

Meeting Minutes

Narrabri Gas Project (NGP)

Water Technical Advisory Group (WTAG)

Meeting #12

DATE / TIME

Tuesday 29 April 2025

9.30am

LOCATION

Narrabri Shopfront Conference Room

125 Maitland Street, Narrabri

(+ Videoconference)

FACILITATOR

Garry West

MINUTE TAKER

Garry West

ATTENDEES

- | | |
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| <ul style="list-style-type: none">• Garry West (Independent Chair)• Andrew Snars (Santos)• Janelle Twyman (Santos)• Curtis Attard (Santos)• Adrian Lavery (Santos)• Keith Phillipson (AGE) | <ul style="list-style-type: none">• Fabienne d’Hautefeuille (DCCEEW NSW) MS Team• David Cameron (Community Representative)• Michael Williams (Independent Expert)• Randall Cox (Independent Expert) MS Teams |
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APOLOGIES

- Edward Trindall (Narrabri LALC)
- Cate Barrett (DCCEEW NSW)
- Ty Felmingham (Santos)

Discussions

NO.	DISCUSSIONS
1. Welcome	The Chair welcomed all to the meeting and acknowledged Gomeroi country on which the meeting was held as well as Elders past, present and future and all Aboriginal persons present.
2. Declaration of pecuniary or other interests / Code of Conduct	Chair asked if there were any new declarations of interest. Nil
3. Confirmation of previous minutes and business arising	Minutes of previous meeting distributed to WTAG members and are available on the NGP website.
4. Actions from previous meeting	Nil
5. Correspondence	Nil correspondence received.
6. Presentation Santos Corporate update	Presentation: Santos delivered a presentation. Agenda items included: Santos Corporate Update – Andrew Snars - Santos provided a corporate update from the 2025 First Quarter report. - Santos addressed recent media reports suggesting that a Carbon Capture and Storage (CCS) project was proposed to be developed in NSW. Santos advised that it is not currently pursuing a CCS project in NSW given there is no regulatory framework in NSW for CCS nor are there suitable sites. Narrabri Gas Project - Andrew Snars - Progressing planning for Phase 2 activities - Progressing land access agreements, cadastral surveys and environmental assessments for the Hunter Gas Pipeline (HGP) route alignment - Progressing Environmental Impact Statement (EIS) for Narrabri Lateral Pipeline (NLP) - The Native Title Tribunal process is ongoing, a ruling is expected in May 2025

- Target gas rate for the NGP is up to 200 TJ/d, unconventional

Andrew clarified that the HGP is not planned to be developed north of the NGP at this time.

Project Update - Janelle Twyman

- Phase 1 activity continues to progress
 - Existing wells online, delivering gas to Wilga Park Power Station
 - Undertaking routine maintenance on existing wells
 - Groundwater corehole was completed in late April 2025
- Amended Environmental Protection Licences for the NGP and Gunnedah area activities received on 17 February 2025
- Annual Review submitted to DPHI on 28 March 2025

Management Plans – Janelle Twyman

- Rehabilitation Management Plan has been approved by DPHI
- All Management Plans requiring amendment for the changed corehole location have been approved
- Management plans and DPHI approvals are available on the NGP website
- Santos will progress engagement on the Phase 2/3 management plans from Q2 2025

NGP Water Technical Advisory Group Update – Adrian Lavery and Keith Phillipson (AGE)

- Revisions to the groundwater Plans are in progress, including:
 - Improving the groundwater flow model prior to commencement of Phase 2 as required by the consent
 - Groundwater monitoring network updates
 - 2023 Independent Environmental Audit (IEA) Hydrogeological Audit report Observations
 - Minor plan revisions and updates following completion of the SSD 6456 Annual review and Groundwater Management Plan review
 - The Groundwater Modelling Plan describes a six stage methodology to review and revise the plan
 - Stage 1 was completed in November 2022

- Stage 2 (current stage) – the Groundwater draft Model Initial Conceptualisation Report (the Report) is currently being finalised
- Additional work has been undertaken to address comments from the Oct 2024 WTAG and results to be presented in the Report.

Adrian Lavery confirmed that the proposed reports discussed at the October 2024 WTAG have not been finalised. Santos is currently undertaking the model improvement process as described in the Phase 1 Groundwater Modelling Plan.

Review of available extraction data for existing pilots and drilling data - Keith Phillipson (AGE)

- Ongoing extraction data over a period of more than 10 years from the Bohena Coal Seam at the Bibblewindi East, Bibblewindi West and Dewhurst South pilot wells has been reviewed.
- Groundwater level data from the Dewhurst 9 monitoring points suggests that depressurisation of approximately 150m has occurred in comparison to Drill Stem Test data available from drilling reports. There is no depressurisation evident in the Porcupine formation above the coal seam. The Dewhurst 9 monitoring point location is about 500 metres away from the coal seam extraction point.
- Comparison of data from four different monitoring locations suggests that the Bohena coal seam appears to respond as a single relatively homogenous unit and depressurisation is relatively predictable across the coal seam.

The detail will be available in the Report.

- Q. Randall Cox - has Santos resolved the issue raised at the last WTAG about the requirement for there to be 2 years of data in accordance with the conditions of consent.
- A. Adrian Lavery - Santos baseline data from existing wells covers several years and is documented in the Phase 1 Groundwater Baseline Report. All groundwater monitoring points with triggers assigned in the Phase 1 Groundwater Monitoring Plan are now actively recording data. The data presented in the WTAG meeting focussed on a few existing locations and additional data which will be presented in the Report and submitted to the WTAG as part of the consultation requirements.

Additional Modelling undertaken - Keith Phillipson (AGE)

- Numerical simulations comprising multiple alternating aquifer and aquitard layers and multiple extraction points calibrated using the available extraction data.
- Modelled results align with current depressurization of over 150m and around 70m in the Bohena coal seam at the Bibblewindi West and Dewhurst North pilot groups, respectively, with no response in the overlying Porcupine.
- The Bohena coal seam depressurization results are within the range predicted in the EIS groundwater model and are expected where pilot extraction has been continued for over 10 years.
- The ongoing pilot extractions have been sufficient to induce meaningful drawdown over most of the southern half of the Project area.
- This also suggests that the additional pilots and associated monitoring would likely be of limited value, hydrogeologically, especially since they would be operational for only a very short period of time (i.e. the remainder of NGP Phase 1) relative to the existing pilot wells (i.e. over 10 years).
- Sufficient groundwater level data relating to ongoing operation of the existing pilot wells.
- Modelling suggests little or no additional depressurisation in the Porcupine Formation at the previously proposed Dewhurst 35 and 43 Phase 1 monitoring points
- Q. Michael Williams - what does Santos intend to do with the data from the recently drilled corehole?
- A. Adrian Lavery explained the main objective of the groundwater corehole is to meet the commitments of capturing additional data prior to undertaking updates to the groundwater model, especially to those formations lying above the coal seams. See below.
- Q. Michael Williams - how do you scale from the single point to the whole field? Will there be other coreholes?
- A. Adrian Lavery advised that Gas Industry Social and Environmental Research Alliance (GISERA) has recently undertaken more recent data capture and the information is not available at this stage. There will be other coal coreholes drilled in the future but this groundwater corehole is mainly to address the data for the groundwater model update. Keith Phillipson added the Report will provide detail on the data to be collated to refine and improve the groundwater flow model.

Dewhurst 35 groundwater corehole – Adrian Lavery and Keith Phillipson (AGE)

- Total depth of 850m into the Porcupine Formation
 - 472m of core from the Napperby to Porcupine formations (from 378m to end of hole)
 - Laboratory testing underway (due August 2025)
- Logging data
 - Nuclear Magnetic Resonance (NMR)
 - Resistivity
 - Bulk density/neutron porosity
 - Gamma ray
- Packer Pressure Testing
 - Initial results indicate low hydraulic conductivity of the overburden units, which was expected

Next Steps, revisions and document review – Adrian Lavery

- Draft version of the revised Phase 1 Groundwater Management Plan, Groundwater Monitoring Plan and Groundwater Modelling Plan are to be prepared
- The State Significant Development (SSD) consent requires that the plans are prepared in consultation with NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW Water), Environment Protection Authority (EPA) and WTAG
- Draft versions of the revised plans will be provided in Q2/Q3 2025 for review possibly in June 2025
 - WTAG to be consulted on findings of the Report and other Phase 1 modelling outputs as previously discussed
- Phase 2 Groundwater Management Plan and sub plans are proposed for mid 2026 for consultation
- The consultation will likely be to a wider group including the WTAG, DCCEEW Water, GISERA, Department of Planning, Housing and Infrastructure (DPHI) as a workshop. Post workshop the Report will be further refined.

	Hunter Gas Pipeline and Narrabri Lateral Pipeline – Andrew Snars • Santos has been undertaking extensive engagement to progress the HGP and NLP • In excess of 11,700 personal landholder engagements • 55 community information sessions – most recent sessions were held in March (Narrabri, Baan Baa, Boggabri, Gunnedah, Quirindi, Maitland, Singleton, Muswellbrook, Scone) • Continue to progress land access agreements and surveys • Deed of Option Easement Agreements to landholder (continuing) • Early works sites are now complete Exploration program – Janelle Twyman • PEL1 – Kahlua pilot activity • Maintaining wells online • Application to amend the activity will be lodged in Q2 2025 Santos in the community – Andrew Snars • Santos is partnering with the Country University Centre North West to fund 13 student bursaries in 2025. This will assist rural students by helping to provide access to the tools they need to develop their academic potential. • Over the holiday season, Santos helped deliver locally sourced fresh food hampers across the community to spread festive cheer. This is a joint initiative with the Narrabri Local Aboriginal Land Council and other local businesses. • Healthy Harold sponsorship has assisted the Life Education van to reach over 700 children in 14 schools and childcare centres • Festival of Rugby will return to Narrabri in September 2025
7. Member updates	Nil
8. General Business	Nil

Next meeting

To be advised

Meeting closed

11.15am