Department of Primary Industries
Water

Water Monitoring Framework

Water Monitoring Strategy for Coal Basins in NSW

Southern Coalfield – AGL Camden CCC

20 September 2017

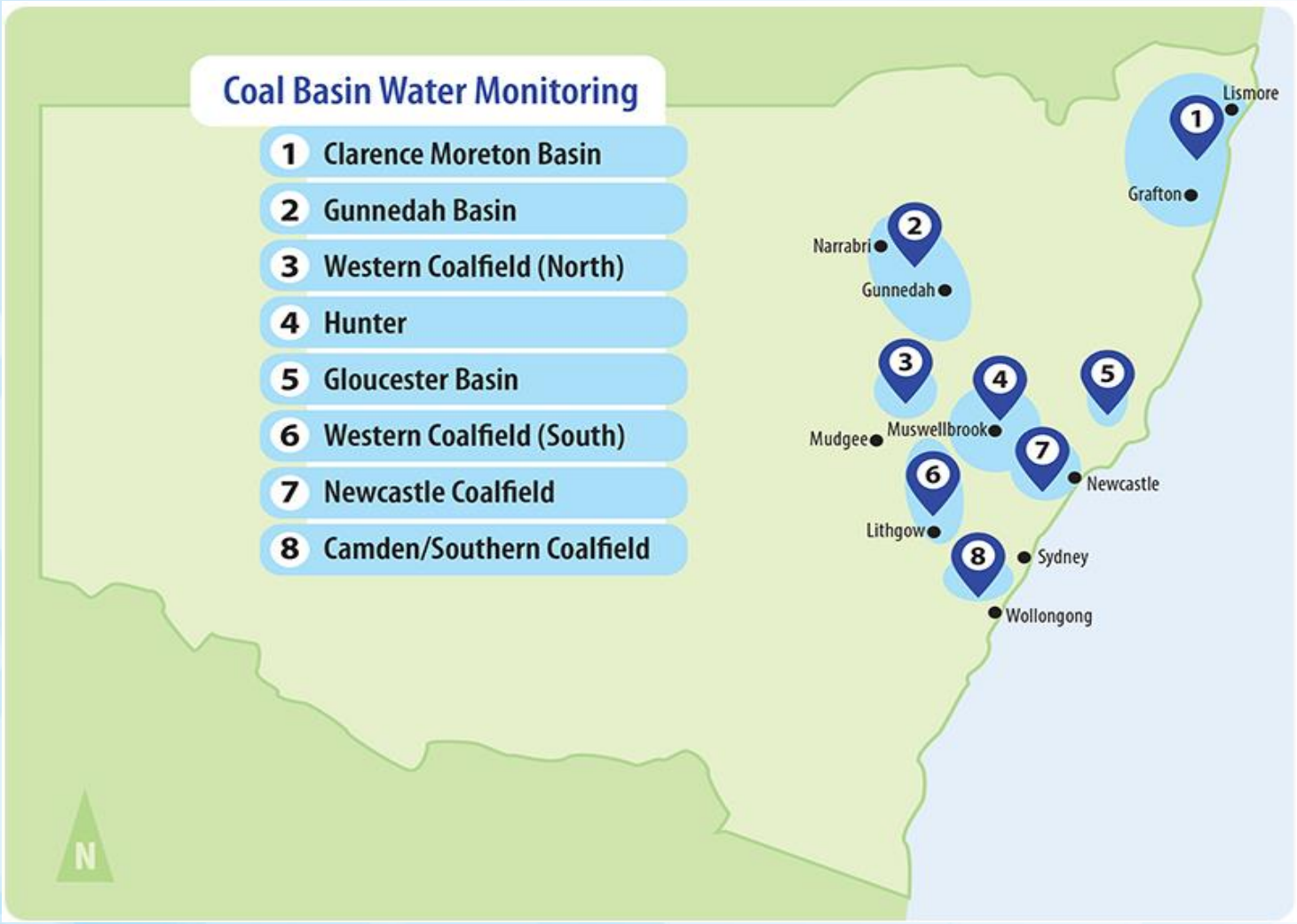
Background

- NSW Cabinet Decision – June 2014
- NSW Chief Scientist & Engineer Reports – September 2014
- NSW Gas Plan – election commitment - March 2015
- Water Monitoring Strategy for Coal Basins in NSW – May 2015
- Business Case – December 2015

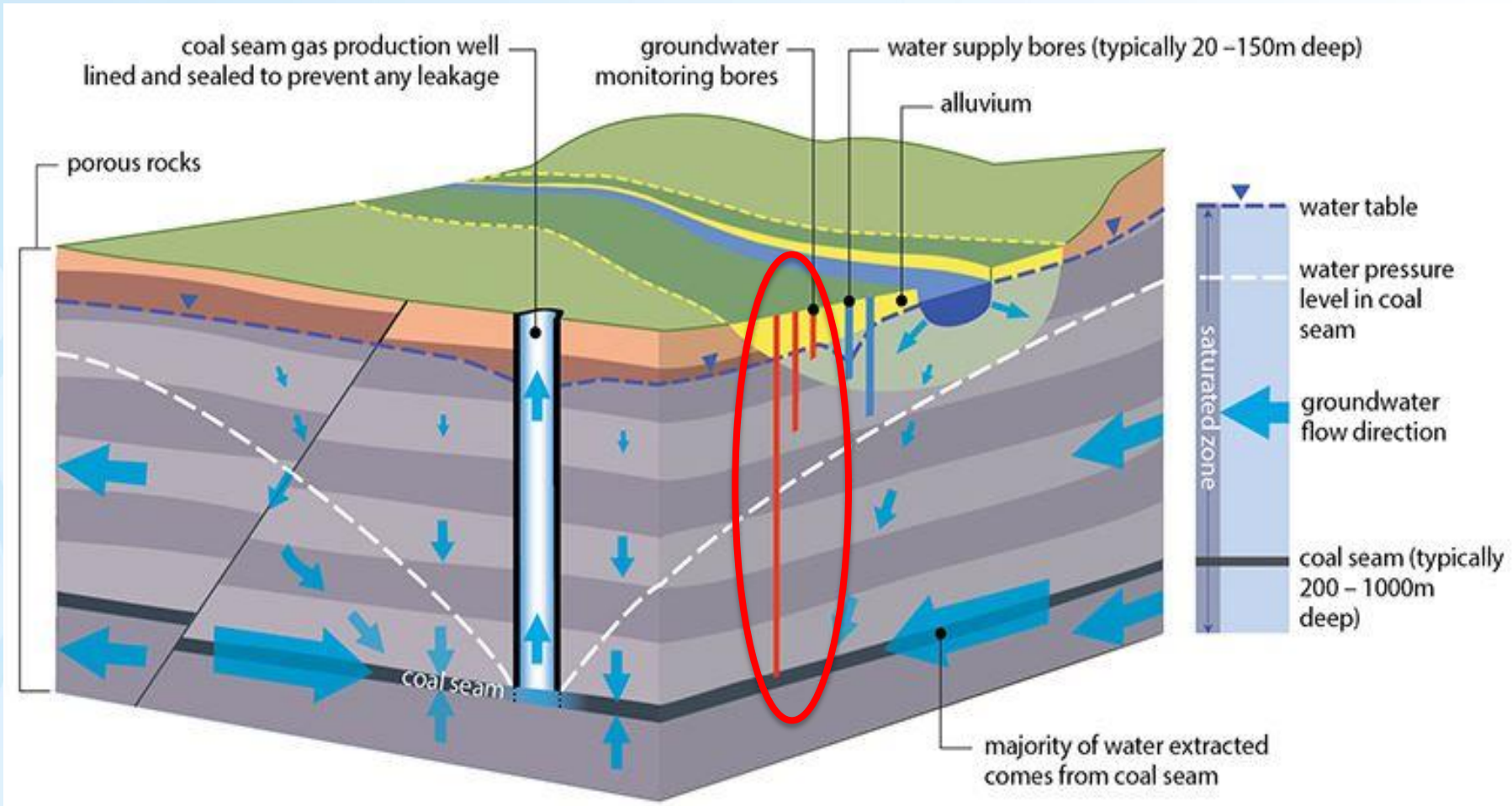
Water Monitoring Strategy for Coal Basins in NSW (DPI Water's Action Plan)

- Infrastructure - new bores in deeper strata
- Expanded monitoring program – new and existing infrastructure
- Harness industry and other agency water data
- Information & Knowledge products out to the community

Water Monitoring Strategy for Coal Basins in NSW – 8 Priority Areas



Water Monitoring Strategy for Coal Basins in NSW



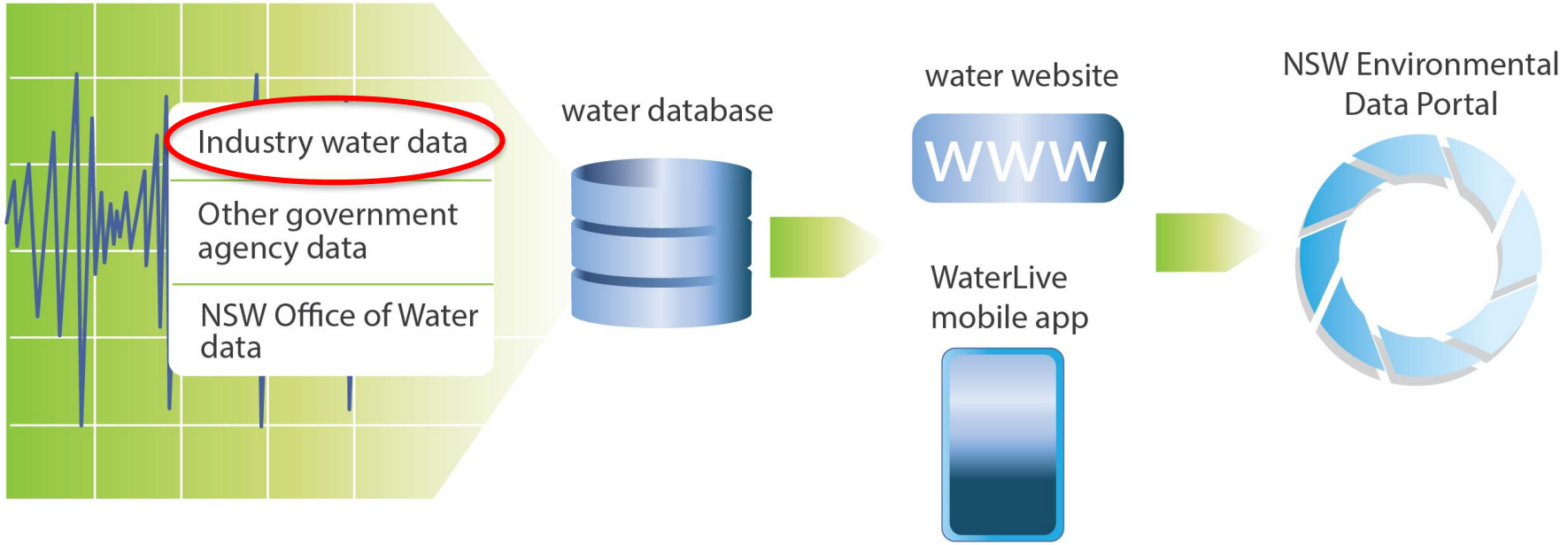
Monitoring Purpose

To establish ***reference condition**** water quality and quantity and to observe changes.

*An alternative expression is ***baseline.*** Here reference condition means the condition found upon its initial observation.

Expanded Monitoring

Water Information Management



Monitoring Results – Data, Information

Department of Primary Industries
Office of Water

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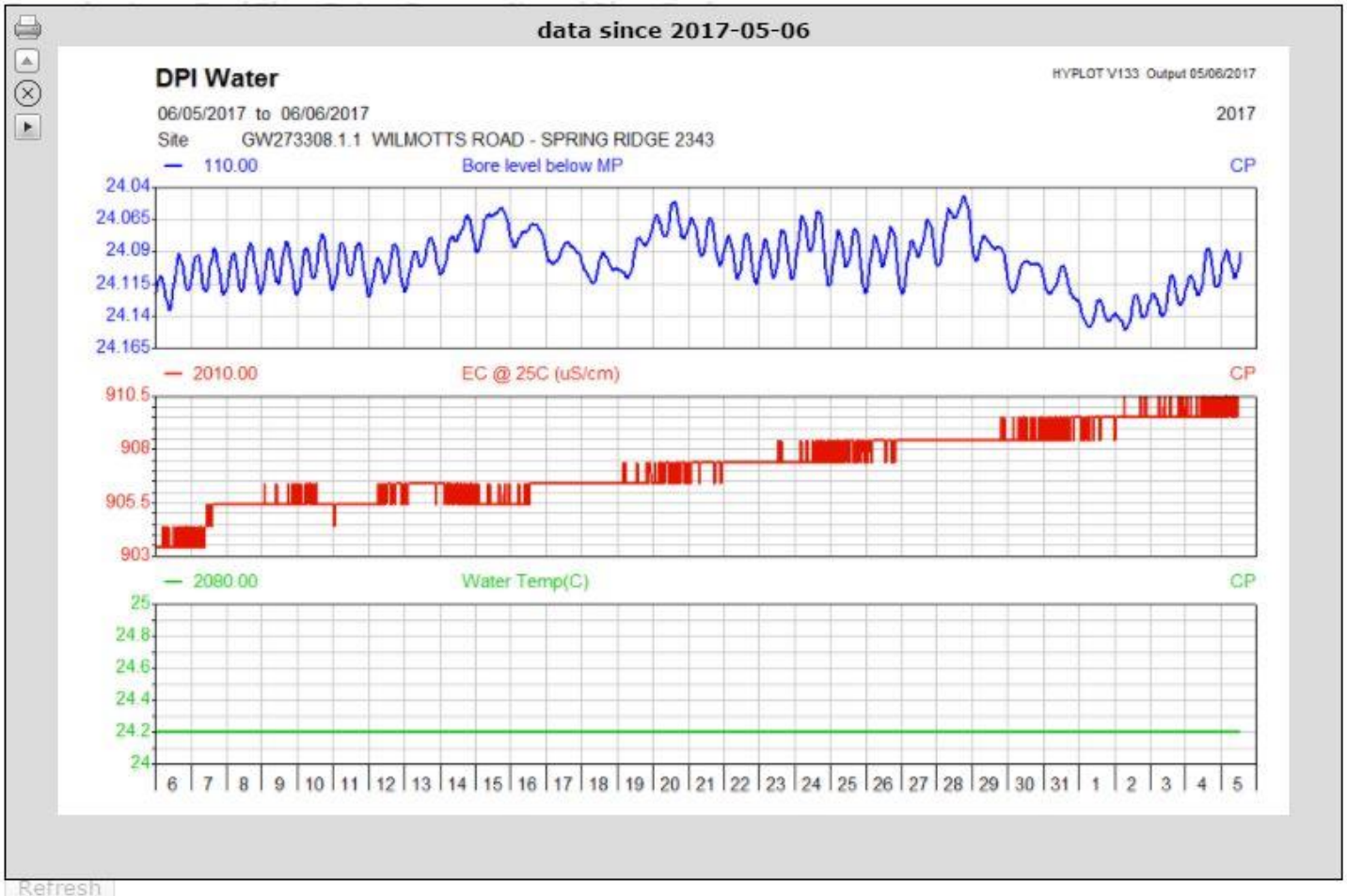
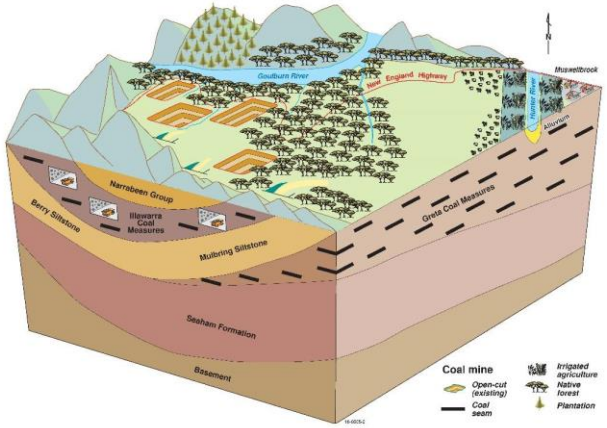
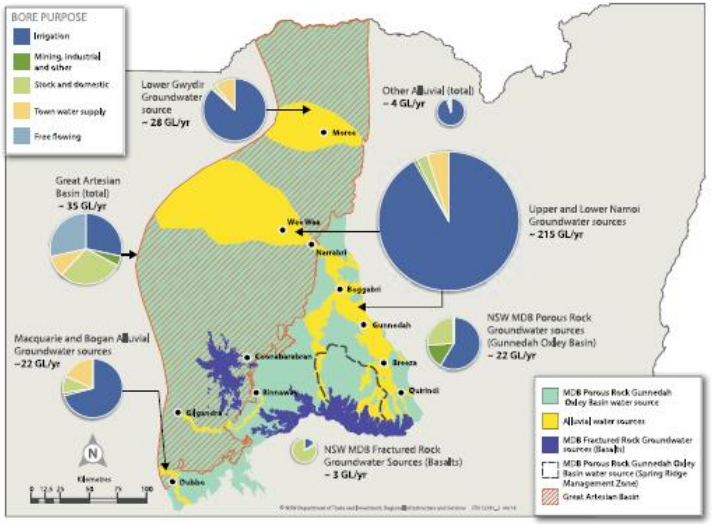
GW025045.3.2 Gw..
GW025245.1.1 Gw..
GW025245.3.3 Gw..
GW025299.1.2 Gw..
GW025333.5.4 Gw..
GW025340.2.2 Gw..
GW030000.1.1 Bu...
GW030029.2.2 Co...
GW030070.4.4 Gw..
GW030083.2.2 Gw..
GW030087.2.2 Gw..
GW030121.1.3 Gw..
GW030129.1.1 Gw..
GW030130.1.1 Gw..
GW030130.1.2 Gw..
GW030131.1.1 Gw..
GW030223.2.2 Gw..
GW030233.1.1 Gw..
GW030233.1.3 Gw..
GW030306.1.1 Gw..
GW030306.2.2 Gw..
GW030306.3.3 Gw..
GW030310.1.1 Gw..
GW030310.1.2 Gw..
GW030344.1.1 Gw..
GW030344.2.2 Gw..
GW030344.3.3 Gw..
GW030450.1.1 Gw..
GW030450.1.3 Gw..
GW030468.1.1 Na..
GW036005.1.1 Gw..
GW036005.1.2 Gw..
GW036045.1.1 Gw..
GW036045.3.3 Gw..



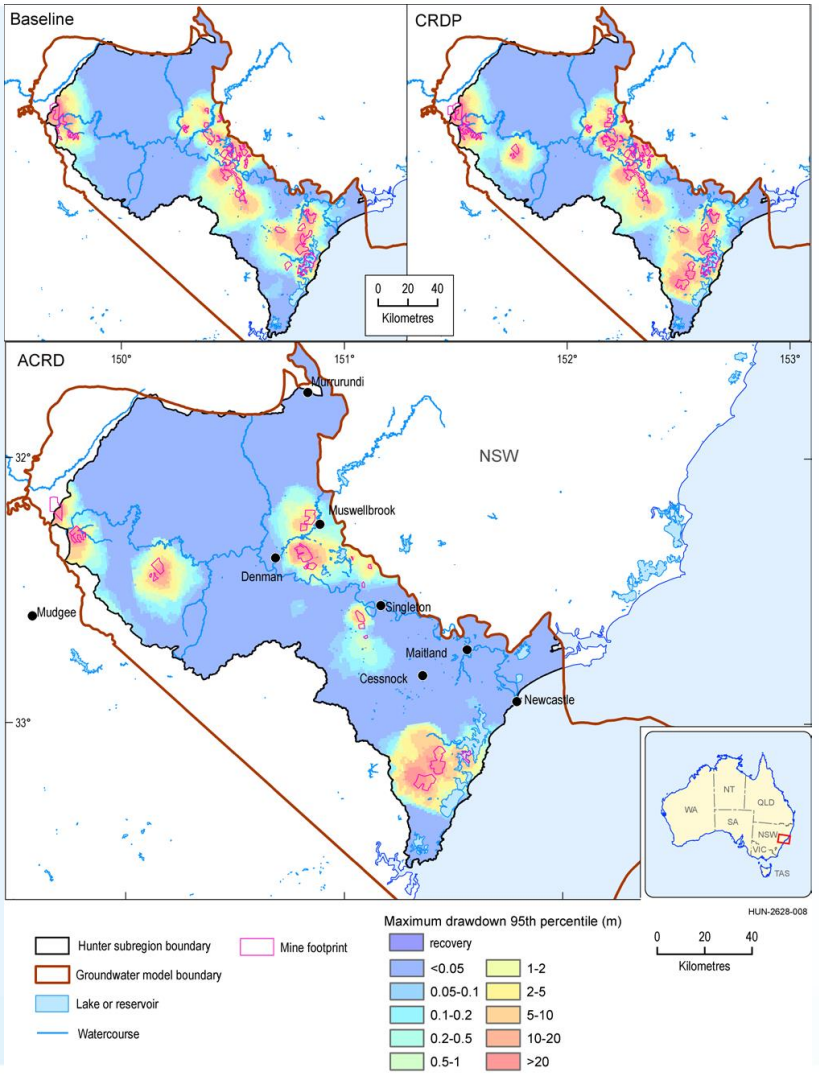
Refresh

Information Products, Analysis





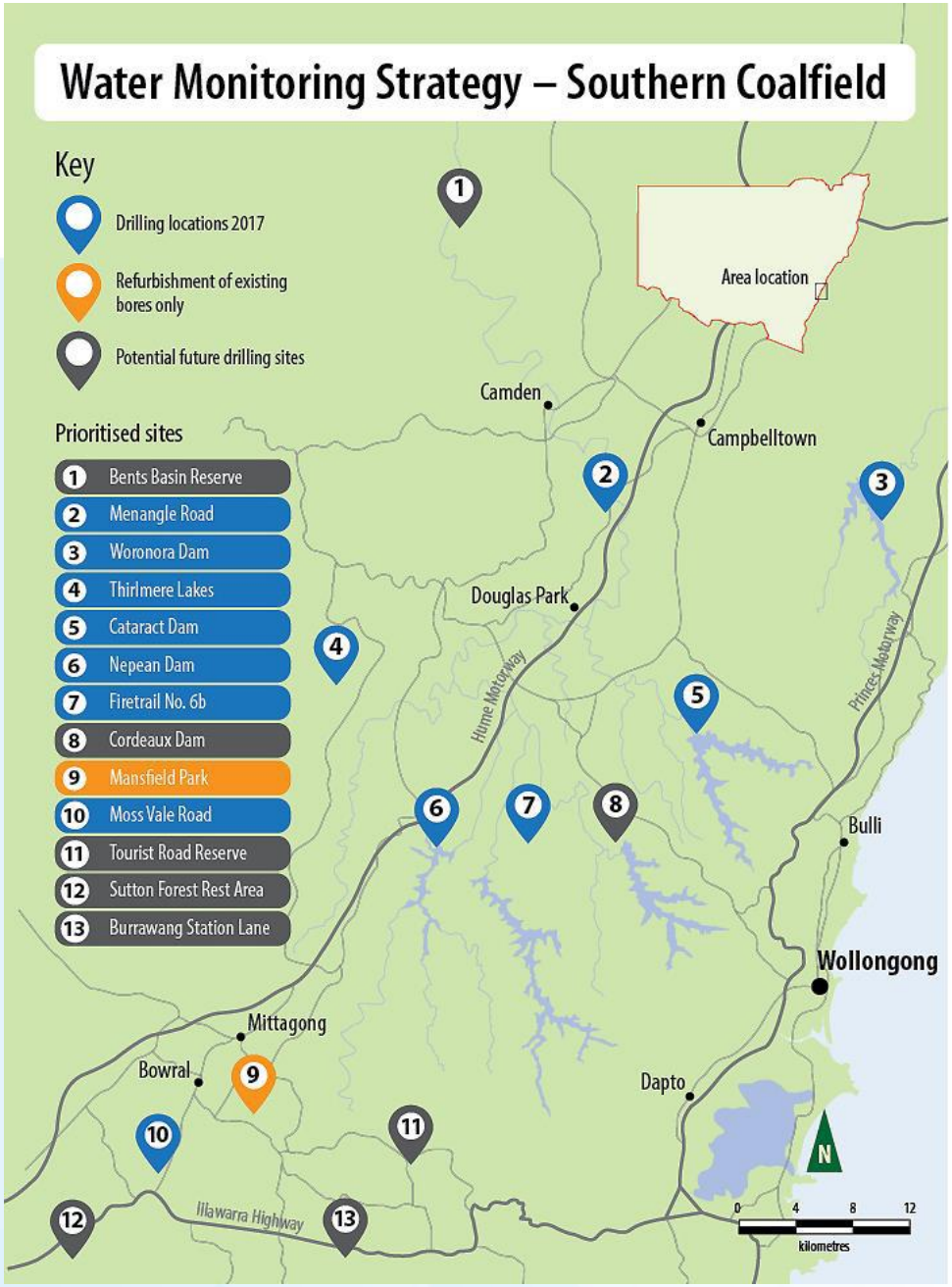
Gunnedah Basin: Distribution and purpose of groundwater rights



Southern Coalfield

Issues:

- AGL's Camden gasfield
- Thirlmere Lakes – Tahmoor
- Sydney drinking catchments – underground coal mining
- Southern Highlands – Hume Coal

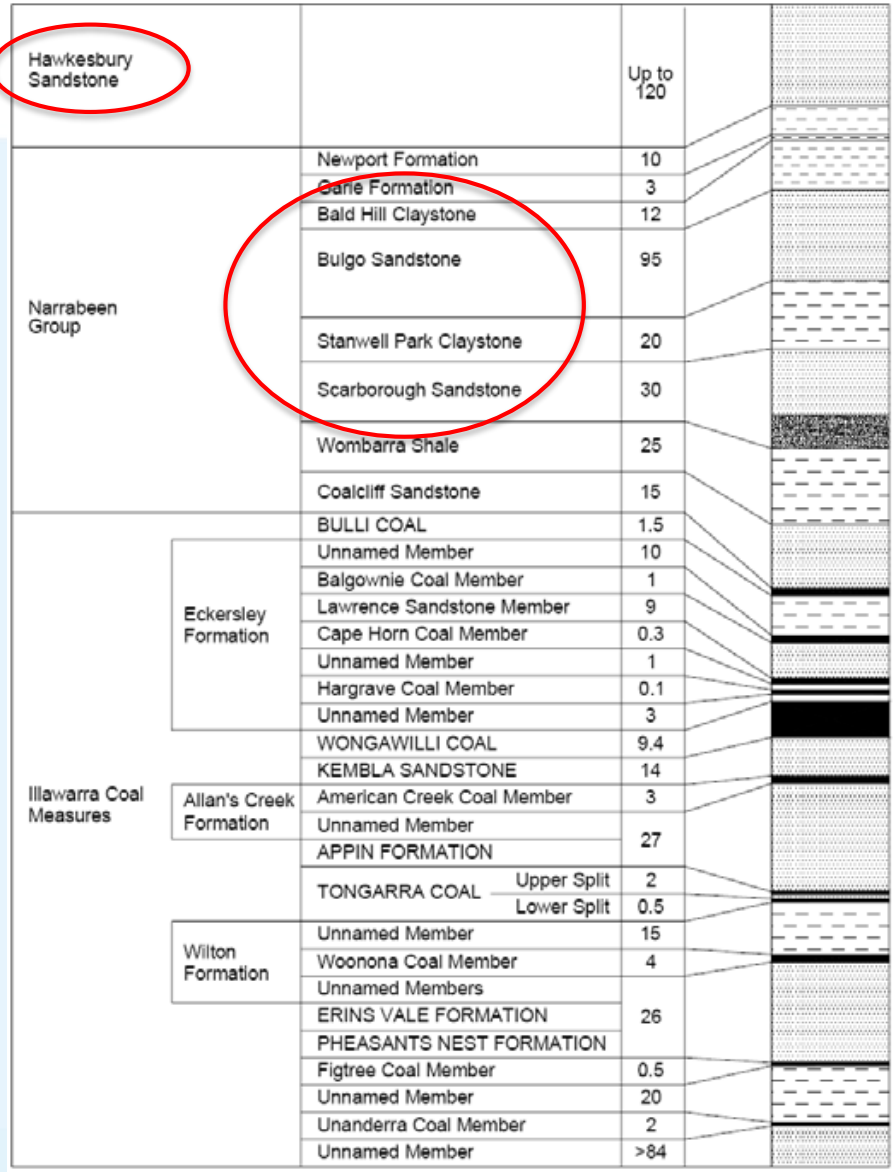


Site Selection Criteria

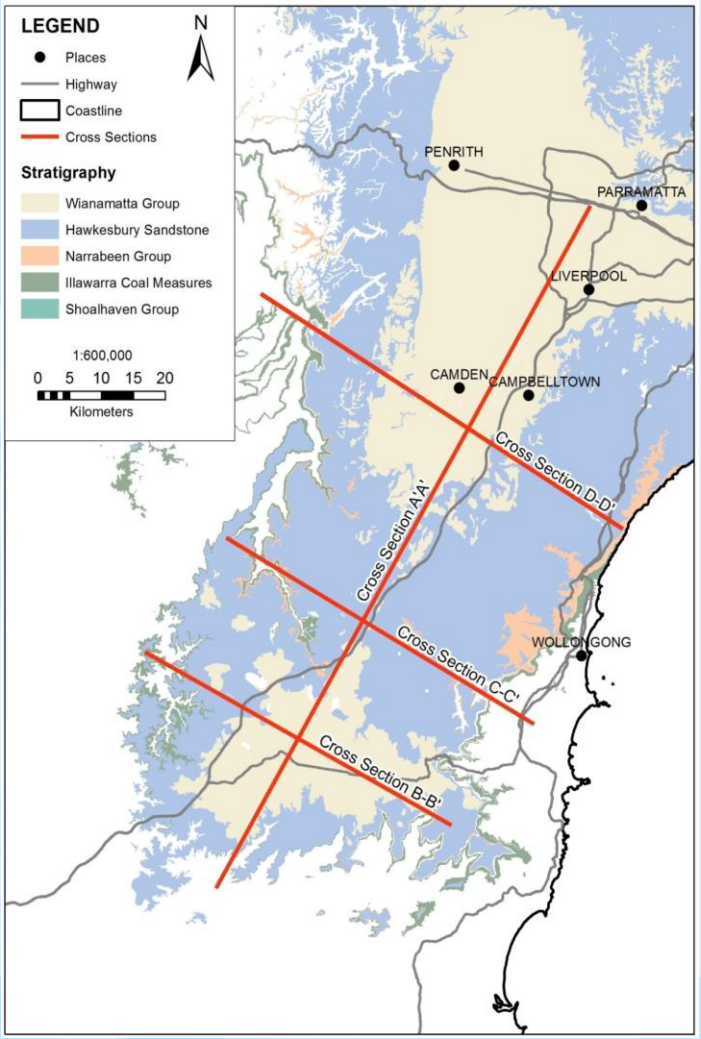
- Identifies or confirms the characteristics of strata, aquifers and aquitards
- Fills data gaps
- Complements existing monitoring
- Impacts, pathways and receptors
- Control
- Numerical modelling
- Addresses stakeholder concerns
- Logistics

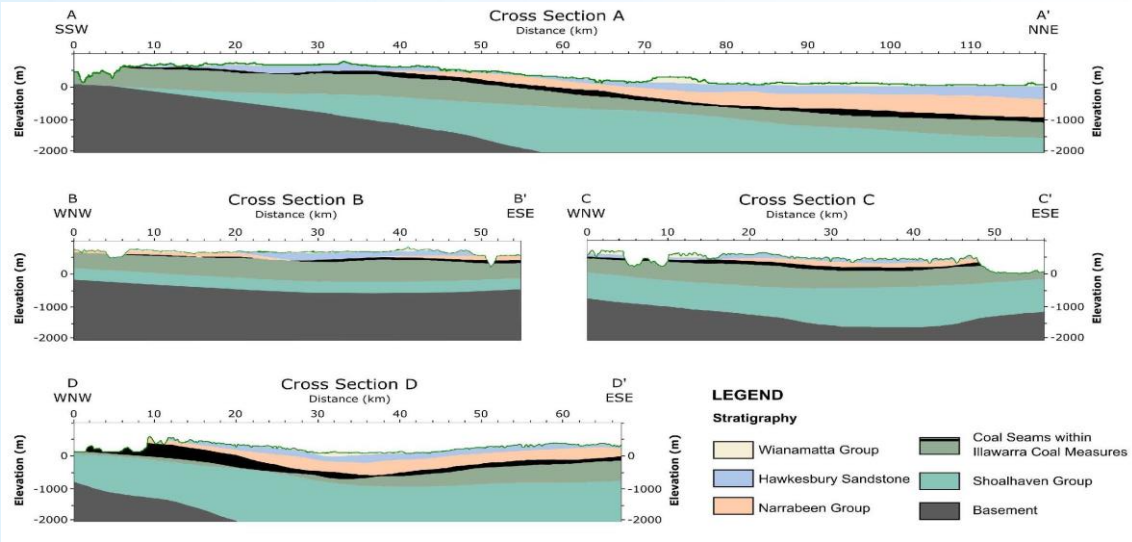
Geological Model

- Division of Resources and Geoscience
- 3D geological model
- Target Formations depths:
  - Hawkesbury Sandstone
  - Bald Hill Claystone
  - Bulgo Sandstone or Scarborough Sandstone
- Determine drilling meterage
- Prioritise budget

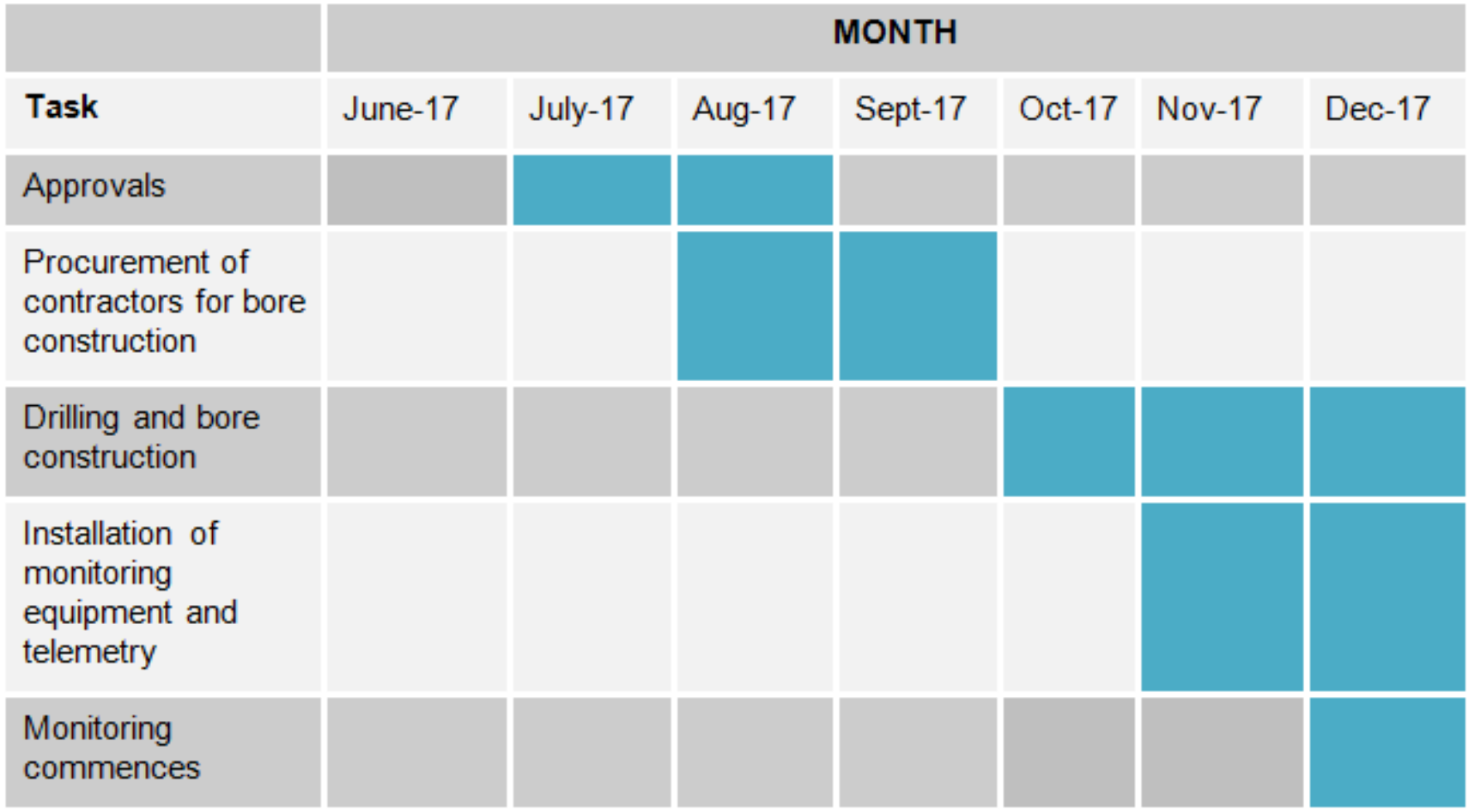


Geological Model





Program Schedule

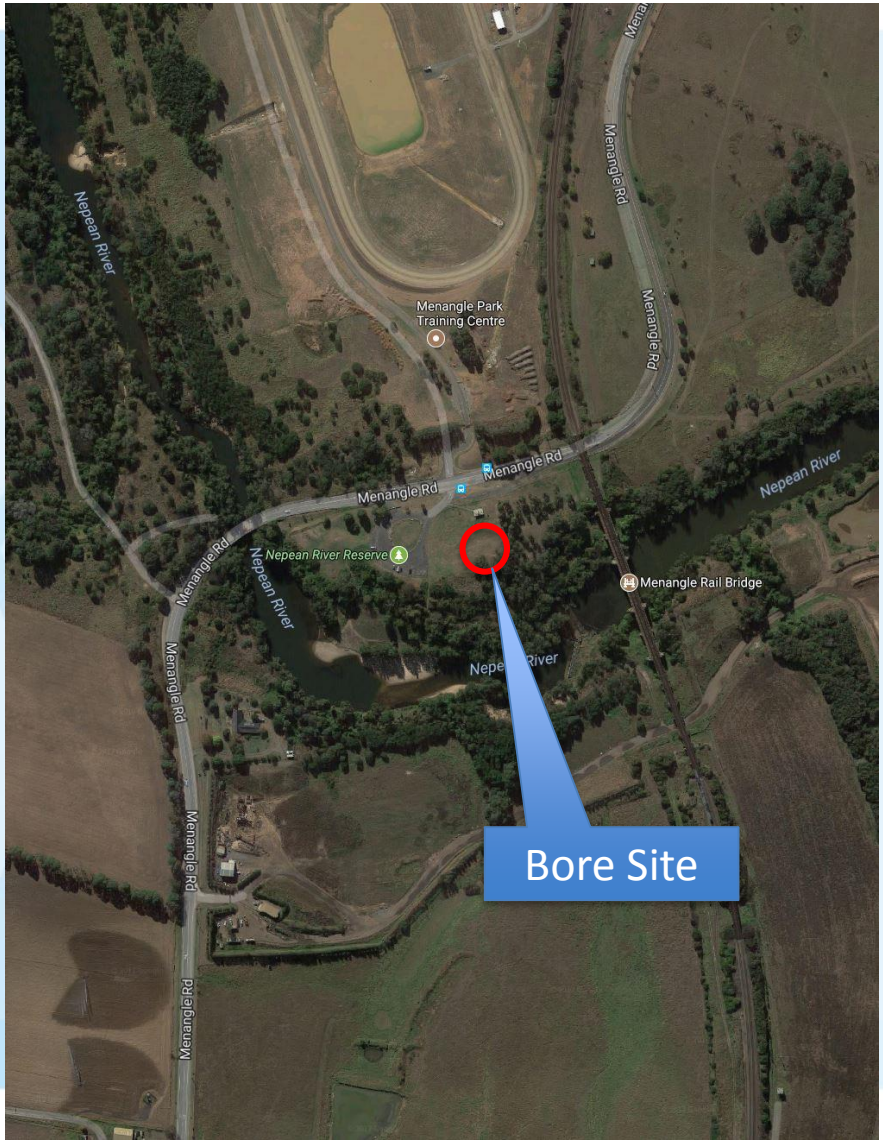


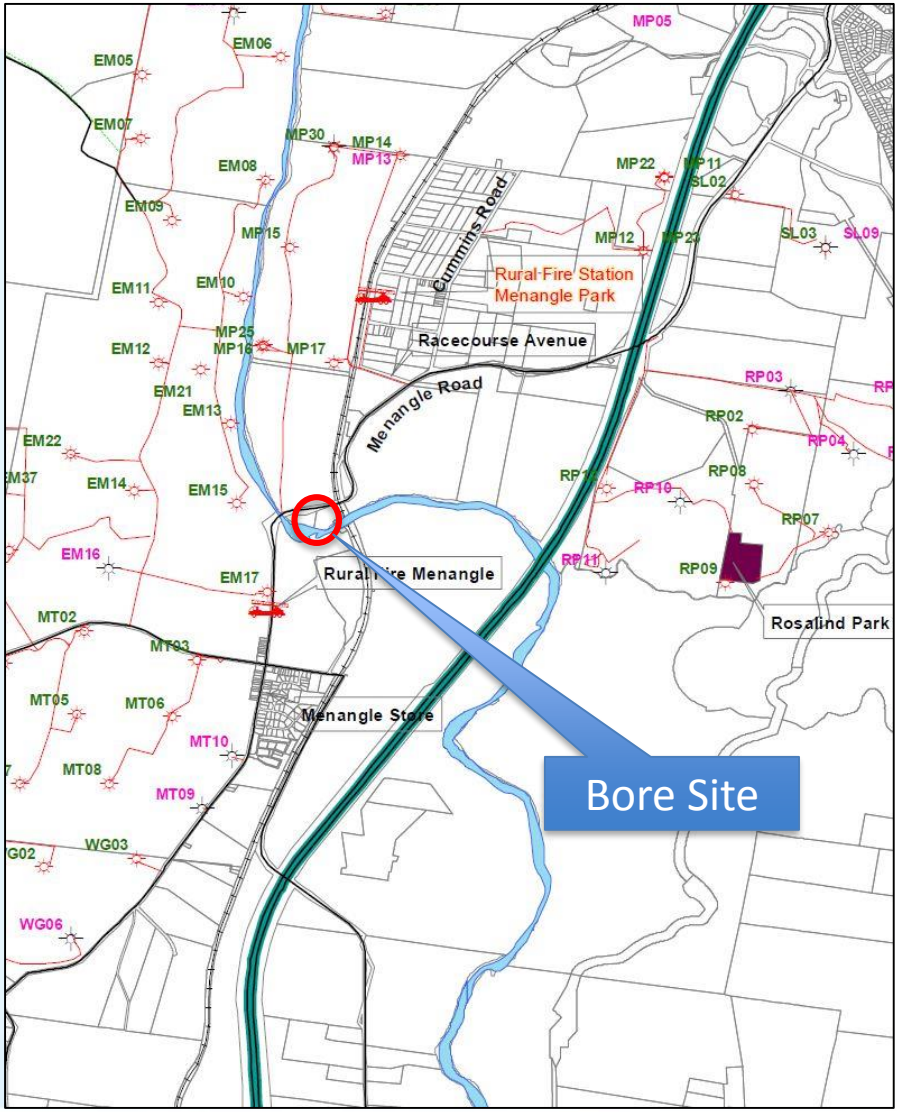
	MONTH						
Task	June-17	July-17	Aug-17	Sept-17	Oct-17	Nov-17	Dec-17
Approvals							
Procurement of contractors for bore construction							
Drilling and bore construction							
Installation of monitoring equipment and telemetry							
Monitoring commences							

Stakeholder Engagement

- Briefings to CCC & local government
- Letters – local government and MPs
- Letters to neighbouring landholders
- Market sounding for information products
- Web-site: www.water.nsw.gov.au

Menangle Road Site





Menangle Road Site

Looking east toward railway viaduct

Three new bores:

- Hawkesbury Sandstone (170 m)
- Bulgo Sandstone (250 m)
- Scarborough Sandstone (530 m)

More information

Visit: www.water.nsw.gov.au

Contact:

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Any questions?