caution should be exercised when using these surfaces in areas with little or no data point control.

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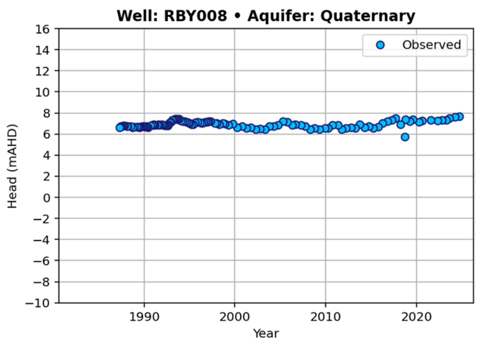
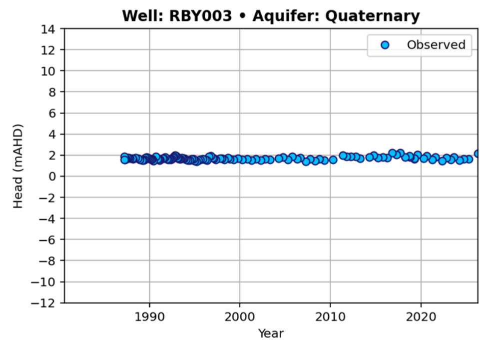
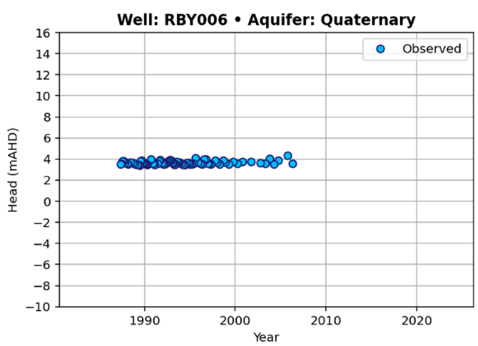
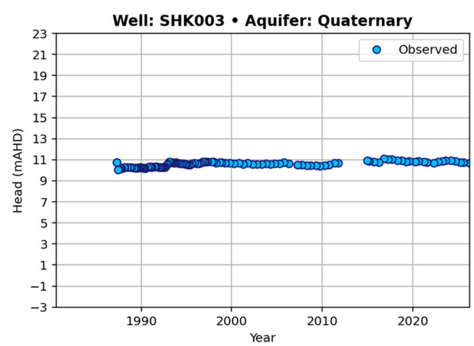
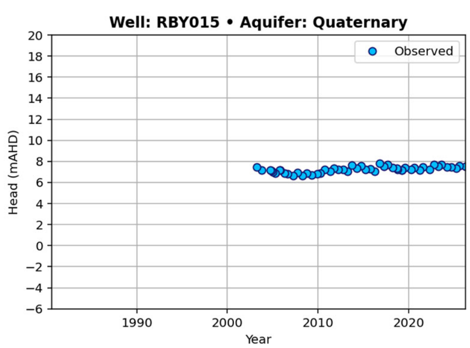
Appendix A1 – Unconfined Aquifer Hydrographs

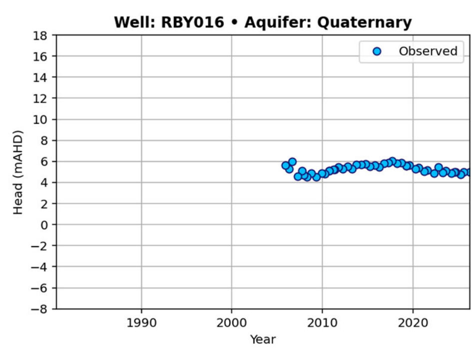


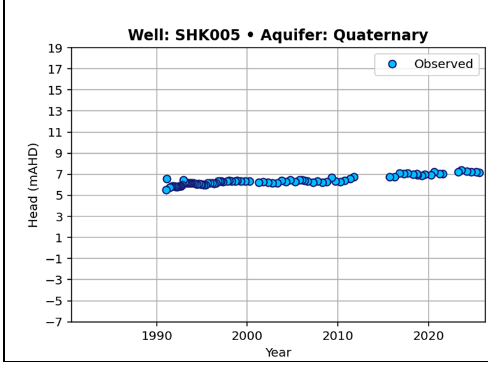


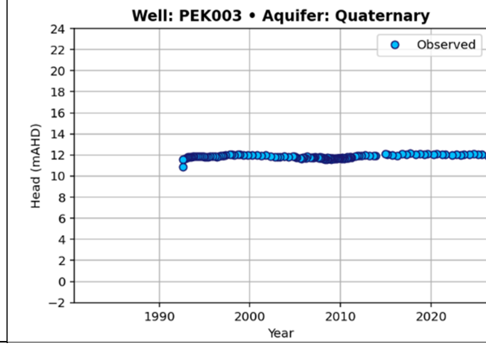




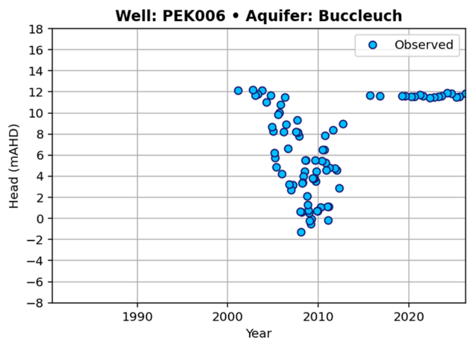


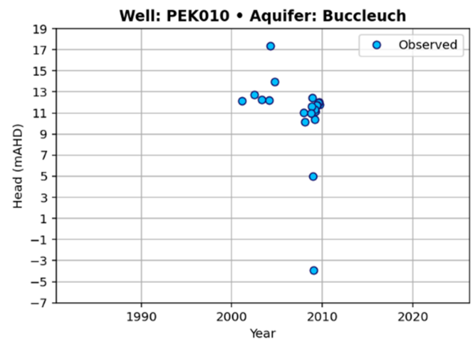


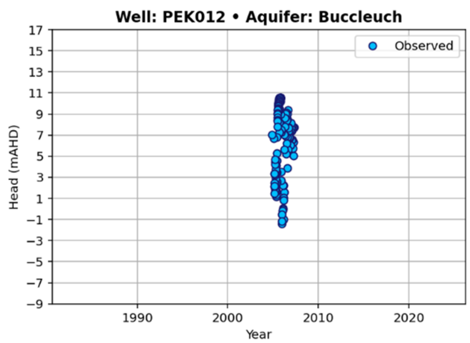

Well: SHK005 • Aquifer: Quaternary
Observed
Head (mAHD)
Year
19
17
15
13
11
9
7
5
3
1
−1
−3
−5
−7
1990
2000
2010
2020

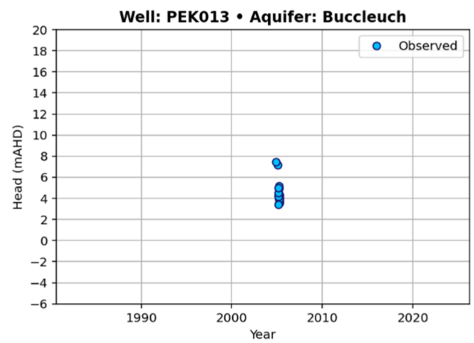

Well: PEK003 • Aquifer: Quaternary
Observed
Head (mAHD)
Year
24
22
20
18
16
14
12
10
8
6
4
2
0
−2
1990
2000
2010
2020

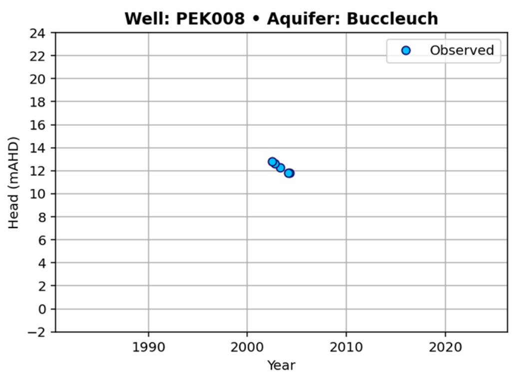
Appendix A2 – Confined Aquifer Hydrographs

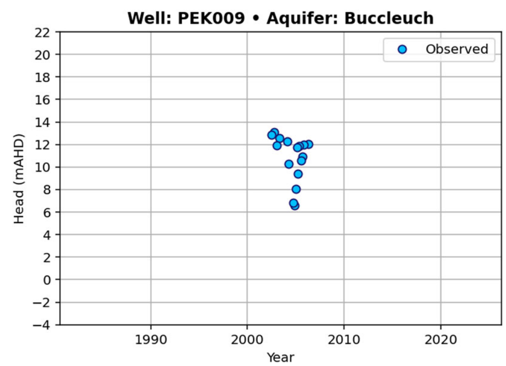


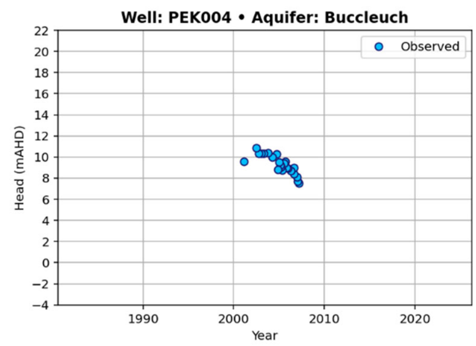


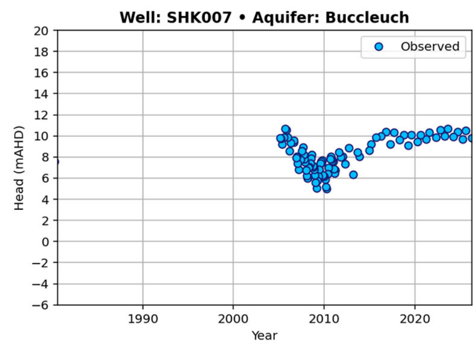


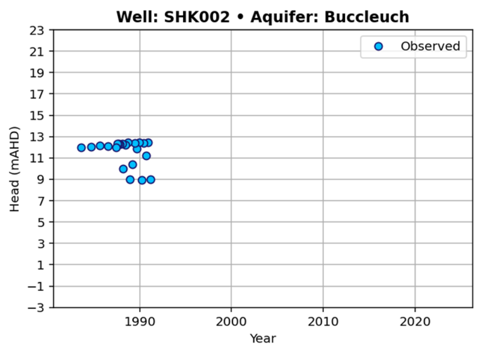


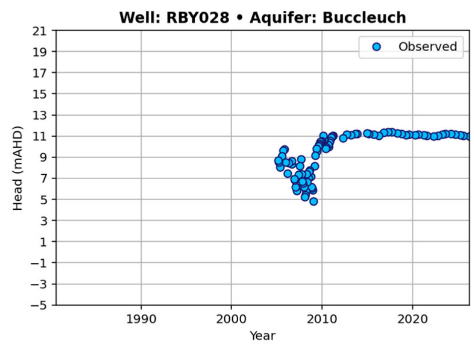


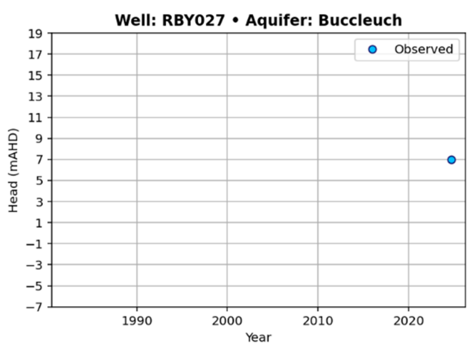


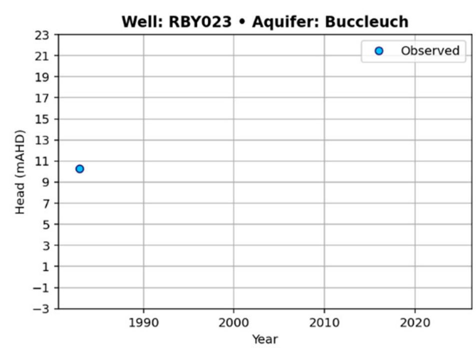

Well: PEK004 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

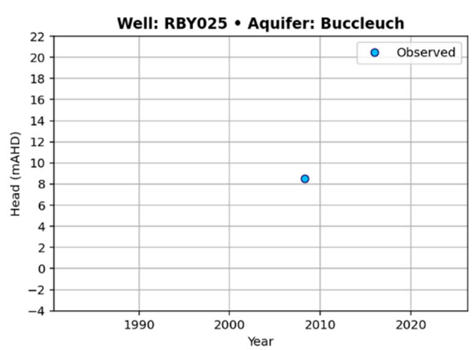

Well: SHK007 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

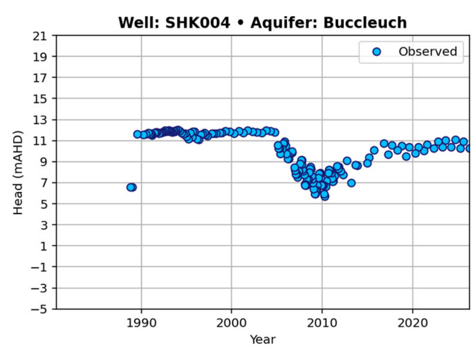

Well: SHK002 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

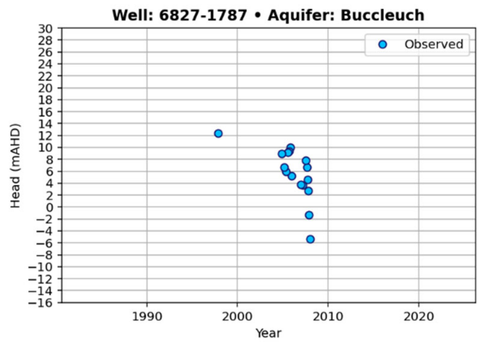

Well: RBY028 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

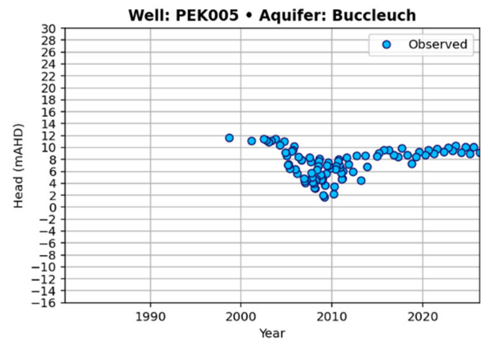

Well: RBY027 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

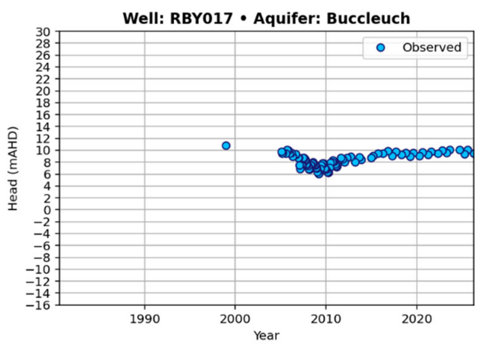

Well: RBY023 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

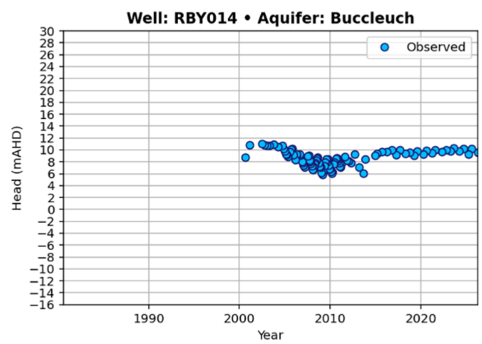

Well: RBY025 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

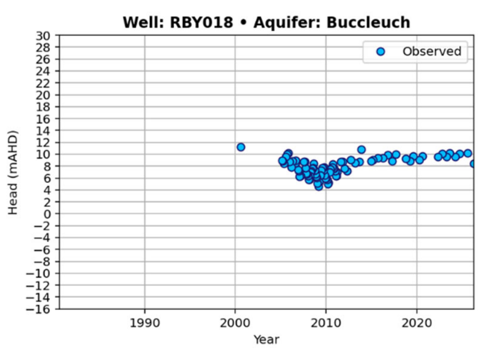

Well: SHK004 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

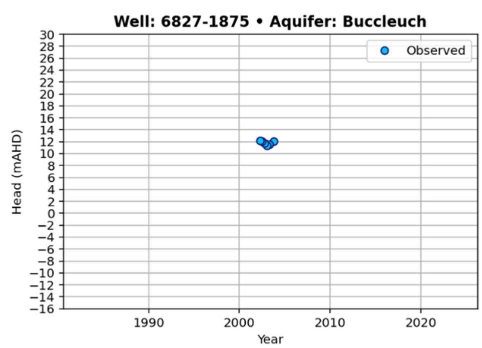

Well: 6827-1787 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

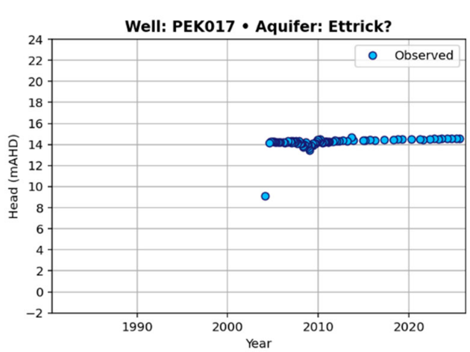

Well: PEK005 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

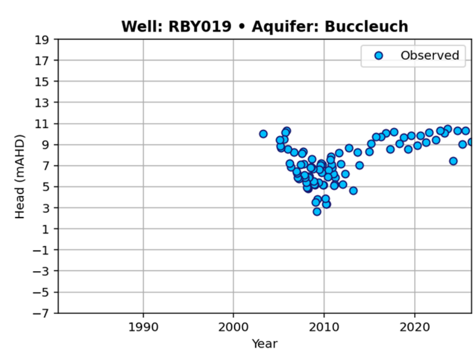

Well: RBY017 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

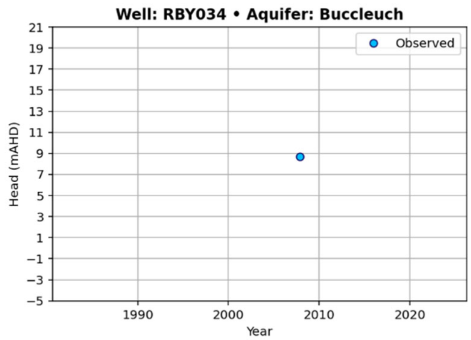

Well: RBY014 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

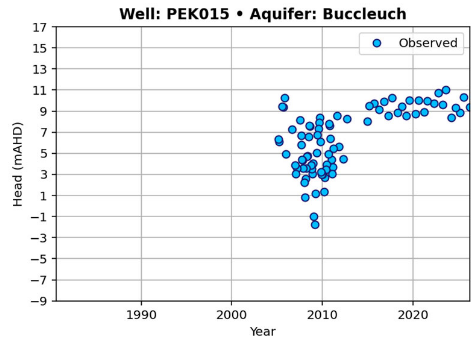

Well: RBY018 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

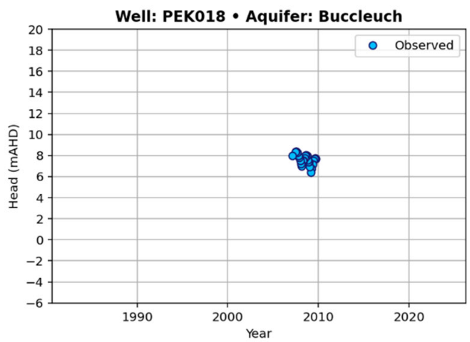

Well: 6827-1875 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

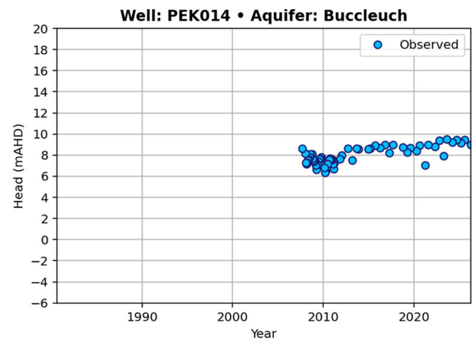

Well: PEK017 • Aquifer: Ettrick?
Observed
Head (mAHD)
Year


Well: RBY019 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year


Well: RBY034 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

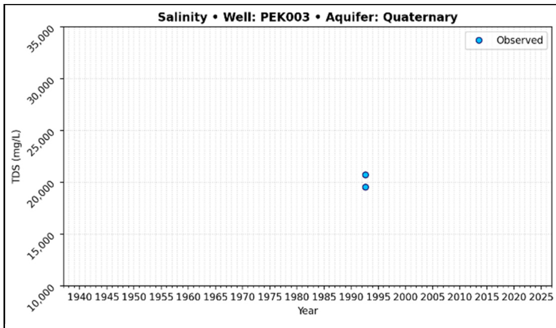

Well: PEK015 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

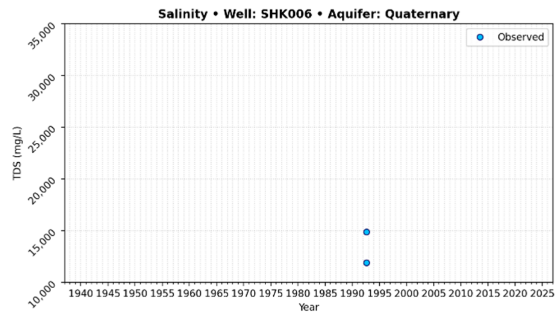

Well: PEK018 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

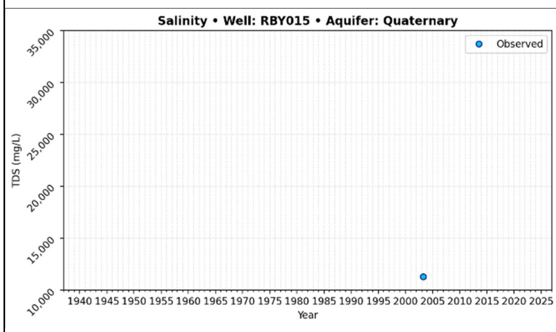

Well: PEK014 • Aquifer: Buccleuch
Observed
Head (mAHD)
Year

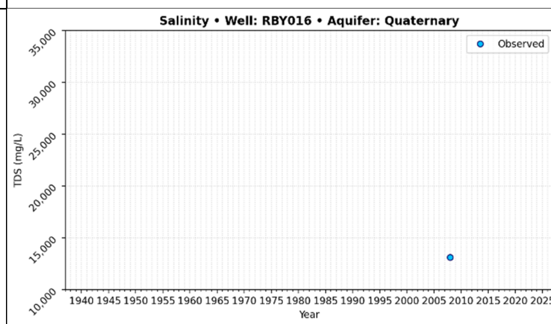
Appendix B – Salinity Time Series

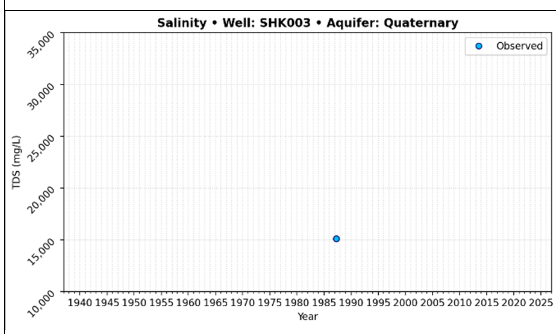
Unconfined Aquifer (Salinity >10,000 mg/L)

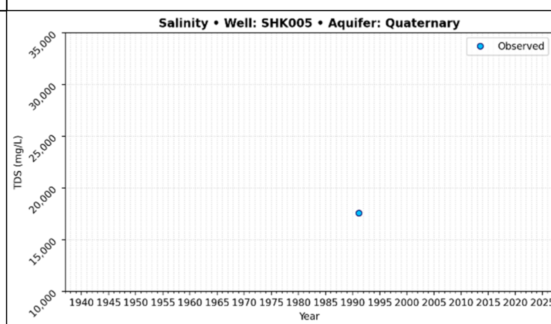




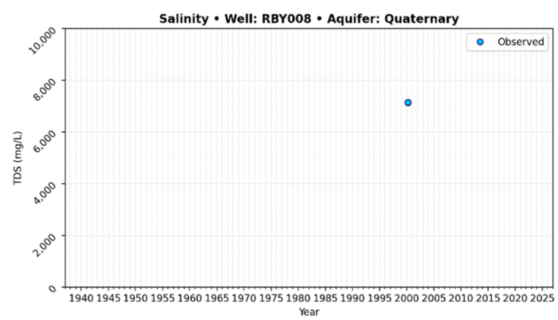




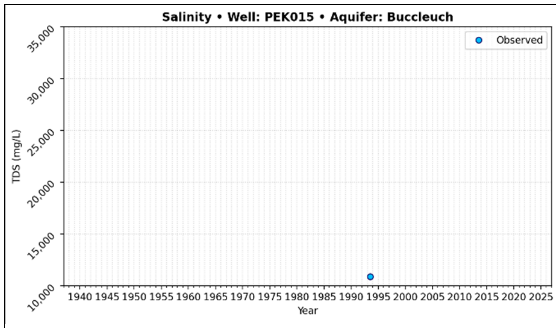


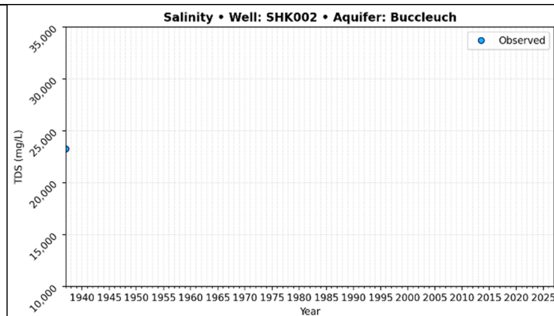


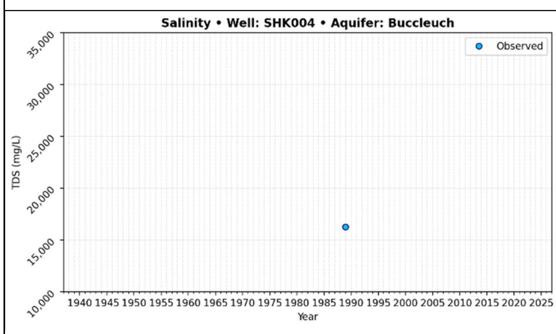
Unconfined Aquifer (Salinity <10,000 mg/L)



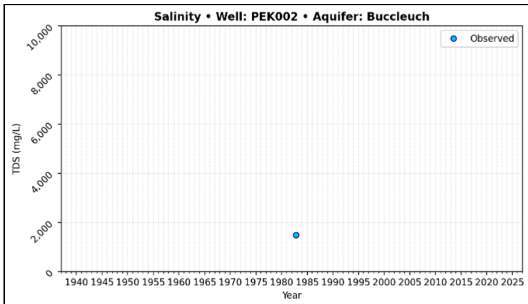
Confined Aquifer (Salinity >10,000 mg/L)

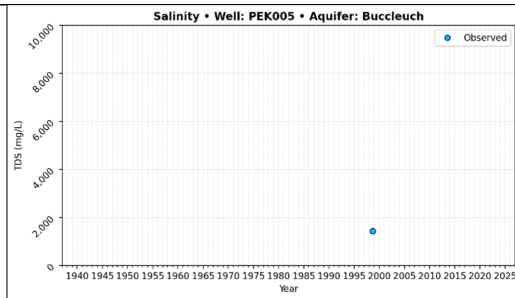


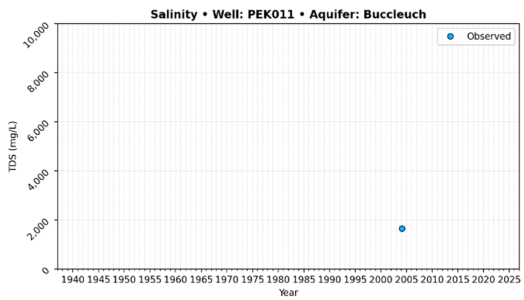


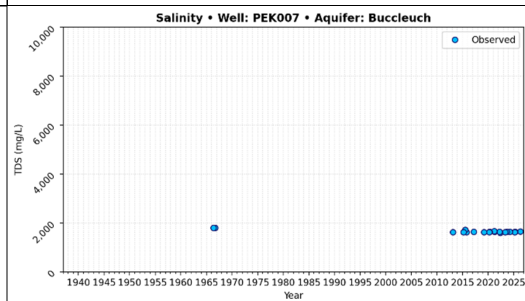


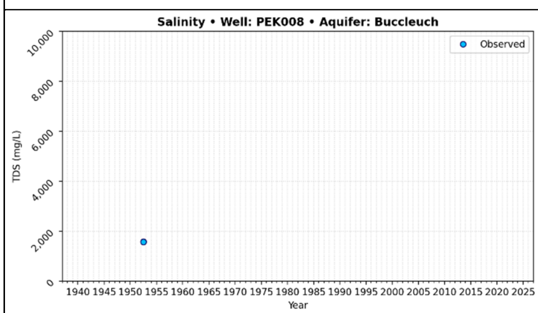
Confined Aquifer (Salinity <10,000 mg/L)

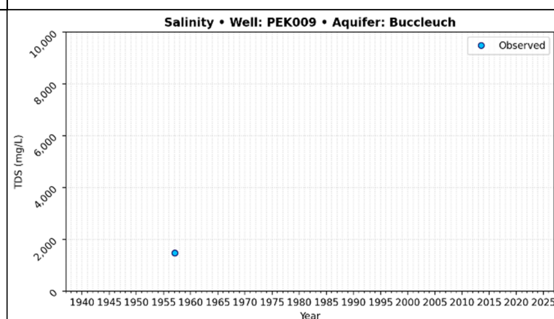


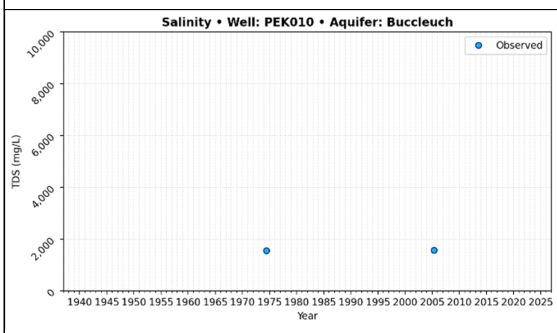


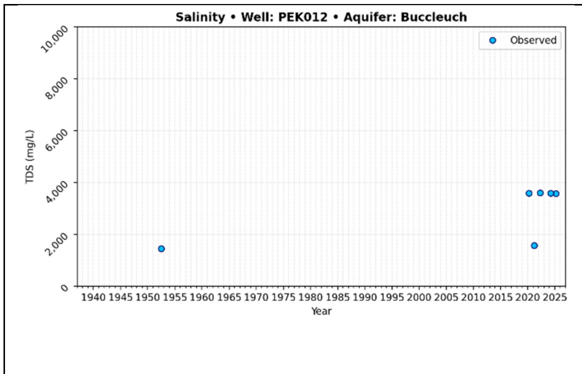


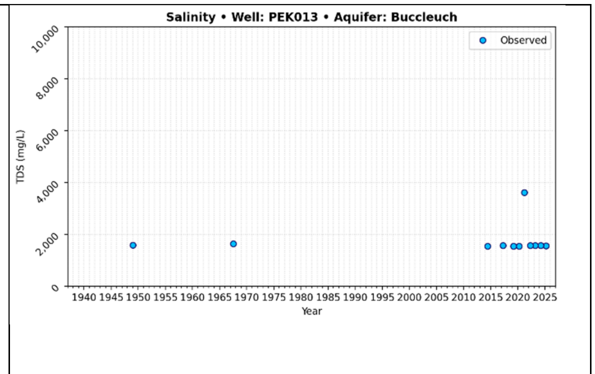


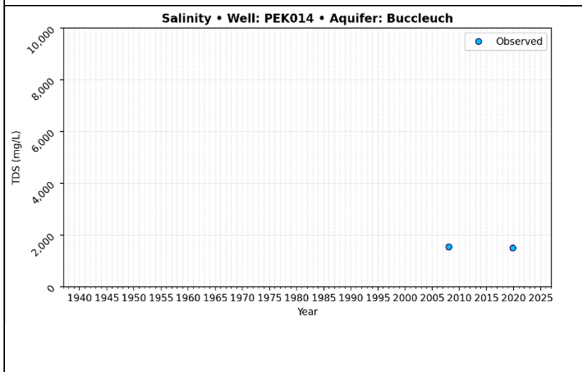


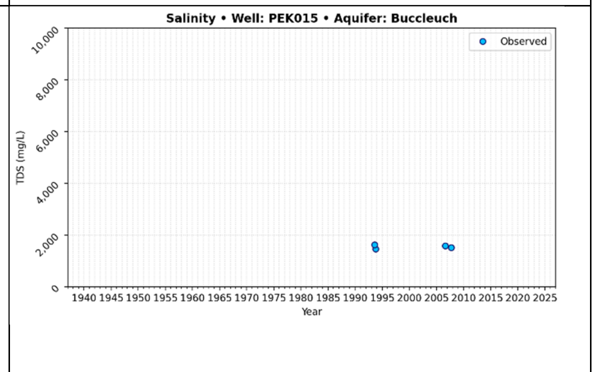


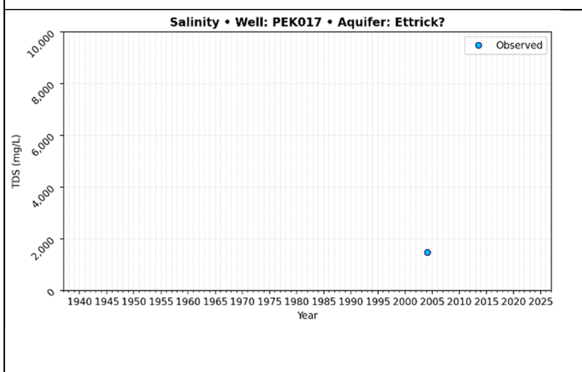


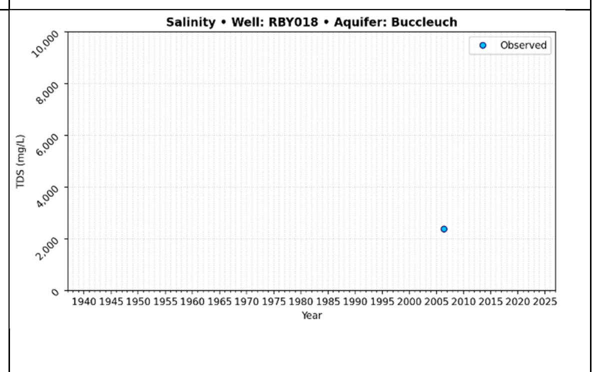

Salinity • Well: PEK012 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

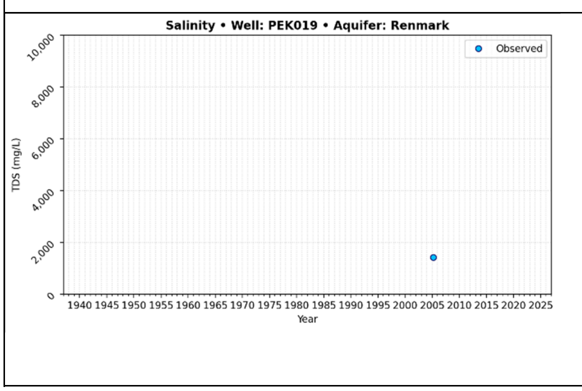

Salinity • Well: PEK013 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

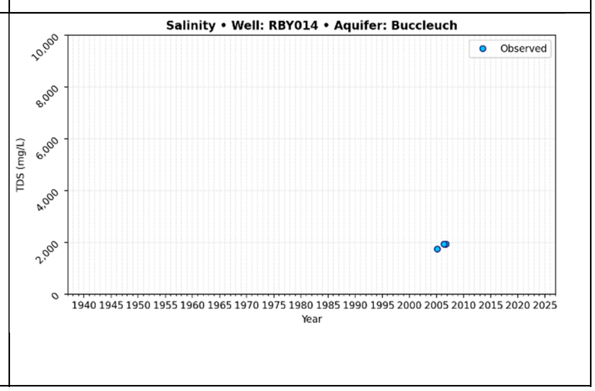

Salinity • Well: PEK014 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

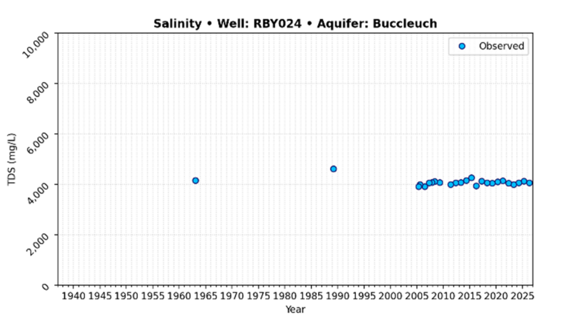

Salinity • Well: PEK015 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

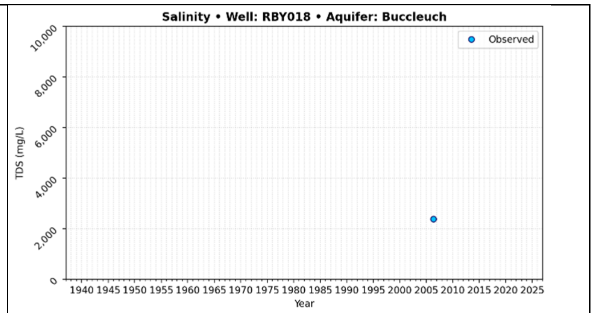

Salinity • Well: PEK017 • Aquifer: Ettrick?
Observed
TDS (mg/L)
Year

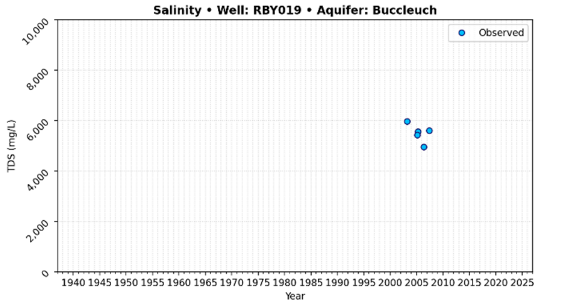

Salinity • Well: RBY018 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

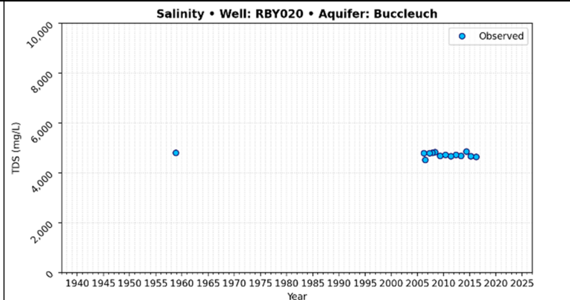

Salinity • Well: PEK019 • Aquifer: Renmark
Observed
TDS (mg/L)
Year

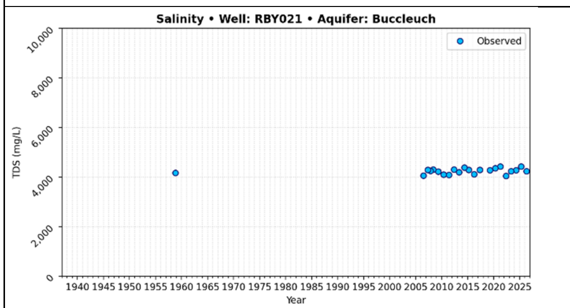

Salinity • Well: RBY014 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

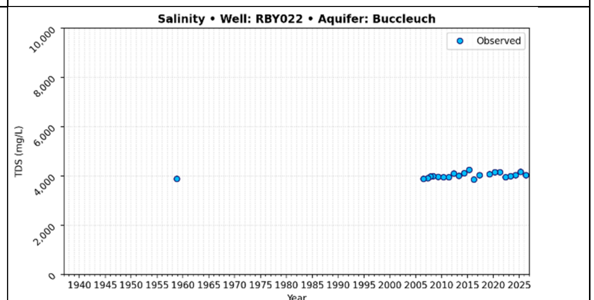

Salinity • Well: RBY024 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

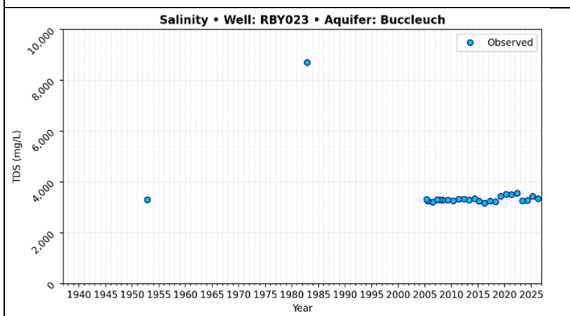

Salinity • Well: RBY018 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

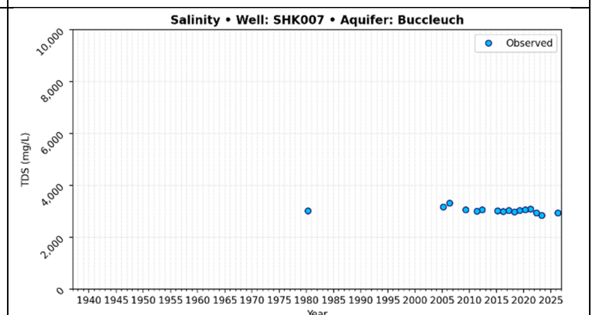

Salinity • Well: RBY019 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

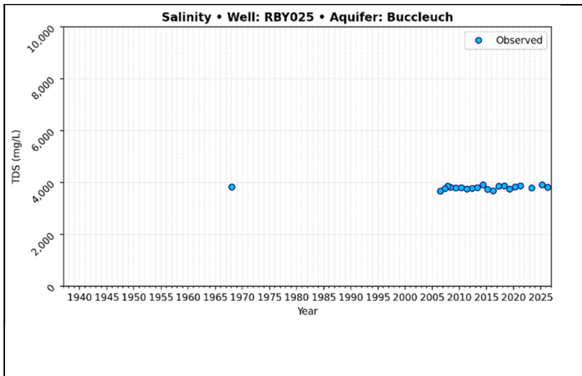

Salinity • Well: RBY020 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

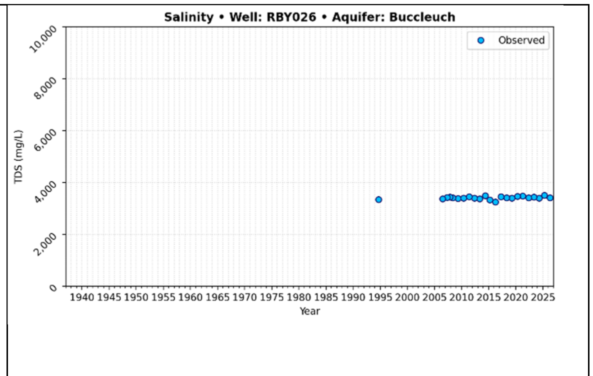

Salinity • Well: RBY021 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

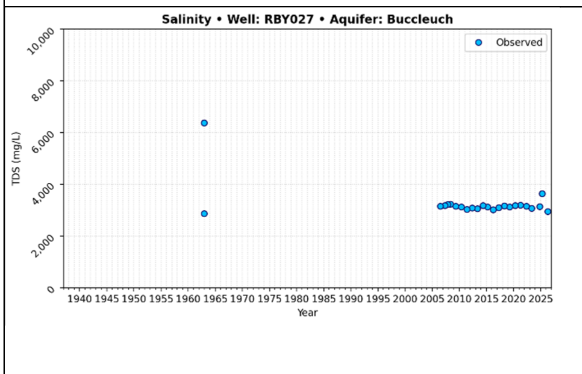

Salinity • Well: RBY022 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

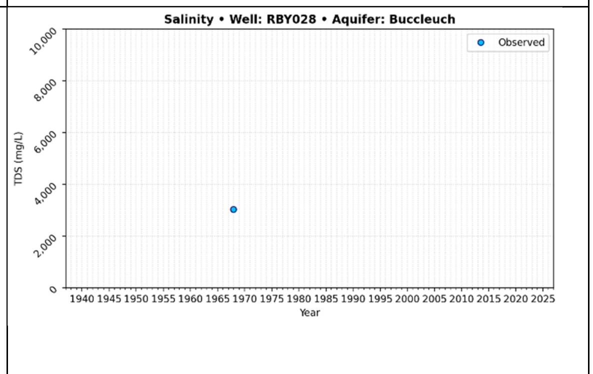

Salinity • Well: RBY023 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

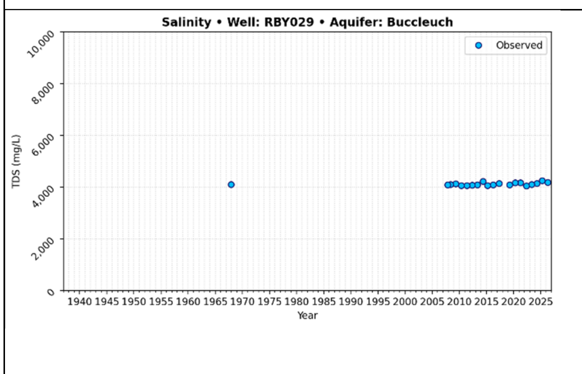

Salinity • Well: SHK007 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

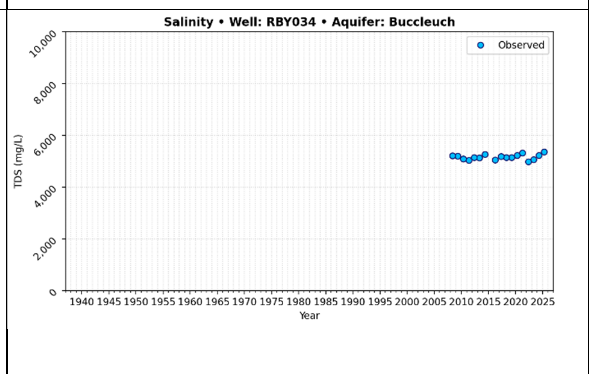

Salinity • Well: RBY025 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

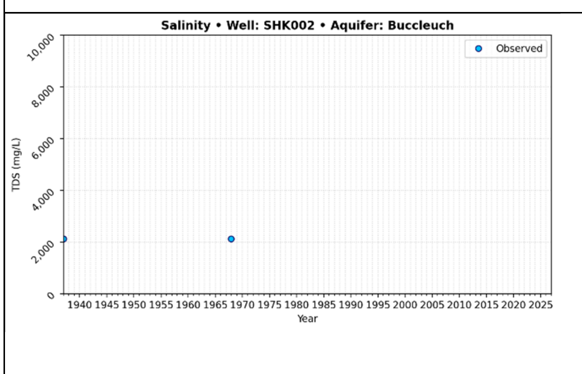

Salinity • Well: RBY026 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

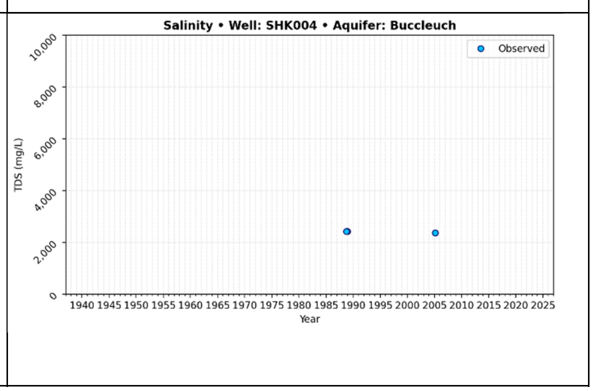

Salinity • Well: RBY027 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year


Salinity • Well: RBY028 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year


Salinity • Well: RBY029 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year


Salinity • Well: RBY034 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year


Salinity • Well: SHK002 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year


Salinity • Well: SHK004 • Aquifer: Buccleuch
Observed
TDS (mg/L)
Year

Government
of South Australia

Department for
Environment and Water