

# Camden Gas Project Community Consultative Committee

12 September 2018



# Agenda



1

Open & Welcome  
Previous Minutes  
Business Arising

2

Correspondence

Business Arising

3

- EPA presentation – Fugitive Emissions Study
- Overview of Camden Gas Project

4

Reports & Presentations

- AGL Update
- Operations & Environment
- Land & Approvals
- Community & Stakeholders

5

Next Meeting Date

6

Close



Business Arising

# EPA Presentation

Andrew Cowan

# CSIRO Presentation

Brendan Halliburton

# Business Arising



**Well Swap notifications** - As per the last meeting request to notify local Government and the EPA, AGL sent Well Swap notifications on 04 April 2018.

**Douglas Park Little Athletics LCIP application** – David Henry followed this up, it was decided that the application could not proceed in the timeframe for the LCIP application. The organisation was encouraged to reapply when they progressed the DA or with another project. The organisation has applied for a different project in this LCIP round.

**Pampas Grass** - the Pampas Grass is outside the AGL lease on the adjoining Hi Quality Quarry lease. Aaron emailed Hi Quality on 16 March 2018 notifying them of the grass.

# Reports & Presentations

## AGL Update

### **AGL CEO transition**

On 24 August 2018 AGL Energy announced that the company's Managing Director and Chief Executive Officer (CEO), Andy Vesey, would leave the company after almost four years in the role.

Brett Redman, AGL's Chief Financial Officer (CFO), was appointed as interim CEO. Mr Redman joined AGL in 2007, has been CFO since 2012, and has more than 25 years' experience in senior roles in blue-chip industrial companies in Australia and North America.

Mr Vesey has stepped down from AGL's Board but, in order to ensure a smooth transition, he will remain employed by AGL in an advisory capacity to the Board until 31 December 2018.

Damien Nicks has been appointed interim CFO.

# Operations & Environment

## Decommissioning & Rehabilitation



Production Well Status	Total (as at 14 March 2018)	Total (as at 12 September 2018)
Drilled (total wells)	144	144
Production and dewatering wells	92	90
Suspended or shut in wells	20	14
Wells in process of decommissioning	0	2 (EM34 & SL09 initial works completed)
Wells subsurface decommissioning complete	32	38
Land in process of being rehabilitated	12 (EM16, JS01, JS03, JS04, LP01, MT09, MT10, RP03, RP04, RP05, RP06, RP11)	13 (EM16, GL16, LP01, MT05, RP02, RP03, RP04, RP05, RP06, RP10, RP11, RP12, WG06)
Land fully rehabilitated and returned to landowner	20	25 (these were MT09, MT10, JS01, JS03, JS04)



# Operations & Environment

## Decommissioning & Rehabilitation – Stage 1 Timeline

### Camden Rehabilitation Project - Stage 1 Projected Timeline



AGL has decommissioned 14 of the 17 wells listed under the Stage 1 program.

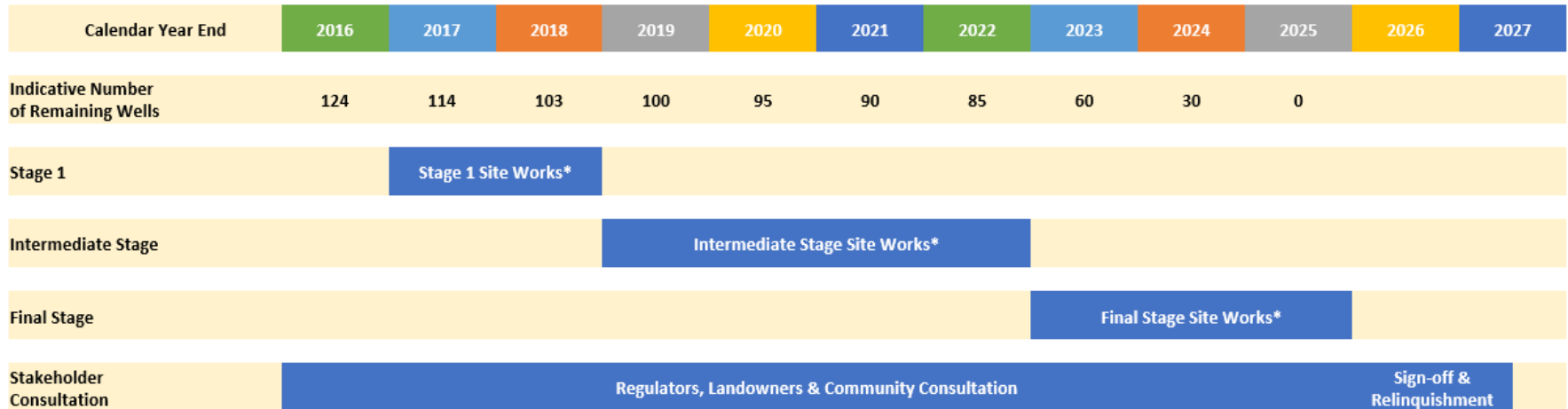
- The remaining three wells listed (EM34, MP05, SL09) are horizontal wells, the first kind of these type of wells to be decommissioned in Camden Gas Project area.
- AGL is working with the regulatory agencies (including the EPA, our lead regulator, and DPE) to gain approvals for the decommissioning of these wells. This work has not yet been finalised.
- AGL are continuing to work towards completion of the 17 wells in the Stage 1 program.
- To complete all 17 wells AGL may be required to bring forward alternative wells that are available (based on the criteria discussed on slide 20).

# Operations & Environment

## Decommissioning & Rehabilitation – Whole Project Timeline



### Camden Rehabilitation Project - Whole Project Projected Preliminary Timeline



\* After site works are complete, wait on regeneration of surface compatible with required land use, and regulatory sign-off - may take an additional 12-18 months

# Operations & Environment

## Decommissioning & Rehabilitation - selecting wells to decommission and rehabilitate

In the event that AGL are unable to decommission the three horizontal wells in time for the Stage 1 completion, AGL will bring in three other wells to replace them.

Processes to select and schedule wells for decommissioning and rehabilitation:

- Has the well reached the end of its producing life?
- The type of well – vertical, deviated, horizontal?
- Do we need to remove the steel casing from across the Bulli Coal Seam?
- Is specialist equipment required with long lead times?
- Landholder, access and other stakeholders (e.g. Aboriginal Land Council)
- Weather constraints
- Infrastructure (e.g. roads, services), rezoning and developments impact timing and access

# Operations & Environment

## Environmental Monitoring & Reporting

**RPGP noise monitoring** – No noise complaints received. Next quarterly monitoring scheduled this week.

**RPGP air emissions monitoring** – No exceedances of licence limits during the last quarter. Next quarterly monitoring scheduled next week.

**Annual Leak Detection Survey** – Scheduled to be completed throughout October. Report to be uploaded to CGP website in late 2018.

**2017-18 Annual Environmental Performance Report** – Currently being prepared and expected to be released in October 2018.

**2015-2018 / 2016-2018 Independent Environmental Audit** – Pending DP&E approval of Treo Environment as a suitably independent auditor, Audit will commence in October. Final Audit Report will be released in late 2018.

# Operations & Environment

## Penalty Infringement Notices (PINs)

AGL received two Penalty Infringement Notices (PINs) from the NSW Environment Protection Authority (EPA) on Friday 4 May 2018 for alleged breaches of a condition of petroleum title.

On 15 June 2018 AGL requested Revenue NSW review these notices and specifically, requested that they be withdrawn on the basis that they have been invalidly issued.

On 9 August 2018 Revenue NSW notified AGL that the two penalty notices were cancelled. On 7 September 2018 the EPA removed the media releases about the PINs from their website.

# Land & Approvals



AGL continues to engage with new landowners, local councils and the Department of Planning & Environment where land sale transactions have occurred across the petroleum titles and project activity areas.

This engagement may involve:

- responding to rezoning and development proposals;
- working with infrastructure managers such as RMS and Councils relating to new road networks, services etc;
- negotiating access agreements with new landowners; and
- consultation on AGL production and decommissioning activities and future requirements.

The changing land uses and rezoning of land from rural to residential/industrial densities makes engagement with these stakeholders is important to ensure any potential conflicts are managed that relate to proposed urban development and AGL's production and decommissioning activities.



Proudly supporting  
the Dilly Drought Drive

Community &  
Stakeholders

# Community & Stakeholders

## Drought Update





# Community & Stakeholders

## Local Community Investment Program update

### Round 1

Organisation	Program	Amount	Paid?	Program complete?
Kentlyn Public School	New dishwasher and oven	\$ 5,000.00	Y	Y
Macarthur Preschool	Installation of energy efficient lighting	\$ 2,700.00	Y	Y
The Oaks Pony Club	Completion of toilet block	\$ 5,000.00	Y	N
Picton Rangers Soccer Club	Upgrade of the parking lot a Hume Oval	\$ 5,000.00	Y	N
	Total	\$ 17,700.00		

# Community & Stakeholders

## Local Community Investment Program update

### Round 2

Organisation	Program	Amount	Paid?	Program complete?
Camden Rugby	5kW solar system	\$ 4,350.00	Y	N
Macarthur Beekeepers	Equipment for safe function of group	\$ 4,990.55	Y	N
Macarthur Centre for Sustainable Living	5x gas burner hotplate and oven	\$ 2,471.00	Y	N
Macarthur Diversity Services	Children's Outdoor play equipment for the Sensory Garden	\$ 3,400.00	Y	N
Mother Hubbards Cupboard	Hire of a truck to deliver furniture	\$ 4,356.00	Y	Ongoing
Picton ANZAC Day Committee	New cenotaph at Picton Memorial Park	\$ 5,000.00	Y	N
Picton Community Carols	Sound equipment, microphones, event banners	\$ 3,168.00	Y	N
Picton Historical Society	Equipment for oral history record collection	\$ 1,600.00	N	N
Picton Strings	Conducting orchestra for seniors	\$ 3,500.00	Y	N
Tahmoor Netball Club	Trophies and engraving	\$ 1,000.00	Y	N
	<b>Total</b>	<b>\$ 33,835.55</b>		
	<b>Total LCIP funding over FY18</b>	<b>\$ 51,535.55</b>		

# Community & Stakeholders

## Local Community Investment Program

Assessment of applications:

- Cawdor Public School
- Campbelltown Community Preschool (Application 1)
- Campbelltown Community Preschool (Application 2)
- Douglas Park Little Athletics
- Youth Solutions

# Contact



**Alex Fitzpatrick**

Manager, Government & Community  
Relations

[AGLCommunity@agl.com.au](mailto:AGLCommunity@agl.com.au)

# Overview of Camden Gas Project

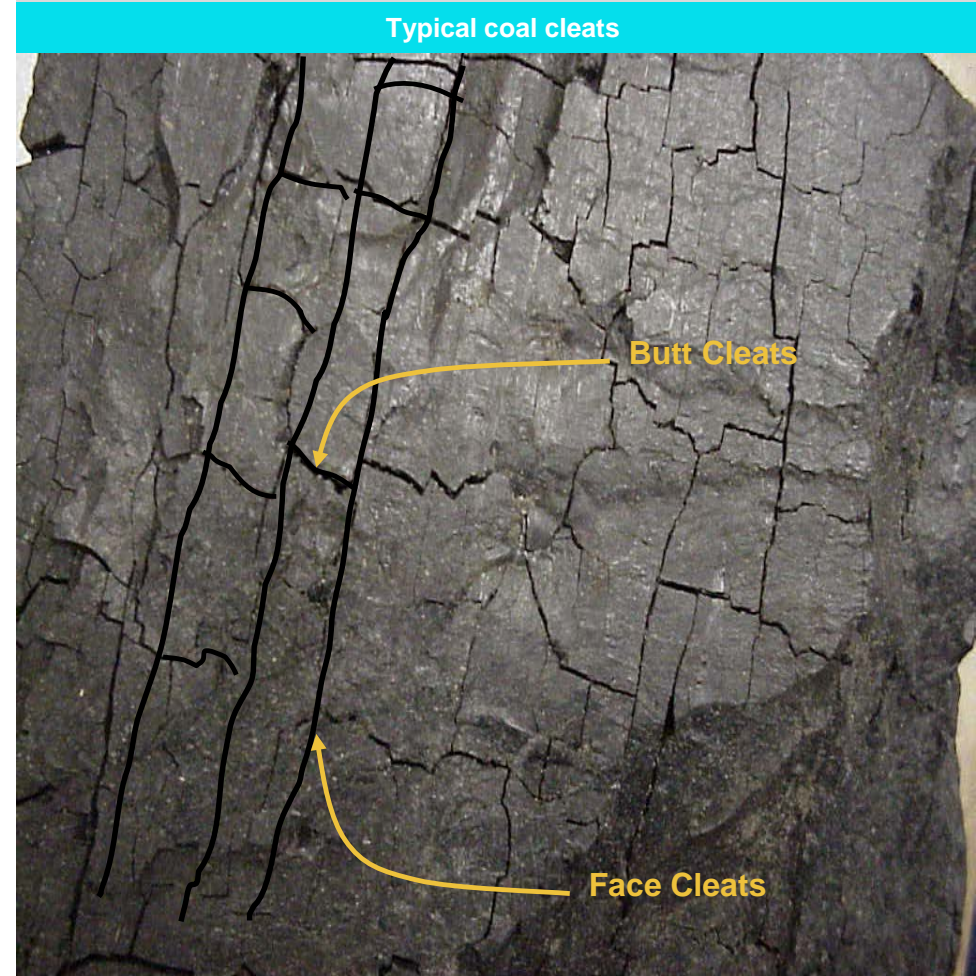


# About Coal Seam Gas

## About Coal Seam Gas

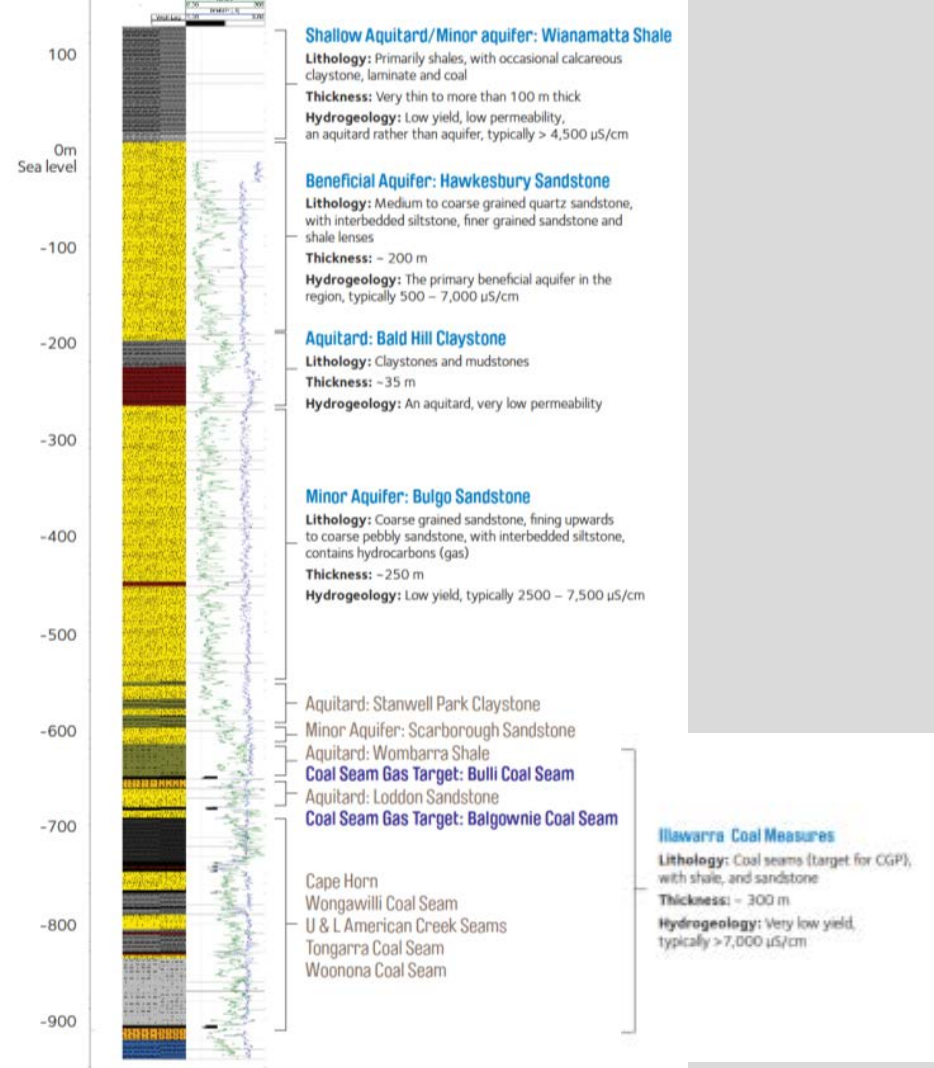
CSG is naturally occurring gas trapped in coal seams.

- Mainly methane
- Produced from ancient organic matter & trapped in coal seams
- Held in place by water that saturates coal seam
- Gas moves through coal via natural fractures
- About a third of eastern Australia's natural gas is sourced from CSG



# About Coal Seam Gas

- Triassic sandstones are the aquifers
- One (upper) sandstone aquifer (isolated)
- Minor sandstone aquifers at depth (isolated)
- Shallow (very limited extent) alluvial aquifer
- No natural connection between sandstone aquifers, and between aquifers & coal seams



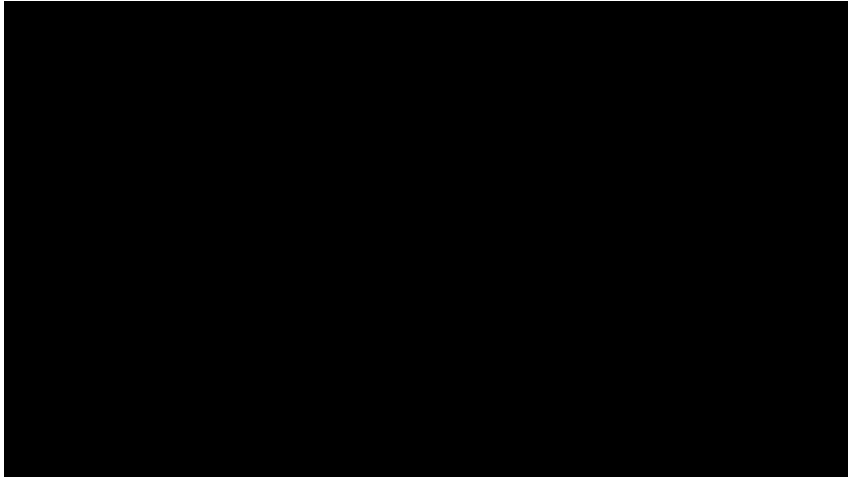


# About Coal Seam Gas

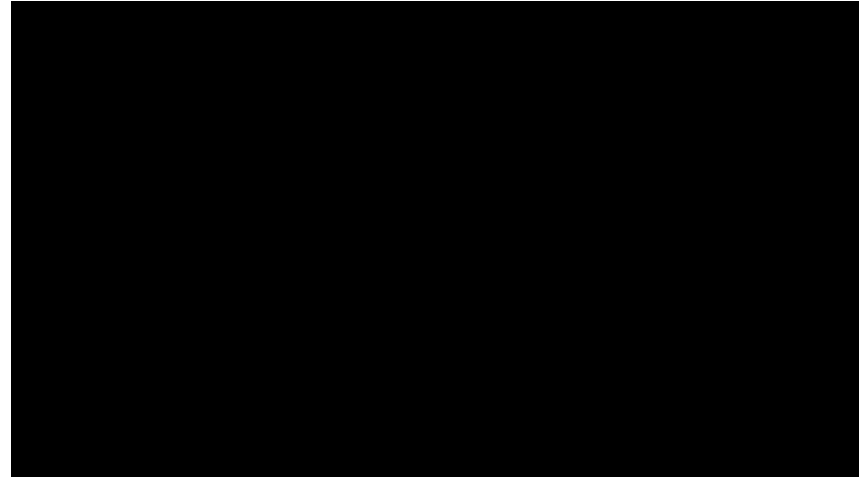
CSG extraction



**Vertical drilling**



**Horizontal drilling**

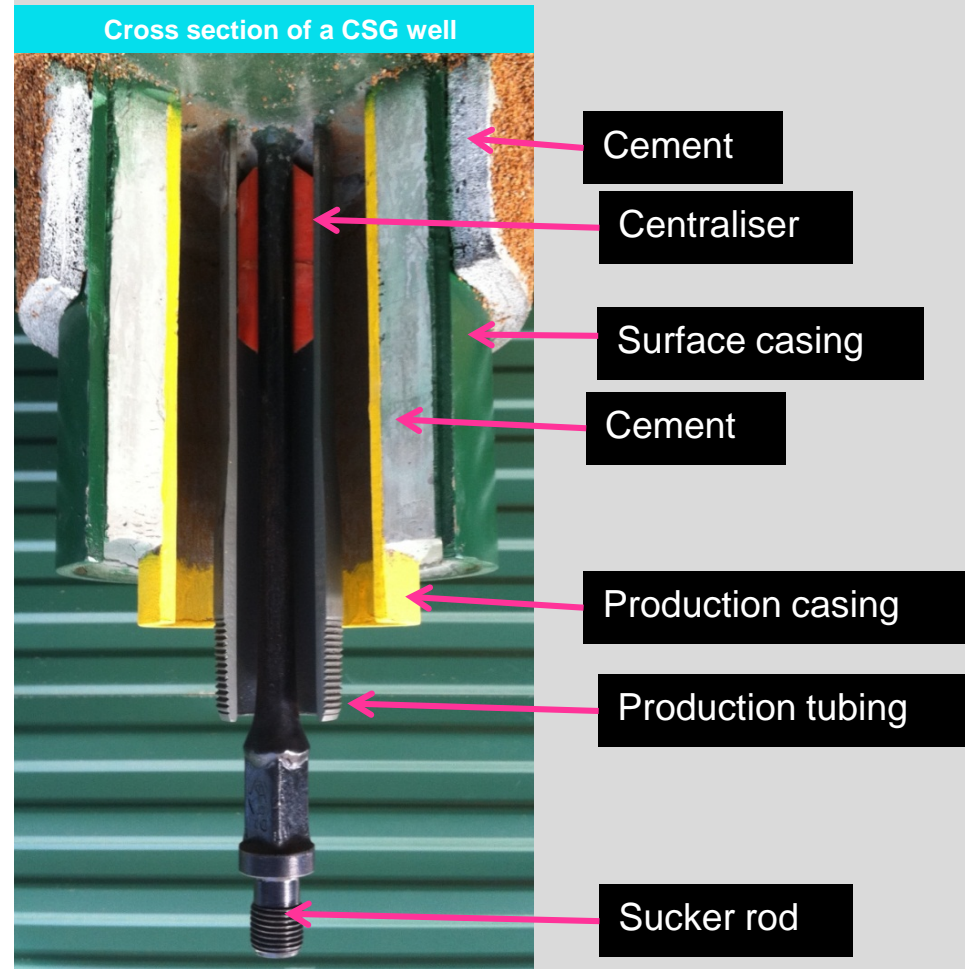


# About Coal Seam Gas

## CSG extraction

**Well integrity ensures no connectivity with surrounding aquifers.**

- CSG is released by:
- Drilling into the coal seam
- Cementing steel casing & installing tubing into drill hole ('completion')
- Pumping out the water from coal seam ('dewatering'), which depressurises coal seam, allowing gas to flow out
- AGL follows Oil & Gas Standards using API casing & wellheads
- 4 barriers of protection down to approximately 120m below the surface





# About the Camden Gas Project

# About the Camden Gas Project

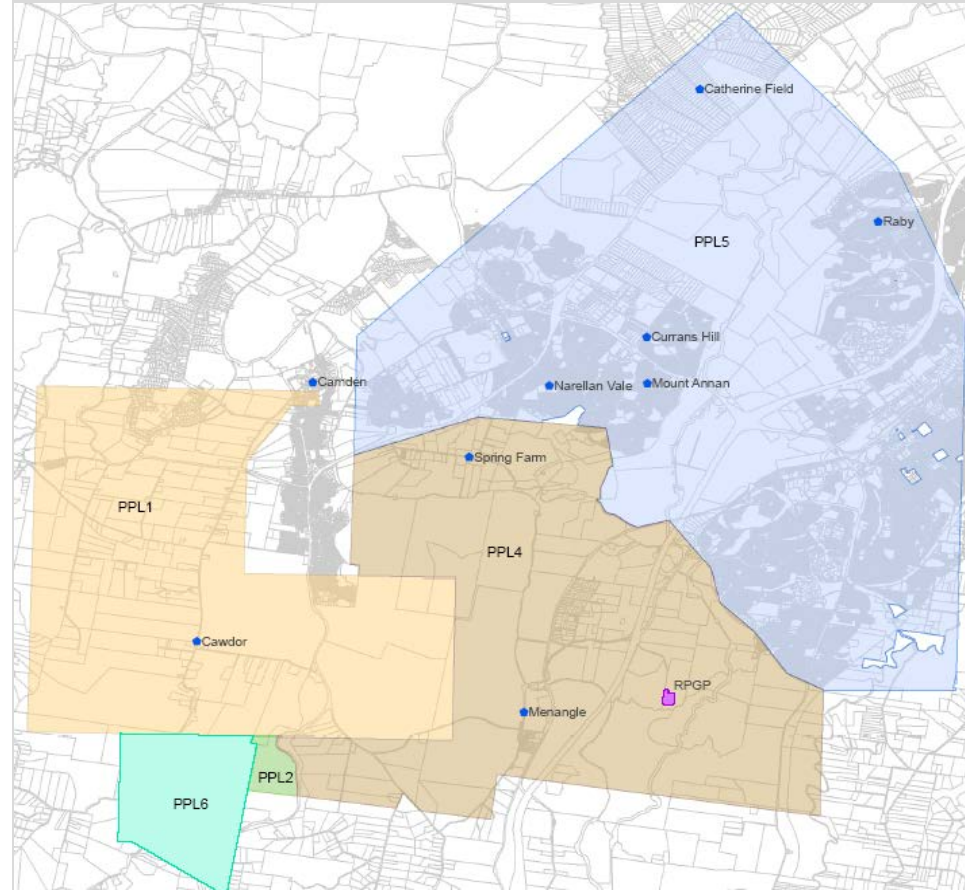
## Fast Facts

### Camden Gas Project fields:

- Began producing in 2001
- 60km southwest of Sydney, in the Camden, Wollondilly and Campbelltown LGAs
- Produces approximately 5% of NSW's gas supply (that's about how much gas 265,000 homes use in a year)
- 100km of low pressure gas gathering lines

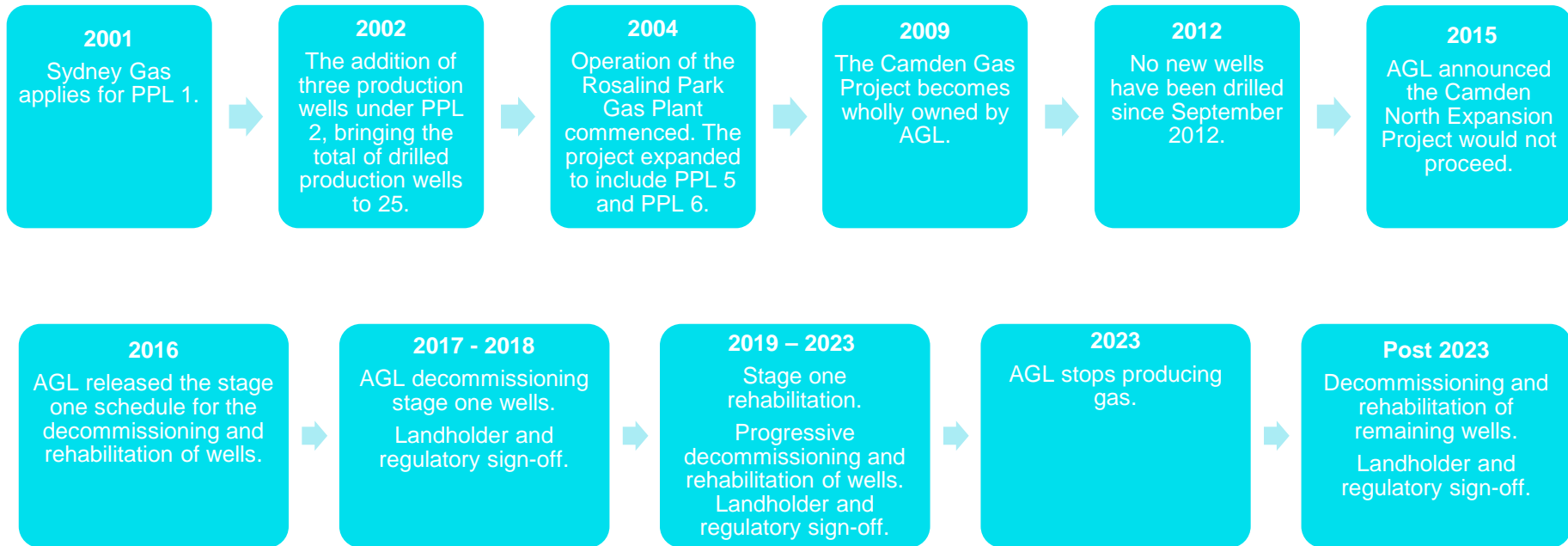
### 144 wells have been drilled:

- 117 have been hydraulically fractured
- 31 have been horizontally drilled
- 92 are producing natural gas



# About the Camden Gas Project

## Timeline



# Decommissioning and Rehabilitation

The decommissioning and rehabilitation process

