

NSW Government Draft Strategic Regional Land Use Policy

Santos Submission – May 2012

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Key Facts – Santos CSG Operations in NSW

- CSG is natural gas, and has been produced safely in Queensland for at least 15 years and provides that State with 90% of its natural gas.
- Surface footprint of CSG extraction is small and not permanent in nature.
- Santos surface well facilities will be generally spaced at one every 200 to 300 ha.
- During the construction phase, each well normally requires one hectare for approximately one year, decreasing to approximately 25m x 25m (or 0.07Ha) during production which lasts about 20-30 years, after which all well sites are fully rehabilitated and available for agricultural use.
- It is estimated that the surface impact over the life cycle of a project is only around **one percent** of the total area in which the CSG fields operate.
- CSG zones targeted by Santos are 350 to 1,200 metres below the surface – well beyond stock or domestic bores which are used by farmers.
- CSG water is generally extracted from unused, salty deep water sources.
- Santos' Gunnedah project is likely to extract CSG water at an average extraction rate of approx **5GL per annum** compared to the 540GL used annually on average by all users in the Namoi Catchment area – all water accessed will be licensed.
- Santos will **treat 100% of its CSG water** with the majority of that water, at least 80%, made available to the water system, leaving a nett use in the order of only 1 GL/Annum.
- Water from Santos CSG fields in Queensland is today irrigating farmers' crops and replacing Roma's diminished town water supply as demonstrable proof of our capacity to create beneficial water use and to co-exist with agriculture and rural communities.

Executive Summary

The coal seam gas (**CSG**) industry is already one of the most heavily regulated and monitored in Australia today. There is certainly no sustainable argument for imposition of a moratorium on CSG exploration in particular, especially in light of the looming potential shortfall of contracted gas supply to NSW within the next five years.

Santos nevertheless supports the NSW Government's intent in developing the Strategic Regional Land Use Policy (**SRLUP**) in order to provide greater certainty to the community and all affected stakeholders about how critical industries can co-exist.

However, there is a strong bias in the proposed SRLUPs towards the protection of agricultural land at the expense of allowing the citizens of NSW access to firstly and foremost, a local and reliable gas supply, and secondly the royalty payments and other economic benefits that flow from these CSG projects.

CSG is an essential gas supply option for NSW in the coming years and any policy decisions by Government need to be very carefully considered to ensure this opportunity is not lost, to the detriment of the economy, homeowner and businesses.

The SRLUP for the New England North West makes a number of references to the \$1.8 billion (in 2006) of value per annum from the agricultural and agri-business production. In the whole of NSW, the gross value of total agricultural production in 2009-10 was \$8.4 billion.¹

The SRLUP fails to make any reference to the significant contribution to the State from the coal mining sector, or the potential contributions that could be realised from the establishment of a CSG industry. For example, the State's minerals sector annual production value is worth around \$20 billion.²

For CSG, a report prepared by Allen Consulting Group predicts the development of the natural gas reserves of north west New South Wales could deliver a significant boost to the state's economy. The report, *The economic impacts of developing coal seam gas operations in Northwest NSW*, found that the economic benefits from a fully-developed CSG industry in Northwest NSW could include:

- \$470 million per year or \$8.5 billion to 2035 increase in the Gross Regional Product of Northwest NSW
- \$821 million per year or \$15.2 billion to 2035 increase in NSW Gross State Product
- Approximately 2,900 ongoing full-time positions
- \$531 million per year or \$10.7 billion to 2035 boost to Australia's GDP

The SRLUP is also biased toward duplication of process and unnecessary over regulation.

The simple geological reality is that the gas reserves and the strategic agricultural land in NSW often occur in the same area, and neither can be moved.

Both are of importance to the people of NSW. Santos agrees it is necessary to protect agricultural land but also notes it is similarly critical to maintain the access to energy resources for NSW homeowners and businesses to grow and prosper.

If the development of a NSW based gas Industry is not encouraged, but rather is over regulated or blocked by "no-go" zones, the State will be continually competing to obtain gas from the other resource rich states, and missing out on important development opportunities.

There are looming gas supply issues in NSW and the window within which that can be averted is rapidly closing. That is why Santos is strongly of the view that the SLRLUP process must protect both key agricultural resources but also key energy resources, not adopt an either or approach.

¹ ABS Value of Agricultural Production (website)

² Key Industry Statistics 2011 NSW Minerals Council

Santos has successfully produced CSG for in excess of 15 years and a substantial amount of the gas supplied into the Australian domestic market by Santos and others is and has been for some time CSG.

Recommendations

Our recommendations are designed to make the SRLUP as drafted, an equitable, efficient and workable policy. These recommendations are explained in detail throughout this submission. In summary, the recommendations are designed to:

- 1.0 **Achieve a workable balance between industries that are essential to NSW** - by focusing far more on providing a framework for co-existence between agriculture and resources development, rather than processes for exclusion of resources activity.

In addition, there needs to be greater accuracy and equity in defining and applying key policy instruments such as the gateway process and CIC eg: the gateway process should be applied to any development type that is likely to threaten the long term viability of productive agricultural land such as certain sub-divisions of land and alternate land uses, not just resource extraction projects.

- 2.0 **Eliminate risk of duplication, inefficiency and uncertainty** – through much greater clarity and understanding within and between Government, the independent assessment bodies and the community about how and at what stage specific issues will be assessed and determined; the role and jurisdiction for government departments and the various independent committees; defined time-frames for decision making; and limiting Merit Appeals to the Part 4 SSD and PAC processes so that fully informed Merit Appeal assessments are determined.

The lack of detail on the Gateway Process makes it very difficult to assess impacts and if it is to be maintained, it must be urgently clarified. There is no understanding of how the gateway panel will prioritise between the competing aspects and criteria, including the test of significance, against which a project is to be judged.

More work must be done to improve the accuracy of strategic land mapping and understanding of the potential impact on resources development of the 2km buffer zone.

The draft Aquifer Interference (AI) policy contains errors and inconsistencies and the structure of the document should be simplified to ensure its objectives and policy requirements are clear. The AI policy should recognise the differences in CSG exploration activities and CSG production activities eg: For CSG exploration wells, the requirement for 2 years of data for CSG exploration activities is simply not possible. It should be removed and replaced with an achievable requirement.

The CSG specific criteria in the AI policy should be re-drafted to ensure consistency of application with other existing regulation for the CSG industry such as Codes of Practice, REF Guidelines/requirements etc.

- 3.0 **Provide Investment Certainty** – Various reports make it clear that without development of its rich, indigenous CSG fields in the very near future, NSW stands to face a substantial shortfall in natural gas supplies for the 1.5 million households and small businesses who today rely on gas for home cooking, heating and business activity, let alone the rapidly growing number of new consumers switching to gas every year. It is essential that the SRLUP both recognises this reality and facilitates the investment certainty needed to encourage exploration and development of NSW gas resources without further delay.

The draft SRLUP must also confirm exemption of exploration activity from the gateway process. Options to address this issue include:

- Exempting CSG exploration activities on Strategic Agricultural Land (**SAL**) from having to obtain gateway approval. These projects would proceed straight to the appropriate application; or
- Amend the State Significant Development SEPP so that up to 8 exploration wells can be undertaken within 3 kilometres of each other under the Part 5 Review of

Environmental Factors process, which provides a robust and rigorous environmental assessment regime commensurate with the scale of impacts.

The SRLUP must also include far more accurate mapping and future expansion of designated land areas and involvement of industry and stakeholders in development of criteria for the Cost Benefit Analysis process.

Key Points of Santos' Submission

Key Principles

- Agriculture and CSG activities can, and do, successfully co-exist for the benefit of all. Unlike other extractive industries, CSG operations do not displace existing agricultural activities.
- The State owns the mineral resources and the royalties paid by their development assist to fund schools, police, health services and other essential services for the NSW community.
- Fair compensation payments to farmers are necessary to compensate for any production loss and potential disruption to daily activities.
- Any additional impact assessment processes must be cost neutral to meet the Governments red tape reduction commitments, and provide long-term certainty for all stakeholders.
- The SRLUP is applied correctly to production processes only. The costs of applying the SRLUP process to exploration will delay NSW gas development by at least 2 years, and add significant financial disincentives.
- If the gateway process is implemented, all projects that would have an impact on Strategic Agricultural Lands (**SAL**) such as rural subdivision, or transport infrastructure, and not simply resources extraction, should be required to go through the SRLUP gateway process.
- Consideration must be given to ensuring this process does not further increase legal uncertainty through additional challenge opportunities.
- The lack of detail on the gateway process makes it very difficult to assess impacts and if it is to be maintained it must be urgently clarified. There is no understanding of how the gateway panel will prioritise between the competing aspects and criteria, including the test of significance, against which a project is to be judged.
- The inclusion of biodiversity in this Policy appears unnecessary. There is an existing legislative and policy framework in place in NSW to assess biodiversity impacts and ensure appropriate protection.
- This policy is clearly aimed at resource extraction but policy integrity would require it to become a precedent for all industry activities, including agricultural production, so its broader impacts must be carefully considered.

Energy Security

- Gas resources and potential resources in NSW are located in relatively small areas and geological fixtures and cannot be relocated. Co-existence is vital.
- NSW energy security is at risk in the immediate and long term, and the likely delays associated with the SRLUP policy risks worsening the situation.
- Gas shortfalls in NSW are very likely to occur in 2017 and the approval and construction time for a CSG gasfield in Queensland is 6 to 7 years, so the timeline for NSW is already critical

- Government should create a CIC for gas where proven & probable resources exist (e.g. 2P) with the gateway process mandated to achieving coexistence.

Factual Errors

The documents released relating to the SRLUP contains several key factual errors, or matters that need to be further clarified. These include:

- The biodiversity layer in the New England North West SRLUP shows State Conservation Areas as National Parks, an error that would exclude substantial areas of the Pilliga from CSG, mining and forestry operations.
- The biodiversity layer depicts the certain zones of the Pilliga forest which enable forestry and resource extraction activities as Tier 1 Terrestrial Biodiversity, which appears to be inconsistent with the existing regulatory framework established for this area.
- The Aquifer Interference Policy is a confusing and overly complex policy document, which also contains a number of errors relating to the minimal harm criteria.
- The CSG Code of Practice is confused in its purpose and should be recast to provide a land access code for the State.

Technical Comments

- The requirement for the significant width (2km) of a buffer has not been justified in the proposal. The buffer substantially increases the SAL footprint, in some cases more than doubling it, and should be removed
- The possibility of continuously adding further SAL is causing additional major investment uncertainty and again further delaying gas supply opportunities, hence any process to allow for continual addition is strongly opposed.
- The gateway and PAC approval processes must be truly integrated, not simply additional or duplicated processes that run “in series”.
- The impacts of CICs such as those identified in the Upper Hunter have major impacts on linear infrastructure such as rail or pipeline components of Projects and in effect may isolate resources making them unavailable for development.
- The State and more recently Commonwealth Government’s red tape reduction statements are clearly not mirrored by the proposals in this policy, and the assessment duplication is a major concern.
- The percentage of SAL with real gas resource is very small, but almost all the gas resource has either SAL or tier 1 biodiversity over it, i.e. the policy response is an overreaction to the scale of issue.

Introduction

Santos welcomes the opportunity to provide feedback on recently released draft plans and policies designed to deliver on the Governments SRLUP commitments.

The NSW Government's *NSW 2021 Plan* sets out a roadmap to rebuild the economy, return quality services, renovate infrastructure, strengthen local environment and communities and restore accountability to the Government by setting out in detail a number of goals and objectives. It is a transparent effort to ensure accountability to the citizens of the state for the performance of the Government.

Balanced economic development and growth is a key component of the Government's Plan – it is a source of jobs and private income as well as revenue for the State to fund vital services. The *NSW 2021 Plan* identifies a number of relevant goals to achieving this end.

One goal is to increase the value of both primary industries and mining production by 30% by 2020. This includes improving the performance of the NSW economy by attracting “*petroleum and mineral exploration in under-explored areas of NSW and grow NSW mineral and petroleum production*”³.

Building a domestic gas industry will not only grow the wealth of the state in itself, but more importantly will ensure long term access to competitively priced energy and provide energy security for the NSW economy. NSW industry, manufacturing and agriculture is reliant upon energy to grow and prosper. The existing contracted gas supplies used by NSW are rapidly coming to an end and major shortages are likely to occur from 2017. It should be noted that developing a gas sector to deliver energy security has long lead times, and NSW may not have sufficient time to accommodate any more significant delays. For example, the major gas facilities in Queensland have generally taken from 6 to 7 years from time of lodgement of the project application to first gas flowing, not including the exploration period.

If the goal of balanced economic development and growth is to be achieved in a timely and efficient way it is critical that a clear, certain and efficient regulatory framework is established and maintained. The environmental planning and assessment processes are a critical component that should be used to encourage the responsible and sustainable development of the State's resources.

A second goal is to increase the competitiveness of doing business in NSW by *reducing red tape for business and the community by 20% by June 2015*.⁴ Santos commends the Government for this bold objective. While Santos recognises and accepts that it is also Government policy to deliver on its commitments in regard to strategic agricultural land; Santos believes it is possible to do so without adding to the red tape burden, and in fact to do better by reducing inefficient and costly duplication and complexity. The risk of continually adding “red tape” is not only detrimental to the industry itself, it eventually flows through to all economic sectors including agriculture.

The establishment of a natural gas industry provides a unique opportunity for NSW to use its resources responsibly to achieve significant social, environmental and economic benefits for the State, as well as providing a secure long term energy source for NSW. The royalties obtained from the resources sector are a valuable source for funding the States hospitals, schools and other public infrastructure.

It should be stressed that natural resources such as natural gas and coal are held in trust by the State on behalf of all NSW citizens, who should all benefit from their development.

The benefits of a viable CSG industry in NSW include:

- Long-term, efficient and reliable **energy security**;
- Providing a transition fuel for a **low carbon economy**;
- Substantial **economic benefits** through jobs and investment in the State, and predominantly in regional NSW; and

³ NSW 2021 – A Plan to make NSW Number.1 (Rebuild the Economy – Goal 1 P.6)

⁴ NSW 2021 – A Plan to make NSW Number 1. (increase the competitiveness of doing business in NSW – Goal 4 p.12)

- **Environmental benefits** through lower carbon emissions.

For these benefits to be realised, it is important that the NSW regulatory environment for CSG delivers:

- Clear and certain strategic direction for the natural gas industry;
- An efficient, timely and robust environmental assessment process, including science based decision making processes;
- Adoption of operational best practices by the whole industry;
- Appropriate and cost effective regulation and support by Government;
- Investment certainty;
- Reasonable community consultation and engagement; and importantly
- Continued community licence to operate.

The draft Strategic Regional Land Use Plans for the New England North West and the Upper Hunter, the draft Aquifer Interference Policy and the Code of Practice for Coal Seam Gas are the most recent regulatory initiatives targeting the CSG industry, along with coal.

The implementation of these new policies, combined with other existing and proposed regulation at the State and Commonwealth levels will increase regulatory burden and red tape for the CSG industry, as well as investment uncertainty for little or no additional cost effective benefits. The net effect of the addition of new regulation will be to increase the time and cost to deliver security of natural gas supply to NSW by delaying establishing a new domestic gas supply.

In some cases the additional regulatory costs may make development of the resource sub-economic. While this may be the aim of some extremists it will not assist in ensuring energy security in NSW post 2015-17. It will also inevitably drive up the cost of natural gas to the households of NSW.

Santos has maintained a position that supports independent, science-based assessment and decision making processes. However, it is critical that new policy initiatives do not duplicate or contradict an already complex, time consuming and expensive assessment process, and provide certainty and efficiency for the development of a natural gas industry in NSW.

Santos in NSW

Santos has already invested around one billion dollars in prospective NSW CSG areas and in addition Santos has plans to invest more than 500 million dollars over the next three years. This investment reflects Santos' confidence in the quality of the NSW CSG resources based on the Santos' experience in Queensland over the last 15 years.

It should be noted that the development of gas is a global trend with many jurisdictions competing for investment to develop their natural gas resources.

At present Santos' activities in NSW are generally limited to exploration and appraisal activities. Commercial production works are several years off and will be dependent on:

- Undertaking a timely and efficient exploration program;
- Obtaining relevant environmental and licence approvals; and
- The gas being accessible at an economically viable cost.

Santos' primary area of interest in NSW is around the Upper Hunter and the New England North West areas of NSW. Both of these areas are affected by the draft Strategic Regional Land Use Plans and the draft Aquifer Interference Policy.

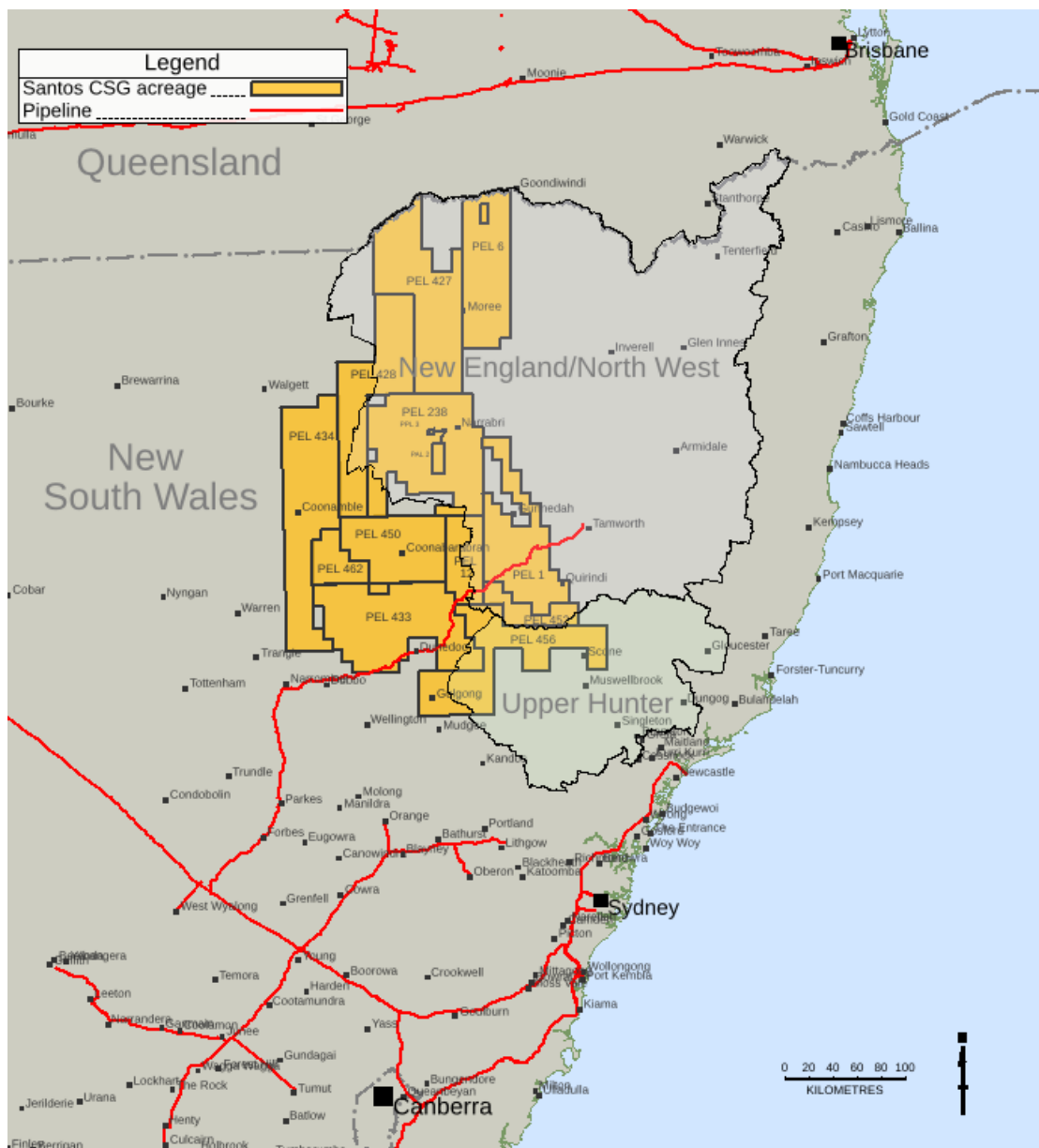


Figure – Santos’ area of interest in NSW affected by the SRLUP

Energy Security in NSW

Santos commissioned ACIL Tasman to examine the changing dynamics underway in the Eastern Australian energy market, especially in the context of the prospective development of significant resources of CSG in NSW.

ACIL Tasman's report found developing NSW's natural gas resources was critical to ensuring continued security of supply to the state's homes and businesses. This conclusion is consistent with those of consulting firm Wood Mackenzie who warns "that further delay in gas developments in NSW will contribute to a supply shortfall as early as 2014" and could have a direct impact on the State's consumers, through gas supply challenges and higher energy costs.⁵

The NSW Government submission on the Energy White Paper also recognises the emerging energy security issues, referencing the consulting firm Wood Mackenzie as "forecasting that the Australian domestic market will be undersupplied by the end of 2014, although this shortfall could be avoided if new projects are developed in a timely manner."⁶

⁵ NSW Submission: *Draft Energy White Paper* (p.3)

⁶ NSW Submission: *Draft Energy White Paper* (p.4)

Unlike Queensland, Victoria and South Australia, which enjoy significant gas production, NSW imports gas via pipelines from other States. Although NSW has large potential resources of CSG, the industry is in its infancy with considerable exploration and appraisal work needed to develop these resources.

The majority of NSW gas is currently supplied under long-term contract arrangements from producers in other States. NSW's exposure to its gas import reliance is exposed by the roll-off of current long-term gas supply contracts. The roll-off of these long term contracts, which will start in 2015, will result in NSW being greater than 90% uncontracted post 2017.

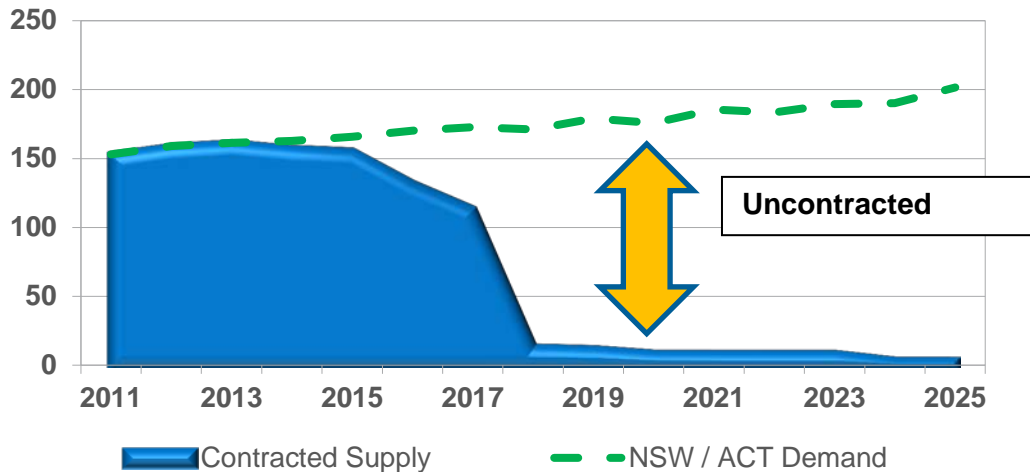


Figure: NSW / ACT Demand and Contracted Supply

Supply contracts for NSW will need to be renewed at a time where there is significant market uncertainty. NSW will be competing for gas supply with all states in a constrained market. With no indigenous gas supply NSW will be at a disadvantage. Factors affecting the ability for NSW to access gas include:

- Increased demand for gas supply, particularly gas fired power generation;
- LNG facilities in Queensland coming on line creating significant demand (estimated to be 9 times the existing NSW demand); and
- Declining gas supply in existing fields.

The sources of gas that have supplied NSW since the 1970s are located in mature production basins with declining reserves. Furthermore, the established reserves in the Cooper Basin (which supplies NSW via the Moomba-Sydney Pipeline) are currently substantially contracted and there are insufficient uncontracted reserves in the Cooper Basin available to replace the contracts in NSW as they expire. While producers and explorers (including Santos) in the area continue to seek new supply sources, the resources that have been identified are in the early stages of exploration and appraisal and will not become available in the next few years.

The Gippsland Basin in southern Victoria has around 15 years of reserves cover at current rates of production, but a significant part of the available reserves are already contracted. Victoria will also see strong demand growth through gas-fired electricity, which will require the discovery and development of new reserves in the Gippsland Basin to support Victorian consumption. While ACIL Tasman considers that the Bass Strait region remains prospective and additional resources are likely to be discovered, it should be expected that gas supply from the Gippsland Basin is likely to be more expensive in the future given the increasing cost of finding and developing new reserves, the high level of forecast gas demand and the application of a price on carbon.

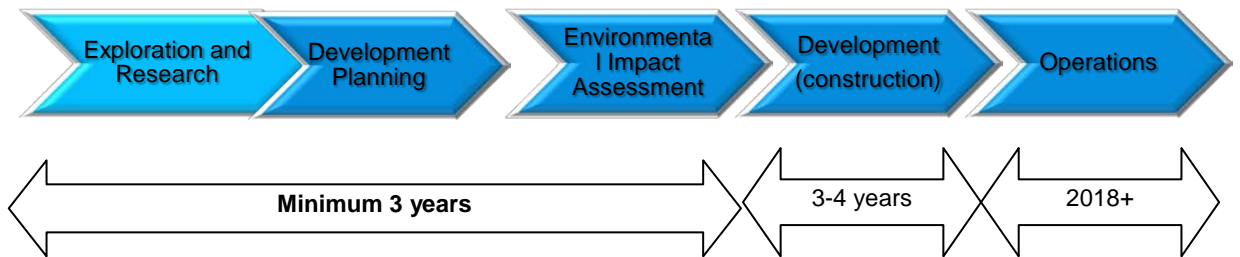
Gas pipeline imports from Victoria, South Australia and Queensland which currently provide the main sources of gas supply for NSW will come under growing pressure through demand competition over the next decade. Strong demand for local gas-fired generation in those States together with demand for Queensland's natural gas to supply large export LNG facilities will account for supply that might otherwise be available to NSW.

These supply dynamics and demand competition forces in eastern Australia will see NSW in a constrained position to other mainland states if it were not to develop the CSG resource contained in its own borders.

Wood McKenzie also recently released a study showing projected gas shortages for NSW. This is a similar conclusion to those reached by ACIL Tasman.⁷

NSW natural gas supply potential - NSW CSG reserves and resources are material, being the only large scale gas resources within the State. Based on currently proven and probable (2P) reserves local NSW natural gas could provide a long-term and secure supply of gas. However, the timing to develop these resources is critical.

Timing - Development Process to Operations



Santos' NSW projects are in the early stages of exploration, but could potentially meet the required 2017/18 development time frame. Given the long lead time to bring on additional gas supplies, urgent action is required to stimulate and encourage the rapid development of the NSW CSG resource potential.

Without a clear and balanced strategic policy setting, further delays are inevitable, placing NSW energy security at further risk.

⁷ Wood Mackenzie website - <http://www.woodmacresearch.com/cgi-bin/wmprod/portal/corp/corpPressDetail.jsp?oid=10467644>

Discussion on the Strategic Regional Land Use Policy Initiatives

Structure of the Submission

The recently released draft plans and policies contain the following components:

- Draft Strategic Regional Land Use Plan – Upper Hunter
- Draft Strategic Regional Land Use Plan – New England North West
- Draft Aquifer Interference Policy
- Draft Code of Practice for Coal Seam Gas Exploration
- Final Agricultural Impact Statement
- Final Guideline for Community Consultation regarding Exploration

Santos' submission provides comments and feedback on the Strategic Regional Land Use Plans (**SRLUP**), the Aquifer Interference Policy (**AI**) and the Code of Practice. The submission focuses on the impacts of the proposed policies on Santos' areas of interest in NSW, the CSG industry, and particularly increased regulatory burden that will be imposed on the CSG industry.

Overarching Comments

In terms of the proposed initiatives, Santos supports:

- The independent, science-based assessment of CSG projects;
- The avoidance of unnecessary additional regulatory duplication or complexity that delivers little or no cost effective benefits;
- The avoidance of simple “no-go” or blanket exclusion areas in the SRLUPs;
- The gateway process applying to Part 4 State Significant Development (**SSD**) projects, and not prior to issue of an exploration licence;
- The development of SRLUPs across the state to give better certainty to communities and other stakeholders about how a region will develop over time;
- The provision of “exceptional circumstances” to enable the elected Government to make a decision on a project under certain conditions.

Santos does however have a number of concerns which it is seeking to be further addressed prior to the plans being implemented. These concerns are addressed in detail throughout the document. The key areas of concern relate to:

- **Bias against the resources sector** – Despite the claims that the SRLUPs are designed to achieve a balance between the protection of agricultural land and the development of the States resources, it is clear that the policies are primarily focussed on protecting agricultural land. Statements such as “*the richest agricultural land in the state occurs in the New England North West region and the future development of these lands needs to be carefully managed to avoid the loss of any strategic agricultural land*”⁸ highlight this approach. ***The objectives of the policy should be better balanced, focusing on achieving co-existence between land uses.***
- **Clarification of detail and gateway assessment criteria** – There is a significant amount of detail that is yet to be resolved, particularly around the gateway process and the assessment criteria by which projects will be judged, and how they are prioritised. This detail is critical to understand exactly what the impacts of the new process will be. Of particular concern is the lack of any detail on the cost benefit analysis methodology despite it being a critical component of the gateway process. ***For industry to be able to fully understand, assess and agree to the new policy initiatives, it is critical that this detail and assessment criteria be resolved in consultation with industry, and as quickly as possible.***

⁸ Draft Strategic Regional Land Use Plan – New England North West (p.16)

- **Energy Security** – The SRLUPs fail to address issues around energy security for NSW, and the ability for the CSG industry to provide a long-term and secure energy source for NSW. The policy initiatives will also add time and cost to the delivery of a secure gas supply in NSW, which will further increase the risk around energy security in NSW. ***The SRLUPs must recognise the issue of energy security for NSW and the role that CSG will have in providing a long term and secure supply of energy.***
- **Additional process and regulatory burden** – The policies being put forward introduce new additional process steps, decision making bodies, reporting requirements and monitoring for little or no additional benefits – and risk making the resource too costly to develop. This is in addition to an existing complex, timely and costly environmental assessment and management framework at the State and Commonwealth levels. The work required for the new gateway process will be almost the same as that for the existing Part 4 SSD. ***For a Part 4 SSD, there should be one approval process only.***
- **Duplication of assessment** – The introduction of new processes, as well as different independent decision making bodies for the same project significantly increases the risk of direct duplication in the assessment of significant projects in NSW. ***There should be no duplication of assessment at the State level, and between the Commonwealth and State assessment processes.***
- **Inconsistent decisions** – The use of different independent decision making bodies for the same application not only increases the risk of duplication, but also the risk of inconsistent decisions or outcomes being reached on the same project. ***There should be no cross-over of decision making roles between the gateway process and the Planning Assessment Commission (PAC).***
- **Additional cost and time for doing business in NSW** – The Government put in place a target “to reduce regulatory costs for business and the community by 20 per cent to June 2015”⁹. The addition of new processes will add to the time and cost for developing a viable CSG industry and domestic gas supply in NSW. Over regulation and unwieldy environmental assessment and approval process can seriously jeopardise investment in resource projects and the associated economic development. ***The time and cost of obtaining regulatory approvals as a result of any additional new processes proposed through the SRLUP should be neutral.***
- **Natural Justice and review of decisions** – Santos agrees in principle that decisions for projects should be able to be reviewed in a transparent and open manner. However, for a single project, this should only be able to occur once. The new gateway process step brings with it the risk of an additional point where an appeal to a decision could be made. If the gateway is to remain as a separate decision point in the process, there should be no merit appeal capacity. Merit appeals should be limited to the Part 4 SSD and PAC decision making process only. Where a decision for refusal has been provided, the gateway panel must provide detailed written justification for the decision. ***There should be no ability to undertake a merit appeal of a gateway determination.***
- **Recognising the value of the State’s natural resources** – The SRLUPs and the AI policy are biased towards the protection of agricultural land where there are competing interests with resource extraction. The sustainable use of these natural resources, which are owned by the State on behalf of all citizens, has been proven to provide demonstrable social and economic benefits for regional areas the State and the Nation as a whole. For example, the NSW minerals and CSG sectors would provide well over \$20 billion worth of productivity annually, compared to \$1.8 billion of agricultural productivity from the New England North West region. As referenced elsewhere, both the coal and CSG industries combined would provide significantly large economic contributions to the State. The actual area of proven and probable (2P) gas reserves (not the entire Petroleum Exploration Licence (PEL) area) across the State would be a relatively small percentage of the entire Strategic Agricultural Lands area. Given issues around energy security and the need to identify long-term and secure gas supplies, gas reserves should also be given importance. Where these resources exist, the argument should be on how impacts associated with extraction are managed. ***The development***

⁹ NSW Government Premier & Cabinet - M2012-02 Red Tape Reduction – new requirements (p.4)

of the State's proven gas resources should be given equal importance and protection in the policies.

- **Location of resources is fixed – *The SRLUPs must better recognise that resources are in fixed geological locations and that resource industries have limited choices in terms of where they can viably extract resources from.***
- **Infrastructure corridors –** The SRLUPs do not provide for the identification, planning or protection of infrastructure corridors, including gas pipelines. The protection of infrastructure corridors formed part of the election policy commitment of the Strategic Regional Land Use Policy released in 2011. ***The SRLUPs must better recognise the importance of identifying and protecting approved infrastructure corridors.***
- **Consistent application of the law -** The application of strategic planning principles to the development of regional NSW, including but not exclusively to resource extraction is supported. As a matter of equity, planning and environmental protection laws and regulations must be applied consistently to all proposed activities and developments (including agricultural production), regardless of the project or proponent. Inconsistent or discriminatory application applies costs unevenly across the economy and potentially skews investment. If the Government's intention is to recognise high value agricultural land, then for example sub-divisions of that same land (which potentially alienate productive agricultural land) should also be required to pass through the proposed gateway process including providing an agricultural impact statement. A process that is consistently applied and reflects natural justice will be more credible and acceptable to the range of interested stakeholders, even if individual decisions may not be acceptable. ***The policies should be consistently applied to all proposed activities and developments.***
- **Lessons learnt from other jurisdictions –** Amongst other CSG policy, Queensland has recently put in place a comprehensive policy framework for protecting Strategic Cropping Land (**SCL**). The objectives of Queensland's policy are similar to the proposed SRLUP for NSW. The Qld policy framework recognises the temporary nature of many CSG activities and the low risk of these activities adversely impacting on SCL . The framework includes a *Standard conditions code for resource activities* which sets out conditions for many CSG activities. Under the SCL requirements if the CSG activities propose to comply with the conditions of the Code then they do not require a further SCL assessment. Queensland has also implemented a land access code outlining minimum requirements. Where appropriate, the lessons learnt from other jurisdictions should be included into the SRLUP policy framework. ***The SRLUPs should reflect positive policy initiatives from other jurisdictions which are designed to reduce regulatory burden or duplication, whilst ensuring environmental impacts are appropriately managed.***
- **Equal Protection for Farming Land –** The SRLUPs raise issues around the equity in the approach taken for protecting agricultural land. Why does one farmer, by virtue of the physical characteristics of the land, have a higher level of protection afforded to them compared to another farmer, who may achieve equal or higher levels of production/output? Why aren't all farmers given an equal level of protection? Santos maintains that its CSG operations will not adversely impact on the natural environment, and that it can co-exist with existing land-uses such as agriculture. This position is based on the significant on the ground experience gained in Queensland. Given an Agricultural Impact Statement is required for all resource extraction projects, perhaps a more appropriate and equitable policy position would be to address all of the matters/issues outlined in the gateway process as part of the Part 4 SSD assessment. This approach could still give a heightened level of assessment to biophysical strategic agricultural land or CICs. ***In the interests of ensuring equity of approach, the Government should consider options of addressing the gateway specific issues/matters within the Part 4 SSD process through the use of the Agricultural Impact Statement.***

Strategic Land Use Plans – New England/North West and Upper Hunter

Santos supports the development of Strategic Regional Land Use Plans (**SRLUPs**) across the State. The objective of giving communities a better understanding of how their regions are likely to grow and change over time is important.

The policy initiatives outlined in the strategic plans will have a direct impact on Santos' area of interests and its operations in NSW. Santos' area of interest in NSW is in and around the Upper Hunter and the North-Western areas of NSW. Both of these areas are substantially affected by the various policy settings included within the draft Strategic Regional Land Use Plans. These policies will impact on both gas production facilities, as well as necessary pipeline infrastructure.

The comments on the SRLUPs are focussed on the elements that will directly affect Santos' natural gas operations in NSW, and are applicable to both SRLUPs for the New England/North West and Upper Hunter unless otherwise stated.

Focus of the Strategic Land Use Plans

A key focus of the land use plans is the protection of the best agricultural land in NSW. Santos understands and accepts the Government's commitment to ensure appropriate safeguards and protection measures are in place to achieve this objective.

However, this should not be pursued at the expense of other opportunities such as the responsible protection and development of the State's natural resources. The NSW State Plan outlines the Government's goal to increase the value of both primary industries and mining production by 30% by 2020. One of its stated goals to improve the performance of the NSW economy is to "*attract petroleum and mineral exploration in under-explored areas of NSW and grow NSW mineral and petroleum production*"¹⁰. If this objective is to be achieved in a timely and efficient way, the Government must ensure those industries are afforded an equal level of protection, as well as the opportunity to demonstrate how they can be responsibly developed, including co-existence with other important land uses such as agriculture.

The policies in the draft SRLUPs focus on ruling out or limiting development of resource extraction activities where there is a conflict with productive agricultural land. Statements such as the gateway process will "*result in some mining and gas activities being ruled out on certain land at a much earlier stage*"¹¹ and the "*decision of the Gateway Panel is final and binding on the NSW Government*"¹² highlight the approach taken.

The objectives of the policy should be better balanced, focusing on achieving co-existence between land uses. In the absence of a clear State wide strategy for managing the development or growth of natural gas and mining in NSW, the SRLUPs should be used to establish policy initiatives to protect resource extraction activities where appropriate.

The plans should better recognise that the State's resources are in fixed geological locations and that resource industries have limited choices in terms of where they can viably extract resources from.

Balanced messages between resource extraction and agriculture - The draft Plans need to be more balanced in terms of achieving co-existence between agriculture and resources development.

Equal protection of the States CSG and mining resources – The SRLUPs should also put in place appropriate policies that protect the States natural resources to avoid inappropriate sterilisation.

¹⁰ NSW 2021 – A Plan to make NSW Number.1 (Rebuild the Economy – Goal 1 p.6)

¹¹ Draft Strategic Regional Land Use Plan – New England North West (p.18)

¹² Strategic Regional Land Use Policy Delivery FAQ (p.5)

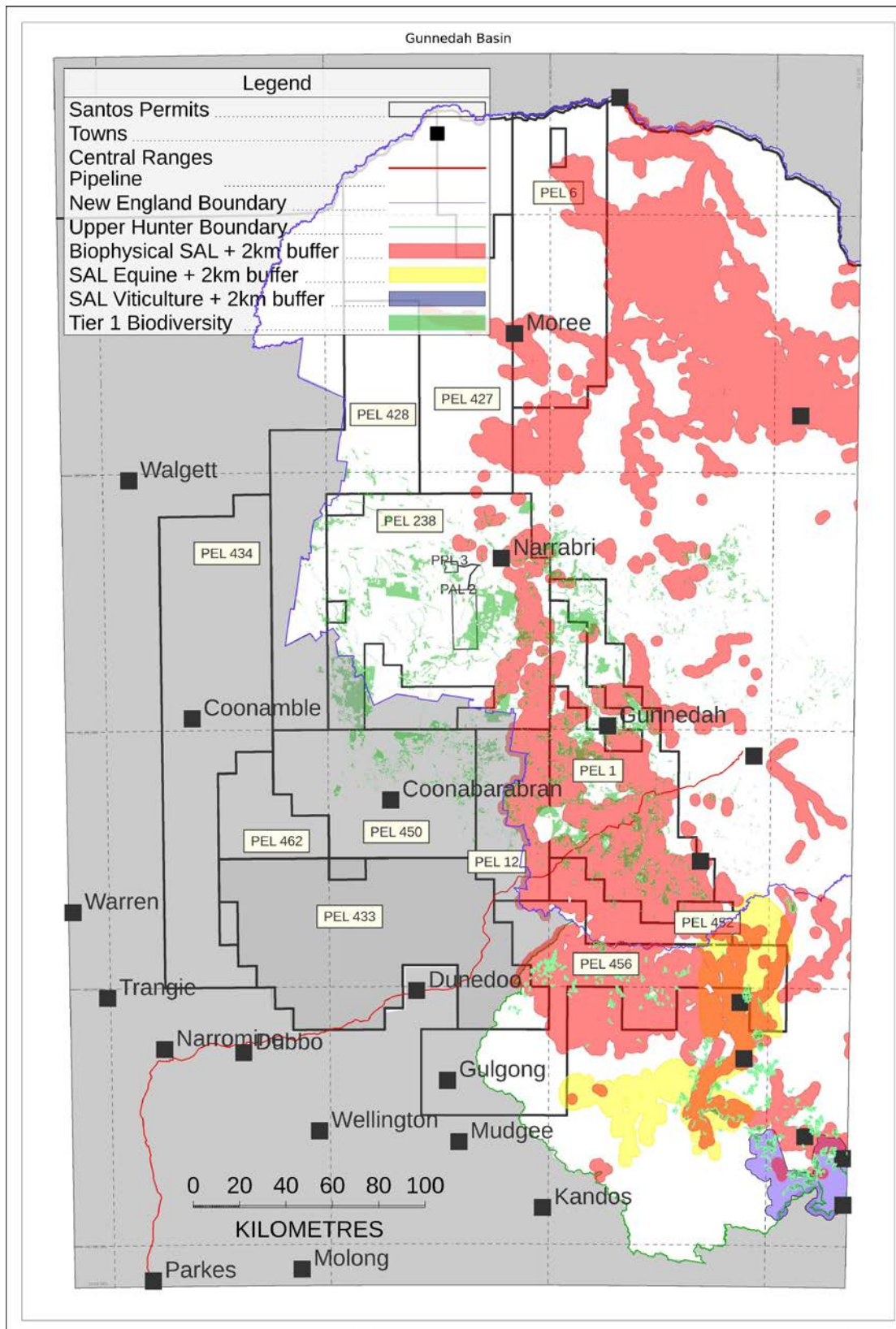


Figure – Highlights the total affected area of the SRLUPs policies on Santos’ areas of interest in NSW

Duplication of Assessment and Regulatory Burden

Santos accepts the objectives of the NSW Government's new policy. However, it is important to understand that any new regulation for the CSG industry is in addition to current heavy and stringent regulation in NSW.

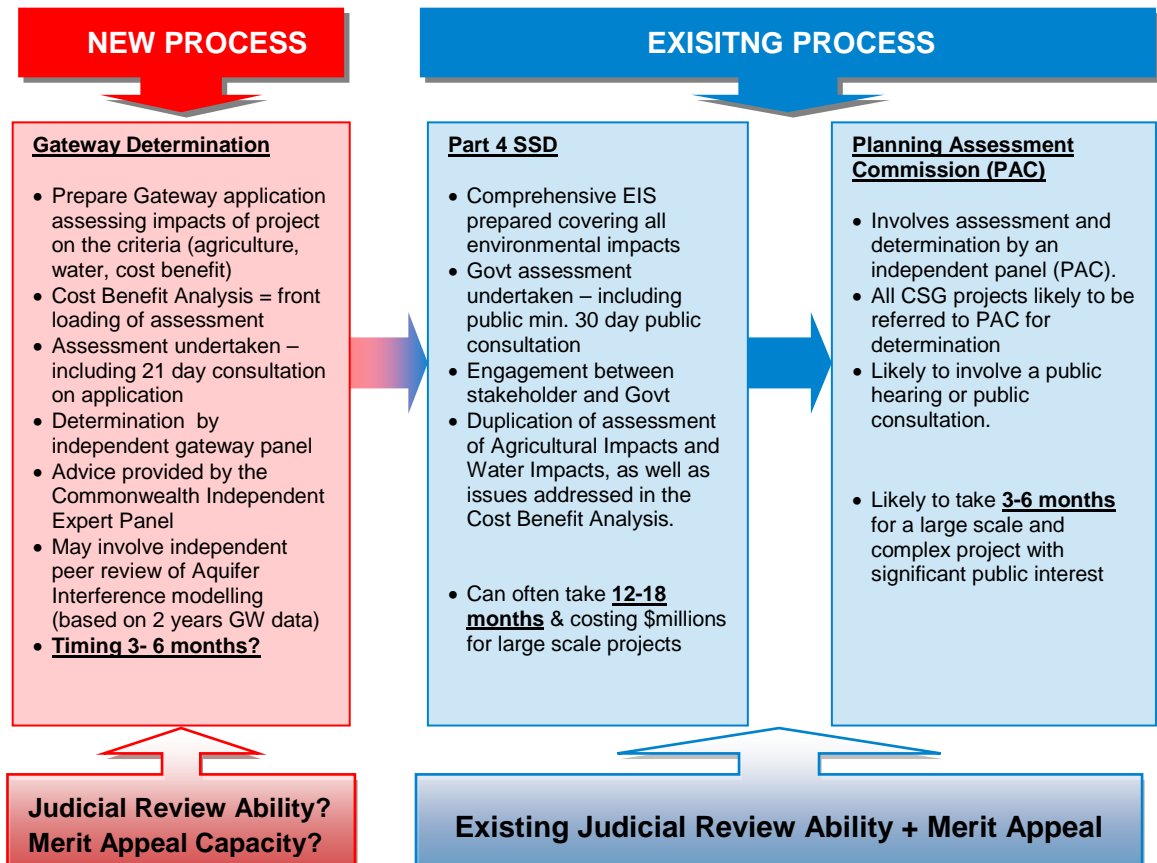
Between the Commonwealth and State requirements, the CSG industry is already one of the most heavily regulated industries in Australia. It is critical that any new policy initiatives do not duplicate or contradict an already complex, time consuming and expensive assessment process for little or no additional cost effective benefits. Care must be taken not to add additional costs that make extracting the resource uneconomic.

The addition of the new gateway process will add additional time and cost to the assessment of certain Part 4 State Significant Development (SSD) applications. To highlight this, an SSD application will be subject to the following:

- **3 x separate assessment processes** – 1: Gateway determination; 2: Part 4 SSD assessment; 3: Planning Assessment Commission (PAC) Determination.
- **2 x State appointed independent expert bodies** which will make a determination on the same application.
- **1 x Commonwealth independent expert body** providing advice to a State independent expert body. The Commonwealth independent body will subsequently be involved again when the Environment Protection Biodiversity Conservation (EPBC) assessment is undertaken.
- **3 separate public consultation periods** (Note: includes a public hearing by the PAC)
- **Multiple referrals to Government Agencies** – the first two stages will involve referrals to various Government Agencies.

This is in addition to a 5-7 year exploration period, other separate approvals required under the EPBC Act or other Commonwealth legislation, and other approvals required through conditions of consent. The time frame to undertake a Part 4 SSD will be extended as a result of the introduction of the new gateway process.

The process diagram highlights the additional process steps.



The inclusion of the additional steps, determination roles and advisory bodies create a significant risk of duplication of assessment and process, and subsequent time delay and cost.

For example, on page 19 of the draft SRLUP for New England North West it states that all “*state significant development and infrastructure proposals (including mining and coal seam gas proposals that have passed the gateway) located on strategic agricultural land will also be required to prepare and Agricultural Impact Statement (AIS) to demonstrate that impacts on agricultural land and resources are avoided or minimised to acceptable levels*”. In addition, the guideline for an Agricultural Impact Statement also requires water issues associated with farming to be further assessed (page 3 – Account for any physical movement of water away from agriculture). In both cases, it is direct duplication of the gateway assessment.

The duplication of assessment increases the risk of conflicting views, particularly between the independent decision making bodies. For example, the gateway panel may approve the water component associated with a project, whereas the PAC may form a different view on the same issue. It is critical that the bureaucracies and the independent determination bodies be clear on, and subsequently adheres to, the area of decision making. To avoid duplication, where a project has been through the gateway decision making process, there should be no requirement to obtain approval from the PAC for the same project.

The new gateway process step brings with it the risk of an additional point where a merit appeal to a decision could be made. This would be in addition to existing merit appeal capacity available under Part 4 SSD. If the gateway is to remain as a separate decision point in the process, there should be no merit appeal capacity. Merit appeals should be limited to the Part 4 SSD and PAC decision making process only.

Whilst Santos supports independent, science-based assessment and decision processes, it is critical that they are firstly designed and then managed to avoid bureaucratic duplication, unnecessary delays and costs.

Avoid duplication of assessment - There should be a clear understanding within Government, the independent assessment bodies, and the broader community that assessment of particular single issues (e.g agriculture and water) not be duplicated. For example, if a project is assessed at the gateway, there should be no requirement to obtain further approval from the PAC.

Confirm areas of responsibility – The jurisdiction or role for bureaucracies and the independent decision making bodies must be clearly mapped out and adhered to. There should be no area of duplication.

Identify reasonable assessment and decision time frames - To avoid unreasonable delays associated with the new processes, it is critical that the Government identify and adhere to reasonable process timeframes.

Co-ordinate assessment processes – Assessment processes associated with the gateway, SSD, the PAC, as well as other Commonwealth approvals should be co-ordinated so they are undertaken in parallel where appropriate.

Merit Appeals - Merit appeals should be limited to the Part 4 SSD and PAC decision making process only. There should be no merit appeal capacity for a gateway determination.

Strategic Agricultural Land

As an alternative to simple “no-go” areas, Santos agrees with the principle of a science and evidence based test being applied to projects located on Strategic Agricultural Land (**SAL**), which includes Biophysical Strategic Agricultural Land (**BSAL**) and Critical Industry Cluster (**CIC**) areas. Simple no-go areas or blanket exclusions would lock up valuable State owned resources without being able to test through science based evidence whether or not the resources could be sustainably accessed.

As noted, Santos’ areas of interest in NSW are significantly affected by the SAL areas in both the Upper Hunter and New England North West land use plans. The total area of Santos’ operations within the Upper Hunter and New England North West SRLUPs is 3,505,597 Ha. The SAL (BSAL & CIC) + 2 Km buffer results in 1,208,742 Ha (or 35%) of Santos’ area being affected.

The following table demonstrates the level of affectation on areas of potential natural gas resource (3C) as identified by Santos through its exploration program.

PEL	% of PEL Affected		% of 3C Affected	
	SAL	SAL + 2Km	SAL	SAL + 2Km
PEL 1	39%	67%	47%	80%
PEL 12	64%	91%	54%	89%
PEL 238	15%	18%	7%	27%
PEL 452	42%	93%	95%	100%
PEL 456	32%	69%	42%	100%
PEL 428	0%	0%		
PEL 427	3%	9%		
PEL 6	7%	25%		
TOTAL COVERAGE OF SANTOS' PEL AREAS AFFECTED BY THE SRLUPs				35%

Note: Refers to areas of a PEL within the study area.

The level of affectation across Santos' area of interest is significantly higher than the figures provided in the SRLUPs. The Upper Hunter SRLUP states "14% of the region comprises a coal seam gas resource overlain by strategic agricultural land".¹³ PEL 456, which is located within the Upper Hunter SRLUP has 100% coverage of 3C resources.

When combined with the extent of Tier 1 and Tier 2 Biodiversity affectation, this represents a high level of coverage/affectation of Santos' area of interests in NSW, which will have a significant impact on the time and cost associated with obtaining approvals.

Mapping Criteria for Biophysical Strategic Agricultural Land

Identifying BSAL on its biophysical characteristics is generally supported. It is noted that a number of rural stakeholders are calling for the expansion of the BSAL areas.

A general concern is raised over the accuracy of the mapping of BSAL. The NSW Natural Resources Data Metadata Entry Form for Draft Estimated Inherent Soil Fertility – Upper Hunter and New England-North West Strategic Regional Landuse Areas indicates there are vast areas within both SRLUPs where the data confidence is "low" or "very low".¹⁴ Prior to the plans being implemented, the Government must improve the accuracy of the BSAL mapping. This is particularly important given the current extent of coverage.

It is also critical that the criteria for BSAL be applied rigorously and transparently to ensure it's focused on protecting the State's best physical agricultural land, and not political expediency. Any further or future expansion of the BSAL should only occur through a transparent process including consultation with affected stakeholders such as licence holders for petroleum exploration or mining.

Accuracy of Mapping for BSAL – Prior to the plans being implemented the Government must improve the accuracy of the mapping for BSAL. The further development and refinement of the maps should be undertaken in consultation with stakeholders and subject to further public consultation.

Future Expansion of BSAL – Any further or future expansion of the BSAL within a regional plan should occur through a transparent and rigorous process which includes consultation with the resource extraction industry.

The following comments are made with regard to the specific criteria for BSAL:

2 Kilometre buffer area – The 2 kilometre buffer zone adjoining the SAL significantly adds to the extent of area affected by the new gateway process. For example, for PEL 452 the area of

¹³ Upper Hunter SRLUP (p.18)

¹⁴ NSW Govt OEH - NSW Natural Resources Data Metadata Entry Form for Draft Estimated Inherent Soil Fertility – Upper Hunter and New England-North West Strategic Regional Landuse Areas

affectation within the PEL increases from 42% to 93% as a result of the BSAL + 2km buffer. For PEL 1 the increase is from 39% to 67%, and for PEL 12 the increase is from 64% to 91%¹⁵.

The stated level of affectation in the SRLUPs significantly understates the area of affectation imposed on the resource extraction industry. Prior to finalisation, the SRLUPs should be updated to accurately reflect the extent of the impact. The actual impact of these buffers in terms of difference in area covered is shown in the figures below.

The use of 2km for the buffer distance associated with SAL is also questioned, and considered to be excessive. The SRLUP does not contain any robust or evidence based justification for the use of 2km. The NSW Planning system contains a number of buffer requirements to certain sensitive uses. For example, in State Environmental Planning Policy – Exempt and Complying Development 2008, under the Rural Code, a house cannot be undertaken as complying development if it is within 250metres of the boundary on which there is an extractive industry. This is one example of many. Given the significant additional area subject to the gateway process as a result of the buffer, the rationale and justification for the 2km distance should be made available to the public for comment prior to the policy being finalised.

2km Buffer Distance – The extent of the 2km buffer distance for the SAL is considered to be excessive, and without sufficient evidence based justification. The buffer should be either removed or the methodology for the buffer distance should be based on evidence and should be made available for public comment prior to the plans being finalised.

Extent of the 2km Buffer Areas – If the buffer is to be retained, the SRLUPs should be updated to accurately report on the total area of affectation caused by the BSAL and the 2km buffer area.

Minimum Farm Size Criteria –The inclusion of property size criteria for BSAL to reflect minimum farm size requirements to undertake viable agricultural activities is supported.

However, the 20Ha criteria being applied across the State is considered inadequate in terms of reflecting farm sizes required to achieve viable productive agricultural productivity across varying regions and agricultural types.

While 20Ha may be appropriate in certain areas for food production alone, it is likely to artificially inflate the extent of the SAL in other areas by including smaller properties which would not be viable for the various agricultural activities within the region.

The minimum lot size criteria should be based on improved research to better reflect regional (and possibly sub-regional) circumstances.

Minimum farm size criteria – The 20Ha “one size fits all” criteria is considered too small for BSAL. The criteria should be determined on a regional scale taking into consideration average farm sizes and typical farming activities within a region which are economically viable.

¹⁵ Refers to areas of the PEL located within the study area.

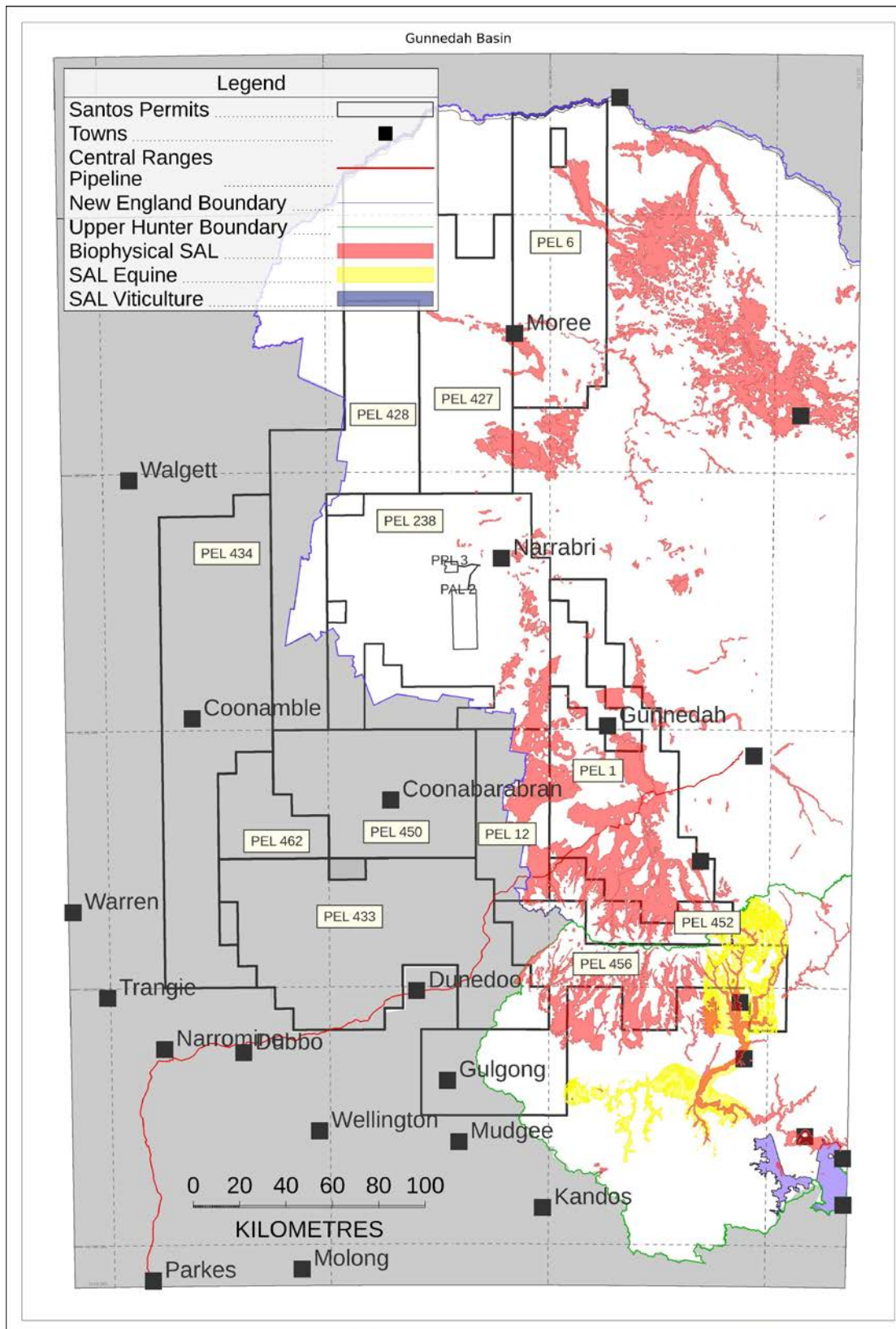


Figure - Strategic Agricultural land affecting Santos' area of interest

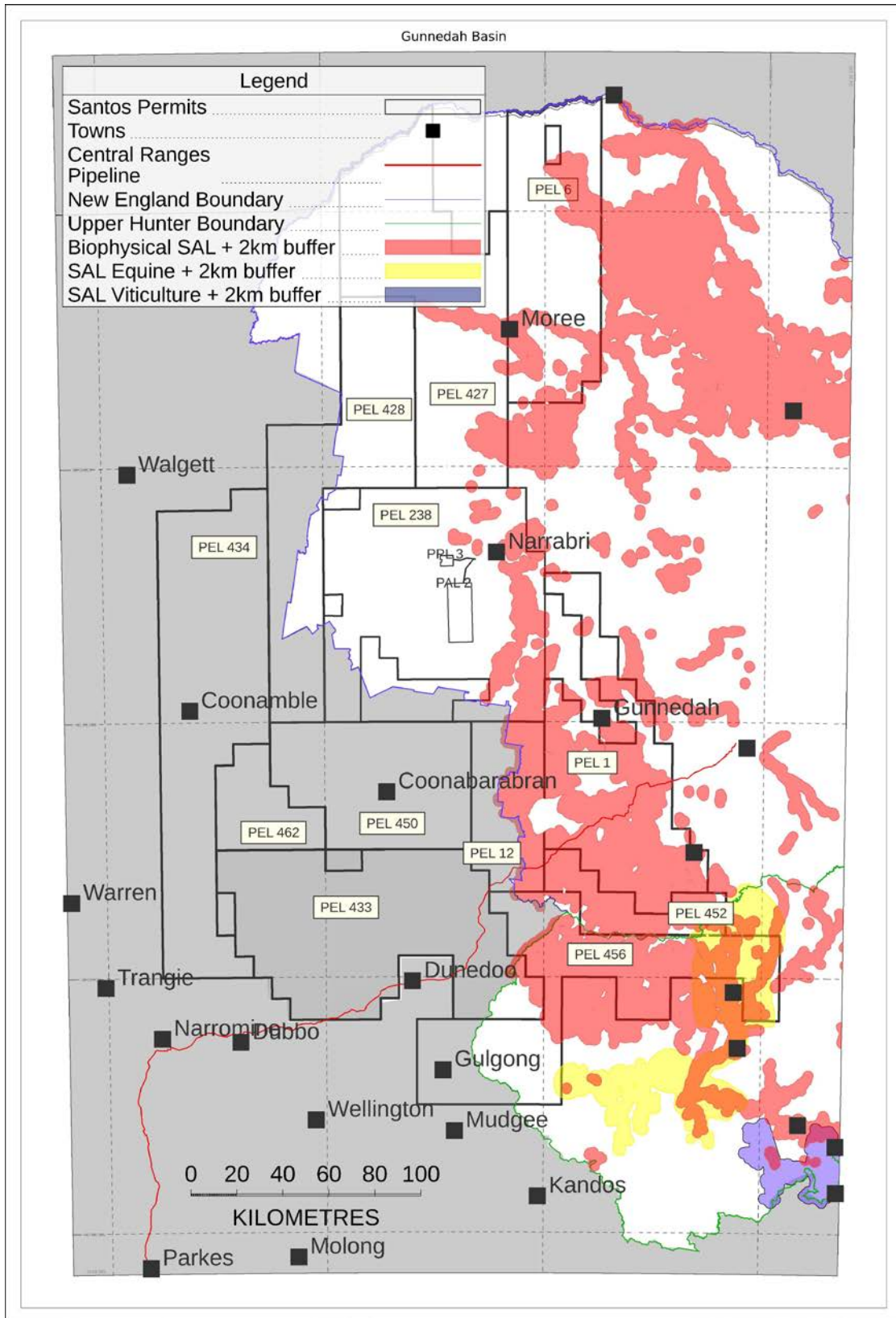


Figure – Strategic Agricultural Land with 2km buffer affecting Santos’ area of interest

Mapping Criteria for Critical Industry Clusters

Santos generally accepts the principle of identifying CICs and ensuring reasonable levels of protection to ensure their continued existence and productivity. The following issues are raised in relation to the CIC mapping criteria.

Physical Extent of CIC – The extent of the CICs are substantially larger than the actual areas/properties directly associated with the industry. For example, the equine CIC is substantially larger than the area of actual properties associated with the industry. This will result in resource extraction projects located on land not used for an agricultural use related to CIC being forced to go through the gateway process, despite the fact it is not materially reducing or affecting the viability of the CIC industry.

It is understood the areas have been identified to represent a “cluster” of a particular activity, and to ensure new resource extraction developments do not unreasonably impact on its overall viability. Nonetheless, given the additional process and requirements CSG will now be exposed to, there should be a concerted effort to ensure the boundaries are constrained to represent the essence of the industry, and not merely linking up disconnected areas.

Limit the Physical Extent of CIC – The extent of the CIC should be constrained to ensure it generally covers the area and/or facilities that contribute to the significance of the particular industry. Blanket coverage connecting disconnected areas should be avoided.

Criteria for inclusion of CIC & transparent process – The criteria put forward for the identification of CIC are subjective and at risk of being widely interpreted. Statements such as “concentration of enterprises”, “productive industries are interrelated”, “consists of a unique combination of factors”, “is of states, national and/or international importance”, or “contributes to the regions identity” highlight the subjective nature of the approach taken.

The criteria should be further refined to provide tighter controls and guidance on when the CIC protection would be enacted. For example, the equine mapping criteria in the Upper Hunter SRLUP refer to distances from key roads in the region. This raises the question as to how these criteria are reconciled with the overarching criteria for CIC, and the justification.

The tightening of criteria should be coupled with the implementation of a transparent and rigorous process, including stakeholder consultation, before an existing CIC area is expanded, or a new CIC area is identified within a SRLUP.

If the criteria remain as drafted there is a significant risk of CIC areas being widely expanded or included without sufficient justification. When combined with BSAL areas, this could conceivably result in the majority of natural resource areas being subject to the new gateway process. If this outcome eventuates it would negate the objective of the gateway providing a targeted assessment, as well as significantly burdening the resource industries with duplicated regulation and process.

Criteria for CIC – For future inclusion or expansion of CIC areas the Government should put in place clear guidelines which limit the ability for wide interpretation of the existing subjective criteria.

Transparent Process - A transparent process should be put in place, including public consultation for any future inclusion or expansion of CIC area within a SRLUP.

Equity in Application of the CIC – One of the criteria for land to be identified as a CIC requires an industry cluster to be “substantially impacted” by resource extraction proposals. Whilst it’s understood the SRLUP has focussed on the impacts of resource development on agriculture, this criteria is obviously biased against the resource sector and raises questions about the objective of protecting agricultural industry clusters from first principles.

Presumably there are other threats to agricultural industries, including structural changes to agricultural economics, alternative agricultural land uses, subdivisions of farms etc, which warrant a similar level of additional process and justification which resource extraction activities will be exposed to.

The Government must ensure that the plans are balanced and equitable in its approach to the protection of agricultural land, as well as recognising the strategic importance of the development of resources.

Protecting the States resources as a CIC – The sustainable development of the States natural resources results in demonstrable economic and social benefits, and importantly will provide energy security for NSW. In the absence of a State wide plan that guides its development, there are compelling reasons why the resource itself should be protected. The identification and protection of the resource could be used to avoid land use conflicts or inappropriate sterilisation of the States resources.

Just as there are some CICs that are of significant importance to NSW economy, similarly there should be recognition of critical energy clusters. The gas is where the gas is, and there is limited occurrence of it. Within these areas, for example where proven and probable (2P) reserves are identified or similar, the gateway process should be more favourable towards developing the resource in conjunction with agricultural production. The threat of serious energy supply disruptions to NSW without some form of access arrangement means it would be very remiss of Government not to allow for similar key areas of land to be identified for energy supply purposes. The answer simply cannot feasibly be one or the other use, it must be coexistence.

Equity in application of the CIC – The identification and protection of CIC should be applied equally to all land use changes, not just the resource extraction industries.

Protecting the States resources - Consideration should be given to identifying natural resources as a CIC within the SRLUPs providing a similar level of protection from threats that could potentially sterilise the ability to sustainably access the resources.

Gateway Process

Santos supports the concept of the gateway in preference to simple “no-go” areas. The gateway process will become a critical step for large resource extraction applications given the risk of a project being prematurely stopped at this stage. This is particularly important given such projects have involved 5-7 years of exploration activities and extensive cost and resource commitments to demonstrate how impacts will be managed.

If the gateway is to remain as a determination step in the process, there are a number of significant issues and additional detail that needs to be resolved before implementation.

Avoid duplication of assessment –Once a project has been approved through the gateway process there should be no additional assessment requirements relating to agricultural impacts or aquifer interference and water impacts. As noted elsewhere, the roles and responsibilities of the various process steps, assessment bodies and determination bodies needs to avoid any duplication.

Role of the Commonwealth Expert Scientific Committee – It is noted the Commonwealth Independent Expert Scientific Committee (**CIESC**) will provide advice as part of the gateway process. Confirmation is being sought that the CIESC advice at this gateway stage is final and there is no further role in the Part 4 SSD assessment or the PAC decision making process.

Confirm role of the Commonwealth CIESC - The Government must confirm that the role of the CIESC at the gateway stage is final, and they will play no further role in the Part 4 SSD assessment.

Front loading the assessment through the Cost Benefit Analysis (CBA) – The use of a CBA consideration as part of the gateway assessment is strongly supported to ensure decisions are balanced. It is noted the methodology for undertaking a CBA is yet to be finalised. It is critical that any determination of a project at the gateway balances out all competing interests, particularly given the focus on agricultural and water impacts at this stage.

For a CBA to accurately identify all costs and benefits, it will require a comprehensive assessment of all impacts associated with the project so they can be costed. As a result, industry will necessarily undertake a comprehensive assessment of a project at the gateway stage to accurately determine costs and benefits associated with a project to ensure it meets the decision making criteria. This “*front-loading*” of assessment will result in direct duplication of

the SSD assessment stage, effectively negating the stated objective of the gateway being a targeted assessment.

An option to address this issue would be to treat the process as an advisory role only, which is focussed on targeting issues around water and agricultural impacts. The gateway panel could outline recommendations and other requirements to the Department which must be taken into account as part of the SSD assessment. By removing the “yes” or “no” step at the gateway, and making it an advisory role only, it would significantly reduce the risk of duplicating of assessment and process.

Another option, is that if the assessment for the gateway process is sufficiently comprehensive to satisfy the SSD assessment, then if approval is given by the gateway panel this should be sufficient to obtain an approval at the SSD stage. In this situation the assessment at the SSD stage should be only to confirm that the assessment was sufficiently comprehensive. The merits of the assessment should not be revisited. A process such as this would remove unnecessary duplication, the risk of inconsistent decision making and ensure the cost for proponents remain manageable.

Cost benefit analysis methodology – It is noted the methodology for the CBA is being developed. Once a draft methodology is established, and prior to its implementation, there should be consultation with industry and other stakeholders to ensure that the weightings, inputs and assumptions are appropriately balanced.

Front Loading of Assessment and the Role of the Gateway Panel – The Government must avoid the front-loading of the assessment process, and subsequent duplication of assessment. There must be suitable criteria identified around the level of assessment required for the CBA to ensure duplication of assessment is avoided, but impacts on water and agriculture are considered against costs and benefits.

Cost Benefit Analysis Methodology – The methodology for the CBA should be developed in consultation with industry and other stakeholders prior to it being finalised.

Clarification of the role and decisions of the independent panel – The independent expert panel has been purposely put forward to provide an early arms length decision making step focussed on agricultural and water impacts. It is critical that further detail be provided outlining precisely how the panel will work in practice. There is a significant amount of detail that is yet to be resolved, particularly around the gateway process and the assessment criteria by which projects will be judged, and how they are prioritised. This detail is critical to understand exactly what the impacts of the new process will be. The following critical questions that need to be resolved include:

- What are the assessment criteria by which a project will be judged? What is the test for significance?
- How is the gateway integrated into the existing statutory framework?
- Are there appeal rights for a proponent or an objector, or both?
- Can the gateway process be subject to a judicial review? This is particularly relevant given the potential time penalty if a judicial review is undertaken at this new process point.
- Can the panel give a conditional approval? This approach could provide a practical means by which the panel could resolve issues associated with a project.
- Where a project has been refused, can the application be amended and submitted to the panel for re-consideration?
- Will the panel provide extensive written justification for a refusal decision?
- Will modification applications be subject to the gateway review process?
- What happens to the right/licence to a State owned resource if the panel refuses to allow an application to proceed in certain areas?

Given the strategic importance and capital investment already expended for projects that will be subject to this new process, it is critical that these details be resolved in consultation with stakeholders and prior to the process being finalised.

Clarification of administrative arrangements for the gateway process – Similar to the issues above, there are a number of questions relating to the administrative arrangements for the gateway process. These include:

- Will maximum assessment and determination timeframes be identified?
- Does the independent expert panel undertake the assessment of the application or do they rely on advice from government agencies?
- Will a proponent be able to present to the panel?
- Will the selection of panel members be subject to a transparent process? And will a chair be identified?
- What additional fees are likely to be charged for a gateway application? There should only be a single set of fees charged for the same application.

The role of the Gateway Panel – Further detail around the role of, procedural issues, and administrative arrangements for the gateway panel should be made available for stakeholder comment prior to its implementation.

Disproportionate assessment for CSG exploration activities – CSG exploration activities of more than 5 wells within 3 kilometres of each other are identified as Part 4 SSD applications under the recently introduced State Significant Development SEPP. Where these exploration activities occur on SAL, they will be subject to the new and additional process steps.

This level of assessment is disproportionate to the level of environmental impacts associated with this type of activity, and will add significantly, and unreasonably to assessment timeframes for petroleum appraisal wells which are an exploration activity. Despite the low level environmental impacts associated with this type of activity, the reality of the additional process steps, additional public consultation and acute level of public interest will directly result in significant additional process time. This is particularly problematic for CSG exploration activities where conditions of leases/licences stipulate activities are undertaken within a specified timeframe (normally 2 years). In PELs where there is significant affectation which are likely to increase the time taken to obtain approval of exploration activities, there should be suitable recognition and flexibility within the licensing requirements.

The purpose of exploration is to obtain detailed data so that environmental impacts associated with production activities can be accurately reported and mitigation measures identified. The existing Part 5 Review of Environmental Factors (**REF**) process provides a comprehensive and tailored environmental assessment process suitable for exploration activities. It is noted that the Part 5 REF process has been significantly strengthened recently with the introduction of minimum assessment and reporting requirements targeted specifically at CSG operations.

CSG exploration activities - CSG exploration activities should not be subject to the new gateway process. Options to address this issue include:

- Exempting CSG exploration activities on SAL from having to obtain gateway approval. These projects would proceed straight to the SSD application; or
- Amend the State Significant Development SEPP so that up to 8 exploration wells can be undertaken within 3 kilometres of each other under the Part 5 Review of Environmental Factors process, which provides a robust and rigorous environmental assessment regime commensurate with the scale of impacts.

An equitable approach to protecting BSAL – In terms of ensuring that BSAL is protected from any threat, the gateway process should be applied to any development that would threaten its viability, not just resource extraction applications. This would include developments such as rural subdivisions which permanently remove productive agricultural land.

For example, in Queensland where they have implemented a Strategic Cropping Land (**SCL**) policy, the policy applies to land that is being subdivided and where any lot is 15 hectares or less if located on SCL¹⁶. The Queensland policy is similar in purpose to the NSW policy position and is designed to protect SCL from developments that lead to permanent impacts or diminished productivity.

It is further noted that the Queensland SCL policy has identified resource activities that would only result in a temporary impact on SCL. This includes underground pipes, coal seam gas wells and certain exploration activities. Where these resource activities comply with a code, they will not require a full SCL development assessment¹⁷.

¹⁶ Strategic cropping land—development exemptions under the Sustainable Planning Act 2009 DERM (p.1)

¹⁷ Qld Govt website - <http://www.derm.qld.gov.au/land/planning/strategic-cropping/legislation-planning.html>

Equitable application of the gateway process – The gateway process should be applied to any development type that is likely to threaten the long term viability of productive agricultural land, not just resource extraction projects.

Proportionate regulatory response – Consideration should be given to exempting resource extraction activities from the gateway process where the scale of the works and likely impacts are limited and/or temporary. For example, if the footprint associated with an activity would cover less than 1% of BSAL or similar.

Exceptional Circumstances Provisions

Santos strongly supports the SRLUP giving Cabinet the ability to declare a project to be an “*exceptional circumstances project*” if the subject resource is of exceptional value to the State. These projects would be exempted from the requirement to obtain a gateway certificate.

This is a necessary, sensible and practical measure that reflects the strategic importance of the State’s natural resources, and the need in some circumstances for the Government to exercise its control where justified.

Natural Environment - Terrestrial Biodiversity

The inclusion of biodiversity policy settings in this SRLUP is questioned given the existing legislative and policy framework in place in NSW to assess biodiversity impacts and ensure appropriate protection.

Santos’ areas of interest are significantly affected by the terrestrial biodiversity and Priority Landscapes Offset Areas (**PLOA**) identified in Chapter 8 of the SRLUPs.

This is particularly the case in PEL 238, including Petroleum Assessment Lease (PAL) 2 where Tier 1 Biodiversity has been applied over significant areas of Santos area of interest, despite the recently agreed IFOA noting that the area was appropriate for timber and mining activities given its reduced conservation values. **This is particularly concerning as at no stage was Santos aware a biodiversity layer would be included, that it would then suggest the Pilliga contained substantial areas of tier 1 Biodiversity, and that in those areas the intent was to avoid development.**

The following table highlights the extent of affectation.

Lease/Licence Area	% of PEL/PAL Affected by Tier 1 Terrestrial Biodiversity	% of 3(c) Affected by Tier 1 Terrestrial Biodiversity
PAL 2	17.6%	35.3%
PEL 238	8.51%	13.72%

The following comments are made in relation to the Natural Environment section of the SRLUP, with a focus on Tier 1 Terrestrial Biodiversity and the PLOA, particularly focussing on the Pilliga forest areas.

Regional Conservation Assessment and Classification of Tier 1 & Tier 2 Biodiversity –

The SRLUP states that “*a regional conservation assessment has been conducted using currently available data. This assessment has identified and mapped areas of high (Tier 1) and moderate (Tier 2) terrestrial and aquatic biodiversity values.*”¹⁸

Both of the SRLUPs fail to provide sufficient evidence based justification for the development of the regional conservation assessment and associated mapping. For example, the bibliography for Chapter 8 in both SRLUPs references two separate background documents, none of which relate to vegetation. The development of regional conservation strategies typically involves extensive detailed investigation and consultation to ensure the methodology is robust and defensible.

The criteria for Tier 1 Terrestrial Biodiversity are not considered to be sufficiently thorough, relying only on size of vegetation as well as the likelihood habitats will be lost as a result of

¹⁸ Draft Strategic Regional Land Use Plan – New England North West (p.55)

resource extraction activities. There is no reference to quality of vegetation, vegetation types, ecological significance or any other robust or defensible criteria.

The approach taken for identifying terrestrial biodiversity in the SRLUPs is considered to be too limited to justify imposing policies that would rule out or restrict activities. Before the SRLUPs are finalised, the regional conservation assessment section should be further developed based on a robust and scientifically accepted methodology, as well as including further consultation with stakeholders and the public.

Applying the Tier 1 Terrestrial Biodiversity policy consistently – The identification and protection of Tier 1 & Tier 2 Terrestrial Biodiversity are directly targeting impacts caused by coal mining and CSG. For example, the description in Appendix B for Tier 1 Terrestrial Biodiversity is *“habitat for threatened plants and animals for which habitat loss due to mining and coal seam gas is likely to place them at risk of local extinction”*.¹⁹ Furthermore, *“there are areas of terrestrial and aquatic habitat where impacts from coal mining and coal seam gas should be avoided because the identified natural values cannot sustain further significant loss”*²⁰.

The narrow approach of targeting resource extraction fails to identify and protect Tier 1 biodiversity from other threats, some of which are likely to be more damaging when compared to the comparatively small footprint of CSG operations.

The Tier 1 Terrestrial Biodiversity classification should be reconsidered so that any policy affectation applies equally to all uses which are likely to have an impact on its values.

Offsetting Tier 1 Terrestrial Biodiversity – The SRLUPs limit the ability for offsetting in Tier 1 Terrestrial Biodiversity. Appendix B of the SRLUP provides that the “significance in decision making process” for Tier 1 Terrestrial Biodiversity areas is:

- Avoid substantial impacts; and
- Unlikely to be able to be offset because of their rarity, extent, uniqueness and importance²¹.

This policy position is directly inconsistent with the NSW Governments existing and substantial regulatory framework that enables offsetting as a way to manage impacts associated with a project.²² The use of offsets as an impact management measure is supported and should be maintained. For large scale and complex projects, offsets have been clearly demonstrated to work in practice at both the State and Commonwealth level, and are recognised by the Land & Environment Court.

Offsetting of impacts is a recognised tool that can create an opportunity to significantly increase the amount of protected sensitive environmental areas. For impacts associated with CSG activities, there is likely to be a significant increase in the total area of protected terrestrial biodiversity as a result of offsetting impacts, in addition to the return of well sites and facilities once they have been rehabilitated.

Simply limiting the ability to offset impacts within the Tier 1 Terrestrial Biodiversity area fails to properly account for the circumstances of the case that may arise as part of the detailed investigations associated with a project application and assessment. Not allowing offsets would limit the ability to flexibly respond to complex projects.

For CSG activities, this blanket approach fails to recognise that the location of well sites and infrastructure can be responsive to environmentally sensitive areas, activities are temporary in nature, and sites are fully rehabilitated at the end of the productive lifecycle. The total footprint of CSG facilities will be relatively small, with the total area of disturbance to Tier 1 Terrestrial Biodiversity associated likely to be significantly less than other activities which involve land clearing such as cropping or grazing.

Limit offsetting in Tier 1 Terrestrial Biodiversity areas is not supported, and is inconsistent with the existing legislative and regulatory framework which allows for offsetting. This is considered to be a retrograde shift in policy away from using offsets to manage impacts, undoing the

¹⁹ Draft Strategic Regional Land Use Plan – New England North West (p.91)

²⁰ Draft Strategic Regional Land Use Plan – New England North West (p.61)

²¹ Draft Strategic Regional Land Use Plan – New England North West (p.91)

²² NSW Government – OEH Website – Principles for the use of Biodiversity Offsets in NSW

positive solutions focused framework established by the NSW Government over the last decade or so. The inherent inaccuracies and likely anomalies associated with regional scale mapping, as well as the ability for CSG activities to address environmental concerns necessitate that a flexible and responsive regulatory environment be made available. Offsetting should be clearly recognised as part of a toolkit for both Tier 1 and Tier 2 terrestrial biodiversity to manage impacts.

Priority Landscape Offset Areas –The identification of Priority Landscape Offset Areas (PLOA) to guide developers and agencies in identifying preferred areas for investments in terrestrial biodiversity offsets is supported.

In the Upper Hunter SRLUP (see Figure below), a significant area of a Santos Petroleum Licence Exploration Area (PEL 456) has been identified as a PLOA, which coincides with a significant area identified as having “high” natural gas potential. This PLOA has been provided without any clear evidence within the SRLUP.

It is critical that the SRLUP clearly recognise the importance of the resource where they coincide with preferred offset areas, as well as the ability to access the resource. This approach to CSG, as well as other resources, would be equitable with the approach taken for the PLOA where it coincides with strategic agricultural land. For example, the SRLUP for the Upper Hunter states “*whilst it is possible for biodiversity offsets to be provided on, and coexist with, strategic agricultural land, the agricultural value of potential offset sites, including the areas of overlap, should be assessed in detail in the identification of an appropriate biodiversity offset*” and “*Land set aside for biodiversity offsets should not result in the significant loss or destruction of agricultural resources or industries*”.

There should be a similar level of importance and protection assigned to natural resources. This is particularly relevant for CSG activities that can be designed to avoid and minimise impacts on environmentally sensitive areas, and would have significantly lesser impacts on vegetated areas when compared to agricultural activities.

Regional Conservation Assessment & Tier 1 Terrestrial Biodiversity classification – The development of the regional conservation assessment and identification of Tier 1 Terrestrial Biodiversity should be based on robust scientific evidence supporting its classification before the plans are finalised. This is particularly relevant given the proposed limitations on offsetting in Tier 1 areas.

Applying the Tier 1 Terrestrial Biodiversity affectation equally - The Tier 1 Terrestrial Biodiversity affectation should be applied equally to all uses (including agriculture) which are likely to have an impact on its value, and not just focus on CSG or coal mining.

Recognising Offsetting in both Tier 1 & Tier 2 Terrestrial Biodiversity areas – The Tier 1 - Significance in Decision Making should be amended to make it clear that offsetting can be undertaken within these areas which is consistent with existing Government policy that allows for offsetting. This is particularly relevant for areas in the Pilliga forest which have been identified to allow for petroleum activities.

Recognising the importance of resources where they coincide with Priority Landscape Offset Areas – The SRLUP must acknowledge the importance of and ability to access resources where they coincide with PLOA. This would also ensure equity with the approach taken for agricultural uses.

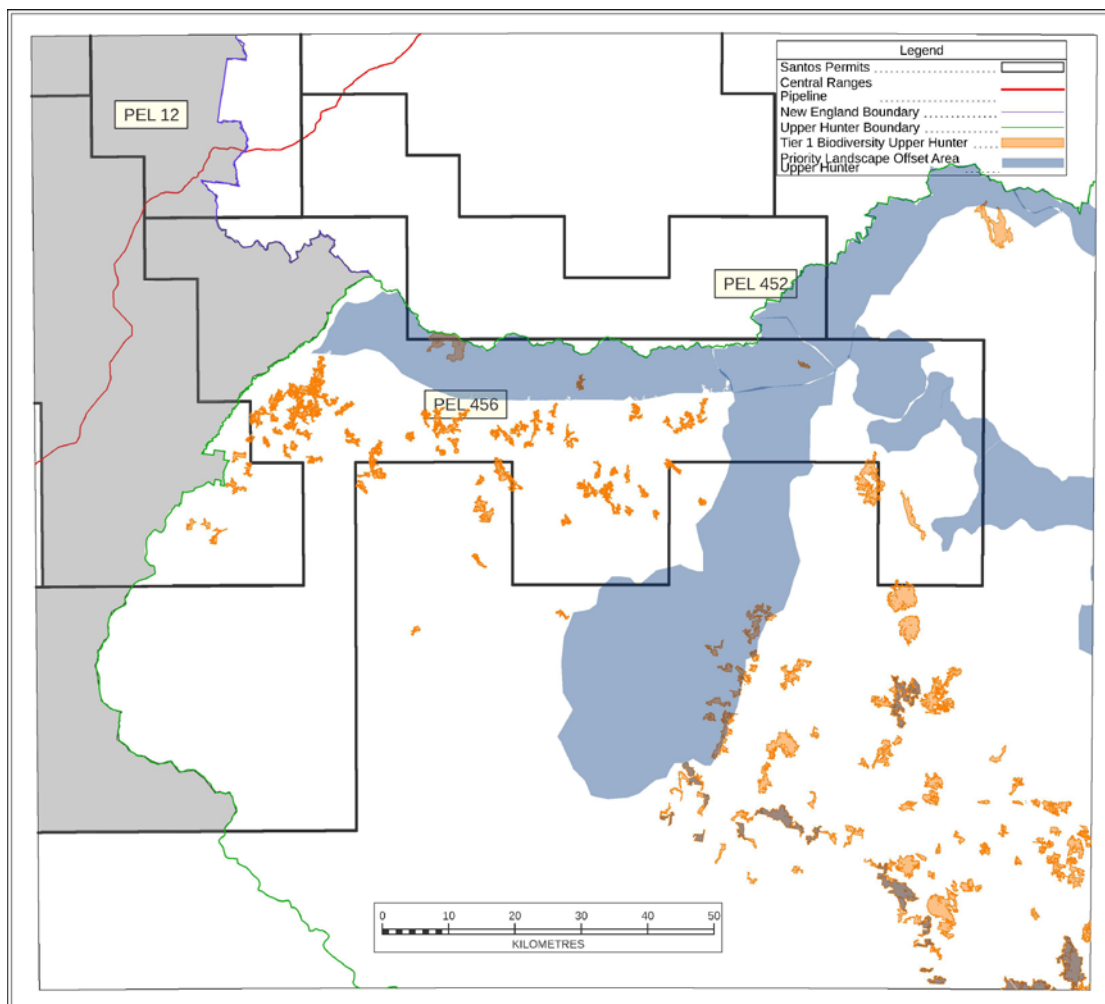


Figure: Extent of POLA in the Upper Hunter and affection on Santos' PEL 456

The Pilliga

Santos' PEL 238 includes the area referred to as the Pilliga. The SRLUP Tier 1 Terrestrial biodiversity classification significantly affects PEL 238.

By way of background, the NSW Government has undertaken extensive investigations of the Brigalow area, including the Pilliga forest areas.

In 1999 the NSW Government initiated a western regional assessment (focusing on the Brigalow and Nandewar regions) to guide future planning and encourage partnerships to protect the environment. The assessment ran from 1999 to 2002.²³

The assessment involved key NSW agencies representing forests, conservation, planning, Aboriginal interests, minerals and natural resources. The assessment included detailed scientific analysis and consultation with timber operators, conservation groups, Aboriginal stakeholders, minerals and gas industries, local communities and local government.

The NSW Government's decision in 2005 to conserve 350,000 hectares of woodlands in the Brigalow and Nandewar bioregions protected important conservation values in western NSW and ensured the long-term sustainability of the region's important timber, gas, minerals and apiary sectors.²⁴

Following on from the assessment, a community conservation area agreement was developed. The BNCCAA identifies various zones, and provides a coordinated framework for the management of land zoned 1 to 4 in the Brigalow and Nandewar Community Conservation

²³ NSW Govt OEH Website - Brigalow Belt South Bioregion Assessment and Project Reports

²⁴ NSW Govt OEH Website – Brigalow and Nandewar Community Conservation Area Agreement

Area. The agreement was made on 11 June 2009 between the Minister for Climate Change and the Environment and the Minister for Primary Industries will be in place until 10 June 2016.

The purpose of providing this background information on the Pilliga is to highlight the extensive investigations, negotiations, policy arrangements and management frameworks that have been established for the Pilliga forest area over the last decade.

The SRLUPs must be coordinated with this existing regulatory framework.

Accuracy of Mapping in the Pilliga – A southern portion of the Pilliga forest area appears to have been inaccurately identified as National Park in the map “New England North West – Regional Map”. This area is more accurately referred to as:

- Pilliga East CCAZ3 in the Map for the Namoi CCAC Area as provided under the BNCCAA implemented in June 2009 (Office of Environment & Heritage website - <http://www.environment.nsw.gov.au/forestagreements/cca.htm>) ; or
- Pilliga East State Conservation Area in the Map for the Pilliga Nature Reserve (Office of Environment & Heritage website - <http://www.environment.nsw.gov.au/nationalparks/parkHome.aspx?id=N0464>)

The area in question is categorised as CCA Zone 3 under the Namoi CCAC Region map. Under the BNCCAA the Strategic aims specific to Zone 3 (clause 8.4) provide for “*exploration, mining and petroleum production which is permissible in accordance with section 47J of the National Parks and Wildlife Act 1974, the Mining Act 1992 and the Petroleum (Onshore) Act 1991 and associated Regulations and guidelines*”.

Identifying this area as National Park is misleading, particularly given mining and petroleum activities are prohibited in National Parks. The area described above, and any other areas within both regions which have been incorrectly identified as National Park should be correctly identified to reflect current status.

Accuracy of mapping in the Pilliga – The maps associated with the Pilliga National Park and forestry areas must be accurately mapped to reflect their current status. Specifically the area referred to as Pilliga East CCAZ3 should not be classified as National Park, but rather State Conservation Area.

Objectives of the Brigalow and Nandewar Community Conservation Agreement & Terrestrial Biodiversity Mapping – A significant area of the Pilliga forest has been classified as Tier 1 Terrestrial Biodiversity. As discussed above, Appendix B of the SRLUP provides that the significance in decision making process for these areas is: “*avoid substantial impacts*”; and “*unlikely to be able to be offset because of their rarity, extent, uniqueness and importance*”.

A significant portion of the Tier 1 area largely coincides with areas categorised as CCA Zone 4 under the Namoi CCAC Region map. Under the BNCCAA the Strategic aims specific to Zone 4 (clause 8.5) are clearly designed to enable the use of timber, products and materials, as well as provide for “*exploration, mining, petroleum production and extractive industry*”.

Given the SRLUPs for the first two regions are clearly focussed on addressing impacts associated with resource extraction, the SRLUP for the New England North West must reference the existing policy framework associated with the Pilliga forest areas, and its objectives of balancing conservation along with development of the resources. This is particularly important where the Tier 1 Terrestrial Biodiversity areas coincide with Zone 3 and Zone 4 lands under the BNCCAA which expressly recognise and provide for the ability to undertake petroleum and mining related activities, along with forestry in those areas. A check of the Bibliography for Chapter 8 – Natural Environment indicates that none of the significant body of background work prepared for the BNCCAA was used to inform the discussion in this chapter.

Brigalow and Nandewar Community Conservation Area

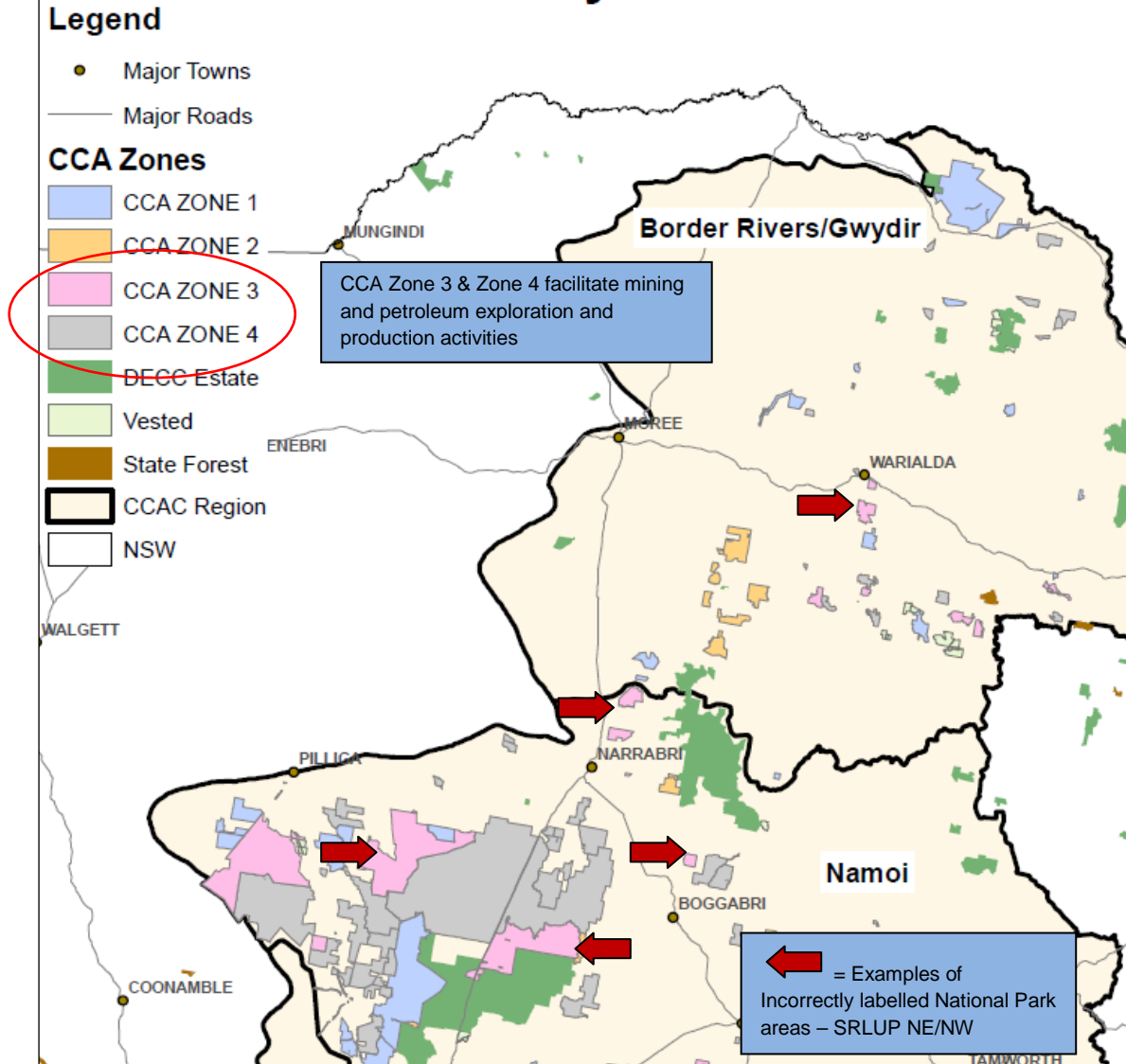


Figure – BNCCAA zone categories.

The document must address what appear to be competing policy objectives. On one hand the SRLUP proposes that Tier 1 biodiversity is “unlikely to be able to be offset”, and on the other hand, there is a regulatory regime which, subject to complying with agreed rules, provides for the use of timber products, petroleum activities and mining.

Policy Objectives of the BNCCAA in the Pilliga – The SRLUP for the New England North West must address competing policy objectives between the BNCCAA and the Tier 1 Terrestrial Biodiversity classification of parts of the Pilliga forest area. The SRLUP should expressly reference current policy arrangements that are in place for the Pilliga, particularly relating to those policies which recognise and provide for forestry, mining and petroleum exploration. Santos considers that Tier 1 Terrestrial Biodiversity is not appropriate for those parts of the Pilliga forest (i.e CCA Zone 3 & Zone 4).

Classification of Pilliga as Tier 1 Terrestrial Diversity – The classification of areas of the Pilliga as Tier 1 Terrestrial Biodiversity should be further considered, particularly in light of the significant background information that was prepared for the development of the BNCCAA. This information includes over 27 expert technical reports ranging from flora and fauna surveys, soil classification, land clearing history etc, all of which were an input into the Community

Conservation Area Agreement and an Integrated Forestry Operations Approval for the bioregion.

Areas of the Pilliga have been significantly disturbed through farming, grazing, forestry operations as well as fire. The approach taken to identify these areas as Tier 1 Terrestrial Biodiversity appears to lack robust scientific evidence supporting its classification. Given the proposed decision making significance suggests areas will be “*unlikely to be offset*”, at a minimum these areas should be further analysed to accurately determine the extent of its significance.

It is noted the Commonwealth IESC will be undertaking a Bio-Regional Assessment of the Gunnedah Basin area. Any inaccurate identification of areas as Tier 1 Terrestrial Biodiversity could be given incorrect status as part of this process as well. It is crucial that the mapping for these areas be accurate, and based on robust scientific evidence.

Tier 1 Classification in the Pilliga – The classification of Tier 1 Terrestrial Biodiversity in the Pilliga should be based on robust scientific evidence supporting its classification before the plans are finalised. This is particularly relevant given the proposed limitations on offsetting in Tier 1 areas and the existing regulatory and management framework that has been established for the Pilliga.

Cumulative Impact Assessment Methodology

Action 7.1 in both the New England North West and Upper Hunter SRLUPs proposes to develop a cumulative impact assessment methodology by September 2012. The purpose of the plan is to manage the cumulative health and amenity impacts of mining and coal seam gas proposals, as well as addressing cumulative impacts on agricultural lands and water resources.

Santos supports the development of a cumulative impact assessment methodology to provide better certainty to communities, industry and stakeholders.

Cumulative Impact Assessment Methodology - Santos requests that industry and other relevant stakeholders be involved in the development of the methodology, and that it be made available for comment prior to its finalisation and implementation.

Draft Aquifer Interference Policy

Santos understands the Government's objectives of putting in place a rigorous and transparent science based policy designed to ensure the integrity and protection of aquifers.

It is noted that the draft Aquifer Interference (**AI**) policy released for public comment is the first stage, and only applies to BSAL where it overlies a groundwater source. Stage 2, which is yet to be released, will provide a regulatory framework for the remaining areas of the State.

Similar to the SRLUPs for the New England North West and the Upper Hunter, the AI policy is heavily focussed on regulating the resource extraction industries. Given the extent of the BSAL and ground water sources across Santos' area of interest, the AI policy will have a significant impact on Santos' operations in NSW. This will include additional regulatory approval requirements as well as on-going monitoring and reporting of activities.

There are a number of issues associated with the policy which Santos is seeking clarification on prior to its finalisation.

Complex and Confusing Policy Document

The draft AI policy as released by the NSW Government is confusing, contradictory, overly complicated, and appears to contain errors. The complex and confused approach of the drafting leads to uncertainty and significant difficulty in understanding the intention, and importantly minimum requirements of the policy.

For example, in the introduction section the AI policy states "*Aquifer approvals will be required for de-watering bores for coal seam gas extraction as well as for the disposal of this water*" (page 5). In Section 3.4 of the document – exemptions from the need to hold an aquifer interference approval – a number of CSG activities, including exploration and production activities are identified as being exempt from the requirement to obtain a separate AI approval. This is one example highlighting the confused nature of the policy.

The document should be re-drafted, and made significantly simpler to ensure that the community, industry and the Government are clear in terms of its objectives and its minimum requirements. Once the policy is rewritten and issues and concerns have been addressed, it should be re-released for public review and comment.

Simplifying the Policy Document – The draft AI policy should be re-written. All errors should be removed, and the structure of the document simplified to ensure its objectives and policy requirements are clear. Once the document has been re-drafted it should be re-released for public review and comment.

Coordination of Approvals

It is understood the AI policy exempts certain activities from having to obtain a separate AI approvals. These exemptions are only in place where a separate activity or development approval is required. For CSG activities, this includes:

- Part 4 SSD applications, either as part of the gateway assessment (where it applies) or part of the SSD assessment;
- Petroleum exploration activities undertaken in accordance with conditions of the title which prohibits the causing or enhancement of interconnectivity of aquifers; and
- Petroleum exploration drill holes for sampling geological strata where they occur outside of a Water Protection Zone or Limited Intrusion Zone.

The rationale for the exemptions relies on the NSW Office of Water providing advice to the relevant determination bodies as part of the Part 4 SSD or Part 5 REF assessment processes. This advice will be based on compliance against the AI policy.

The principle of co-ordinating and streamlining approvals is supported. This approach maintains the scientific rigour required to address aquifer interference impacts, whilst ensuring duplicated assessment processes are avoided.

The approach of combining AI approvals into a single process is strongly supported and should be maintained as part of any re-drafting of the AI policy. This is particularly relevant for resource extraction activities which are increasingly being exposed to additional and potentially duplicated assessment processes.

Licensing the Water Taken Through Aquifer Interference

Santos understands the existing requirements under the *Water Management Act 2000* or the *Water Act 1912* for licensing any water taken from any water source as a result of its activities, unless the activity is subject to an exemption.

The following comments are made on the draft AI policy where it relates to water access licence requirements.

Prioritising the finalisation of Water Sharing Plans - Santos' area of interests, particularly in Narrabri and Gunnedah, are largely covered by existing or proposed Water Sharing Plans (WSP), resulting in the *Water Management Act 2000* applying. Where a WSP has not been commenced the *Water Act 1912* applies.

The dual legislative framework that currently exists in NSW creates a complex and confusing regulatory environment. The finalisation of WSPs across the State should be undertaken as a priority to ensure there is a single regulatory environment within which water access licences can be obtained.

The introduction of the new AI policy which will work under both the *Water Act 1912* and the *Water Management Act 2000* will further add to the existing complex regulatory regime. The implementation of all WSPs across the State and the repeal of the *Water Act 1912* will assist in simplifying the existing regulatory environment.

Finalise Water Sharing Plans – All WSPs across the State should be finalised and implemented as a priority in order to simplify the existing water regulatory environment.

Responsibility of the Proponent for Holding a Licence - Section 2.3 of the draft AI policy outlines what matters will need to be taken into consideration when a water access licence is applied for.

Requirements relating to licensing the quantity of water taken are found in both section 2.3 (page 9) and section 3.3.1 (page 19). The requirements under section 3.3.1 for water taken by activities operating within the Water Protection Zone, Limited Intrusion Zone or Inner Risk Management Zone require modelling that is “*calibrated to at least 2 years of baseline data that has been collected at an appropriate frequency and scale*” as well as being “*independently reviewed and determined to be robust and reliable*” with respect to being fit for purpose to the satisfaction of the NSW Office of Water.

While this requirement can be achieved for CSG production that are proposed after extensive exploration and data collection, for CSG exploration activities it is onerous and disproportionate relative to the scale of potential impacts. Furthermore, it does not recognise the inherent differences between CSG exploration and CSG production activities. Appraisal exploration wells, which produce limited quantities of water for a limited period of time, provide the necessary data that is used to build detailed and accurate modelling of a CSG production field. These wells are typically shut down once the data has been obtained.

Requirements for Obtaining a Water Access Licence for CSG Activities – The draft AI policy should recognise the differences in CSG exploration activities and CSG production activities. For CSG exploration wells, the requirement for 2 years of data for CSG exploration activities should be removed and replaced with an achievable requirement.

Approval Process for Aquifer Interference Activities

A number of the policy initiatives outlined in the AI approval section of the draft policy are supported and include:

- Exempting separate approval requirements for CSG activities where the application is also subject to a Part 4 SSD, application or where CSG exploration activities are subject to a Part 5 REF assessment under certain licence requirements;
- Enabling CSG activities to access certain groundwater sources, subject to meeting existing and proposed stringent requirements, to reach the target coal seam which lies beneath the accessed groundwater source;
- Recognising potential benefits associated with the reuse of treated CSG water to recharge aquifers, subject to AI approval first being obtained.

The following comments are made in relation to the requirements for AI approvals.

Clarification of exemptions from the need to hold an AI approval – The draft policy is confusing in terms of identifying when CSG activities are exempt from having to obtain a separate AI approval.

For example, section 3.2 states that “*the actual process of hydraulic fracturing will require an aquifer interference approval.*” However, under section 3.4, petroleum exploration activities are exempt from being required to obtain an AI approval if they are undertaken in “*accordance with conditions of titles under the Petroleum (Onshore) Act 1991 subject to those conditions not allowing the exploration activity to cause or enhance interconnectivity of aquifers*”. If fracture stimulation occurs as part of an exploration activity (e.g an appraisal well), and the licence meets the terms stated above, is the activity exempt from having to obtain a separate AI approval?

It’s noted that the fracture stimulation activity would be subject to a separate Part 5 REF assessment which deals with impacts on aquifers, as well as a requirement to meet the soon to be introduced Code of Practice for Hydraulic Fracture Stimulation. In this circumstance it is reasonable the activity be exempt from having to obtain a separate AI approval when issues will be rigorously assessed as part of the Part 5 REF process, involving advice from the NSW Office of Water.

As part of the re-drafting of the AI policy, the exemptions should be made clear, and contradictory statements removed.

Consistency in application of AI exemptions - The reliance on the use of a condition on the title/licence may result in an inconsistent approach in exemptions for petroleum exploration activities. For example, if a petroleum licence does not contain the specified condition, a Part 5 REF application for an exploration activity would be required to obtain a separate AI approval. This is the case even though it will undergo an identical assessment to a Part 5 REF activity assessment where the licence includes the relevant condition, therefore exempting it from an AI approval. As part of the Part 5 REF assessment, both applications are required to demonstrate impacts on water sources and will receive identical advice from the NSW Office of Water. This inconsistency will continue to occur until all existing and new petroleum licences include the necessary condition.

The exemption provisions should be amended to ensure any inconsistencies on the application of the exemption requirements are addressed. One option could be that CSG exploration activities are exempt from having to obtain a separate AI approval where the Part 5 assessment specifically deals with aquifer interference connectivity, and advice has been obtained from the NSW Office of Water.

Clarifying exemptions – As part of any redrafting of the AI policy, the exemptions under section 3.4 should be made simpler and clearer, with contradictory statements either removed or qualified.

Addressing exemption inconsistencies - Potential inconsistencies on when petroleum exploration activities are exempt should also be addressed. The exemption should be predicated on whether or not a satisfactory assessment of aquifer interference issues has been undertaken through the Part 5 REF process.

Risk Management Zones around Highly Productive Groundwater – Risk management zones (**RMZ**) have been identified for AI activities (section 3.3.1) that occur on BSAL where Highly Productive Groundwater (**HPG**) is located underneath. They have also been identified

around a number of other water source features such as bores, groundwater dependent ecosystems and groundwater dependant culturally significant sites.

The RMZ, when considered against the minimal harm criteria, different ground water sources within various Water Sharing Plans, and water access licence requirements creates a multi layered and complicated regulatory framework with numerous overlapping requirements. The Government must make every effort to simplify the requirements to ensure industry and the community have clarity and certainty.

The following issues should be clarified before the policy is finalised:

- Exemptions are included in section 3.3.1 (page 18), which is in addition to the exemptions located in section 3.4. As noted elsewhere, the document should be simplified and made clearer;
- Clarify that CSG exploration activities are not required to provide 2 years of baseline data and that this requirement only applies to CSG production activities (page 19);
- Diagrammatic representation of the spatial extent of the risk management zones to provide stakeholders with a clearer understanding of the minimum requirements;
- Clarifying how the risk management zones are delineated where there is overlap between 2 or more zones;
- Provisions of maps and data in relation to known water source features, as well as the location of Highly Productive Groundwater;
- Clarify what the requirements are where the lateral extent of the impact falls outside of the BSAL and AI approval area. Are the RMZ and minimal harm criteria still applied?

Risk Management Zones – Prior to implementation of the AI policy the NSW Office of Water must redraft the document to address a number of issues relating to the RMZ, as well as simplifying the requirements around the minimal harm criteria. This should be undertaken in consultation with industry prior to being implemented.

Minimal Harm Criteria – Section 3.3.2 provides the default minimal harm criteria for HPG risk management zones, water source feature risk management zones, and non-highly productive groundwater areas.

The purpose of identifying minimal harm criteria thresholds for AI approvals is to quantify acceptable limits for determining “minimal harm” as required under the *Water Management Act 2000*. It is Santos’ understanding that where an AI approval is required, the thresholds will be applied for determination. Where an activity is exempt from having to obtain a separate AI approval, the thresholds will be used to provide advice to the relevant decision making body.

For projects where an AI approval is required under the provisions of the *Water Management Act 2000*, the Act should allow for the circumstances of the case to be taken into account as part of the decision making process. Where the test is solely based on achieving minimal harm, it removes the ability for other factors to be at least taken into account.

With regard to the minimal harm criteria, the following issues should be clarified prior to implementation of the Policy:

- The minimal harm criteria are highly prescriptive, and do not provide any capacity for the decision maker to take into account unforeseen factors or circumstances of the case. Strict “one-size” fits all approach will not account for natural differences in water sources, geology, geography, socio-economic considerations, or the circumstances of the case etc. An alternate approach could see the development of tailored objectives for each of the minimal harm components, with the numerical criteria used as a guide to ensure there is the ability to take account of natural variations or other unforeseen circumstances.
- Clarification on the development of the methodology for the minimal harm criteria.
- Table A.1: Water table drawdown (page 35):
 - Confirmation that the columns for Limited Intrusion Zone (LIZ), Inner Risk Management Zone (IRMZ) and Outer Risk Management Zone (ORMZ) do not apply to the water table and should be deleted;

- The 0.1m water table drawdown at 40m laterally from the AI activity is considered to be overly prescriptive and unlikely to be quantifiable. A drawdown of 0.1m may be within the bounds of a numerical model error and as such the criteria may be exceeded by the predictions of a numerical model. Additionally, monitoring may indicate that this threshold has been exceeded though it will be difficult to identify if it has been caused by natural variation, existing activities (e.g. agriculture etc) or the newly approved activity.
- Table A.3: Aquifer compaction (page 39): The requirement that final settlement cannot reduce the ground surface by more than 5cm above highly productive groundwater is unlikely to be quantifiable. It is noted that given the depths of CSG activities, and the minimal likely drawdown from groundwater sources, CSG is unlikely to cause compaction. It should also be noted that Santos has undertaken an existing subsidence survey of some of its acreage and there is substantial subsidence occurring from existing water extraction activities.
- Before the AI policy is finalised, the further refinement and development of the criteria should be tested with relevant industry stakeholders and other experts or leaders in the field to ensure the policy is workable and the objectives are being achieved.

Minimal Harm Criteria – Prior to implementation of the AI policy the NSW Office of Water must redraft the document to address a number of issues, including errors, relating to the minimal harm criteria. It is critical that the minimum harm criteria be tested in consultation with industry prior to being implemented.

Additional criteria for CSG operations – The draft AI policy identifies a number of CSG specific criteria which will be taken into consideration as part of an AI assessment including:

- The design and construction of a CSG bore/well to ensure it will not increase inter-aquifer connectivity;
- Impacts caused by hydraulic fracture stimulation activities on aquifers; and
- The disposal of extracted CSG water, including banning the use of evaporation ponds for production activities.

The following comments are made in relation to the CSG specific criteria.

- The policy should be consistent with and/or reference the soon to be finalised Codes of Practice for well integrity and fracture stimulation. These codes, combined with the recently introduced CSG specific Part 5 REF guidelines ensure there is a rigorous regulatory framework in place to ensure the risks associated with these activities are managed to acceptable standards.
- With regard to the policy to ban the use of evaporation ponds for disposal of CSG water generated during production, careful consideration must be given to the definition for evaporation ponds to ensure it does not preclude the use of water storage ponds used to store water prior to its treatment for beneficial reuse, or appropriate disposal. These storage facilities are a necessary part of the water management network associated with CSG exploration and production and should be facilitated through the regulatory framework.

Additional CSG Specific Criteria – The CSG specific criteria should be re-drafted to ensure consistency of application with other existing regulation for the CSG industry such as Codes of Practice, REF Guidelines/requirements etc. For evaporation ponds, careful consideration should be given to the definition to ensure it does not preclude water holding tanks used as part of the water management process.

Security Deposits – The use of reasonable security deposits held by the Government to cover the cost of any remediation works which are required to be undertaken. For security deposits, a clear policy should be developed by the Government, in consultation with industry clearly identifying when a deposit is required, the methodology for estimating the security amount, as well as details on when the security deposit would be held (e.g. if a proponent fails to perform obligations under the terms of the AI approval).

Draft Code of Practice for Coal Seam Gas Exploration

Santos strongly supports the development of any material prepared by the Government that explains the protections in place for landholders generally, and especially those who host CSG exploration or production activities.

However, the intent or purpose of the Draft Code of Practice is not clear. The Code attempts to cover a number of issues related to the CSG industry, but which are already addressed through separate policy or regulation, or which can not be usefully included in a Code of Practice that would be meaningful to landholders. This could be addressed by including a directory of relevant regulation and requirements in a Code of Practice, so that landholders and members of the community have access to a useful directory of information if they require it.

For example, the Code covers matters such as:

- Land access arrangements;
- Protection of water resources;
- Disposal of CSG water;
- Standards for well construction;
- Rehabilitation of well sites;
- CSG regulation and approval requirements;
- Community consultation;
- General description of the CSG industry.

The Code also implies there are mandatory requirements, many of which are already provided for under separate legislation or policy. For example the code states that “*CSG companies are required to hold a Water Access Licence under the Water Management Act*” (page 3). This requirement is outlined under the Water Management Act and will be further strengthened through the Aquifer Interference Policy.

Santos submits that the draft Code of Practice should focus on land access and compensation arrangements only. A concise code of practice outlining key principles, objectives and requirements for land access would be of significant benefit to industry, as well as giving landowners comfort as to their rights, and the responsibilities of industry. This approach would ensure consistency with the approach taken in Queensland.

If a land access code is proposed, all other non related matters should be removed from this document. The information taken from the document could be used for either fact sheets, or supporting information relating to other policies or the CSG industry generally. For example, the discussion on standards for well construction and fracking (page 15) could be used to support the forthcoming Codes of Practice for Well Integrity and Hydraulic Fracture Stimulation.

Alternatively the document could be amended to provide a general overview of regulatory requirements in place for the CSG industry. If this approach is taken it should not be referred to as a code of practice.

Clarifying the purpose of the document – The purpose of the CSG Code of Practice should be clarified and all non-relevant information removed. Santos submits that the document should focus on being a Code of Practice for Land Access.

Developing a Code of Practice for Land Access

Santos has an established record of positive, respectful and transparent relationships with landowners. Our landowner engagement practices are continuously improving to ensure we keep pace with the expectations of landowners.

If a land access code is to be progressed, APPEA and other relevant industry representatives (e.g. NSWFA) should be engaged to ensure all relevant requirements are included, issues are thoroughly addressed, and it satisfies the needs of the user and landowners.

Such a policy would sit alongside other codes of practice for hydraulic fracture stimulation, well integrity etc, and would be imposed through conditions on the license. A code of practice for

land access is considered to be an opportunity to demonstrate to landowners, and the community at large that the Government and industry takes the responsibilities associated with accessing land seriously.

Further engagement with the SRLUP Process

Santos is committed to working with the NSW Government to assist in developing a robust and efficient regulatory framework for the CSG industry in NSW.

Whilst Santos accepts and understands the objectives of the policy initiatives, there are a number of significant concerns that have been raised which should be taken into consideration prior to the plans being implemented.

Santos has provided a detailed response to the draft SRLUPs for the Upper Hunter and New England/North West, the draft Aquifer Interference Policy and the CSG Code of practice.

Santos would welcome the opportunity to meet with representatives from the Government to discuss the details contained within the submission.