



Onshore gas – key legislation and regulation

Commonwealth

Issue	Legislation/Action	Issues addressed
Environment	<i>Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i>	<p>Before commencement:</p> <p>Obtain approval under the EPBC Act for controlled actions</p> <ul style="list-style-type: none">• The EPBC Act was amended in 2013 to create a specific trigger for Commonwealth regulation of CSG activities where they may have a significant impact on water resources. It is important to note that once the EPBC Act is triggered, it is not only the potential impact on water resources that is assessed, but all potential significant impacts on Matters of National Environmental Significance (MNES), such as:<ul style="list-style-type: none">○ Wetlands of international importance○ Listed threatened species and ecological communities○ Listed migratory species• The EPBC Act works on a self-referral basis whereby if proponents consider their project may trigger the EPBC Act provisions, they must submit a referral for a decision as to whether or not their project is classed as a “controlled action”.• If the project is determined to be a controlled action, it will need to be assessed and approved under the EPBC Act before it can commence. Most CSG projects determined to be controlled actions are assessed by an Environmental Impact Statement.• There is currently “assessment bilateral” agreements between the Commonwealth and all states which endeavour to enable the same EIS process to be used for both relevant state/territory as well as EPBC Act requirements. However, it must be noted that the EPBC Act does not allow for approvals bilateral agreements to be developed whereby Commonwealth decision making powers under the EPBC Act could be delegated to the states.



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		<ul style="list-style-type: none"> Coal Seam Gas projects will be referred to the Independent Expert Scientific Committee for assessment and comment This effectively means that where projects are subject to the Water Trigger, they will require two separate assessment processes to be undertaken, which may entail different requests for changes and further information, and different conditioning requirements in the final assessment decisions. <p>Ongoing:</p> <p>Ensure compliance with EPBC Approval requirements including:</p> <ul style="list-style-type: none"> Third party auditing of compliance with conditions Obtaining and securing biodiversity offsets Undertaking monitoring and investigations and if required take actions such as mitigation strategies or even cessation of activities
Water	EPBC Act	As above, requirements for approval for activities that may impact on water resources
	<i>Water Act 2007</i>	Stipulates requirements for the protection and management of the Murray-Darling Basin, as administered by the MDB Authority
Land use	<i>Native Title Act 1993</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> An indigenous land use agreement or future acts agreement must be reached with native title claimants before project activities can commence Requirements for notification/advertising, negotiation and reimbursement of expenses are all stipulated <p>Ongoing:</p> <ul style="list-style-type: none"> Comply with relevant agreements Regular engagement with native title holders



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Safety and public health	<i>Industrial Chemicals (Notification and Assessment) Act 1989</i>	Before introducing new chemicals or using chemicals for a new purpose: <ul style="list-style-type: none">Notify the chemical to NICNAS or satisfy the requirements for introduction without notification Every year: <ul style="list-style-type: none">Importers and manufacturers of industrial chemicals for commercial purposes (such as drilling or hydraulic fracturing activities) are required to register with NICNAS.
General	<i>Corporations Act 2001 and Australian Securities and Investments Commission Act 2001</i>	Ongoing: Provide strict requirements for operation of corporations within Australia which ensure ethical and appropriate actions are taken, that companies are acting in the best interests of shareholders and appropriate governance is in place.
	<i>Fair Work Act 2009</i>	Ongoing: Covers employment issues such as minimum wages, employment standards and pay equity. These laws also cover hours of work and leave entitlements, and protect employees from discrimination and unfair dismissal. Also provides employees freedom of association, which allows them to decide whether to join unions. The laws also outline employee rights regarding industrial action, such as strikes.
	<i>Taxation legislation</i>	Ongoing: Numerous complex pieces of taxation legislation must be complied with. Complexities for oil and gas projects include joint venture partners, subsidiaries, international partners, complex contractual and financing arrangements and large employee and contractor workforces.



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Queensland

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Environment	<i>State Development and Public Works Organisation Act 1973</i>	<p>Before commencement:</p> <p>Queensland's Coordinator-General has the power to declare a project a 'coordinated project', for which require an EIS is required. Most large scale CSG projects in Queensland have been declared as coordinated projects requiring an EIS which cover the full gambit of environmental issues and public input including.</p> <ul style="list-style-type: none"> • Consultation on terms of Reference • Consultation on main EIS • Consultation with the Commonwealth Independent Expert Scientific Committee • Preparation and consultation of a supplementary EIS (if required) • Coordinator-General prepares a publicly released report determining if and how the project may proceed
	<i>Environmental Protection Act 1994</i>	<p>Before commencement</p> <ul style="list-style-type: none"> • If the project is not a “Coordinated Project” (as above), an EIS will be required if EIS triggers are met (e.g. disturbance of >2000ha, pipelines >300km) • Requires an environmental authority (EA) for the conduct of all onshore oil and gas activities. If no EIS is required, a detailed application outlining proposed activities, environmental values that may be impacted and how they will be addressed must be provided. • The proponent must pass a suitable operator test based on previous environmental history before being granted an EA • Where relevant, the EA must reflect the requirements of the Coordinator-General's report



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		<ul style="list-style-type: none">• EAs contains numerous (commonly up to 300) conditions which must be complied with. Numerous requirements must be met before commencement of relevant activities, such as:<ul style="list-style-type: none">○ Preparation of contingency plans○ Undertaking flora and fauna surveys○ Obtaining offsets○ Undertaking risk assessments and preparing management plans for higher risk activities (such as hydraulic fracturing) which must be provided to the regulator before commencement○ Noise monitoring, modelling and mitigation○ Provision of financial assurance to the Qld Government to cover all rehabilitation liabilities <p>Ongoing:</p> <ul style="list-style-type: none">• Application to DEHP where changes to the EA are required (commonly numerous times per year). The application may require public notice and trigger public review and appeal rights• Third party auditing• Annual compliance reporting• Annual fees• Revised Plan of Operations at least every five years• Updated financial assurance• Compliance with “General Environmental Duty” to prevent and minimise environmental harm• Notification of environmental harm• Permits for disposal of contaminated soil



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		<ul style="list-style-type: none"> Prohibition of use of BTEX chemicals
	<i>Environmental Protection Regulation 2008</i>	Ongoing: <ul style="list-style-type: none"> Waste tracking requirements National Pollutant Inventory requirements
	<i>Fisheries Act 1994</i>	Ongoing: <ul style="list-style-type: none"> Statutory requirements when undertaking “waterway barrier works” such as temporary interruptions to flow of watercourses while installing pipelines or road crossings Code approval is available in many circumstances, however a detailed approval process is required where the code cannot be complied with
	<i>Forestry Act 1959</i>	Ongoing: <ul style="list-style-type: none"> When activities will require the clearing of forest products such as plantation timber, permits must be obtained and the option provided for pre-harvest of the material or provision of compensation The extraction of quarry material on state land requires permits and royalties will be payable
	<i>Nature Conservation Act 1992</i>	Ongoing: <ul style="list-style-type: none"> Protected plants clearing permit in relevant areas Protected animals movement permit Wildlife movement permit Species management plan Offset requirements
	<i>Regional Planning Interests Act 2014</i>	Before commencement in SEAs: <ul style="list-style-type: none"> Sets out “Strategic Environmental Areas” (SEAs) in which approvals must be sought to undertake petroleum activities.



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		<ul style="list-style-type: none"> Approval will only be given where it can be demonstrated that the activities will not impact directly or indirectly on the SEA
	<p><i>Petroleum and Gas (Production and Safety) Act 2004 - Code of Practice for constructing and abandoning coal seam gas wells and associated bores in Queensland</i></p>	<p>The Code has been developed to ensure that all CSG wells and CSG water bores are constructed to a minimum acceptable standard to prevent environmental issues during construction, use and abandonment.</p>
	<p><i>Waste Reduction and Recycling Act 2011</i></p>	<p>Before beneficial use of CSG water:</p> <ul style="list-style-type: none"> Provides the process to obtain approvals to use wastes (e.g. CSG water) for beneficial purposes such as irrigation. “General” approvals apply where set criteria can be met but in other circumstances lengthy approval processes demonstrating acceptability of proposed requirements are required
<p>Water</p>	<p><i>State Development and Public Works Organisation Act 1973</i></p>	<p>Before commencement</p> <ul style="list-style-type: none"> As detailed above if an EIS is required it will be required to address water related aspects including: <ul style="list-style-type: none"> Sourcing water for operations Co-produced (associated water) forecasts and management <p>Ongoing:</p> <ul style="list-style-type: none"> Compliance with Coordinator-General’s report mandatory requirements which would likely include: <ul style="list-style-type: none"> Requirements for further detailed studies Detailed management plans for subordinate approval. Extensive monitoring and modelling Regular third party auditing



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	<i>Water Act 2000</i>	<p>Before water extraction:</p> <ul style="list-style-type: none">• Submission of a “Baseline Assessment Plan” for approval which identifies all water bores on the tenement and a timeframe for undertaking the assessment based on a scientific rationale. <p>Within 14 months of commencing water extraction</p> <ul style="list-style-type: none">• Requires an Underground Water Impact Report to be submitted for regulatory approval which:<ul style="list-style-type: none">○ Provides detailed hydrogeological information for the project area○ Predict the volume of water likely to be required to be extracted from relevant aquifers○ Undertake modelling to predict any impacts to aquifers (both where water will be extracted as well as indirect impacts to other aquifers)○ Identify any water bores that will be affected both in the short term and long term○ Propose a mandatory monitoring strategy to ensure that aquifers are responding as predicted○ Propose a mandatory strategy to mitigate any impacts to springs <p>Ongoing</p> <ul style="list-style-type: none">• Any bores identified in a UWIR as being impacted in the short term to be re-assessed and compared against the baseline assessment (bore assessment).• Where the bore assessment identifies an impact on the bore, the impact must be made go to the bore’s owner by methods such as deepening or refurbishing existing bores, providing an alternative supply, or financial compensation



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		<ul style="list-style-type: none"> • Modelling used in UWIRs must be revised every year and updates provided to the regulators • All UWIRs are required to be revised and resubmitted for approval every three years to ensure adaptive management of impacts should it become clear that they be higher or lower than originally predicted • In circumstances where the impacts of individual oil and gas companies may overlap, the UIWR will be prepared by the Queensland Government and mandatory requirements for make good agreements, further monitoring and spring impact mitigation measures will be imposed on specified companies • A levy is imposed on operators to recover the costs for this service • Requirements for Water Licences to extract water from surface waters or harvest overland flow • Requirements for Riverine Protection Permits to excavate or place fill in a watercourse lake or spring <ul style="list-style-type: none"> ○ A general exemption is provided where the specific criteria can be met including detailed management and mitigation requirements
	<p><i>Coal Seam Gas Water Management Policy 2012</i></p>	<p>As enforced under the <i>Environmental Protection Act 1994</i> aims to ensure that water associated with CSG is used and managed in a way that is of benefit to the community and reduces impact on the environment</p>
<p>Land use</p>	<p><i>Aboriginal Cultural Heritage Act 2003</i></p>	<p>Before commencement in relevant areas:</p> <ul style="list-style-type: none"> • Requires preparation of a cultural heritage management plan which protects indigenous cultural heritage values • Once approved the CHMP is legally binding



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	<i>Environmental Protection Act 1994</i>	Ongoing: <ul style="list-style-type: none">Imposes standards and offences for causing environmental nuisance such as through noise, dust, odour and light through the EA
	<i>Petroleum and Gas (Production and Safety) Act 2004</i>	Before commencing preliminary activities on landholders property: <ul style="list-style-type: none">Give detailed notice of proposed activities at least two weeks before entry Before commencing advanced activities: <ul style="list-style-type: none">Before undertaking “advanced activities” (any activities which may have a significant impact on the landholder’s business or land use), formal arrangements for how activities are to be undertaken and what compensation is to be paid must be determined.Accounting, legal or valuation costs to negotiate a Conduct and Compensation Agreement must be met by the oil and gas companyFacilitated conferences or alternative dispute resolution processes are facilitated in the event negotiations failShould agreement still not be reached, the matter can be referred to the Land Court for resolutionCompensation is required to cover:<ul style="list-style-type: none">Deprivation of land useReduction in land valueReduction in land use including reduced use that could be made through any improvements to itSeverance of any land from other parts of the land owned by the landholders



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		<ul style="list-style-type: none"> ○ Any cost, damage or loss arising from activities carried out under the land surface ○ Accounting, legal or valuation costs to negotiate a Conduct and Compensation Agreement ○ Damages incurred by the landholder from any of the above ● Compliance with the Queensland Land Access Code including: <ul style="list-style-type: none"> ○ Liaising closely and in good faith with the landholder ○ Giving notice regarding proposed activities ○ Ensuring all company staff and contractors are appropriately trained regarding the conduct of activities on a landholder's property ○ Ensure use of existing tracks where possible and ensure they are kept in good order ○ Driving at appropriate speeds ○ Minimising disturbance to people, livestock and property ○ Avoiding spread of declared pests ○ Returning gates to original positions ○ Prohibition of cutting of fences ● Payment of royalties of which a large percentage is provided back to resource producing regions through the Royalties to the Regions program funding upgrades to roads, landfills, sewage treatment, medical and other infrastructure facilities. <p>Before using public roads:</p> <ul style="list-style-type: none"> ● Notifiable road uses such as for seismic and drilling related transport on state or local roads trigger requirements to negotiate with Council and Qld Transport and Main



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Issue	Legislation/Action	Issues addressed
		Roads regarding how activities on roads will be conducted in relation to safety as well as required road upgrades and compensation
	<i>Queensland Heritage Act 1992</i>	<p>Before disturbance of protected areas:</p> <ul style="list-style-type: none"> Where disturbance is unavoidable permits may be obtained based on a CHMP detailing avoidance and mitigation strategies
	<i>Regional Planning Interests Act 2014</i>	<p>Before commencement in Priority Agricultural Areas, Priority Living Areas of Strategic Cropping Areas:</p> <ul style="list-style-type: none"> Key aim is to ensure coexistence of resource activities and other land uses such as agriculture and townships Sets out “Priority Agricultural Areas (PAA)”, “Priority Living Areas (PLA)” and “Strategic Cropping Areas (SCA)” in which undertaking petroleum activities are regulated. Obtaining voluntary landholder agreement regarding how the activities will be carried out is the most efficient method of satisfying requirements for PAA and SCA Where no voluntary landholder agreement has been reached an application is required to demonstrate that key features of the area (such as priority agricultural land uses) will not be materially impacted Landowner and broader public consultation are required in order to gain an approval, the results of which will be considered in making the final decision
Safety and public health	<i>Environmental Protection Act 1994</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> EA required to set controls for potential environmental health issues such as fugitive air emissions and releases of associated water to areas where drinking water supplies may be impacted <p>Ongoing:</p>



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		<ul style="list-style-type: none"> • Offences and statutory rectification tools regarding unlawful environmental harm (including human health impacts) caused by CSG: <ul style="list-style-type: none"> ○ Air quality standards set out in the Environmental Protection (Air) Policy ○ The National Environment Protection Measure for Ambient Air and Air Toxics ○ ANZECC and ARMCANZ Guidelines for water quality
	<p><i>Petroleum and Gas (Production and Safety) Act 2004</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> • A mandatory safety management plan with numerous detailed content requirements such as: <ul style="list-style-type: none"> ○ Safety assessments, ○ Skills and training assessments and program ○ Standard operating procedures ○ Control systems ○ Emergency procedures ○ Review and audit procedures ○ Key performance indicators ○ Record keeping requirements <p>Ongoing:</p> <ul style="list-style-type: none"> • Powers for government Safety Inspectors to require improvements to safety management plans, issue specific safety requirements and instructions as well as responding to incidents • Specific responsibilities for the “executive safety manager” to ensure safety within the organisation with severe penalties for non-compliance • Specific responsibilities for the “site safety manager” to ensure safety on site and



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		<p>compliance by all staff and contractors with severe penalties for non-compliance</p> <ul style="list-style-type: none"> • Proactive compliance programmes such as the CSG well head safety program
	<p><i>Petroleum and Gas (Production and Safety) Act 2004 - Code of Practice for constructing and abandoning coal seam gas wells and associated bores in Queensland</i></p>	<p>Ongoing</p> <ul style="list-style-type: none"> • Mandatory codes of practice have been developed to stipulate detailed mandatory requirements to ensure wells are constructed and decommissioned in a manner that will protect safety and the environment. • Codes have been developed for CSG wells and will shortly be released for deep wells such as for gas sourced from shale and tight formations. • The codes cover issues which control safety and health such as current and future fugitive emissions including: <ul style="list-style-type: none"> ○ Well design ○ Casing ○ Cementing ○ Well heads ○ Control equipment ○ Drilling fluids ○ Testing and logging ○ Ongoing monitoring and maintenance ○ Decommissioning ○ Record keeping
	<p><i>Petroleum Regulation 2004</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Significant reporting requirements relating to safety including: <ul style="list-style-type: none"> ○ Infrastructure reports ○ Daily drilling reports (daily)



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Issue	Legislation/Action	Issues addressed
		<ul style="list-style-type: none"> ○ Well completion reports (after every well) ○ Well abandonment reports (after every well is decommissioned) ○ Hydraulic fracturing activities completion reports (after every fracturing activity) ○ Production reports (yearly) ○ Injection reports (yearly)
	<i>Public Health Act 2005</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Provides powers for mandatory public health orders to be issued to remove or reduce public health risks • Requires a register of environmental health events to be kept to enable investigation and management of public health risks • Queensland Health may undertake investigations under the <i>Public Health Act</i> as well as to support actions under the <i>Environmental Protection Act</i> such as the risk assessment of health complaints and monitoring data regarding CSG in the Tara region
	<i>Transport Operations (Road Use Management) Act</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Sets requirements for training, routes and excluded goods for transport • Driver licensing • Vehicle operation specifications
General	<i>Local Laws</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Onshore oil and gas operators are required to comply with relevant Local Government laws for the area.
	<i>Queensland Industrial Relations Act 1999</i>	<p>Ongoing:</p>



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Issue	Legislation/Action	Issues addressed
		<ul style="list-style-type: none">Covers state industrial relations responsibilities not provided for in the Commonwealth <i>Fair Work Act 2009</i>
	<i>Sustainable Planning Act 2009</i>	Ongoing: <ul style="list-style-type: none">Development permit required for activities not conducted under the petroleum tenement



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New South Wales

Issue	Legislation/Action	Issues addressed
Environment	<i>Environmental and Planning Assessment Act 1979</i>	Before commencement: <ul style="list-style-type: none">• Gateway process is a five step process for developing planning proposals that outline appropriate resource (including petroleum) activities in an area as follows:<ul style="list-style-type: none">○ The planning proposal - the relevant authority prepares the planning proposal. The relevant authority is usually the local council, however the Minister can appoint the Secretary of the Department of Planning and Environment or a joint regional planning panel to be the relevant planning authority.○ Gateway - the Minister (or delegate) decides whether the planning proposal can proceed (with or without variation) and subject to other matters including further studies being undertaken, public consultation, public hearings, agency consultation and time frames. A planning proposal does usually not proceed without conditions of this nature. The conditions are then complied with and if necessary, the proposal is changed. A decision on whether the relevant council is able to finalise particular types of LEPs is also determined at this stage.○ Community consultation - the proposal is publicly exhibited as required by the Minister. A person making a submission may also request a public hearing be held.○ Assessment - the relevant planning authority reviews public submissions. Parliamentary Counsel then prepares a draft local environmental plan.○ The making of the LEP - with the Minister's (or delegate's) approval the local environmental plan is published on the NSW legislation website and becomes law



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		<ul style="list-style-type: none">• All petroleum production and most exploration projects require individual environmental assessment and approval under the Act• For most exploration activities the assessment will normally be via a Review of Environmental Factors which:<ul style="list-style-type: none">○ Takes into account all matters affecting or likely to affect the environment○ Will vary in complexity and length based on the nature of activities proposed and potential impacts to the environment○ Must clearly demonstrate that environmental and community impacts have been identified and adverse impacts have been avoided and minimised to the fullest○ Complies with the detailed requirements of the relevant guideline http://www.resourcesandenergy.nsw.gov.au/data/assets/pdf_file/0010/565966/ESG2-Guideline-for-Preparing-a-Review-of-Environmental-Factors.pdf• For large projects this will be in the form of an EIS which is a comprehensive document that:<ul style="list-style-type: none">○ Covers issues such as air quality, noise, transport, flora and fauna, surface and ground water management, methods of petroleum production, landscape management and rehabilitation.○ Is subject to extensive public consultation, with community members encouraged to make submissions on the application○ Will be referred to the Commonwealth Independent Expert Scientific Committee for advice• Development consent for activities on land to which <i>State Environmental Planning Policy No 14—Coastal Wetlands</i> or <i>State Environmental Planning Policy No 26—Littoral Rainforests</i> also applies



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		<ul style="list-style-type: none"> • Expectations for management solutions in REF/EIS documents are stipulated through the following documents: <ul style="list-style-type: none"> ○ Petroleum Minimum Standards and Merit Assessment Procedure ○ Exploration Code of Practice: Environmental Management ○ Exploration Code of Practice: Produced Water Management, Storage and Transfer ○ Exploration Code of Practice: Rehabilitation ○ ESG5: Assessment Requirements for Exploration Activities ○ ESG2: Guideline for Preparing a Review of Environmental Factors
	<i>Heritage Act 1977</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Items of State Heritage Significance are protected
	<i>National Parks and Wildlife Act 1974</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> • Aboriginal heritage impact permit • A licence is required for activities which impact on fauna • A licence is required to tamper with a protected native plant
	<i>Petroleum (Onshore) Act 1991 – Relevant codes</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Code of Practice for CSG Well Integrity outlines a range of mandatory requirements for the construction, operation and decommissioning of CSG wells to ensure protection of the environment such as: <ul style="list-style-type: none"> ○ Risk management processes ○ Reporting and recording ○ Well design/construction ○ Drilling fluids ○ Suspension



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		<ul style="list-style-type: none"> ○ Abandonment ● Code of Practice for CSG Fracture Stimulation outlines a range of mandatory requirements for fracture stimulation of CSG wells to ensure protection of the environment such as: <ul style="list-style-type: none"> ○ Risk management processes ○ Chemical use ○ Water sourcing ○ Protection of aquifers ○ Monitoring
	<p><i>Protection of the Environment Operations Act 1997</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● Requires the approval of an Environmental Protection Licence for a range of relevant activities ● Approval requirements will be required to be outlined in relevant REF and EIS processes ● Compliance with subordinate regulations including: <ul style="list-style-type: none"> ○ Protection of the Environment Operations (Clean Air) Regulation 2010 ○ Protection of the Environment Operations (General) Regulation 2009 ○ Protection of the Environment Operations (Noise Control) Regulation 2008 ○ Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008 ○ Protection of the Environment Operations (Waste) Regulation 2005
	<p><i>State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● Establishes exclusion zones where coal seam gas development is prohibited. ● Aims to establish appropriate planning controls to encourage ecologically sustainable development through the environmental assessment, and sustainable management, of development of



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		mineral, petroleum and extractive material resources
Water	<i>Environmental and Planning Assessment Act 1979</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> • Water impacts will be required to be identified, minimised and mitigated as part of the REF or EIS process as described above. • The Exploration Code of Practice: Produced Water Management will define expected requirements for exploration activities, particularly the preparation of a Produced Water Management Plan
	<i>Petroleum (Onshore) Act 1991 – Relevant codes</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Code of Practice for CSG Well Integrity outlines a range of mandatory requirements for the construction, operation and decommissioning of CSG wells to ensure protection of water resources such as: <ul style="list-style-type: none"> ○ Risk management processes ○ Reporting and recording ○ Well design/construction ○ Drilling fluids ○ Suspension ○ Abandonment • Code of Practice for CSG Fracture Stimulation outlines a range of mandatory requirements for fracture stimulation of CSG wells to ensure protection of water resources such as: <ul style="list-style-type: none"> ○ Risk management processes ○ Chemical use ○ Water sourcing ○ Protection of aquifers ○ Monitoring
	<i>Water Management Act 2000</i>	<p>Before commencement:</p> <p>Provides the basis for the sustainable management of water by providing a legal basis for water planning, the</p>



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	<p><i>Water Management (General) Regulation 2004 - New South Wales aquifer interference policy</i></p>	<p>allocation of water resources and water access entitlements through Aquifer Interference Approvals.</p> <p>Before commencement:</p> <ul style="list-style-type: none"> • Require petroleum (including coal seam gas) activities to hold a water access licence when they: <ul style="list-style-type: none"> ○ Penetrates an aquifer ○ Interferes with the water in an aquifer ○ Obstructs the flow of water in the aquifer ○ Takes water from the aquifer, or disposes of that water ○ Take more than three megalitres of water per year • The aquifer impact assessment will be required to be undertaken either at the gateway stage or during the assessment of the development application • The application will be required to: <ul style="list-style-type: none"> ○ Demonstrate appropriate licences have been obtained ○ Demonstrate specified detailed minimal impact considerations can be met ○ Propose remedial actions for impacts greater than those predicted at the time of approval • Security deposits will be held by the NSW Government in the form of bank guarantees
<p>Land use</p>	<p><i>Petroleum (Onshore) Act 1991 and relevant codes</i></p>	<p>Before commencement on landholders property:</p> <ul style="list-style-type: none"> • Operations cannot be carried out on any land, except in accordance with an access arrangement applying to that land. • A best practice framework is established in the <i>Exploration Guideline: Petroleum Land Access</i> which provides for: <ul style="list-style-type: none"> ○ Guidance for initiating discussions such as initial contact, initiating negotiations and a first meeting



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		<ul style="list-style-type: none"> ○ Requirements for land access arrangements such as: <ul style="list-style-type: none"> ▪ Compensation and access arrangements ▪ Notice periods ▪ Requirements before and during exploration activities ▪ Access points, roads and tracks ▪ Water management ▪ Weed and pest species ● Managing gates and fences
	<p><i>Strategic Regional Land Use Policy</i></p>	<p>Before Commencement</p> <p>Identifies, maps and protects valuable residential and agricultural land across the State from the impacts of mining and Coal Seam Gas (CSG) activity through the following:</p> <ul style="list-style-type: none"> ● Introduction of the Gateway process which introduces an upfront, scientific assessment of State significant mining and coal seam gas proposals on the State's strategic agricultural land ● Establishment of the independent Mining and Petroleum Gateway Panel, comprising experts in the fields of hydrogeology, mining and petroleum and agricultural science, to oversee the Gateway process ● Introduction of coal seam gas exclusion zones which prohibit coal seam gas activity in and within 2 kilometres of residential areas across the State and the North West and South West Growth Centres of Sydney <ul style="list-style-type: none"> ▪ Development of Strategic Regional Land Use Plans for the Upper Hunter and New England North West regions of the State.
	<p><i>New South Wales code of practice for coal seam gas</i></p>	<ul style="list-style-type: none"> ● This code requires that proponents submit a Fracture Stimulation Management Plan (FSMP) prior to any hydraulic fracturing activities.



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Issue	Legislation/Action	Issues addressed
	<i>fracture stimulation activities</i>	Including a risk assessment to identify all potential risks, their likelihood of occurrence, potential consequences and management controls and details of the Safety Management Plan to ensure the safety of workers, visitors and the general public.
	<i>Dangerous Goods (Road and Rail Transport) Act 2008</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Stipulates requirements regarding the transport of dangerous goods which may include chemicals used in drilling and hydraulic fracturing operations.
	<i>Environmentally Hazardous Chemicals Act 1985</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Should hazardous chemicals be proposed to be used, the NSW EPA may assess the chemicals and make chemical control orders.
	<i>NSW Work Health and Safety (Mines and Petroleum Sites) Act 2013</i>	<p>This legislation is now the key regulatory mechanism for safety and health matters for onshore oil and gas. The requirements are currently being transitioned into and include the below.</p> <p>Before commencement:</p> <ul style="list-style-type: none"> These requirements are currently being transitioned into and require: <ul style="list-style-type: none"> Preparation of and compliance with a safety management system Preparation of and compliance with a well integrity control plan Discrete approval for high risk activities Preparation of and compliance with emergency plans <p>Ongoing:</p> <ul style="list-style-type: none"> Air quality monitoring Information, training and instruction requirements
	<i>Petroleum (Onshore) Act 1991 – Relevant codes</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Code of Practice for CSG Well Integrity outlines a range of mandatory requirements for the construction, operation and decommissioning of



Onshore gas – key legislation and regulation

Issue	Legislation/Action	Issues addressed
		<p>CSG wells to ensure safety of staff and the public such as:</p> <ul style="list-style-type: none"> ○ Risk management processes ○ Reporting and recording ○ Well design/construction ○ Drilling fluids ○ Suspension ○ Abandonment <ul style="list-style-type: none"> ● Code of Practice for CSG Fracture Stimulation outlines a range of mandatory requirements for fracture stimulation of CSG wells to ensure safety of staff and the public such as: <ul style="list-style-type: none"> ○ Risk management processes ○ Chemical use ○ Water sourcing ○ Protection of aquifers ○ Monitoring ● Exploration and Production Guideline: Petroleum Drilling and Well Servicing – Competencies
	<p><i>Protection of the Environment Operations Act 1997</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● Requires the approval of an Environmental Protection Licence for a range of relevant activities which may have an impact on health, such as through air or water emissions. ● Approval requirements will be required to be outlined in relevant REF and EIS processes which are required to comply with relevant standards and regulations including the <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i> and relevant Australian Standards
	<p><i>Public Health Act 2010</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> ● Provides the framework for the NSW Ministry of Health to protect and promote public health and environmental health which can include issuing directions as well as offences.



Onshore gas – key legislation and regulation

Issue	Legislation/Action	Issues addressed
	<p><i>Schedule of Onshore Petroleum Exploration and Production Safety Requirements</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Mandates safety requirements relating to onshore oil and gas activities by imposing obligations on operators to: <ul style="list-style-type: none"> ○ Accept responsibility for the safety of employees, visitors on site and members of the general public who might be affected by those operations. ○ Identify the major hazards on a site or installation and has implemented the appropriate controls in order to ensure that the management, design, construction, operation, and maintenance of each site or installation and its associated services are safe ○ Comply with general duties for operators and contractors regarding <ul style="list-style-type: none"> ▪ Safe operations; ▪ Installation and maintenance of plant ▪ Appropriate skills and qualifications ○ Prepare emergency response procedures ○ Provide protective clothing ○ Report notifiable incidents and near misses ○ Electrical requirements ○ Well construction requirements
<p>General</p>	<p><i>Industrial Relations Act 1996</i></p>	<p>Covers state industrial relations responsibilities not provided for in the Commonwealth <i>Fair Work Act 2009</i></p>
	<p><i>Local Laws</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Onshore oil and gas operators are required to comply with relevant Local Government laws for the area.



Onshore gas – key legislation and regulation

Northern Territory

Issue	Legislation/Action	Issues addressed
Environment	<i>Environmental Assessment Act 1982</i>	Before commencement: <ul style="list-style-type: none">• For projects with potentially significant environmental risks, an environmental impact assessment is required which may be in the form of:<ul style="list-style-type: none">○ A Public Environment Report (PER)○ An Environmental Impact Statement (EIS)• The scale and complexity of a proposed development, and the significance of potential impacts will determine if assessment is at the level of PER or EIS.• It is likely that all production scale projects would require at least a PER• In addition to assessing the potential impacts, the assessment process also evaluates the effectiveness of the proposed safeguards to mitigate these impacts and recommends actions to ensure the construction and operational phases of a project can be managed in an environmentally sound manner.• Appropriate conditions are recommended to ensure the actions are implemented• The specific requirements of all environmental impact assessment are detailed in the <i>Environmental Assessment Administrative Procedures</i>• It should be noted the NT Government is presently reforming its entire environmental regulatory framework which will strengthen current arrangements for onshore oil and gas activities <a href="http://www.dlpe.nt.gov.au/environment/environm
ntpolicy">http://www.dlpe.nt.gov.au/environment/environm ntpolicy
	<i>Petroleum Act 1984</i>	Before commencement: <ul style="list-style-type: none">• Provides a risk based approach for ensuring environmental protection associated with onshore oil and gas activities• An Environment Plan is required to address all potential environmental risks, propose mitigation solutions and out comes which will be achieved



Onshore gas – key legislation and regulation

		<ul style="list-style-type: none"> • Content requirements include: <ul style="list-style-type: none"> ○ An outline of the operator's corporate environmental policy ○ An outline of all relevant environmental legislation ○ A description of the activities to be undertaken ○ A description of the existing environment ○ An environmental risk assessment including descriptions of hazards, impacts and risk treatments ○ Performance objectives, standards and measurement criteria outlining how the environment will be protected by the risk controls and how success will be measured ○ An implementation strategy detailing how the above will be specifically implemented including monitoring, reporting and auditing ○ Consultation of the EP with relevant stakeholders • A summary of the EP will be released to the public on the DME website <p>Ongoing:</p> <ul style="list-style-type: none"> • Strict compliance with Environment Plans is required • Reporting of any deviations is required • Activities must stop should unforeseen impacts arise • Penalties apply for activities which cause environmental harm • The Minister may issue a direction in relation to the protection of the environment at any time • Financial security is held to ensure rehabilitation is undertaken successfully
	<p><i>Territory Parks and Wildlife Act 2006</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Provides protections for listed rare and threatened species • Provides restrictions on activities in National Parks



Onshore gas – key legislation and regulation

	<p><i>Waste Management and Pollution Control Act 1997</i></p>	<p>Before release of wastes from site:</p> <ul style="list-style-type: none"> • A specific approval must be granted over and above the Environment Plan • This approval process will likely trigger a PER or EIS under the <i>Environmental Assessment Act</i> • Strict conditions regarding what can be discharged and what protections and mitigations will be applied
<p>Water</p>	<p><i>Petroleum Act 1984</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> • The Environment Plan for the activities will be required to detail: <ul style="list-style-type: none"> ○ Water requirements for the operation ○ Where the water will be sourced from ○ Any potential impacts to the water resources (based on baseline assessments as well as modelling) ○ Mitigation strategies that will be applied to protect the water resources • These commitments will again be mandatory once approved.
	<p><i>Water Act 1992</i></p>	<p>Before discharge to waters:</p> <ul style="list-style-type: none"> • An approval is required to demonstrate protection of both the ongoing use of the water resource and the downstream environment <p>Future requirements:</p> <p>The NT Government has announced a commitment to remove exemptions from the Water Act for onshore oil and gas activities. While the details are still to be developed, it will in effect mean that:</p> <ul style="list-style-type: none"> • All the water licensing requirements of the Act will need to be complied with • Any allocations of water given to onshore oil and gas activities will need to have been demonstrated to be: <ul style="list-style-type: none"> ○ Sustainable ○ In accordance with relevant water allocation plans and other statutory instruments



Onshore gas – key legislation and regulation

Land use	<i>Petroleum Act 1984</i>	<p>Before tenure grant:</p> <ul style="list-style-type: none">• The NT Government will not grant oil and gas acreage release and exploration permits:<ul style="list-style-type: none">○ Urban living areas including rural residential areas – i.e. land zoned as residential and land zoned as rural residential.○ Areas of intensive agriculture – the Department of Mines and Energy will assess the compatibility of land use; however, intensive agriculture will exclude some operations including melon farms, mango orchards and aquaculture operations.○ Areas of high ecological value as determined through the environmental assessment process○ Areas of cultural significance as advised by the Aboriginal Areas Protection Authority○ Areas that include assets of strategic importance to nearby residential areas such as tourism related development <p>Before commencing:</p> <ul style="list-style-type: none">• It is mandated that operators must:<ul style="list-style-type: none">○ Make all reasonable attempts to maintain contact with the landholder before starting any activity and provide notice which includes:<ul style="list-style-type: none">▪ the name and contact details of the operator▪ name and contact details of the person who will be in charge of conducting the authorised activities▪ the nature of the activity▪ the proposed start date and duration.○ Consult and collaborate with the landholder in good faith to come to an acceptable agreement
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Onshore gas – key legislation and regulation

		<ul style="list-style-type: none"> ○ At all times keep the landholder fully informed of the activities conducted on his or her property ○ Conduct all activities with due diligence and in accordance with good oil field practices ○ Cause as little disturbance as practicable ● It is also mandated that operators must not: <ul style="list-style-type: none"> ○ Interfere with the legal rights or activities of any other person ○ Interfere with existing roads, railways, telephone lines, power lines and cables, water pipelines, dams, reservoirs or energy pipelines, tailing pipelines or storage containers ○ Erect a permanent structure or facility unless approved ○ Carry out activities on land that is: <ul style="list-style-type: none"> ▪ within 50 metres of land used as a residence, yard, garden, orchard or cultivated field ▪ within 200 metres of a cemetery ▪ within 200 metres of any artificial accumulation of water or outlet ● Landholders must also be fairly compensated by the operators for access to land: <ul style="list-style-type: none"> ○ This must include compensation for any impacts on operations and potential temporary loss of productivity and any impacts to the value of the land ○ In circumstances where compensation cannot be agreed, it will be referred to a tribunal for a fair determination. Compliance with this determination is compulsory
	<p><i>Northern Territory Aboriginal Sacred Sites Act 1989</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> ● Entry onto Aboriginal Sacred Sites cannot occur without permission of the Aboriginal Areas Protection Authority



Onshore gas – key legislation and regulation

Safety and public health	<i>Dangerous Goods Act 1998</i>	Ongoing: <ul style="list-style-type: none"> • Imposes requirements regarding dangerous goods safety including: <ul style="list-style-type: none"> ○ Handling requirements ○ Duties of persons in charge of plant ○ Prohibition of transport of “goods too dangerous to transport”
	<i>Petroleum Act 1984</i>	Before commencement: <ul style="list-style-type: none"> • The Environment Plan for the activities will be required to identify and manage all potential environmental health risks including: <ul style="list-style-type: none"> ○ Fugitive emissions ○ Chemical handling ○ Spills prevention
	<i>Petroleum Act 1984 – Schedule of Onshore Petroleum Exploration and Production Requirements</i>	Ongoing: <ul style="list-style-type: none"> • Stipulates a range of mandatory requirements which help to ensure public safety such as: <ul style="list-style-type: none"> ○ Management of radioactive substances ○ Oil spills ○ Emergency drills ○ Well construction and completion requirements ○ Gas detection requirements ○ Emergency reporting ○ Well operation including flaring and venting ○ Well abandonment
	<i>Transport of Dangerous Goods by Road and Rail (National Uniform Legislation) Act 2010</i>	Ongoing: <p>Applies a range of mandatory requirements in relation to the transport of dangerous goods, such as</p> <ul style="list-style-type: none"> • Licensing requirements • Ability to issue notices such as improvement notices and prohibition notices



Onshore gas – key legislation and regulation

	<p><i>Work Health and Safety (National Uniform Legislation) Act 2011</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none">• Provides general safety requirements to oil and gas facilities as workplaces which include:<ul style="list-style-type: none">○ Duty to identify hazards○ Duties of managers○ Duties of persons that install, construct or commission plant or structures○ Duties of all officers of a company○ Duties of employees○ Incident notification requirements○ Powers for regulators to secure compliance and issue notices such as improvement notices and prohibition notices○ Severe penalties
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Onshore gas – key legislation and regulation

WESTERN AUSTRALIA

Issue	Legislation/Action	Issues addressed
Environment	<i>Conservation and Land Management Act 1984</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> • Establishes requirements for conservation and land management matters such as <ul style="list-style-type: none"> ○ State forests and timber reserves ○ Areas under a Land Management Plan
	<i>Environmental Protection Act 1986</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> • Proposals that are likely to have significant environmental impacts must undergo an environmental impact assessment (EIA) • This can be self-referred to the EPA or referred by the Department of Mines and Petroleum • Referral criteria include when an activity: <ul style="list-style-type: none"> ○ Is within 500m of an Environmentally Sensitive Area ○ Within 2 kilometres of a declared occupied town site • The EIA may be achieved by: <ul style="list-style-type: none"> ○ Assessment on Proponent Information where potential impacts are clear from application information ○ Public Environment Report one of the following criteria is met: <ul style="list-style-type: none"> ▪ The proposal is of regional and/or State-wide significance ▪ The proposal has several key environmental factors or issues, some of which are complex or of a strategic nature ▪ Substantial and detailed assessment of the proposal is required to determine whether, and if so how, the environmental issues could be managed



Onshore gas – key legislation and regulation

		<ul style="list-style-type: none"> <ul style="list-style-type: none"> ▪ The level of public concern about the likely effect of the proposal, if implemented, on the environment warrants a public review period • The EIA process will consider the full gambit of environmental issues and where information is lacking, a “stop the clock” will be issued until it has been provided • A range of conditions will be applied to a decision to approve the application • A range of guiding material has been released by the WA EPA including: <ul style="list-style-type: none"> ○ Requirements for management plans ○ API requirements ○ Impacts from noise ○ Recommending conditions ○ Considerations regarding subterranean fauna ○ Environmental principles, factors and objectives ○ Application of a significance framework <p>Ongoing:</p> <ul style="list-style-type: none"> • Compliance with conditions issues by the WA EPA which will stipulate a range of particular environmental management and implementation requirements
	<p><i>Petroleum and Geothermal Energy Resources (Environment) Regulations 2012</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> • Activities cannot commence until an Environment Plan has been approved which covers the following: <ul style="list-style-type: none"> ○ Corporate Environmental Policy ○ Environmental legislation and requirements ○ Referrals to other agencies ○ Description of the activity ○ Description of the environment



Onshore gas – key legislation and regulation

		<ul style="list-style-type: none"> ○ Identification of environmental risks and impacts of the activity ○ Assessment of identified environmental risks and impacts ○ Environmental performance objectives, standards and measurement criteria ○ Implementation strategy including an oil spill contingency plan ○ Recording and reporting arrangements ○ Consultation <p>Ongoing:</p> <ul style="list-style-type: none"> ● Incident reporting requirements ● Full disclosure of chemical use ● Requirements to submit annual compliance reports ● Requirements to amend and resubmit the environment plan should activities or associated environmental risks change ● Requirements to resubmit the environment plan every five years ● Quarterly emissions and discharges reports
	<p><i>Wildlife Conservation Act 1950</i></p>	<p>Ongoing:</p> <ul style="list-style-type: none"> ● Provides protection mechanisms for threatened species and ecological communities ● Requires licences or permits for: <ul style="list-style-type: none"> ○ Permit for taking or collecting flora ○ Regulation 4 lawful authority for impacts to fauna
	<p><i>Environment Protection Act 1986</i></p>	<p>Before extraction of water</p> <ul style="list-style-type: none"> ● EIA may be triggered for the water component alone if it is likely to have a significant impact on water resources and the environment ● This would normally be linked to the up-front environmental assessment where water extraction information is available



Onshore gas – key legislation and regulation

Water	<i>Rights in Water and Irrigation Act 1914</i>	<p>Before extraction of water:</p> <ul style="list-style-type: none"> • Assessment of proposed water wells and taking of water licence applications to: <ul style="list-style-type: none"> ○ Take water ○ Construct wells ○ Interfere with the beds and banks of a watercourse • Applications must demonstrate compliance with relevant plans for the management of water resources and demonstrate the application is: <ul style="list-style-type: none"> ○ In the public interest ○ Ecologically sustainable ○ Environmentally acceptable ○ Does not impact on other current and future needs for water
	<i>Petroleum and Geothermal Energy Resources (Environment) Regulations 2012</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> • The Environment Plan for the activities will be required to detail: <ul style="list-style-type: none"> ○ Water requirements for the operation ○ Where the water will be sourced from ○ Any potential impacts to the water resources (based on baseline assessments as well as modelling) ○ Mitigation strategies that will be applied to protect the water resources • These commitments will again be mandatory once approved.
	<i>Aboriginal Affairs Planning Authority Act 1972</i>	<p>Before activities in an Aboriginal Reserve:</p> <ul style="list-style-type: none"> • A permit is required before any petroleum exploration, recovery operations or travel through a Reserve can take place • Before granting a permit, the Minister must consult with the Aboriginal Lands Trust. • The Trust in turn must be satisfied that residents of the Reserve and native title interests that may be affected by the



Onshore gas – key legislation and regulation

		exploration activity are agreeable to the issue of an Access Permit.
Land use	<i>Aboriginal Heritage Act 1972</i>	<p>Before commencement on an Aboriginal heritage site:</p> <ul style="list-style-type: none"> • Aboriginal heritage sites fall into two broad but overlapping categories: <ul style="list-style-type: none"> ○ These are sites of current significance to Aboriginal people ○ Sites which provide physical evidence of past use. • Prior to any proposed exploration or development activity, it is recommended that suitably qualified consultants be engaged to conduct anthropological and/or archaeological surveys of the area of proposed activity.
	<i>Petroleum and Geothermal Energy Resources Act 1967</i>	<p>Before commencement on private land:</p> <ul style="list-style-type: none"> • Petroleum operators proposing to conduct exploration or production activities on private land must negotiate a land access agreement with the land owner before approval is granted by DMP for any activity to take place. • A petroleum or geothermal energy title holder shall not commence operations on private land until compensation, if any, is paid to the owner and occupier of the land or agreement has been reached as to payment of compensation. • Compensation is for the land owner and occupier being deprived of possession of the land and for damage to the land. • Further compensation for damage also extends to any improvements on the property and for severance of the land to be occupied from other land of the owner or occupier. It also extends to rights of way and all consequential damage. • If compensation cannot be agreed between the PGER Act title holder and the owner and occupier of the private land, then either party may apply to the Magistrates Court.
	<i>Contaminated Sites Act 2003</i>	<p>Ongoing:</p>



Onshore gas – key legislation and regulation

		<ul style="list-style-type: none"> Requires that known or suspected contamination is reported to the Department of Environment Regulation DER, investigated and, if necessary, remediated.
Safety and public health	<i>Health Act 1911</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Assessment of water quality in water supplies to safeguard human health
	<i>Occupational Safety and Health Act 1984</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> The OSH Act places certain duties of care for safety and health at the workplace on employers, principal/main contractors, sub-contractors, people involved in labour hire, employees, self-employed people, manufacturers, designers, importers and suppliers. It also places emphasis in the duties of care on the prevention of accidents and injury or harm.
	<i>Petroleum and Geothermal Energy Resources (Environment) Regulations 2012</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> The Environment Plan for the activities will be required to identify and manage all potential environmental health risks including: <ul style="list-style-type: none"> Fugitive emissions Chemical handling Spills prevention All chemicals to be used in hydraulic fracturing to be disclosed in a Drilling Application and Environment Plan. Full public disclosure is required for products, additives, chemicals and other substances that may be used in drilling, hydraulic fracturing or other 'down-well' petroleum related activities.
	<i>Petroleum and Geothermal Energy Resources Act 1967</i> <i>Petroleum and Geothermal Energy Resources (Occupational Safety</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> Requires the implementation of a safety management system which: <ul style="list-style-type: none"> Has a systematic approach in accordance with AS4804 Provides a management framework



Onshore gas – key legislation and regulation

	<p><i>and Health) Regulations 2010</i></p> <p><i>Petroleum and Geothermal Energy Resources (Management of Safety) Regulations 2010</i></p>	<ul style="list-style-type: none">○ Provides clear leadership and accountability○ Contains appropriate planning and performance objectives and standards○ Has sufficient implementation detail○ Provides compliance system and document control standards○ Provides appropriate operational risk management○ Is subject to appropriate communication and consultation○ Details systems of work○ Provides for incident investigations○ Contains emergency management plans○ Provides for quality assurance and regular auditing● Incident reporting obligations● Provide powers for directions to be given
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Onshore gas – key legislation and regulation

VICTORIA

Issue	Legislation/Action	Issues addressed
Environment	<i>Petroleum Act 1998</i>	The purpose of this Act is to regulate petroleum exploration and production in Victoria. States that land affected by petroleum activities must be rehabilitated
	<i>Petroleum Regulations 2011</i>	The objectives of these Regulations are—(a) to provide for the elimination and minimisation, so far as is practicable, of the environmental and public health and safety hazards and risks involved in undertaking petroleum operations.
	<i>Mineral Resources (Sustainable Development) Act (MRSDA) 1990.</i>	Holder of extractive industry work authority must rehabilitate land, set out regulations.
	<i>Planning and Environment Act 1987.</i>	The objectives of planning in Victoria are to provide for the protection of natural and man-made resources and the maintenance of ecological processes and genetic diversity.
	<i>Environment Effects Act 1978</i>	<p>In Victoria, environment assessment of the potential environmental impacts or effects of a proposed development may be required under the Environment Effects Act 1978.</p> <p>The process under this Act is not an approval process itself, rather it enables statutory decision-makers (Ministers, local government and statutory authorities) to make decisions about whether a project with potentially significant environmental effects should proceed.</p> <p>If the Minister for Planning decides that an Environment Effects Statement (EES) is required, the project proponent is responsible for preparing the EES and undertaking the necessary investigations.</p>
Water	<i>State Environment Protection Policy (Waters of Victoria)</i>	The State Environment Protection Policy (Waters of Victoria) sets the framework for government agencies, businesses and the community to work together to protect and rehabilitate Victoria's surface water environments.



Onshore gas – key legislation and regulation

	<i>State Environment Protection Policy (Groundwaters of Victoria)</i>	The SEPP (Groundwaters of Victoria) was developed to meet community demands for an integrated framework of environment protection goals for groundwater. It aims to maintain and, where necessary, improve groundwater quality to a standard that protects existing and potential beneficial uses of groundwaters. It sets a consistent approach to, and provides quality objectives for, groundwater protection throughout Victoria. This policy overrides all existing groundwater protection provisions in other SEPPs.
	<i>Water Act 1989</i>	Under the Water Act 1989, the Victorian Government retains the overall right to the use, flow and control of all surface water and groundwater on behalf of all Victorians. The Government manages the allocation of water resources across the state in accordance with the Act. Mining operators must obtain allocations through licences under the Act.
	<i>Environment Protection Act 1970</i>	Water discharges (e.g. water injected back into groundwater or discharged into streams) is subject to the Environment Protection Act 1970.
Land use	<i>Petroleum Act 1998</i>	Section 147 of the Act summarises the consents required to access various types of land. For private land, the consent of the Minister is required and the following is provided to the department: <ul style="list-style-type: none"> • an operation plan that is acceptable to the Minister, identifying safety and environmental risks, specifying what will be done to eliminate or minimise the risks, and how the land will be rehabilitated. • evidence of insurance and the rehabilitation bond. • 21 days (or any shorter period agreed) written notice must be provided to the landowner.
	<i>Petroleum Act 1998</i>	Before any petroleum operation can commence there must be: <ul style="list-style-type: none"> • consent from the landowner or occupier, or • a compensation agreement with the landowner or occupier, or



Onshore gas – key legislation and regulation

		<ul style="list-style-type: none"> the Victorian Civil and Administrative Tribunal has determined the amount of compensation payable to the owners or occupiers of the land.
	<p><i>Mineral Resources (Sustainable Development) Act (MRSDA) 1990.</i></p>	<p>The MRSDA requires licensees to consult with landholders and other identified members of the community before any exploration or mining activity can commence, including providing the community with a reasonable opportunity to express their views about those activities.</p> <p>Further, prior to work commencing, the MRSDA requires that landowner consent must be obtained for all exploration and mining activity on their land. This consent may also involve a level of compensation for access to their land. If a landholder does not provide consent, then in accordance with the MRSDA, the issue may be referred to the Victorian Civil and Administrative Tribunal (VCAT). VCAT does not determine the right to access land, only the amount of compensation to be paid to the landholder.</p>
Safety public health	<p><i>Petroleum Act 1998</i></p>	<p>the safe and efficient exploration for, and production of, petroleum; and (b) that the impacts on individuals, public amenity and the environment as a result of petroleum activities will be minimised as far as is practicable</p>
	<p><i>Petroleum Regulations 2011</i></p>	<p>The objectives of these Regulations are—(a) to provide for the elimination and minimisation, so far as is practicable, of the environmental and public health and safety hazards and risks involved in undertaking petroleum operations</p>
	<p><i>Occupational Health and Safety Act 2004 and the Dangerous Goods Act 1985</i></p>	<p>Addresses OHS and dangerous goods for all worksites including all mining and quarrying operations in Victoria.</p>
	<p><i>State Environment Protection Policy (Prevention and Management of Contamination of Land)</i></p>	<p>The SEPP further sets out requirements for the prevention of contamination, reinforces the role of the waste hierarchy in selecting preferred approaches for site clean-up and identifies measures by which people can access relevant information on site contamination.</p>



Onshore gas – key legislation and regulation

General	<i>Mineral Resources (Sustainable Development) Act (MRSDA) 1990.</i>	Coal seam gas exploration and production in Victoria is regulated under the MRSDA. The regulations stipulate that the community must be kept informed. Legislation provides strict requirements for licensing and approval, along with regulations for other issues such as compensation, rehabilitation and royalties.
	<i>Petroleum Act 1998</i>	The purpose of this Act is to regulate petroleum exploration and production in Victoria.



Onshore gas – key legislation and regulation

South Australia

Environment	<i>Petroleum and Geothermal Energy Act 2000</i>	Before commencement: <ul style="list-style-type: none">• An Environmental Impact Report (EIR) must be prepared covering potential environmental threats and how they will be managed including:<ul style="list-style-type: none">○ A description of the activities to be carried out.○ A description of the specific features of the natural, social/cultural and economic aspects of the environment which may be affected by the activities.○ A description of the actual and potential events associated with the activities that could pose a threat to the various aspects of the environment including the likelihood of the events and the level of certainty in their prediction.○ An assessment of the potential consequences of the above defined events on the various aspects of the environment.○ Detailed information on the extent to which the above potential consequences can be managed including information on their duration, size and scope.○ Information on any consultation undertaken with the relevant land owner or occupier, relevant government agencies or other interested groups or individuals.• The EIR must also:<ul style="list-style-type: none">○ Be balanced, objective and concise;○ State any limitations that apply, or should apply, to the use of the information and material;○ Identify any area or issue in relation to which there is a significant lack of relevant information or a significant degree of uncertainty;○ Identify the sensitivity to change of any assumption that has been made and any significant risks that may arise if an assumption is later found to be incorrect;○ Be presented in a way that allows a person assessing the information or material to understand how conclusions have been reached and allows the information or
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		<p>material to be used to make an informed decision on the level of environmental impact of a particular activity without the need to obtain additional technical advice.</p> <ul style="list-style-type: none">• Consultation is essential in the preparation of an EIR and should be compliant with the principles outlined in the Ministerial Council on Mineral and Petroleum Resources endorsed document, <i>Principles for Engagement with Communities and Stakeholders</i>• Three different levels of assessment are provided for being:<ul style="list-style-type: none">○ Low Impact Classification○ Medium Impact Classification○ High Impact Classification• For Low Impact Classification the Mineral Resources Division of the SA Department of State Development will then undertake internal government consultation including with:<ul style="list-style-type: none">○ The Department of Environment and Natural Resources○ The Department for Water○ The Environment Protection Authority○ The Department of Planning and Local Government (if relevant)○ SafeWork SA• For Medium Impact Classification the Energy Resources Division seeks community comment through a public consultation period, which is required to run for at least 30 business days• For High Impact Classification the proposal is referred to the Minister responsible for the Development Act 1993 for an Environment Impact Assessment (EIA) under Part 8 of that Development Act.• An approved Statement of Environmental Objectives (SEO) must also be in place for relevant activities.• The SEO is developed through an open, consultative process, based on information provided in the EIR and:<ul style="list-style-type: none">○ State the environmental objectives to be achieved in carrying out the specified activities○ Provide the measurement criteria used to assess whether the objectives have been achieved by the licensee
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		<ul style="list-style-type: none"> ○ Include conditions and requirements for achieving the stated objectives, such as incident reporting requirements. ○ Provide objectives that relate to: <ul style="list-style-type: none"> ▪ Construction activities; ▪ Operational activities; ▪ Emergency response and management; ▪ Rehabilitation in cases involving a serious or reportable incident under Section 85 of the Petroleum Act; ▪ Decommissioning, abandonment and rehabilitation; and ▪ Dealing with the consequences of events associated with the relevant activities on the various aspects of the environment. <p>Ongoing:</p> <ul style="list-style-type: none"> ● Performance against the criteria for each objective as outlined in the SEO for each of its activities is required to be reported to the Minister. ● For objectives which cannot readily be measured through quantitative assessment, particularly in relation to land and vegetation disturbance such as the restoration of well sites and seismic lines, techniques such as Goal Attainment Scaling (GAS) are required to be adopted to measure performance
	<p><i>Development Act 1993</i></p>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● As described above, High Impact Classification projects are subject to an Environmental Impact Statement process ● The EIS must address the environmental risks associated with the project and also include a draft SEO and specifically include: <ul style="list-style-type: none"> ○ the expected environmental, social and economic effects of the development or project; ○ the extent to which the expected effects of the development or project are consistent with the provisions of— <ul style="list-style-type: none"> ▪ any relevant Development Plan; and ▪ the Planning Strategy; and ▪ any matters prescribed by the regulations; ○ if the development or project involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the



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		<p>Environment Protection Act 1993, the extent to which the expected effects of the development or project are consistent with—</p> <ul style="list-style-type: none">▪ the objects of the Environment Protection Act 1993; and▪ the general environmental duty under that Act; and▪ relevant environment protection policies under that Act; <p>○ if the development or project is to be undertaken within the Murray-Darling Basin, the extent to which the expected effects of the development or project are consistent with—</p> <ul style="list-style-type: none">▪ the objects of the River Murray Act 2003; and▪ the Objectives for a Healthy River Murray under that Act; and▪ the general duty of care under that Act; <p>○ if the development or project is to be undertaken within, or is likely to have a direct impact on, the Adelaide Dolphin Sanctuary, the extent to which the expected effects of the development or project are consistent with—</p> <ul style="list-style-type: none">▪ the objects and objectives of the Adelaide Dolphin Sanctuary Act 2005; and▪ the general duty of care under that Act; <p>○ if the development or project is to be undertaken within, or is likely to have a direct impact on, a marine park, the extent to which the expected effects of the development or project are consistent with—</p> <ul style="list-style-type: none">▪ the prohibitions and restrictions applying within the marine park under the Marine Parks Act 2007; and▪ the general duty of care under that Act; <p>○ the proponent's commitments to meet conditions (if any) that should be observed in order to avoid, mitigate or satisfactorily manage and control any potentially adverse</p>
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		<p>effects of the development or project on the environment;</p> <ul style="list-style-type: none"> ○ other particulars in relation to the development or project required— <ul style="list-style-type: none"> ▪ by the regulations; or ▪ by the Minister. <ul style="list-style-type: none"> ● Public comment will be sought on the EIS for at least 6 weeks ● A public meeting must be held ● The Minister must prepare an assessment report the assessment and relevant comments
	<i>Environment Protection Act 1993</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● If an EIS under the <i>Development Act 1993</i> involves a prescribed activity of environmental significance it must be referred to the Environmental Protection Authority for assessment ● Comments by the EPA must be included in the <i>Development Act 1993</i> Minister's assessment report
	<i>Native Vegetation Act 1991</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● Where clearance of native vegetation is required, a management plan must be developed to demonstrate a significant environmental benefit (SEB) will be achieved ● This will be included through the EIR/SEO process <p>Ongoing</p> <ul style="list-style-type: none"> ● As additional details regarding vegetation clearance become available, the management plan must be amended ● Reporting on clearing must be provided
Water	<i>Environment Protection Act 1993</i>	<p>Ongoing</p> <ul style="list-style-type: none"> ● Provides the water quality management framework and offences ● Details regarding water quality management are provided in the <i>Environment Protection (Water Quality) Policy 2015</i> and these are expected to be addressed in the EIR and SEO.
	<i>Natural Resources Management Act 2004 – Far North Water Allocation Plan</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● The Far North WAP identifies petroleum water take to be 60ML per day in the Cooper Basin. ● Water for petroleum activities is allocated by purpose but must be within the specified consumptive pool of 60ML/day
	<i>Petroleum and Geothermal Energy Act 2000</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● Operations of licensed wells in relation to water extraction must be consistent with the provisions of



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		<p>the appropriate statement of environmental objectives (SEO)</p> <ul style="list-style-type: none"> The taking and use of water as a by-product of petroleum production is required to be licensed by purpose in an area specified by the licence, subject to annual reporting of total volume used for that purpose by the South Australian Department of State Development (DSD). <p>Ongoing:</p> <ul style="list-style-type: none"> Water use must be reported to the DSD who in turn must report to the DNR Where significant water take is proposed, extensive monitoring and modelling requirements will be required under the EIR and SEO to demonstrate the relevant objectives have been achieved. GAS criteria may also need to be developed relating to impacts to water resources
Land use	<i>Aboriginal Heritage Act 1988</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Imposes penalties for disturbance to Aboriginal sites without appropriate permits Also provides guidance around appropriate risk management to minimise chance of disturbance or interference of Aboriginal sites
	<i>Heritage Places Act 1993</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Provides offences for disturbing listed heritage places without appropriate permits
	<i>Petroleum and Geothermal Energy Act 2000</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> Clear obligations apply for petroleum operators to notify and consult with landowners and provide sufficient information to enable them to make an informed decision about the impact or potential impact of the proposed operation on the land and must include: <ul style="list-style-type: none"> name and address of licensee name and telephone number of contact person description of proposed activities, sites and potential impacts information on timing of events information on any rights of objection an occupier may have information on compensation rights. Compensation is payable for: <ul style="list-style-type: none"> deprivation or impairment of the use and enjoyment of the land



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		<ul style="list-style-type: none"> ○ damage to the land (not including damage that has or will be made good by the licensee) ○ damage to, or disturbance of, any business or other activity lawfully conducted on the land ○ consequential loss. ● The Liaison guidelines for landowners and petroleum and geothermal energy explorers in South Australia provides expectations in relation to the full range of landholder interactions including: <ul style="list-style-type: none"> ○ Establishing good relationships ○ Providing advice on proposed activities and potential impacts ○ Potential future activities and impacts ○ Compensation rights ○ Rehabilitation requirements ○ Native title and Aboriginal heritage ○ Formal agreements ○ Management of field operations ○ Actions required on completion ○ Long term liabilities ○ Mediation and conflict resolution options
Safety and public health	<i>Petroleum and Geothermal Energy Act 2000</i>	<p>Before commencement:</p> <ul style="list-style-type: none"> ● Requires that the EIR must take account of risks inherent to the health and safety of the public <p>Ongoing:</p> <ul style="list-style-type: none"> ● Requires that activities must be carried out with due care and in accordance with good industry practice with due care of the health and safety of persons who may be affected by the activities ● Requires reporting of safety incidents ● Requires emergency response procedures regarding public health and safety
	<i>Work Health and Safety Act 2012</i>	<p>Ongoing:</p> <ul style="list-style-type: none"> ● Provides the framework to secure the health and safety of workers and workplaces by protecting workers and other persons against harm to their health, safety and welfare through the elimination or minimisation of risks arising from work or from specified types of substances or plant ● Imposes duties on managers, employers and employees ● Imposes penalties for non-compliance ● Establishes numerous codes of practice