

AGFORCE PROJECTS

CSG development in Qld

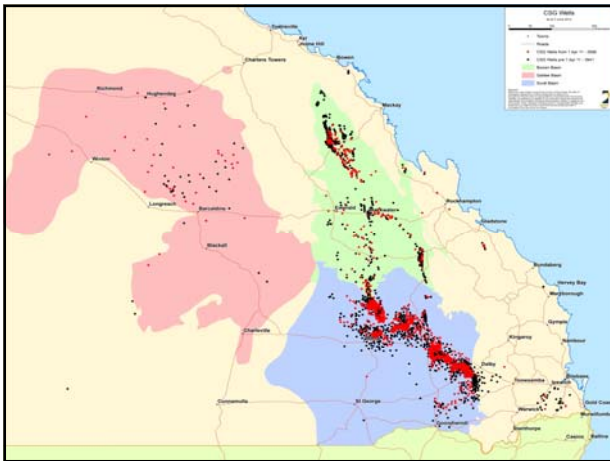
8045
Approx. CSG wells in Qld (including production/development, appraisal & exploration wells)

▼

18,000 - 40,000
Estimated total number of wells over life of the industry

| | 2011 | 2012 | 2013 | 2014 |
|---------------------------------------|------|------|------|------|
| Production wells (development) | 1936 | 2567 | 3833 | 5128 |
| Appraisal wells | 1081 | 1342 | 1589 | 1713 |
| Exploration wells | 949 | 1102 | 1182 | 1204 |
| Total | 3966 | 5211 | 6604 | 8045 |

All figures from the Queensland Government Mines Online Maps as of October 2014.



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Company updates

Santos/GLNG:

- Second EIS seeking approval for additional 6100 wells (current approval for 2650)

Origin/APLNG:

- Approval for up to 10,000 wells
- Expanding development area around Miles, Wallumbilla and Injune

QGC/QCLNG:

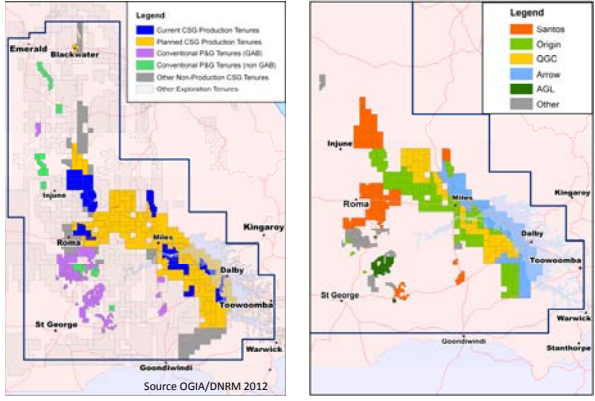
- Approval for up to 10,000 wells

Arrow Energy/Surat Gas Project:

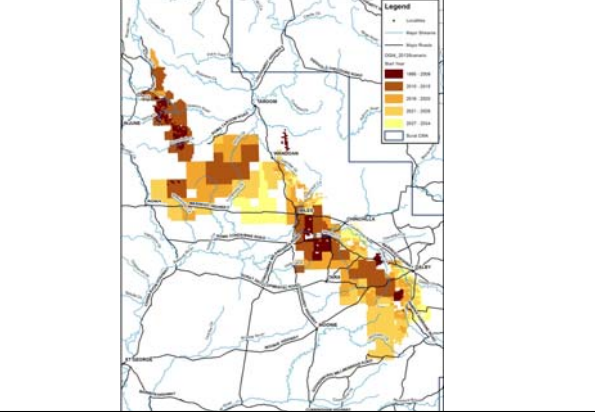
- State approval for Surat Gas Project Oct 2013
- 6,500 - 7,500 wells
- Federal approval of EIS for Surat Gas Project and LNG plant (Dec 2013)

New Development Santos phase two areas

Planned CSG tenures Surat Basin



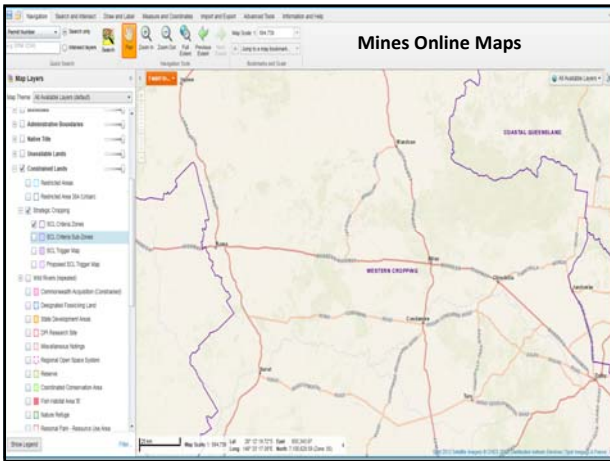
Planned CSG development schedule

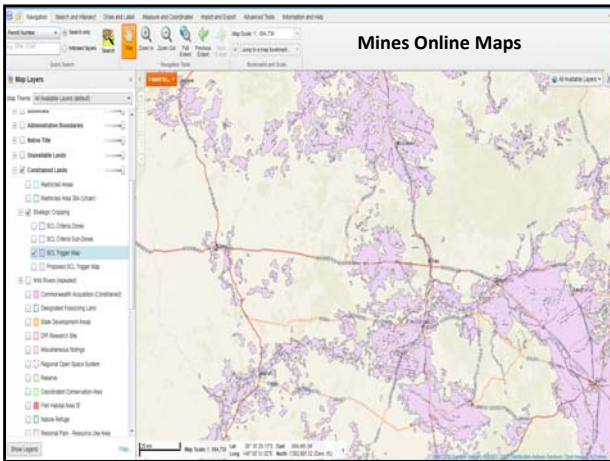


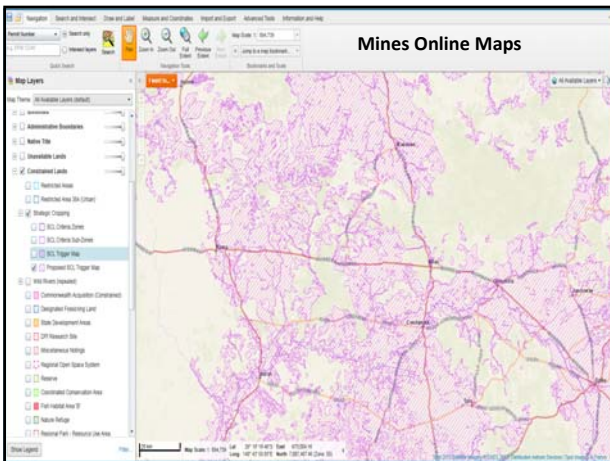
CSG Industry Information

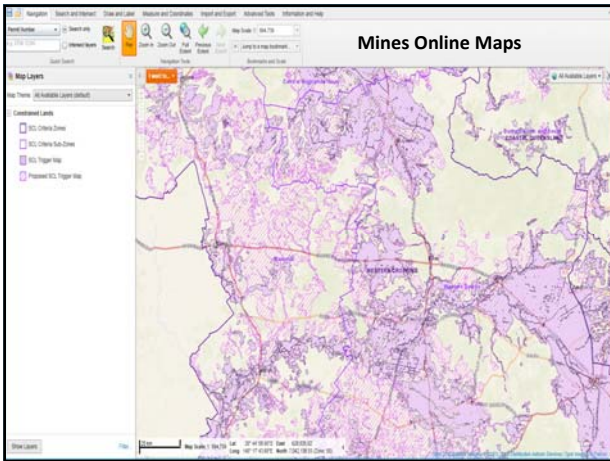
Tenure information, current wells and groundwater data:

- **CSG Globe**
- **MinesOnline Maps**
- **OGIA Bore Search**









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Priority agricultural areas (PAAs)

PAA-
Region identified as containing areas of what are considered to be priority agricultural land uses (PALUs)—high value, intensive agricultural land uses

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Priority agricultural areas (PAAs)

Determined by:

- Proven highly productive agricultural areas, or
- Agricultural land uses with significant infrastructure investment, or
- Agricultural land uses that have the potential to be significantly impacted by resource activities and have limited scope to modify their agricultural practices in response to these impacts

Resource activities proposed to be carried out within a PAA may require a regional interests development approval (RIDA) before proceeding.

Source DSDIP

Government Update- MERCP

➤ **Mineral and Energy Resources (Common Provisions) Bill 2014 (MERCP):**
 Give effect to the recommendations of the Land Access Implementation Committee including:

- A review compensation and Land Court jurisdiction to include conduct matters not just compensation
- New ADR to be integrated into the Land Court
- CCAs to be noted on land titles
- Ability to opt out of land access process
- Develop standard CCAs for coal, CSG and mineral industries


➤ **Also amendments to the Mining Lease (ML) objection process**

Government Update- MERCP

| | Previous | MERCPC Amendments |
|---|---|---|
| Mining Lease (ML) | Any person could object to an ML | Affected persons only: Owners/holders of land covered by the ML and those of adjoining lands covered by ML and local council |
| Environmental Authority (EA) small scale mines | Any person could object to EA | No one can object to EA for small scale mining projects |
| Environmental Authority (EA) other mines | Any person could object to EA | Any person can object to EA that is not for a coordinated project |
| EA for coordinated project | Any person could object to EA as long as consistent with Co-ordinator General (CG) conditions | No objection or appeal rights on CG conditions to the Land Court for declared projects |

Government Update- Mining Lease Objections


• **Red**- full objection rights
 • **White**= limited objection rights
 • **Blue**= no objection rights to ML



Government Update- MERCP

➤ **CSG changes from MERCP:**
 Change in restricted lands for CSG activities:

- 600m exclusion zone around sensitive areas reduced to 200m;
 - Advanced activities still require landholder consent and a signed CCA;
 - CSG company must still comply with EA conditions including light, dust and noise levels
- Landholders off tenure now afforded this protection;
 - Consent required for advanced activities within 200m



Government Update- Groundwater and Mining

➤ **Review into the Water Act (2000) currently underway including:**

- Process to develop 'Make Good' requirements for mining activities
 - Make Good process prior to impact rather than reactive
- Cumulative groundwater model requirements like CSG
- AgForce involved and further developments by end of the year

| | Current | Proposed |
|--------|---|--|
| CSG | Underground Water Impact Report (UWIR) for production and Make Good under chapter 3 Water Act | Nil changes |
| Mining | Part of Water License/Mining Lease (DNRM) and/or EA process (DEHP) | Authorised groundwater take, UWIR development and proactive make good requirements |



Government update

➤ **Regional Planning laws- Regional Planning Interests Act 2014 (RPI)**

- Regional Plans focused on 'economic development' and will be rolled out across the State
- Recognise and aim to protect the four areas of 'regional interest':
 - Priority Agricultural Areas
 - Priority Living Areas
 - Strategic Environmental Areas
 - Strategic Cropping Areas*

*The RPI Act replaces the repealed Strategic Cropping Land Act and includes what was previously deemed to be strategic cropping land

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Government update

- The strategic cropping area (SCA) is an area of regional interest under the RPI 2014 Act
- The SCA consists of the areas shown on the SCL Trigger Map as strategic cropping land (SCL)
- SCL means land that is, or is likely to be, highly suitable for cropping because of a combination of soil, climate and landscape features
- These lands are afforded the highest level of protection from resource activity or other development


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Groundwater management

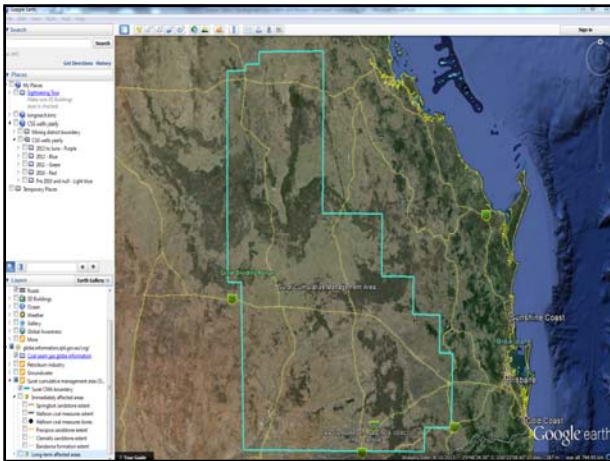
- **UWIR Groundwater impacts**
- **Make Good (MG)**

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Surat Basin Cumulate Management Area



- Surat Basin CMA declared in 2010
- Covers a boundary of 50km outside nearest CSG tenure
- Landholder rights on tenure are the same as those off tenure inside CMA



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Groundwater management – what is it?

- CMA**
 - Declaration of Cumulative Management Area (CMA)
 - Requires UWIR be developed by OGIA with data from CSG companies and DNRM
- UWIR**
 - Immediately Affected Area (IAA)- impacts within 3yrs
 - Long-term Affected Area (LTAA)- impacts past 3yrs
- Make Good**
 - IAA bores must negotiate a MG agreement now
 - LTAA bores need to develop a MG agreement before impacts occur

UWIR is reviewed every three years with a new model due in 2015

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Groundwater impacts and make good

Legend

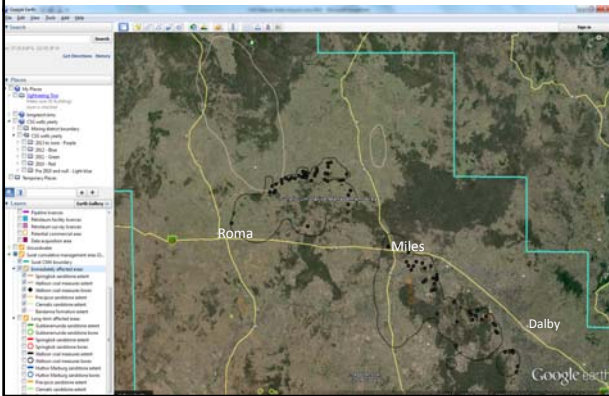
- Springbok Sandstone and Equivalent Formations
- Walloon Coal Measures
- Prospect Sandstone
- Chenabba/Shoogrouse Sandstone
- Bandiera Formation
- Coal Production Tenures
- Conventional Production Tenures

The **Immediately Affected Area (IAA)** for an aquifer is the area within which water level impacts are predicted to exceed the trigger threshold within three years.

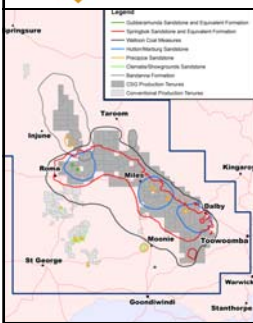
Initially 85 registered bores identified in UWIR to be in **IAA**. Water sourced from Walloon Coal Measures.

MG agreements will be entered into and further bore assessments completed. Seek legal advice.

QLD CSG Globe - Underground Water Immediately Affected Area (IAA)



AGFORCE PROJECTS Groundwater impacts and make good

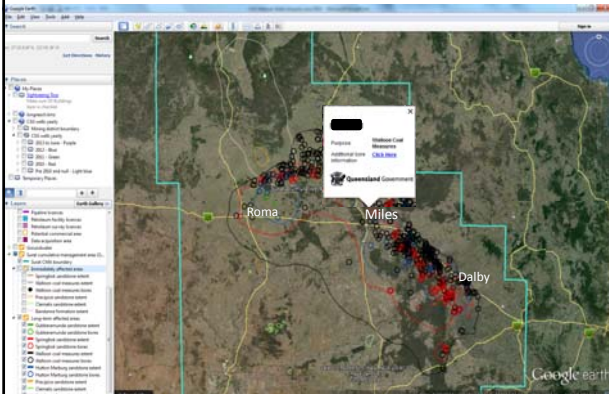


The Long-term Affected Area (LTAA) for an aquifer is an area within which impacts are predicted to exceed trigger threshold at any time in the future.

528 registered bores identified in the LTAA. These bores are in the Wallaroo Coal Measures, Springbok Sandstone and Hutton Sandstones.

In LTAA the tenure holder can be directed by the regulators (DEHP) to undertake a bore assessment and if necessary enter into a 'Make Good' agreement with the bore owner.

QLD CSG Globe - Underground Water Long-Term Affected Area (LTAA)



Queensland Government
Department of Natural Resources and Mines

OGIA UWIR information

Home | Our Department | Mining and exploration | Land and property | Water management | Mapping and data

Office of Groundwater Impact Assessment

Condoline Interconnectivity Research Project

Sural underground water impact report

Cumulative management areas

Public consultation

Implementation of the report

Bore search

Storing baseline assessment information

Coal seam gas groundwater management

Home > Sural underground water impact report > Bore search

Bore search

Bore details

Bore registered number: [REDACTED]

Geologic formation: Walloon Coal Measures

Description: Records indicate that the bore is sourcing water from the geologic formation shown above.

The long-term predicted impact on water level in this formation at the location of the bore is also shown above. This is the maximum predicted water level decline in the geologic formation at the location of this bore at any time in future.

The bore sources water from a geologic formation located inside the predicted immediately affected area. This means that at the location of this bore, the water level in the formation is predicted to decline by more than the trigger threshold within the next three years.

After the approval of the Underground Water Impact Report (UWIR), the responsible tenure holder (listed above) will reach an agreement with the bore owner about making good any impairment of bore water supply associated with the predicted decline in water level. The responsible tenure holder will contact the bore owner about this matter.

Long-term predicted impact (metres): 43

Responsible tenure holder: Queensland Gas Company, its subsidiaries and joint venture partners

Search for another bore

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Make Good – What is it?

A **'Make Good'** agreement is separate to a CCA and refers to a resource company's obligation to make good where there is, or predicted to be, **impaired capacity** of a bore due to CSG activities.

For example, MG provisions could include:

- Deepening the bore
- Drilling a new bore into another aquifer
- Compensation
- Lowering the pump
- Increasing pump size/capacity
- Surface water

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When an agreement can be changed

When there is:

- A material change in circumstances
- Make good measures are ineffective
- Another effective and more efficient measure available

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Baseline Assessments

| Stage of development | Responsibility for assessment |
|--|--|
| Before there is any activity in your area/on property | Recommended landholder undertake assessment - consider regional activities i.e. CSG field down the road or 100kms away |
| CSG company is granted an Authority To Prospect (ATP) (i.e. is conducting exploration) | Landholder should negotiate with CSG company to conduct or pay for baseline assessment prior to gaining access and negotiate ongoing monitoring/testing |
| CSG company obtains a Petroleum Lease (PL) (i.e. is going into production) | CSG company has an obligation to undertake a baseline assessment of each water bore in the tenure area. Company must, at least 10 business days before undertaking the assessment, give the landholder a notice and 30 days after completion, a copy of the report |

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Impacts outside model predictions

- If a bore is impacted by CSG (regardless of being within or outside in the IAA or LTAA's) landholder rights are the same:
 - *Complaint made to the CSG company or DNRM*
 - *Bore investigation may be directed by DEHP*
 - *Make good agreement if required*
 - *Suitable water supply negotiated*
- Contact the CSG Compliance Unit Groundwater Investigation Team on (07) 4529 1500 or csg.enquiries@dnrm.qld.gov.au

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Land Access and CSG

You own the access route:
know your rights and responsibilities

- A resource company cannot unreasonably interfere with your lawful activity
- It is an offence to obstruct a resource company from conducting its authorised activities



Underground natural resources: owned by the people of Queensland and not the property of individuals or companies. The Queensland Government manages these resources for the benefit of all Queenslanders.

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Entry Notice stage

Entry notices- may be the first contact:

- Valid for 6 months for exploration
- Only preliminary activities – little or no impact (soil sampling by hand, walking tracks, fauna/flora survey etc.)**
- Received by mail or in person
- Resource companies must also provide landholders with:
 - The relevant resource authority document
 - The *Land Access Code*
 - Documentation of the relevant Environmental Authority (EA)

Process Flow:

An agreement (CCA) is not required prior to entry

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Entry Notice stage

A signed agreement (CCA) is not required at this stage but consider and discuss:

- Entry timeframes – how do they fit with your activities? Discuss with resource representatives a suitable time i.e. when not mustering
- Clarify activities- who, what, when, where and for how long
- Consider any biosecurity concerns- what is the wash-down process? Will workers be accessing the property through any high risk weed areas?
- Wet weather entry notification- what access arrangements do you want? i.e. require a call to check conditions at least 24 hours prior to entry
- No requirement to sign an entry notice
- No provision under the Act to require companies to pay legal costs incurred at this stage- only required when negotiating an agreement**

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Negotiation stage

Advanced activities – likely to have an impact.

Examples:

- Track construction
- Drilling a CSG well
- Realigning fences
- Some seismic operations

A conduct and compensation agreement (CCA) must be signed before 'advanced' activities can be undertaken.

Seek professional advice before signing a CCA.

Process Flow:

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Conduct and compensation agreements

CCA's have two distinct components

Conduct

Compensation

- > Your CCA is **attached to your land** for the term of the agreement
- > Negotiate a timeframe and/or **review period** for CCA
- > **Necessary and reasonable** legal, accounting and valuation **costs you incur to negotiate or prepare a CCA are reimbursed**
- > Consider **additional provisions** specific to your property and your lifestyle
- > A resource company is **liable to compensate** an owner or occupier of any private land for any **"Compensable effects"**. Compensable effect means all or any of the following relating to the eligible claimant's land:
 - deprivation of possession of its surface
 - diminution of its value
 - diminution of the use made or that may be made of the land or any improvement on it
 - severance of any part of the land from other parts of the land or from other land that the eligible claimant owns
 - any cost, damage or loss arising from the carrying out of activities under the petroleum authority on the land

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How to identify impacts

Once you overlay proposed CSG infrastructure the potential impacts become much clearer:

- Land segregation
- Possible surface contamination
- Restricted future development
- Weed risk

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CCA considerations

Points to consider during negotiations continued:

- Specifically list activities: how many wells, x km's of roads and pipelines, turn around areas, laydown areas, power lines?
- How many vehicle movements are expected per day? What are dust suppression methods?
- How long will activities last for? What happens if this period blows out?
- What happens in wet weather? What do you want to include as a strategy?
- Consider baseline assessment of: road conditions, weed burden, surface and groundwater
- Understand liability: what are you liable for? Will it affect farm insurance?
- What is the impact of the timing of activities? Harvest, calving or drought periods?
- Does or will this agreement cover all activities or just exploration?
- What are rehab requirements? Native seeds or same pastures returned?

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Biosecurity CCA considerations

Points to consider during negotiations with a resource company

- Have you considered or negotiated conducting a weed baseline assessment prior to access to property being granted? Consider the time of this inspection in relation to seasonal conditions and growth periods
- Where are the high risk weed areas on property and are these mapped by you or the company?
- Do you have an existing property weed management plan?
- Does your CCA establish who is responsible if there is an outbreak as a result of the company disturbing the weed seed bank through their activities?
- Have you negotiated or discussed the rehabilitation process? Do you sign off on this and when does this happen, progressive vs end of lease?
- How long after the company leaves are they responsible - considering growth times?
- Does the vehicle wash-down certificate have:
 - Km reading
 - Date washed down
 - Who inspected and what was included
 - Area vehicle has travelled

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Biosecurity CCA considerations

Points to consider during negotiations with a resource company continued

- List the high risk weeds, pests and diseases to prevent entry and/or spread on the property
- Consider impact of declared and non-declared biosecurity risks on property business
- Know where to get information and distribution maps for regionally important pests, weeds and diseases
- Can company staff or contractors identify high risk weeds, pests and diseases
- Traceability for biosecurity risks (e.g. a visitor register for staff and vehicles, if feasible)
- Monitor disturbance areas and tracks for pest and weed outbreaks. Manage outbreaks before weed seeds are mature
- Managing biosecurity outbreaks: By who? When? What method and timing?
- Any pesticide withholding periods and WHS requirements?

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Are you prepared to negotiate?

After undertaking all of the activities you should potentially end up with a starting point for negotiations such as this...

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Reviewing signed CCAs or moving forward

- **Confidentiality is not a mandatory provision**
- If there is a material change in circumstances/activities, a CCA must be updated to reflect activities and impact
- **Understand the term of the CCA: is it a specific time or is it for life of tenure?**
- **What activities does the CCA cover? How many wells and what else?**
- Consider ongoing impacts during operation/production: how often are wells/infrastructure inspected? Frequency of work over rigs? Weed/fire control?
- If signed years ago - does it reflect current practices or could you and company improve on it?
- Consider discussing with company representative to periodically review effectiveness of:
 - Updated weed strategies
 - Progressive site remediation/rehab
 - Access times and arrangements
 - Any ongoing activities

| | |
|-------------------------------|---|
| Entry Notice | <ul style="list-style-type: none"> • Preliminary activities only • No CCA required prior to entry • No provision for legal costs to be covered • Ability to have a say on timing, location and extent of activities • Compensation generally not paid for these activities as there should not be any impact |
| Advanced Activities | <ul style="list-style-type: none"> • CCA required prior to entry/activities being carried out • Necessary and reasonable legal, accounting and valuation costs • Consider all property specific conduct provisions • Use all available advice to determine compensation based on potential or expected impacts |
| Ongoing | <ul style="list-style-type: none"> • Production activities must be covered by a CCA • Consider what are the maintenance activities and how often? Are there any weed and fire prevention activities? • Are there any requirements for work over rigs and how often is this anticipated to be required? • Consider including a review provision to ensure compensation and impacts reviewed and covered • Include monitoring of bore condition as well as roads and any weed spread |
| Rehab or end of tenure | <ul style="list-style-type: none"> • What are your rehab requirements compared to standard company practice • What will be used for reseeded - native seeds or same pastures returned • Do you want to review/inspect rehab sites and sign off? Consider sign off times against growth periods and how long are sites monitored afterwards for weeds? • What is the process to cap and abandon wells? Can it be converted to a water bore? |

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Issues and complaints

- **Contact your company representative first**
- **If there is no progress, contact the CSG Compliance Unit:**

(07) 4529 1500 csg.enquiries@dnrm.qld.gov.au

or

AgForce Projects CSG Team

(07) 3236 3100 csg@agforceprojects.org.au
