Submission No 19

INQUIRY INTO THE IMPLEMENTATION OF THE RECOMMENDATIONS CONTAINED IN THE NSW CHIEF SCIENTIST'S INDEPENDENT REVIEW OF COAL SEAM GAS ACTIVITIES IN NEW SOUTH WALES

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NSW Government Submission

Inquiry into the implementation of the recommendations contained in the NSW Chief Scientist's Independent Review of Coal Seam Gas Activities in New South Wales

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Introduction

On 30 September 2014, NSW Chief Scientist and Engineer, Professor Mary O'Kane, published the Final Report of the Independent Review of Coal Seam Gas (CSG) Activities in NSW, including 16 recommendations to the NSW Government. The Chief Scientist and Engineer found that the risks of gas development can be managed with the right regulation, engineering solutions and monitoring.

The NSW Government welcomed the report and published a government response accepting the recommendations as part of the NSW Gas Plan. The government response can be found at www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0003/581601/FINAL-Implementing-the-Chief-Scientist-and-Engineers-Independent-Review-of-Coal-Seam-Gas-Activities-in-NSW.pdf. More information about the NSW Gas Plan can be found at www.resourcesandenergy.nsw.gov.au/data/assets/pdf_file/0005/534830/NSWGas-Plan.pdf.

Since 2014, the state's CSG exploration and production industry has changed significantly. For example:

- The government's Petroleum Exploration Licence buy-back scheme reduced the area of the state covered by petroleum titles from approximately 60 per cent to around 7 per cent.
- In February 2016, AGL announced that it would exit the Camden Gas Project, ceasing production in 2023.
- In February 2016, AGL also announced that it would not proceed with the proposed Gloucester Gas Project.

This changed industry landscape coupled with the government's implementation of the Chief Scientist and Engineer's recommendations and the NSW Gas Plan has resulted in more robust regulatory controls and consequently reduced risks to the environment and human health in NSW from CSG activity. Those regulatory controls are now amongst the most comprehensive in Australia, ensuring NSW is well positioned to develop a safe and sustainable onshore gas industry.

This submission outlines the NSW Government's progress in implementing its response to the Chief Scientist and Engineer's recommendations. In total, the responses to 14 of the 16 recommendations are completed or are completed and ongoing. Good progress is being made on the outstanding responses, which includes the responses to recommendations 4 and 9.

Intent, communication, transparency and fairness

Recommendation 1

That government make clear its intent to establish a world-class regime for extraction of CSG. This could be articulated in a clear public statement that covers:

- the rationale/need for CSG extraction.
- a clear signal to industry that high performance is mandatory, compliance will be rigorously enforced and transgressions punished.
- a fair system for managing land access and compensation.
- a mechanism for developing a clear, easy-to-navigate legislative and regulatory framework that evolves over time to incorporate new technology developments.
- mechanisms for working closely and continuously with the community, industry, and research organisations on this issue.

Government response

The government is committed to making sure that any gas extraction in NSW is undertaken under a world-class regime. The NSW Gas Plan is the government's public statement of intent to deliver a high performing industry, with a clearer and improved regulatory framework that is rigorously enforced. It also outlines the government's support for strong engagement with all stakeholders and a fair system for managing land access and compensation for individuals and communities.

Status and action/s

Complete

NSW Gas Plan

The NSW Gas Plan was released on 13 November 2014, providing a clear, strategic framework to deliver world's best practice standards and regulation for the CSG industry, while securing vital gas supplies for the state.

Recommendation 2

That government ensure clear and open communication on CSG matters is maintained at all times. This includes:

- simplicity and clarity in legislative and regulatory requirements.
- ensuring openness about CSG processes in line with an open access approach; publishing all relevant approval requirements, decisions and responses, and compliance and enforcement outcomes on appropriate government websites and making CSG data from companies, government and research organisations available through a centralised government data repository.
- measurable outcomes to track performance against commitments to reform.

Government response

Clear and open communication is vital to ensure constructive, informed and collaborative discussion on gas activities into the future. The government intends to play its part by reforming legislative and regulatory requirements and using an open access approach to information.

A whole-of-government environmental data portal, the SEED (Sharing and Enabling Environmental Data) Portal, has been created. This portal is the centrepiece of the government's open approach to data on gas activities. The Common Ground website has also been established to allow the community to interact with information on all titles and applications for gas and other resources titles through a state-wide map.

Status and action/s

Complete and ongoing

SEED (Sharing and Enabling Environmental Data) Portal

In 2017, the government developed a portal for Sharing and Enabling Environmental Data (SEED) as a central location to find data about the environment. SEED contains publicly accessible land, air and water data from NSW Government agencies, and will grow over time as more and different types of environmental data are added. SEED can be found online here: www.seed.nsw.gov.au/

Future stages of the project will incorporate data gathered by research bodies and the resources industry such as real-time monitoring data and compliance results.

Other measures implemented by the government to maintain clear and open communication on CSG matters include:

Common Ground website

The Common Ground website provides free community access to a single source of information about exploration and mining activity in NSW.

Digital Imaging of Geological System (DIGS)

The DIGS database is a public, online archive that provides access to non-confidential reports and other important documentary material held by the Department of Planning, Industry and Environment's Division of Resources and Geoscience. This information includes title instruments, title conditions, title renewal information, title transfer, variation and change of name information.

Major Projects Website

The NSW Major Projects website enables the public to comment and stay up to date on State Significant Development projects (such as gas production projects) and State Significant Infrastructure projects as they progress through the development assessment process under the *Environmental Planning and Assessment Act 1979.* It can be found online here: www.planningportal.nsw.gov.au/major-projects

Recommendation 3

That government investigate as a priority a range of practical measures for implementation (or extension of current measures) to allow affected communities to have strengthened protections and benefits including fair and appropriate:

- land access arrangements, including land valuation and compensation for landholders.

- compensation for other local residents impacted (above threshold levels) by extraction activities.
- funding (derived from the fees and levies paid by CSG companies) for local councils to enable them to fund, in a transparent manner, infrastructure and repairs required as a consequence of the CSG industry.

Government response

The government's Gas Plan outlines the practical measures it will take to strengthen protections and share benefits. The government will require gas companies to negotiate a land access arrangement with landholders at both exploration and production stages, and make compensation a mandatory component of the negotiation. We will commission the Independent Pricing and Regulatory Tribunal to benchmark compensation rates annually to provide a guide for landholders. The Tribunal will be asked to consider both fixed rate compensation and compensation that takes into account the economic benefits of exploration and production over the expected life of the wells.

The government will also establish a Community Benefits Fund, with voluntary contributions from both gas companies and the government, to fund local projects in communities where gas exploration and production occurs. The Land and Water Commissioner will continue to provide support to local councils, landholder and members of the community on land access issues.

Status and action/s

Complete

Land access arrangements and compensation

Legislative amendments that implement 31 of the 32 recommendations made in the Walker Review into Land Access Arbitration were introduced in October 2015. The central aim of the amendments was to restore industry and landholders' confidence in the arbitration process through balancing the rights of industry with the rights of landholders.

The legislation provides that explorers must pay the reasonable costs of landholders of the mediation and arbitration process up to the amounts set out in an Order made by the Minister.

The NSW Government also commissioned IPART to provide advice on benchmark compensation rates for gas exploration and production. Their final report was publicly released in December 2015.

Community Benefits Fund

Legislation to support this measure was introduced into Parliament in October 2015. The supporting regulations commenced in July 2016, establishing the framework for petroleum operators to establish Community Benefits Funds.

Recommendation 4

That the full cost to government of the regulation and support of the CSG industry be covered by the fees, levies, royalties and taxes paid by industry, and an annual statement be made by government on this matter as part of the Budget process.

Government response

The government agrees that regulation of the gas industry should be undertaken on a full cost recovery basis, and will aim for this over time. We will include an annual statement on this matter as part of the Budget process.

Status and action/s

In progress

The Department of Planning, Industry and Environment has undertaken work to determine the cost of regulating the NSW gas industry and how these costs compare to those in other national and international jurisdictions. The Department will provide options for a cost recovery framework that is flexible and accounts for the scale and maturity of the industry within the 2019-2020 financial year.

Legislative and regulatory reform and appropriate financial arrangements

Recommendation 5

That government use its planning powers and capability to designate those areas of the state in which CSG activity is permitted to occur, drawing on appropriate external expertise as necessary.

Government response

The NSW Gas Plan outlines the strategic approach the government intends to take in designating areas of NSW in which gas activity will be permitted to occur. We will ensure that a thorough assessment of economic, environmental and social factors has been undertaken before the allocation of any new exploration titles.

Status and action/s

Complete

Strategic Release Framework for Coal and Petroleum

With the adoption of the Strategic Release Framework, the NSW Government is introducing a more strategic and transparent approach to releasing land for coal and gas exploration.

Legislation was passed by the NSW Parliament in October 2015 to give the government greater strategic control over release of areas for exploration in NSW. The new approach includes identifying areas for release only after environmental, social and economic factors have been considered and the community has had an opportunity to identify what it sees as the issues.

Further information on Strategic Release is available at:www.resourcesandenergy.nsw.gov.au/miners-and-explorers/programs-and-initiatives/strategic-release-framework-for-coal-and-petroleum-exploration

The Government also:

Extinguished PEL applications

On 20 November 2014, Parliament passed the *Petroleum (Onshore) Amendment (NSW Gas Plan) Bill 2014* to extinguish 16 applications for PELs and Petroleum Special Prospecting Authorities.

The NSW Government also modified existing PELs to remove areas granted over National Parks. Legislation to support this was passed by Parliament in November 2015.

Placed a freeze on new PEL applications

The government issued a freeze on NSW Petroleum Exploration Licence Applications and Petroleum Special Prospecting Authority applications until 31 December 2015, allowing the NSW Government sufficient time to establish the Strategic Release Framework for Coal and Petroleum.

Bought-back PELs

The government established a buy-back of PELs offer for titleholders across the state. This provided an opportunity for holders of PELs to surrender their titles.

The buy-back scheme closed on 30 September 2015, resulting in the voluntary surrender of 16 PELs and a reduction in the footprint of CSG exploration activities across NSW from around 60 per cent to just 8.5 per cent of the state's area. Since the scheme closed, the government negotiated additional PEL buy-backs on a case-by-case basis, further reducing the footprint of CSG exploration activities to around 7 per cent.

During two subsequent extensions of the scheme, further PELs were cancelled. The success of the scheme is demonstrated through the footprint of PELs in NSW having been reduced to 7 per cent of the state’s area.

For more information on the PEL buy-backs see

www.resourcesandgeoscience.nsw.gov.au/landholders-and-community/coal-seam-gas/information-on-petroleum-titles/buy-back.

Implemented a 'use it or lose it' policy

As part of the government's harmonisation of the onshore resources Acts, it implemented a 'use it or lose it' policy through the Petroleum Minimum Standards and Merit Assessment procedure, requiring titleholders to commit to developing the state's gas resources or risk losing their title. For more information on the Petroleum Minimum Standards and Merit Assessment Procedure see

www.resourcesandgeoscience.nsw.gov.au/landholders-and-community/coal-seam-gas/information-on-petroleum-titles/buy-back.

Recommendation 6

That government move to a single Act for all onshore subsurface resources (excluding water) in the state, constructed to allow for updating as technology advances. This will require a review of all major Acts applying to the resources sector.

Government response

The government will move to establish a single Act for all onshore subsurface resources (excluding water). This will require a number of legislative steps and involve working closely with industry and the broader community to get the legislative approach right and make it happen.

Status and action/s

Complete and ongoing

Legislative amendments to harmonise the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991* were made in 2015 as an action under the NSW Gas Plan. These significantly streamlined titles administration and compliance and enforcement processes. The government will continue to identify opportunities to further harmonise the regulatory frameworks for all onshore subsurface resources in NSW where required.

Recommendation 7

That government separate the process for allocation of rights to exploit subsurface resources (excluding water) from the regulation of the activities required to give effect to that exploitation (i.e. exploration and production activities); and that it establish a single independent regulator. The regulator will require high levels of scientific and engineering expertise, including geological and geotechnical ability, environmental and water knowledge and information, and ICT capability including data, monitoring and modelling expertise; and will be required to consult – and publish details of its consultations – with other arms of government and external agencies, as necessary. The regulator will also require appropriate compliance monitoring and enforcement capability.

Government response

The government supports the separation of the process of the allocation of petroleum rights from the regulation of petroleum activities. As an immediate action under the Gas Plan, the Environment Protection Authority (EPA) became the lead regulator for compliance and enforcement of conditions of approval for gas activities, including consent conditions and activity approvals. Over time, NSW will move to establish a single Act for all onshore subsurface resources with a single independent regulator.

Status and action/s

Complete

The EPA commenced as the lead regulator for gas activities (excluding work health and safety matters) in NSW on 1 July 2015 as a key action of the NSW Gas Plan. A dedicated branch was established within the EPA with additional specialist staff recruited, including hydrogeologists and petroleum engineers to provide technical support and advice on gas activities. Since then the EPA has been very active in its role as lead regulator for gas activities, having undertaken approximately 750 gas inspections across the state.

Recommendation 8

That government move towards a target and outcome-focused regulatory system, with three key elements:

- regularly reviewed environmental impact and safety targets optimised to encourage uptake of new technologies and innovation.
- appropriate and proportionate penalties for non-compliance.
- automatic monitoring processes that can provide data (sent to and held in the openly accessible Whole-of-Environment Data Repository) which will help detect cumulative impacts at project, regional and sedimentary basin scales which can be used to inform targets and the planning process.

Government response

The government supports the use of targeted and outcomes focused regulation to establish clear standards and enable industry to have flexibility and be able to introduce new technical innovations in choosing how it will meet the requirements of the regulation. The government will work with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development and other scientific and technical experts in building an understanding of cumulative impacts, and will make monitoring data accessible through the whole-of-government environmental data portal.

Status and action/s

Complete

The NSW Government supports the use of targeted and outcomes-focused regulation. In 2015 the government passed legislation to support the Improved Management of Exploration Regulation (IMER) reforms.

Under IMER, all the codes and conditions that regulate the onshore petroleum industry were reviewed. New strict rules covering all types of exploration activities were introduced and regulation for gas exploration was simplified and strengthened. New Codes of Practice outline mandatory requirements for explorers and provide clear standards to enable industry to introduce new technical innovations to meet regulatory requirements.

The 2015 legislative reforms to harmonise the *Mining Act 1992* and the *Petroleum (Onshore) Act 1991* also included a broad range of compliance and enforcement tools to combat non-compliance. For more information on IMER see

www.resourcesandgeoscience.nsw.gov.au/miners-and-explorers/codes-and-guidelines/imer.

Additionally, the EPA's risk-based licensing system provides a framework that includes a formal, structured, evidence-based risk assessment of each licensed activity and aims to ensure that all licensees receive an appropriate level of regulation based on the risk they pose.

The system also provides incentives for poorer performing licensees to improve their environmental performance and implement programs of works that result in demonstrated environmental improvements.

Recommendation 9

That government consider a robust and comprehensive policy of appropriate insurance and environmental risk coverage of the CSG industry to ensure financial protection short and long term. government should examine the potential adoption of a three-layered policy of security deposits, enhanced insurance coverage, and an environmental rehabilitation fund.

Government response

The NSW Government agrees with the need for a comprehensive system to provide financial protections to cover potential coal seam gas related environmental risk. While the *Petroleum (Onshore) Act 1991* already includes a comprehensive security fund framework, we will further consider whether there are additional benefits that could be gained from adoption of a three-layered policy of security deposits, industry insurance coverage and potential environmental rehabilitation funds.

Status and action/s

In progress

Work to date on the three-layered approach recommended by the NSW Chief Scientist and Engineer has focused on:

- continuing the existing security deposit scheme under the *Petroleum (Onshore) Act 1991* to cover the costs of rehabilitation.
- requiring coal seam gas operators to hold appropriate insurance coverage or demonstrate alternative financial arrangements to cover the costs of clean-up of potential pollution incidents.
- using the existing financial assurance mechanisms under the *Protection of the Environment Operations Act 1997*, where required, for residual risks that are not covered by the rehabilitation security deposit.
- continuing the government's Legacy Wells program, which provides an existing framework for strategic management of abandoned petroleum wells.

Managing risk by harnessing data and expertise

Recommendation 10

That government commission the design and establishment of a Whole-of-Environment Data Repository for all state environment data including all data collected according to legislative and regulatory requirements associated with management, gas extraction, mining, manufacturing, and chemical processing activities. This repository, as a minimum, would have the characteristics that it:

- is accessible by all under open data provisions.
- has excellent curatorial and search systems.
- houses long-term data sets collected as part of compliance activities.
- can accept citizen data input.
- can be searched in real time.
- is spatially enabled.
- is able to hold data in many diverse formats including text, graphics, sound, photographs, video, satellite, mapping, electronic monitoring data, etc., with appropriate metadata.
- is the repository of all research results pertaining to environmental matters in NSW along with full details of the related experimental design and any resulting scientific publications and comments.
- is the repository of historical resources data with appropriate metadata.

Various legislative amendments or other incentives will be needed to direct all environment data to the Repository.

Government response

The NSW Government is currently developing a whole-of-government environmental data portal which will become the centrepiece of a new and open approach to data on gas activities. The portal will provide a consolidated source of information for stakeholders on the impacts of resource

development, using data collected by NSW regulators, private companies, research and academic institutions and the public.

We are seeking to provide this service for the whole state so that communities, farmers, industry and government have open, transparent access to information. Furthermore, we are driving these initiatives on a national level. The Council of Australian Governments Energy Council has agreed to consider options for a national environmental data repository.

Status and action/s

Complete and ongoing

In 2017, the government developed a portal for Sharing and Enabling Environmental Data (SEED) as a central location to find data about the environment. SEED contains publicly accessible land, air and water data from NSW Government agencies, and will grow over time as more and different types of environmental data are added. SEED can be found online here: www.seed.nsw.gov.au

Recommendation 11

That government develop a centralised Risk Management and Prediction Tool for extractive industries in NSW. This would include a risk register, a database of event histories, and an archive of Trigger Action Response Plans. The tool would be updated annually based on government and company reporting and would include information on risk management and control approaches and draw on data from the Whole-of-Environment Data Repository for the state. The risk tool would be reviewed and commented on by relevant expert and regulatory bodies. The risk tool would be used to assist with:

- assessing new proposals.
- assessing compliance.
- improving prediction capability for consequences of incidents in risk assessments.
- improving prediction capability of risk likelihoods.
- informing project design amendments to decrease risk levels (such as undertaken in the Dam Safety Committee).
- informing the calculation of cumulative impacts.
- flagging issues or risks that require a higher level of regulatory protection such as inclusion in legislation.

Government response

The government will investigate risk-based approaches and tools to assist with assessing proposals, informing compliance activities and analysing risks.

Status and action/s

Complete

The government investigated the issue and found that NSW Government agencies already use a number of suitable Risk Management and Prediction Tools to assess proposals, analyse risk and inform compliance activities. These include risk-based codes of practice, and risk-based licencing and planning assessment processes which require applicants to prepare Trigger Action Responses Plans.

Recommendation 12

That government establish a standing expert advisory body on CSG (possibly extended to all the extractive industries). This body should comprise experts from relevant disciplines, particularly ICT and the earth and environmental sciences and engineering, but drawing as needed on expertise from the biological sciences, medicine and the social sciences. The prime functions of this expert body would be to advise government:

- on the overall impact of CSG in NSW through a published Annual Statement which would draw on a detailed analysis of the data held in the Whole-of-Environment Data Repository to assess impacts, particularly cumulative impacts, at project, regional and sedimentary basin scales.
- on processes for characterising and modelling the sedimentary basins of NSW.
- on updating and refining the Risk Management and Prediction Tool.
- on the implications of CSG impacts in NSW for planning where CSG activity is permitted to occur in the state.
- on new science and technology developments relevant to managing CSG and when and whether these developments are sufficiently mature to be incorporated into its legislative and regulatory system.
- on specific research that needs to be commissioned regarding CSG matters.
- on how best to work with research and public sector bodies across Australia and internationally and with the private sector on joint research and harmonised approaches to data collection, modelling and scale issues such as subsidence.
- on whether or not other unconventional gas extraction (shale gas, tight gas) industries should be allowed to proceed in NSW and, if so, under what conditions.

Government response

Given the pace of science and technology changes, the government agrees there is need for expert advice on gas activities to ensure that our legislative and regulatory system is informed about the potential impacts associated with gas development, and that decisions are based on the best available science. The government will consider the best way to harness this advice and notes that it will need to work closely with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, established in 2012 by the Australian Government, which undertakes a similar function.

Status and action/s

Complete

The government decided to continue working closely with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development rather than to establish a duplicate expert body in NSW.

Recommendation 13

That government establish a formal mechanism consisting of five parallel but interacting steps. The five steps are given below.

- Companies or organisations seeking to mine, extract CSG or irrigate as part of their initial and ongoing approvals processes should, in concert with the regulator, identify impacts to water resources, their pathways, their consequence and their likelihood, as well as the baseline conditions and their risk trigger thresholds before activities start. These analyses and systems should be incorporated in project management plans to meet regulator-agreed targets. Appropriate monitoring and characterisation systems would be developed as part of these project management plans and then installed. The monitors would measure baseline conditions and detect changes to these, as well as providing data on impacts and triggered risk thresholds.
- Data from the monitors should be deposited (either automatically or in as close to real time as possible) in the State Whole-of-Environment Data Repository by all the extractive industries. Increasingly automated tools to interrogate data in the Repository should be developed, and these used to search data for discontinuities and compliance alerts.
- As a separate process, the expert advisory body would examine on a frequent basis all data relevant to a region or a sedimentary basin. This data would come from a range of sources (the companies' monitoring data along with triangulation/cross validation data such as that from satellites, reports from local councils, seismic data, subsidence maps, information from cores, etc.). The expert body would use this data review to check for any factors signalling problems in that region and, if any are found, recommend to government the appropriate action to be taken with regard to the relevant parties.
- In a parallel process, the government should commission, construct and maintain a variety of models of each region and in particular one that seeks to address cumulative impacts. These models should feed into the land use planning process and the activity approvals processes, and should assist in target setting for new projects.
- government, working with other appropriate Australian governments, should commission formal scientific characterisation of sedimentary basins starting with the East Coast basins, and concentrating initially on integration of groundwater with the geological, geophysical and hydrological context. Viewing these integrated systems in models and in interpretation could be described as a 'Glass Earth' approach to understanding the dynamics of activities and impacts in the basins.

Government response

The government will improve governance and accountability of water data and water management, as well as enhance data monitoring and real time reporting to provide greater confidence to the community about impacts on water from various extractive industries. The Department of Primary Industries, Water (DPI Water) is using groundwater baseline data from its network of 3,500 monitoring bores to map NSW's underground water resources and how they are used by different industries, including agriculture and mining. This project started with the Gunnedah, Gloucester and Clarence Moreton basins and is now being rolled out across the state. The mapping results are available online and will support government, industry and the community to quickly identify and respond to pressure on our water resources. The environmental data portal will provide open access to broader information relevant to gas extraction.

Status and action/s

Complete and ongoing

Identifying impacts to water resources

The current Review of Environmental Factors (REFs) and/or Environmental Impact Statement (EIS) process comprehensively considers potential impacts to groundwater resources in the mining assessment process. The requirement for Groundwater Monitoring and Modelling Plans during the exploration phase of coal and coal seam gas projects ensures that there is sufficient monitoring being undertaken and suitable data collected.

Data repository

Data collection is being addressed through the NSW Government's Water Monitoring Framework (WMF). Under the WMF, the Department of Planning, Industry and Environment's Water Group (DPIE Water) plans to incorporate industry water data into the data acquisition and management system in consultation with relevant agencies. New water monitoring infrastructure is being installed under the WMF and being equipped, after construction, with real-time collection capabilities.

Examination of data by Expert Advisory Panel

The NSW Government will continue to work closely with the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development, rather than duplicate these functions in NSW.

Cumulative impacts model

The Commonwealth Bioregional Assessment Program, with assistance from the NSW Government and industry, has developed a number of surface and groundwater models for the major coal basins in NSW, including the Gunnedah, Gloucester and Clarence-Moreton basins. Those models provide high level of understanding of potential risks to water resources and environmental values. DPIE Water recommends that additional government cumulative models are only considered in areas with a number of future projects, and further evidence confirms that for each area of concern government cumulative models would provide the most effective approach to characterise and manage likely impacts.

Industry should be required to assist resourcing the development of these models.

Characterisation of sedimentary basins

While considerable formal characterisation already exists, DPIE Water is working with the Division of Resources and Geoscience to characterise the different coal basins through the whole stratigraphic profile, that is unconsolidated alluvial formations to deep coal bearing formations

Recommendation 14

That government ensure that all CSG industry personnel, including subcontractors working in operational roles, be subject to ongoing mandatory training and certification requirements. Similarly, public sector staff working in compliance, inspections and audits should be given suitable training and, where appropriate, accreditation.

Government response

The government agrees that all CSG industry personnel should have up to date training and skills. We also agree that the public sector staff who are monitoring the industry need to be suitably trained. We will develop mandatory standards of training to apply to both industry and government staff.

Status and action/s

Complete

The government has established a duties-based framework to ensure that personnel in the petroleum industry, including subcontractors, are appropriately trained and competent to perform work safely.

Key elements of this framework commenced on 1 February 2016, with the commencement of the *Work Health and Safety (Mines and Petroleum) Legislation Amendment (Harmonisation) Act 2015*. Requirements in the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 include:

- all petroleum site operators are required to ensure, among other issues, that each worker is provided with training and instruction in relation to issues including hazards associated with the work; and ensure that training is reviewed as necessary.
- any person that conducts business at a petroleum site must ensure that each worker engaged is trained, and is competent, in basic risk management techniques used at the site.
- a person may only be appointed as an inspector under the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* if that person has the appropriate knowledge, skills and qualifications including any qualifications that may be specified in the regulation. Mine safety inspectors undertake ongoing training including in government investigations and training in emergency management.
- people performing the role of rig managers and drilling managers at petroleum sites must have the prescribed competency requirements outlined in the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014*.
- the Exploration and Production Guideline: Petroleum Drilling and Well Servicing – Competencies sets a standard for what is reasonably practicable for training and competency.

More broadly, work health and safety laws require petroleum operators to provide information, instruction, training or supervision to ensure people are protected from risks to their health and safety associated with the work being undertaken and to consult with workers to ensure they can input to managing risks associated with the work.

EPA regulatory staff regularly undertake competency and skills-based training in best practice regulation. This includes the use of an innovative 360-degree Immersive Training theatre. The theatre is specifically designed to provide a safe virtual environment for training staff in gas activities.

Legacy and consistency matters

Recommendation 15

That government develop a plan to manage legacy matters associated with CSG. This would need to cover abandoned wells, past incomplete compliance checking, and the collection of data that was not yet supplied as required under licences and regulations. There will also need to be a formal mechanism to transition existing projects to any new regulatory system.

Government response

The government will develop a plan to manage legacy matters and ensure no new matters are created through revised industry codes of practice and licence conditions.

Status and action/s

Complete and ongoing

In 2014, the Legacy Mines Program was expanded to consider legacy petroleum wells. Projects are prioritised based on safety and environmental risk. The program has assessed 900 petroleum wells, with 350 wells found to be legacy or abandoned. Of these, and following an extensive risk assessment, the program identified 36 as requiring further action. To date actions on 28 wells have been completed.[1] The government will continue to monitor issues associated with legacy petroleum wells. For more information on the Legacy Mines Program see www.resourcesandgeoscience.nsw.gov.au/landholders-and-community/minerals-and-coal/legacy-mines-program.

Recommendation 16

That government consider whether there needs to be alignment of legislation and regulation governing extraction of methane as part of coal mining and the application of buffer zones for gas production other than CSG with the relevant legislation and regulation provisions governing CSG production.

Government response

The government will consider this issue in its development of a single onshore resources Act (not including water).

Status and action/s

Complete and ongoing

Legislative amendments to harmonise the onshore resources Acts were made in 2015. During this process, the government considered whether there needed to be alignment of legislation and regulation governing extraction of methane as part of coal mining and the application of buffer zones for gas production other than CSG. The NSW Government determined that the risks associated with coal mine methane (primarily explosion or WHS) are managed consistently across resource types under the harmonised WHS (mines and petroleum) legislation.

In relation to buffer zones, future petroleum titles will be subject to the Strategic Release Framework process, meaning that government will consider local and regional sensitivities when determining the location and footprint of future exploration titles. A pilot application of the Strategic

1 In correspondence to the Committee (dated 6 January 2020) the Department of Planning, Industry and Environment clarified the paragraph by inserting: *To date actions on 19 wells have been completed.*

Release Framework process commenced in June 2017 for areas with potential for gas in the Pondie Range and Bancannia Troughs in far west NSW. The government is awaiting recommendations from the Advisory Body on Strategic Release on whether it should release the areas for gas exploration.