



# Upper Namoi Zone 3 Groundwater Source Summary Report 2006-2015

## Water sharing plan

The Water Sharing Plan (hereafter referred to as the Plan) for the Upper and Lower Namoi Groundwater Sources commenced on 1 November 2006. Since commencement of the Plan, the Upper and Lower Namoi groundwater sources have been managed under the *Water Management Act 2000* (WMA2000). The Plan sets the framework for managing these groundwater sources until the end of June 2017.

A copy of the Plan can be viewed and downloaded from the NSW legislation website or from the following link:

[http://www.water.nsw.gov.au/water-management/water-sharing/plans\\_commenced/water-source/upper-and-lower-namoi-groundwater-sources](http://www.water.nsw.gov.au/water-management/water-sharing/plans_commenced/water-source/upper-and-lower-namoi-groundwater-sources)

## Location and description of water sources

The Upper Namoi Zone 3 groundwater source includes all water contained in the unconsolidated alluvial sediments associated with the Mooki Valley from Breeza to Gunnedah within the area shown in Figure 1.

## Access licences

Three categories of groundwater access licenses are held in the Upper Namoi Zone 3 groundwater source. These are:

- Local water utility access licences
- Aquifer access licences
- Supplementary water access licences

The Local Water Utility Licences are held by local governments for town water supply purposes. The share component of these licences is for a specified volume of groundwater.

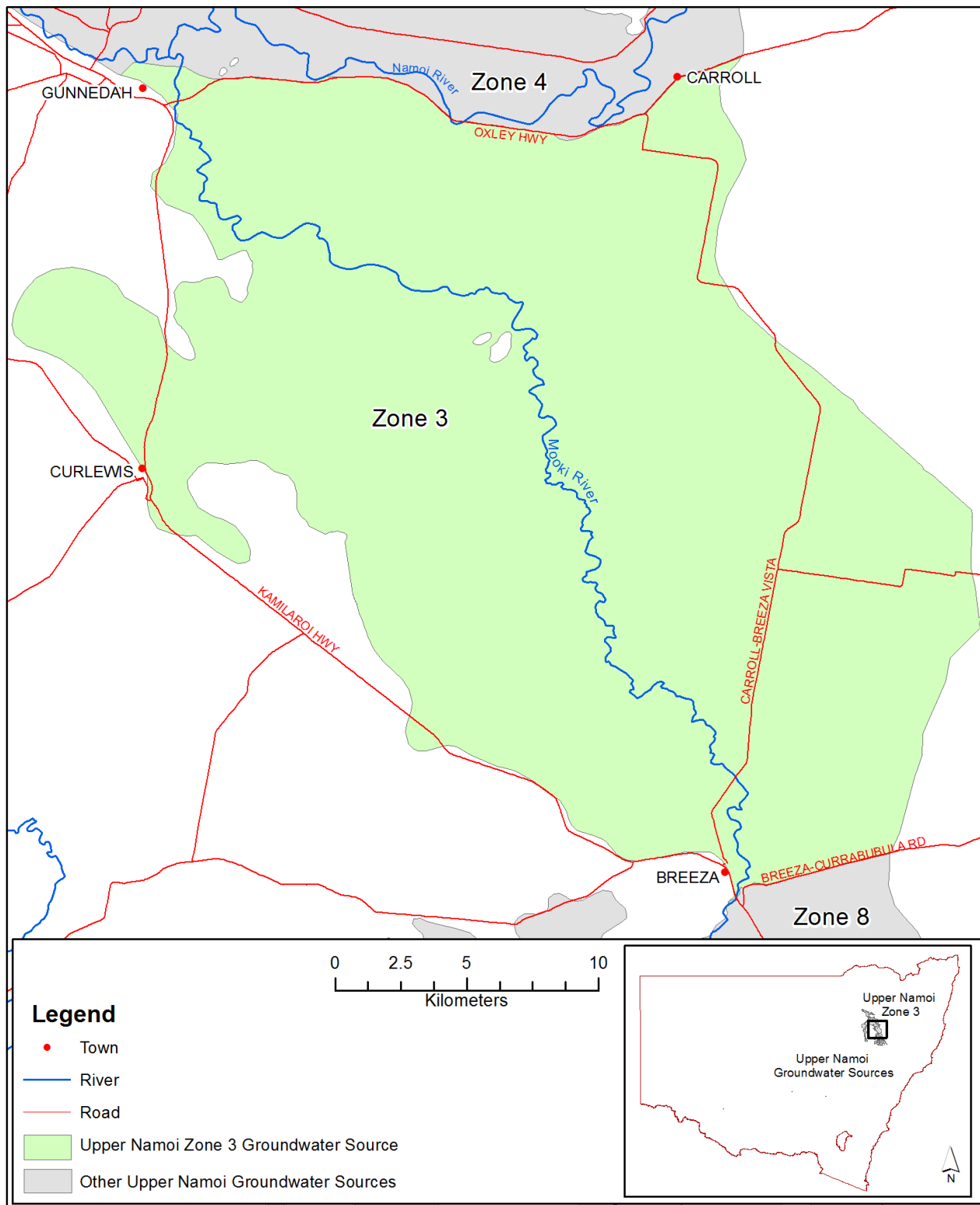
The share components of aquifer access licences and supplementary water access licences are issued for a specified number of unit shares. These are summarised in Table 1.

Table 1 Total share component of existing access licences

Type of access licence	Upper Namoi Zone 3
Local Water Utilities	198 ML
Aquifer access licences	17,101 shares
Supplementary water access licences	8,065* shares

\*See next section 'Annual extraction limits and Available Water Determination' for further information on available water determinations for supplementary water access licences as set by the water sharing plan.

Figure 1 Map of the Upper Namoi Zone 3 groundwater source



## Annual extraction limits and available water determination

The extraction limit for Upper Namoi Zone 3 is initially 17,300 ML/yr, plus total water made available to supplementary water access licences, plus the total requirements for basic landholder rights at the commencement of the plan.

At the start of each water year an available water determination (AWD) is made which sets the allocation of groundwater for the different categories of access licences. The Plan requires that where the average of the preceding 3 year's extraction exceeds the extraction limit by 5% or greater, then the available water determination made for aquifer access licences in this groundwater source for the following water year, should be reduced by an amount that is assessed necessary by the Minister to return subsequent total water extraction to the extraction limit.

The available water determinations for supplementary water access licences for each year have been set in the Plan. After the 2014-2015 water year there will be no groundwater available under Supplementary Water Access Licences.

**Table 2 Available water determination for access licence categories start of Plan to date**

Year of Plan	Water Year	Supplementary Water (ML per unit share)	Aquifer (ML per unit share)	Local Water Utility (%)
1	2006-2007	0.9	1	100
2	2007-2008	0.8	1	100
3	2008-2009	0.7	1	100
4	2009-2010	0.6	1	100
5	2010-2011	0.5	1	100
6	2011-2012	0.4	1	100
7	2012-2013	0.3	1	100
8	2013-2014	0.2	1	100
9	2014-2015	0.1	1	100
10	2015-2016	0	Announced 1 July 2015	Announced 1 July 2015
11	2016-2017	0	Announced 1 July 2016	Announced 1 July 2016

## Access licence account management rules

The water sharing plan allows for accrual of unused allocation in aquifer access licence accounts. This includes the yearly allocations for the aquifer access licences made through available water determinations plus any carryover of unused allocation up to a maximum of 2 ML per unit of share component.

The maximum amount of water permitted to be debited from an account in any one water year (i.e. account take limit) cannot exceed 2 ML per unit share component plus any allocation transferred in, and minus any allocation transferred out. This means that metered extraction plus allocation transferred out cannot exceed twice the share component, unless allocation is transferred into the account.

Local water utility access licences do not have any provisions for carryover.

## Groundwater extractions

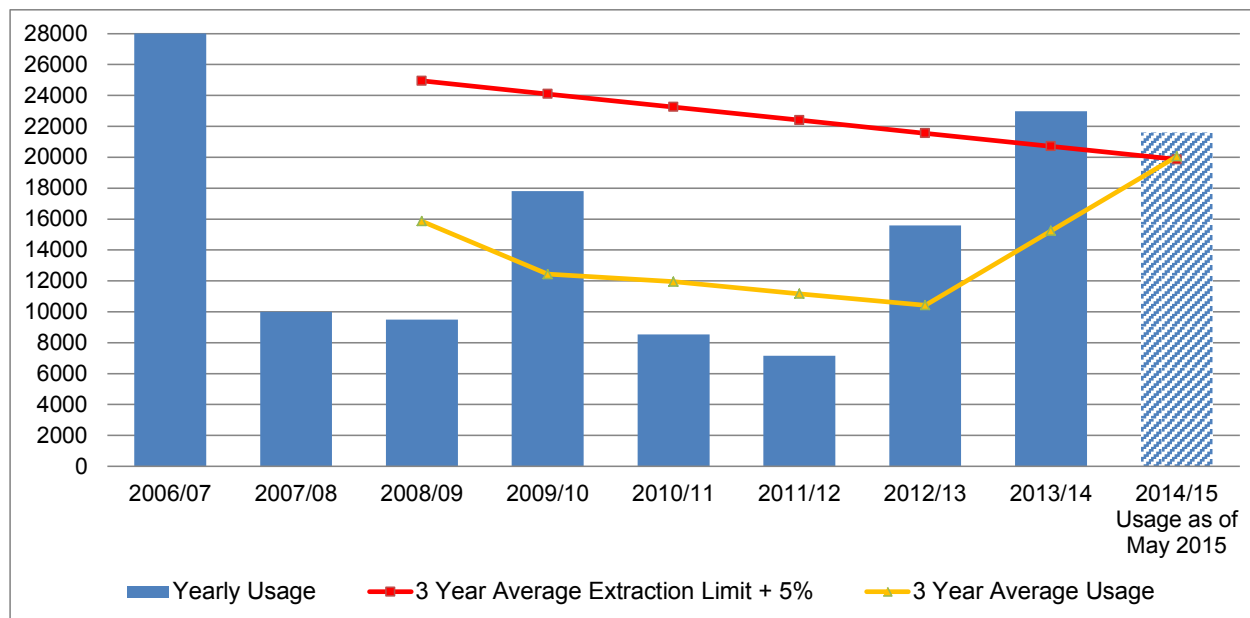
There are approximately 167 production bores within the Upper Namoi Zone 3 groundwater source. All bores are metered and the usage is recorded at regular intervals.

Figure 2 shows the annual extraction and the three year rolling average compared to the water sharing plan compliance trigger of 5% above the average extraction limit.

Extraction for the 2014/2015 water year to May 2015 is at 21,597.1ML resulting in the three year rolling average for the period 2012/13 to 2014/15 exceeding compliance conditions of the extraction limit.

The Office of Water continues to monitor extraction levels in the lead up to an available water determination being made 1 July 2015 for aquifer access licences for the 2015/2016 water year. Where average extraction over the preceding 3 year exceeds the average extraction limit by 5% or more the Office of Water may announce an AWD of less than 1 ML/share for aquifer access licences to return subsequent total water extraction to the extraction limit.

Figure 2 Upper Namoi Zone 3 annual extraction and extraction limits



## Groundwater dealings (trades)

Under the WMA 2000 dealings or trades are permitted within a groundwater source between access licences including dealings in shares, account water and nomination of water supply works.

The most common dealings are assignment of allocation (sale or purchase of account water – s71T) and assignment of rights (sale or purchase of share component – s71Q or add or remove works s71W).

A summary of s 71T assignments of allocation (temporary trades) since commencement of the Plan are provided in Table 3.

This information can be obtained from [www.water.nsw.gov.au/water-licensing/registers](http://www.water.nsw.gov.au/water-licensing/registers) under 'Water trading statistics and processing times'.

Table 3 Summary of assignment of allocation dealings since commencement of the Plan

Water Year	Assignment of Allocation Dealings (71T)	
	Number	Volume (ML)
2006-2007	2	143
2007-2008	4	326
2008-2009	8	1,488.2
2009-2010	7	669.8
2010-2011	10	1,272
2011-2012	5	703.3
2012-2013	4	469
2013-2014	17	2,008
2014-2015*	15	3,083

\*Total dealings as at 15/05/2015, water year still in progress.

Since commencement of the Plan there has been 10 s71Q or s71W dealings or assignment of rights (permanent trade) totalling approximately 630 ML in Upper Namoi Zone 3.

## Groundwater levels

The Office of Water monitors groundwater levels in approximately 97 bores at 65 sites throughout Upper Namoi Zone 3 (Figure 3). At most of these sites multiple pipes are screened at different depths below ground surface.

The graphs (Figures 4 to 9) show variation in water levels at each monitoring site over time expressed as metres below ground level. The depth of the screened intervals indicating the interval of the aquifer being monitored is noted on each graph.

The network includes four telemetered sites with continuous real time (logged) data available at <http://realtimedata.water.nsw.gov.au/water.stm>.

Figure 3 Monitoring bore locations, representative bores highlighted in yellow.

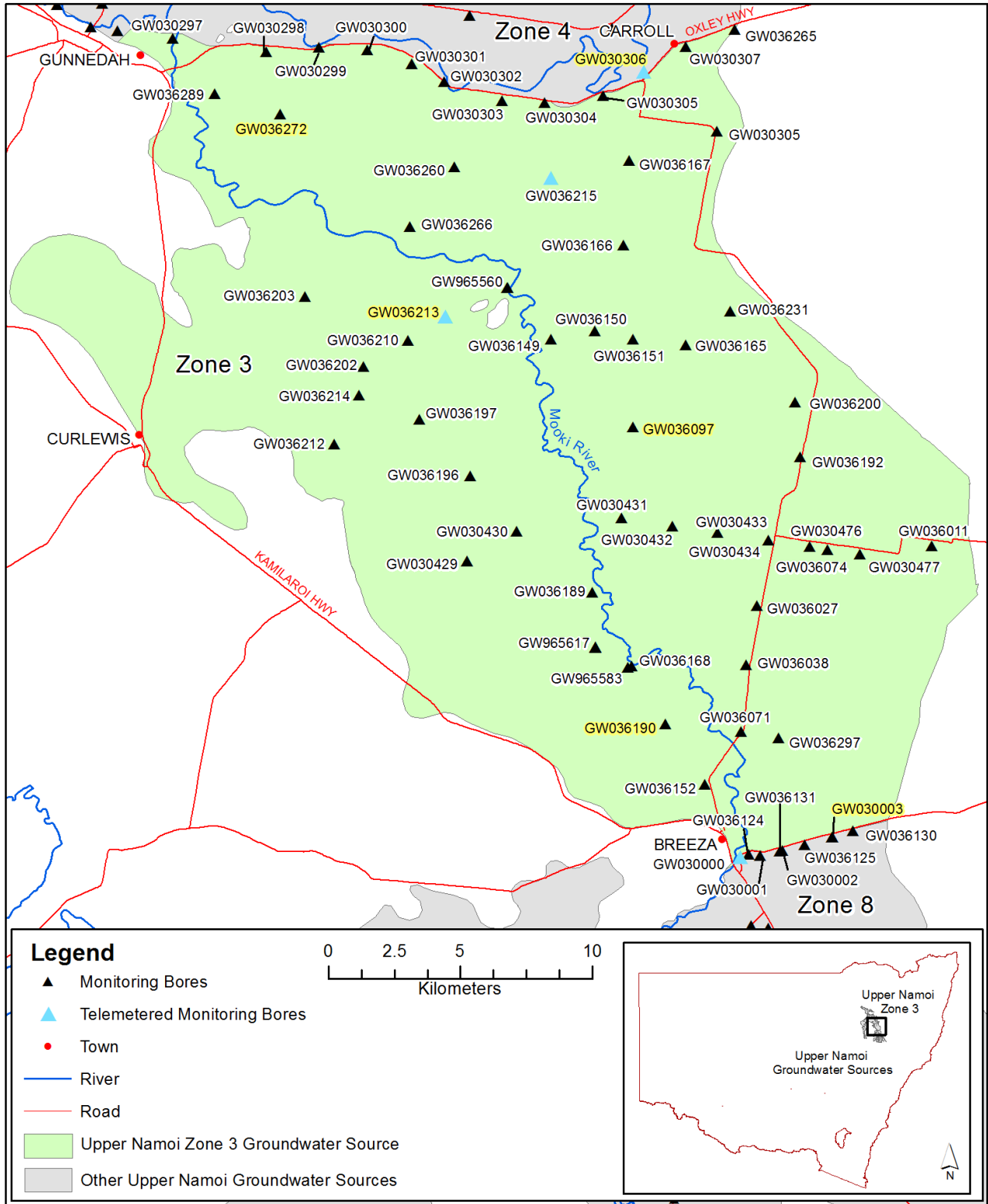


Figure 4 Hydrograph for monitoring bore site GW030306 - includes telemetered data

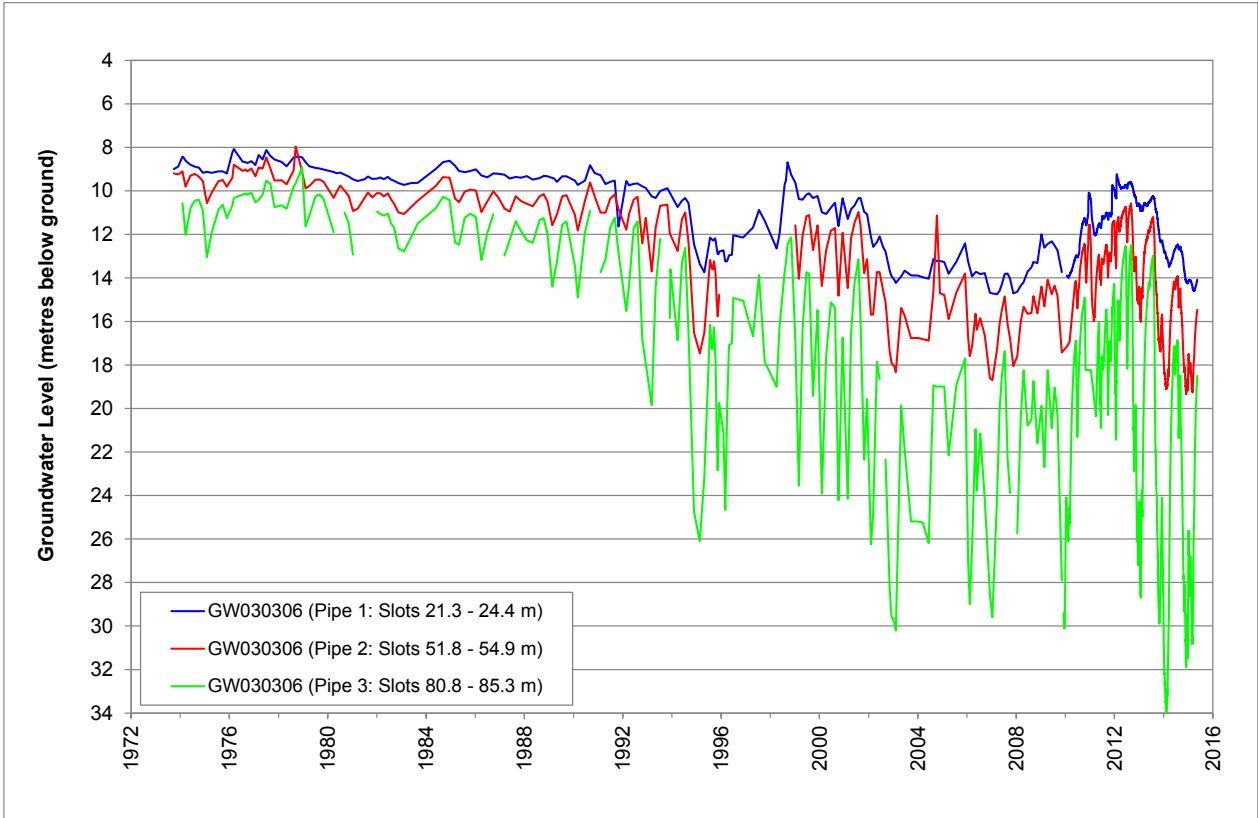


Figure 5 Hydrograph for monitoring bore site GW036272

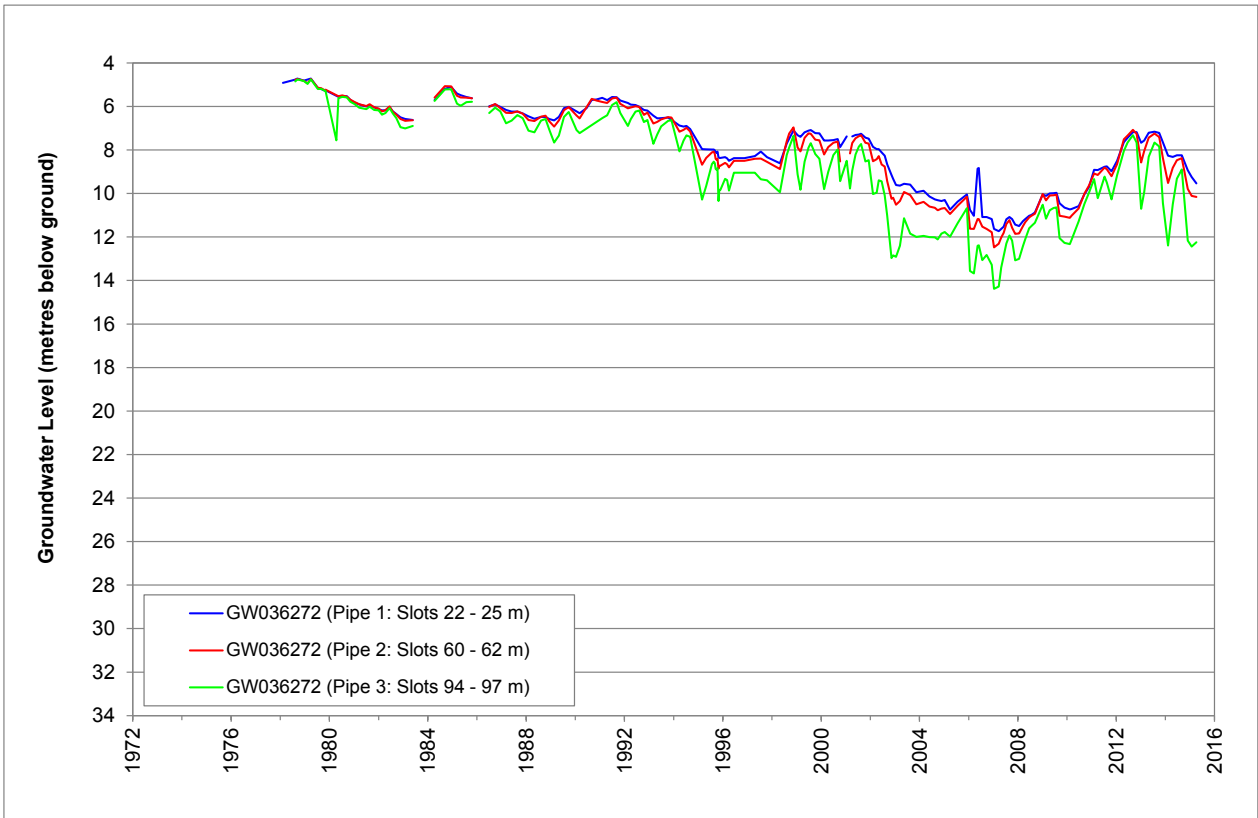


Figure 6 Hydrograph for monitoring bore site GW036213 - includes telemetered data

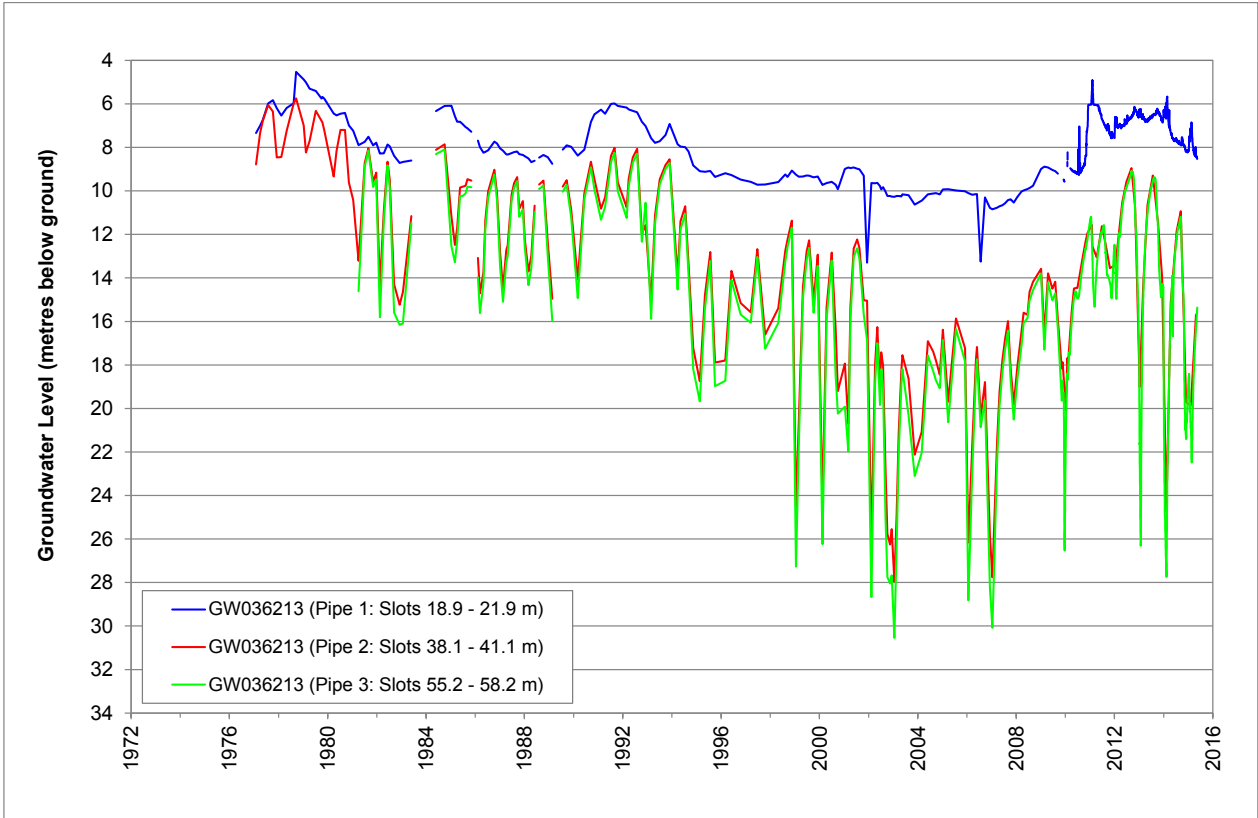


Figure 7 Hydrograph for monitoring bore site GW036097

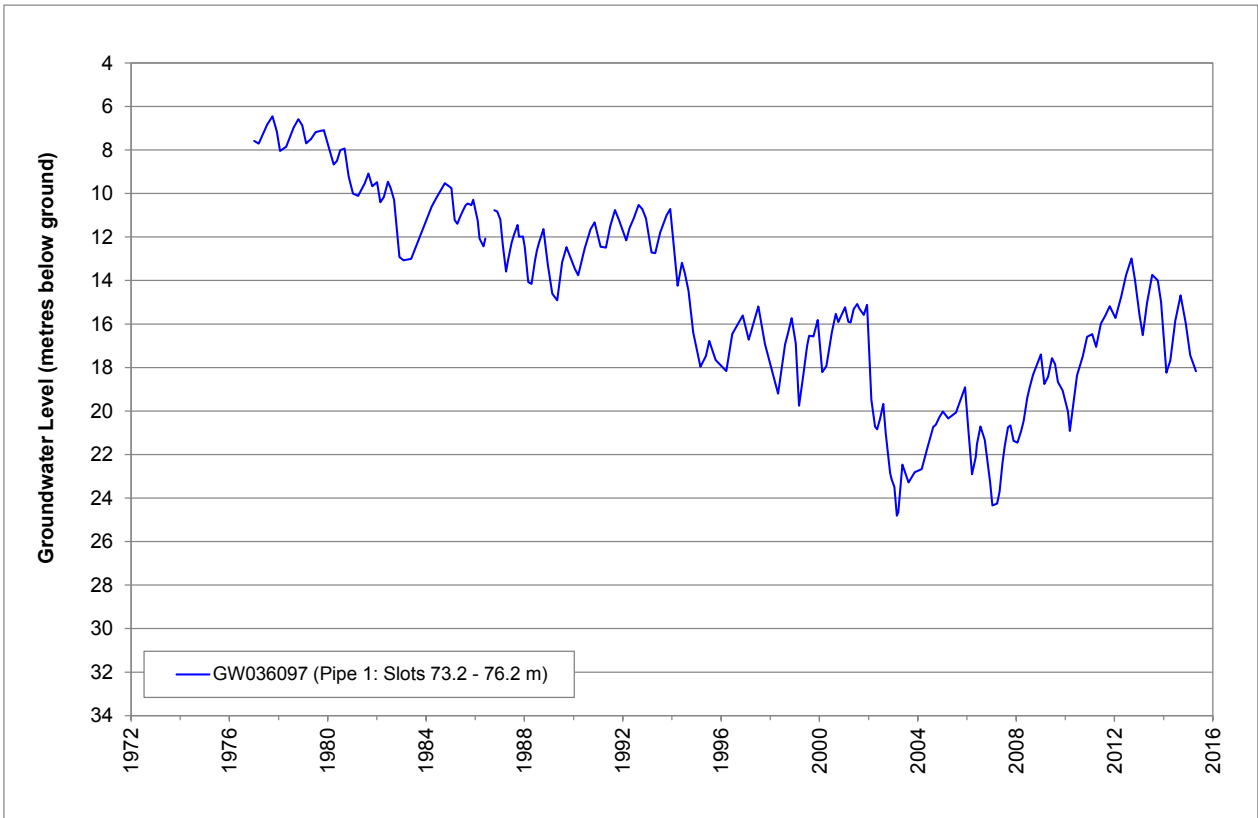




Figure 8 Hydrograph for monitoring bore site GW036190

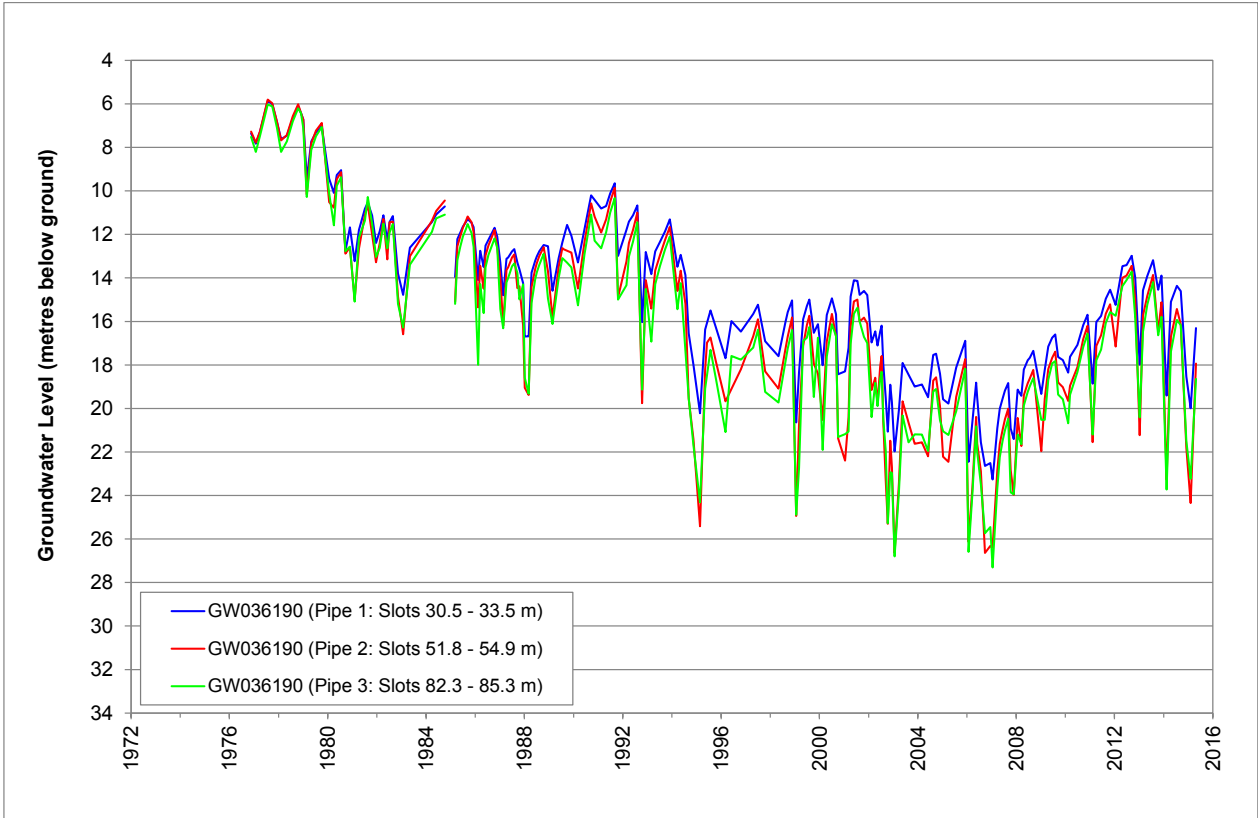
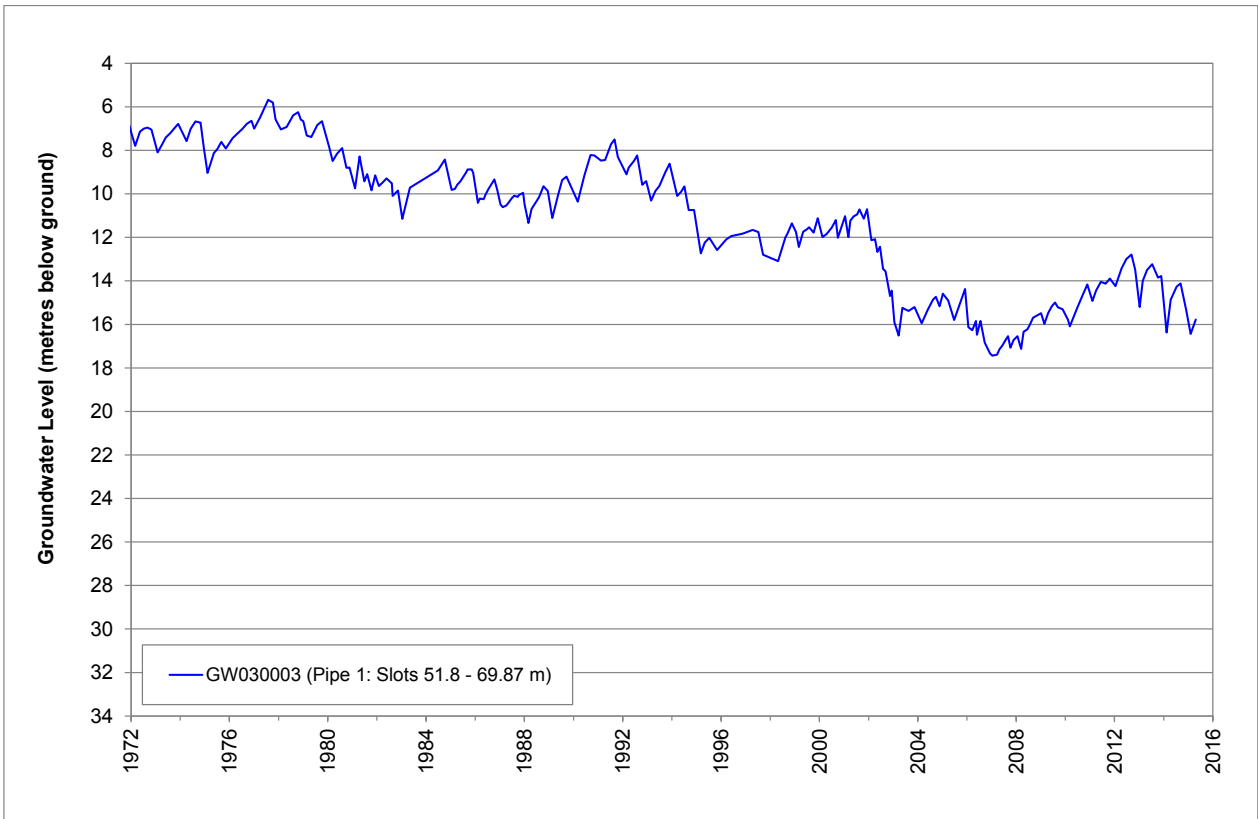


Figure 9 Hydrograph for monitoring bore site GW030003



## More information

NSW Office of Water

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[www.water.nsw.gov.au](http://www.water.nsw.gov.au)

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