

# South Burnett Coal Project Initial Advice Statement



*Former Trail Production Facility, Rehabilitated by MRV Tarong Basin Coal Pty Ltd*

Prepared by MRV Tarong Basin Coal Pty Ltd

**Proposed advancement in a regional community, that “supports economic development and employment” through sustainable and highly legislated mining practices (Galaxy Survey 2016 – 61% support)**



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## Executive Summary

This Initial Advice Statement (IAS) has been prepared by the proponent for the purpose of identifying environmental, cultural and community issues, along with the required regulatory approvals processes required for the South Burnett Coal Project's advancement. The content of this document aims to provide the Coordinator Generals Office with sufficient information and clarity, for which a determination can be made, in potentially declaring the project a "Coordinated Project" under Sec 26 of the State Development and Public Works Organisational Act 1971. (SDPWO Act)

The South Burnett Coal Project is expected to be a single or dual open pit operation producing approx. 8-10MT of product Coal, that will potentially operate for 25-30 years. The expected total area that will be subject to lease application is approximately 2,500ha with the mining pit foot print estimated to be no greater than 600-800ha in total, but no greater than 400ha at any one time.

In addition to the Mining Operations, a multi-use rail transport corridor, will be assessed, that if progressed will allow for both Coal product and other goods to access coastal and international markets. This proposal will be along an approx. 130.8km path, taking into account a 50m-150m buffer when in situ, however for the purposes of IAS review of an Environmental Impact Assessment, the focus will be upon a 2.5km buffer either side of the existing in situ former rail corridor, to allow for alignment and easement issues to be addressed. (An alternate also being assessed is a slurry pipe line though the same corridor option). The multi-use transport corridor area begins at the mine site and ceases when the proposed corridor adjoins the existing north coast rail line, and of note is that the current centre of the former in situ rail line, is currently subject to the Kingaroy – Kilkivan rail trail project.

The mining project is well situated between the townships of Nanango, Maidenwell and Kingaroy, and due to its close proximity of townships such as Cherbourg, Murgon, Wondia, Woorolin, Blackbutt and Yarraman, the project is seen as a being South Burnett Project, which will provide easy access to established skills, services and community infrastructure. The Wide Bay and South Burnett regions have one of the highest unemployment rates in general across Australia, and youth unemployment in particular, is a major issue. A Galaxy poll undertaken in April of 2016, confirmed 61% of the region supports economic advancement through a potential mine, meanwhile 79% of the region seeks to gain greater employment prospects from such a project. The proponent believes this is a reflective view across the entirety of the project.

Further consideration through this process will be given to the areas defined under the relevant acts such as the Regional Planning Interests Act and others, that pertain to Prime Agricultural Areas and also Strategic Cropping Lands, with early consideration indicating manageable coexistence of such concepts and limited impact from the projects transportation options. However these will be fully explored through the appropriate approvals process, with Prime Agricultural Land areas not being defined or identified within the proposal area at all.

Should the project proceed, it is estimated that approximately \$500M - \$950M will be invested in the advancement of this Coal prospect, being some \$200M - \$250M in the mine development and commissioning, with a further \$300M to \$700M being expended upon the final transport corridor solution. In doing so, at peak construction of both the mine and the transport corridors and estimated workforce for the 24-36 month period would be 600, taking into account some 300 in the Mine Development advancement project and a further 300 in potential construction of a rail solution. Steady state is anticipated at 500 across operations, Corporate Offices and support areas.

Dependent upon time frames of final approvals and investment decisions, the project is looking to commence operations within 24-36 months from construction commencement with a current target of mid to late 2019, with the first Coal produced by early 2020, which will be for sale either domestically or seeking export opportunities.

The focus of the IAS is to assist in what the proponent believes to be matters of interest to the Department of State Development, which are as follows and what the proponent believes is the remit for consideration and determination by the Office of the Coordinator General -

- The project requires complex State and Commonwealth approvals
- The project is proposed to be of strategic significance to the region and the State
- The project is proposed to have significant positive impacts upon the economy and social environments of the South Burnett and the State.

Initial Pre-Feasibility Studies have been undertaken for production upon a smaller scale, however ideal production will be closer to 10MT per annum, and will be subject to further refinement through the process of the IAS and a Definitive Feasibility Study (DFS).

This proposal through the IAS process will cover on lease mining infrastructure and off lease multi use rail infrastructure requirements (unless the final outcome is determined to be slurry pipe), and given the scale and location, the project has been declared a “Controlled Action” by the Commonwealth subsequent to the companies referral for this to be declared, and as such to be managed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This now allows the project to advance in accordance with the Bilateral Agreement between the Australian Government and the State of Queensland, and as such allows for a more streamlined approach, but equally reinforces in the proponents view of the need to be administered through the Coordinator-General’s EIS assessment process.

Typical development activities across the anticipated area of influence will include drilling, construction of a mining operation, water management requirements, and construction of facilities that include transmission lines, access roads, office facilities and communications, and maintenance facilities. There is also further potential for construction of significant rail loadout facilities and track infrastructure to a viable port option, although the slurry pipe delivery option is also being assessed.

The final transportation option will seek to link in with the Federal, State and Local Government Agendas, where possible, to ensure that such significant infrastructure can bring a broader benefit to the community for potential multi use. Whilst the Company is just advancing now its community and Local Government consultation on these issues through potential transport corridor consultation, it fundamentally believes the potential transport corridor clearly fits within the support Local Government, State Government and Federal Government agendas, which in turn will deliver a significant beneficial outcome for the community and more broadly stakeholders in general.

The proponent has begun to collect and collate historical data and records pertaining to the project that will be used to assist in the relevant studies expected to be conducted on land, hydrological, ecological, air quality, noise, socio-economic and cultural heritage impacts. Equally the potential transport corridor is a mix of historic rail corridors in situ, free hold land, Crown Land or declared land reserves, which have all historically had significant works undertaken in planning for this same activity having previously been gazetted as an operational rail line, which has been removed and thereby removing a significant transportation option for the rural communities undertaking agricultural activities in cropping and livestock production as an example.

Over and above the significant expected contribution to royalties, taxes and significant positive social impact, this proposal looks to have a flow on effect of between 1.5-1.8 additional and ancillary jobs within the Community, resulting in the South Burnett and Wide Bay region benefiting from an estimated 500 jobs on an ongoing basis.

Whilst final feasibilities and investments rest upon the approvals process, global market conditions and financing options, the project also has significant capacity to support the potential development of broader projects within the State. The overall project dynamics and financials become more compelling, with the prospect of alignment to existing major infrastructure proposals and advancement. This IAS however will limit its scope to areas only pertaining to new infrastructure and development, and will cease at the point of intersect with the existing transport infrastructure.

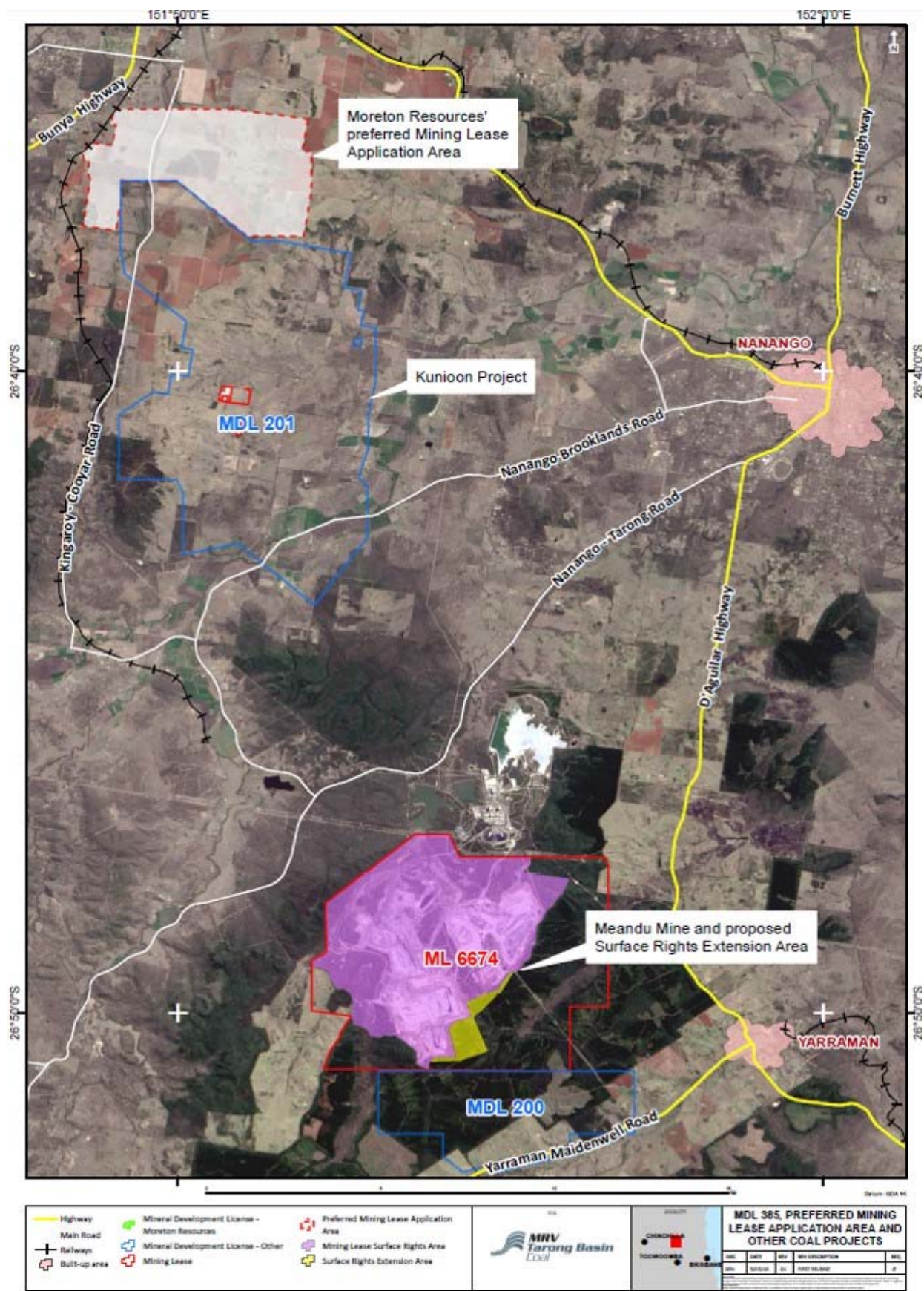


Figure 1: South Burnett Region – mine location



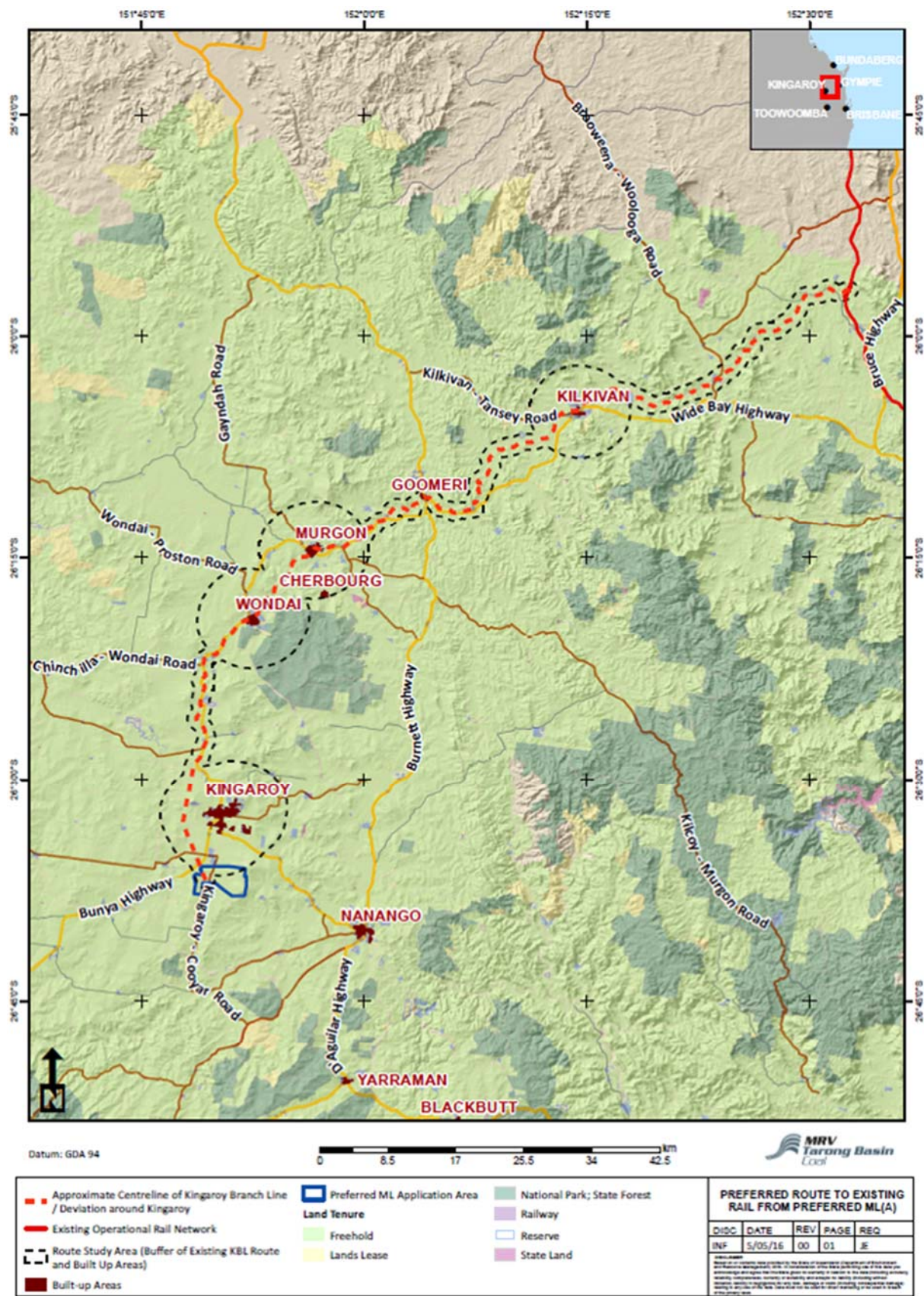


Figure 2: Potential Infrastructure corridor solution



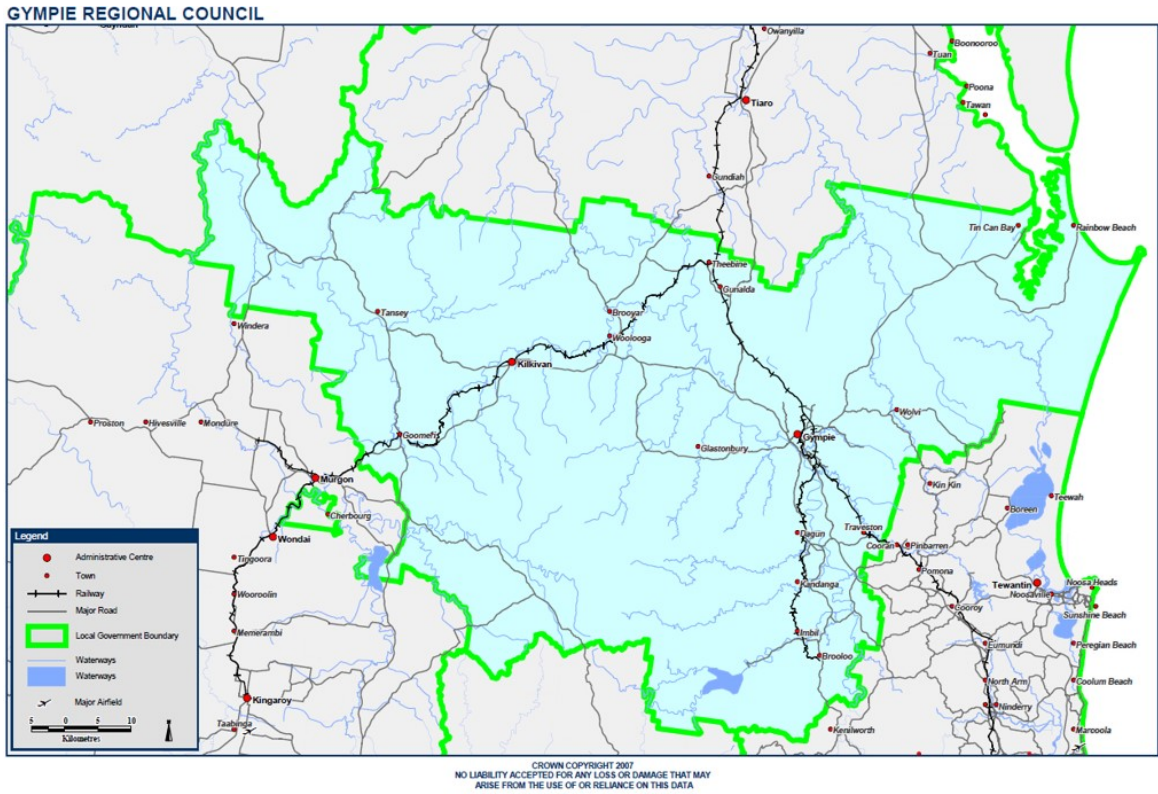


Figure 2A Local Government Regional Boundaries Map

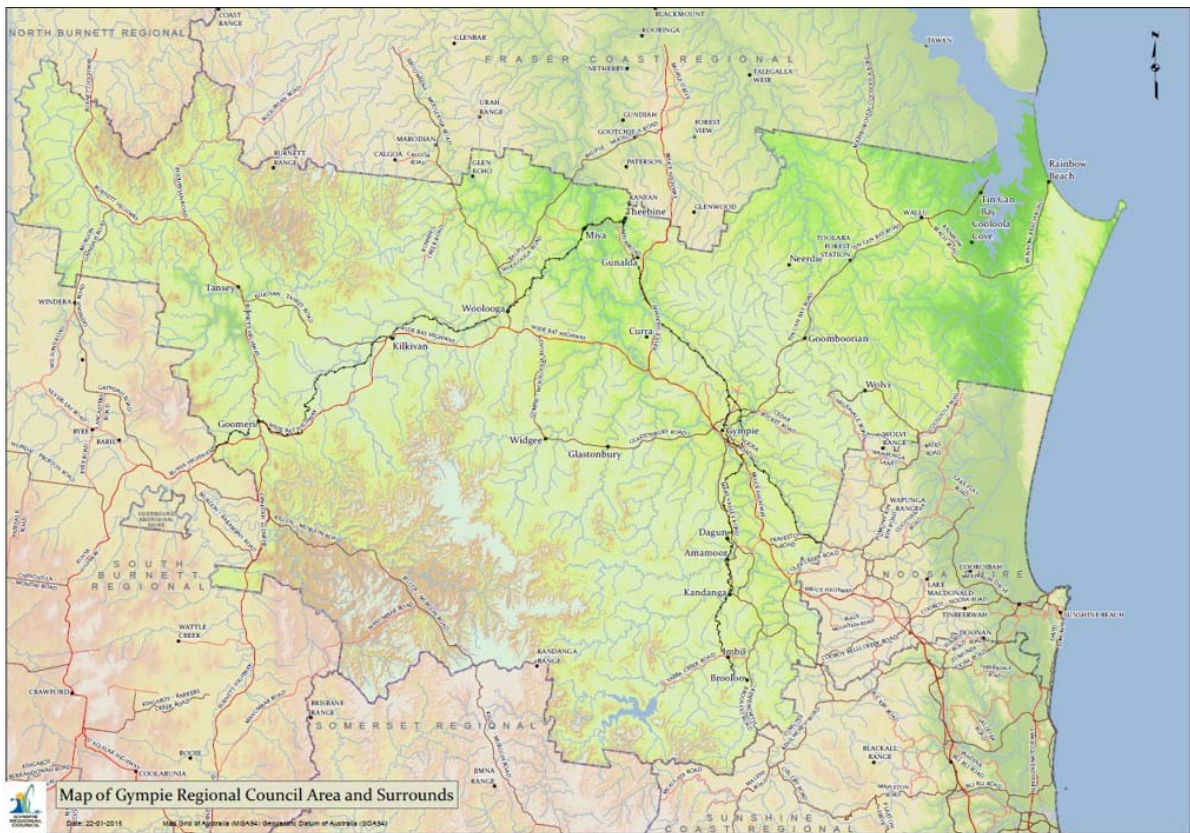


Figure 3: Local Government Areas Impacted

## 1 Introduction

### 1.1 Background

MRV Tarong Basin PTY LTD is a fully owned subsidiary of Moreton Resources Ltd (MRV), an ASX listed Company operating within the Australian resource sector. The proponent along with cooperation partners of Wave International, Macmahon, Initiative Capital and Beyond Billabong, are seeking to advance this project which MRV Tarong Basin Coal believes has significant and long lasting economic and social impacts to the South Burnett, Gympie Regional Council area and Wide Bay Region in general. This is in addition to the overall benefits to the State and Federal Governments. The project has been subject to several commercial considerations such as the declaration of a Resource which requires the Competent Person to have a view the Resource is commercially viable; the determination of a Reserve, which is declared when commercial parameters are further reviewed and the Asset meets advanced criteria; and the combination of two Pre-Feasibility Level Studies (PFS) which include a PFS upon the Coal Asset, and also a study into transport and port options for export.

A key outcome of this IAS process and impending MLA submission, is the ability to access these critical resources and provide either to the domestic market or internationally, where Countries such as China, India and others in the Asian region are seeking long term, affordable energy solutions. The current global situation sees many countries attempting to bring their populations out of energy poverty, and therefore alleviate significant social, welfare and infrastructure constraints currently being experienced. This is further exacerbated by the Paris Accord which seeks to reduce CO<sub>2</sub> emissions globally. In line with the Paris Accords, Australian Black Coal reserves can provide an instant and dramatic effect to the CO<sub>2</sub> emissions produced by many Countries who are currently burning cow manure, wood, brown coal and dirty black coals, as opposed to the superior products available within the Australian Coal industry. On the convers of this we have countries like Japan who have declared a significant strategy to move away from Nuclear solutions and seek to return to large scale electricity production heavily reliant upon quality black coal.

Given the lack of current infrastructure and the size of the operation, including the triggering of Commonwealth approvals, it is the proponent's view that an Environmental Impact Statement would be fitting for this process. As outlined in the executive summary, there are a number of assessment criteria which align with the State Development Legislation which are:

- The project requires complex State and Commonwealth approvals
- The project is proposed to be of strategic significance to the region and the State
- The project is proposed to have significant positive impacts upon the economy and social environments of the South Burnet and the State.

These issues are reinforced by the raft of legislative processes and requirements that will be put before the Company in relation to actual mining activities, infrastructure and civil works in preparation for, and operation of mining activities. These same legislative processes will be adhered to by the Company as it seeks to develop major infrastructure that will not only support these operations but also the development of much needed regional infrastructure, and potentially support planned port facilities that will generate significant economic benefit to the Wide Bay Region or continue to support the major port infrastructure already in existence in the Gladstone Region.

The areas of interest are not only the Mining operations but also transport corridor to the point of existing infrastructure and as such the Company will seek to advance and negotiate approvals for the project through the South Burnett Regional Council, the Fraser Coast Region and Bundaberg Regional Councils in support of the potential Port of Bundaberg solution, which is seemingly consistent and complementary to the Wide Bay Burnett Economic Development Strategy 2014-2019. However, other options will also be assessed in regard to final destination for off shoring of the product that fall outside of the scope of this project.

In summary, this IAS has been prepared for the proponent of the South Burnett Project, to be assessed by the Coordinator General to determine the prospectively of the project, the potential environmental, social and economic impacts, which will allow a determination of whether to declare the proposal to be a Coordinated Project, under the SDPWO Act.



## 1.2 Purpose and Scope of the Initial Advice Statement

As outlined above the purpose of this Initial Advice Statement (IAS) is to provide sufficient information, based upon the assessable attributes against the legislation pertaining:

*To assist the Coordinator-General to decide whether to declare this Project a coordinated project;*

*To enable stakeholders to determine the nature and relevance of the Project to them; and*

*If the Project is declared under section 26(a) of the State Development and Public Works Organisational Act 1971 (SDPWO Act), subsequently assist the Coordinator-General to prepare draft terms of reference (TORs) for the EIS.*

The proponent is advancing under this legislative framework given the potential benefit to the regional (and State) economy, lack of current infrastructure, the proposed supporting infrastructure's interaction with numerous stakeholders, the size of the operation, and the likely triggering of Commonwealth approvals and current environmental approvals. It is therefore the proponent's view that a coordinated project declaration is appropriate for the Project.

It is the Proponent's intention to address the mine and associated infrastructure requirements (for example power, transport and community factors, etc) within the framework of the EIS process of the OCG. The Proponent believes this project meets the eligibility criteria for a coordinated declaration through the following:

### ***The Project requires complex Local Government, State and Commonwealth approvals***

The Proponent believes the OCG is well situation to coordinate the project, based upon recent application to the Commonwealth Government which was determined upon 21 June 2016, as being a "Controlled Action" thereby allowing for a Bilateral Agreement to be undertaken, which will consider such aspects as threatened species, water resources and other aspects within the Commonwealth remit; in addition to:

- Approvals for a transport corridor, running approx. 130.8km between site and the North Coast Rail Network;
- Approvals for potential main road relocation and regional road relocations of potentially the State Kingaroy Cooyar Road and Local Governments Bellbird Road, Boonenne Road, Edenvale South Road, West Coolabania Road, Lankowskis Rd and Railway Rd which may require partial closure, realignment or other outcomes depending upon final footprint; and
- Assistance in the approvals and coordination of other significant activities contemplated by the SDPWO Act.

### ***The Project is proposed to be of strategic significance to the region, and the State***

With investment needed in the Queensland economy through the current economic cycle, the Proponent believes this project will provide a much needed injection of capital into a regional area, as regional areas have been significantly impacted as a result of decreased economic activity during recent downturns in the economy. A pre-feasibility assessment which was undertaken on behalf of the Proponent indicates capital expenditure for the Project is estimated by the proponent at \$500-\$950 million; being \$200M-\$250 million for the mine site and \$300-\$700 million for the transportation corridor.

Additional considerations should also be given such as an average expected coal price in AUD terms of \$80, which would make the annual turnover approx. \$800M for this project and potentially approx. \$24 Billion for the life of the project.

***The Project is proposed to have significant positive impacts upon the economy, and social environments of the South Burnett, Wide Bay and the State***

The Proponent is proposing to buy local where appropriate and possible. This is particularly relevant for the workforce during construction and subsequent operation. Operational workforce numbers will be influenced by the volume of product being produced. The Proponent is not proposing a fly in / fly out workforce. The focus on approximately 500 direct jobs (Company and Contractor) is significant and something that is seen as a critical enabler for the South Burnett and Wide Bay region.

This IAS has been prepared to identify environmental, cultural, economic, and community issues based on available information. The scope of the IAS encompasses a range of aspects associated with the Project and provides information on:

- *The proponent;*
- *The purpose and proposed operations (Including transport corridors);*
- *The costs and benefits;*
- *Existing environmental factors to consider; and*
- *Potential environmental impacts; and any identified measures for environmental management and mitigation.*

## 2 The Proponent

The proponent of the South Burnett Coal Project is MRV Tarong Basin Coal Pty Ltd, a fully owned subsidiary of Moreton Resources Limited. The parent company has been an ASX listed Company for over 21 years when it first entered the resources sector, and now through this fully owned subsidiary, the Company seeks to advance this asset in partnership with Initiative Capital; Macmahon; Wave International; and Beyond Billabong.

Between these project partners, the project has sufficient capability, support and expertise to advance this project to fruition. Each cooperation partner has its own skills and proven expertise, and the project is seen as the development of a major alliance structure that will allow for further development and enhancement of projects outside of the South Burnett Coal Project, in an effort to advance the interests of the parties, the community, and the State.

The overall intent of the operation is to set up a corporate stand alone, 100% fully owned subsidiary operating from the South Burnett for the benefit of the South Burnett and Wide Bay regions. Moreton Resources Limited has demonstrated through a long history of achievement by the individual leadership and also more recently within the Company, a proven management ability and history of delivery within the Resource sector of Australia.

Within the Board there is a long history of project management, financing, and development of major capital infrastructure and mining projects both on and off shore from Australia. This includes working with some of the largest names in the industry such as LGL, New Crest, Zinifex, MMG, and Rio Tinto, at levels of Chief Operating Officer and Vice President.

The Proponent has engaged Cooperation Partners Macmahon, Initiative Capital, Wave International and Beyond Billabong to provide support in the progression of the Project. Each of these companies has been engaged due to their expertise in developing projects on behalf of clients, specifically:

- Macmahon – mining services firm with extensive experience and knowledge in surface and underground mining, engineering and fabrication, construction and associated contracting services;
- Initiative Capital – provides commercial and financial advice to clients and is the only dedicated venture capital firm in Australia specialising in Public Private Partnerships. Initiative Capital brings together governments, private sector companies and investors to create real assets for communities;
- Wave International – consulting firm specialising in the end to end delivery of significant projects in the resources and industrial sectors, with core services including engineering, project delivery and asset management; and
- Beyond Billabong – is a leading provider of education and support programs to young people throughout Queensland. The organisation's vision is to break the cycle of poverty and welfare dependence by creating pathways to education, training and employment for young people. Their role in the project is to assist in the development of opportunities for the local community resulting from the Project.

Between the Proponent and the Cooperation Partners engaged on the Project, the capability, support and expertise exists to deliver this project.

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### 3 Nature of the proposal

#### 3.1 Scope of the project

##### 3.1.1 Proposed Operations

(1) the development of a thermal coal mine producing up to 10 million tonnes of coal per annum for domestic or export markets; and

(2) a multi-use transport corridor, that will be used to deliver the coal to the north coast rail line, then on to a Queensland Coastal Port Solution, likely to be comprised of rail infrastructure (Although slurry pipeline is being reviewed).

The study area is comprised of a mine site and a potential multi-use transport corridor. The mine site is 2,500 ha in area, having a mine footprint of between 400-800ha depending upon the mine design plan which would be prepared after the outcome of the environmental impact assessment process is known.

The coal transport corridor study area is 5km wide, 130.8km long, begins at the mine site and when it reaches the Kingaroy to Kilkivan recreation rail trail, 2.5km either side of the centreline of the rail trail from Kingaroy to Kilkivan and then east to the north coast rail line. Figures 1 and 2 describe the mine site and the corridor.

Capital investment in the project is estimated at \$500M - \$750M, \$200-250M for the mine site and \$300-\$700M for the transport corridor. Employment generated by the project is 400-600 at peak during construction, 200-300 for the mine site and 200-300 for the coal transport corridor. Up to 600 permanent jobs will be created during operations, 500 jobs on site (including Corporate South Burnett Roles).

The construction timeframe is anticipated to be 24-36 months, commencing in 2018. The project would commence operations in late 2019, or early 2020.

The ultimate decision will be based upon economic, social and more broadly total economic outcomes, for not only the Company but also the Local Government Areas, the State and Federal Governments as this project is seen as a key enabler of major infrastructure advancement and delivery by potentially opening the South Burnett Region and Gympie Region via a rail network.

##### 3.1.2 Mine and Processing Infrastructure

The following mine infrastructure will be required on the mine site:

1. Site water management structures including raw water dams, mine affected water dams, sediment control ponds and drainage / flood mitigation structures;
2. Pit dewatering systems including bores and pipelines;
3. CHP and CSP civil works, including ROM pad and retaining wall;
4. CHP including materials handling equipment, sizing equipment and ancillary fixed plant;
5. CSP including internal process equipment;
6. Mine Infrastructure Area (MIA) including administration building, ablutions, workshops, stores, vehicle wash down bays, fuel / lube facilities and emergency services, although the Company will seek to undertake majority of these support services off site where possible;
7. Mining contractor facilities including magazine / explosives store;
8. Internal haul roads for product haulage;
9. Internal access roads to water management structures; and
10. Domestic and International product supply infrastructure (expected to be rail or slurry pipeline)

### 3.1.3 Supporting Infrastructure

The following supporting infrastructure will be required by the project:

1. Power supply:
  - a. The site will utilise power from the local grid;
  - b. High Voltage (HV) overhead power lines are available within close proximity to the site;
  - c. A tie in point will be established and a main HV substation established; and
  - d. Some on site diesel generation will be utilised during construction and as backup generation.
2. Water supply:
  - a. A water supply dam will be established on site;
  - b. This water supply dam will collect water from runoff and pit dewatering activities to supply the mine; and
  - c. Water demand will be modest given potential dry coal separation techniques being used.
3. Rail infrastructure:
  - a. Potential balloon loop and rail spur to service the Mine site will be developed, however such infrastructure is anticipated to be dealt with at the Coast, by any potential commercial contract haulage outcomes.
4. Pipe Line infrastructure:
  - a. Potential slurry pipe will be investigated which will consider both above and below ground options for Coal supply to the Coast, and ancillary water return network, that will be supported by multiple pump locations to ensure a locked circuit of flow, that minimises water loss and maximises water return within the system.
5. Accommodation:
  - a. Accommodation will be sourced locally (off site), with detailed surveys of requirements and local capacity still to be undertaken. No accommodation facilities will be considered as part of this project.

## 3.2 Land Use

The area surrounding the MDL and EPC is predominantly rural. Land use in the project area is typical of that found throughout the Darling Downs and South Burnett regions. It consists of a mixture of rural and urban land use. The main rural land use is for agriculture, in particular the production of dryland summer or forage crops such as peanuts sorghum, barley, hardwood and sunflowers, as well as winter crops such as wheat and oats. Less ideal land has been turned over to grazing which is also a large component of the rural industry. The North West area of the Gympie Regional catchment is not significantly different to these same land use parameters.

The predominant land use of the intended project area includes grazing, agriculture, and areas of native vegetation which will be considered throughout the EIS and planning processes. Historic Soil and Cropping information provided by the Queensland Government Natural Resources and Mines identified in a 2001 publication that the area of interest is suitable for dryland crops with clarification of Class 2 – Suitable land with minor limitation; Class 3 – Suitable land with moderate limitations; and Class 4 – Marginal land presently unsuitable. The area also includes rural dwellings, which are limited in number.

These areas are intended to form the production areas and infrastructure area of the Mining operations. It would be the intent post operations and through rehabilitation to move these lands back to native vegetation and wildlife corridors which had previously been extensively cleared as a result of previous agricultural activities and practices.

The predominant land use for the areas considered as transportation corridor is a mix of historic rail corridors in situ, free hold land, Crown Land and/or declared land reserves. All have had significant works undertaken in planning for this same activity historically or more generally has previously been gazetted and an operational rail line, which has been removed and thereby removing a significant transportation option for the rural communities undertaking agricultural activities in cropping and livestock production as an example.

Total study areas will be determined as the project progresses and as such a 2.5km buffer area will be reviewed in alignment of any potential corridor which will allow for traversing any built up areas and townships along the former Kingaroy and Kilkivan lines.

Once preferred location, alignment and method is determined, the impact upon free hold, crown land or other forms of land tenure will be determined and negotiations begun in regard to potential acquisition and agreement.

The corridor passes approximately 152 parcels of land under a variety of tenures, and as such once definitive preferred routes are established specific negotiations and agreements can be undertaken.

The anticipated and preferred corridor will seek to avoid built up areas, residential homes and business infrastructure, seeking to utilise vacant or unallocated land, and through mutual negotiations on project advancement. Furthermore, negotiations with the relevant Local Governments and relevant State Departments will be undertaken, having regard to the establishment of the Kingaroy to Kilkivan rail trail, which pertains to a 25-30m wide corridor

### **3.3 Project need, justification and alternatives considered**

The Proponent is seeking to develop the Project to service potential international markets. Each market has its own drivers and supporting justification for the Project.

Whilst the renewables debate continues and the world shifts its focus to increased alternatives, the first and most confounding step in that challenge is to provide cleaner, cost effective coal globally, which Australian natural resources has the capability and opportunity to do. Therefore, be it a domestic or international opportunity, the proponent sees this project as having a significant positive impact upon CO2 emissions potentially locally and globally, with a cleaner, more energy rich, fuel supply available.

This is highlighted by the International Energy Agency's WEO report 2015, which shows an ever increasing supply / demand gap for thermal coal in India forecasting a 256 Million tonne coal equivalent (Mt) gap by 2020. The Proponent understands that supply for this gap has not yet been identified and will rely heavily on seaborne supply, with a focus on higher quality coal and emissions control. What is equally evident in the Australian Export Coal market is demand continues to grow year on year.

Justifications for the project include:

- Provision of a reliable, quality thermal coal supply to international markets;
- Provide a viable, economic alternative to low quality thermal coal currently being utilised internationally;
- Potentially provide a viable, economic supply for domestic consumption as a higher energy value alternative (reducing volume consumption);
- To support the State and Federal Government's commitment to sustainable and regulated mining, and Coal mining activities for the greater good of the State and Commonwealth;
- To provide significant capital investment into the South Burnett region, with ongoing economic activity for the life of the mine; and
- Significant alignment with potentially Local, State and Federal Government major infrastructure projects.

The progression of this significant project will not only meet the demands and objectives as outlined above, but also within this critical phase of the Local, Queensland and National economy, allow for the potential alignment of multiple projects that would benefit from the synergies created in an export market scenario. The potential rail infrastructure, ports access and upgrades could assist several other project considerations at the State and Federal levels, which MRV Tarong Basin Coal Pty Ltd will work toward over the coming 12-24 months.

The key objectives of this project, which aligned with both State and Federal agendas are:

- Enable the proponent to extract and realise the energy potential of a considerable natural coal asset for the benefit of the Local, State and Commonwealth;
- Facilitate the viable commercial development of an export potential Coal operation within the region that will have additional benefits and alignment prospects with other major Capital advancements within the State;
- Facilitate the appropriate land access, transport corridor access, and also for the proponent to negotiate potential infrastructure upgrade outcomes, for the proposed development to materialise;
- Provide Australian and Local employment and economic advancement opportunities through the construction, operation and rehabilitation stages of the Project; and



- Alternatives to such a project within the Wide Bay and South Burnett region are limited or non-existent, and should the project not go ahead, a valuable and vital natural resource will be forgone to the detriment of the State and Commonwealth.

### **3.4 Components, developments, activities and infrastructure that constitute the project to be declared coordinated**

The Proponent believes this Project meets the requirements of sections 27 and 27AB of the State Development and Public Works Organisation Act 1971 (SDPWO Act) through the following considerations:

- The Project's potential effect on relevant infrastructure, including roads and rail (or pipe corridors);
- The employment opportunities that will be provided by the project, during construction and operations;
- The potential environmental effects of the Project, from mining activities requiring State and Commonwealth approvals;
- The complexity of Local, State and Commonwealth approval requirement for the project;
- The strategic significance of the Project to the locality, region and the State; and
- The level of investment necessary for the proponent to carry out the Project.

Certain State owned or GOC owned areas, such as existing land parcels and transport corridors are of interest to the project and as such, the proponent will be seeking to advance through to acquisition of a procurement of these through negotiated outcomes for the benefit of State and Federal Governments.

#### **3.4.1 Road infrastructure**

The project will utilise existing road infrastructure for access to the site, and for transportation of plant, equipment and materials for construction and operation. Baseline and anticipated additional traffic volumes will be evaluated during the EIS stage of the project. This will require close consultation with both Local and State Governments.

The final exploration program and pit design may result in the application for relocation of existing public roads included within the lease boundary. Once these studies are complete, and any such requirements are confirmed, the Proponent will commence engagement with Department of Transport and Main Roads for state roads and South Burnett Regional Council for local roads.

It is envisaged that the "Declaration" under the SDPWO will assist in these discussions, and coordination of stakeholders as the proponent seeks to attain outcomes pertaining to the potential relocation of roadways and other pertinent road infrastructure.

#### **3.4.2 Corridors to ports**

A pre-feasibility review into preferred corridors to ports has involved a desk-top assessment of possible rail and port options available to the Proponent. Consideration is being given to the port solutions along the Queensland Coast. The option to gain access to these Ports are the reinstatement of a Kingaroy branch line to Theebine, requiring approx. 130.8km of new rail and infrastructure.

This option will be assessed through this IAS with alternate means of slurry pipe being considered also. These options are shown in the figure below. These alignments are buffered by 2.5 km on either side to create corridors 5 km wide until such a time as final decisions are made and alignment corridors can be determined which will reduce to approx. 50-150m at most points, the widest in populated areas or of concern to ecological and environmental values.

It is acknowledged that currently recreational infrastructure is in place in some areas along these options and the Company will seek to work with State and Local Government, along with interest groups about how such projects and in situ activities can work in coexistence to the broader benefit of the regions and the State.

### 3.5 External infrastructure requirements

The proponent has outlined above the potential transport corridor issues and considerations, as to substantial power infrastructure upgrades, water run off infrastructure and road infrastructure projects are all requirements for consideration under the IAS program of works before the Coordinator General for assessment.

Significant stakeholder and community engagement will be required through the process in ensuring alignment of economic outcomes, with the greatest benefit possible for the broader community and stakeholder groups.

#### 3.5.1 Road infrastructure

Access to the South Burnett Project site is likely to have a low impact on the regional roads and infrastructure and as such, studies will be undertaken through the IAS process. These considerations are only for the purpose of supplying materials, workforce and other common activities upon Local and State road infrastructure, and as such is not seen as a significant risk.

The following infrastructure is available in the local area and assumed to be available on an as required basis for the Project. The Project is well serviced by local roads and the state road network, see Figure 2. Kingaroy is located at the junction of the D'Aguilar and Bunya Highways, approximately 209 km north-west of Brisbane. It can be reached from the following destinations:

- D'Aguilar Highway from Caboolture
- New England Highway via Yarraman
- Burnett Highway via Gympie
- Brisbane Valley Highway through Esk
- Bunya Highway via Dalby
- Kingaroy Cooyar Road

Baseline and anticipated additional traffic volumes will be evaluated during the EIS stage of the project.

#### 3.5.2 Corridors to ports

A pre-feasibility review into preferred corridors to ports has involved a desk-top assessment of possible rail and port options available to MRV Tarong Basin Coal Pty Ltd for the development of the South Burnett Coal Project. Therefore the most desirable transport corridor has been identified, subject to advanced modelling, engagement and design for such access and transport solutions, via other operators or State Government agendas.

The evaluation has assumed that the planning approvals can be obtained for the options identified, including building new Branch Lines, re-constructing the closed lines but with alignment improvements, along with the potential to support Coal export operations at several potential Port options.



Figure 4: Historic QLD Rail network regional Queensland

The Scope however of this application will only consider the infrastructure and impact of the newly proposed infrastructure developments and will cease at the point of reaching existing infrastructure which may or may not require additional upgrades through separate commercial outcomes with the operators or owners of those services and infrastructure.

### 3.6 Timeframes for the project

The proponent (Subject to final investment decisions) aims to bring the project into production during late 2019 or early 2020, with the following nominal timelines being expected:

1. Environmental approvals	December 2017
2. Mining lease approval	December 2017
3. Other approval	December 2017
4. Definitive feasibility studies	Mid - Late 2017
5. Financing activities	Mid – Late 2017
6. Financial close	Early 2018
7. Commence on site construction	Early 2018
8. Commence Offsite construction	Early 2018
9. Commence pre-strip	Mid – Late 2018
10. First coal	Late 2019 – 2020

It is expected post 2045, whilst progressive rehabilitation would have been undertaken, the operations will enter into a rehabilitation, remediation and decommissioning phase taking between 3-5 years. In line with this, appropriate detail will be put together throughout the approvals process; however, the site is expected to cease operations in approximately 2050 with total closure by 2055.

Construction and commissioning of any potential transport solution is anticipated to by early 2020, depending upon final transport method and corridor selected however this is identified as a potential project over run that could stall the project commissioning time line.

### 3.7 Construction and operational process

The project's development will be progressive dependent upon the likely offtake of partners and final design of operations; however, the typical construction and operational activities will be:

- Mobilise personnel and equipment to site for initial works;
- Mobilisation and advancement of transport corridor outcomes and solutions;
- Clear vegetation and strip topsoil and subsoil from the area for the construction build pad, temporary workshop and office, and initial site roads;
- Construct a build pad and temporary workshop and office for the assembly of mining equipment;
- Start assembly of excavators, haul trucks and ancillary equipment;
- Construct diversion drains and bunds to keep clean water off the site; and construct drains, sumps, sedimentation ponds, and silt traps to manage water on the site;
- Clear vegetation and strip topsoil and subsoil from the pit, ROM pad, initial waste rock dump, and haul road footprint;
- Construct laydown pads, and haul roads;
- Construct visual amenity and noise bunds for noise management and visual amenity;
- Commission production equipment and ramp-up of mining activity;
- Operations, cut back, capital advancements;
- Progressive rehabilitation programs and remediation; and
- Demolition, decommissioning and rehabilitation of infrastructure and disturbed areas.

### 3.8 Workforce requirements during construction and operation

The overall operations through roster patterns, operational planning and all other considerations will be designed to leverage off a South Burnett Employment concept, whereby the Proponent will support local employment and rostered work that suits residential employment from Cherbourg through to Blackbutt within the South Burnett Region.

The proponent estimates the project would employ up to 600 direct and contractor jobs at peak construction; and up to 500 jobs during operations.

The Company will seek to take an entire South Burnett and potentially further afield view, throughout construction to ensure economic pressures are not over inflated in the South Burnett for peak periods. However, the overall impact to the South Burnett and Wide Bay will be significant in nature for the life of the project, which is anticipated to be decades to come.

It is anticipated that for construction of corridors, major contractors and infrastructure experts will seek to accommodate workers in camps along the preferred corridor to facilitate construction and commissioning activities.

### 3.9 Economic indicators

A pre-feasibility study for mining has been completed for one potential mine option, specifically focusing on mine planning, quality and associated economics that verify a commercial operation at approximately 5Mt per year for 40 plus years. Further to this, a Rail infrastructure and Port solutions study has been completed and is seeking to have approximately 8MT – 10Mt per year, for a standalone commercial operation, although multi share and use arrangements are likely, as this project advances thereby bring down the overall costs of operation and export.

The Proponent publicly released summary outcomes from this study, highlighting the positive economics of the mine and supporting the project justifications as a cost effective source of coal. This information is summarised below. Further studies into other mining options and production rates will be completed during the definitive feasibility study.

Modelled Results*	Output	PFS Assumptions	Input
NPV (Real, after tax)	<b>\$459,695,000</b>	Annual Production Rate ( <b>28% (ar) ash</b> )	5.5MT
IRR	17.46%	LOM Production	220Mt
Payback Period (undiscounted)	6.95 years	Mine Life	42 years
Total LOM Revenue (undiscounted)	<b>\$11.854 Billion</b>	Coal Price (Delivered)	<b>\$50 (19.6GJ)</b>
LOM Average Annual EBITDA	\$90.536 Million	Exchange Rate (AUD/USD)	NA
LOM Average Annual NPAT	<b>\$55.649 Million</b>	Discount Rate	8%
LOM Average Operating Margin	\$21.49	Development Capital Expenditure	\$285 Million
First 20 years full production rate	\$30.24 per tonne	Sustaining Capital Expenditure	\$55 Million
Final 18 years of full production	\$35.82 per tonne	Total NPAT Revenues (Undiscounted)	<b>\$2-\$2.4 Billion</b>
LOM Total Operating Expenditure	\$7.2 Billion	Total NPAT of 20 years full production	<b>\$1-\$1.2 Billion</b>

The dynamics of financial modelling are evolving with export options and changes in AUD and Coal pricing, however such a project will rely upon a long term view of the industry, given the 25-30 year expected life of the asset.

The project also has the opportunity to open vital infrastructure corridors and assist in the major capital development of other State and Federal focused infrastructure, which will provide significant economic benefit and stability for the Wide Bay and South Burnett areas. These opportunities will be assessed and negotiated with multiple parties including Local Government, State Government, GOC's and the Federal Government, whom could all benefit through cooperation and advancement of this project. Within the South Burnett and Wide Bay, an additional 1,000 - 1,500 roles in direct and indirect employment and the carry over effect of multi-use infrastructure, new Coastal infrastructure and the opening of transportation corridors is seen as significant. A Pre-Feasibility assessment has been undertaken upon the potential transport corridors and as such, it is seen as feasible to advance this application process.

### **3.10 Financing requirements and implications**

Given the modest capital costs for mine construction of approximately \$200 - \$250 million and larger capital costs (potentially \$300-700M) in export infrastructure required, third party financing will be required. The availability of finance for mining projects is generally dependent on the economic robustness of a project, the requirements of the sponsor and the overall risk profile of the individual project.

The Project maybe partially funded through equity investment, which can be gained from several sources. If sourced from the marketplace, this will typically be geared to the Proponents market capitalisation. It is also common to source equity funding from a major Engineering Procurement and Construction (EPC) contractor.

The funding strategy for the Project will likely involve a combination of equity and debt funding. A committed offtake agreement substantiated by a bankable feasibility study, will underpin the ultimate investment decision.

The Company is comfortable that a market exists internationally for such a product and therefore as this approvals process continues, the Company will research a number of options for financing the project at between \$500-950 Million in a variety of optional arrangements.

## 4 Location of key project elements

### 4.1 Location

The mining project area comprises a small parcel within MRV Tarong Basin Coal's EPC 882 and MDL 385 assets and is located within the Tarong Coal Basin of the South Burnett region of Queensland. This is approximately 210 km by road to the north-west of the state capital of Brisbane, and 6 km south of the major regional centre of Kingaroy. The major township of Nanango is also located approximately 17 km to the south-east.

The mining project is located on the top of the Great Dividing Range, with the major local land use being agricultural (mixed cropping and grazing). Mining in the area is currently limited to the Meandu open pit coal mine. The local topography is undulating, dominated by two hilltops located in the south-eastern and north-eastern corners of MDL 385, with a saddle ridge north-south between them. The remainder of the tenement falls to the west towards Stuarts River.

In addition to the Mining Operations, a multi-use rail transport corridor, will be assessed, that if progressed will allow for both Coal product and other goods to access coastal and international markets. This proposal will be along an approx. 130.8km path, taking into account a 50m-150m buffer when in situ, however for the purposes of IAS review of an Environmental Impact Assessment, the focus will be upon a 2.5km buffer either side of the existing in situ former rail corridor, to allow for alignment and easement issues to be addressed. (An alternate also being assessed is a slurry pipe line though the same corridor option). The multi-use transport corridor area begins at the mine site and ceases when the proposed corridor adjoins the existing north coast rail line, and of note is that the current centre of the former in situ rail line, is currently subject to the Kingaroy – Kilkivan rail trail project.

### 4.2 Tenure

MRV Tarong Basin Coal PTY LTD holds two current tenures within and around the proposed area of the mining project; MDL 385 and EPC882. In addition to this, the total land mass required for the proponents mining operations comprises of freehold land either held by private individuals or that of the State Government via a GOC. Proposed transport corridors are of the same outcome, being a combination of free hold lands held by private owners or the State Government.

The predominant land use of the intended project area includes grazing, agriculture and areas of native vegetation which will be considered throughout the EIS and planning processes. Historic Soil and Cropping information provided by the Queensland Government Natural Resources and Mines, identified in a 2001 publication that the area is suitable for dryland crops with clarification of Class 2 – Suitable land with minor limitation; Class 3 – Suitable land with moderate limitations; and Class 4 – Marginal land presently unsuitable. The area also includes rural dwellings, which are limited in number

A number of local and regional plans exist for the region, and within the specific area concerned, agriculture and mining activities have been contemplated. Full listings of all tenure and holdings for the proposed MLA application site are fully understood, as are the full potential corridor options that have been fully mapped, reviewed and tenement, ownership data collated.



Figure 5: Proposed Mine Project Area

The proponent has begun to collect and collate historical data and records pertaining to the potential transportation corridor that will be used to assist in the relevant studies expected to be conducted on land, hydrological, ecological, air quality, noise, socio-economic and cultural heritage impacts as they relate to the potential transport corridor. It is a mix of historic



rail corridors in situ, free hold land, Crown Land or declared land reserves, which have all historically had significant works undertaken in planning for these same activities or more generally have previously been gazetted and operational rail line.

This corridor has been fully mapped and the underlying tenure is understood, and whilst the intent through studies is to review a 5km wide area of influence, the final preferred options will be less than 5% of that area of influence.

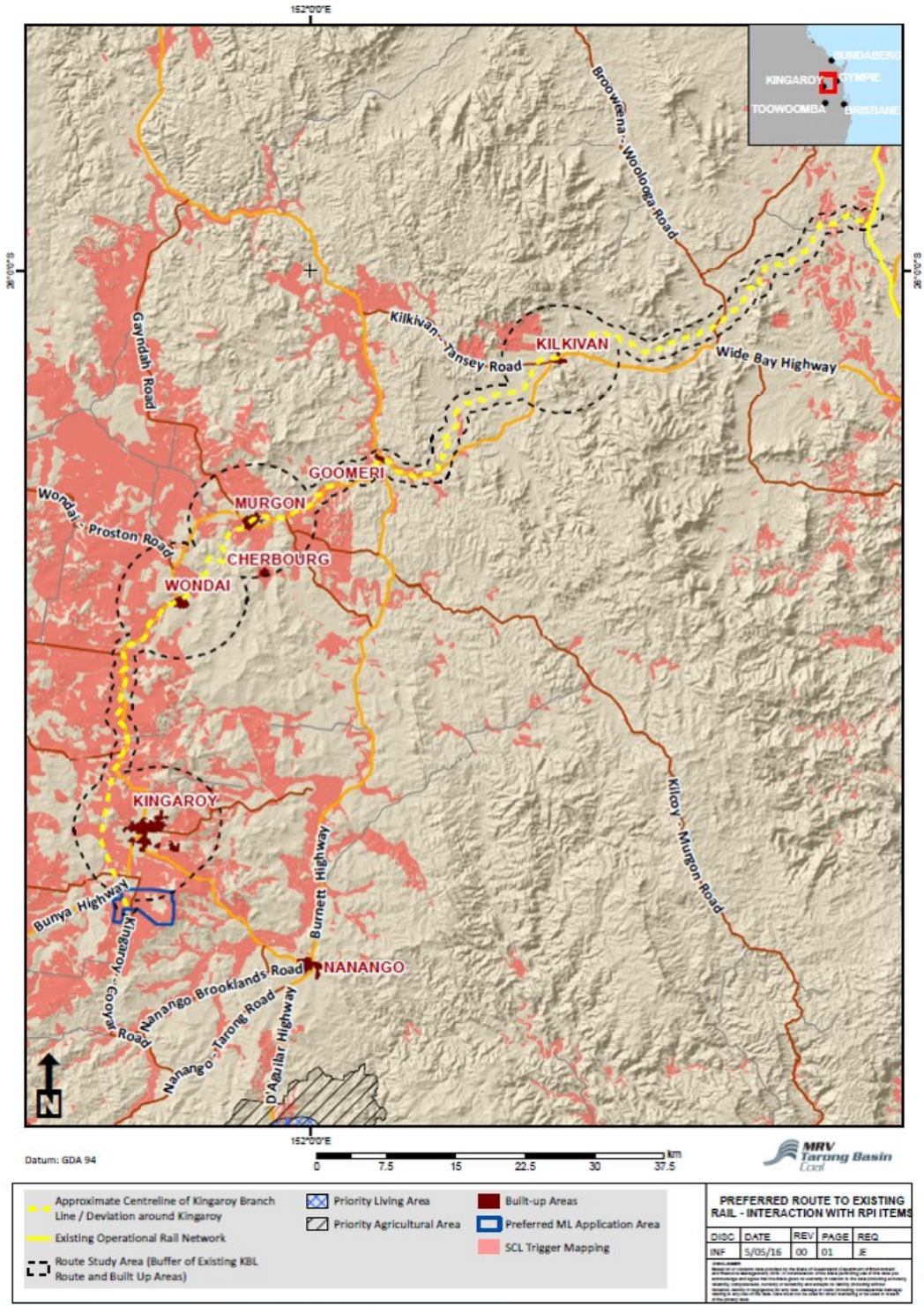


Figure 6: Preferred Potential Multi Use Transport Corridor

The real property title of the land underlying the proposed corridors is not owned by the proponent and key environmental permits are not in place. The area covered by the potential transport corridor have largely been cleared of natural vegetation, with these options avoiding endangers vegetation and priority agricultural land, and falls within the South Burnett Regional Council and Gympie Regional Councils.

#### 4.2.1 Latitude and longitude of Proposed Mine Site

Point	WGS84 lat long		GDA94 lat long	
1	S26°36'25.622"	E151°48'38.918"	S26°36'25.642"	E151°48'38.908"
2	S26°36'28.141"	E151°48'58.740"	S26°36'28.160"	E151°48'58.730"
3	S26°36'09.170"	E151°49'01.793"	S26°36'09.190"	E151°49'01.784"
4	S26°36'08.413"	E151°48'56.305"	S26°36'08.433"	E151°48'56.296"
5	S26°35'54.313"	E151°49'00.392"	S26°35'54.333"	E151°49'00.382"
6	S26°35'54.313"	E151°50'47.926"	S26°35'54.333"	E151°50'47.916"
7	S26°36'03.576"	E151°51'59.916"	S26°36'03.596"	E151°51'59.906"
8	S26°36'35.272"	E151°51'54.790"	S26°36'35.292"	E151°51'54.781"
9	S26°36'34.481"	E151°52'03.587"	S26°36'34.500"	E151°52'03.577"
10	S26°37'04.505"	E151°52'03.677"	S26°37'04.524"	E151°52'03.667"
11	S26°37'14.316"	E151°52'02.115"	S26°37'14.336"	E151°52'02.105"
12	S26°37'15.073"	E151°52'02.788"	S26°37'15.093"	E151°52'02.779"
13	S26°37'54.449"	E151°51'56.468"	S26°37'54.469"	E151°51'56.459"
14	S26°37'54.518"	E151°51'03.941"	S26°37'54.538"	E151°51'03.931"
15	S26°37'02.752"	E151°49'58.222"	S26°37'02.771"	E151°49'58.212"
16	S26°37'02.120"	E151°49'06.697"	S26°37'02.140"	E151°49'06.687"
17	S26°37'24.786"	E151°49'06.480"	S26°37'24.806"	E151°49'06.470"
18	S26°37'24.701"	E151°49'05.825"	S26°37'24.721"	E151°49'05.815"
19	S26°37'48.767"	E151°49'02.006"	S26°37'48.787"	E151°49'01.997"
20	S26°37'44.846"	E151°48'31.389"	S26°37'44.866"	E151°48'31.379"
21	S26°37'01.352"	E151°48'38.140"	S26°37'01.372"	E151°48'38.131"
22	S26°36'58.652"	E151°48'36.684"	S26°36'58.671"	E151°48'36.674"
23	S26°36'53.846"	E151°48'35.599"	S26°36'53.866"	E151°48'35.589"
24	S26°36'43.540"	E151°48'37.267"	S26°36'43.560"	E151°48'37.258"
25	S26°36'42.827"	E151°48'31.622"	S26°36'42.846"	E151°48'31.612"
26	S26°36'33.620"	E151°48'30.907"	S26°36'33.640"	E151°48'30.897"
27	S26°36'32.763"	E151°48'33.040"	S26°36'32.782"	E151°48'33.030"
28	S26°36'30.809"	E151°48'35.278"	S26°36'30.828"	E151°48'35.268"



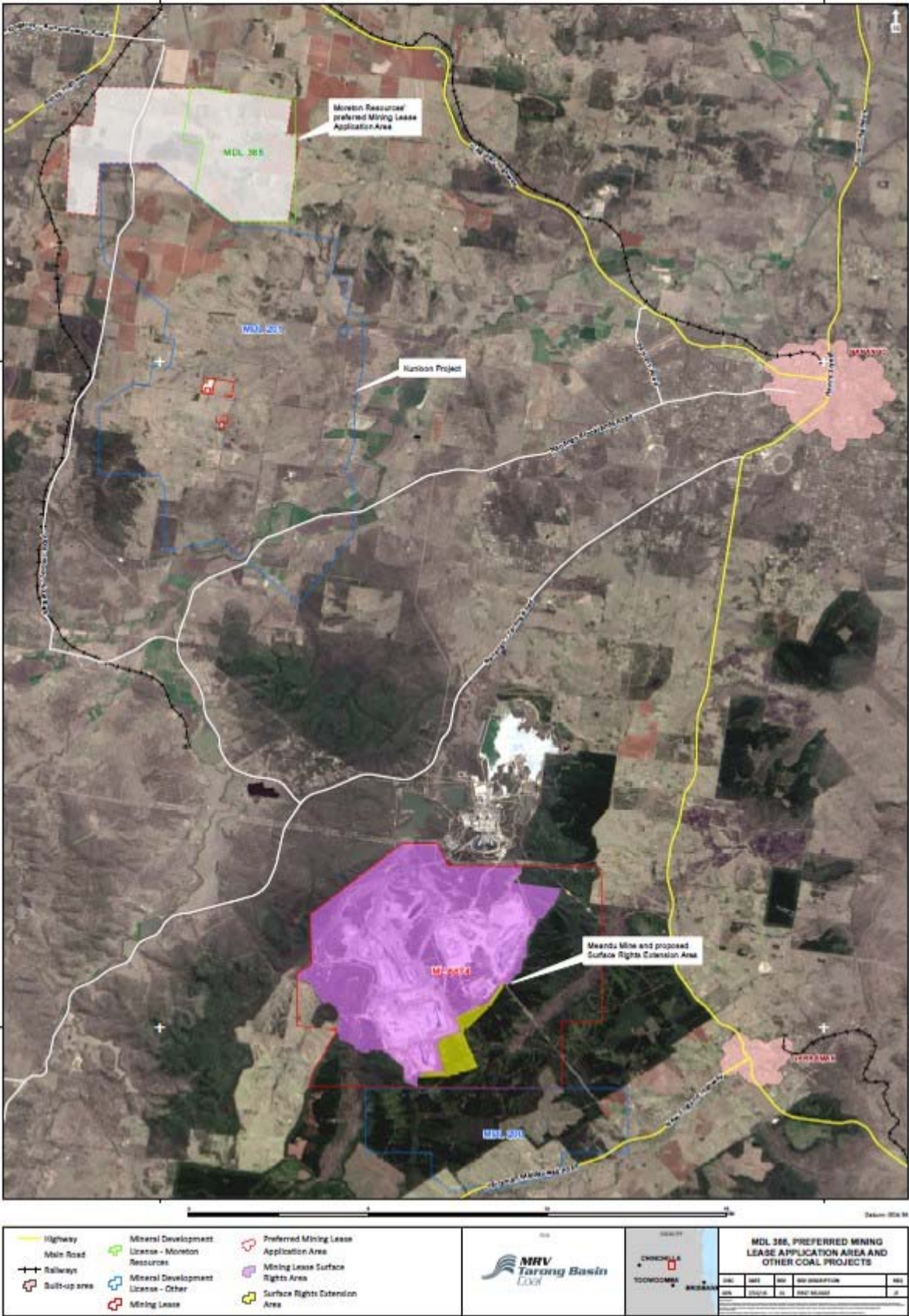


Figure 7: Potential MLA application area – Goodger Area

The real property title of the land underlying the proposed MLA is not owned by the proponent and key environmental permits are not in place.

The area covered by the mine development has largely been cleared of natural vegetation, while pockets of remnant vegetation and endangered regional ecosystems remain. Parts of proposed MLA are classified as strategic cropping land trigger areas; however, a preliminary desk top study has indicated that much of it can potentially be declassified based on the slope and soil composition.

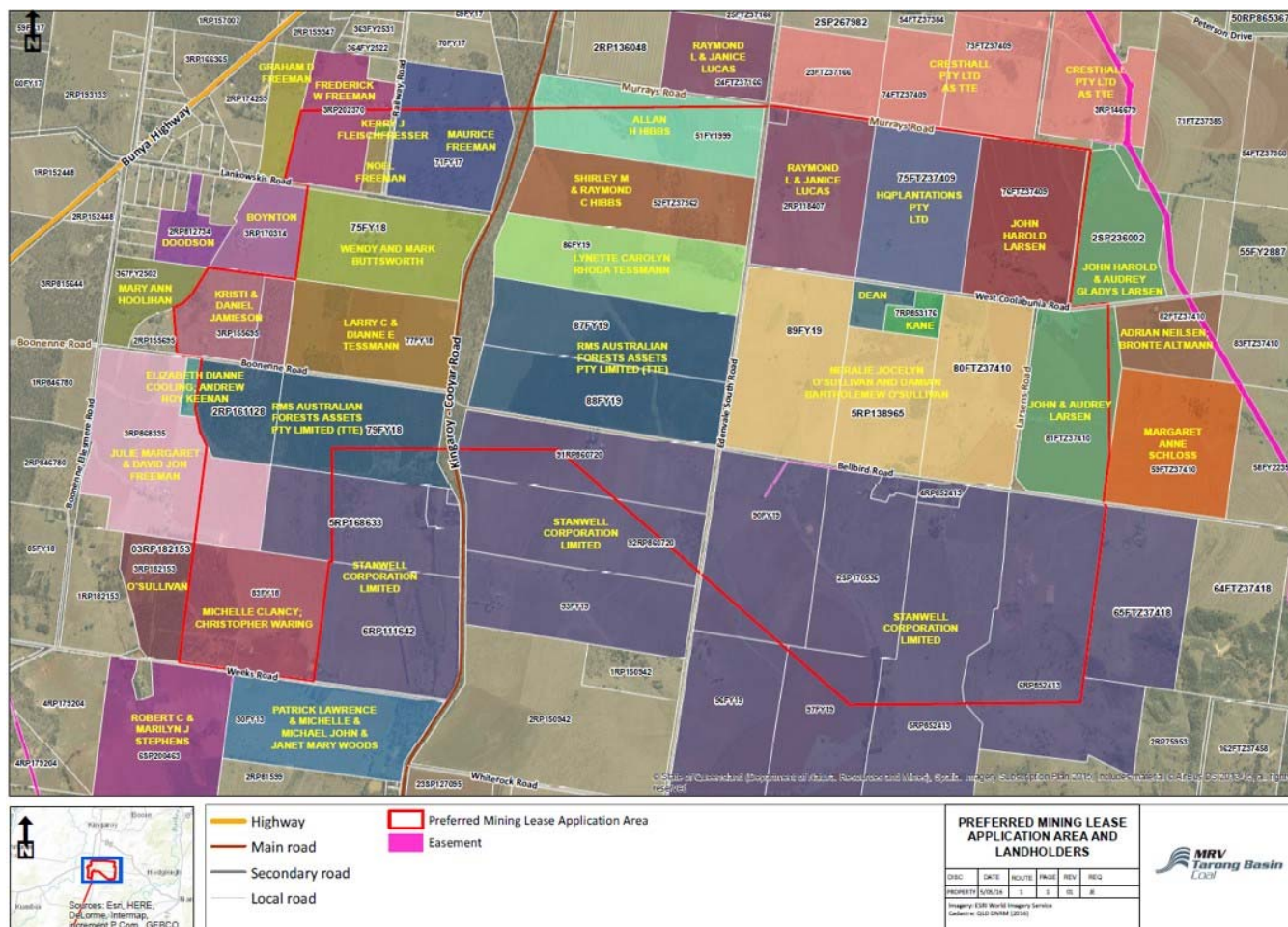


Figure 8: Affected land owner group – caused by potential MLA

#	Lot_number	Plan_num	#	Lot_num	Plan_num	#	Lot_num	Plan_num	#	Lot_num	Plan_num
1	51	FY1999	10	75	FTZ37409	19	7	RP853176	28	6	RP852413
2	81	FTZ37410	11	2	RP118407	20	52	FTZ37362	29	4	RP852413
3	83	FY18	12	76	FTZ37409	21	88	FY19	30	92	RP860720
4	80	FTZ37410	13	1	RP202370	22	87	FY19	31	91	RP860720
5	89	FY19	14	77	FY18	23	79	FY18	32	2	SP170536
6	5	RP138965	15	86	FY19	24	2	RP161128	33	1	SP170536
7	3	RP155695	16	75	FY18	25	97	FY19	34	5	RP168633
8	3	RP202370	17	71	FY17	26	90	FY19	35	6	RP868335
9	6	RP853176	18	2	RP202370	27	5	RP852413			



#### 4.2.2 Latitude and longitude of Northern Transport Solution

LONGITUDE	LATITUDE
151.82302554500	-26.61345122700
151.79304433600	-26.54492275000
151.82017019100	-26.44926841800
151.81731483800	-26.36360782200
151.91439684700	-26.26938116600
151.93295664300	-26.24796601700
151.96864855800	-26.23654460400
152.07144127400	-26.18514824600
152.10427783500	-26.19656965900
152.11855460100	-26.19514198200
152.14139742700	-26.13517956500
152.15852954600	-26.12375815200
152.20992590400	-26.11233673900
152.21563661000	-26.08806623700
152.27845438100	-26.05951270500
152.32414003200	-26.07664482400
152.37981942000	-26.05665735200
152.43835416100	-26.00954402400
152.48832284200	-25.96671372600
152.53686384600	-25.94529857700

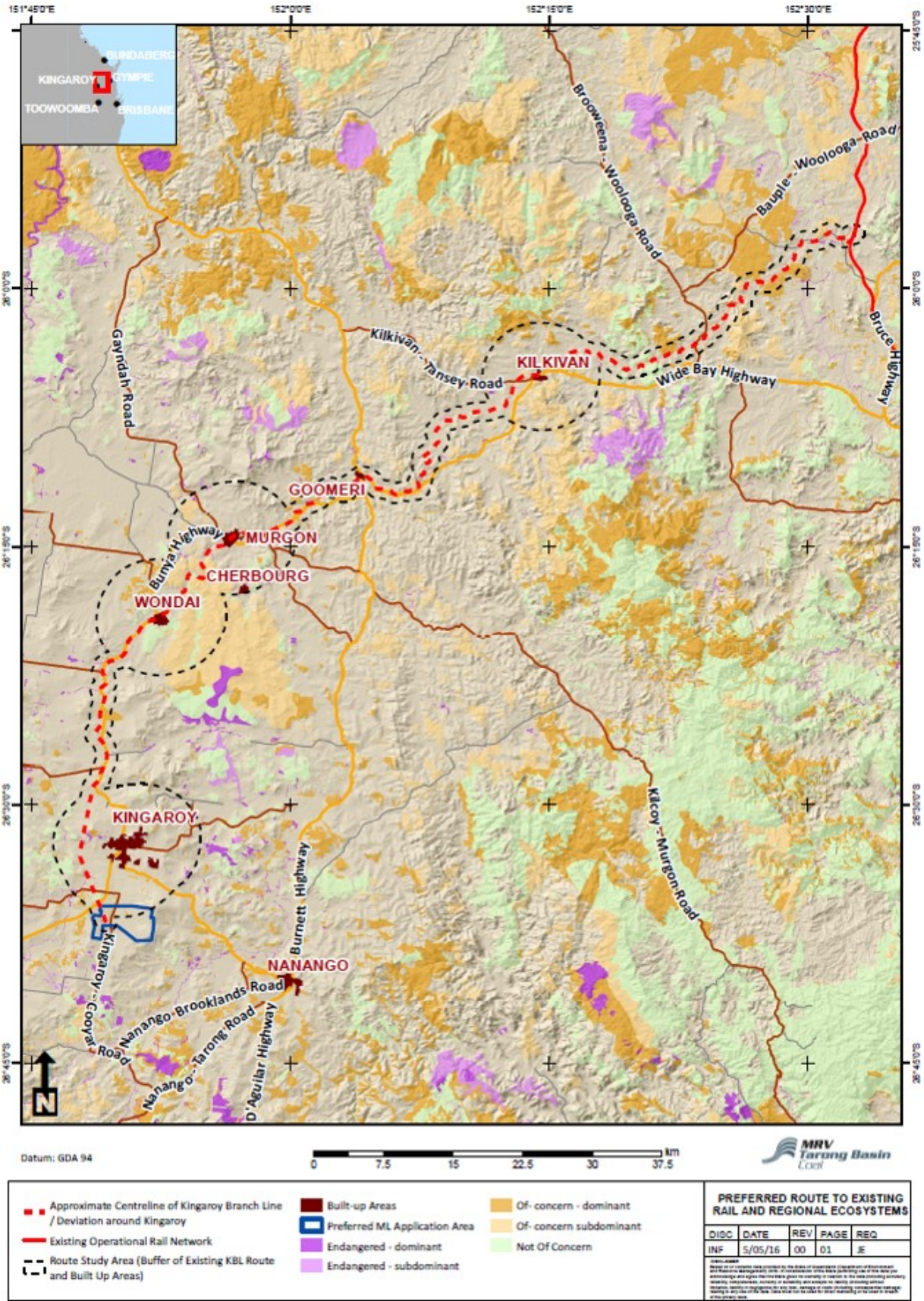


Figure 9: Potential Multi Use Rail Corridor with Bio-Diversity Map



## 5 Description of the existing environment

### 5.1 Natural environment

#### 5.1.1 Climate

The proposed Mine Site area and the potential multi use transport corridor located within the South Burnett Regional Council Area has a temperate climate, with information for the Bureau of Meteorology's (BoM) Kingaroy Airport Station (no. 40922) indicating there is an average annual rainfall of 670 mm, with the majority of rainfall occurring between October and March (BoM, 2016). The mean maximum temperature ranges between 30.7°C in January and 19.5°C in July and the mean minimum temperature ranges between 18°C in January and 3.5°C in July. (BoM, 2016).

The potential multi-use transport corridor to the North located within the Gympie Regional Council Area experiences above average daytime temperatures. Summer daily temperatures average between 30.2 and 30.7°C with overnight minimums averaging between 19.6 and 20.6°C. Summer days are very warm, averaging around 30.7 °C in the hottest months. This area is within the Gympie Regional Council, just below the Tiaro Township.

#### 5.1.2 Land

The existing land use of the potential Mine site area is predominately agricultural (mixed cropping and grazing), with some residential townships, including an airport and industrial infrastructure, in the surrounding areas. The nearest operational mining activities include the Meandu open pit coal mine, which is approximately 20 km south of the Project area, along with the Tarong Power Station.

The nearest national park (NP) to the proposed mine site project Area is Tarong NP which is situated approximately 20 km to the south of the Project area, and west of the Meandu Mine. There are two state forests (SF) surrounding the Project area, Archookoora SF to the west (~10 km) and Tarong SF to the south (~ 15 km) of the Project area. The Geln-Ewin Nature Refuge is a protected area that crosses into EPC 882 at the southern end of the tenement. There are no RAMSAR listed wetlands within the Project area; however, there are Matters of State Environmental Significance (MSES) mapped as occurring within EPC 882 and MDL 385, although minimal are identified within the project area of interest.

The mine site project area is within a Strategic Cropping Land trigger area (Department of Natural Resources and Mines, accessed 15/04/2016) mapped under the *Regional Planning Interests Act 2014* [RPI Act]). Agricultural value is a consideration and farming related information categorised under ISO 19115 and collated from the Queensland Government's (2016b) QLD Globe:

- Indications however through use of Department of Natural Resources Soil evaluation and Dry Cropping suitability indicate the land is not prime agricultural lands, and this is further reinforced by the level of genuine farming and cropping activities upon the lands, undertaken by the natural land holders.
- Further to this early indication however indicates that the parameters relating to slope gradient may in fact reduce the area covered by the Strategic Cropping Land Trigger area as a first criteria assessment tool.
- Further to this, soil samples, land use and other historic information would also lead to in the proponents view, a large area of the mining lease application footprint, falling outside of the definition of Strategic Cropping Land
- State Government Soil Surveys and categorisation maps also seem to indicate the declaration of Strategic Cropping Land may not be the most appropriate definition of the land.

The Northern transportation corridor option avoids priority agricultural lands and also any endangered gazetted eco systems, and potentially adjoins existing infrastructure at approx. 38.9m above sea level. Majority of this land is either Crown Land, Free hold farming lands or commercial land, and the proponent does not own any of the underlying tenure.

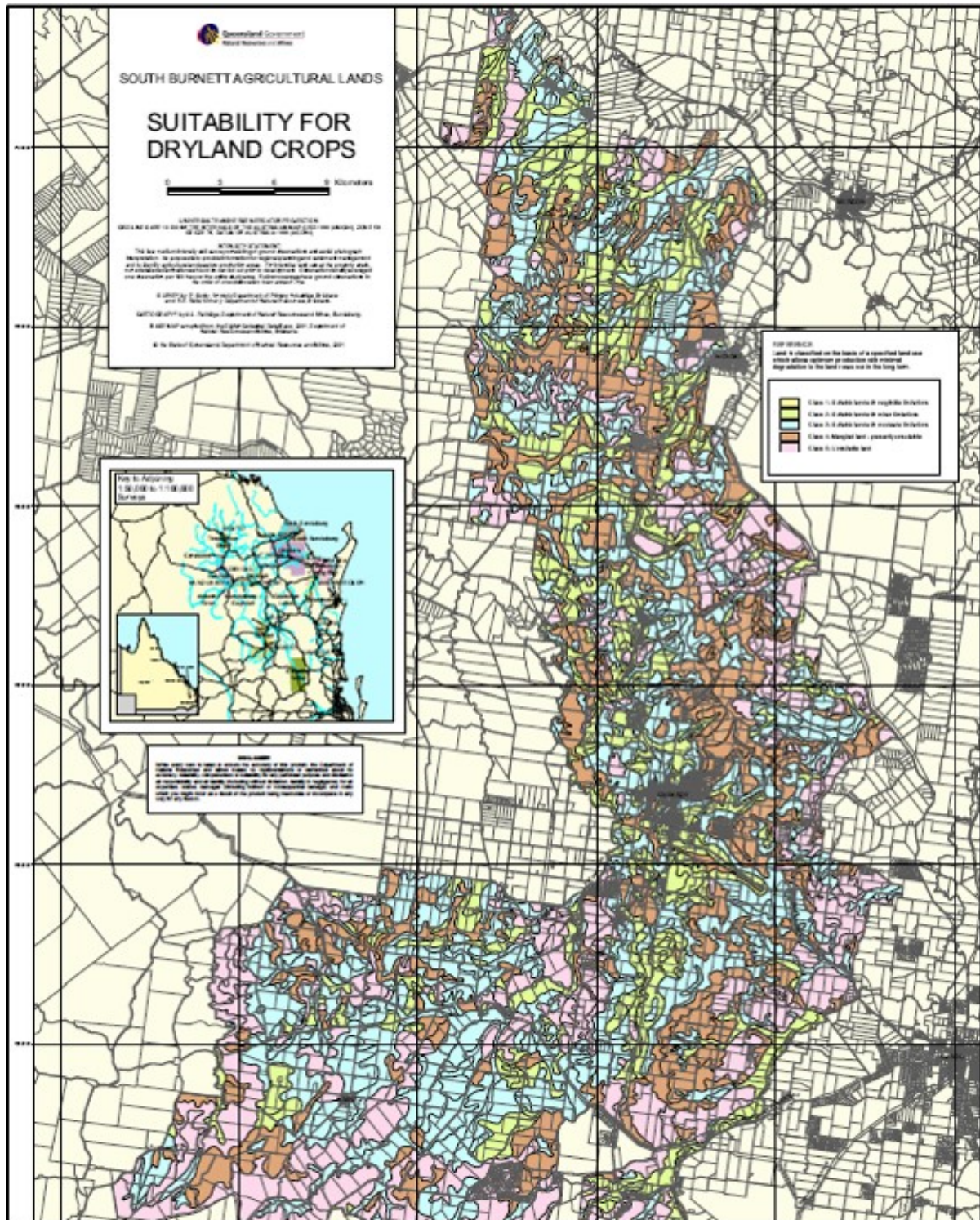


Figure 10: Suitability for Dry Land Cropping (Refer Larger Copy in Appendix)



### 5.1.3 Topography

The topography of the general area is along an undissected high planation dissecting the drainage of the Stuart River to the east and Barker Creek to the West (Sorby and Reid, 2001). The Project area consists of undulating hills and gently sloping valleys. Modelled elevation ranges between 363.8 – 598.8 m. The highest point is located at Ushers Hill in the north-eastern corner of MDL 385. Lineament analysis of topographical contours depicts a conjugate set of trend lines that dislocate the ridges. A derivative model generated from the topographic surface determined slope angles range between horizontal to a maximum of 35% represented as drainage gullies, with an average 4% across the Project.

The risk of flood in the area of the proposed mine can be described as low. The existing floodplains are located beyond the western side of the proposed mine area and south east of MDL 385 boundary. No existing floodplains have been identified within the proposed area of the mine.

The area pertaining to potential multi-use transport option, has an approx. 400m decline to approx. 40m above sea level and have little or no concern to flood plans, significant gradient issues or water courses given the historical former rail infrastructure throughout the area.

### 5.1.4 Geology

The area is within the Tarong Basin of the Yarraman Block and the landform is influenced from volcanic flows of basalt (Allen et al., 1980; Sorby & Reid, 2001). Across MDL 385 and EPC 882 it is primarily Tertiary deposits of basalt and laterite, with extensive red soil development and minor ferricrete. In the North-West of the two tenements, there are late Tertiary – Quaternary colluvial deposits. Along the eastern boundary of EPC 882 is the Boondooma Igneous Complex, consisting of late Tertiary – Quaternary miscellaneous unconsolidated sediments and Permian – Triassic granite deposits. There is also a Tertiary deposit of silcrete, silicified quartz sandstone in the north east of EPC 882. Maronghi Creek Beds occur in the north west of EPC 882 and contain Devonian – Carboniferous mudrock deposits. The southern end of EPC 882 contains areas of the Tarong Beds, which are Triassic deposits of sandstone, shale, coal and conglomerate, an area of Quaternary clay, silt and scree deposit, and Tertiary duricrust. The drainage lines within the project area are Quaternary alluvium deposits, including clay, silt, sand and gravel or alluvium floodplains (QLD Government, 2016b).

### 5.1.5 Soils

The soils of the region were surveyed in 2001 and the mapping indicates that within EPC 882 and MDL 385 the soils include ferrosol, vertosol, sodosol, chromosol, kurosol and kandosol (DNRM, 2001; QLD Government, 2016b). MDL 385 consists predominately of red ferrosol on mid-upper and mid-lower hill slopes, of firm red clay loam or light clay surfaces on hills or rises over deeply weathered basaltic material. EPC 882 is a larger area and consists of a range of soil types. The majority of the area is of similar soil type to MDL 385, consisting of red or brown ferrosol, throughout the central and western side of the tenement. This occurs on undulating rises to rolling hills on deeply weathered basaltic material. The north-eastern section of EPC 882 contains more vertosol soils, of dark or brown light to medium clay surfaces on hills or rises over basalt. Along the eastern side of EPC 882 the soil types include chromosol, sodosol, kurosol and kandosol, which are more sandy loam to sandy clay loam surfaces. The kandosol occurs on a hill crest or hill slope on older higher lying alluvium and tertiary sediments, whereas the other three soil types occur on low lying hills on granite.

The data available (QLD Government, 2016b) did not indicate that acid-sulphate soils were present in the area.

Detailed investigations into the preferred final location for the transport corridor has been undertaken, and advanced investigation will continue through the EIS process, with key attention to avoid primary agricultural lands and mitigate impacts where possible and strategic cropping lands, however equally these concerns and issues will also form a part of the final determination upon appropriate transportation method with regard to impact, social acceptance and over all economics of the project, as to the adherence with legislative provisions and requirements.

As the final preferred location of the potential transport corridor is determined, surveys, soil analysis and outcomes will be investigated however traditionally upon such abandon rail corridor's a high level of ballast and associated rock, stability control and compaction, negates any viable or useful cropping or agricultural soils, however this will be investigated.

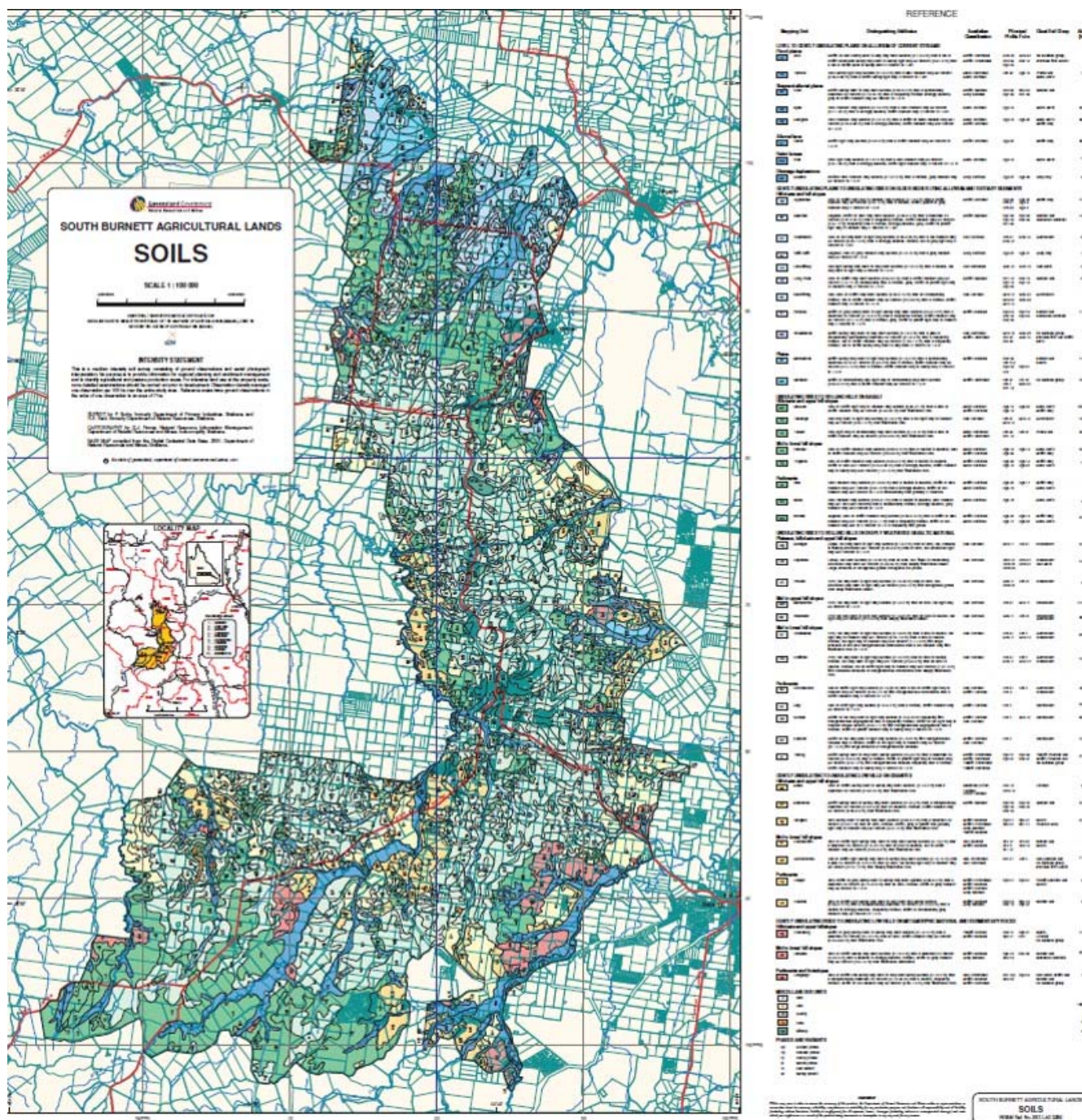


Figure 11: South Burnett Soils Classification (Refer Larger Copy in Appendix)

### 5.1.6 Surface Water

The proposed mine site project area and initial transport corridor starting point is within the Burnett Basin and drains into two sub-catchments, the Boyne River/Stuart River sub-catchment and the Barker Creek sub-catchment. The drainage of MDL 385 and the Northern section of EPC 882 drain northwards into the Boyne River/Stuart River sub-catchment. The streams of MDL 385 contain first, second, and third order streams of Kingaroy Creek flowing from the twin peaks on the western boundary. These streams are all highly modified by agricultural activities including impoundments (farm dams), grading, and diversion. The northern half of EPC 882 is drained by the north-flowing Kingaroy Creek, which flows through the centre of the tenement, and the Stuart River.



Whilst the Queensland Government Wetland Mapping indicates there are two Palustrine wetlands located in the centre and in the southern section of EPC 882, listed as a coastal or sub-coastal floodplain with grass, sedge and herb swamp. Both of these wetlands are MSES, listed as wetlands of high ecological significance however are not located in the area of interest for this IAS. Transport corridors will be assessed through the process of EIS in this area of concern, however minimal impact is foreseen due to considerable engineering practices and the prior existing corridors in situ.

### 5.1.7 Groundwater

Significant ground water assessments have been undertaken in a restricted area of the proposed mining operations since 2008 and in particular 2010. This included a Golders (2010) Groundwater Assessment and Impact Study, which summarizes the conceptual groundwater model (from deepest to shallowest) as follows:

- While two apparently different groundwater levels were being identified at the site, the degree of hydraulic connectivity between the upper and lower aquifer is likely to be variable, depending on the composition and thickness of the Intermediate Unit aquitard.

Groundwater draw-down associated with the ongoing removal of groundwater (at 0.6 L/s for two years) from the wells at a depth of 185–200 m below natural ground level (in the Kunoon coal seam). The model results are summarised by Golder (2010) as:

- The radius of significant draw-down (>0.5 m) is confined to within approximately 900 – 1,000 m radius of the test area.
- In a vertical direction the 0.5 m draw-down contour extends downwards to approximately 60 m into the underburden below the Kunoon seam, and upwards approximately 25 m into the confining clay.
- The 2 m draw-down contour extends upward just into the clay layer and downwards to just below the seam floor.
- The contours of draw-down after one year of recovery, that is one year after groundwater extraction ceased, shows only small residual draw-downs remaining predominately in the clay layer.
- The piezometric pressure in the upper aquifer (basalt aquifer) above the clay layer aquitard is largely unaffected by the groundwater abstraction from underlying the coal measures. Also through local knowledge and interaction it is believed there is a significant amount of ground water present and whilst mining operations will only seek to use a fraction of what is available, it is the dewatering and return of water to the natural systems that will be the focus of the operations.

The proposed transport corridor is seen as having nil adverse impact upon ground water, however slurry pipe options will require water to be used for the transportation process should this option be followed. Given the significant fall of 400m to a point of existing major infrastructure this would appear to be highly conducive to such a proposal and if so, water would be sort from existing catchments and ideally through a desalination process of sea water, or use of recycled water.

### 5.1.8 Air

The current air quality values within the Project area would be expected to be consistent with agricultural operations. The current mining and power generation operations south of the Project area, at Meandu Mine and the Tarong Power Station may also influence the air quality within the Project area. Associated data with these activities and that of the significant farming and agricultural pursuits will form the basis of any baseline investigations. The major sources of dust within the Project area are likely to be caused by agricultural practices, along with vehicle movement on gravel roads. The main source of dust emissions from any mining activity is expected to be wind erosion of the working area and vehicle movement on haul roads. Tarong power station manages their emissions through nitrogen oxide burners, and bag filters and electrostatic precipitators, which manages the ash and dust particulates of a Coal burn, however the site in this instance will be more concerned with fugitive dust, which is common in the region with cropping, major processing facilities etc within the region.

Information pertained from the Bureau of Meteorology for over 100 years' prior, indicates at this early stage limited wind drifts (less than 8% at an approximately 8 km hour) are apparent for built up areas, and as such monitoring and mitigation strategies will be considered throughout this process, however this is seen as manageable and able to be mitigated.

Relevant studies and assessment will be undertaken for the purpose of the potential multi use transport corridor including a potential slurry pipe line to assess any potential adverse affected upon air qualities or flows throughout the transport corridors. In addition to this detailed analysis will be undertaken around potential rail corridor coal dust issues and as such significant literature and general awareness has been within the industry for some time, including the Department of

### 5.1.9 Flora and vegetation

The area covered by the mine development has largely been cleared of natural vegetation with pockets of remnant vegetation and endangered regional ecosystems remaining. The Project area has some areas that are classified as regulated vegetation (Category B Remnant Vegetation). These Category B areas comprise of regional ecosystems described as either endangered, of concern, or least concern.



**Figure 12: Potential Mine Site Search Area**

**Table 1: Regional ecosystems mapped as occurring within or adjacent to the Project area (QLD Government, 2016b).**

RE ID	Short Description	Vegetation Management Act Class	Biodiversity status	Description	Structure Category	Total Area within MLA (ha)
<a href="#">12.5.1</a>	Open forest complex with <i>Corymbia citriodora</i> subsp. <i>variegata</i> on subcoastal remnant Tertiary surfaces. Usually deep red soils	Least concern	No concern at present	Woodland complex generally with <i>Corymbia trachyphloia</i> , <i>C. citriodora</i> subsp. <i>variegata</i> +/- <i>Eucalyptus crebra</i> , <i>E. longirostrata</i> , <i>C. intermedia</i> , <i>E. major</i> , <i>E. fibrosa</i> subsp. <i>fibrosa</i> (can be locally common) and <i>E. acmenoides</i> . Localised occurrences of <i>Eucalyptus taurina</i> , <i>E. decorticans</i> , <i>E. dura</i> , <i>E. cloeziana</i> and <i>E. melanoleuca</i> . Understorey grassy or shrubby. Occurs on remnant Tertiary surfaces, usually with deep red soils. (BVG1M: 10b. Vegetation communities in this regional ecosystem include:  12.5.1e: <i>Eucalyptus crebra</i> and <i>Angophora leiocarpa</i> +/- <i>Corymbia intermedia</i> , <i>E. longirostrata</i> , <i>E. major</i> , <i>E. tereticornis</i> , <i>E. acmenoides</i> or <i>E. portuensis</i> , <i>C. citriodora</i>	Mid-dense	
						1.312
						0.961
						<b>2.273</b>
<a href="#">12.5.13</a>	Microphyll to notophyll vine forest +/- <i>Araucaria cunninghamii</i> on remnant Tertiary surfaces	Endangered	Endangered	Microphyll to notophyll vine forest +/- <i>Araucaria cunninghamii</i> . Characteristic species include <i>Araucaria cunninghamii</i> , <i>Cupaniopsis parvifolia</i> , <i>Dendrocnide photinophylla</i> , <i>Rhodospaera rhodanthema</i> , <i>Flindersia australis</i> , <i>F. schottiana</i> , <i>F. xanthoxyla</i> , <i>Drypetes deplanchei</i> , <i>Olea paniculata</i> , <i>Diospyros geminata</i> , <i>Gossia bidwillii</i> ,  12.5.13a: Microphyll to notophyll vine forest +/- <i>Araucaria cunninghamii</i> . Characteristic species include <i>Araucaria cunninghamii</i> , <i>Cupaniopsis parvifolia</i> , <i>Dendrocnide photinophylla</i> , <i>Rhodospaera rhodanthema</i> , <i>Flindersia</i>	Dense	
						1.295
						1.759
						1.792
						<b>4.85</b>
<a href="#">12.9-10.3</a>	<i>Eucalyptus moluccana</i> open forest on sedimentary rocks	Of concern	Of concern	<i>Eucalyptus moluccana</i> +/- <i>Corymbia citriodora</i> subsp. <i>variegata</i> open forest. Other species include <i>Eucalyptus siderophloia</i> or <i>E. crebra</i> , <i>E. tereticornis</i> . Understorey generally sparse but can become shrubby in absence of fire. Occurs on Cainozoic and Mesozoic sediments, especially shales. Prefers lower slopes, (BVG1M: 13d)	Mid-dense	
						37.316
						2.15
						75.535
						12.672
						1.2
						<b>128.913</b>

The Queensland Wildlife Online database search (Appendix D) indicated that there are 3 endangered species, 3 vulnerable, 2 near threatened species and approximately 80 introduced plant species listed under the *Nature Conservation (NC) Act 1992* that occur within the search area. These are as follows:

- Endangered – *Pomaderris coomingalensis*; *Alectryon tomentosus* and *P. distans*;
- Vulnerable – *Paspalidium grandispiculatum*, *Denhamia parvifolia* and *Polianthion minutiflorum*; and
- Near Threatened – *Melaleuca groveana* and *Melaleuca formosa*.

A survey of flora and vegetation was undertaken in 2009 on a 120ha site located in the south-western corner of MDL 385 for Cougar Energy Limited (BAM, 2009). This study found a total of 85 flora species, 53 native and 32 exotic. None of the four threatened ecological communities or the flora species of conservation significance listed in the EPBC Act 1999 or NC Act 1992 searches were observed in the survey area. However, three invasive species were found within the survey area including; *Ambrosia artemisiifolia* (Annual Ragweed), *Lantana camara* (Lantana) and *Opuntia tomentosa* (Velvet Tree-pear).

As per the mine site considerations, the potential transport corridor will have a full flora and fauna investigation study undertaken with key mitigation outcomes and protection strategies put in place, for any identified issues pertaining to the rail corridor, and as highlighted above, such studies will assist in the final preferred alignment and delineation of such infrastructure.

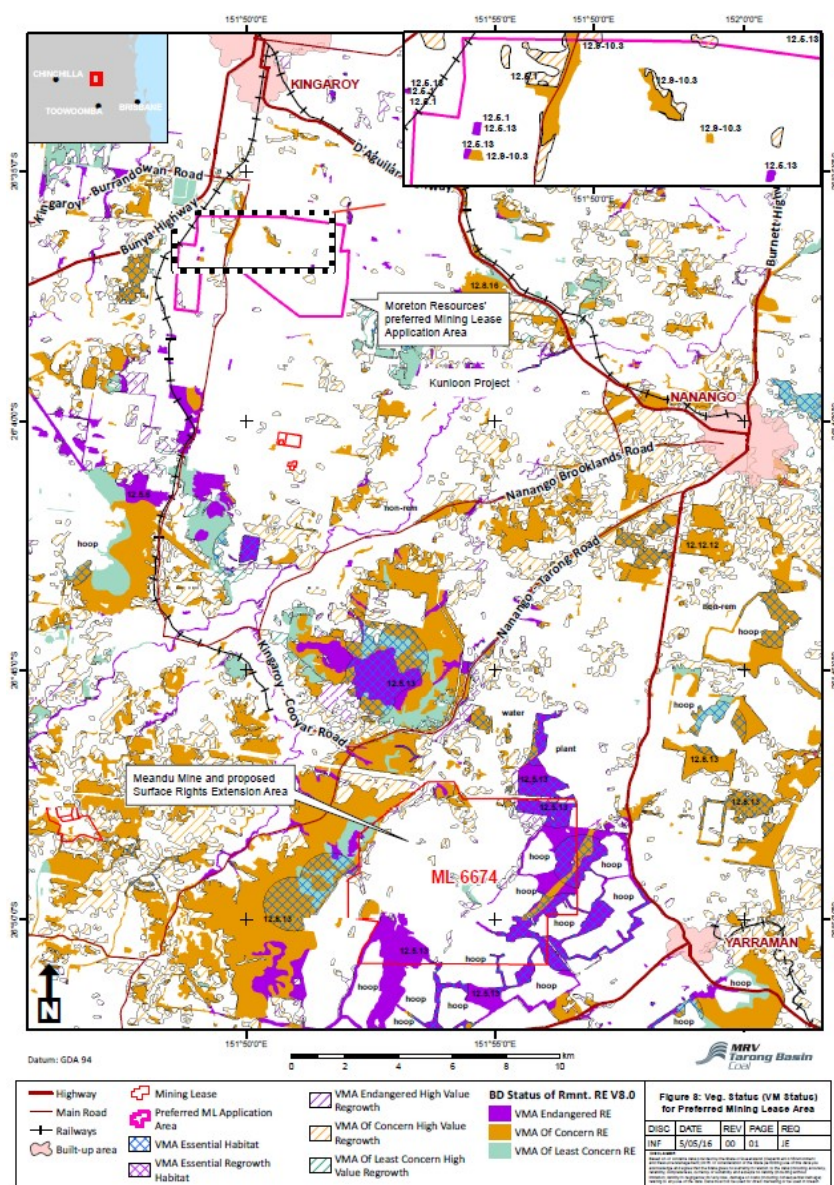


Figure 13: Vegetation Mapping (VM Status)



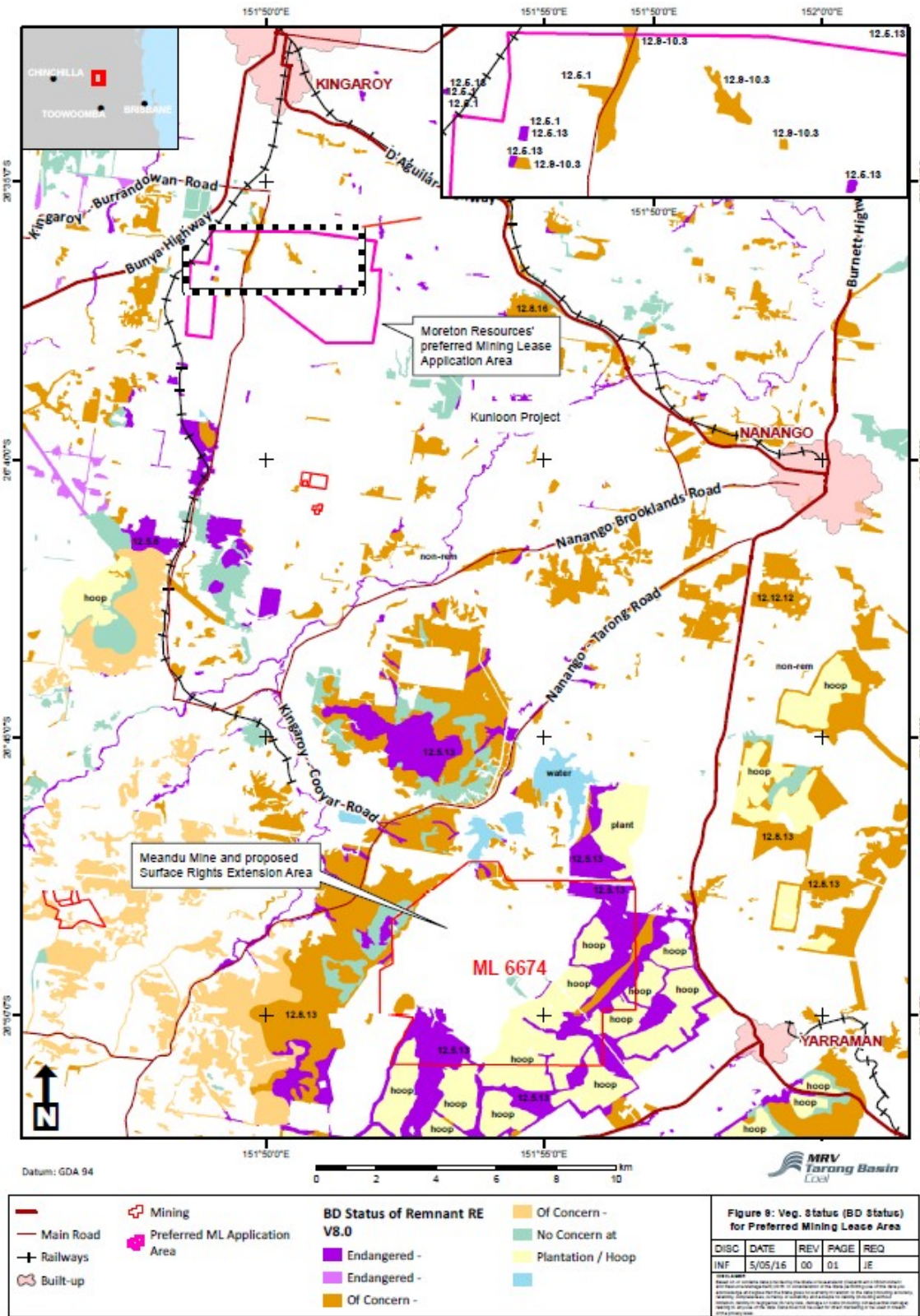


Figure 14: Vegetation Mapping (Biodiversity Status)



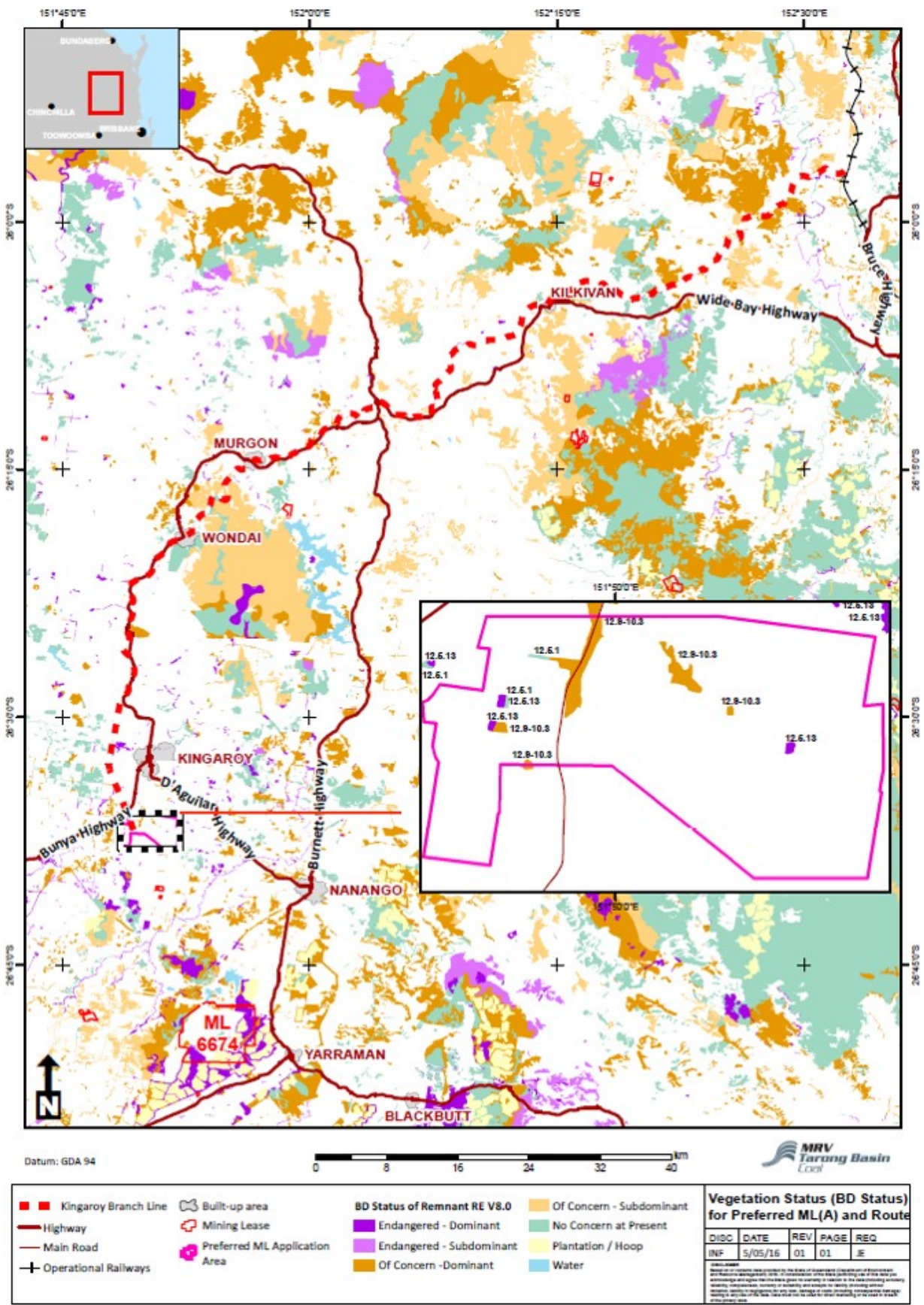


Figure 15: Potential Multi Use Transport Corridor (Biodiversity Status)



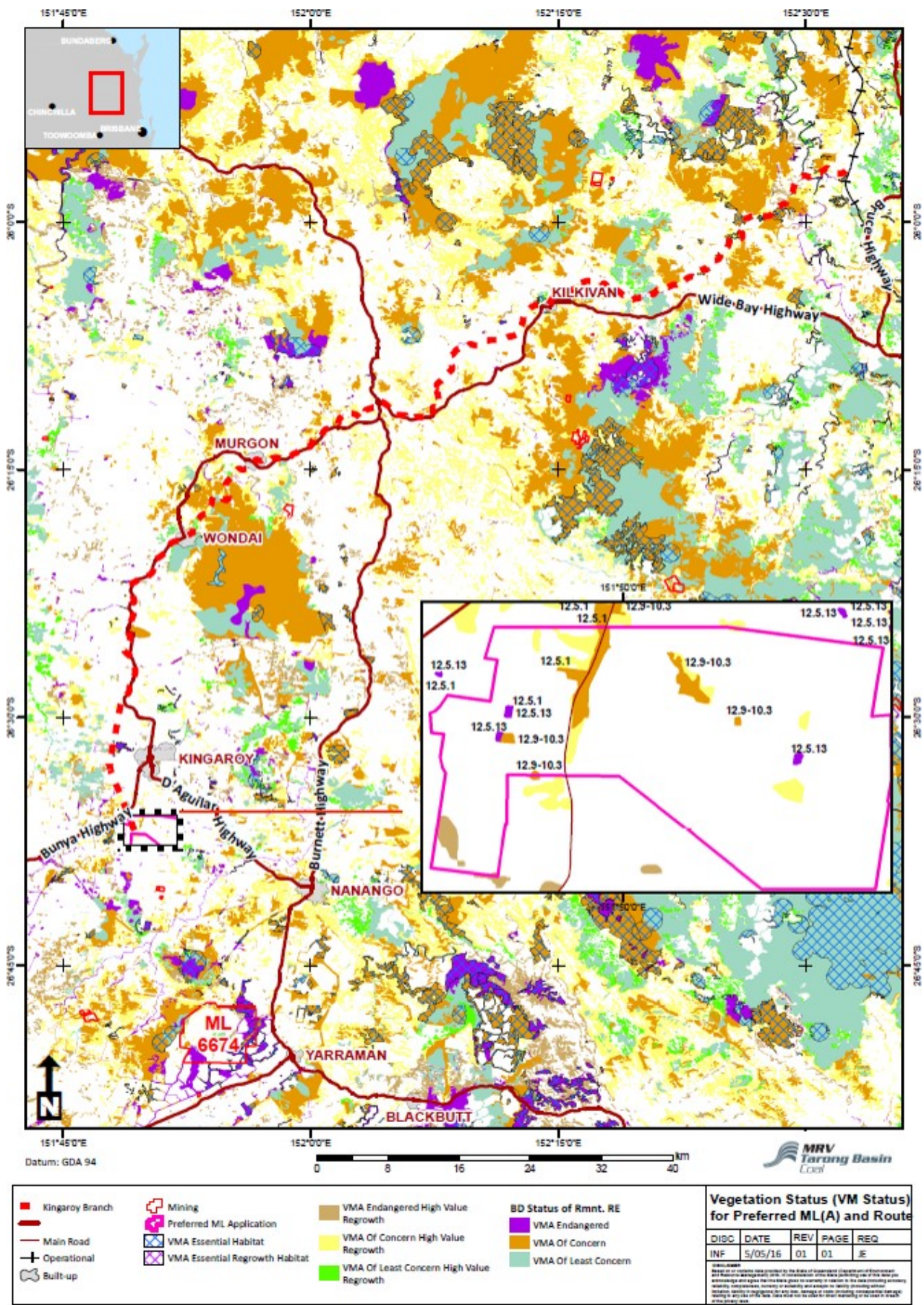


Figure 16: Transport Corridor (VM Status)

### 5.1.10 Fauna

A desktop Protected Matters Search under the EPBC Act 1999, was undertaken for the Mine Project area and the surrounding area and also that of the potential transport corridor. The Protected Matters Search for the potential mine site found the below indexed table, covering birds, mammals, reptiles and migratory species that could be within the area of the search. There are several species that are listed as known, or its habitat is known to occur within the areas that are listed as vulnerable or endangered, these include; Dunmall's snake, *Furina dunmalli* (Vulnerable); Australasian bittern, *Botaurus poiciloptilus* (Endangered); painted honeyeater, *Grantiella picta* (Vulnerable); black-breasted button-quail, *Turnix melanogaster* (Vulnerable); koala, *Phascolarctos cinereus* (Vulnerable); and the grey-headed flying fox, *Pteropus poliocephalus* (Vulnerable). The grey-headed flying fox and the black-breasted button-quail have been recorded within the regional area in previous surveys undertaken for Tarong Energy in 2006 (PB, 2006).

A search of Queensland's Wildlife Online database found four vulnerable fauna listed under the NC Act 1992 as occurring within the search area, these include; glossy black-cockatoo (eastern), *Calyptorhynchus lathami lathami*; squatter pigeon (southern subspecies), *Geophaps scripta scripta*; black-breasted button-quail, *T. melanogaster*; and the koala, *P. cinereus*.

A fauna survey was undertaken in 2009 on a 120ha site located in the south-western corner of MDL 385 for Cougar Energy Limited (BAM, 2009). There were 2 frog, 40 bird and 3 mammal species observed during the survey, of which, 42 are listed as of least concern under the NC Act 1992 and one migratory bird species listed under the EPBC Act 1999.

No species listed as critically endangered, endangered, near threatened, or vulnerable under the NC Act 1992 or the EPBC Act 1999, were observed in the survey area. This is consistent with recent ground truthing and area photo's given the parent company has operated in this direct area for the last 8 years.

Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
Apus pacificus - Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<b>Migratory Terrestrial Species</b>		
Cuculus optatus - Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
Hirundapus caudacutus - White-throated Needletail [682]		Species or species habitat likely to occur within area
Merops ornatus - Rainbow Bee-eater [670]		Species or species habitat may occur within area
Monarcha melanopsis- Black-faced Monarch [609]		Species or species habitat known to occur within area
Monarcha trivirgatus - Spectacled Monarch [610]		Species or species habitat may occur within area
Motacilla flava - Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca - Satin Flycatcher [612]		Species or species habitat known to occur within area
Rhipidura rufifrons - Rufous Fantail [592]		Species or species habitat likely to occur within area
<b>Migratory Wetlands Species</b>		
Ardea alba - Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis - Cattle Egret [59542]		Species or species habitat may occur within area
Gallinago hardwickii - Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Pandion haliaetus - Osprey [952]		Species or species habitat may occur within area



There are 22 threatened species or species habitat may occur within area.

Name	Status	Type of Presence
<b>Birds</b>		
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
Erythrotriorchis radiates Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Lathamus discolor Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
<b>Mammals</b>		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
Dasyurus hallucatus Northern Quoll [331]	Endangered	Species or species habitat likely to occur within area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<b>Plants</b>		
Bertya opposens [13792]	Vulnerable	Species or species habitat likely to occur within area
Denhamia parvifolia Small-leaved Denhamia [18106]	Vulnerable	Species or species habitat likely to occur within area
Haloragis exalata subsp. Velutina Tall Velvet Sea-berry [16839]	Vulnerable	Species or species habitat may occur within area

Phebalium distans Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat likely to occur within area
Polianthion minutiflorum [82772]	Vulnerable	Species or species habitat likely to occur within area
Thesium austral Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
<b>Reptiles</b>		
Delma torquate Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
Egernia rugose Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area

In addition, as clearer delineation of the potential multi-use transport corridor is established these consideration and studies which will be undertaken for that area will be articulated and well defined. The Company has undertaken EBPC protect matters Act report pertaining to the Northern transport corridor, which is within the appendix of this document. All matters of concern are clearly identified and will be addressed through the due process of an Environmental Impact Assessment

## 5.2 Social and economic environment

The region is well serviced by considerable education, health services, recreation and emergency services having experienced rapid growth and development in early years when the existing mining operations and Power Generation infrastructure was built and commissioned. Since this time the overall employment impact of these operations has diminished and the region has continued to grow, all be it currently facing tougher economic times. The proposed project would not only have significant positive impact upon employment, education and overall economic outcomes across the business sector, but also the project sees a direct contribution to the standards of health care and emergency services available to the region. The proponent seeks to have a partnership approach to service provision, equipment and general resources not only for the operations but also the broader community in these key areas.

Should such a project progress and the anticipated 600 jobs during the construction stage and 500 plus operational with secondary employment be realised, the overall impact on the region will be significant in growth and economic impact, it is anticipated that at least half of these direct numbers would be relocated into the region and that could potentially bring a population increase of approx. 3-5% to the region, and offer locally significant jobs directly and indirectly of approx. 600-plus though out the region. Whilst this would put pressure on housing, education and health care, equally it would also allow the region to justify considerable additional services and support given the growth, economic wealth and development of such a region, which has suffered from declining land prices, jobs market and reduced growth.

The proponent seeks to work with not only the Regional Council but also critical State support services, as this project will be a significant enabler on the next phase of economic growth for the South Burnett Region. Upon the convers of such impacts, the Company has taken a regional approach from Cherbourg through to Blackbutt, across to Maidenwell as the catchment for staff and services, and equally will seek to generate roster patterns and work practices that support residential locality in these townships as well as those within closer proximity of the project.

Whilst the region is well serviced by considerable public and private schooling, additional influx of families into the region will need to be considered in both the public and private sectors, and as such the proponent will need to work with State and Local Government upon any advancement activities and staged, responsible growth and impacts.

### 5.2.1 Accommodation and housing

Generally located within the South Burnett Regional Council, the Project may also include areas within Toowoomba Regional Council due to the overall catchment area that the Proponent is seeking to influence, for employment, service and economic benefit. The nearest towns to the mine site component of the Project include Taabinga, approximately 2.5 km west; Kingaroy, approximately 6 km north, Nanango, approximately 17 south-east. The region also includes influences from the Meandu mine and Tarong power station approximately 18-20 km south (Figure 1).

Historically, the social and economic environment of the Project area has been supported by primary production and services typically provided within full service towns, such as Kingaroy (South Burnett Regional Council, 2016).

The Australian Bureau of Statistics (ABS) (2016) indicates the region supports approximately 32,500 people, with the five largest employment sectors in the region currently being health care and social assistance (12.3%); retail trade (12.2%); agriculture, forestry and fishing (11.6%); manufacturing (9.9%); and, education and training (9.1%). Mining currently employs 4% of the population (ABS, 2016).

Specific information regarding housing and accommodation in the region is not yet known, but will be undertaken as part of a detail analysis as will the construction impact upon the potential transport corridor to those between Kingaroy and the North Coast Rail Line. What is apparent within the Blackbutt through to Cherbourg and across to Maidenwell areas, is that considerable rentals and land is available, as to the median house and land prices has declined, suggesting an existing availability of accommodation across the region, which will be strategically planned and managed by the project operations.

### 5.2.2 Non-Indigenous Cultural Heritage

A search was undertaken of the *Queensland Heritage Register* (DEHP, 2016b) and the *National Heritage List* (DoE, 2016b). There were no sites of cultural significance identified within the Project area including along the proposed transport corridor. The nearest sites are within the town of Kingaroy.

Schedule 6 of the *Kingaroy Shire Council IPA Planning Scheme* also lists non-indigenous cultural heritage sites. The nearest site listed is:

- 'Bethany', 218 Peterson Drive, Taabinga.

### 5.2.3 Indigenous cultural heritage

A Cultural Heritage Management Plan (CHMP) was signed by the Proponent and the Wakka Wakka group in 2010 for MDL 385. A broader agreement has been finalised with this claimant group for the activities of mining which was agreed and registered in April of 2016, and it is the same claimant group, to which the Company will seek further agreements pertaining to the transportation corridors. The company believes it has a good working relationship with the claimant group having regard to achieving majority Consent from the Wakka Wakka People, holding claim no. 5 pertaining to the mine site.

### 5.2.4 Native title

The current native title claimant for the proposed area and surrounds is the Wakka Wakka People # 5 claimant (FC 93/2012, Tribunal No. QC2012/004). The claim has been accepted for registration. As such, Wakka Wakka #5 will be the native title party for negotiations as to in regard to the Kilkivan area, the Kabi Kabi First Nation Claimants, have an accepted registration for claims over the Kilkivan region, and the company will also seek to negotiate with this group also.

A search was undertaken on MinesOnline (accessed 19/04/2016) for existing Indigenous Land Use Agreements (ILUAs) and for Native Title claims both at application and determined stages. The results (Appendix E) indicate there is a small area overlapping a small land parcel located in the northeast of the MDL 385, Lot 1 on Plan AP3812. Further investigation will be required to determine whether native title has been extinguished on this parcel of land as it is understood MDL 385 was granted in 2009 under the 'exclusive land' native title category as it is "freehold" Land. It is understood that under the *Commonwealth Native Title Act 1993* the valid grant of a freehold estate (other than certain types of Aboriginal and Torres

Strait Islander land) on or before 23 December 1996 is known as a 'previous exclusive possession act' (National Native Title Tribunal (2016). This generally means that native title has been extinguished (National Native Title Tribunal (2016).

In addition to this EPC 882 was granted in 2004 and granted as 'native title excluded'. This means that less than 10 % of the tenement area is land that may be subject to native title and is excluded from the permit area (Department on Natural Resources and Mines, 2012). Areas where land may be subject to the native title claim include Stuart River and some isolated land parcels.

Whilst the transportation corridor will make its way through a variety of areas and over approx. 140km of land this is in the main covered by the Wakka Wakka People # 5 claimant (FC 93/2012, Tribunal No. QC2012/004) to whom the Company has already secured a CHMP with pertaining to the potential mining and associated areas. The Kabi Kabi First Nation Claimants have established a registration for the areas pertaining to Kilkivan and are awaiting determination.

However, the Company's underlying and well publicised commitment to open and transparent dealing, with a specific belief in the social benefit and advancement of the native title claimants but more broadly indigenous Australians across the board, will assist in advancing our negotiation and the final outcomes.

### **5.3 Built environment**

The built environment within the project areas of the mine site is open fields and minor roads with a State based road intersect. Surrounding that area, the impact area includes; towns, highways and road infrastructure, energy infrastructure (including power lines and the Tarong power station), and a number of mines (including Meandu coal mine and multiple quarries). The area is also serviced by the Kingaroy airport, also known as Sir Joh Bjelke-Petersen Airport. The Kingaroy airport is mostly serviced by charter flights to the far west gasfields of Queensland and has an active gliding club. Within the region the townships of Nanango, Kingaroy, Yarraman, Blackbut, Maidenwell, Wondia, Murgan and Cherbourg and several others that make up a regional population of some 36,000 residents.

Thought-out the transportation corridor there are smaller regional towns and industries to which where possible the project will seek to avoid and ensure limited interaction with the built environment however this will be designed and a final proposal put forward as part of the ongoing works in this area.

### **5.4 Traffic and transport**

The Project area is serviced by all-weather bituminised roads. Roads likely to be utilised during construction and subsequently during operation principally include:

- D'Aguilar Highway;
- Bunya Highway;
- Petersen Drive; and
- Kingaroy-Cooyar Road.

No traffic studies or modelling have been undertaken to date.

### **5.5 Planning instruments, government policies**

The Kingaroy Shire Planning Scheme and Gympie Regional Council Planning Scheme are statutory instrument in force under the provisions of the Sustainable Planning Act 2009. In general, mining projects do not meet the definition of development, and hence do not require assessment against the planning scheme or other provisions of the Sustainable Planning Act 2009. However, there may be off-lease project components and other matters set out in the planning scheme that should be considered in the planning, design and approvals for the project. Whilst it is not anticipated that we will directly impact the areas under management by the Cherbourg Aboriginal Shire Council, the proponent will also ensure direct and constant engagement with this entity also.

The mine site project area is zoned as rural. The planning scheme identifies the Mining Tenure associated with the Kunioon project (MDL 201) and also identifies the coal resources located to the north of MDL 201, which are the subject of this IAS.



The planning scheme also maps the Inner Horizontal Surface Footprint and the Approach and Take-off Surface Footprint for Kingaroy airport.

The relevant Local Government Planning Schemes being administered in the Project area are:

- Kingaroy Shire Planning Scheme
- Toowoomba Regional Council Planning Scheme
- Gympie Regional Council Planning Scheme

The following State, local and regional planning instruments, policies, plans and guidelines may apply to the Project and will be addressed in the EIS:

- Wide Bay Regional Plan
- Darling Downs Regional Plan
- State Planning Policy (SPP) 2/12 Planning For Prosperity
- SPP 4/11 Protection of Queensland's Strategic Cropping Land
- SPP 5/10 Air, Noise and Hazardous Materials
- SPP 1/03 Mitigating the Adverse Impacts of Flood, Bushfire and Landslide
- SPP 1/92 Development and the Conservation of Agricultural Land
- Environmental Offsets Policy 2008
- Environmental Protection (Air) Policy 2008
- Environmental Protection (Water) Policy 2009
- Environmental Protection (Waste Management) Policy 2000
- Environmental Protection (Noise) Policy 2008.

The following Federal policies and strategies may apply to the Project and will be addressed in the EIS:

- National Water Quality Management Strategy;
- EBPC Act Environmental Offsets Policy (October 2012);
- Commonwealth Environment Protection and Biodiversity Conservation Act 1999 Wide Bay Regional Plan;

The following Commonwealth policies and strategies may apply to the Project and will be addressed in the EIS:

- National Water Quality Management Strategy; and
- EBPC Act Environmental Offsets Policy.

Consultation throughout the environmental impact assessment and more broadly the total project, will be undertaken with the South Burnett Regional Council, Cherbourg Aboriginal Council and the Gympie Regional Council.

## 6 Potential Project Impacts

Mine site operations, including infrastructure construction, dust management, lighting controls, and blasting operations will be conducted in accordance with local regulations and in conjunction with the airport authorities to prevent disruption. All aspects of the potential project impacts will be evaluated in detail and addressed at the EIS stage of the project. However, all MRV Tarong Basin Coal's construction, operating and progressive rehabilitation activities will be closely monitored and controlled throughout the life of the project to stay within the nationally adopted guidelines and a specific environmental authority.

MRV Tarong Basin Coal has assumed the following mine development schedule:

- 2016 - Completion of technical data collection and start of environment/social and approvals process
- 2017 - Completion of technical studies and continuation with social and environment approvals process
- 2018 - Completion of environment and social approvals process and infrastructure build commencing
- 2019 - Construction and mine establishment, commencing mine production in late 2019 - 2020
- 2020 – Production
- 2050 – Mine Closure

The proponent throughout this process will increase the level of land disturbance through civil works and progress activities. In total, the Mining Licence Application will seek to cover 2,500ha, with a mine footprint of approx. 400-800ha in total, which in approximately 2018, will undergo associated civil works and construction of support services such as dams, water channels, water discharge, buildings for admin and support services, associated roads and other support infrastructure. This will also include the advancement of mining activities in 2019 that will remove bulk of top soils and overburden strata to access the first Coal seam deposit at approximate depth of 40-60m.

Throughout 2018 and 2019, it is expected that transport corridors will need to be developed and constructed for access to port or domestic customers, and as such a large construction project in parallel to the mine site activities will need to be advanced.

Following the 2018-2020 Construction and commissioning, the operations will seek to mine between 8-10Mt each year for approximately. 25-30 years of operation. Progressive rehabilitation programs are intended to be run, including the back filling of operational areas as the pit advances from approximately year 4-5, which will allow overburden to be dumped in pit and the above areas rehabilitated to a native vegetation state, as the mine progresses. Issues such as light, noise, dust, water use, and many other regulatory and legislated issues will be attended to by site management and review. Over and above this, the proponent will continue to advance process of the best practices in the area, continue to mitigate above and beyond any legislative requirements for the operations, be it the mining operations or transport corridor.

As outlined throughout this proposal, the development of a potentially (Although slurry pipe is being considered) significant piece of economic enabling infrastructure by way of rail, which would open up the South Burnett and inland coastal region to major transport solution options, will also be determined and the impacts identified and mitigated throughout not only construction but also operation. As outline this is a potentially 130.8km piece of infrastructure that will seek to utilise existing corridors if possible or realign, however the proponent will work with the associated land holder and relevant stakeholders.

Rehabilitation activities are yet to be fully planned; however, in addition to progressive rehabilitations there will be staged demolition, demobilisation, earth works and return of the entire area to either pastoral, cropping or native vegetation lands, which are expected to be finalised within 3-5 years from cessation of mining operations. It is not envisaged that the transport corridor would be rehabilitated, as it is seen as potentially a key piece of the regional infrastructure should the rail option be elected.

6.1 MNEW under the EPBC Act

The following information is extracted from the Government data, from a search upon Protected Matters.

No EPBC controlling provisions have been identified using Protected Matters Search within and in vicinity of the proposed project area, see Error!  
Reference source not found.

Figure 17: Protected Matters search

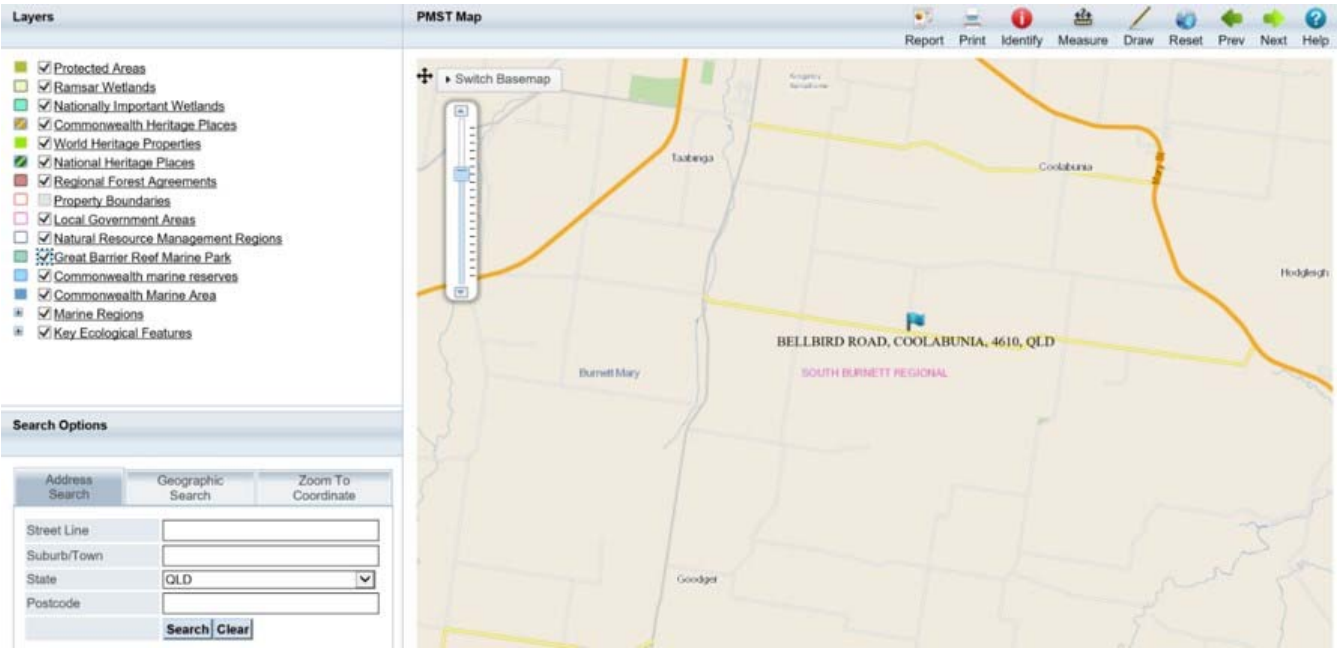


Figure 17: Protected Matters search for Mine

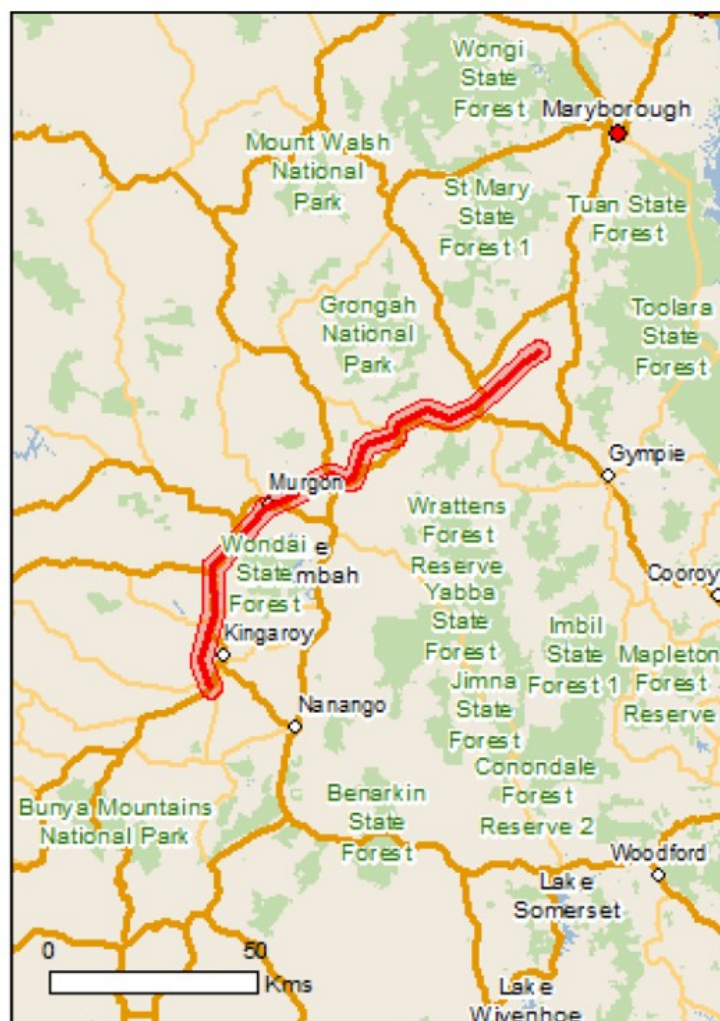


Figure 18: Protected Matters search for Transport Corridors



## 7 Environmental management and mitigation measures

The proponent intends to operate in accordance with relevant State and Federal environmental legislation, as well as site specific environmental licences, permits and statutory authorisations. The Company has published an environmental management, health and safety policy, dated June 2015. The environment aspects of the policy are extracted below.

The Board recognises the value of environmental responsibility and is committed to continual improvement, prevention of pollution and optimisation of resource consumption.

Personnel must use all reasonable endeavours to:

- a) achieve compliance with all environment related legal and regulatory requirements;
- b) integrate sound environmental practices and compliance in their operations and decision making in consideration of the potential impacts of their activities on the environment;
- c) adopt cost-effective practices to identify potential environmental risks and eliminate, minimise or mitigate environmental impacts;
- d) identify all material environmental risks and comply with appropriate risk management processes that are in place;
- e) comply with environmental related contingency planning processes within the Group; and
- f) cooperate with subsequent investigations and remedial actions.

The proponent has published the following commitment to environment performance:

Our commitment to sustainability, through contemporary and highly legislated mining practices, backed up by basic fundamental ethics at a Board and Senior Management level, make for a dynamic but highly accountable company, which has the clear vision of being an Australian based operator. We believe through partnering with local communities, we can develop sustainable operations which co-exist with communities, environment, Government and others.

### 7.1 Natural environment

The proponent is committed to undertaking activities associated with the Project in adherence with legislation. Furthermore, we commit to conduct operations in an environmentally responsible manner, and intend to implement fit for purpose and best practice environmental management as part of a program of continuous improvement. Environmental management will apply throughout the life of the Project from design through to planning approval, construction, and operational stages.

#### Advancement and Construction stage

The construction phase of the Project to be undertaken by skilled, qualified and professional service proponents involves site clearing and segregation, earth and civil works, erection of steel work and onsite buildings, installation of machinery and equipment. In addition to this, a site wide management framework and process must be instigated and followed from day one of the physical project.

Throughout the construction phase, processes and standards will be put in place to ensure that environmental risks are minimised. All procured and supplied materials and practices will be in accordance with relevant Australian and/or international standards.

#### Operational Mining Stage

When the operational stage is commenced, it is highly likely that operations will be undertaken on a continuous 24 hours per day, 365 days per year basis with periodic scheduled shutdowns for routine preventative maintenance. The onsite requirements for support services, consumables and stocks are sort to be kept to a minimum, with the proponent intending to house MRV Tarong Basin Coal Pty Ltd's corporate support services locally, and therefore rely upon offsite support for an array of services such as technical and mechanical engineering. Noise and emissions control equipment will be installed on the site and within concentric circles of expected influence from the site to ensure noise and air quality limits are achieved at sensitive receptors.

### **Transportation Schedules**

The transportation schedules and impacts for this export operation are yet to be determined and as such will be detailed and reviewed through the EIS process, ensuring that all potential impacts are assessed and mitigated.

### **Monitoring and Achievement of Regulated Standards**

The proponent will follow a comprehensive environmental monitoring program to measure and record project-specific environmental performance that as a matter of due course will dictate daily operations and also be open to the regulators at any stage. Key aspects such as vegetation clearing, and the release of contaminants, discharges and incidents will also be well recorded, reported, and followed-up by the relevant onsite operational supervision and through the corporate processes also.

### **Decommissioning and Remediation**

Through its detailed Pre-Feasibility Study, the proponent has set to undertake progressive rehabilitation and to seek to minimize the ongoing impact of operations. Therefore, the final decommissioning and remediation process is projected to be shorter, of less impact, and produce greater outcomes of returning the site to its former use or to aspirational outcomes of Native Vegetation.

Full scale planning of the decommissioning is yet to be determined at this early stage; however, decommissioning will be undertaken in accordance with accepted industry practices, stakeholder and regulatory requirements of the day.

## **7.2 Built environment**

The proponent has for approximately 24 months, been undertaking consultation with stakeholders (including landholders) and will apply accepted industry practices in regard to advancement of the proponent's activities, ensuring to avoid, minimise and/or manage the potential adverse impacts to the likes of any community amenities, local housing and other social values. This includes such assets and infrastructure as state and local roads, potential rail corridors, and all potentially affected third-party infrastructure, which may result from the mining activities.

Detailed planning and forecasting tools will be used to address the potential impacts on community amenities within the local townships in order to gain a clear strategy for an entire South Burnett project, that will run supportive roster and planning schedules, which will try to maintain a local focus on all operational activities.

A detailed road impact assessment will be undertaken to determine specific impacts of associated project activities on state controlled roads and local roads under the jurisdiction of the Department of Main Roads and the various local government authorities respectively. This also includes any proposed transportation corridors. The outcome of these considerations will allow for the development of appropriately targeted mitigation measures that will be required, and will also outline the required approval levels and stages for such impacts to take place.

## **7.3 Cultural heritage management plan (Indigenous)**

The *Aboriginal Cultural Heritage Act 2003* establishes a 'cultural heritage duty of care', which requires that a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage. The Act establishes a framework for the conduct of assessment of cultural heritage impact and processes to be undertaken in preparing CHMPs. The Act states that where an EIS is required under a legislative framework, then a CHMP must be prepared to manage all aspects of cultural heritage for the construction and operation of the project.

The proponent has a CHMP with the associated Traditional Owner Group, and will seek to expand that agreement to encompass the transport corridor.

## 7.4 Non-indigenous cultural heritage management

As the proponent has identified earlier, there are aspects that must be considered and catered for in the region which are:

Nearest item on the Queensland Heritage Register:

- Taabinga Homestead, 7 Old Taabinga Road.

Nearest items on the Kingaroy Shire Planning Scheme - Schedule 6 – Non-Indigenous Cultural Heritage:

- Taabinga Homestead, 7 Old Taabinga Road, Taabinga.
- ‘Bethany’, 218 Peterson Drive, Taabinga.

The Taabinga Homestead is also listed on the Register of the National Estate and National Trust of Queensland.

These areas will be managed and taken into account as to ensure legislative compliance, as well as the commitment to ensure the intended value and nature of such listings is not harmed.

## 7.5 Greenhouse gas management plan

A review of the potential greenhouse gas emissions and air quality impacts will be undertaken during the EIS process. As a result, a greenhouse gas management plan will be prepared.

## 7.6 Waste management

The proponent will be required through the EIS phase to address such issues, and as such will work to ensure that environmental, project, and operational waste is considered. This includes the introduction and adoption of industry leading practice such as a waste management hierarchy of avoidance, reduction, reuse, recycling, recovery, treatment and disposal.

However, overburden and thick interburden has been further considered in order to fully understand potential impacts. Waste rock will be initially used for construction activities, haul road construction, to construct large visual amenity bunds to screen the operation from local residential areas and roads, as well as to construct noise bunds to provide a barrier for noise from the operation impacting upon local residents. Remaining waste rock will be stored in two ex-pit waste dumps to the north east and south east of the pit. Once pit void is available, waste rock will be directed to in-pit dumps, which will progress from the pit edge on the south-west of the pit.

Minor use of ex-pit dumps will still be required when insufficient pit void is available. However, outer faces of the ex-pit waste dumps will be progressively rehabilitated as soon as practical to enable mine closure trials to be established. Ex-pit waste dump space is limited by lease boundaries, local roads, and extensions to the coal seam.

Other wastes that would be produced during the operations phase including green waste, batteries, general waste (e.g. paper, cans cardboard), scrap metal, tyres, water treatment plant waste and other reject waste will be comprehensively managed in accordance with the waste management plan which will be developed at the EIS stage of the project. These plans will work toward the industry best practice approach mentioned above.

## 7.7 Hazard and risk, and health and safety

The major risks to the Project have been summarised in the recently completed prefeasibility study. However, a more comprehensive Hazard and risk assessment will be conducted at the detailed design stage of the project to provide necessary inputs for the Environmental Health and Safety management plan and procedures.

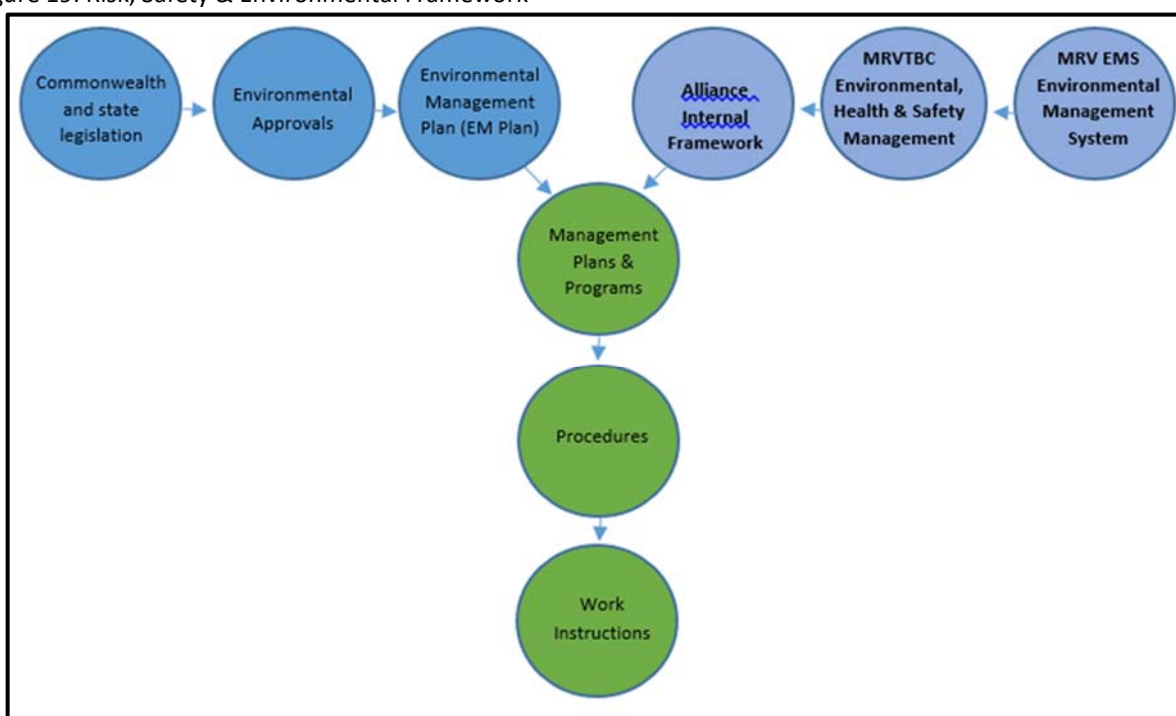
At a minimum, the Company will comply at all times to regulatory frame works, requirements, standards and suggested guidelines in operations and the transportation of Coal products. However, the Company also seeks to improve upon those implied or regulated standards, having the benefit of potentially operating in a highly regulated and historic practice of Coal extraction. The Company also has clearly stated objectives, values and operating ethos in this regard, all of which are displayed upon its corporate and project web site.

## 7.8 Environmental management

The proponent will ensure that an appropriate hierarchy of environmental management is in place, which looks to avoid, minimize, manage, remediate, rehabilitate and/or offset any impacts from MRV Tarong Basin Coal Pty Ltd. Further to this, a variety of health, safety and environmental management systems, e.g. ISO 14001, EP Act and other construction and operational environmental management plans will be in place.

The Company has published an environmental management, health and safety policy, dated June 2015. The below is the overlay that will be in place for the proposed operations and transportation corridors, and as such will be a robust and complete concept of environmental management.

Figure 19: Risk, Safety & Environmental Framework



The risk-based approach proposed for the EIS process provides a structured methodology to assessing potential and likely impacts resulting from the Project, and subsequently to the development of management and mitigation measures. The methodology provides an accountability and justification for decisions made. The following section provides an overview of potential management and mitigation strategies that can be refined during the EIS process and implemented during future stages of the project.

One of the benefits of a risk-based approach is that as further information becomes available, the structured and defined methodology provides clear guidance and justification for modifications to the outcomes of the assessment, including proposed management and mitigation measures.

The Proponent is committed to implementing fit for purpose and best practice environmental management as part of a program of continuous improvement during the construction, operation and closure of the mine. An equivalent approach will be undertaken for transport corridors. Environmental management will be specific to the following phases of the Project:



- Construction – Prior to construction commencing, a construction environmental management (CEMP) plan will be prepared detailing environmental management objectives, actions and targeted outcomes. The CEMP will also provide a mechanism for reporting and auditing of environmental management. Key environmental management and mitigation will include:

- Minimise clearing of flora and vegetation through design and construction methodologies;
- Minimise impact to fauna through minimisation of flora and vegetation clearing;
- Implement best practise or investigate new techniques for soil management to assist in rehabilitation management;
- Develop and implement erosion and sediment control to manage soils and surface water quality;
- Manage potentially contaminating activities through defined processes and procedures to minimise the risk of contamination at the site; and
- Minimise waste generation through design and procurement;

- Operation - Prior to construction commencing, an operational environmental management (OEMP) plan will be prepared detailing environmental management objectives, actions and targeted outcomes during operational activities. The OEMP will also provide a mechanism for reporting and auditing of environmental management. Key environmental management and mitigation will include:

- Manage clearing activities through mine planning and rehabilitation to minimise the area of cleared/unrehabilitated areas of native vegetation with the objective to only clear areas necessary for the operation of the mine and transport corridors;
- Minimise impact to fauna through minimisation of flora and vegetation clearing;
- Prepare a rehabilitation management plan during mine planning to ensure rehabilitation can be undertaken progressively throughout the life of the Project. The rehabilitation management plan should include, at a minimum, vegetation, soils, surface water/drainage and landform;
- Implement a continual improvement approach to environmental management, including the improvement of greenhouse gas emissions throughout the life of the Project;
- Implement on-going monitoring at the Project. This may include surface and groundwater monitoring, air quality monitoring and rehabilitation monitoring;
- Implement best practise or investigate new techniques for soil management to assist in rehabilitation management;
- Develop and implement erosion and sediment control to manage soils and surface water quality;
- Manage potentially contaminating activities through defined processes and procedures to minimise the risk of contamination at the site; and
- Minimise waste generation through operational planning;

- Closure

- Prepare and implement a remediation management plan;
- Continue implementation of the rehabilitation management plan; and
- Continue long-term monitoring until the agreed timeframe has been reached.

These management and mitigation measures will be expanded during the EIS process and refined based on the outcomes of EIS studies which will assist in determining the level of impact and the management and mitigation response required. This pertains to the Mining and Transportation options.

## 8 Approvals required for the project

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The project will require a large number of statutory approvals prior to the commencement of construction (and subsequently operational) activities, including both Commonwealth and State approvals. These are outlined in **Table 2**.

**Table 2: Potential regulatory and administrative Approvals required for the project**

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The project will require a large number of statutory approvals prior to the commencement of construction (and subsequently operational) activities, including both Commonwealth and State approvals. These are outlined in **Table 2**.



Table 3: Potential regulatory and administrative approvals for the Project

Commonwealth Legislation	Administering Authority	Approval Trigger	Approval Type	Relevance to Project
Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Department of Sustainability, Environment, Water, Population and Communities	Action which has, or is likely to have, a significant impact on a Matter of National Environmental Significance.	Referral to DSEWPC for determination of “controlled action” status	Potential impacts on MNES must be dealt with in EIS
Native Title Act 1993	The Attorney-General’s Department and Minister for Families, Housing, Community Services and Indigenous Affairs	Project falls on land where Native Title has not been extinguished potentially in a minor area, but must be considered	Agreements and/or cultural heritage management plans in place with respective claimant groups	Covered by one native Title Claimant Group
Energy Efficiency Opportunities Act 2006	Department of Resources, Energy and Tourism	Assess energy reduction opportunities & minimise energy use	Annual report required once project approved	Requirements of the Act need to be addressed

State Legislation	Administering Authority	Approval Trigger	Approval Type	Relevance to Project
Minerals Act 1989	Department of Natural Resources and Mines	Lodgement of Lease application for mining and mining related activities	Granting of Mining Licence	Mining cannot commence until ML is granted
<i>State Development and Public Works Organisation Act 1971</i> (SDPWO Act)	General, Department of State Development, Infrastructure and Planning (DSDIP)	Proponents of a project which meets the significant project criteria.	Significant project declaration	The proponent believes the Project meets the requirements to have the project declared a significant project, for example, employment opportunities during construction and operation, capital investment, interaction with multiple agencies and potential economic benefit to the region.
Environmental Protection Act 1994 (EP Act)	Department of Environment and Heritage Protection.	The Project involves Mineral Development Activities which require an environmental authority to be issued prior to any activity commencing. Section 310S allows for the amendment of an existing environmental authority.	Environmental Authority (Chapter 5A activity)	Chapter 5A activities for the Project will require either a new or amended environmental authority (Chapter 5A activity)
<i>Regional Planning Interests Act 2014</i>	Department of Natural Resources and Mines	Any resource activities that will have a permanent or temporary impact on Strategic Cropping Land or potential Strategic Cropping Land must be assessed under the Act.	Identifies areas of Queensland that are of regional interest because they contribute, or are likely to contribute, to Queensland’s economic, social and environmental prosperity.	Strategic Cropping Land is mapped throughout the Project area. Where the impact is temporary in nature and relatively low risk of adversely impacting on Strategic Cropping Land approval is required.
Sustainable Planning Act 2009 (SP Act)	DSDIP Relevant local government authority Relevant referral and advice agencies (such as DEHP, DNRM, etc)	Development approvals may be required for: <ul style="list-style-type: none"> <li>Material change of use</li> <li>Operational works</li> <li>Building works</li> </ul>	A development approval is required if a development is considered to be assessable development under the SP Act.	Development approvals may be required for certain Project activities, located on or off mining tenements, which constitute assessable development under the SP Act. Any ancillary development not occurring off

		<ul style="list-style-type: none"> <li>Plumbing and drainage works</li> </ul> <p>Reconfiguring a lot</p>		tenement will require assessment against the relevant planning scheme (e.g. sewage treatment plant, power/communications, utilities off tenement, beneficial use infrastructure, and transport corridors).
Water Act 2000	Department of Natural Resources and Mines	Required to take or interfere with water.	Water licence	<p>A water licence is an authority granted under the <i>Water Act 2000</i> to take or interfere with water. It does not allow the physical construction of works such as dams, pumps, weirs and bores to take or interfere with water. These works are authorised by development permits issued under the <i>Sustainable Planning Act 2009</i>.</p> <p>To apply for a water licence, an applicant must be an owner of land or an entity as defined under the Act.</p> <p>Generally, a water licence is attached to land and the water taken or interfered with may be used only on the land to which the licence is attached.</p> <p>A water licence that is not attached to land may be granted to an entity such as a local government or a water authority.</p>
<i>Vegetation Management Act 1999</i>	Department of Natural Resources and Mines	Vegetation Clearing	Development permit	All mining related clearing on a mining tenement are exempt. Triggers for provision of offsets may occur
<i>Aboriginal Cultural Heritage Act 2003</i>	Department of Natural Resources and Mines	Activity that has potential to harm Aboriginal Cultural Heritage	Cultural Heritage Management Plan	Duty of Care must be undertaken at all times and to operate and mine under an agreed framework to protect Aboriginal Cultural Heritage
<i>Coal Mining Safety and Health Act 1999</i>	Department of Natural Resources and Mines	Mining activities	Regulatory and operational framework for mining activities	Mining activities must comply with Act

\*Also considerable consultation and approvals processes with multiple Local Government areas within Queensland.

\*\* There are a number of additional acts and legislative frame works at all levels of Government, which will be followed and considered through this process.

## 9 Costs and benefits summary

The proponent's overall benefits are considerable, and as a part of any potential operations, ensure that such a prospect offers to reduce project impacts, and provide significant outcomes for the environment and community, all of which have been directly considered as a result of community feedback.

The PFS currently validates an **\$11-12 Billion project revenue over the 42 years**, at an anticipated 5.5MTPa of coal production rate. This rate of production is expected to consume only 33% of the total reported coal resources. However as highlighted, the Company also believes a viable 8-10MT operation can be supported by the valuable Asset and hence the annual revenues are expected to increase considerably.

### Development Capital Expenditure

Capital expenditure estimates have been undertaken to an accuracy of +/- 25% and are supported by historical industry costs. This expenditure will be a significant impact upon not only the local, but also the State Economy in exceptionally trying economic times throughout the region, the State and Federally.

Item	Amount (\$M)
Site establishment and site infrastructure	46
Mining Infrastructure	3.0
Mining and ancillary equipment *(Mining partner provision)	Nil
Coal Separation Plant	82
Other (Includes studies, approvals, permitting)	55
Contingency (the current PFS is built upon a +/- 25% order of magnitude)	37
<b>Total</b>	<b>223</b>

Of note is a further approximate amount of \$300 - \$700 Million in capital development for transport corridors being rail, conveyer or slurry pipeline, and associated port infrastructure upgrades. This is a significant capital advancement in the South Burnett and Wide Bay region.

Further impact to the regional community is the fact that the proposal aims to use an infrastructure light option for site, in order to seek out and use existing facilities for operations such as:

Site administration office	Service bay for light vehicles
Training and technical facilities on site	Light fabrication and maintenance facilities

During the next stage of the Project's evaluation, the Company will explore opportunities to remove any facilities that can be provided locally from project infrastructure. The intent is to access these services in the South Burnett Community at commercially competitive rates (e.g. light vehicle servicing to remove the cost of light vehicle workshop, basing administration staff in existing facilities in Kingaroy or Nanango, and utilising local fabrication and maintenance business, including store items run on an in stock inventory by local vendors throughout the South Burnett).

The Company has a clear mandate that where competitive to do so, to buy and employ locally, and support community capacity building by development of additional support services.



## 9.1 Local, state and national economies

Proceeding with the Project, will enhance the substantial contribution that industry in the South Burnett Region already makes towards maintaining a higher level of sustainable social and economic activity in the region. The proponent believes that this will in turn raise the level of business confidence in the region, and assist with halting the continuing reduction in people employed by small businesses in the region and the drain of young and qualified people from the South Burnett.

Major project capital expenditure is estimated to be in the order of \$500-\$900+ million with the number of construction jobs planned to peak at 300-500 jobs over a period of approximately 18-36 months. Sustaining jobs directly associated with the operations would be approximately 500-600, with multiples of that number a direct influence in business, services and community infrastructure throughout the South Burnett.

The period of construction activity to bring the mine up to full production is estimated to be in the order of 12 to 36 months from commencement of construction to full production.

It is expected the following personnel numbers (full time equivalents) will be required during the various stages of the project, however over all in steady operation a target of 500 is expected:

Project Stage	Construction	Operating
Corporate Office (South Burnett)	20-40	50-80 Staff
Proposed Mine	200-300 workers	400 plus workforce
Proposed Rail	200-300 workers	100 plus expected
Port	Depends upon operator of this asset	Depends upon operator of this asset

The net benefit to the state in terms of operational jobs will vary as the project develops to its proposed full production. The mix between domestic and international production will have an effect on this net benefit.

Whilst considerable operations throughout Australia have a genuine need for DIDO/FIFO, such a prospect would not be supported for any project in the South Burnett led by MRV Tarong Basin Coal Pty Ltd. Equally through community consultation, we will aim to ensure a balance with community expectations and project needs, in attempting to prevent adverse impacts to rental and housing affordability within the South Burnett.

## 10 Community and stakeholder consultation

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The proponent's commitments to community and stakeholder consultation has been ongoing since late 2013 in the South Burnett and will now increase to the Gympie Regional Council area. As part of the consultation process, the Proponent is committed to the following:

- To work within communities and whilst striving to leave a zero harm impact, ensure we contribute, promote and participate in healthy, proactive relationships and community capacity building;
- To be committed to building a reputation within the community and public eye, as an ethical and trusted operator;
- To be committed to operating in a sustainable and socially responsible manner;
- To establish and maintain enduring and mutually beneficial relationships with communities;
- To be open, transparent and timely about information that may have a major effect on the community;
- To seek to promote mutually beneficial partnerships where possible by investing in organisations, events and local activities; and
- To seek to create a framework and environment that encourages the participation of employees in community related activities.

In support of these commitments, the Proponent has opened a "shop front" in Kingaroy to provide a local presence and to be a centre point for community consultation and engagement. More recent indications are that the South Burnett is supportive with 61% believing such a mine will benefit the economics of the region, and 79% looking for an increase in employment opportunities. 24% oppose the prospect with more than half of the 24% worried about dust issues into the township of Kingaroy. These statistics were drawn from an independent survey undertaken by Galaxy.

As part of the community and stakeholder consultation strategy, the Proponent has engaged Beyond Billabong as one of the Cooperation Partners to assist in developing community training and engagement packages. Having Beyond Billabong engaged from an early stage, the Proponent hopes to develop relevant community involvement in a way that adds value for the community and stakeholders.

A Stakeholder Engagement Plan has been developed for the Project, which is designed to:

- Inform stakeholders about the Project;
- Enable stakeholders to provide feedback; and
- Facilitate contact with government stakeholders.

Government, community, special interest and business stakeholders have been identified and they are grouped by:

- Their proximity to the proposed mining operations;
- Their involvement with the mining operations, including potential transport corridors; and
- Their level of interest in a particular aspect of the Project

Engagement is planned throughout the Project, with a focus on the IAS/EIS preparation and public display phase. Several methods of communication are planned, for example:

- |                               |   |
|-------------------------------|---|
| • Enquiry email;              | • Briefing sessions (individual and group);                   |
| • Newsletters;                | • Presentations to established community and industry forums; |
| • Fact sheets;                | • Website;  |
| • Free call information line; | • Individual letters to key stakeholders;                     |
| • Media releases; and         | • Public displays.  |

Information about the commencement of work on the preparation of the IAS was also made public through a media release and the proponent has actively engaged with individuals and groups as opportunities have arisen, including formal presentations on Project progress to business groups, Local Government and correspondence

to all forms of State and Federal Governments. The Proponent is committed to a process of continual community and stakeholder engagement.



## 11 References and data sources

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Allen, R.J., Whitaker, W.G., Green, P.M., Stephens, R.W., Raymont, P.R. and Hampson, S.R. (1980). *Geological Survey of Queensland, Moreton Geology 1:500 000*. Queensland Department of Mines, Brisbane, Queensland.

Bureau of Meteorology (BoM) 2016. [http://www.bom.gov.au/climate/averages/tables/cw\\_040922.shtml](http://www.bom.gov.au/climate/averages/tables/cw_040922.shtml). Accessed 18 April 2016. Australian Government.

Department of the Environment (2016). *Protected Matters Search Tool*. <http://www.environment.gov.au/epbc/protected-matters-search-tool>. Accessed 12/04/2016. Australian Government.

Biodiversity Assessment and Management (BAM) (2009). *Preliminary Flora and Habitat Assessment, Lot 6 on RP852413, Kingaroy*. Prepared for Cougar Energy Limited.

Burnett Mary Regional Group (2009), Burnett-Baffle Water Quality Improvement Plan.

Cottrell Cameron & Steen Surveys Pty Ltd (2015), Terrain Slope Analysis – Kingaroy Area Report. Prepared for Moreton Resources Ltd.

Cougar Energy (2009) Geotechnical Laboratory Test Report, L762, Strata Control Technology

Cougar Energy (2010) Wellcad cleating interpretation, Kingaroy project, Strata Control Technology

ELP 2007, Cougar Energy Underground Coal Gasification Project, Kingaroy – Environmental Management Plan.

Geological Data Design (2014), Moreton Resources MDL385 – Kingaroy Resource Estimation Report

Golder Associates (2010), Cougar Energy – Pilot Underground Coal Gasification Project, Groundwater Assessment and Impact Study.

Hoek, Evert, Practical Rock Engineering – An Ongoing Set of Notes, available on the Rocscience website, [www.rocscience.com](http://www.rocscience.com)

Jell, P.A. (ed.) (2012) *Geology of Queensland*, Geological Survey of Queensland

Kingaroy Shire Council (2006), Planning Scheme for the Shire of Kingaroy.

Kingaroy Coal Prefeasibility Study

Land Resource Assessment and Management (2015), Stage 1 Pre-feasibility assessment SCL and ALC issues.

Moreton Resources (2014) MDL385 – Kingaroy Resource Estimation Report, GDD.

Moreton Resources Limited (2015) Geological Model Information & JORC Coal Resource Estimate, Tarong Basin Coal Project.

Parsons Brinkerhoff (PB) (2006). *Executive Summary of the Tarong Northern Land Ash Emplacement Project, Tarong Power Station, Environmental Impact Statement*.

Parsons Brinckerhoff (2007), Kunioon Coal Project Initial Advice Statement.

Pegrem, B, 1995, Tarong Basin in Geology of Australian Coal Basins, Geological Society of Australia, Special Publication No 1.

Pegrem, B.J. (1995) Tarong Basin. In Ward, C.R., Harrington, H.J., Mallett, C.W. and Beeston, J.W. eds., *Geology of Australian Coal Basins*, Geological Society of Australia Coal Geology Group Special Publication 1, 465-470.

Sorby, P. and Reid, R.E. (2001). *Soils and Agricultural Suitability of the South Burnett Agricultural Lands, Queensland*. Land Resources Bulletin, Queensland Department of Natural Resources and Mines, Queensland State Government, Brisbane, Queensland.

Thiess Mining (2011) *The Meandu Mine Story: Tarong Coal Project*, <https://www.youtube.com/watch?v=nnKsSQ1gM14>, accessed 23 December 2015

Queensland Government (2016a). *SPP Interactive Mapping System (Plan Making) - Infrastructure*. Accessed 18/04/2016. <http://spp.dsdip.esriaustraliaonline.com.au/geoviewer/map/planmaking>.

Queensland Government (2016b). *Queensland Globe – Planningcadastre globe*. Queensland Government. Accessed 18/04/2016. <https://www.business.qld.gov.au/business/support-tools-grants/services/mapping-data-imagery/queensland-globe>.

## 12 Glossary, acronyms and abbreviations

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CHP	Coal handling plant
CSP	Coal separation plant
EPC	Exploration Permit for Coal
JORC	Joint Ore Reserve Committee
MDL	Mining Development Lease
MLA	Mining Lease Application
Mt	Million tonnes
Mtpa	Million tonnes per annum
MRV	Moreton Resources Ltd
OLC	Overland conveyor
Proponent	MRV Tarong Basin Pty Ltd
ROM	Run of Mine
Tph	Tonnes per hour
RE	Regional ecosystem





# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 22/04/16 11:04:53

[Summary](#)

[Details](#)

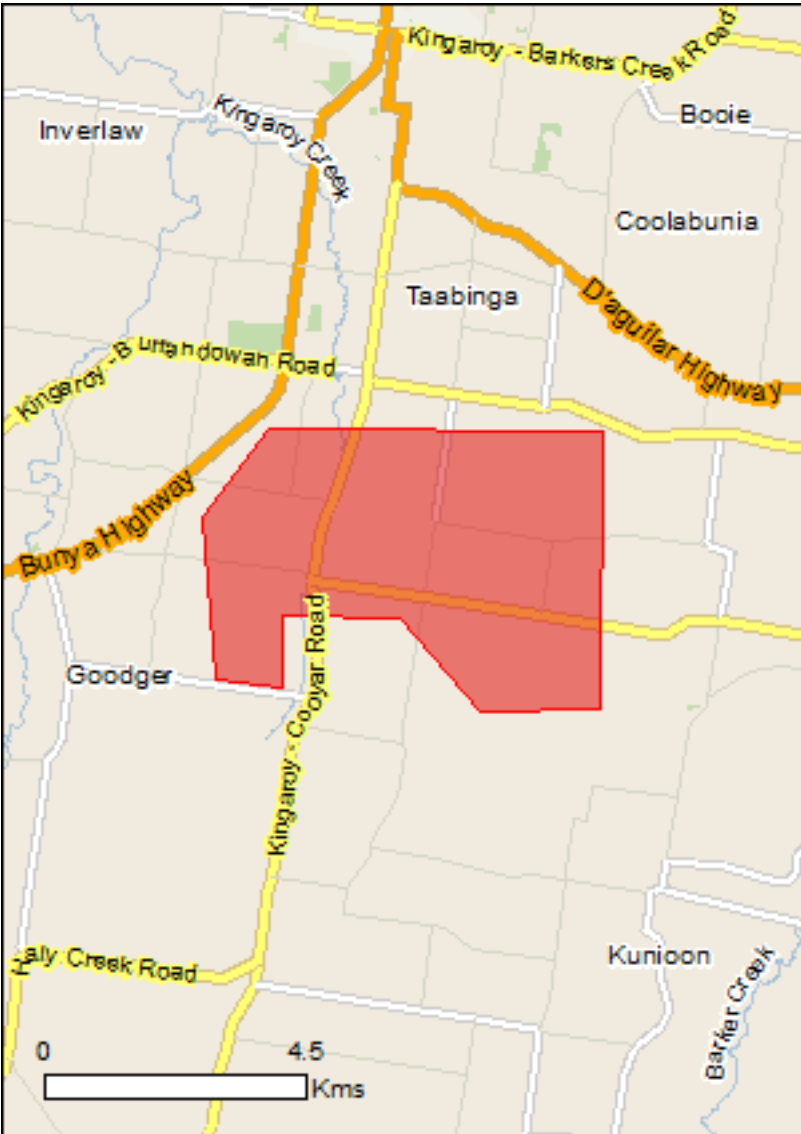
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

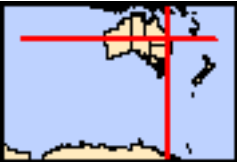
[Acknowledgements](#)



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[Coordinates](#)

[Buffer: 0.0Km](#)



# Summary

## Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance:</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	2
<a href="#">Listed Threatened Species:</a>	22
<a href="#">Listed Migratory Species:</a>	13

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Land:</a>	None
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	17
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	26
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

# Details

## Matters of National Environmental Significance

Listed Threatened Ecological Communities

[ Resource Information ]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
<a href="#">Lowland Rainforest of Subtropical Australia</a>	Critically Endangered	Community may occur within area
<a href="#">White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</a>	Critically Endangered	Community may occur within area

Listed Threatened Species

[ Resource Information ]

Name	Status	Type of Presence
Birds		
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area
<a href="#">Cyclopsitta diophthalma coxeni</a> Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
<a href="#">Erythroriorchis radiatus</a> Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Geophaps scripta scripta</a> Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
<a href="#">Grantiella picta</a> Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
<a href="#">Turnix melanogaster</a> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat likely to occur within area
Mammals		
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dasyurus hallucatus</a> Northern Quoll [331]	Endangered	Species or species habitat likely to occur within area

Name	Status	Type of Presence
<a href="#">Nyctophilus corbeni</a> Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a> Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area

Plants		
<a href="#">Bertya opposens</a> [13792]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Denhamia parvifolia</a> Small-leaved Denhamia [18106]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Haloragis exalata subsp. velutina</a> Tall Velvet Sea-berry [16839]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phebalium distans</a> Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Polianthion minutiflorum</a> [82772]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thesium australe</a> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area

Reptiles		
<a href="#">Delma torquata</a> Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
<a href="#">Egernia rugosa</a> Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area
<a href="#">Furina dunmalli</a> Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species		[ Resource Information ]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat likely to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area



Name	Threatened	Type of Presence
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area

Migratory Wetlands Species		
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat may occur within area

## Other Matters Protected by the EPBC Act

Listed Marine Species		[ <a href="#">Resource Information</a> ]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
<a href="#">Anseranas semipalmata</a> Magpie Goose [978]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Cuculus saturatus</a> Oriental Cuckoo, Himalayan Cuckoo [710]		Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat likely to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat may occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat likely to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

## Extra Information

Invasive Species

[ [Resource Information](#) ]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Chrysanthemoides monilifera Bitou Bush, Boneseed [18983]		Species or species

Name	Status	Type of Presence
Lantana camara		habitat may occur within area
Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
Opuntia spp.		
Prickly Pears [82753]		Species or species habitat likely to occur within area
Parthenium hysterophorus		
Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Protasparagus densiflorus		
Asparagus Fern, Plume Asparagus [5015]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate		
Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus		
Asian House Gecko [1708]		Species or species habitat likely to occur within area



# Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

# Coordinates

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# Acknowledgements

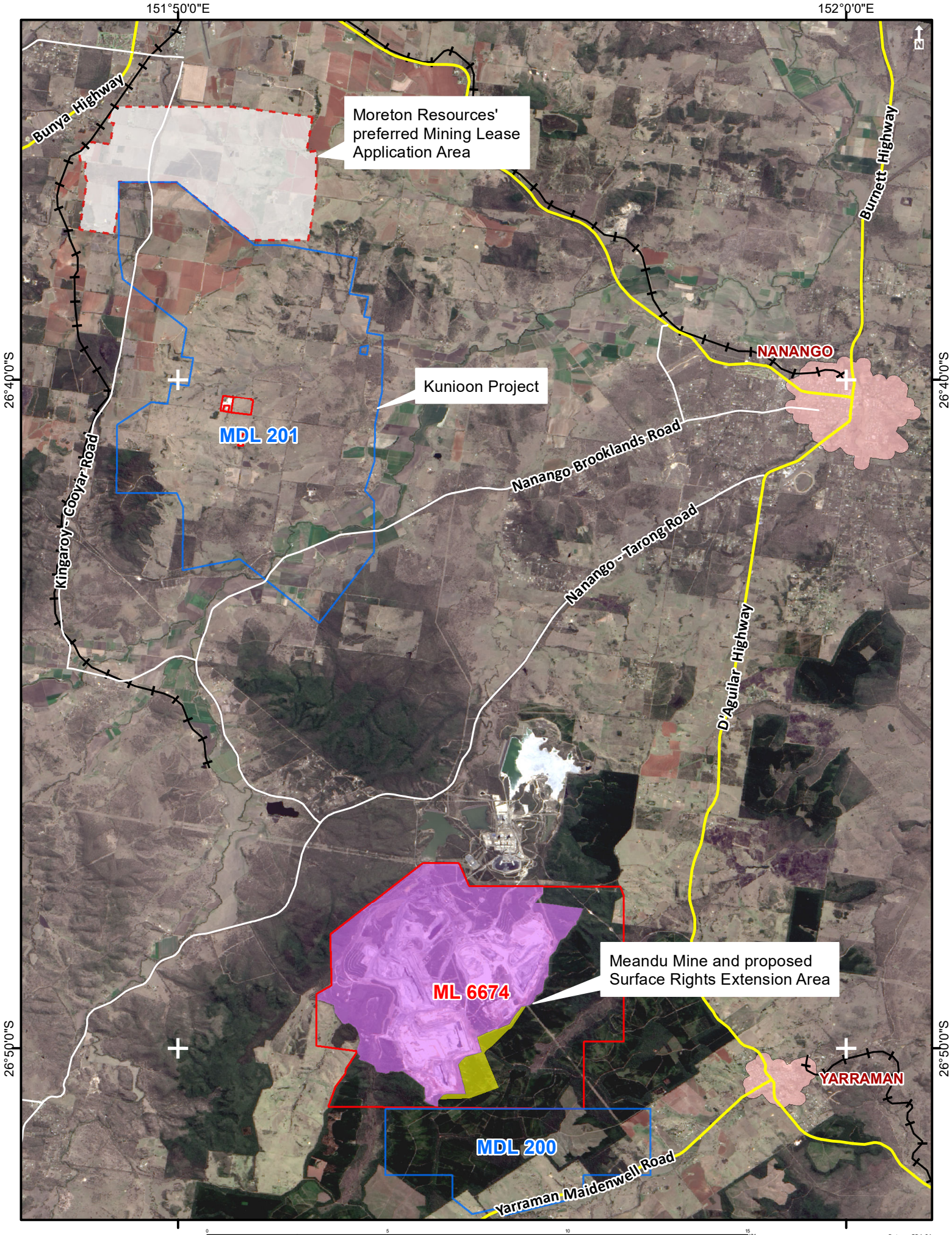
This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Parks and Wildlife Commission NT, Northern Territory Government](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
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- [-Tasmanian Herbarium](#)
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- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.





Highway

Main Road

Railways

Built-up area

Mineral Development License - Moreton Resources

Mineral Development License - Other

Mining Lease

Preferred Mining Lease Application Area

Mining Lease Surface Rights Area

Surface Rights Extension Area

FOR

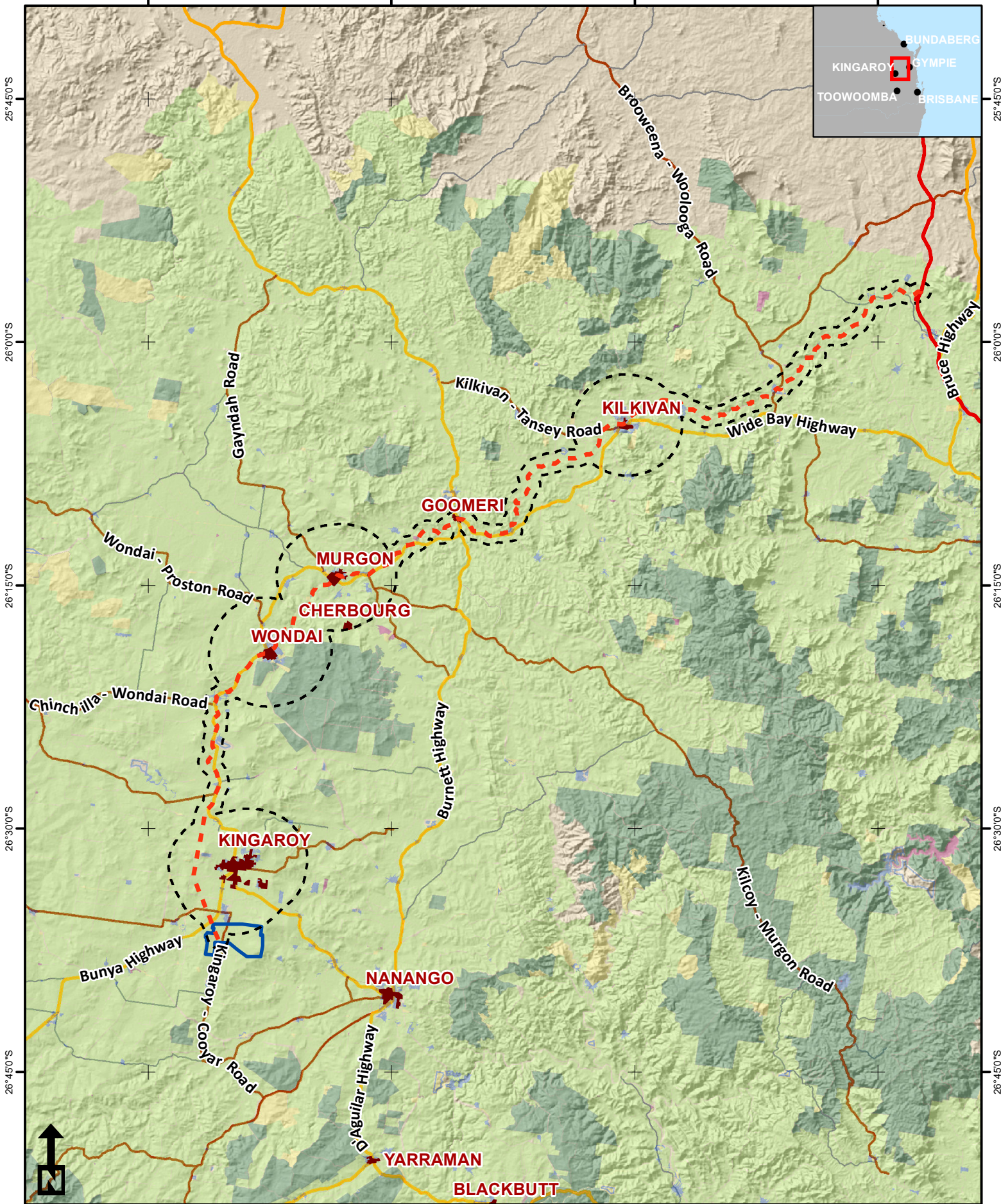
LOCALITY

MDL 385, PREFERRED MINING LEASE APPLICATION AREA AND OTHER COAL PROJECTS

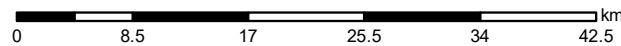
DISC	DATE	REV	REV DESCRIPTION	REQ
GEN	5/05/16	01	FIRST RELEASE	JE



151°45'0"E 152°0'0"E 152°15'0"E 152°30'0"E



Datum: GDA 94



- Approximate Centreline of Kingaroy Branch Line / Deviation around Kingaroy

Existing Operational Rail Network

Route Study Area (Buffer of Existing KBL Route and Built Up Areas)

Built-up Areas
- Preferred ML Application Area

Land Tenure

Freehold

Lands Lease
- National Park; State Forest

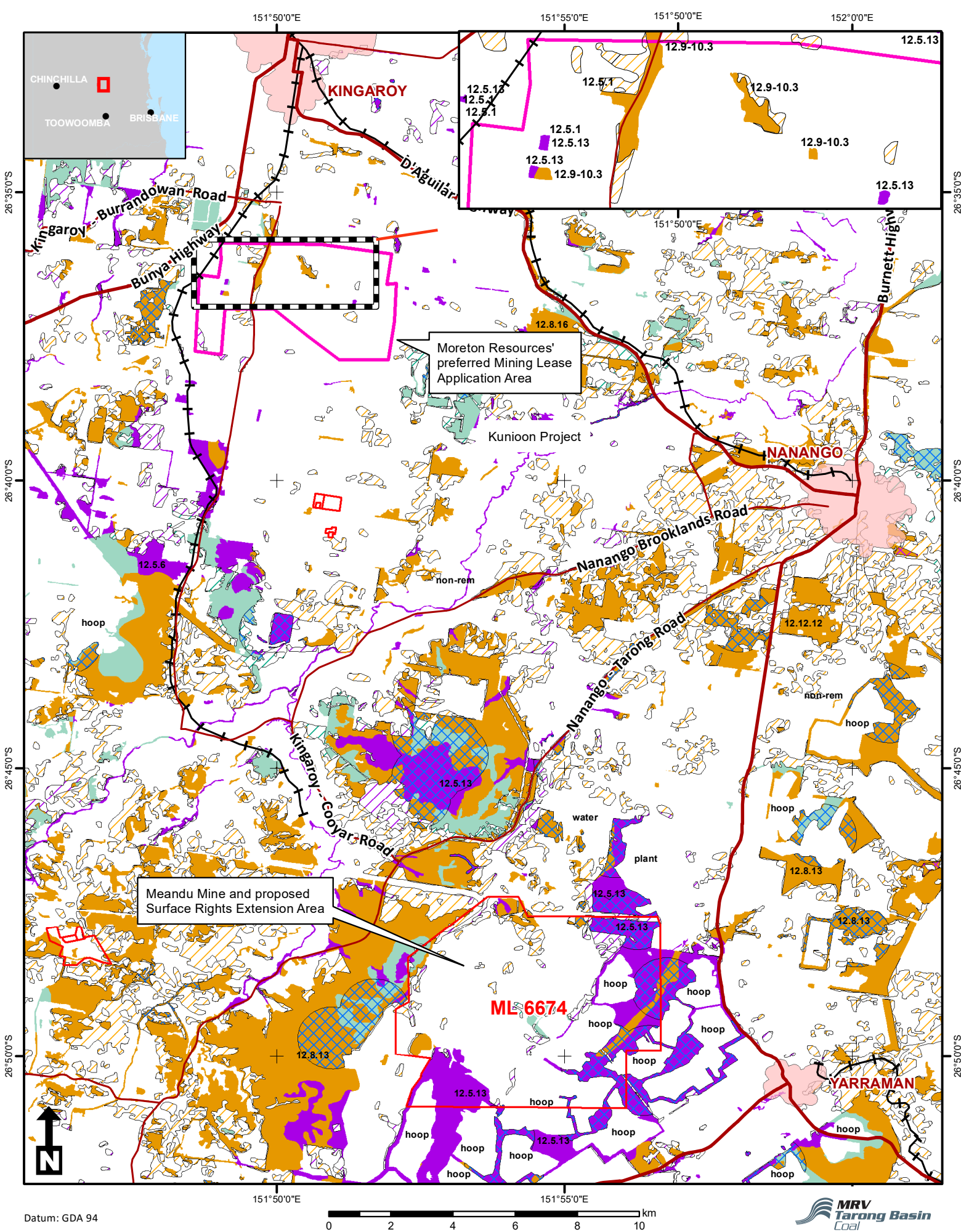
Railway

Reserve

State Land

PREFERRED ROUTE TO EXISTING RAIL FROM PREFERRED ML(A)				
DISC	DATE	REV	PAGE	REQ
INF	5/05/16	00	01	JE
<small>DISCLAIMER Based on or contains data provided by the State of Queensland (Department of Environment and Resource Management) 2016. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to this data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for direct marketing or be used in breach of the privacy laws.</small>				





Highway

Main Road

Railways

Built-up area

Mining Lease

Preferred ML Application Area

VMA Essential Habitat

VMA Essential Regrowth Habitat

VMA Endangered High Value Regrowth

VMA Of Concern High Value Regrowth

VMA Of Least Concern High Value Regrowth

BD Status of Rmnt. RE V8.0

VMA Endangered RE

VMA Of Concern RE

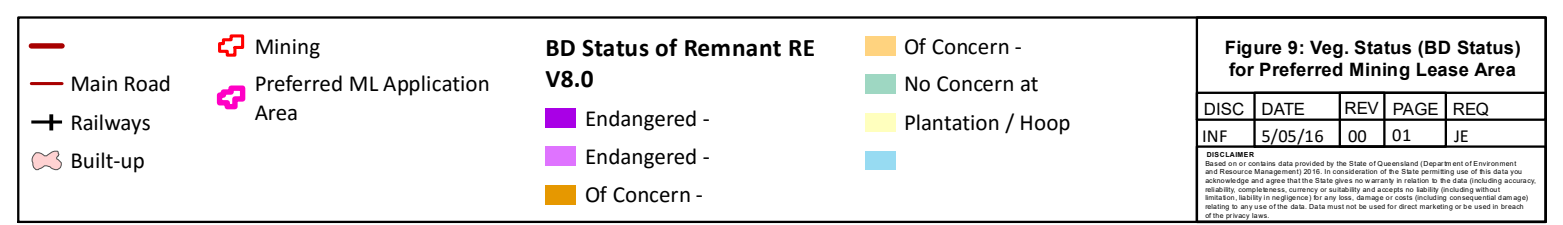
VMA Of Least Concern RE

Figure 8: Veg. Status (VM Status) for Preferred Mining Lease Area

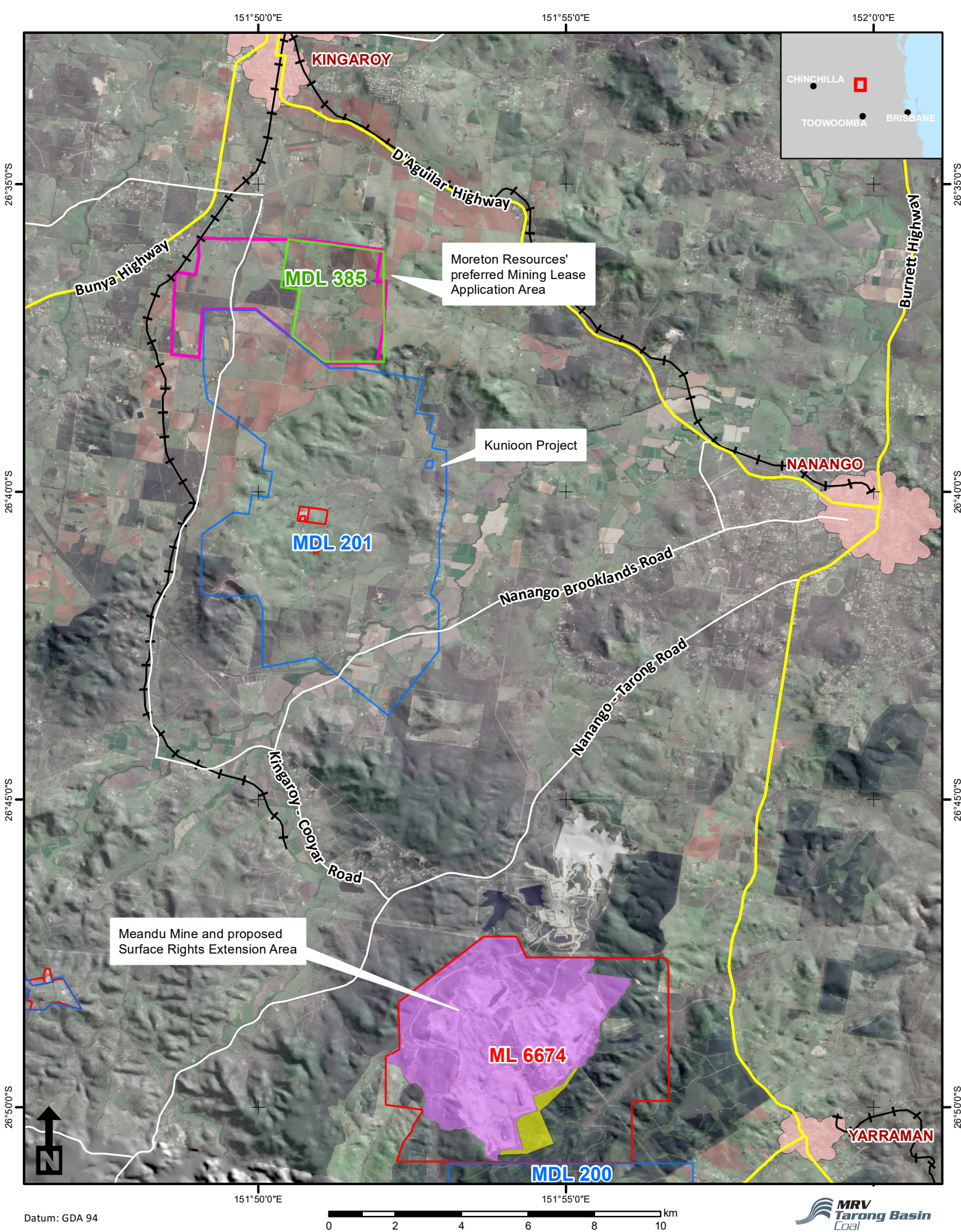
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Highway

Main

Built-up area

Mineral Development License - Moreton Resources

Mineral Development License - Other

Mining

Preferred Mining Lease Application Area

Mining Lease Surface Rights Area

Surface Rights Extension Area

TARONG COAL PROJECT AND SURROUNDING MINING LEASES				
DISC	DATE	REV	PAGE	REQ
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Department of  
**Aboriginal and  
Torres Strait Islander  
Partnerships**

CLH-15-014

By email only

09 May 2016

Ms Donna Cannon  
Project Manager  
Moreton Resources

By email: Donna Cannon – [donna.cannon@spinifexconsulting.com.au](mailto:donna.cannon@spinifexconsulting.com.au)

Dear Ms Cannon

**APPROVAL OF CULTURAL HERITAGE MANAGEMENT PLAN FOR THE MRV  
TARONG BASIN COAL PROJECT WITH WITH THE WAKKA WAKKA PEOPLE #5**

Thank you for your letter of 22 April 2016 submitting the Tarong Basin Coal Cultural Heritage Management Plan (the "CHMP") for approval under Part 7 of the *Aboriginal Cultural Heritage Act 2003* (the "ACHA").

I am pleased to advise that I have approved the CHMP with the Wakka Wakka People #5 pursuant to section 107 of the ACHA and my delegated authority. Accordingly all the relevant details will be included on the Cultural Heritage Register maintained by this office.

Should you have any further queries, please do not hesitate to contact me on 3238 3835.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Isabel Tarrago".

Isabel Tarrago  
**Director  
Cultural Heritage  
Community Participation**

cc: Gregory Heath, Regional Cultural Heritage Coordinator

Cultural Heritage  
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## **RESULTS OF GALAXY SURVEY UNDERTAKEN IN THE SOUTH BURNETT PERTAINING TO**



### **Galaxy Research - Methodology**

This study was conducted in the South Burnett area between Monday 11 April and Thursday 14 April, 2016. The sample comprises 500 residents. Quotas based on age, gender and postcode were applied to ensure that the sample composition reflects the population.

Interviews were conducted using CATI (computer assisted telephone interviewing) with telephone numbers randomly selected from the Sample Pages national database. All interviewers were personally trained and briefed on the requirements of the study.

Following the completion of the interviewing, the data was weighted by postcode, age and gender to reflect the latest Australian Bureau of Statistics population estimates.

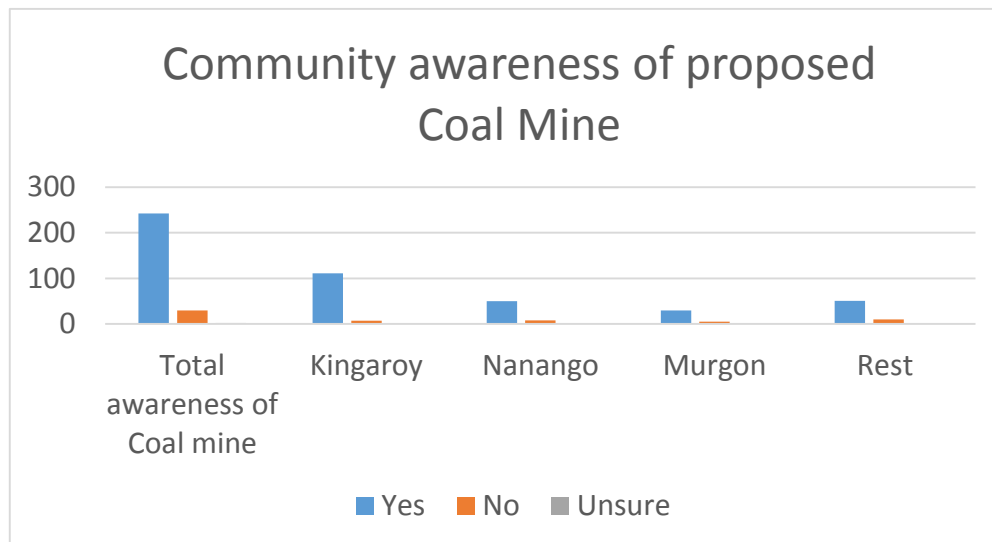
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## Are you aware of the proposal to develop a new coal mine in the South Burnett Region?

### Galaxy Results

The Galaxy Research poll revealed that of the 500 South Burnett residents surveyed, **88% are aware of the project**. Taking this representative sample from the survey, this indicates an exceptionally high awareness of this project.



Other Key Statistics offered by Galaxy:

- **65%** of those surveyed were representative of **either Kingaroy or Nanango**
- **51%** in total surveyed were residing within a **township** and **49%** were classed as **rural**

### MRV Tarong Basin Coal Analysis

The Company is extremely satisfied with this outcome based upon the extensive awareness campaign that has been undertaken since mid-2014. The following activities are attributed to this outcome –

Landholder consultation for over 24 months

Awareness meeting and forums run throughout the entire region totally over 40 sessions over the 2 years.

Over 1000 individual letters sent

Over 36,000 letter box drops

Over approx. 500 personal phone calls

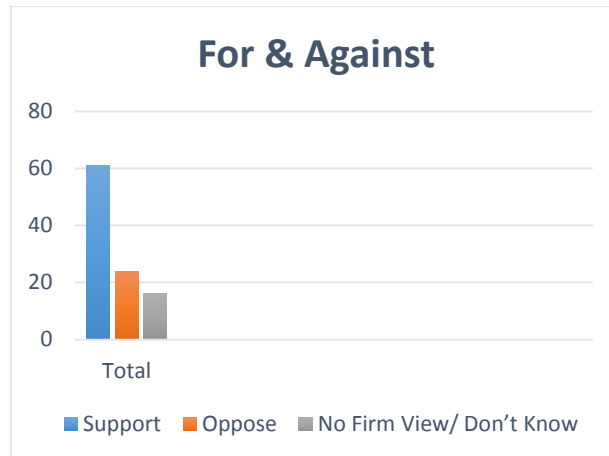
Over 100 personal meetings between company representative and staff



## Are you in support of the project? Or, are you against the project?

### Galaxy Results

The Galaxy Research poll revealed that **61%** believe the region will **benefit from a mining operation**, meanwhile just **24% disagree**, and **15% are unsure or do not know**.



Other Key Statistics offered by Galaxy:

- **79%** who support the project, do so because it will **create jobs in the area**
- **32%** point to the potential for **economic growth**
- Of those opposed, **49%** are concerned about the **proximity to town** and the **potential to create dust**
- Other concerns are destruction of **agricultural land** were **23 respondents**, **harm to the environment** **11 respondents** and **4 respondents** had concerns about **health implications**.

### MRV Tarong Basin Coal Analysis

These results showcase the effectiveness of MRV Tarong Basin Coal's community engagement to date, reinforcing the fact that the project will bring both economic growth and employment opportunities to the South Burnett region.

These statistic's negate a great deal of print media, which has incorrectly covered an opposition gathering, run by Lock the Gate Affiliates KCCG as stating majority of the region oppose the mine, this is just incorrect at best.

A further compelling statistic that undermines all credibility of media statements and representations recently made to Government Ministers, is the survey results that show of those informed by the **KCCG gathering at the town hall**, **only 54% of those surveyed oppose the mine**.

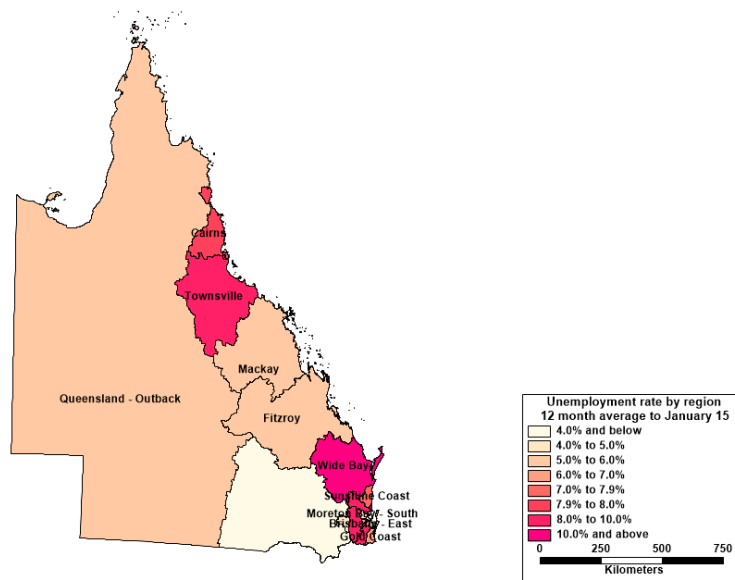
Given the very factually skewed and totally inaccurate basis of much of the information, the Company is extremely confident that these numbers of concerned citizens, will dramatically be reduced as factual information becomes more widely apparent through the approvals process, and through a more proactive approach by the Company.

This is further supported by direct approaches to MRV Tarong Basin Coal Pty Ltd staff, by members of the public who were disappointed in the KCCG representations at the town hall meeting and the lack of balanced information. These statistics support the view that a large number of those who attended the meeting felt those communications shared on the evening, undermined the credibility of the meeting.

## Unemployment in the Wide Bay region

### Galaxy Results

According to the Australian Bureau of Statistics, the Wide Bay region is burdened with the **highest average regional unemployment rate nationwide**.



Other Key Statistics offered by Galaxy:

- **79%** who support the project, are seeking **employment growth within the region**
- In 2015, the Australian Bureau of Statistics (ABS) found that the Wide Bay region's **unemployment rate skyrocketed to 14.9%**
- The same ABS data showed the number of **unemployed people** in the Wide Bay region had gone from **9,600 to 18,000**

### MRV Tarong Basin Coal Analysis

As the community struggles with youth unemployment, it is encouraging to see the region take a proactive approach in finding a solution, with **61% holding the belief that the region will benefit from a mining operation**.

Coal provides around 30% of global primary energy needs, generates over 40% of the world's electricity and is used in the production of 70% of the world's steel. Presently, there are 63 countries worldwide actively constructing or expanding coal-fired power generation capacity. The South Burnett Coal Project will help feed this demand, and as a result improve the employment prospects for the Wide Bay region.

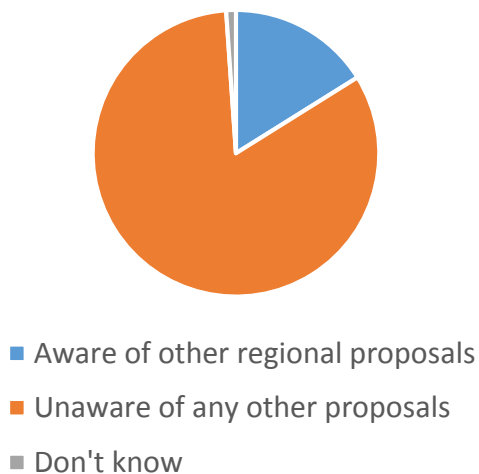
MRV Tarong Basin Coal Pty Ltd believe that the proposed project will not only provide employment prospects for the South Burnett region, it will also play a vital role in Queensland's positioning as a global hub of industrial services and the continued rise in export coal demand from Australia and in particular Queensland.

## Economic Development of region

### Galaxy Results

The Galaxy Research revealed that of those in favour of the proposed project, **32% were seeking economic development in the region.**

### Community awareness of proposed development in area



Other Key Statistics offered by Galaxy:

- **16%** of the residents in the South Burnett are aware of **other major proposals for economic development** in the region
- The most well-known other potential prospects were **Gina Rinehart's dairy project** which rated **10 responses** and the potential **Wind Farm** at **4 responses**.
- **3%** were seeking or hopeful of some **stimulus to land values**

### MRV Tarong Basin Coal Analysis

These statistics are reflective of feedback which MRV Tarong Basin Coal Pty Ltd has received from residents scattered throughout the South Burnett region.

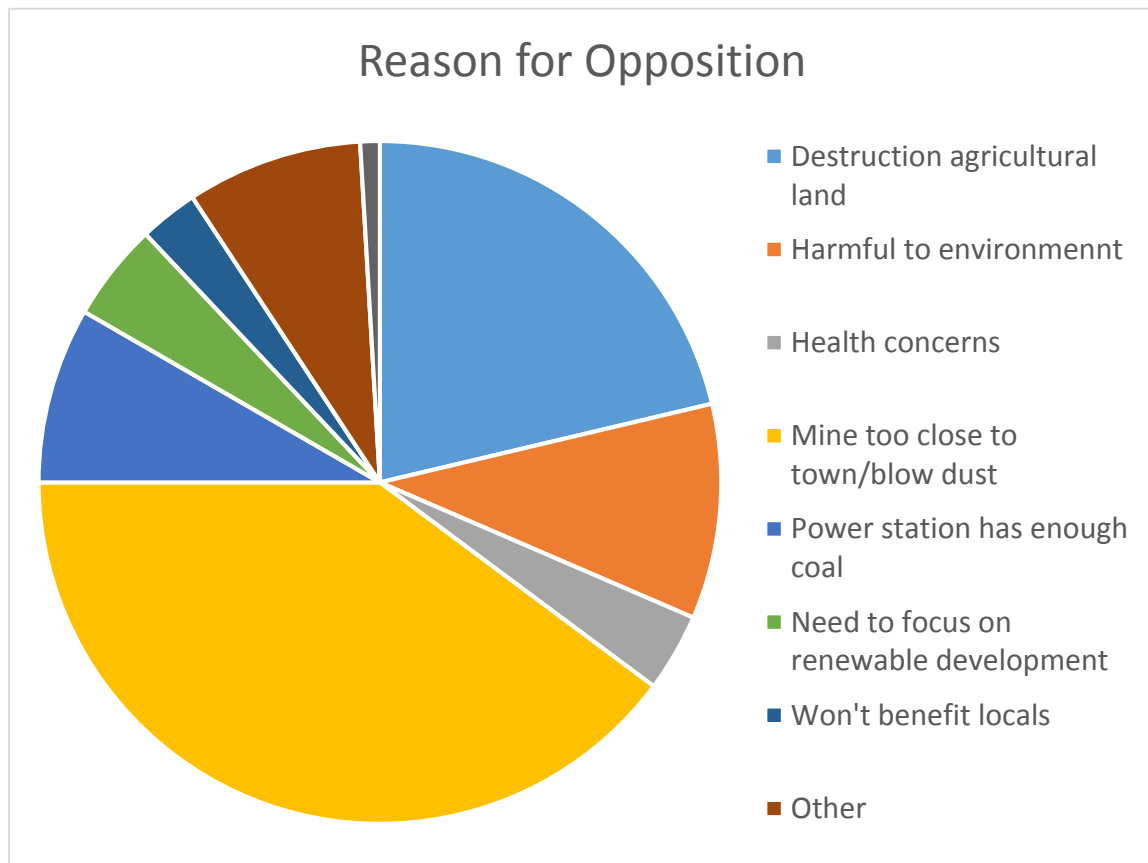
Residents are concerned about their land values, after the Department of Natural Resources and Mines released a statement in March of 2015, stating that land values in the South Burnett Regional Council jurisdiction had decreased by 3.9% since the last annual valuation. This comes on the back of Dept. of Natural Resources data that also indicated land values in **Kingaroy** and **Taabinga** have receded by **-10%** and **-4.7% respectively** in the years from **2011 to 2014**.

MRV Tarong Basin Coal Pty Ltd believes that through economic development in the region as a result of the proposed project, residents will witness an increase to land values in the South Burnett, as this is reflective of other areas which have co-existed with resource development projects.

## Basis for Project Opposition

### Galaxy Results

**Dust and wind is the primary concern** for opposition to the mine, with approximately half of those who are opposed to mine (**43 people**) listing this as their main concern.



Other Key Statistics offered by Galaxy:

- **23** people were concerned about the **destruction of agricultural land**
- **11** people believed the project would be **harmful to the environment**
- **4** people sighted **health concerns** as a reason

### MRV Tarong Basin Coal Analysis

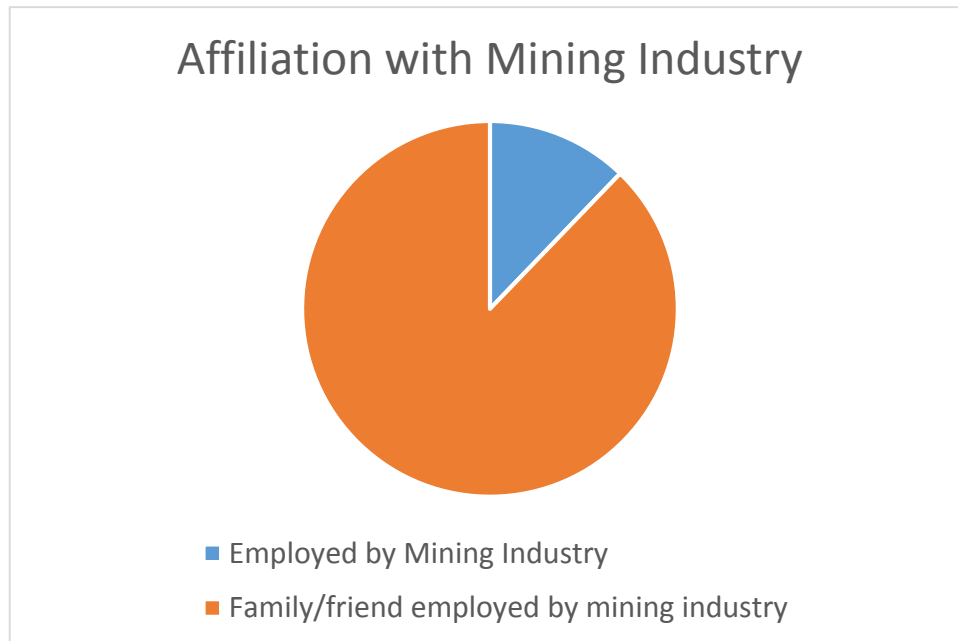
The company is aware of the misinformation that has been circulating throughout the community in relation to this issue, which has resulted in a lack of awareness. This will form a major part of the Company's engagement strategy moving forward as we aim to ensure that each community member has access to correct and true information. What is highly encouraging, however, is that the Company believes almost half of those opposed will reconsider their position based upon the factual location of the operations and also the base line data that will be collected and made publically available through the approvals process, addressing majority of these concerns.



## Affiliation with Mining Industry

### Galaxy Results

The Galaxy Research survey revealed that **41%** of the South Burnett Community **already has some affiliation with the Mining Industry**.



Other Key Statistics offered by Galaxy:

- **108** people have a **family member or friend** who is **employed by the Mining Industry**

### MRV Tarong Basin Coal Analysis

As a nation that relies so heavily on the resources sector, it was not surprising to see that such a large number of people already have an affiliation with the mining industry.

As we at MRV Tarong Basin Coal Pty Ltd further progress our project, it is our intention that we hire locally and utilise local businesses and infrastructure. In the future, we expect to see the statistic of 41% increase as we begin to roll out our operations and further engage the wider South Burnett community.

It has always been the mandate of MRV Tarong Basin Coal Pty Ltd to further the local community through employment prospects and economic development, and we believe the community will reap the benefits of the proposed mining project.

Whilst MRV Tarong Basin Coal Pty Ltd currently has no local customer, if it were to supersede and current options, staffing and local employment would be migrated and increase jobs drawn from the Community.

This report was prepared by MRV Tarong Basin Coal Pty Ltd in line with Galaxy Research.

For any questions pertaining to this report, please contact, the parent Company:

Head Office  
Moreton Resources Ltd  
Suite 8, Level 2, 113 Wickham Terrace, Spring Hill, Queensland, 4000

Phone: (07) 3831 6088  
Email: [enquiries@moretonresources.com.au](mailto:enquiries@moretonresources.com.au)

Location: As per provided shapefile buffered2pnt5km

Kingdom	Class	Family	Scientific Name	Common Name	NCA	EPBC	Recs	End
Animalia	Actinopterygii	Ambassidae	<i>Ambassis agassizii</i>	Agassiz's glassfish			1	QA
Animalia	Actinopterygii	Anguillidae	<i>Anguilla reinhardtii</i>	longfin eel			2	QAI
Animalia	Actinopterygii	Apogonidae	<i>Glossamia aprion</i>	mouth almighty			1	QAI
Animalia	Actinopterygii	Ariidae	<i>Neoarius graeffei</i>	blue catfish			1	QAI
Animalia	Actinopterygii	Atherinidae	<i>Craterocephalus stercusmuscarum</i>	flyspecked hardyhead			1	QA
Animalia	Actinopterygii	Clupeidae	<i>Nematalosa erebi</i>	bony bream			2	QA
Animalia	Actinopterygii	Eleotridae	<i>Hypseleotris compressa</i>	empire gudgeon			1	QAI
Animalia	Actinopterygii	Eleotridae	<i>Hypseleotris klunzingeri</i>	western carp gudgeon			1	QA
Animalia	Actinopterygii	Eleotridae	<i>Philypnodon grandiceps</i>	flathead gudgeon			1	QA
Animalia	Actinopterygii	Hemiramphidae	<i>Arrhamphus sclerolepis</i>	snubnose garfish			1	QAI
Animalia	Actinopterygii	Melanotaeniidae	<i>Melanotaenia duboulayi</i>	crimsonspotted rainbowfish			2	QA
Animalia	Actinopterygii	Melanotaeniidae	<i>Rhadinocentrus ornatus</i>	ornate rainbowfish			1	QA
Animalia	Actinopterygii	Mugilidae	<i>Mugil cephalus</i>	sea mullet			2	QAI
Animalia	Actinopterygii	Mugilidae	<i>Trachystoma petardi</i>	pinkeye mullet			1	QA
Animalia	Actinopterygii	Plotosidae	<i>Tandanus tandanus</i>	freshwater catfish			2	QA
Animalia	Actinopterygii	Poeciliidae	<i>Gambusia holbrooki</i>	mosquitofish			2	II
Animalia	Actinopterygii	Pseudomugilidae	<i>Pseudomugil signifer</i>	Pacific blue eye			1	QA
Animalia	Actinopterygii	Retropinnidae	<i>Retropinna semoni</i>	Australian smelt			1	QA
Animalia	Actinopterygii	Scorpaenidae	<i>Notesthes robusta</i>	bullrout			1	QA
Animalia	Actinopterygii	Terapontidae	<i>Leiopotherapon unicolor</i>	spangled perch			3	QA
Animalia	Amphibia	Bufonidae	<i>Rhinella marina</i>	cane toad			16	II
Animalia	Amphibia	Hylidae	<i>Litoria caerulea</i>	common green treefrog	C		2	QAI
Animalia	Amphibia	Hylidae	<i>Litoria fallax</i>	eastern sedgefrog	C		1	QA
Animalia	Amphibia	Hylidae	<i>Litoria latopalmata</i>	broad palmed rocketfrog	C		1	QA
Animalia	Amphibia	Hylidae	<i>Litoria nasuta</i>	striped rocketfrog	C		2	QAI
Animalia	Amphibia	Hylidae	<i>Litoria peronii</i>	emerald spotted treefrog	C		2	QA
Animalia	Amphibia	Hylidae	<i>Litoria rubella</i>	ruddy treefrog	C		1	QAI
Animalia	Amphibia	Limnodynastidae	<i>Limnodynastes peronii</i>	striped marshfrog	C		2	QA
Animalia	Amphibia	Limnodynastidae	<i>Limnodynastes terraereginae</i>	scarlet sided pobblebonk	C		2	QA
Animalia	Amphibia	Limnodynastidae	<i>Platyplectrum ornatum</i>	ornate burrowing frog	C		1	QA
Animalia	Amphibia	Myobatrachidae	<i>Crinia signifera</i>	clicking froglet	C		1	QA
Animalia	Aves	Acanthizidae	<i>Acanthiza chrysorrhoa</i>	yellow-rumped thornbill	C		22	QA
Animalia	Aves	Acanthizidae	<i>Acanthiza lineata</i>	striated thornbill	C		8	QA
Animalia	Aves	Acanthizidae	<i>Acanthiza nana</i>	yellow thornbill	C		11	QA
Animalia	Aves	Acanthizidae	<i>Acanthiza pusilla</i>	brown thornbill	C		13	QA
Animalia	Aves	Acanthizidae	<i>Acanthiza reguloides</i>	buff-rumped thornbill	C		7	QA
Animalia	Aves	Acanthizidae	<i>Chthonicola sagittata</i>	speckled warbler	C		28	QA
Animalia	Aves	Acanthizidae	<i>Gerygone fusca</i>	western gerygone	C		20	QA
Animalia	Aves	Acanthizidae	<i>Gerygone mouki</i>	brown gerygone	C		12	QA
Animalia	Aves	Acanthizidae	<i>Gerygone olivacea</i>	white-throated gerygone	C		20	QAI
Animalia	Aves	Acanthizidae	<i>Sericornis citreogularis</i>	yellow-throated scrubwren	C		1	QA
Animalia	Aves	Acanthizidae	<i>Sericornis frontalis</i>	white-browed scrubwren	C		44	QA
Animalia	Aves	Acanthizidae	<i>Sericornis magnirostra</i>	large-billed scrubwren	C		1	QA
Animalia	Aves	Acanthizidae	<i>Smicronis brevirostris</i>	weebill	C		60	QA
Animalia	Aves	Accipitridae	<i>Accipiter cirrocephalus</i>	collared sparrowhawk	C		2	QAI
Animalia	Aves	Accipitridae	<i>Accipiter fasciatus</i>	brown goshawk	C		76	QAI
Animalia	Aves	Accipitridae	<i>Accipiter novaehollandiae</i>	grey goshawk	C		71	QAI
Animalia	Aves	Accipitridae	<i>Aquila audax</i>	wedge-tailed eagle	C		44	QAI
Animalia	Aves	Accipitridae	<i>Aviceda subcristata</i>	Pacific baza	C		3	QAI
Animalia	Aves	Accipitridae	<i>Circus approximans</i>	swamp harrier	C		6	QAI
Animalia	Aves	Accipitridae	<i>Circus assimilis</i>	spotted harrier	C		1	QA
Animalia	Aves	Accipitridae	<i>Elanus axillaris</i>	black-shouldered kite	C		18	QAI
Animalia	Aves	Accipitridae	<i>Haliaeetus leucogaster</i>	white-bellied sea-eagle	C		6	QAI
Animalia	Aves	Accipitridae	<i>Haliastur indus</i>	brahminy kite	C		1	QAI
Animalia	Aves	Accipitridae	<i>Haliastur sphenurus</i>	whistling kite	C		6	QAI
Animalia	Aves	Accipitridae	<i>Hamirostra melanosternon</i>	black-breasted buzzard	C		2	QA
Animalia	Aves	Accipitridae	<i>Hieraaetus morphnoides</i>	little eagle	C		3	QAI
Animalia	Aves	Accipitridae	<i>Lophoictinia isura</i>	square-tailed kite	C		1	QA
Animalia	Aves	Accipitridae	<i>Milvus migrans</i>	black kite	C		3	QAI
Animalia	Aves	Accipitridae	<i>Pandion cristatus</i>	eastern osprey	SL		6	QAI
Animalia	Aves	Acrocephalidae	<i>Acrocephalus australis</i>	Australian reed-warbler	SL		9	QAI
Animalia	Aves	Aegothelidae	<i>Aegotheles cristatus</i>	Australian owllet-nightjar	C		3	QAI
Animalia	Aves	Alaudidae	<i>Mirafra javanica</i>	Horsfield's bushlark	C		2	QAI
Animalia	Aves	Alcedinidae	<i>Ceyx azureus</i>	azure kingfisher	C		7	QAI
Animalia	Aves	Anatidae	<i>Anas castanea</i>	chestnut teal	C		1	QA
Animalia	Aves	Anatidae	<i>Anas gracilis</i>	grey teal	C		20	QAI

Animalia	Aves	Anatidae	<i>Anas rhynchotis</i>	Australasian shoveler	C		5	QAI
Animalia	Aves	Anatidae	<i>Anas superciliosa</i>	Pacific black duck	C		74	QAI
Animalia	Aves	Anatidae	<i>Aythya australis</i>	hardhead	C		9	QAI
Animalia	Aves	Anatidae	<i>Chenonetta jubata</i>	Australian wood duck	C		63	QA
Animalia	Aves	Anatidae	<i>Cygnus atratus</i>	black swan	C		11	QA
Animalia	Aves	Anatidae	<i>Dendrocygna arcuata</i>	wandering whistling-duck	C		2	QAI
Animalia	Aves	Anatidae	<i>Dendrocygna eytoni</i>	plumed whistling-duck	C		4	QA
Animalia	Aves	Anatidae	<i>Malacorhynchus membranaceus</i>	pink-eared duck	C		2	QA
Animalia	Aves	Anatidae	<i>Nettapus coromandelianus</i>	cotton pygmy-goose	C		2	QAI
Animalia	Aves	Anhingidae	<i>Anhinga novaehollandiae</i>	Australasian darter	C		12	QAI
Animalia	Aves	Anseranatidae	<i>Anseranas semipalmata</i>	magpie goose	C		3	QAI
Animalia	Aves	Apodidae	<i>Apus pacificus</i>	fork-tailed swift	SL		6	QAI
Animalia	Aves	Apodidae	<i>Hirundapus caudacutus</i>	white-throated needletail	SL		1	QAI
Animalia	Aves	Ardeidae	<i>Ardea alba modesta</i>	eastern great egret	SL		16	QAI
Animalia	Aves	Ardeidae	<i>Ardea ibis</i>	cattle egret	SL		14	QAI
Animalia	Aves	Ardeidae	<i>Ardea intermedia</i>	intermediate egret	C		10	QAI
Animalia	Aves	Ardeidae	<i>Ardea pacifica</i>	white-necked heron	C		21	QA
Animalia	Aves	Ardeidae	<i>Egretta garzetta</i>	little egret	C		4	QAI
Animalia	Aves	Ardeidae	<i>Egretta novaehollandiae</i>	white-faced heron	C		53	QAI
Animalia	Aves	Ardeidae	<i>Nycticorax caledonicus</i>	nankeen night-heron	C		4	QAI
Animalia	Aves	Artamidae	<i>Artamus cinereus</i>	black-faced woodswallow	C		4	QA
Animalia	Aves	Artamidae	<i>Artamus cyanopterus</i>	dusky woodswallow	C		1	QA
Animalia	Aves	Artamidae	<i>Artamus leucorhynchus</i>	white-breasted woodswallow	C		3	QA
Animalia	Aves	Artamidae	<i>Artamus personatus</i>	masked woodswallow	C		82	QA
Animalia	Aves	Artamidae	<i>Artamus superciliosus</i>	white-browed woodswallow	C		1	QA
Animalia	Aves	Artamidae	<i>Cracticus nigrogularis</i>	piebald butcherbird	C		159	QA
Animalia	Aves	Artamidae	<i>Cracticus tibicen</i>	Australian magpie	C		195	QAI
Animalia	Aves	Artamidae	<i>Cracticus torquatus</i>	grey butcherbird	C		118	QA
Animalia	Aves	Artamidae	<i>Strepera graculina</i>	piebald currawong	C		136	QA
Animalia	Aves	Burhinidae	<i>Burhinus grallarius</i>	bush stone-curlew	C		5	QAI
Animalia	Aves	Cacatuidae	<i>Cacatua galerita</i>	sulphur-crested cockatoo	C		93	QAI
Animalia	Aves	Cacatuidae	<i>Cacatua sanguinea</i>	little corella	C		4	QAI
Animalia	Aves	Cacatuidae	<i>Calyptorhynchus banksii</i>	red-tailed black-cockatoo	C		10	QA
Animalia	Aves	Cacatuidae	<i>Calyptorhynchus funereus</i>	yellow-tailed black-cockatoo	C		12	QA
Animalia	Aves	Cacatuidae	<i>Calyptorhynchus lathami lathami</i>	glossy black-cockatoo (eastern)	V		1	QA
Animalia	Aves	Cacatuidae	<i>Eolophus roseicapillus</i>	galah	C		148	QA
Animalia	Aves	Cacatuidae	<i>Nymphicus hollandicus</i>	cockatiel	C		56	QA
Animalia	Aves	Campephagidae	<i>Coracina maxima</i>	ground cuckoo-shrike	C		4	QA
Animalia	Aves	Campephagidae	<i>Coracina novaehollandiae</i>	black-faced cuckoo-shrike	C		139	QAI
Animalia	Aves	Campephagidae	<i>Coracina papuensis</i>	white-bellied cuckoo-shrike	C		3	QAI
Animalia	Aves	Campephagidae	<i>Coracina tenuirostris</i>	cicadabird	C		15	QAI
Animalia	Aves	Campephagidae	<i>Lalage leucomela</i>	varied triller	C		7	QAI
Animalia	Aves	Campephagidae	<i>Lalage tricolor</i>	white-winged triller	C		7	QAI
Animalia	Aves	Charadriidae	<i>Elseya melanops</i>	black-fronted dotterel	C		12	QAI
Animalia	Aves	Charadriidae	<i>Vanellus miles</i>	masked lapwing	C		12	QAI
Animalia	Aves	Charadriidae	<i>Vanellus miles novaehollandiae</i>	masked lapwing (southern subspecies)	C		28	QA
Animalia	Aves	Charadriidae	<i>Vanellus tricolor</i>	banded lapwing	C		1	QA
Animalia	Aves	Ciconiidae	<i>Ephippiorhynchus asiaticus</i>	black-necked stork	C		6	QAI
Animalia	Aves	Cisticolidae	<i>Cisticola exilis</i>	golden-headed cisticola	C		28	QAI
Animalia	Aves	Climacteridae	<i>Climacteris picumnus</i>	brown treecreeper	C		88	QA
Animalia	Aves	Climacteridae	<i>Cormobates leucophaea</i>	white-throated treecreeper	C		8	QA
Animalia	Aves	Climacteridae	<i>Cormobates leucophaea metastasis</i>	white-throated treecreeper (southern)	C		11	QA
Animalia	Aves	Columbidae	<i>Chalcophaps indica</i>	emerald dove	C		76	QA
Animalia	Aves	Columbidae	<i>Columba livia</i>	rock dove			9	II
Animalia	Aves	Columbidae	<i>Geopelia humeralis</i>	bar-shouldered dove	C		118	QAI
Animalia	Aves	Columbidae	<i>Geopelia striata</i>	peaceful dove	C		125	QAI
Animalia	Aves	Columbidae	<i>Geophaps plumifera</i>	spinifex pigeon	C		1	QA
Animalia	Aves	Columbidae	<i>Macropygia amboinensis</i>	brown cuckoo-dove	C		5	QAI
Animalia	Aves	Columbidae	<i>Ocyphaps lophotes</i>	crested pigeon	C		157	QA
Animalia	Aves	Columbidae	<i>Phaps chalcoptera</i>	common bronzewing	C		4	QA
Animalia	Aves	Columbidae	<i>Ptilinopus regina</i>	rose-crowned fruit-dove	C		1	QAI
Animalia	Aves	Columbidae	<i>Streptopelia chinensis</i>	spotted dove			15	II
Animalia	Aves	Coraciidae	<i>Eurystomus orientalis</i>	dollarbird	C		48	QAI
Animalia	Aves	Corcoracidae	<i>Corcorax melanorhamphos</i>	white-winged chough	C		36	QA
Animalia	Aves	Corcoracidae	<i>Struthidea cinerea</i>	apostlebird	C		104	QA
Animalia	Aves	Corvidae	<i>Corvus coronoides</i>	Australian raven	C		93	QA
Animalia	Aves	Corvidae	<i>Corvus orru</i>	Torresian crow	C		102	QAI
Animalia	Aves	Corvidae	<i>Corvus sp.</i>				6	U
Animalia	Aves	Cuculidae	<i>Cacomantis flabelliformis</i>	fan-tailed cuckoo	C		21	QAI
Animalia	Aves	Cuculidae	<i>Cacomantis variolosus</i>	brush cuckoo	C		19	QAI



Animalia	Aves	Cuculidae	<i>Centropus phasianinus</i>	pheasant coucal	C		103	QA
Animalia	Aves	Cuculidae	<i>Chalcites basalis</i>	Horsfield's bronze-cuckoo	C		1	QAI
Animalia	Aves	Cuculidae	<i>Chalcites lucidus</i>	shining bronze-cuckoo	C		5	QAI
Animalia	Aves	Cuculidae	<i>Eudynamys orientalis</i>	eastern koel	C		28	QAI
Animalia	Aves	Cuculidae	<i>Scythrops novaehollandiae</i>	channel-billed cuckoo	C		14	QAI
Animalia	Aves	Dicruridae	<i>Dicrurus bracteatus</i>	spangled drongo	C		29	QAI
Animalia	Aves	Estrildidae	<i>Lonchura castaneothorax</i>	chestnut-breasted mannikin	C		12	QAI
Animalia	Aves	Estrildidae	<i>Neochmia modesta</i>	plum-headed finch	C		12	QA
Animalia	Aves	Estrildidae	<i>Neochmia temporalis</i>	red-browed finch	C		77	QA
Animalia	Aves	Estrildidae	<i>Taeniopygia bichenovii</i>	double-barred finch	C		164	QA
Animalia	Aves	Estrildidae	<i>Taeniopygia guttata</i>	zebra finch	C		16	QA
Animalia	Aves	Eurostopodidae	<i>Eurostopodus mystacalis</i>	white-throated nightjar	C		9	QAI
Animalia	Aves	Falconidae	<i>Falco berigora</i>	brown falcon	C		13	QAI
Animalia	Aves	Falconidae	<i>Falco cenchroides</i>	nankeen kestrel	C		40	QAI
Animalia	Aves	Falconidae	<i>Falco longipennis</i>	Australian hobby	C		3	QAI
Animalia	Aves	Falconidae	<i>Falco peregrinus</i>	peregrine falcon	C		4	QAI
Animalia	Aves	Falconidae	<i>Falco subniger</i>	black falcon	C		1	QA
Animalia	Aves	Halcyonidae	<i>Dacelo novaeguineae</i>	laughing kookaburra	C		136	QA
Animalia	Aves	Halcyonidae	<i>Todiramphus macleayii</i>	forest kingfisher	C		14	QAI
Animalia	Aves	Halcyonidae	<i>Todiramphus pyrrhopylgius</i>	red-backed kingfisher	C		1	QA
Animalia	Aves	Halcyonidae	<i>Todiramphus sanctus</i>	sacred kingfisher	C		62	QAI
Animalia	Aves	Hirundinidae	<i>Cheramoeca leucosterna</i>	white-backed swallow	C		1	QA
Animalia	Aves	Hirundinidae	<i>Hirundo neoxena</i>	welcome swallow	C		39	QAI
Animalia	Aves	Hirundinidae	<i>Petrochelidon ariel</i>	fairy martin	C		17	QA
Animalia	Aves	Hirundinidae	<i>Petrochelidon nigricans</i>	tree martin	C		16	QAI
Animalia	Aves	Jacaniidae	<i>Irediparra gallinacea</i>	comb-crested jacana	C		2	QAI
Animalia	Aves	Laridae	<i>Chroicocephalus novaehollandiae</i>	silver gull	C		1	QAI
Animalia	Aves	Laridae	<i>Hydroprogne caspia</i>	Caspian tern	SL		1	QAI
Animalia	Aves	Maluridae	<i>Malurus cyaneus</i>	superb fairy-wren	C		151	QA
Animalia	Aves	Maluridae	<i>Malurus lamberti</i>	variegated fairy-wren	C		106	QA
Animalia	Aves	Maluridae	<i>Malurus melanocephalus</i>	red-backed fairy-wren	C		64	QA
Animalia	Aves	Megaluridae	<i>Cincloramphus mathewsi</i>	rufous songlark	C		1	QA
Animalia	Aves	Megaluridae	<i>Megalurus timoriensis</i>	tawny grassbird	C		8	QAI
Animalia	Aves	Megapodiidae	<i>Alectura lathamii</i>	Australian brush-turkey	C		10	QA
Animalia	Aves	Meliphagidae	<i>Acanthagenys rufogularis</i>	spiny-cheeked honeyeater	C		4	QA
Animalia	Aves	Meliphagidae	<i>Acanthorhynchus tenuirostris</i>	eastern spinebill	C		1	QA
Animalia	Aves	Meliphagidae	<i>Anthochaera carunculata</i>	red wattlebird	C		1	QA
Animalia	Aves	Meliphagidae	<i>Caligavis chrysops</i>	yellow-faced honeyeater	C		12	QA
Animalia	Aves	Meliphagidae	<i>Entomyzon cyanotis</i>	blue-faced honeyeater	C		109	QAI
Animalia	Aves	Meliphagidae	<i>Lichenostomus melanops</i>	yellow-tufted honeyeater	C		3	QA
Animalia	Aves	Meliphagidae	<i>Lichmera indistincta</i>	brown honeyeater	C		110	QA
Animalia	Aves	Meliphagidae	<i>Manorina flavigula</i>	yellow-throated miner	C		1	QA
Animalia	Aves	Meliphagidae	<i>Manorina melanocephala</i>	noisy miner	C		137	QA
Animalia	Aves	Meliphagidae	<i>Meliphaga lewinii</i>	Lewin's honeyeater	C		117	QA
Animalia	Aves	Meliphagidae	<i>Melithreptus albogularis</i>	white-throated honeyeater	C		40	QAI
Animalia	Aves	Meliphagidae	<i>Melithreptus brevirostris</i>	brown-headed honeyeater	C		6	QA
Animalia	Aves	Meliphagidae	<i>Melithreptus gularis</i>	black-chinned honeyeater	C		7	QA
Animalia	Aves	Meliphagidae	<i>Melithreptus lunatus</i>	white-naped honeyeater	C		6	QA
Animalia	Aves	Meliphagidae	<i>Myzomela obscura</i>	dusky honeyeater	C		1	QAI
Animalia	Aves	Meliphagidae	<i>Myzomela sanguinolenta</i>	scarlet honeyeater	C		18	QA
Animalia	Aves	Meliphagidae	<i>Nesoptilotis leucotis</i>	white-eared honeyeater	C		6	QA
Animalia	Aves	Meliphagidae	<i>Philemon citreogularis</i>	little friarbird	C		72	QAI
Animalia	Aves	Meliphagidae	<i>Philemon corniculatus</i>	noisy friarbird	C		94	QAI
Animalia	Aves	Meliphagidae	<i>Plectorhyncha lanceolata</i>	striped honeyeater	C		51	QA
Animalia	Aves	Meliphagidae	<i>Ptilotula fusca</i>	fuscous honeyeater	C		3	QA
Animalia	Aves	Meliphagidae	<i>Ptilotula penicillata</i>	white-plumed honeyeater	C		1	QA
Animalia	Aves	Meropidae	<i>Merops ornatus</i>	rainbow bee-eater	SL		43	QAI
Animalia	Aves	Monarchidae	<i>Carterornis leucotis</i>	white-eared monarch	C		1	QA
Animalia	Aves	Monarchidae	<i>Grallina cyanoleuca</i>	maggie-lark	C		178	QAI
Animalia	Aves	Monarchidae	<i>Monarcha melanopsis</i>	black-faced monarch	SL		71	QAI
Animalia	Aves	Monarchidae	<i>Myiagra cyanoleuca</i>	satin flycatcher	SL		24	QAI
Animalia	Aves	Monarchidae	<i>Myiagra inquieta</i>	restless flycatcher	C		36	QA
Animalia	Aves	Monarchidae	<i>Myiagra rubecula</i>	leaden flycatcher	C		59	QAI
Animalia	Aves	Monarchidae	<i>Symphysichrus trivirgatus</i>	spectacled monarch	SL		2	QAI
Animalia	Aves	Motacillidae	<i>Anthus novaeseelandiae</i>	Australasian pipit	C		13	QAI
Animalia	Aves	Nectariniidae	<i>Dicaeum hirundinaceum</i>	mistletoebird	C		84	QAI
Animalia	Aves	Neosittidae	<i>Daphoenositta chrysoptera</i>	varied sittella	C		75	QAI
Animalia	Aves	Oriolidae	<i>Oriolus sagittatus</i>	olive-backed oriole	C		56	QAI
Animalia	Aves	Oriolidae	<i>Sphecotheres vieilloti</i>	Australasian figbird	C		55	QAI
Animalia	Aves	Otididae	<i>Ardeotis australis</i>	Australian bustard	C		4	QAI
Animalia	Aves	Pachycephalidae	<i>Colluricincla harmonica</i>	grey shrike-thrush	C		63	QAI
Animalia	Aves	Pachycephalidae	<i>Colluricincla megarhyncha</i>	little shrike-thrush	C		3	QAI

Animalia	Aves	Pachycephalidae	<i>Pachycephala pectoralis</i>	golden whistler	C		62	QAI
Animalia	Aves	Pachycephalidae	<i>Pachycephala rufiventris</i>	rufous whistler	C		100	QAI
Animalia	Aves	Pardalotidae	<i>Pardalotus punctatus</i>	spotted pardalote	C		21	QA
Animalia	Aves	Pardalotidae	<i>Pardalotus striatus</i>	striated pardalote	C		139	QA
Animalia	Aves	Passeridae	<i>Passer domesticus</i>	house sparrow			23	II
Animalia	Aves	Pelecanidae	<i>Pelecanus conspicillatus</i>	Australian pelican	C		17	QAI
Animalia	Aves	Petroicidae	<i>Eopsaltria australis</i>	eastern yellow robin	C		98	QA
Animalia	Aves	Petroicidae	<i>Microeca fascians</i>	jacky winter	C		14	QAI
Animalia	Aves	Petroicidae	<i>Petroica goodenovii</i>	red-capped robin	C		4	QA
Animalia	Aves	Petroicidae	<i>Petroica rosea</i>	rose robin	C		3	QA
Animalia	Aves	Petroicidae	<i>Tregellasia capito</i>	pale-yellow robin	C		1	QA
Animalia	Aves	Phalacrocoracidae	<i>Microcarbo melanoleucos</i>	little pied cormorant	C		24	QAI
Animalia	Aves	Phalacrocoracidae	<i>Phalacrocorax carbo</i>	great cormorant	C		13	QAI
Animalia	Aves	Phalacrocoracidae	<i>Phalacrocorax sulcirostris</i>	little black cormorant	C		10	QA
Animalia	Aves	Phalacrocoracidae	<i>Phalacrocorax varius</i>	pied cormorant	C		3	QAI
Animalia	Aves	Phasianidae	<i>Coturnix pectoralis</i>	stubble quail	C		3	QA
Animalia	Aves	Phasianidae	<i>Coturnix ypsilophora</i>	brown quail	C		76	QAI
Animalia	Aves	Phasianidae	<i>Excalfactoria chinensis</i>	king quail	C		6	QAI
Animalia	Aves	Podargidae	<i>Podargus strigoides</i>	tawny frogmouth	C		77	QA
Animalia	Aves	Podicipedidae	<i>Podiceps cristatus</i>	great crested grebe	C		1	QAI
Animalia	Aves	Podicipedidae	<i>Poliocephalus poliocephalus</i>	hoary-headed grebe	C		1	QA
Animalia	Aves	Podicipedidae	<i>Tachybaptus novaehollandiae</i>	Australasian grebe	C		36	QAI
Animalia	Aves	Pomatostomidae	<i>Pomatostomus temporalis</i>	grey-crowned babbler	C		41	QAI
Animalia	Aves	Psittacidae	<i>Alisterus scapularis</i>	Australian king-parrot	C		109	QA
Animalia	Aves	Psittacidae	<i>Aprosmictus erythropterus</i>	red-winged parrot	C		81	QAI
Animalia	Aves	Psittacidae	<i>Glossopsitta concinna</i>	musk lorikeet	C		2	QA
Animalia	Aves	Psittacidae	<i>Melopsittacus undulatus</i>	budgerigar	C		2	QA
Animalia	Aves	Psittacidae	<i>Northiella haematogaster</i>	blue bonnet	C		1	QA
Animalia	Aves	Psittacidae	<i>Parvipsitta pusilla</i>	little lorikeet	C		12	QA
Animalia	Aves	Psittacidae	<i>Platycercus adscitus</i>	pale-headed rosella	C		144	QA
Animalia	Aves	Psittacidae	<i>Platycercus elegans</i>	crimson rosella	C		1	QA
Animalia	Aves	Psittacidae	<i>Platycercus eximius</i>	eastern rosella	C		2	QA
Animalia	Aves	Psittacidae	<i>Psephotus haematonotus</i>	red-rumped parrot	C		13	QA
Animalia	Aves	Psittacidae	<i>Trichoglossus chlorolepidotus</i>	scaly-breasted lorikeet	C		60	QA
Animalia	Aves	Psittacidae	<i>Trichoglossus haematodus moluccanus</i>	rainbow lorikeet	C		156	QA
Animalia	Aves	Psophodidae	<i>Cinclosoma punctatum</i>	spotted quail-thrush	C		2	QA
Animalia	Aves	Psophodidae	<i>Psophodes olivaceus</i>	eastern whipbird	C		48	QA
Animalia	Aves	Ptilonorhynchidae	<i>Sericulus chrysocephalus</i>	regent bowerbird	C		36	QA
Animalia	Aves	Rallidae	<i>Fulica atra</i>	Eurasian coot	C		15	QAI
Animalia	Aves	Rallidae	<i>Gallinula tenebrosa</i>	dusky moorhen	C		12	QAI
Animalia	Aves	Rallidae	<i>Gallirallus philippensis</i>	buff-banded rail	C		3	QAI
Animalia	Aves	Rallidae	<i>Lewinia pectoralis</i>	Lewin's rail	C		3	QAI
Animalia	Aves	Rallidae	<i>Porphyrio melanotus</i>	purple swamphen	C		14	QAI
Animalia	Aves	Rallidae	<i>Porzana fluminea</i>	Australian spotted crane	C		1	QA
Animalia	Aves	Rallidae	<i>Porzana pusilla</i>	Baillon's crane	C		1	QAI
Animalia	Aves	Recurvirostridae	<i>Himantopus himantopus</i>	black-winged stilt	C		7	QAI
Animalia	Aves	Recurvirostridae	<i>Recurvirostra novaehollandiae</i>	red-necked avocet	C		2	QA
Animalia	Aves	Rhipiduridae	<i>Rhipidura albiscapa</i>	grey fantail	C		124	QAI
Animalia	Aves	Rhipiduridae	<i>Rhipidura leucophrys</i>	willie wagtail	C		159	QAI
Animalia	Aves	Rhipiduridae	<i>Rhipidura rufifrons</i>	rufous fantail	SL		40	QAI
Animalia	Aves	Scolopacidae	<i>Gallinago hardwickii</i>	Latham's snipe	SL		11	QAI
Animalia	Aves	Strigidae	<i>Ninox boobook</i>	southern boobook	C		94	QAI
Animalia	Aves	Strigidae	<i>Ninox connivens</i>	barking owl	C		1	QAI
Animalia	Aves	Sturnidae	<i>Acridotheres tristis</i>	common myna			3	II
Animalia	Aves	Sturnidae	<i>Sturnus vulgaris</i>	common starling			28	II
Animalia	Aves	Threskiornithidae	<i>Platalea flavipes</i>	yellow-billed spoonbill	C		12	QA
Animalia	Aves	Threskiornithidae	<i>Platalea regia</i>	royal spoonbill	C		15	QAI
Animalia	Aves	Threskiornithidae	<i>Threskiornis molucca</i>	Australian white ibis	C		27	QAI
Animalia	Aves	Threskiornithidae	<i>Threskiornis spinicollis</i>	straw-necked ibis	C		38	QAI
Animalia	Aves	Timaliidae	<i>Zosterops lateralis</i>	silveryeye	C		122	QAI
Animalia	Aves	Turnicidae	<i>Turnix maculosus</i>	red-backed button-quail	C		1	QAI
Animalia	Aves	Turnicidae	<i>Turnix melanogaster</i>	black-breasted button-quail	V	V	5	QA
Animalia	Aves	Turnicidae	<i>Turnix varius</i>	painted button-quail	C		3	QA
Animalia	Aves	Turnicidae	<i>Turnix velox</i>	little button-quail	C		2	QA
Animalia	Aves	Tytonidae	<i>Tyto delicatula</i>	eastern barn owl	C		13	QAI
Animalia	Insecta	Coenagrionidae	<i>Ischnura heterosticta heterosticta</i>	common bluetail			1	QAI
Animalia	Insecta	Libellulidae	<i>Crocothemis nigrifrons</i>	black-headed skimmer			1	QAI
Animalia	Insecta	Libellulidae	<i>Diplacodes bipunctata</i>	wandering percher			1	QAI
Animalia	Insecta	Libellulidae	<i>Orthetrum caledonicum</i>	blue skimmer			1	QAI
Animalia	Insecta	Nymphalidae	<i>Acraea andromacha andromacha</i>	glasswing			1	QAI
Animalia	Insecta	Nymphalidae	<i>Danaus petilia</i>	lesser wanderer			1	QAI

Animalia	Insecta	Papilionidae	<i>Cressida cressida cressida</i>	greasy swallowtail			1	QA
Animalia	Insecta	Pieridae	<i>Belenois java teutonia</i>	capet white			1	QAI
Animalia	Insecta	Pieridae	<i>Delias nigrina</i>	black jezebel			1	QA
Animalia	Insecta	Pieridae	<i>Eurema smilax</i>	small grass-yellow			1	QA
Animalia	Mammalia	Acrobatidae	<i>Acrobates pygmaeus</i>	feathertail glider	C		1	QA
Animalia	Mammalia	Canidae	<i>Vulpes vulpes</i>	red fox			1	II
Animalia	Mammalia	Dasyuridae	<i>Dasyurus hallucatus</i>	northern quoll	C	E	1	QA
Animalia	Mammalia	Felidae	<i>Felis catus</i>	cat			1	II
Animalia	Mammalia	Leporidae	<i>Lepus europaeus</i>	European brown hare			1	II
Animalia	Mammalia	Macropodidae	<i>Macropus sp.</i>				1	U
Animalia	Mammalia	Muridae	<i>Mus musculus</i>	house mouse			1	II
Animalia	Mammalia	Muridae	<i>Rattus fuscipes</i>	bush rat	C		1	QA
Animalia	Mammalia	Ornithorhynchidae	<i>Ornithorhynchus anatinus</i>	platypus	SL		6	QA
Animalia	Mammalia	Peramelidae	<i>Isodon macrourus</i>	northern brown bandicoot	C		1	QAI
Animalia	Mammalia	Petauridae	<i>Petaurus brevipes</i>	sugar glider	C		1	QAI
Animalia	Mammalia	Phalangeridae	<i>Trichosurus vulpecula</i>	common brushtail possum	C		1	QA
Animalia	Mammalia	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala	V	V	25	QA
Animalia	Mammalia	Pseudocheiridae	<i>Petauroides volans</i>	greater glider	C	V	2	QA
Animalia	Mammalia	Pteropodidae	<i>Pteropus alecto</i>	black flying-fox	C		5	QAI
Animalia	Mammalia	Pteropodidae	<i>Pteropus poliocephalus</i>	grey-headed flying-fox	C	V	9	QA
Animalia	Mammalia	Pteropodidae	<i>Pteropus scapulatus</i>	little red flying-fox	C		4	QAI
Animalia	Mammalia	Pteropodidae	<i>Pteropus sp.</i>				1	U
Animalia	Mammalia	Tachyglossidae	<i>Tachyglossus aculeatus</i>	short-beaked echidna	SL		2	QAI
Animalia	Reptilia	Chelidae	<i>Chelodina expansa</i>	broad-shelled river turtle	C		2	QA
Animalia	Reptilia	Chelidae	<i>Chelodina longicollis</i>	eastern snake-necked turtle	C		2	QA
Animalia	Reptilia	Chelidae	<i>Eseya albagula</i>	southern snapping turtle	E	CE	2	Q
Animalia	Reptilia	Chelidae	<i>Elusor macrurus</i>	Mary River turtle	E	E	7	Q
Animalia	Reptilia	Chelidae	<i>Emydura macquarii krefftii</i>	Krefft's river turtle	C		3	QA
Animalia	Reptilia	Chelidae	<i>Wollumbinia latisternum</i>	saw-shelled turtle	C		1	QA
Animalia	Reptilia	Colubridae	<i>Boiga irregularis</i>	brown tree snake	C		2	QAI
Animalia	Reptilia	Diplodactylidae	<i>Oedura tryoni</i>	southern spotted velvet gecko	C		1	QA
Animalia	Reptilia	Elapidae	<i>Cryptophis boschmai</i>	Carpentaria whip snake	C		1	Q
Animalia	Reptilia	Elapidae	<i>Cryptophis nigriscens</i>	eastern small-eyed snake	C		1	QA
Animalia	Reptilia	Elapidae	<i>Demansia psammophis</i>	yellow-faced whipsnake	C		1	QA
Animalia	Reptilia	Elapidae	<i>Furina diadema</i>	red-naped snake	C		3	QA
Animalia	Reptilia	Elapidae	<i>Pseudechis porphyriacus</i>	red-bellied black snake	C		1	QA
Animalia	Reptilia	Elapidae	<i>Pseudonaja textilis</i>	eastern brown snake	C		2	QAI
Animalia	Reptilia	Scincidae	<i>Carlia pectoralis sensu lato</i>		C		1	Q
Animalia	Reptilia	Scincidae	<i>Ctenotus spaldingi</i>	straight-browed ctenotus	C		1	QAI
Animalia	Reptilia	Scincidae	<i>Morethia boulengeri</i>	south-eastern morethia skink	C		1	QA
Animalia	Reptilia	Scincidae	<i>Tiliqua scincoides</i>	eastern blue-tongued lizard	C		1	QA
Animalia	Reptilia	Typhlopidae	<i>Anilius ligatus</i>	robust blind snake	C		1	QA
Animalia	Reptilia	Typhlopidae	<i>Anilius wiedii</i>	brown-snouted blind snake	C		1	QA
Animalia	Sarcopterygii	Ceratodontidae	<i>Neoceratodus forsteri</i>	Australian lungfish		V	3	Q
Fungi	Ascomycetes	Cladiaceae	<i>Cladia muelleri</i>		C		2	U
Fungi	Ascomycetes	Graphidaceae	<i>Graphis tenuirima</i>		C		1	U
Fungi	Ascomycetes	Physciaceae	<i>Dirinaria leopoldii</i>		C		1	U
Fungi	Ascomycetes	Physciaceae	<i>Dirinaria picta</i>		C		2	U
Fungi	Ascomycetes	Physciaceae	<i>Pyxine coccinea</i>		C		1	U
Fungi	Basidiomycetes	Basidiomycota	<i>Ganoderma weberianum</i>		C		1	U
Fungi	Basidiomycetes	Basidiomycota	<i>Trametes elegans</i>		C		1	U
Plantae	Cycadopsida	Cycadaceae	<i>Cycas megacarpa</i>		E	E	1	U
Plantae	Liliopsida	Aponogetonaceae	<i>Aponogeton elongatus subsp. elongatus</i>		NT		1	QA
Plantae	Liliopsida	Asparagaceae	<i>Asparagus africanus</i>	ornamental asparagus			1	IU
Plantae	Liliopsida	Cyperaceae	<i>Baumea articulata</i>	jointed twigrush	C		1	U
Plantae	Liliopsida	Cyperaceae	<i>Cyperus exaltatus</i>	tall flatsedge	C		1	U
Plantae	Liliopsida	Cyperaceae	<i>Cyperus fulvus</i>		C		3	U
Plantae	Liliopsida	Cyperaceae	<i>Cyperus gracilis</i>		C		1	U
Plantae	Liliopsida	Cyperaceae	<i>Fimbristylis dichotoma</i>	common fringe-rush	C		2	U
Plantae	Liliopsida	Cyperaceae	<i>Scleria mackayensis</i>		C		1	U
Plantae	Liliopsida	Dioscoreaceae	<i>Dioscorea transversa</i>	native yam	C		1	U
Plantae	Liliopsida	Hemerocallidaceae	<i>Dianella brevipedunculata</i>		C		1	U
Plantae	Liliopsida	Hemerocallidaceae	<i>Geitonoplesium cymosum</i>	scrambling lily	C		2	U
Plantae	Liliopsida	Hydrocharitaceae	<i>Hydrilla verticillata</i>	hydrilla	C		1	U
Plantae	Liliopsida	Hydrocharitaceae	<i>Vallisneria spiralis</i>		C		1	U
Plantae	Liliopsida	Juncaceae	<i>Juncus usitatus</i>		C		1	U
Plantae	Liliopsida	Orchidaceae	<i>Bulbophyllum schillerianum</i>	red rope orchid	C		1	U
Plantae	Liliopsida	Orchidaceae	<i>Calanthe triplicata</i>	christmas orchid	C		1	U
Plantae	Liliopsida	Orchidaceae	<i>Cyanicula caerulea</i>		C		2	U
Plantae	Liliopsida	Orchidaceae	<i>Dockrillia bowmanii</i>	scrub pencil orchid	C		1	U
Plantae	Liliopsida	Orchidaceae	<i>Pterostylis bicolor</i>		C		1	U

Plantae	Liliopsida	Orchidaceae	<i>Pterostylis mutica</i>	midget greenhood	C		1	U
Plantae	Liliopsida	Poaceae	<i>Ancistrachne uncinulata</i>	hooky grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Anthosachne plurinervis</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Aristida benthamii</i> var. <i>benthamii</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Aristida calycina</i> var. <i>calycina</i>		C		2	U
Plantae	Liliopsida	Poaceae	<i>Aristida gracilipes</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Aristida personata</i>		C		2	U
Plantae	Liliopsida	Poaceae	<i>Aristida queenslandica</i> var. <i>dissimilis</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Austrostipa ramosissima</i>	bamboo grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Avena sativa</i>	common oats			1	IU
Plantae	Liliopsida	Poaceae	<i>Bothriochloa bladhii</i> subsp. <i>bladhii</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Bothriochloa decipiens</i> var. <i>decipiens</i>		C		2	U
Plantae	Liliopsida	Poaceae	<i>Capillipedium spicigerum</i>	spicytop	C		1	U
Plantae	Liliopsida	Poaceae	<i>Cenchrus echinatus</i>	Mossman River grass			2	IU
Plantae	Liliopsida	Poaceae	<i>Cenchrus longispinus</i>				1	IU
Plantae	Liliopsida	Poaceae	<i>Cenchrus purpurascens</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Chionachne cyathopoda</i>	river grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Chloris divaricata</i> var. <i>divaricata</i>	slender chloris	C		2	U
Plantae	Liliopsida	Poaceae	<i>Chloris gayana</i>	rhodes grass			1	IU
Plantae	Liliopsida	Poaceae	<i>Chloris ventricosa</i>	tall chloris	C		2	U
Plantae	Liliopsida	Poaceae	<i>Chrysopogon filipes</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Chrysopogon sylvaticus</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Cymbopogon refractus</i>	barbed-wire grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Dichanthium aristatum</i>	angleton grass			1	IU
Plantae	Liliopsida	Poaceae	<i>Dichanthium sericeum</i> subsp. <i>sericeum</i>		C		7	U
Plantae	Liliopsida	Poaceae	<i>Digitaria ramularis</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Echinochloa frumentacea</i>	Siberian millet			1	IU
Plantae	Liliopsida	Poaceae	<i>Echinochloa telmatophila</i>	swamp barnyard grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Entolasia stricta</i>	wiry panic	C		1	U
Plantae	Liliopsida	Poaceae	<i>Eragrostis cillianensis</i>				1	IU
Plantae	Liliopsida	Poaceae	<i>Eragrostis elongata</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Eragrostis leptostachya</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Eragrostis parviflora</i>	weeping lovegrass	C		2	U
Plantae	Liliopsida	Poaceae	<i>Eragrostis sororia</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Eragrostis spartinoides</i>		C		2	U
Plantae	Liliopsida	Poaceae	<i>Eremochloa bimaculata</i>	poverty grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Eriochloa procera</i>	slender cupgrass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Eriochloa pseudoacrotricha</i>		C		2	U
Plantae	Liliopsida	Poaceae	<i>Hyparrhenia hirta</i>	coolati grass			1	IU
Plantae	Liliopsida	Poaceae	<i>Lachnagrostis filiformis</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Lolium multiflorum</i>	italian ryegrass			1	IU
Plantae	Liliopsida	Poaceae	<i>Lolium perenne</i>	perennial ryegrass			1	IU
Plantae	Liliopsida	Poaceae	<i>Lolium x hybridum</i>				1	IU
Plantae	Liliopsida	Poaceae	<i>Megathyrsus maximus</i>				1	IU
Plantae	Liliopsida	Poaceae	<i>Moorochloa eruciformis</i>				2	IU
Plantae	Liliopsida	Poaceae	<i>Oplismenus aemulus</i>	creeping shade grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Panicum decompositum</i> var. <i>decompositum</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Panicum effusum</i>		C		3	U
Plantae	Liliopsida	Poaceae	<i>Panicum queenslandicum</i> var. <i>queenslandicum</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Panicum simile</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Paspalidium aversum</i>		C		3	U
Plantae	Liliopsida	Poaceae	<i>Paspalum dilatatum</i>	paspalum			1	IU
Plantae	Liliopsida	Poaceae	<i>Poa</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Polypogon monspeliensis</i>	annual beardgrass			1	IU
Plantae	Liliopsida	Poaceae	<i>Sarga leiocladum</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Sorghum arundinaceum</i>	Rhodesian Sudan grass			1	IU
Plantae	Liliopsida	Poaceae	<i>Sorghum bicolor</i>	forage sorghum			1	IU
Plantae	Liliopsida	Poaceae	<i>Sorghum x alnum</i>				1	IU
Plantae	Liliopsida	Poaceae	<i>Sporobolus creber</i>		C		3	U
Plantae	Liliopsida	Poaceae	<i>Sporobolus elongatus</i>		C		2	U
Plantae	Liliopsida	Poaceae	<i>Sporobolus laxus</i>		C		1	U
Plantae	Liliopsida	Poaceae	<i>Sporobolus natalensis</i>				8	IU
Plantae	Liliopsida	Poaceae	<i>Sporobolus pyramidalis</i>				1	IU
Plantae	Liliopsida	Poaceae	<i>Themeda quadrivalvis</i>	grader grass			1	IU
Plantae	Liliopsida	Poaceae	<i>Themeda triandra</i>	kangaroo grass	C		1	U
Plantae	Liliopsida	Poaceae	<i>Tragus australianus</i>	small burr grass			1	U
Plantae	Liliopsida	Poaceae	<i>Urochloa foliosa</i>		C		1	U
Plantae	Liliopsida	Typhaceae	<i>Sparganium erectum</i> subsp. <i>stoloniferum</i>	erect bur-reed			1	IU



Plantae	Liliopsida	Typhaceae	<i>Typha domingensis</i>		C		2	U
Plantae	Liliopsida	Xanthorrhoeaceae	<i>Xanthorrhoea glauca</i> subsp. <i>glauca</i>		C		2	U
Plantae	Liliopsida	Xanthorrhoeaceae	<i>Xanthorrhoea johnsonii</i>		C		1	U
Plantae	Magnoliopsida	Annonaceae	<i>Melodorum leichhardtii</i>		C		3	U
Plantae	Magnoliopsida	Ceratophyllaceae	<i>Ceratophyllum demersum</i>	hornwort	C		1	U
Plantae	Magnoliopsida	Lauraceae	<i>Cinnamomum camphora</i>	camphor laurel			1	IU
Plantae	Magnoliopsida	Lauraceae	<i>Cryptocarya hypospodia</i>	north Queensland purple laurel	C		1	U
Plantae	Magnoliopsida	Lauraceae	<i>Cryptocarya sclerophylla</i>	totempole	C		1	U
Plantae	Magnoliopsida	Menispermaceae	<i>Legnephora moorei</i>		C		1	U
Plantae	Magnoliopsida	Menispermaceae	<i>Stephania japonica</i> var. <i>discolor</i>		C		1	U
Plantae	Magnoliopsida	Ranunculaceae	<i>Clematis pickeringii</i>		C		1	U
Plantae	Magnoliopsida	Ranunculaceae	<i>Ranunculus sceleratus</i> subsp. <i>sceleratus</i>				1	IU
Plantae	Musci	Bryophyte	<i>Bryophyte</i>		C		1	U
Plantae	Pinopsida	Araucariaceae	<i>Araucaria cunninghamii</i>	hoop pine	C		1	QAI
Plantae	Pinopsida	Cupressaceae	<i>Callitris baileyi</i>	Bailey's cypress	NT		2	U
Plantae	Polypodiopsida	Adiantaceae	<i>Adiantum atroviride</i>		C		1	U
Plantae	Polypodiopsida	Adiantaceae	<i>Adiantum hispidulum</i>		C		1	U
Plantae	Polypodiopsida	Adiantaceae	<i>Adiantum hispidulum</i> var. <i>minus</i>		C		1	U
Plantae	Polypodiopsida	Adiantaceae	<i>Cheilanthes distans</i>	bristly cloak fern	C		1	U
Plantae	Polypodiopsida	Adiantaceae	<i>Pellaea falcata</i>		C		1	U
Plantae	Polypodiopsida	Adiantaceae	<i>Pellaea nana</i>		C		1	U
Plantae	Polypodiopsida	Azollaceae	<i>Azolla pinnata</i>	fern azolla	C		1	U
Plantae	Polypodiopsida	Azollaceae	<i>Azolla rubra</i>		C		1	U
Plantae	Polypodiopsida	Polypodiaceae	<i>Microsorium punctatum</i>		C		1	U
Plantae	Polypodiopsida	Polypodiaceae	<i>Pyrrosia confluens</i>		C		1	U
Plantae	Polypodiopsida	Polypodiaceae	<i>Pyrrosia rupestris</i>	rock felt fern	C		1	U
Plantae	Polypodiopsida	Salviniaceae	<i>Salvinia molesta</i>	salvinia			2	IU
Plantae	Rosopsida	Acanthaceae	<i>Brunoniella australis</i>	blue trumpet	C		1	U
Plantae	Rosopsida	Acanthaceae	<i>Harnieria hygrophiloides</i>	white karambal	C		1	U
Plantae	Rosopsida	Acanthaceae	<i>Pseuderanthemum variabile</i>	pastel flower	C		1	U
Plantae	Rosopsida	Amaranthaceae	<i>Alternanthera nana</i>	hairy joyweed	C		1	U
Plantae	Rosopsida	Amaranthaceae	<i>Amaranthus spinosus</i>	needle burr			1	IU
Plantae	Rosopsida	Amaranthaceae	<i>Deeringia arborescens</i>	climbing deeringia	C		1	U
Plantae	Rosopsida	Amaranthaceae	<i>Guilleminea densa</i>	small matweed			3	IU
Plantae	Rosopsida	Amaranthaceae	<i>Nyssanthes diffusa</i>	barbed-wire weed	C		1	U
Plantae	Rosopsida	Amaranthaceae	<i>Nyssanthes erecta</i>		C		1	U
Plantae	Rosopsida	Apiaceae	<i>Centella asiatica</i>		C		1	U
Plantae	Rosopsida	Apiaceae	<i>Eryngium paludosum</i>		C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Alstonia constricta</i>	bitterbark	C		4	U
Plantae	Rosopsida	Apocynaceae	<i>Alyxia ruscifolia</i>		C		3	U
Plantae	Rosopsida	Apocynaceae	<i>Carissa ovata</i>	currantbush	C		2	U
Plantae	Rosopsida	Apocynaceae	<i>Cynanchum bowmanii</i>	bowman's milkvine	C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Gomphocarpus physocarpus</i>	balloon cottonbush			1	IU
Plantae	Rosopsida	Apocynaceae	<i>Marsdenia micradenia</i>	gymnema	C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Marsdenia pleiadenia</i>		C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Parsonsia lanceolata</i>	northern silkpod	C		5	U
Plantae	Rosopsida	Apocynaceae	<i>Parsonsia leichhardtii</i>	black silkpod	C		4	U
Plantae	Rosopsida	Apocynaceae	<i>Parsonsia lilacina</i>	crisped silkpod	C		2	U
Plantae	Rosopsida	Apocynaceae	<i>Parsonsia rotata</i>	veinless silkpod	C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Parsonsia straminea</i>	monkey rope	C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Parsonsia velutina</i>	hairy silkpod	C		1	U
Plantae	Rosopsida	Apocynaceae	<i>Secamone elliptica</i>		C		2	U
Plantae	Rosopsida	Araliaceae	<i>Hydrocotyle laxiflora</i>	stinking pennywort	C		1	U
Plantae	Rosopsida	Araliaceae	<i>Polyscias elegans</i>	celery wood	C		2	U
Plantae	Rosopsida	Asteraceae	<i>Acanthospermum hispidum</i>	star burr			1	IU
Plantae	Rosopsida	Asteraceae	<i>Calotis dentex</i>	white burr daisy	C		2	U
Plantae	Rosopsida	Asteraceae	<i>Camptacra barbata</i>		C		1	U
Plantae	Rosopsida	Asteraceae	<i>Carduus pycnocephalus</i>				1	IU
Plantae	Rosopsida	Asteraceae	<i>Carthamus tinctorius</i>	safflower			1	IU
Plantae	Rosopsida	Asteraceae	<i>Cassinia laevis</i>		C		2	U
Plantae	Rosopsida	Asteraceae	<i>Cassinia laevis</i> - <i>C.longifolia</i>		C		1	U
Plantae	Rosopsida	Asteraceae	<i>Centaurea melitensis</i>	Maltese cockspur			1	IU
Plantae	Rosopsida	Asteraceae	<i>Chrysocephalum apiculatum</i>	yellow buttons	C		1	U
Plantae	Rosopsida	Asteraceae	<i>Cichorium intybus</i>	chicory			2	IU
Plantae	Rosopsida	Asteraceae	<i>Crassocephalum crepidioides</i>	thickhead			1	IU
Plantae	Rosopsida	Asteraceae	<i>Glossocardia bidens</i>	native cobbler's pegs	C		1	U
Plantae	Rosopsida	Asteraceae	<i>Lactuca saligna</i>	wild lettuce			1	IU
Plantae	Rosopsida	Asteraceae	<i>Picris angustifolia</i> subsp. <i>carolorum-henricorum</i>		C		3	U
Plantae	Rosopsida	Asteraceae	<i>Pterocaulon serrulatum</i> var. <i>serrulatum</i>		C		1	U

Plantae	Rosopsida	Bignoniaceae	<i>Dolichandra unguis-cati</i>	cat's claw creeper			4	IU
Plantae	Rosopsida	Bignoniaceae	<i>Jacaranda mimosifolia</i>	jacaranda			1	IU
Plantae	Rosopsida	Bignoniaceae	<i>Pandorea pandorana</i>	wonga vine	C		3	U
Plantae	Rosopsida	Bignoniaceae	<i>Tecoma stans</i> var. <i>stans</i>				1	IU
Plantae	Rosopsida	Boraginaceae	<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>		C		2	U
Plantae	Rosopsida	Brassicaceae	<i>Raphanus raphanistrum</i>	wild radish			1	IU
Plantae	Rosopsida	Brassicaceae	<i>Sisymbrium officinale</i>	hedge mustard			1	IU
Plantae	Rosopsida	Cactaceae	<i>Harrisia martinii</i>				1	IU
Plantae	Rosopsida	Cactaceae	<i>Opuntia tomentosa</i>	velvety tree pear			1	IU
Plantae	Rosopsida	Caesalpiniaceae	<i>Barklya syringifolia</i>	golden shower tree	C		1	U
Plantae	Rosopsida	Caesalpiniaceae	<i>Cassia brewsteri</i>		C		1	U
Plantae	Rosopsida	Caesalpiniaceae	<i>Chamaecrista absus</i> var. <i>absus</i>		C		1	U
Plantae	Rosopsida	Caesalpiniaceae	<i>Senna coronilloides</i>		C		1	U
Plantae	Rosopsida	Caesalpiniaceae	<i>Senna sophera</i> var. <i>sophera</i>		C		1	U
Plantae	Rosopsida	Caesalpiniaceae	<i>Senna surattensis</i>		C		1	U
Plantae	Rosopsida	Capparaceae	<i>Capparis arborea</i>	brush caper berry	C		1	U
Plantae	Rosopsida	Capparaceae	<i>Capparis canescens</i>		C		1	U
Plantae	Rosopsida	Capparaceae	<i>Capparis sarmentosa</i>	scrambling caper	C		3	U
Plantae	Rosopsida	Caryophyllaceae	<i>Petrohragia dubia</i>				1	IU
Plantae	Rosopsida	Caryophyllaceae	<i>Polycarpha corymbosa</i> var. <i>minor</i>		C		1	U
Plantae	Rosopsida	Casuarinaceae	<i>Allocasuarina inophloia</i>		C		1	U
Plantae	Rosopsida	Casuarinaceae	<i>Allocasuarina littoralis</i>		C		2	U
Plantae	Rosopsida	Celastraceae	<i>Celastrus subspicata</i>	large-leaved staffvine	C		2	U
Plantae	Rosopsida	Celastraceae	<i>Denhamia bilocularis</i>		C		5	U
Plantae	Rosopsida	Celastraceae	<i>Denhamia disperma</i>		C		1	U
Plantae	Rosopsida	Celastraceae	<i>Denhamia parvifolia</i>		V	V	13	U
Plantae	Rosopsida	Celastraceae	<i>Denhamia pittosporoides</i>		C		2	U
Plantae	Rosopsida	Celastraceae	<i>Elaeodendron australe</i>		C		1	U
Plantae	Rosopsida	Celastraceae	<i>Elaeodendron australe</i> var. <i>integrifolium</i>		C		2	U
Plantae	Rosopsida	Celastraceae	<i>Hippocratea barbata</i>	knotvine	C		1	U
Plantae	Rosopsida	Celastraceae	<i>Pleurostylia opposita</i>		C		1	U
Plantae	Rosopsida	Celastraceae	<i>Siphonodon australis</i>	ivorywood	C		2	U
Plantae	Rosopsida	Chenopodiaceae	<i>Chenopodium album</i>	fat-hen			2	IU
Plantae	Rosopsida	Chenopodiaceae	<i>Dysphania carinata</i>		C		1	U
Plantae	Rosopsida	Chenopodiaceae	<i>Einadia hastata</i>		C		1	U
Plantae	Rosopsida	Chenopodiaceae	<i>Einadia nutans</i>		C		1	U
Plantae	Rosopsida	Chenopodiaceae	<i>Salsola australis</i>		C		1	U
Plantae	Rosopsida	Convolvulaceae	<i>Convolvulus arvensis</i>				2	IU
Plantae	Rosopsida	Convolvulaceae	<i>Cuscuta campestris</i>	dodder			1	IU
Plantae	Rosopsida	Convolvulaceae	<i>Ipomoea purpurea</i>	common morning glory			1	IU
Plantae	Rosopsida	Crassulaceae	<i>Bryophyllum delagoense</i>				2	IU
Plantae	Rosopsida	Crassulaceae	<i>Crassula sarmentosa</i>				1	IA
Plantae	Rosopsida	Cucurbitaceae	<i>Cucumis dipsaceus</i>				1	IU
Plantae	Rosopsida	Elaeocarpaceae	<i>Elaeocarpus obovatus</i>	blueberry ash	C		2	U
Plantae	Rosopsida	Erythroxylaceae	<i>Erythroxylum australe</i>	cocaine tree	C		2	U
Plantae	Rosopsida	Erythroxylaceae	<i>Erythroxylum</i> sp. (Splityard Creek L. Pedley 5360)		C		3	U
Plantae	Rosopsida	Euphorbiaceae	<i>Acalypha capillipes</i>	small-leaved acalypha	C		3	U
Plantae	Rosopsida	Euphorbiaceae	<i>Acalypha eremorum</i>	soft acalypha	C		1	U
Plantae	Rosopsida	Euphorbiaceae	<i>Alchornea ilicifolia</i>	native holly	C		2	U
Plantae	Rosopsida	Euphorbiaceae	<i>Claoxylon australe</i>	brittlewood	C		1	U
Plantae	Rosopsida	Euphorbiaceae	<i>Croton acronychioides</i>	thick-leaved croton	C		1	U
Plantae	Rosopsida	Euphorbiaceae	<i>Croton insularis</i>	Queensland cascarilla	C		7	U
Plantae	Rosopsida	Euphorbiaceae	<i>Euphorbia helioscopia</i>	sun spurge			1	IU
Plantae	Rosopsida	Euphorbiaceae	<i>Euphorbia heterophylla</i>				1	IU
Plantae	Rosopsida	Euphorbiaceae	<i>Euphorbia hirta</i>				1	IU
Plantae	Rosopsida	Euphorbiaceae	<i>Excoecaria dallachyana</i>	scrub poison tree	C		3	U
Plantae	Rosopsida	Euphorbiaceae	<i>Mallotus philippensis</i>	red kamala	C		1	U
Plantae	Rosopsida	Euphorbiaceae	<i>Manihot grahamii</i>				1	IU
Plantae	Rosopsida	Euphorbiaceae	<i>Tragia novae-hollandiae</i>	stinging-vine	C		1	U
Plantae	Rosopsida	Fabaceae	<i>Aeschynomene indica</i>	budda pea	C		1	U
Plantae	Rosopsida	Fabaceae	<i>Daviesia ulicifolia</i> subsp. <i>stenophylla</i>		C		1	U
Plantae	Rosopsida	Fabaceae	<i>Derris involuta</i>	native derris	C		2	U
Plantae	Rosopsida	Fabaceae	<i>Hardenbergia violacea</i>		C		1	U
Plantae	Rosopsida	Fabaceae	<i>Indigofera baileyi</i>		C		1	U
Plantae	Rosopsida	Fabaceae	<i>Indigofera spicata</i>	creeping indigo			1	IU
Plantae	Rosopsida	Fabaceae	<i>Lespedeza juncea</i> subsp. <i>sericea</i>	perennial lespedeza	C		1	U
Plantae	Rosopsida	Fabaceae	<i>Macrotyloma axillare</i> var. <i>axillare</i>				1	IU
Plantae	Rosopsida	Fabaceae	<i>Medicago lupulina</i>	black medic			3	IU
Plantae	Rosopsida	Fabaceae	<i>Medicago polymorpha</i>	burr medic			1	IU

Plantae	Rosopsida	Fabaceae	<i>Melilotus albus</i>	sweet clover			1	IU
Plantae	Rosopsida	Fabaceae	<i>Pultenaea bracteaminor</i>		C		1	U
Plantae	Rosopsida	Fabaceae	<i>Pultenaea microphylla</i>		C		1	U
Plantae	Rosopsida	Fabaceae	<i>Sophora fraseri</i>	brush sophora	V	V	1	U
Plantae	Rosopsida	Fabaceae	<i>Templetonia stenophylla</i>	leafy templetonia	C		1	U
Plantae	Rosopsida	Fabaceae	<i>Trifolium angustifolium</i> var. <i>angustifolium</i>				1	IA
Plantae	Rosopsida	Flacourtiaceae	<i>Casearia multinervosa</i>	casearia	C		2	U
Plantae	Rosopsida	Flacourtiaceae	<i>Homalium alnifolium</i>	homalium	C		1	U
Plantae	Rosopsida	Flacourtiaceae	<i>Xylosma terrae-reginae</i>	xylosma	C		2	U
Plantae	Rosopsida	Geraniaceae	<i>Erodium crinitum</i>	blue crowfoot	C		1	U
Plantae	Rosopsida	Goodeniaceae	<i>Goodenia delicata</i>		C		1	U
Plantae	Rosopsida	Goodeniaceae	<i>Goodenia rotundifolia</i>		C		1	U
Plantae	Rosopsida	Lamiaceae	<i>Ajuga australis</i>	Australian bugle	C		1	U
Plantae	Rosopsida	Lamiaceae	<i>Clerodendrum floribundum</i>		C		1	U
Plantae	Rosopsida	Lamiaceae	<i>Moluccella laevis</i>	molucca balm			1	IU
Plantae	Rosopsida	Lamiaceae	<i>Spartothamnella juncea</i>	native broom	C		3	U
Plantae	Rosopsida	Lamiaceae	<i>Teucrium</i> sp. (Pittsworth A.R.Bean 18338)		C		1	U
Plantae	Rosopsida	Lamiaceae	<i>Vitex lignum-vitae</i>		C		2	U
Plantae	Rosopsida	Loganiaceae	<i>Strychnos psilosperma</i>	strychnine tree	C		2	U
Plantae	Rosopsida	Malvaceae	<i>Abutilon oxycarpum</i>		C		1	U
Plantae	Rosopsida	Malvaceae	<i>Anoda cristata</i>	anoda weed			1	IU
Plantae	Rosopsida	Malvaceae	<i>Pavonia hastata</i>	pink pavonia			2	IU
Plantae	Rosopsida	Meliaceae	<i>Owenia venosa</i>	crow's apple	C		4	U
Plantae	Rosopsida	Meliaceae	<i>Turraea pubescens</i>	native honeysuckle	C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia bancroftiorum</i>		C		3	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia conferta</i>		C		3	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia crassa</i>		C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia decora</i>	pretty wattle	C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia fasciculifera</i>	scaly bark	C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia fimbriata</i>	Brisbane golden wattle	C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia glaucocarpa</i>	hickory wattle	C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia implexa</i>	lightwood	C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia irrorata</i> subsp. <i>irrorata</i>		C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia ixiophylla</i>		C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia leichhardtii</i>		C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia leiocalyx</i> subsp. <i>leiocalyx</i>		C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia leucoclada</i> subsp.		C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia maidenii</i>	Maiden's wattle	C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia melanoxylon</i>	blackwood	C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia penninervis</i> var. <i>penninervis</i>		C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia pustula</i>		C		2	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia salicina</i>	doolan	C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Acacia tingoorensis</i>		V		1	U
Plantae	Rosopsida	Mimosaceae	<i>Archidendropsis thozetiana</i>		C		1	U
Plantae	Rosopsida	Mimosaceae	<i>Desmanthus pernambucanus</i>				1	IU
Plantae	Rosopsida	Mimosaceae	<i>Neptunia gracilis</i> forma <i>gracilis</i>		C		2	U
Plantae	Rosopsida	Molluginaceae	<i>Glinus lotoides</i>	hairy carpet weed	C		1	U
Plantae	Rosopsida	Moraceae	<i>Ficus obliqua</i>		C		1	U
Plantae	Rosopsida	Moraceae	<i>Ficus opposita</i>		C		1	U
Plantae	Rosopsida	Moraceae	<i>Streblus brunonianus</i>	whalebone tree	C		1	QAI
Plantae	Rosopsida	Moraceae	<i>Trophis scandens</i> subsp. <i>scandens</i>		C		2	U
Plantae	Rosopsida	Myrsinaceae	<i>Myrsine variabilis</i>		C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Angophora leiocarpa</i>	rusty gum	C		2	U
Plantae	Rosopsida	Myrtaceae	<i>Backhousia angustifolia</i>	narrow-leaved backhousia	C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Corymbia erythrophloia</i>	variable-barked bloodwood	C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Corymbia intermedia</i>	pink bloodwood	C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Eucalyptus exserta</i>	Queensland peppermint	C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Eucalyptus longirostrata</i>		C		4	U
Plantae	Rosopsida	Myrtaceae	<i>Eucalyptus major</i>	mountain grey gum	C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Eucalyptus melliodora</i>	yellow box	C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Eucalyptus sideroxylon</i> subsp. <i>sideroxylon</i>		C		2	U
Plantae	Rosopsida	Myrtaceae	<i>Gossia bidwillii</i>		C		2	U
Plantae	Rosopsida	Myrtaceae	<i>Leptospermum microcarpum</i>	small-fruited tea-tree	C		2	U
Plantae	Rosopsida	Myrtaceae	<i>Melaleuca squamophloia</i>		C		1	U
Plantae	Rosopsida	Myrtaceae	<i>Melaleuca viminalis</i>		C		1	U
Plantae	Rosopsida	Nyctaginaceae	<i>Boerhavia dominii</i>		C		1	U
Plantae	Rosopsida	Oleaceae	<i>Jasminum dianthifolium</i>		C		3	U
Plantae	Rosopsida	Oleaceae	<i>Jasminum didymum</i> subsp. <i>racemosum</i>		C		2	U

Plantae	Rosopsida	Oleaceae	<i>Jasminum simplicifolium</i> subsp. <i>australiense</i>		C		4	U
Plantae	Rosopsida	Oleaceae	<i>Ligustrum lucidum</i>	large-leaved privet			1	IU
Plantae	Rosopsida	Oleaceae	<i>Notelaea longifolia</i>		C		2	U
Plantae	Rosopsida	Oleaceae	<i>Notelaea microcarpa</i> var. <i>microcarpa</i>		C		2	U
Plantae	Rosopsida	Onagraceae	<i>Epilobium billardierianum</i> subsp. <i>cinereum</i>		C		1	U
Plantae	Rosopsida	Onagraceae	<i>Oenothera curtiflora</i>				2	IU
Plantae	Rosopsida	Onagraceae	<i>Oenothera rosea</i>	rose evening primrose			1	IU
Plantae	Rosopsida	Passifloraceae	<i>Passiflora aurantia</i>		C		1	U
Plantae	Rosopsida	Passifloraceae	<i>Passiflora aurantia</i> var. <i>aurantia</i>		C		1	U
Plantae	Rosopsida	Passifloraceae	<i>Passiflora aurantia</i> var. <i>pubescens</i>		C		1	U
Plantae	Rosopsida	Phyllanthaceae	<i>Breynia oblongifolia</i>				2	U
Plantae	Rosopsida	Phyllanthaceae	<i>Bridelia exaltata</i>		C		1	U
Plantae	Rosopsida	Phyllanthaceae	<i>Bridelia leichhardtii</i>		C		1	U
Plantae	Rosopsida	Phyllanthaceae	<i>Cleistanthus cunninghamii</i>	omega	C		1	U
Plantae	Rosopsida	Phyllanthaceae	<i>Phyllanthus microcladus</i>		C		2	U
Plantae	Rosopsida	Phyllanthaceae	<i>Sauropus hirtellus</i>		C		1	U
Plantae	Rosopsida	Phytolaccaceae	<i>Phytolacca octandra</i>	inkweed			1	IU
Plantae	Rosopsida	Pittosporaceae	<i>Auranticarpa rhombifolia</i>		C		2	U
Plantae	Rosopsida	Pittosporaceae	<i>Bursaria incana</i>		C		3	U
Plantae	Rosopsida	Pittosporaceae	<i>Pittosporum spinescens</i>		C		1	U
Plantae	Rosopsida	Pittosporaceae	<i>Pittosporum viscidum</i>	black-fruited thornbush	C		2	U
Plantae	Rosopsida	Plantaginaceae	<i>Bacopa monnieri</i>		C		1	U
Plantae	Rosopsida	Plantaginaceae	<i>Plantago major</i>	greater plantain			1	IU
Plantae	Rosopsida	Plantaginaceae	<i>Scoparia dulcis</i>	scoparia			1	IU
Plantae	Rosopsida	Polygalaceae	<i>Polygala virgata</i>				3	IU
Plantae	Rosopsida	Polygonaceae	<i>Fallopia convolvulus</i>	black bindweed			1	IU
Plantae	Rosopsida	Polygonaceae	<i>Persicaria decipiens</i>	slender knotweed	C		1	U
Plantae	Rosopsida	Polygonaceae	<i>Persicaria lapathifolia</i>	pale knotweed	C		1	U
Plantae	Rosopsida	Proteaceae	<i>Grevillea robusta</i>		C		1	U
Plantae	Rosopsida	Putranjivaceae	<i>Drypetes deplanchei</i>	grey boxwood	C		3	U
Plantae	Rosopsida	Rhamnaceae	<i>Alphitonia excelsa</i>	soap tree	C		1	U
Plantae	Rosopsida	Rosaceae	<i>Prunus rivularis</i>				1	IU
Plantae	Rosopsida	Rosaceae	<i>Rubus parvifolius</i>	pink-flowered native raspberry	C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Cyclophyllum coprosmoides</i>		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Everistia vacciniifolia</i>		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Opercularia diphylla</i>		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Pavetta australiensis</i>		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Psydrax lamprophylla</i>		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Psydrax odorata</i> forma (Brigooda P.I.Forster PIF5657)		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Psydrax odorata</i> forma <i>buxifolia</i>		C		2	U
Plantae	Rosopsida	Rubiaceae	<i>Psydrax odorata</i> forma <i>subnitida</i>		C		1	U
Plantae	Rosopsida	Rubiaceae	<i>Triflorensia cameronii</i>		C		1	U
Plantae	Rosopsida	Rutaceae	<i>Acronychia laevis</i>	glossy acronychia	C		3	U
Plantae	Rosopsida	Rutaceae	<i>Boronia rosmarinifolia</i>	forest boronia	C		1	U
Plantae	Rosopsida	Rutaceae	<i>Citrus australis</i>		C		1	U
Plantae	Rosopsida	Rutaceae	<i>Coatesia paniculata</i>		C		2	U
Plantae	Rosopsida	Rutaceae	<i>Dinosperma erythrococcum</i>		C		1	U
Plantae	Rosopsida	Rutaceae	<i>Flindersia australis</i>	crow's ash	C		4	U
Plantae	Rosopsida	Rutaceae	<i>Flindersia collina</i>	broad-leaved leopard tree	C		3	U
Plantae	Rosopsida	Rutaceae	<i>Flindersia xanthoxyla</i>	yellow-wood	C		1	U
Plantae	Rosopsida	Rutaceae	<i>Geijera salicifolia</i>	brush wilga	C		3	U
Plantae	Rosopsida	Rutaceae	<i>Phebalium distans</i>		E	CE	2	U
Plantae	Rosopsida	Rutaceae	<i>Zanthoxylum brachyacanthum</i>		C		1	U
Plantae	Rosopsida	Samolaceae	<i>Samolus valerandi</i>	brookweed	C		3	U
Plantae	Rosopsida	Santalaceae	<i>Choretrum candollei</i>	white sour bush	C		2	U
Plantae	Rosopsida	Santalaceae	<i>Exocarpos latifolius</i>		C		3	U
Plantae	Rosopsida	Sapindaceae	<i>Alectryon connatus</i>	grey birds-eye	C		2	U
Plantae	Rosopsida	Sapindaceae	<i>Alectryon diversifolius</i>	scrub boonaree	C		1	U
Plantae	Rosopsida	Sapindaceae	<i>Alectryon subdentatus</i>		C		1	U
Plantae	Rosopsida	Sapindaceae	<i>Alectryon tomentosus</i>		C		1	U
Plantae	Rosopsida	Sapindaceae	<i>Arytera divaricata</i>	coogera	C		1	U
Plantae	Rosopsida	Sapindaceae	<i>Arytera foveolata</i>	pitted coogera	C		1	U
Plantae	Rosopsida	Sapindaceae	<i>Arytera microphylla</i>		C		4	U
Plantae	Rosopsida	Sapindaceae	<i>Cossinia australiana</i>		E	E	2	U
Plantae	Rosopsida	Sapindaceae	<i>Cupaniopsis parvifolia</i>	small-leaved tuckeroo	C		3	U
Plantae	Rosopsida	Sapindaceae	<i>Elattostachys xylocarpa</i>	white tamarind	C		2	U
Plantae	Rosopsida	Sapindaceae	<i>Harpullia pendula</i>		C		1	U
Plantae	Rosopsida	Sapindaceae	<i>Jagera pseudorhus</i>		C		1	U



Plantae	Rosopsida	Sapotaceae	<i>Planchonella chartacea</i>		C		1	U
Plantae	Rosopsida	Sapotaceae	<i>Planchonella cotinifolia</i>		C		1	U
Plantae	Rosopsida	Scrophulariaceae	<i>Myoporum acuminatum</i>	coastal boobialla	C		2	U
Plantae	Rosopsida	Scrophulariaceae	<i>Verbascum virgatum</i>	twiggy mullein			1	IU
Plantae	Rosopsida	Solanaceae	<i>Duboisia leichhardtii</i>		C		1	U
Plantae	Rosopsida	Solanaceae	<i>Physalis longifolia</i> var. <i>longifolia</i>				1	IU
Plantae	Rosopsida	Solanaceae	<i>Solanum corifolium</i>	straggling nightshade	C		1	U
Plantae	Rosopsida	Solanaceae	<i>Solanum nemophilum</i>		C		2	U
Plantae	Rosopsida	Solanaceae	<i>Solanum stelligerum</i>	devil's needles	C		4	U
Plantae	Rosopsida	Solanaceae	<i>Solanum torvum</i>	devil's fig			1	IU
Plantae	Rosopsida	Sparrmanniaceae	<i>Corchorus olitorius</i>	jute	C		1	U
Plantae	Rosopsida	Stackhousiaceae	<i>Stackhousia monogyna</i>	creamy candles	C		1	U
Plantae	Rosopsida	Sterculiaceae	<i>Sterculia quadrifida</i>	peanut tree	C		1	U
Plantae	Rosopsida	Tamaricaceae	<i>Tamarix indica</i>				1	II
Plantae	Rosopsida	Ulmaceae	<i>Celtis sinensis</i>	Chinese elm			1	IU
Plantae	Rosopsida	Ulmaceae	<i>Trema tomentosa</i>		C		2	U
Plantae	Rosopsida	Urticaceae	<i>Urtica urens</i>	small nettle			1	IU
Plantae	Rosopsida	Verbenaceae	<i>Lantana camara</i>	lantana			3	IU
Plantae	Rosopsida	Verbenaceae	<i>Phyla canescens</i>				1	IU
Plantae	Rosopsida	Violaceae	<i>Hybanthus stellarioides</i>		C		1	U
Plantae	Rosopsida	Vitaceae	<i>Cayratia clematidea</i>	slender grape	C		1	U
Plantae	Rosopsida	Vitaceae	<i>Cissus antarctica</i>		C		1	U
Plantae	Rosopsida	Vitaceae	<i>Tetrastigma nitens</i>	shining grape	C		1	U

#### **CODES**

**NCA** - The conservation status of each taxon under the *Nature Conservation Act 1992*. The codes are Extinct in the wild (PE), Endangered (E),

Vulnerable (V), Near threatened (NT); Special Least Concern (SL); Least concern (C) or Not Protected ( ).

Note: For incomplete taxa such as a genus (eg *Litoria* or *Acacia*) no status value is assigned.

**EPBC** - The conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*.

The codes are Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX),

Extinct in the Wild (XW), Vulnerable (V) and Threatened (includes taxa listed as CD, CE, E, EX, V and XW).

**Recs** - The number of records of the taxon in WildNet. Note: This is not the number of individuals of a taxon encountered.

**End** - Native taxa (Queensland Endemic - Q, Intranational - QA, Regional Endemic - QI or Not Endemic to Australia - QAI),

Vagrant taxa - (Vagrant (International) - VI, Vagrant (Intranational) - VA or Vagrant (Unknown) - VU),

Introduced or naturalised in the wild taxa (Introduced (International) - II, Introduced (Intranational) - IA or Introduced (Unknown) - IU) or

Exotic taxa not known to be naturalised - (Exotic (International) - XI, Exotic (Intranational) - XA or Exotic (Unknown) - XU) or

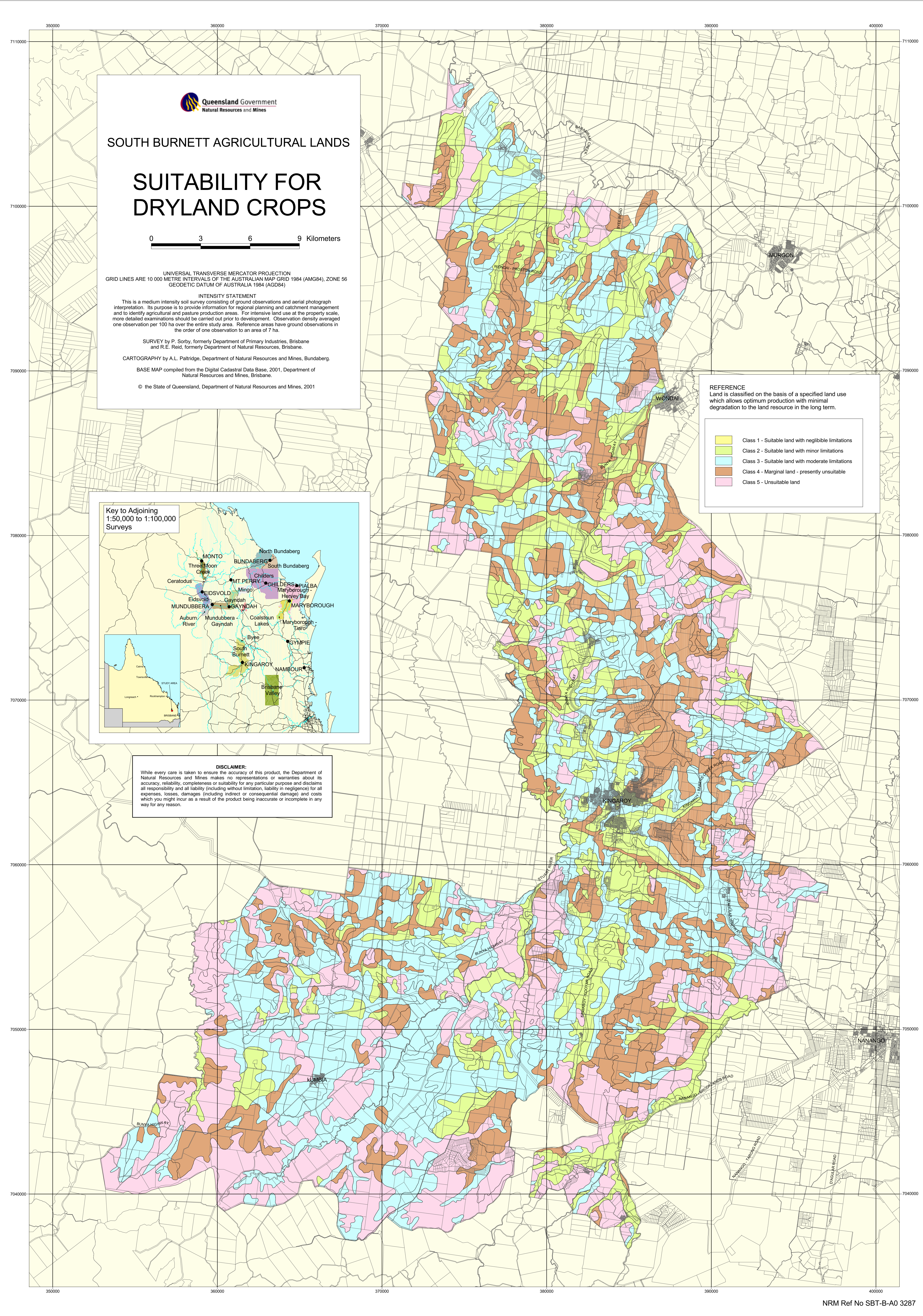
Unknown endemism (U).


**When acknowledging WildNet Data please use the following:**

Department of Science, Information Technology and Innovation (2016) WildNet. (Database).

Department of Science, Information Technology and Innovation 12 July 2016







Queensland Government  
Natural Resources and Mines

SOUTH BURNETT AGRICULTURAL LANDS

SUITABILITY FOR  
DRYLAND CROPS

0369

Kilometers

UNIVERSAL TRANSVERSE MERCATOR PROJECTION  
GRID LINES ARE 10 000 METRE INTERVALS OF THE AUSTRALIAN MAP GRID 1984 (AMG84), ZONE 56  
GEODETIC DATUM OF AUSTRALIA 1984 (AGD84)

INTENSITY STATEMENT  
This is a medium intensity soil survey consisting of ground observations and aerial photograph interpretation. Its purpose is to provide information for regional planning and catchment management and to identify agricultural and pasture production areas. For intensive land use at the property scale, more detailed examinations should be carried out prior to development. Observation density averaged one observation per 100 ha over the entire study area. Reference areas have ground observations in the order of one observation to an area of 7 ha.

SURVEY by P. Sorby, formerly Department of Primary Industries, Brisbane  
and R.E. Reid, formerly Department of Natural Resources, Brisbane.

CARTOGRAPHY by A.L. Paltridge, Department of Natural Resources and Mines, Bundaberg.

BASE MAP compiled from the Digital Cadastral Data Base, 2001, Department of  
Natural Resources and Mines, Brisbane.

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REFERENCE  
Land is classified on the basis of a specified land use  
which allows optimum production with minimal  
degradation to the land resource in the long term.

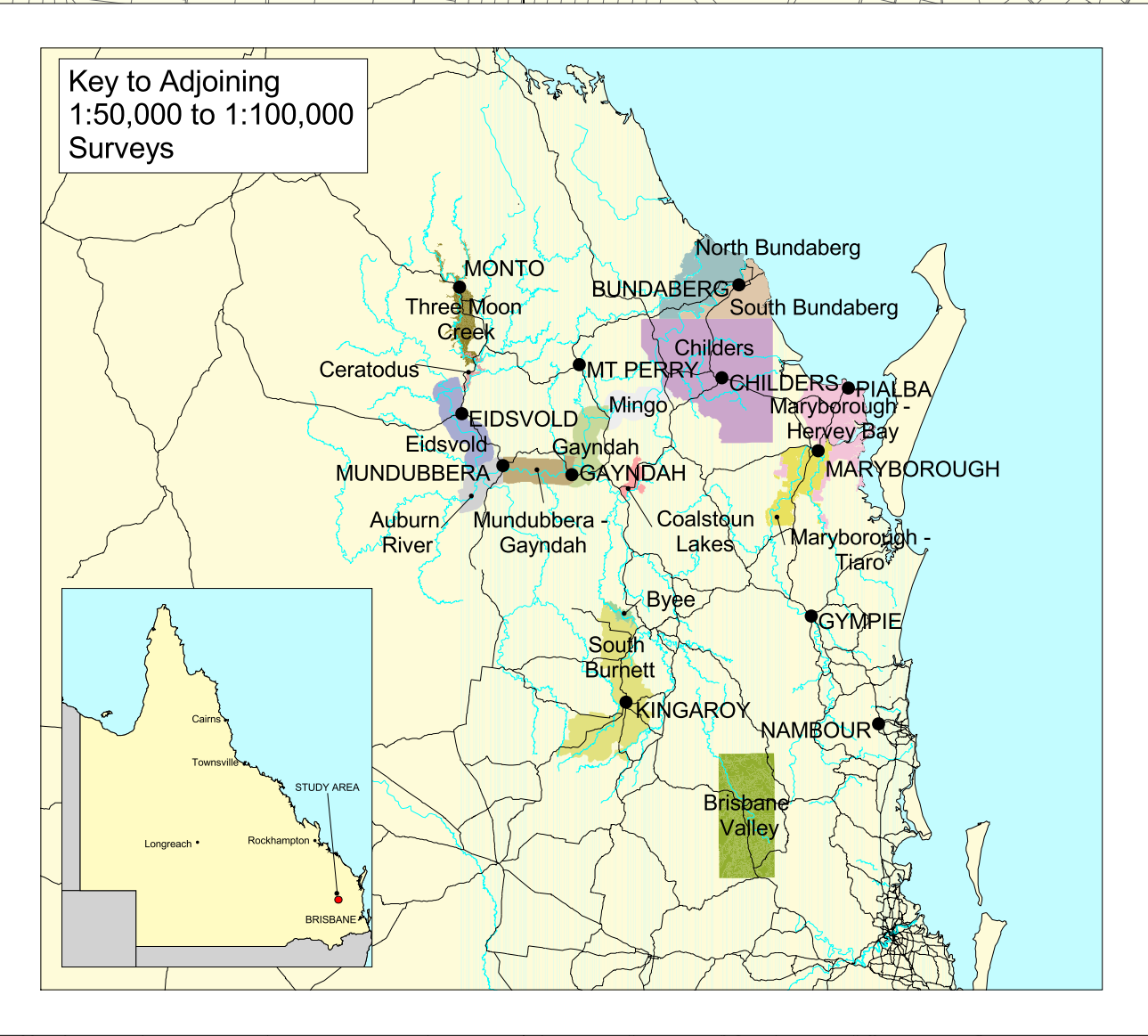
Class 1 - Suitable land with negligible limitations

Class 2 - Suitable land with minor limitations

Class 3 - Suitable land with moderate limitations

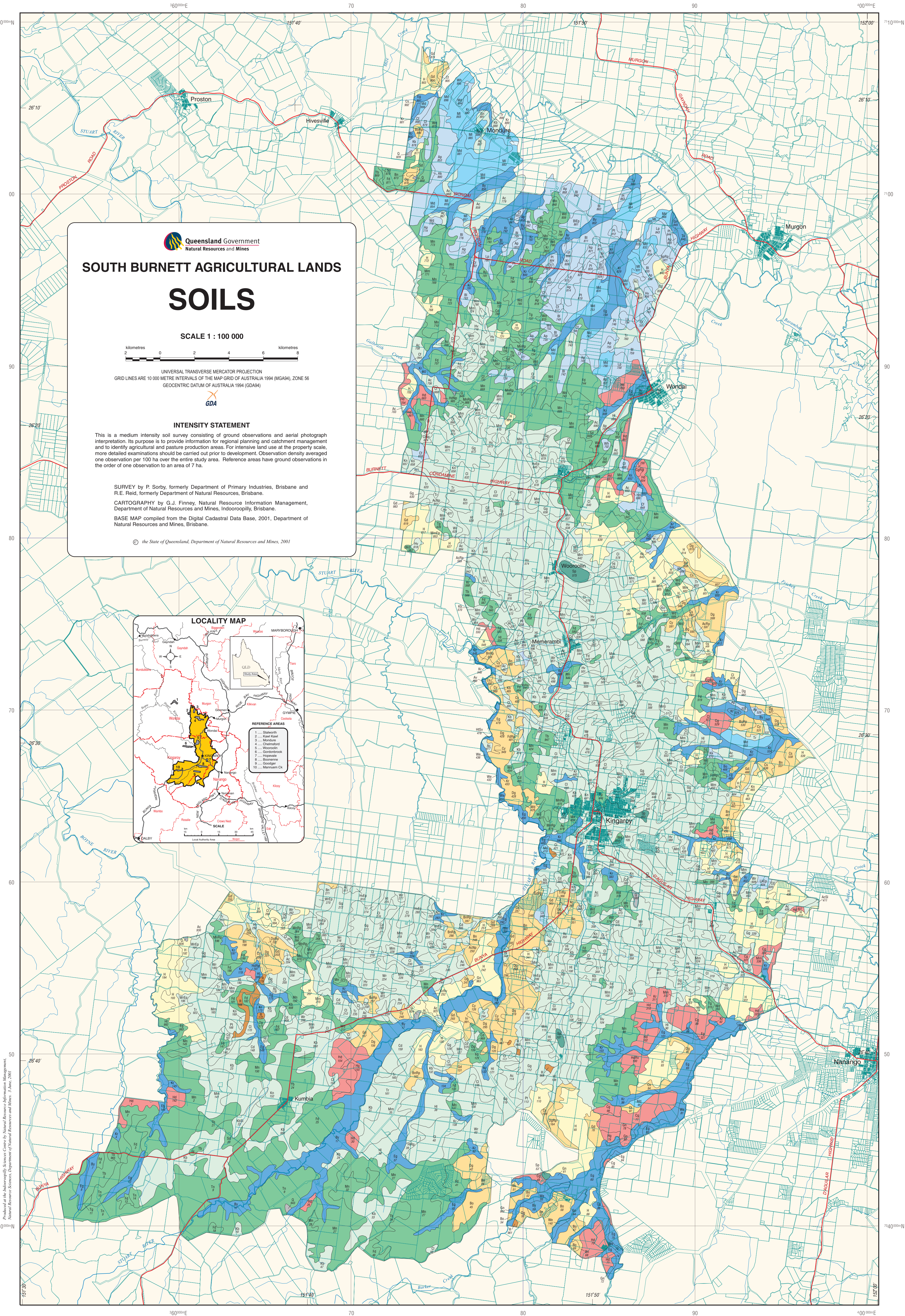
Class 4 - Marginal land - presently unsuitable

Class 5 - Unsuitable land



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REFERENCE					
Mapping Unit	Distinguishing Attributes	Australian Classification	Principal Profile Form	Great Soil Group	Area (ha)
<b>LEVEL TO GENTLY UNDULATING PLAINS ON ALLUVIUM OF CURRENT STREAMS</b>					
<b>Flood plains</b>					
<b>H</b> Hirst	Brown or dark loamy sand to silty clay loam surface (0.1-0.3 m) over a red or brown structured sandy clay loam to sandy light clay B2 horizon (0.9-1.5 m) over a red or brown sand to sandy loam D horizon to 1.5 m	Brown Dermosol Brown Chromosol	Gn2.22 Dn2.33 Dn2.33 Dn2.33	No suitable group, affinities with soloth	18
<b>Ta</b> Terrace	Dark sandy light clay surface (0.1-0.2 m) over a dark medium clay B2 horizon (0.55-0.85 m) over a brown sandy light clay D horizon to 1.5 m	Black Dermosol Black Vertosol	U6.32 U6.32 U6.32	Prairie soil Black earth	124
<b>Stagnant alluvial plains</b>					
<b>Av</b> Avon	Brown sandy loam to clay loam surface (0.02-0.2 m) over a sporadically bleached A2 horizon (0.1-0.5 m) over a frequently mottled strongly alkaline, grey or brown medium clay D horizon to 1.5 m	Brown Sodosol Grey Sodosol	Dn2.32 Dn2.33 Dn2.33	Solodic soil	12
<b>Bv</b> Blyee	Dark medium clay surface (0.1-0.2 m) over a dark medium clay B2 horizon (0.7-1.25 m) over a strongly alkaline, brown medium clay D horizon to 1.5 m	Black Vertosol	U6.15	Black earth	3207
<b>Eg</b> Eastgate	Dark medium clay surface (0.1-0.15 m) over a brown or black medium clay B2 horizon (0.45-0.95 m) over a strongly alkaline, brown medium clay B22 horizon to 1.5 m	Black Vertosol Brown Vertosol	U6.15	Black earth Brown clay	3930
<b>Alluvial fans</b>					
<b>K</b> Kaber	Brown light clay surface (0.2-0.3 m) over a brown medium clay B2 horizon to 1.5 m	Brown Vertosol	U6.34	Brown clay	3936
<b>Relict levees</b>					
<b>Wv</b> Weir	Dark light clay surface (0.1-0.15 m) over a dark medium clay B2 horizon (0.6-1.05 m) over a strongly alkaline, brown light medium clay D horizon to 1.5 m	Black Vertosol	U6.15	Black earth	779
<b>Drainage depressions</b>					
<b>Gn</b> Guena	Mottled dark medium clay surface (0.1-0.15 m) over a mottled, grey medium clay B2 horizon to 1.5 m	Grey Vertosol	U6.24 U6.28	Grey clay	308
<b>GENTLY UNDULATING PLAINS TO UNDULATING RISES ON OLDER HIGHLY LYING ALLUVIUM AND TERTIARY SEDIMENTS</b>					
<b>Hillicrests and hill slopes</b>					
<b>Ap</b> Appalossa	Dark or brown light clay to medium clay surface (0.1-0.2 m) over a brown medium clay B2 horizon (0.6-1.2 m) over a mottled, brown, yellow or grey medium clay C horizon to 1.5 m	Brown Vertosol	U6.36 U6.31 U6.33 U6.32	Brown clay	1443
<b>B</b> Bushnell	Gilgaied, brown or dark clay loam surface (0.05-0.2 m) over a bleached A2 horizon (0.07-0.25 m) over a frequently mottled, brown medium clay B2 horizon (0.9-1.5 m) frequently over a mottled, strongly alkaline, grey, brown or yellow light clay to medium clay C horizon to 1.5 m	Brown Sodosol	Dn2.33 Dn2.33 Dn2.33 Dn2.33	Solodic soil Solodized solonetz	1992
<b>Cl</b> Chelmsford	Dark or red clay loam to light clay surface (0.05-0.25 m) over a red medium clay B2 horizon (0.65-1.3 m) over a strongly alkaline, mottled, red or grey light clay D horizon to 1.5 m	Red Ferrosol	U6.31 Gn3.12	Euchrozem	808
<b>Kk</b> Kawi Kawi	Gilgaied, dark or grey medium clay surface (0.1-0.15 m) over a grey medium clay B2 horizon to 1.5 m	Grey Vertosol	U6.24 U6.21	Grey clay	187
<b>Lk</b> Lankowsky	Red light sandy clay loam to clay loam surface (0.1-0.15 m) over a neutral, red clay loam to light clay B horizon (0.6-1.2 m) over a mottled, brown, yellow or grey medium clay C horizon to 1.5 m	Red Kandosol	Gn2.12 Gn2.15	Red earth	203
<b>Lp</b> Long Peter	Dark or brown clay loam surface (0.05-0.2 m) over a brown medium clay B2 horizon (1.3-1.5 m) occasionally over a mottled, grey, brown or yellow light clay to medium clay C horizon to 1.5 m	Brown Sodosol	Dn1.13 Dn2.13 Dn2.13 Dn2.13	Solodic soil	674
<b>Nv</b> Narrawong	Red, dark or brown clay loam surface (0.05-0.15 m) over an occasionally mottled, red or brown medium clay B2 horizon (0.4-0.9 m) over a mottled, brown medium clay D horizon to 1.5 m	Red Ferrosol	Gn3.12 Gn3.22 Gn3.33	Euchrozem	34
<b>Pl</b> Palouse	Brown or grey sandy loam to light sandy clay loam surface (0.5-0.12 m) over a bleached A2 horizon (0.12-0.3 m) over a frequently mottled, brown medium clay B2 horizon (0.7-1.5 m) over a mottled, grey, brown or yellow light clay to medium clay C horizon to 1.5 m	Brown Sodosol	Dn2.43 Dn2.43 Dn2.43 Dn2.43	Solodic soil Solodized solonetz	1137
<b>Wh</b> Wheatlands	Brown sandy clay loam to clay loam surface (0.1-0.2 m) over a pale or occasionally sporadically bleached A2 horizon (0.1-0.3 m) over a frequently mottled, red or brown medium clay B2 horizon (1.05-1.5 m) over a frequently mottled, red or brown sandy clay loam to clay loam D horizon to 1.5 m	Red Dermosol Brown Dermosol	Gn3.16 Dn2.22 Gn3.13 Dn3.33	No suitable group, affinities with red brown earth	46
<b>Plains</b>					
<b>M</b> Marshlands	Brown sandy clay loam to light clay surface (0.1-0.2 m) over a sporadically bleached A2 or B1 horizon (0.2-0.3 m) over a mottled, brown medium clay B2 horizon (0.4-1.5 m) over a mottled, brown medium clay to heavy clay D horizon to 1.5 m	Brown Sodosol	Dn2.33 U6.41p Dn2.43 U6.3	Solodic soil Soloth	1442
<b>Md</b> Mondure	Brown or occasionally dark light clay or occasionally light clay loam surface (0.05-0.15 m) over a brown medium clay B2 horizon to 1.5 m	Brown Dermosol	U6.31 U6.42 U6.4 Dn1.13	No suitable group	1647
<b>UNDULATING RISES TO ROLLING HILLS ON BASALT</b>					
<b>Hillicrests and upper hill slopes</b>					
<b>Mn</b> Metuen	Dark or brown light clay to medium clay surface (0.05-0.1 m) over a dark or brown medium clay B2 horizon (0.3-0.55 m) over weathered rock	Black Vertosol Brown Vertosol	U6.12 U6.13	Black earth Brown clay	12539
<b>Ts</b> Taabinga	Red light clay to light clay surface (0.1-0.2 m) over a red light clay to medium clay B2 horizon (0.5-1.2 m) over weathered rock	Red Ferrosol	U6.31 Gn3.12	Euchrozem	1938
<b>Tn</b> Turen	Dark light clay or occasionally clay loam surface (0.1-0.15 m) over a dark or brown medium clay B2 horizon (0.25-0.55 m) over weathered rock	Black Dermosol Brown Dermosol	U6.32 Dn1.12	Prairie soil	3367
<b>Mid to lower hill slopes</b>					
<b>Fd</b> Fairdale	Dark or brown medium clay surface (0.05-0.12 m) over a neutral to alkaline, dark or brown medium clay B2 horizon (0.6-0.9 m) over weathered rock	Black Vertosol Brown Vertosol	U6.12 U6.13	Black earth Brown clay	4269
<b>To</b> Tingora	Dark or brown medium clay surface (0.05-0.2 m) over a neutral to alkaline, brown or dark B2 horizon (0.45-0.85 m) over a strongly alkaline, brown medium clay to heavy clay B22 horizon (1.2-1.5 m) over weathered rock	Brown Vertosol Black Vertosol	U6.32 U6.12 U6.34	Brown earth Black earth	782
<b>Pediments</b>					
<b>Is</b> Iona	Dark medium clay surface (0.1-0.25 m) over a neutral to alkaline, brown or dark medium clay B21 horizon (0.6-1.0 m) over a strongly alkaline, brown or red medium clay B22 horizon to 1.5 m occasionally over gravelly D horizons	Brown Vertosol Black Vertosol	U6.34 U6.15	Brown clay Black earth	77
<b>Sd</b> Sadie	Dark medium clay surface (0.05-0.1 m) over a neutral to alkaline, dark medium clay B21 and B22 horizons over a occasionally mottled, strongly alkaline, grey medium clay B23 horizon to 1.5 m	Black Vertosol	U6.16	Black earth	381
<b>Wd</b> Wondai	Gilgaied, dark or brown medium clay surface (0.05-0.15 m) over a brown or dark medium clay B21 horizon (0.5-1.1 m) over a frequently mottled, brown or red medium clay B22 or D horizon to 1.5 m frequently with gravel	Brown Vertosol Black Vertosol	U6.34 U6.17 U6.35	Brown clay Black earth	3147
<b>UNDULATING RISES TO ROLLING HILLS ON DEEPLY WEATHERED BASALTIC MATERIAL</b>					
<b>Plateaus, hillicrests and upper hill slopes</b>					
<b>Gg</b> Goodger	Loose, red clay loam to light clay surface (0.1-0.3 m) over an acid, red, massive to weakly structured B21 horizon (0.25-0.8 m) over an acid, red structured light clay B22 horizon to 1.5 m	Red Ferrosol	Gn3.11 U6.31	Krasnozem	3172
<b>Hv</b> Hopevale	Loose, red clay loam surface (0.1-0.25 m) over an acid, red, weak to moderately structured clay loam B2 horizon (0.3-0.55 m) over deeply weathered basalt. Large amounts of ferruginous gravel throughout the profile	Red Ferrosol	Um4.21 Um5.21 Um4.31 Um5.31	Krasnozem Red earth	7912
<b>Pl</b> Proston	Firm, red clay loam to light clay surface (0.1-0.2 m) over an acid, red, structured clay loam to light clay B2 horizon (0.9-1.5 m) with ferruginous gravel over deep weathered basalt	Red Ferrosol	Gn3.11 U6.31 Um6.31	Krasnozem	231
<b>Mid to upper hill slopes</b>					
<b>Mm</b> Menerambi	Firm, red clay loam to light clay surface (0.1-0.2 m) over an acid, red light clay B2 horizon to 1.5 m	Red Ferrosol	U6.31 Gn3.11	Krasnozem	11487
<b>Wr</b> Wooroolin	Firm red clay loam to light clay surface (0.1-0.25 m) over an acid to neutral, red light clay B2 horizon (0.7-0.8 m) over deeply weathered basalt	Red Ferrosol	Gn3.11 U6.31	Krasnozem Euchrozem	3876
<b>Mid to lower hill slopes</b>					
<b>C</b> Colaburra	Firm, red clay loam to light clay surface (0.1-0.25 m) over a acid to neutral, red light clay to medium clay B21 horizon (0.45-1.0 m) over an acid to neutral, mottled, red light clay to medium clay B22 horizon (1.1-1.3 m) with large amounts of iron and mangiferous concretions over a red medium clay with weathered rock to 1.5 m.	Red Ferrosol	U6.31 Gn3.11 U6.12	Euchrozem Krasnozem	8672
<b>Cd</b> Crawford	Firm, red clay loam to light clay surface (0.1-0.2 m) over an acid to neutral, mottled, red clay loam to light clay B21 horizon (0.5-0.8 m) over an acid to neutral, mottled, red or brown light clay to medium clay B22 horizon (1.0-1.3 m) with moderate amounts of mangiferous concretions over deeply weathered rock	Red Ferrosol	U6.31 Gn3.11 Gn3.12	Euchrozem Krasnozem	1559
<b>Pediments</b>					
<b>Ac</b> Anchookora	Red or brown light clay surface (0.1-0.25 m) over a red or brown light clay to medium clay B2 horizon (0.65-1.5 m) with mangiferous concretions over a brown medium clay D horizon to 1.5 m	Red Ferrosol Brown Ferrosol	U6.31 U6.3	Euchrozem Krasnozem	3541
<b>H</b> Haly	Red or brow light clay surface (0.15-0.2 m) over a mottled, brown medium clay B2 horizon to 1.5 m	Brown Ferrosol	U6.4	Xanthozem	3355
<b>Kb</b> Kumbia	Brown or red clay loam to light clay surface (0.15-0.25 m) frequently with mangiferous segregations over a frequently mottled, brown or red light clay to medium clay B2 horizon (0.55-1.4 m) with mangiferous segregations over a mottled, brown or yellow medium clay to heavy clay D horizon to 1.5 m	Brown Ferrosol Red Ferrosol	U6.4 Gn3.12	Xanthozem	6380
<b>Kn</b> Kunoon	Brown or red clay loam to light clay surface (0.1-0.25 m) with mangiferous nodules over a mottled, brown or red light clay to medium clay B2 horizon (0.1-1.5 m) with large amounts of mangiferous nodules	Brown Ferrosol Red Ferrosol	U6.4	Xanthozem	1539
<b>Tt</b> Tarong	Brown sandy loam to clay loam sandy surface (0.5-0.2 m) over a bleached A2 horizon (0.15-0.3 m) over a mottled, brown or yellow light clay to medium clay B2 horizon (0.5-1.5 m) with mangiferous nodules frequently over a mottled, brown medium clay to heavy clay D horizon to 1.5 m	Brown Chromosol Brown Dermosol Yellow Chromosol Yellow Dermosol	Dn3.41 Dn3.32 Dn2.31 Dn2.31	Yellow Podzolic soil Brown Podzolic soil No suitable group	2120
<b>GENTLY UNDULATING TO UNDULATING LOW HILLS ON GRANITES</b>					
<b>Hillicrests and upper hill slopes</b>					
<b>Bo</b> Boole	Dark or brown sandy loam to sandy clay loam surface (0.1-0.2 m) over a bleached A2 horizon (0.3-0.45 m) over weathered rock	Bleached-Orthic Tenosol Orthic Tenosol	Uc2.12 Um2.12	Lithosol	965
<b>Bn</b> Boonenne	Brown sandy loam to sandy clay loam surface (0.1-0.2 m) over a conspicuously bleached A2 horizon (0.2-0.3 m) over an alkaline, mottled, brown medium clay B2 horizon (0.65-0.9 m) over weathered rock	Brown Sodosol	Dn3.43 Dn3.42 Dn2.42	Solodic soil	2284
<b>Dg</b> Dangore	Dark sandy loam to sandy clay loam surface (0.08-0.2 m) over a bleached A2 horizon (0.2-0.4 m) over an acid, mottled, brown, grey or yellow fine gravelly light clay to medium clay B2 horizon (0.5-1.0 m) over weathered rock	Brown Sodosol Brown Chromosol Grey Sodosol Yellow Sodosol	Dn3.41 Dn3.31 Dn2.31 Dn2.43	Podzolic soils	3147
<b>Mid to lower hill slopes</b>					
<b>Ct</b> Charlstown	Dark or brown light sandy clay loam to clay loam sandy surface (0.1-0.2 m) over a bleached A2 horizon (0.1-0.3 m) over an acid to alkaline, red or brown medium clay B2 horizon (0.55-0.9 m) over weathered rock	Red Sodosol Brown Sodosol	Dn3.12 Dn3.41 Dn1.12	Solodic soil Soloth	64
<b>Gd</b> Gordonbrook	Red or brown light sandy clay loam to sandy clay loam surface (0.1-0.15 m) over a mottled, red or brown light clay to medium clay B2 horizon (0.75-1.0 m) over deeply weathered rock	Red Chromosol Red Dermosol	Dn2.21 Dn3.41	Red podzolic soil No suitable group affinities with soloth	1120
<b>Pediments</b>					
<b>Cy</b> Cooyar	Dark brown or grey sandy loam to sandy clay loam surface (0.08-0.2 m) over a bleached A2 horizon (0.1-0.3 m) over an acid, mottled, brown or grey medium clay B2 horizon to 1.5 m	Brown Chromosol Brown Dermosol Brown Kurosol Grey Sodosol	Dn3.41 Dn3.31	Yellow podzolic soil Soloth	917
<b>Cs</b> Cuthrie	Dark or brown light sandy clay loam to clay loam fine sandy surface (0.08-0.15 m) over a mottled, brown or yellow light clay to medium clay B2 horizon (0.12-0.3 m) over a neutral to strongly alkaline, frequently mottled, brown or occasionally grey medium clay B2 horizon to 1.5 m	Brown Sodosol Grey Sodosol	Dn3.43 Dn2.42 Dn2.42	Solodic soil	535
<b>GENTLY UNDULATING RISES TO UNDULATING LOW HILLS ON METAMORPHIC MATERIAL AND SEDIMENTARY ROCKS</b>					
<b>Hillicrests and upper hillslopes</b>					
<b>Cg</b> Cherbourg	Brown or grey sandy loam to sandy clay loam surface (0.1-0.15 m) over a bleached A2 horizon (0.1-0.3 m) over an acid, brown medium clay B2 horizon (0.25-0.85 m) over weathered rock	Yellow Kurosol Brown Sodosol	Dn2.41 Dn3.41 Um1	Soloth, Lithosol No suitable group	1472
<b>Mid to lower hill slopes</b>					
<b>Hd</b> Hillsdale	Dark or brown sandy clay loam surface (0.1-0.2 m) over a bleached A2 horizon (0.2-0.3 m) over a alkaline to strongly alkaline, mottled, brown or grey medium clay B2 horizon (0.9-1.3 m) over weathered sandstone	Brown Sodosol Grey Sodosol	Dn3.43 Dn2.43	Solodic soil Solodized solonetz	2529
<b>Pediments and footslopes</b>					
<b>Hg</b> Hodgkiss	Dark or brown fine sandy clay loam to clay loam sandy surface (0.1-0.2 m) over a bleached A2 horizon (0.1-0.3 m) over an acid to neutral, frequently mottled, brown or red medium clay B2 horizon (0.65-1.5 m) over weathered rock	Red Chromosol Brown Dermosol Brown Dermosol	Dn2.12 Dn2.32	Non calcic brown soil No suitable group	154
<b>MISCELLANEOUS UNITS</b>					
<b>D</b> Dam					10
<b>H</b> Hills					10645
<b>Q</b> Quarry					78
<b>R</b> Rock					218
<b>Sw</b> Swamp					216
<b>PHASES AND VARIANTS</b>					
<b>ep</b> Eroded phase					
<b>np</b> Nodular phase					
<b>rp</b> Rocky phase					
<b>sl</b> Saline phase					
<b>rv</b> Red variant					
<b>sv</b> Sandy variant					

Produced by the Information Systems Centre for Natural Resources Information Management, Natural Resource Science, Department of Natural Resources and Mines, June, 2008

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# Queensland Regional Profiles

Resident Profile - people who live in the region

## South Burnett Regional Council Local Government Area (LGA)

Compared with Queensland

17 March 2016



**Queensland Government Statistician's Office**

Queensland Treasury

<http://www.qgso.qld.gov.au>

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## Region overview

The resident profiles provide details on a range of topics for people who live in the region. For some topics, more detailed data are available through the [Queensland Regional Database](#) (also known as QRSIS), developed and maintained by the Queensland Government Statistician's Office.

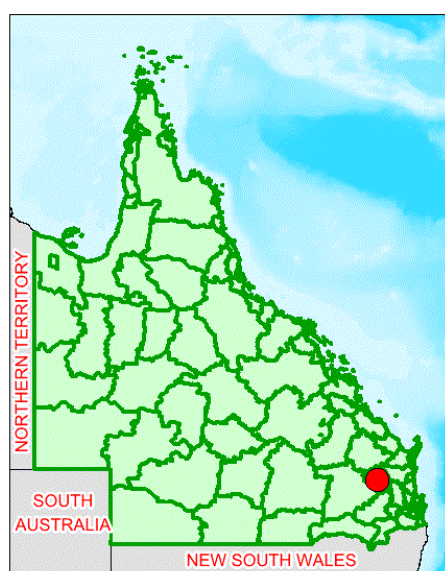
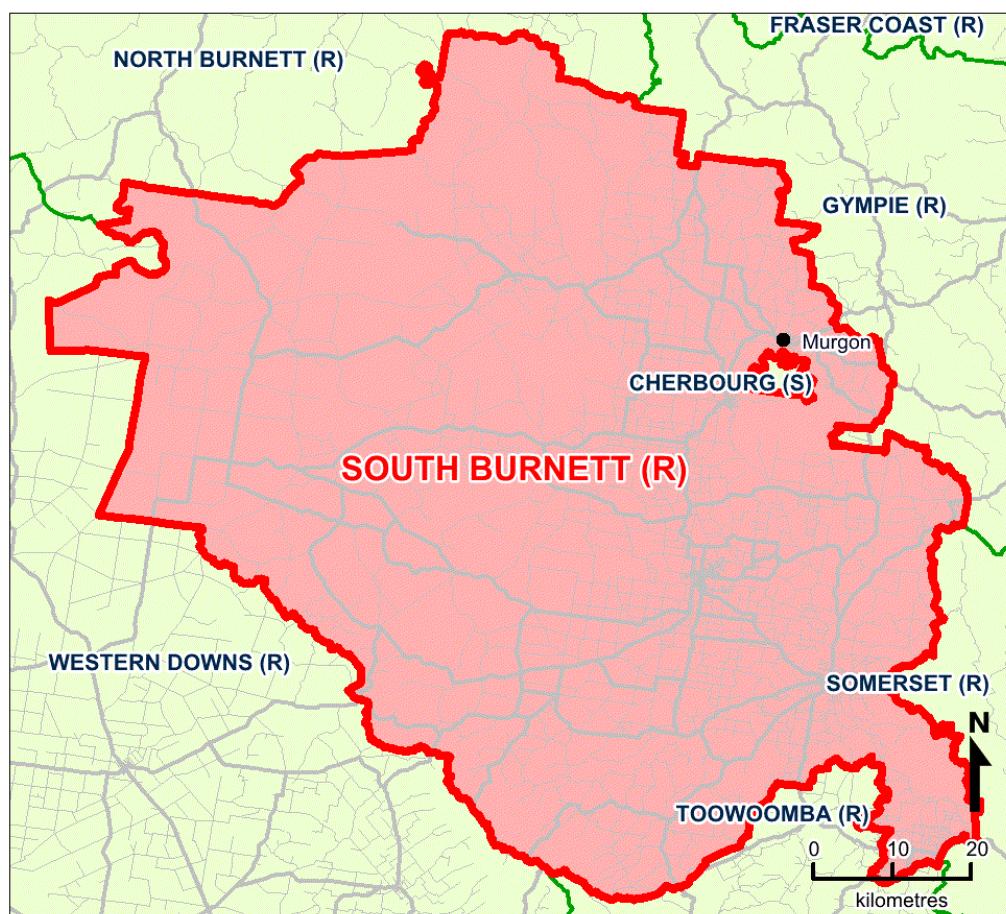
South Burnett Regional Council Local Government Area (LGA) has a total area of 8,397.0 km<sup>2</sup>. South Burnett Regional Council LGA has an average daily temperature range of 12.2 °C to 25.7 °C and on average it receives 769 mm of rainfall each year.

Data for South Burnett Regional Council LGA are based on Australian Bureau of Statistics (ABS), Australian Statistical Geography Standard (ASGS), July 2014. In some cases these data have been concorded from other geographical boundaries.

Queensland has a total area of 1,734,238.8 km<sup>2</sup>. Queensland has an average daily temperature range of 16.4 °C to 30.0 °C and on average it receives 636 mm of rainfall each year.

Data for Queensland are based on Australian Bureau of Statistics (ABS), Australian Statistical Geography Standard (ASGS), July 2011.

Figure 1 Map of South Burnett Regional Council LGA



# LEGEND

- SELECTED REGION
- LOCAL GOVERNMENT AREA BOUNDARY
- Road Network
- Cities/Towns

# Demography

## Estimated resident population

The estimated resident population (ERP) figure is the official population estimate, and represents the best possible estimate of the resident population. For sub-state geographies, ERP figures are updated annually using a model which includes administrative data that indicate population change, such as registered births and deaths, dwelling approvals, Medicare enrolments and electoral enrolments. Data in this profile topic are updated annually with an approximate delay of 9 months after the reporting period. The next planned update is in April 2016.

### South Burnett Regional Council LGA

- ERP of 32,941 persons as at 30 June 2014
- Average annual growth rate of 1.1% over five years
- Average annual growth rate of 1.4% over ten years

### Queensland

- ERP of 4,722,447 persons as at 30 June 2014
- Average annual growth rate of 1.8% over five years
- Average annual growth rate of 2.1% over ten years

As at 30 June 2014, the estimated resident population for South Burnett Regional Council LGA was

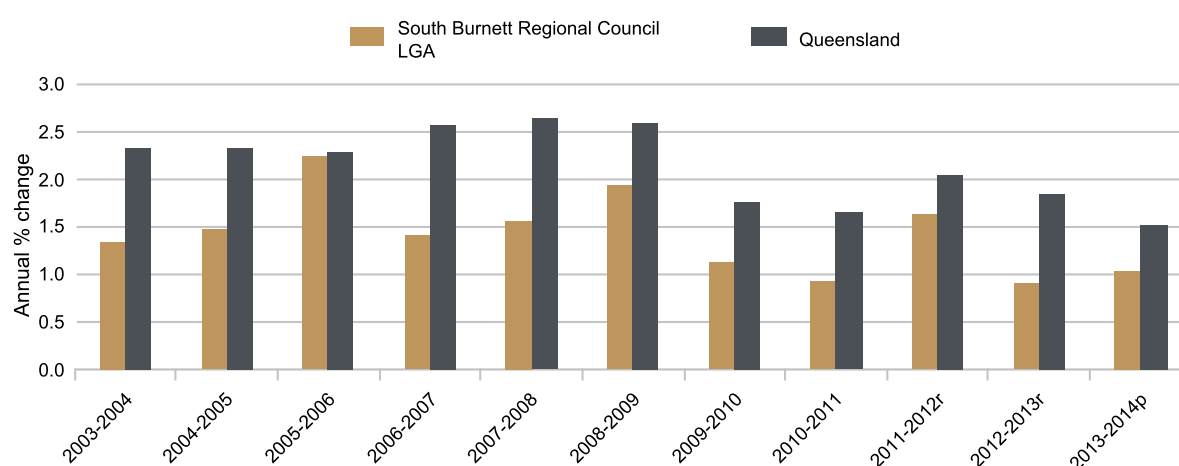
# 32,941 persons

**Table 1** Estimated resident population, South Burnett Regional Council LGA and Queensland

LGA / State	As at 30 June			Average annual growth rate	
	2004	2009	2014p	2004–2014p	2009–2014p
	— number —			— % —	
South Burnett (R)	28,630	31,173	32,941	1.4	1.1
Queensland	3,829,970	4,328,771	4,722,447	2.1	1.8

Source: ABS 3218.0, *Regional Population Growth, Australia, 2013-14*

**Figure 2** Estimated resident population growth, South Burnett Regional Council LGA and Queensland



Source: ABS 3218.0, *Regional Population Growth, Australia, 2013-14*



## Population by age and sex

The estimated resident population (ERP) figure is the official population estimate, and represents the best possible estimate of the resident population. For sub-state geographies, ERP figures are updated annually using a model which includes administrative data that indicate population change, such as registered births and deaths, dwelling approvals, Medicare enrolments and electoral enrolments. Data in this profile topic are updated annually with an approximate delay of 12 months after the reporting period. The next planned update is in September 2016.

### South Burnett Regional Council LGA

- 20.5% aged 0–14 years as at 30 June 2014
- 59.0% aged 15–64 years
- 20.4% aged 65+ years

### Queensland

- 19.8% aged 0–14 years as at 30 June 2014
- 66.2% aged 15–64 years
- 14.0% aged 65+ years

As at 30 June 2014, the proportion of the estimated resident population aged 65 years and over for South Burnett Regional Council LGA was

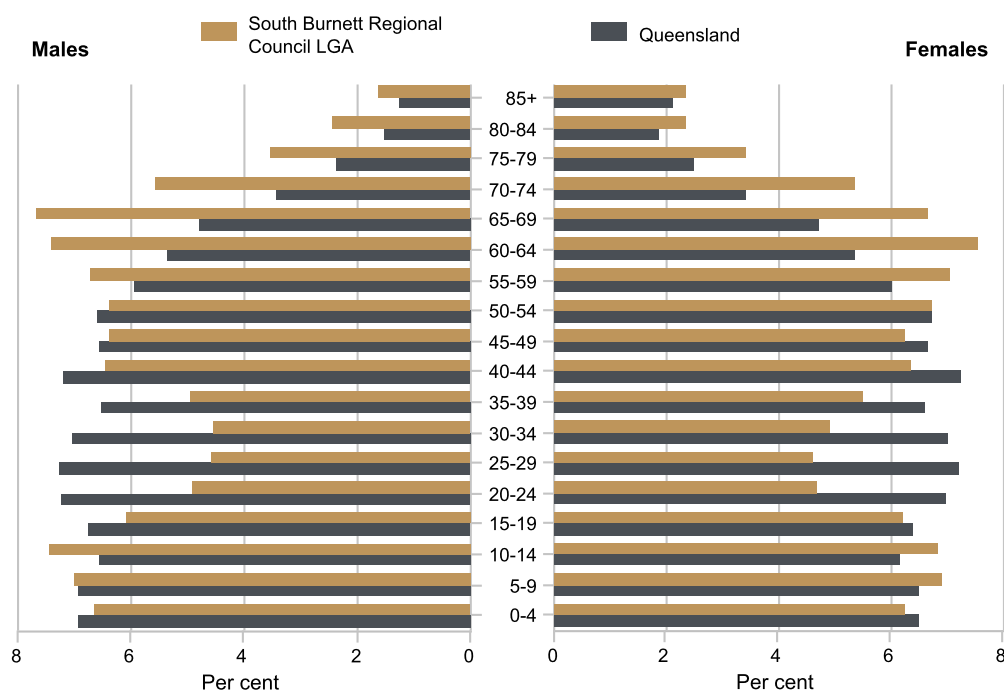
**20.4%**

**Table 2 Estimated resident population by age, South Burnett Regional Council LGA and Queensland, 30 June 2014p**

LGA / State	Age group									
	0–14		15–24		25–44		45–64		65+	
	number	%	number	%	number	%	number	%	number	%
South Burnett (R)	6,756	20.5	3,603	10.9	6,885	20.9	8,962	27.2	6,735	20.4
Queensland	934,862	19.8	645,774	13.7	1,323,000	28.0	1,159,012	24.5	659,799	14.0

Source: ABS 3235.0, *Population by Age and Sex, Regions of Australia, 2014*

**Figure 4 Estimated resident population by age and sex, South Burnett Regional Council LGA and Queensland, 30 June 2014p**



Source: ABS 3235.0, *Population by Age and Sex, Regions of Australia, 2014*

## Median age

The median age is the age at which half the population is older and half is younger. These median age estimates have been calculated by the ABS and Queensland Treasury using single year of age estimated resident population data. Data in this profile topic are updated annually with an approximate delay of 12 months after the reporting period. The next planned update is in September 2016.

As at 30 June 2014, the median age for South Burnett Regional Council LGA was

# 43.3 years

### South Burnett Regional Council LGA

- Median age of 43.3 years as at 30 June 2014
- Increase of 3.4 years from median age of 39.9 years as at 30 June 2004

### Queensland

- Median age of 36.8 years as at 30 June 2014
- Increase of 1.0 years from median age of 35.7 years as at 30 June 2004

**Table 3 Median age, South Burnett Regional Council LGA and Queensland**

LGA / State	As at 30 June			Change
	2004	2009	2014p	2004–2014p
	— years —			years
South Burnett (R)	39.9	41.2	43.3	3.4
Queensland	35.7	36.2	36.8	1.0

Refer to explanatory notes for additional information.

Source: ABS 3235.0, *Population by Age and Sex, Regions of Australia* unpublished data and Queensland Treasury estimates

## Population projections

The Queensland Government population projections are generated by applying assumptions regarding future trends in the components of population change (fertility, mortality and migration) and the latest planning and development intelligence available. Data presented in this profile topic are based on a medium series and are updated twice every five years. The next planned update is in March 2016.

From 2011 to 2036, the population for South Burnett Regional Council LGA is projected to increase from

**31,803 persons to  
41,439 persons**

### South Burnett Regional Council LGA

- Population projected to be 41,439 persons as at 30 June 2036
- Increase of 1.1% per year over 25 years

### Queensland

- Population projected to be 7,095,177 persons as at 30 June 2036
- Increase of 1.9% per year over 25 years

**Table 4 Projected population, South Burnett Regional Council LGA and Queensland**

LGA / State	As at 30 June						Average annual growth rate
	2011 <sup>(a)</sup>	2016	2021	2026	2031	2036	2011–2036
	— number —						%
South Burnett (R)	31,803	33,840	35,731	37,594	39,509	41,439	1.1
Queensland	4,476,778	4,946,319	5,477,082	6,007,578	6,548,220	7,095,177	1.9

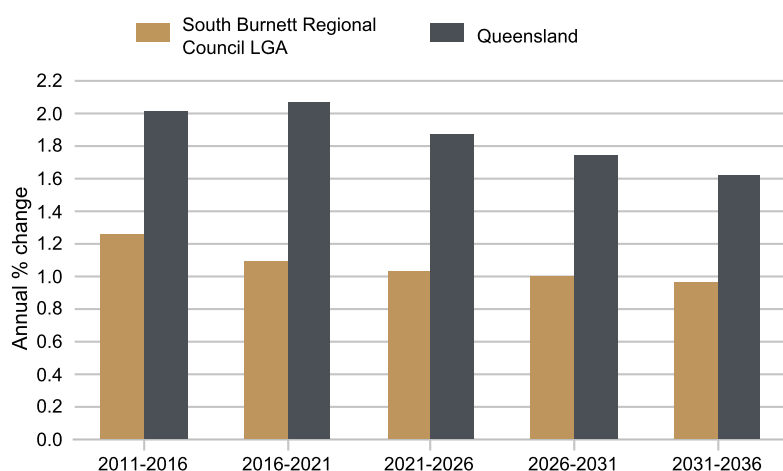
Refer to explanatory notes for additional information.

(a) 2011 data are estimated resident population (ERP).

For more detailed data on the Queensland Government population projections, please refer to the Queensland Government Statistician's Office website at <http://www.qgso.qld.gov.au/subjects/demography/population-projections/index.php>

Source: *Queensland Government Population Projections*, 2013 edition (medium series)

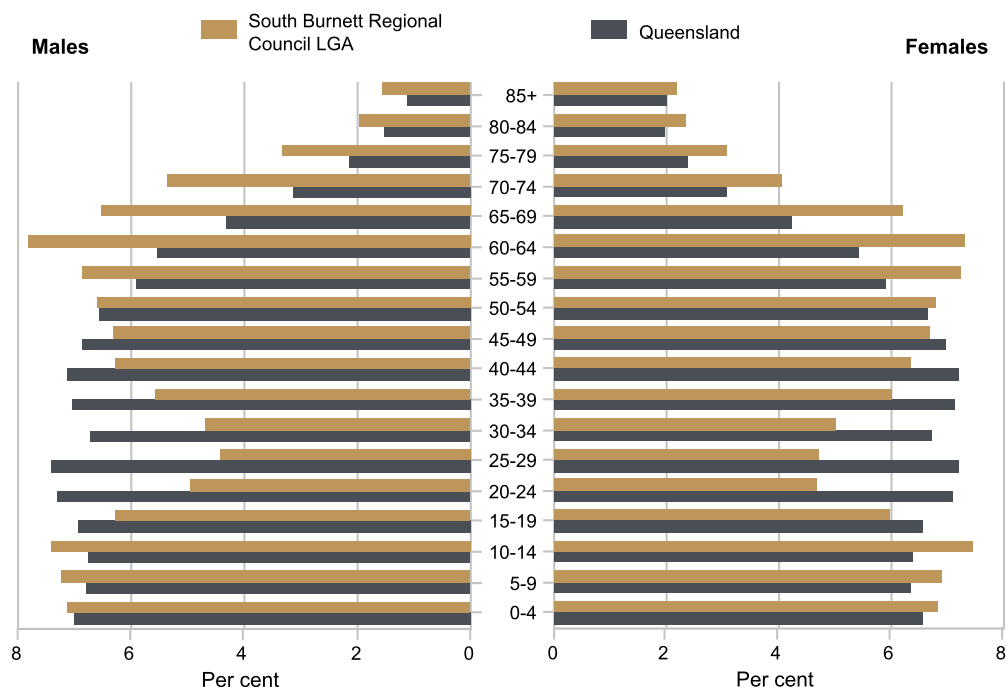
**Figure 5 Projected population change, South Burnett Regional Council LGA and Queensland**



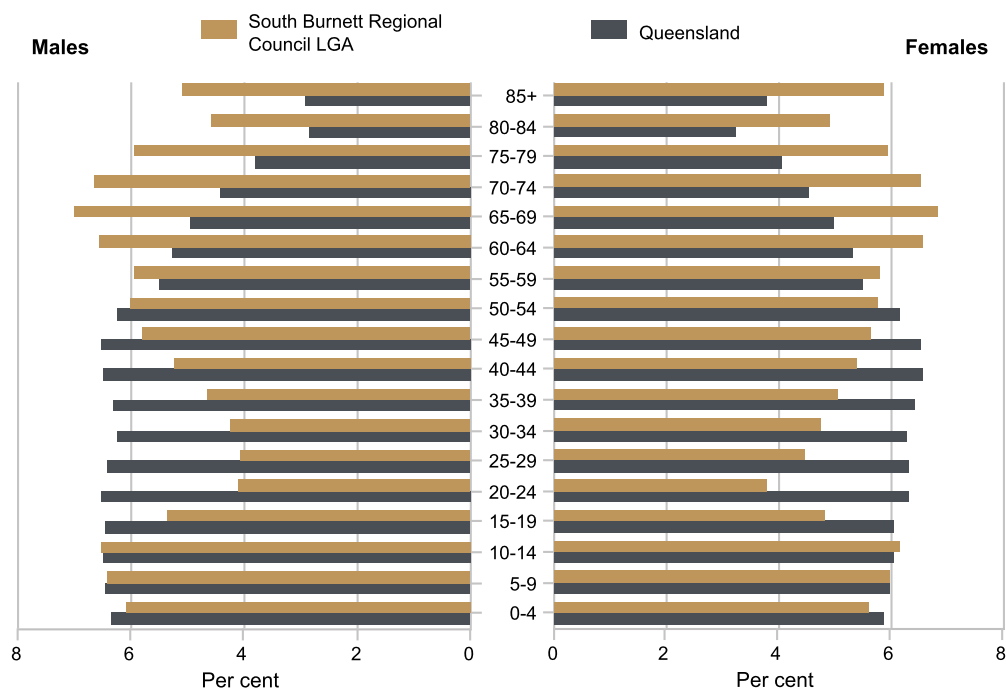
Source: *Queensland Government Population Projections*, 2013 edition (medium series)

**Figure 6 Projected population by age and sex, South Burnett Regional Council LGA and Queensland, 30 June 2011 and 30 June 2036**

**30 June 2011**



**30 June 2036**



Source: Queensland Government Population Projections, 2013 edition (medium series)



## Indigenous population

Indigenous population is based on the 2011 Census of Population and Housing question about Indigenous status where each person is asked to identify whether they are of Aboriginal and/or Torres Strait Islander origin. This is based on persons by place of usual residence.

The percentage of Indigenous persons in South Burnett Regional Council LGA was

**4.4%**

### South Burnett Regional Council LGA

- 1,360 persons (or 4.4%) were Indigenous

### Queensland

- 155,824 persons (or 3.6%) were Indigenous

**Table 5 Indigenous status, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Indigenous persons					Non-Indigenous persons		Total persons <sup>(b)</sup>
	Aboriginal	Torres Strait Islander	Both <sup>(a)</sup>	Total				
	— number —				%	number	%	number
South Burnett (R)	1,257	43	60	1,360	4.4	28,349	91.4	31,028
Queensland	122,896	20,094	12,834	155,824	3.6	3,952,707	91.2	4,332,740

(a) Applicable to persons who are of 'both Aboriginal and Torres Strait Islander origin'.

(b) Includes Indigenous status not stated.

Source: ABS, Census of Population and Housing, 2011, Indigenous Profile - I02 (usual residence)

# Births and deaths

Birth and death statistics are an estimate of the number of births and deaths that have been registered in Australia's state and territory Registries of Births, Deaths and Marriages over a calendar year. These estimates are useful for two distinct purposes – use as a component of population growth and for analysis of fertility and mortality. Data in this profile topic are updated annually with an approximate delay of 12 months after the reporting period. The next planned update is in December 2016.

## South Burnett Regional Council LGA

- 403 registered births in 2014
- 309 registered deaths

## Queensland

- 63,066 registered births in 2014
- 28,704 registered deaths

The number of registered births in 2014 to mothers with a usual residence in South Burnett Regional Council LGA was

**403 births**

**Table 6 Registered births and deaths, South Burnett Regional Council LGA and Queensland, 2014**

LGA / State	Births		Deaths		Natural increase
	number	rate <sup>(a)</sup>	number	rate <sup>(a)</sup>	number
South Burnett (R)	403	12.2	309	9.4	94
Queensland <sup>(b)</sup>	63,066	13.4	28,704	6.1	34,362

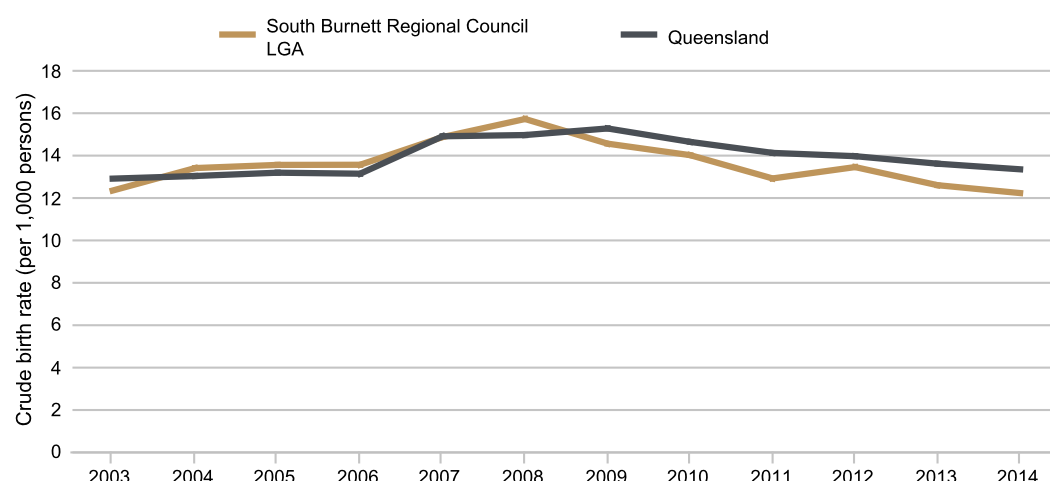
Refer to explanatory notes for additional information.

(a) Crude rate per 1,000 persons.

(b) Queensland totals include births and deaths where the usual residence was overseas, no fixed abode, Offshore and Migratory, and Queensland undefined.

Source: ABS 3301.0, *Births, Australia, 2014*; ABS 3302.0, *Deaths, Australia, 2014*

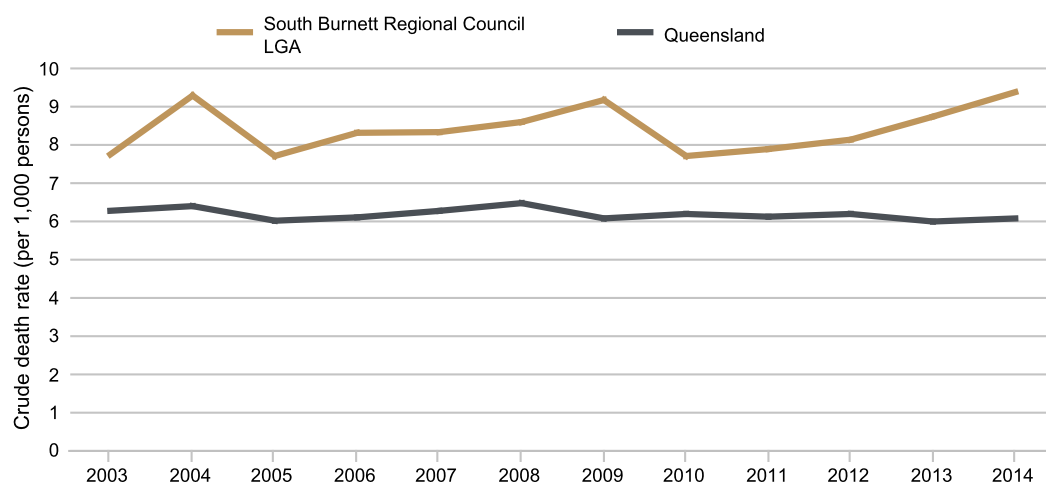
**Figure 7 Crude birth rate, South Burnett Regional Council LGA and Queensland<sup>(a)</sup>**



(a) Queensland totals include births where the usual residence was overseas, no fixed abode, Offshore and Migratory, and Queensland undefined.

Source: ABS 3301.0, *Births, Australia, 2014*; ABS 3302.0, *Deaths, Australia, 2014*

**Figure 8 Crude death rate, South Burnett Regional Council LGA and Queensland<sup>(a)</sup>**



(a) Queensland totals include deaths where the usual residence was overseas, no fixed abode, Offshore and Migratory, and Queensland undefined.

Source: ABS 3301.0, *Births, Australia, 2014*; ABS 3302.0, *Deaths, Australia, 2014*

## Migration 1 year ago

Migration one year ago compares the usual address of household members on Census Night 2011 (9 August 2011) with their usual address one year earlier (i.e. 9 August 2010). This is based on persons by place of usual residence.

The percentage of persons in South Burnett Regional Council LGA with a different address one year ago was

# 16.1%

### South Burnett Regional Council LGA

- 24,425 persons usually resided in the same address as one year ago
- 4,938 persons (or 16.1%) usually resided in a different address one year ago

### Queensland

- 3,278,187 persons usually resided in the same address as one year ago
- 764,695 persons (or 17.9%) usually resided in a different address one year ago

**Table 7 Place of usual residence one year ago<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Same address	Different address				Proportion with different address	Total persons <sup>(c)</sup>
		Within Queensland	Rest of Australia	Overseas	Total <sup>(b)</sup>		
	number	— number —				%	number
South Burnett (R)	24,425	4,464	301	95	4,938	16.1	30,637
Queensland	3,278,187	616,283	75,239	63,184	764,695	17.9	4,275,277

(a) Based on persons aged one year and over.

(b) Includes persons who stated that they were usually resident at a different address 1 year ago but did not state that address.

(c) Includes persons who did not state whether they were usually resident at a different address 1 year ago.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B38 (usual residence)

## Migration 5 years ago

Migration five years ago compares the usual address of household members on Census Night 2011 (9 August 2011) with their usual address five years earlier (i.e. 9 August 2006). This is based on persons by place of usual residence.

The percentage of persons in South Burnett Regional Council LGA with a different address five years ago was

# 41.4%

### South Burnett Regional Council LGA

- 15,390 persons usually resided in the same address as five years ago
- 11,958 persons (or 41.4%) usually resided in a different address five years ago

### Queensland

- 1,958,914 persons usually resided in the same address as five years ago
- 1,815,132 persons (or 45.0%) usually resided in a different address five years ago

**Table 8 Place of usual residence five years ago<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Same address	Different address				Proportion with different address	Total persons <sup>(c)</sup>
		Within Queensland	Rest of Australia	Overseas	Total <sup>(b)</sup>		
	number	— number —				%	number
South Burnett (R)	15,390	10,549	852	339	11,958	41.4	28,881
Queensland	1,958,914	1,331,610	218,734	238,588	1,815,132	45.0	4,034,846

(a) Based on persons aged five years and over.

(b) Includes persons who stated that they were usually resident at a different address 5 years ago but did not state that address.

(c) Includes persons who did not state whether they were usually resident at a different address 5 years ago.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B39 (usual residence)



## Country of birth

Country of birth has been derived from the 2011 Census of Population and Housing question '*In which country was the person born?*'. This is based on persons by place of usual residence.

The top five English speaking backgrounds and non-English speaking backgrounds for South Burnett Regional Council LGA were:

English Speaking	Non-English Speaking
1. United Kingdom, Channel Islands and Isle of Man (3.5%)	1. Philippines (0.6%)
2. New Zealand (2.0%)	2. Germany (0.5%)
3. South Africa (0.3%)	3. Netherlands (0.4%)
4. United States of America (0.2%)	4. Vietnam (0.1%)
5. Canada (0.1%)	5. India (0.1%)

### South Burnett Regional Council LGA

- 2,911 persons (or 9.4%) were born overseas

### Queensland

- 888,636 persons (or 20.5%) were born overseas

**Table 9 Country of birth, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Born in Australia		Born overseas						Total persons <sup>(c)</sup>
			Born in ESB countries <sup>(a)</sup>		Born in NESB countries <sup>(b)</sup>		Total <sup>(b)</sup>		
	number	%	number	%	number	%	number	%	number
South Burnett (R)	26,619	85.8	1,901	6.1	1,010	3.3	2,911	9.4	31,028
Queensland	3,192,115	73.7	478,290	11.0	410,346	9.5	888,636	20.5	4,332,738

Refer to explanatory notes for additional information.

(a) Includes the UK, Ireland, Canada, USA, South Africa and New Zealand.

(b) Includes countries not identified individually, 'Australian External Territories', 'Inadequately described' and 'At sea' responses.

(c) Includes not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B09 (usual residence)

## Proficiency in spoken English

Proficiency in spoken English has been derived from the 2011 Census of Population and Housing question '*How well does the person speak English?*', if the person speaks a language other than English at home. This topic relates to persons who stated they were born overseas as at Census Night 2011. This is based on overseas-born persons by place of usual residence.

### South Burnett Regional Council LGA

- 532 persons (or 18.3%) stated they spoke a language other than English at home

### Queensland

- 319,949 persons (or 36.0%) stated they spoke a language other than English at home

The top five non-English languages spoken at home for the total population of South Burnett Regional Council LGA were:

#### Language spoken

1. Southeast Asian Austronesian (0.3%)
2. German (0.3%)
3. Indo Aryan (0.1%)
4. Dutch (0.1%)
5. Italian (0.1%)

**Table 10 Proficiency in spoken English of overseas-born persons, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Speaks English only		Speaks other language at home and speaks English						Persons born overseas <sup>(b)</sup>
			Very well or well		Not well or not at all		Total <sup>(a)</sup>		
	number	%	number	%	number	%	number	%	number
South Burnett (R)	2,360	81.2	454	15.6	56	1.9	532	18.3	2,907
Queensland	565,544	63.6	269,847	30.4	45,927	5.2	319,949	36.0	888,635

Refer to explanatory notes for additional information.

(a) Includes proficiency in English not stated.

(b) Excludes persons who did not state their country of birth.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B11 and B13 (usual residence)

## Religious affiliation

Religious affiliation has been derived from the 2011 Census of Population and Housing question asking 'What is the person's religion?' This is based on persons by place of usual residence.

The top five religious affiliations for South Burnett Regional Council LGA were:

### Religious affiliation

1. No Religion (20.2%)
2. Anglican (19.0%)
3. Catholic (18.1%)
4. Uniting Church (9.9%)
5. Lutheran (6.3%)

### South Burnett Regional Council LGA

- 21,182 persons (or 68.3%) stated they were affiliated with a Christian religion

### Queensland

- 2,785,084 persons (or 64.3%) stated they were affiliated with a Christian religion

**Table 11 Religious affiliation, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Religious affiliation						Total <sup>(b)</sup>
	Christianity		Other <sup>(a)</sup>		No religion		
	number	%	number	%	number	%	
South Burnett (R)	21,182	68.3	440	1.4	6,278	20.2	31,028
Queensland	2,785,084	64.3	160,332	3.7	955,782	22.1	4,332,738

Refer to explanatory notes for additional information.

(a) Includes 'Buddhism', 'Hinduism', 'Islam', 'Judaism' and 'Other Religions'.

(b) Total includes 'Religious belief, nfd', 'Not defined', 'New Age, so described', 'Theism, and 'Not stated'.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B14 (usual residence)

## Family composition

In the context of the 2011 Census of Population and Housing, families are classified in terms of the relationships that exist between a single family reference person and each other member of that family. The family composition variable distinguishes between different types of families based on the presence or absence of couple relationships, parent-child relationships, child dependency relationships or other familial relationships, in that order of preference. This is based on families by place of usual residence.

The percentage of total families in South Burnett Regional Council LGA which were couple families with children was

# 36.2%

### South Burnett Regional Council LGA

- 8,513 families
- 36.2% of total families were couple families with children

### Queensland

- 1,148,179 families
- 42.8% of total families were couple families with children

**Table 12 Family composition<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Couple family with no children		Couple family with children		One-parent family		Total <sup>(b)</sup>
	number	%	number	%	number	%	number
South Burnett (R)	3,973	46.7	3,082	36.2	1,335	15.7	8,513
Queensland	453,102	39.5	491,200	42.8	184,547	16.1	1,148,179

(a) Includes same-sex couple families.

(b) Includes other families.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B25 (families and persons)

## Household composition

In the context of the 2011 Census of Population and Housing, a household is defined as one or more persons, at least one of whom is at least 15 years of age, usually resident in the same private dwelling. Household composition describes the type of household within a dwelling, whether a family is present or not and whether or not other unrelated household members are present. This is based on occupied private dwellings.

The percentage of one family households in South Burnett Regional Council LGA was

# 70.0%

### South Burnett Regional Council LGA

- 11,859 households
- 70.0% of total households were one family households

### Queensland

- 1,547,304 households
- 70.7% of total households were one family households

**Table 13 Household composition, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	One family households		Multiple family households		Group households		Lone person households		Total households
	number	%	number	%	number	%	number	%	number
South Burnett (R)	8,305	70.0	107	0.9	374	3.2	3,073	25.9	11,859
Queensland	1,094,467	70.7	26,361	1.7	72,966	4.7	353,510	22.8	1,547,304

Source: ABS, Census of Population and Housing, 2011, unpublished data (occupied private dwellings)



## Dwellings by dwelling structure

In general terms, a dwelling is a structure which is intended to have people live in it, and which is habitable on Census Night. The dwelling structure variable classifies the structure of private dwellings enumerated in the 2011 Census of Population and Housing. This information is determined by the Census collector and is based on occupied private dwellings.

The percentage of total occupied private dwellings in South Burnett Regional Council LGA which were separate houses was

**92.2%**

### South Burnett Regional Council LGA

- 10,929 occupied private dwellings (or 92.2%) were separate houses

### Queensland

- 1,215,303 occupied private dwellings (or 78.5%) were separate houses

**Table 14 Occupied private dwellings<sup>(a)</sup> by dwelling structure, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Separate house		Semi-detached <sup>(b)</sup>		Apartment <sup>(c)</sup>		Caravan <sup>(d)</sup>		Other <sup>(e)</sup>		Total <sup>(f)</sup>
	number	%	number	%	number	%	number	%	number	%	number
South Burnett (R)	10,929	92.2	69	0.6	668	5.6	117	1.0	47	0.4	11,859
Queensland	1,215,303	78.5	129,430	8.4	181,716	11.7	16,191	1.0	3,384	0.2	1,547,303

(a) Excludes visitors only and other not classifiable households.

(b) Includes row or terrace house, townhouse etc.

(c) Includes flat or units.

(d) Includes cabin and houseboat.

(e) Includes improvised home, tent, sleepers out; house or flat attached to a shop, office, etc.

(f) Includes dwelling structures not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B31 (dwellings and persons)

## Dwellings by tenure type

In general terms, a dwelling is a structure which is intended to have people live in it, and which is habitable on Census Night. The tenure type variable describes whether a household rents or owns the dwelling in which they were enumerated on Census Night 2011, or whether the household occupies it under another arrangement. This is based on occupied private dwellings.

The percentage of total occupied private dwellings in South Burnett Regional Council LGA which were fully owned was

# 38.8%

### South Burnett Regional Council LGA

- 4,606 occupied private dwellings (or 38.8%) were fully owned

### Queensland

- 448,617 occupied private dwellings (or 29.0%) were fully owned

**Table 15 Occupied private dwellings<sup>(a)</sup> by tenure type, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Fully owned		Being purchased <sup>(b)</sup>		Rented <sup>(c)</sup>		Other <sup>(d)</sup>		Total <sup>(e)</sup>
	number	%	number	%	number	%	number	%	number
South Burnett (R)	4,606	38.8	3,566	30.1	3,225	27.2	80	0.7	11,859
Queensland	448,617	29.0	533,868	34.5	513,415	33.2	14,304	0.9	1,547,303

(a) Excludes visitors only and other not classifiable households.

(b) Includes dwellings being purchased under a rent/buy scheme.

(c) Includes renting from a real estate agent, state housing authority, person not in the same household, housing co-op/community/church, other and not stated.

(d) Includes dwellings being occupied under a life tenure scheme.

(e) Includes tenure type not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B32 (occupied private dwellings)

## Number of motor vehicles per dwelling

The number of motor vehicles variable records the number of registered motor vehicles, which are owned or used by members of a household, and which are garaged or parked near the occupied private dwelling on Census Night 2011. This is based on occupied private dwellings by place of enumeration.

The percentage of dwellings in South Burnett Regional Council LGA with 3 or more motor vehicles was

# 18.7%

### South Burnett Regional Council LGA

- 5.6% of dwellings had no motor vehicles
- 18.7% of dwellings had 3 or more motor vehicles

### Queensland

- 7.2% of dwellings had no motor vehicles
- 17.3% of dwellings had 3 or more motor vehicles

**Table 16 Number of motor vehicles per occupied private dwelling <sup>(a)(b)</sup>, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	No motor vehicles		1 motor vehicle		2 motor vehicles		3 or more motor vehicles		Total dwellings
	number	%	number	%	number	%	number	%	number
South Burnett (R)	669	5.6	4,460	37.6	4,065	34.3	2,215	18.7	11,860
Queensland	110,842	7.2	547,575	35.4	575,736	37.2	267,083	17.3	1,547,306

(a) Excludes visitors only and other not classifiable households.

(b) Excludes motorbikes/scooters.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B29 (occupied private dwellings)

## Internet connection

The type of Internet connection has been derived from the 2011 Census of Population and Housing question '*Can the Internet be accessed at this dwelling?*'. This is based on occupied private dwellings by place of enumeration.

The percentage of total occupied private dwellings in South Burnett Regional Council LGA with an internet connection was

**66.9%**

### South Burnett Regional Council LGA

- 7,934 occupied private dwellings (or 66.9%) had Internet connections

### Queensland

- 1,211,884 occupied private dwellings (or 78.3%) had Internet connections

**Table 17 Internet connections in occupied private dwellings<sup>(a)(b)</sup>, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	No Internet connection		With Internet connection				Total dwellings (d)
			Broadband	Dial-up	Total(c)		
	number	%	— number —		number	%	number
South Burnett (R)	3,423	28.9	7,059	441	7,934	66.9	11,858
Queensland	281,467	18.2	1,103,036	45,088	1,211,884	78.3	1,547,301

(a) Excludes visitors only and other not classifiable households.

(b) Where a dwelling has more than one type of Internet connection only one is recorded.

(c) Includes other Internet connection.

(d) Includes Internet connection not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B35 (occupied private dwellings)



# Society

## Department of Social Services payments

The Department of Social Services (DSS) is the Australian Government's lead agency in the development and delivery of social policy, and is working to improve the lifetime wellbeing of people and families in Australia. The data in this profile topic are sourced from the DSS Payment Demographic dataset and are updated quarterly. The next planned update is in May 2016.

The number of recipients of the Age pension in South Burnett Regional Council LGA as at September quarter 2015 was

# 5,406 recipients

### South Burnett Regional Council LGA

- 5,406 recipients of the Age pension as at September quarter 2015
- 2,496 recipients of the Disability support pension
- 1,395 recipients of Newstart allowance

### Queensland

- 468,472 recipients of the Age pension as at September quarter 2015
- 162,691 recipients of the Disability support pension
- 157,566 recipients of Newstart allowance

**Table 18 Department of Social Services payments<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland, September quarter 2015**

LGA / State	Payment type									
	Age pension		Carer allowance		Disability support pension		Family tax benefit A		Newstart allowance	
	recipients	rate <sup>(b)</sup>	recipients	rate <sup>(c)</sup>	recipients	rate <sup>(c)</sup>	recipients	rate <sup>(d)</sup>	recipients	rate <sup>(e)</sup>
South Burnett (R)	5,406	80.3	1,739	6.8	2,496	9.7	2,772	84.0	1,395	8.3
Queensland	468,472	71.0	116,619	3.1	162,691	4.4	327,089	65.8	157,566	5.9

Refer to explanatory notes for additional information.

(a) Payments by geographical region are based on the recipient's geocoded address.

(b) Rate per 100 persons aged 65 years and over, as at 30 June 2014. Person counts are based on estimated resident population (ERP).

(c) Rate per 100 persons aged 16 years and over, as at 30 June 2014. Person counts are based on ERP.

(d) Rate per 100 families with children under 15 years, as at 30 June 2014. Counts of families with children under 15 years are derived by Queensland Treasury using 2011 Census counts of families with children under 15 years and usual resident persons, along with ERP aged 15 to 64 years.

(e) Rate per 100 persons aged 22 to 64 years, as at 30 June 2014. Person counts are based on ERP.

Source: Department of Social Services, Payment Demographic Data, ABS 3235.0, *Population by Age and Sex, Regions of Australia* unpublished data, ABS, Census of Population and Housing, 2011, Basic Community Profile - B05 (usual residence), ABS, Census of Population and Housing, 2011, Basic Community Profile - B25 (families and persons)

## Early childhood education and care services

The early childhood education and care services data are based on administrative data supplied by the Department of Education and Training. Data in this profile topic are updated twice yearly with an approximate delay of 1 month after the reporting period. The next planned update is in September 2016.

The number of early childhood education and care services in South Burnett Regional Council LGA as at 29 February 2016 was

# 24 services

### South Burnett Regional Council LGA

- 24 early childhood education and care services as at 29 February 2016
- 13 long day care services

### Queensland

- 3,009 early childhood education and care services as at 29 February 2016
- 1,477 long day care services

**Table 19 Early childhood education and care services, South Burnett Regional Council LGA and Queensland, 29 February 2016**

LGA / State	Family day care	Kindergartens	Long day care	School aged care	Limited hours care	Total <sup>(a)</sup>
	— number —					
South Burnett (R)	2	7	13	1	0	24
Queensland	154	504	1,477	738	25	3,009

(a) Total includes Other service types (for example Child and Family Support Hubs and Community Services).

Source: Office for Early Childhood Education and Care, Department of Education and Training

## Highest level of schooling

Highest year of school completed has been derived from the 2011 Census of Population and Housing question '*What is the highest year of primary or secondary school the person has completed?*'. This information is based on persons aged 15 years and over who are no longer attending primary or secondary school, by place of usual residence.

The percentage of total persons in South Burnett Regional Council LGA with highest level of schooling as year 11 or 12 was

# 37.5%

### South Burnett Regional Council LGA

- 8,789 persons (or 37.5%) with highest level of schooling of year 11 or 12 (or equivalent)

### Queensland

- 1,836,995 persons (or 55.3%) with highest level of schooling of year 11 or 12 (or equivalent)

**Table 20 Highest level of schooling completed, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Did not go to school, or Year 8 or below		Year 9 or 10 or equivalent		Year 11 or 12 or equivalent		Total <sup>(a)</sup>
	number	%	number	%	number	%	number
South Burnett (R)	3,089	13.2	9,519	40.6	8,789	37.5	23,456
Queensland	219,102	6.6	977,116	29.4	1,836,995	55.3	3,320,761

(a) Includes highest year of schooling not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B16 (usual residence)

## Non-school qualification

Non-school qualification information describes the highest non-school qualification (e.g. bachelor degree, diploma) completed as stated in the 2011 Census of Population and Housing. This information is based on persons aged 15 years and over by place of usual residence.

The percentage of persons in South Burnett Regional Council LGA with a non-school qualification was

**45.1%**

### South Burnett Regional Council LGA

- 10,999 persons (or 45.1%) with a non-school qualification

### Queensland

- 1,875,323 persons (or 54.2%) with a non-school qualification

**Table 21 Non-school qualifications by level of education, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Level of education						Persons with a qualification <sup>(c)</sup>		Total persons
	Bachelor degree or higher <sup>(a)</sup>		Advanced diploma or diploma		Certificate <sup>(b)</sup>				
	number	%	number	%	number	%	number	%	number
South Burnett (R)	1,870	7.7	1,417	5.8	5,047	20.7	10,999	45.1	24,400
Queensland	548,894	15.9	260,778	7.5	686,993	19.9	1,875,323	54.2	3,456,875

(a) Includes bachelor degree, graduate diploma, graduate certificate and postgraduate degree.

(b) Includes Certificate, I, II, III and IV and Certificates not further defined responses.

(c) Includes inadequately described and not stated level of education responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B37 and B40 (usual residence)

## Non-school qualification by sex and age

Non-school qualification information describes the highest non-school qualification (e.g. bachelor degree, diploma) completed as stated in the 2011 Census of Population and Housing. This information is based on persons aged 15 years and over by place of usual residence.

The percentage of persons in South Burnett Regional Council LGA with a non-school qualification was

# 45.1%

### South Burnett Regional Council LGA

- 10,999 persons (or 45.1%) with a non-school qualification
- 55.4% males aged 25-44 years with a non-school qualification
- 55.0% females aged 25-44 years with a non-school qualification

### Queensland

- 1,875,323 persons (or 54.2%) with a non-school qualification
- 67.4% males aged 25-44 years with a non-school qualification
- 64.5% females aged 25-44 years with a non-school qualification

**Table 22 Non-school qualifications by sex and age, South Burnett Regional Council LGA and Queensland, 2011**

Sex / age	South Burnett Regional Council LGA				Queensland			
	With NSQ <sup>(a)</sup>		Without NSQ		With NSQ <sup>(a)</sup>		Without NSQ	
	number	%	number	%	number	%	number	%
<b>Males</b>								
15-24 years	477	28.3	1,208	71.7	99,829	33.5	198,166	66.5
25-44 years	1,746	55.4	1,405	44.6	400,938	67.4	193,726	32.6
45-64 years	2,172	50.6	2,120	49.4	339,647	63.0	199,872	37.0
65 years and over	1,267	43.4	1,655	56.6	147,232	55.3	119,067	44.7
<i>Total</i>	<i>5,662</i>	<i>47.0</i>	<i>6,388</i>	<i>53.0</i>	<i>987,646</i>	<i>58.1</i>	<i>710,831</i>	<i>41.9</i>
<b>Females</b>								
15-24 years	573	35.7	1,033	64.3	103,162	35.6	186,606	64.4
25-44 years	1,893	55.0	1,549	45.0	395,579	64.5	217,916	35.5
45-64 years	1,927	43.3	2,524	56.7	277,134	50.2	275,318	49.8
65 years and over	944	33.1	1,906	66.9	111,802	36.9	190,885	63.1
<i>Total</i>	<i>5,337</i>	<i>43.2</i>	<i>7,012</i>	<i>56.8</i>	<i>887,677</i>	<i>50.5</i>	<i>870,725</i>	<i>49.5</i>
<b>Persons</b>								
15-24 years	1,050	31.9	2,241	68.1	202,991	34.5	384,772	65.5
25-44 years	3,639	55.2	2,954	44.8	796,517	65.9	411,642	34.1
45-64 years	4,099	46.9	4,644	53.1	616,781	56.5	475,190	43.5
65 years and over	2,211	38.3	3,561	61.7	259,034	45.5	309,952	54.5
<i>Total</i>	<i>10,999</i>	<i>45.1</i>	<i>13,400</i>	<i>54.9</i>	<i>1,875,323</i>	<i>54.2</i>	<i>1,581,556</i>	<i>45.8</i>

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated level of education responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B01 and B40 (usual residence)



## Non-school qualification by field of study

Non-school qualification information describes the highest non-school qualification (e.g. bachelor degree, diploma) completed as stated in the 2011 Census of Population and Housing. This information is based on persons aged 15 years and over by place of usual residence.

The largest non-school qualification field of study in South Burnett Regional Council LGA was

**Engineering and  
Related  
Technologies (18.6%)**

### South Burnett Regional Council LGA

- 2,049 persons (or 18.6%) with a non-school qualification studied in the field of Engineering and Related Technologies
- 1,284 persons (or 11.7%) with a non-school qualification studied in the field of Management and Commerce

### Queensland

- 314,629 persons (or 16.8%) with a non-school qualification studied in the field of Engineering and Related Technologies
- 310,801 persons (or 16.6%) with a non-school qualification studied in the field of Management and Commerce

**Table 23 Non-school qualifications by field of study, South Burnett Regional Council LGA and Queensland, 2011**

Field of study	South Burnett Regional Council LGA		Queensland		Specialisation ratio
	number	%	number	%	number
Natural and Physical Sciences	140	1.3	42,973	2.3	0.56
Information Technology	118	1.1	41,051	2.2	0.49
Engineering and Related Technologies	2,049	18.6	314,629	16.8	1.11
Architecture and Building	686	6.2	123,878	6.6	0.94
Agriculture, Environmental and Related Studies	438	4.0	38,166	2.0	1.96
Health	1,039	9.4	173,991	9.3	1.02
Education	1,037	9.4	139,977	7.5	1.26
Management and Commerce	1,284	11.7	310,801	16.6	0.70
Society and Culture	1,027	9.3	180,557	9.6	0.97
Creative Arts	142	1.3	53,377	2.8	0.45
Food, Hospitality and Personal Services	626	5.7	105,082	5.6	1.02
Mixed Field Programmes	18	0.2	2,830	0.2	1.08
<b>Total<sup>(a)</sup></b>	<b>11,000</b>	<b>100.0</b>	<b>1,875,323</b>	<b>100.0</b>	<b>1.00</b>

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B41 (usual residence)

## Persons with a profound or severe disability

Persons with a profound or severe disability has been derived from the 2011 Census of Population and Housing variable 'Core activity need for assistance'. Persons with a profound or severe disability are defined as needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication because of a long term health condition (six months or more), a disability (lasting six months or more), or old age. This is based on persons by place of usual residence.

The percentage of persons in South Burnett Regional Council LGA in need of assistance with a profound or severe disability was

**7.9%**

### South Burnett Regional Council LGA

- 2,440 persons (or 7.9%) in need of assistance with a profound or severe disability

### Queensland

- 192,019 persons (or 4.4%) in need of assistance with a profound or severe disability

**Table 24 Need for assistance with a profound or severe disability, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Need for assistance		No need for assistance		Total <sup>(a)</sup>
	number	%	number	%	number
South Burnett (R)	2,440	7.9	27,001	87.0	31,030
Queensland	192,019	4.4	3,880,396	89.6	4,332,738

(a) Includes need of assistance not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B18 (usual residence)

## Voluntary work

Voluntary work undertaken for an organisation or group has been derived from the 2011 Census of Population and Housing question '*In the last twelve months did the person spend any time doing voluntary work through an organisation or group?*' The variable is based on persons aged 15 years and over by place of usual residence.

The percentage of persons in South Burnett Regional Council LGA who undertook voluntary work was

**22.1%**

### South Burnett Regional Council LGA

- 5,397 persons (or 22.1%) undertook voluntary work

### Queensland

- 645,543 persons (or 18.7%) undertook voluntary work

**Table 25 Voluntary work, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Volunteer		Not a volunteer		Total <sup>(a)</sup>
	number	%	number	%	number
South Burnett (R)	5,397	22.1	17,018	69.7	24,401
Queensland	645,543	18.7	2,521,658	72.9	3,456,877

(a) Includes voluntary work not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B19 (usual residence)

## Aged care services

Information on aged care services are provided by the Commonwealth Department of Health and Ageing. Information are based on the location of the service, rather than the region in which the service is delivered. In some instances, aged care services may have provided the address information of their approved provider in place of the address information of the individual aged care service. Users should be aware of this limitation when using these data. Aged care services are subsidised by the Australian Government under the Aged Care Act 1997. Data in this profile topic are updated annually with an approximate delay of 12 months after the reporting period. The next planned update is in April 2016.

### South Burnett Regional Council LGA

- 10 aged care services as at 30 June 2014
- 447 aged care service operational places

### Queensland

- 1,003 aged care services as at 30 June 2014
- 47,542 aged care service operational places

The number of aged care service operational places in South Burnett Regional Council LGA as at 30 June 2014 was

# 447 places

**Table 26 Aged care services, South Burnett Regional Council LGA and Queensland, 30 June 2014**

LGA / State	Aged care services	Number of operational places by care type				Australian funding <sup>(a)</sup>
		Community care	Residential aged care	Transition care	Total places	
	number	— number —				\$m
South Burnett (R)	10	146	301	0	447	16.8
Queensland	1,003	12,601	34,208	733	47,542	2,045.5

Refer to explanatory notes for additional information.

(a) Australian government recurrent funding for aged care services in the 12 months ending 30 June 2014.

Source: Australian Government Department of Health and Ageing

## Emergency services, schools and hospitals

Information on emergency services, schools and hospitals are provided by administrative custodian agencies. Data in this profile topic are updated every two years. The next planned update is in September 2017.

As at 30 June 2015, the number of schools in South Burnett Regional Council LGA was

# 27 schools

### South Burnett Regional Council LGA

- 27 schools as at 30 June 2015
- 5 hospitals

### Queensland

- 1,796 schools as at 30 June 2015
- 276 hospitals

**Table 27 Emergency services, schools and hospitals, South Burnett Regional Council LGA and Queensland, 30 June 2015**

LGA / State	Police stations	Ambulance stations	Fire stations	Schools	Hospitals
	— number —				
South Burnett (R)	7	6	8	27	5
Queensland	336	291	242	1,796	276

Refer to explanatory notes for additional information.

Source: Department of Education and Training; Queensland Ambulance Service; Queensland Fire and Emergency Services; Queensland Health; Queensland Police



## The Index of Relative Socio-Economic Disadvantage

Socio-Economic Indexes for Areas (SEIFA) is a summary measure of the social and economic conditions of geographic areas across Australia. SEIFA, which comprises a number of indexes, is generated by ABS from the Census of Population and Housing. In 2011 an Index of Relative Socio-Economic Disadvantage was produced, ranking geographical areas in terms of their relative socio-economic disadvantage. The index focuses on low-income earners, relatively lower education attainment, high unemployment and dwellings without motor vehicles. Low index values represent areas of most disadvantage and high values represent areas of least disadvantage. This is based on persons by place of usual residence.

### South Burnett Regional Council LGA

- 2.9% in least disadvantaged quintile
- 61.7% in most disadvantaged quintile

### Queensland

- 20.0% in least disadvantaged quintile
- 20.0% in most disadvantaged quintile

The percentage of persons in South Burnett Regional Council LGA in the least disadvantaged quintile was

**2.9%**

**Table 28 Population by Index of Relative Socio-Economic Disadvantage quintiles, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Quintile 1 (most disadvantaged)	Quintile 2	Quintile 3	Quintile 4	Quintile 5 (least disadvantaged)
	— % —				
South Burnett (R)	61.7	17.8	12.7	4.9	2.9
Queensland	20.0	20.0	20.0	20.0	20.0

Source: ABS 2033.0.55.001, *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia - Data only, 2011*, (Queensland Treasury derived)

## Remoteness

The Australian Bureau of Statistics develops the Remoteness Area (RA) classification each Census period using the University of Adelaide's Accessibility/Remoteness Index of Australia classification (ARIA+) mean scores. Data in this profile topic are updated every five years with an approximate delay of 18 months after the reporting period.

The most populated remoteness area in South Burnett Regional Council LGA in 2011 was

### Inner Regional Australia

#### South Burnett Regional Council LGA

- 0.0% of the population were in major cities
- 0.0% of the population were in very remote Australia
- Inner Regional Australia had the largest percentage of population with 58.7%

#### Queensland

- 61.6% of the population were in major cities
- 1.3% of the population were in very remote Australia

**Table 29 Population<sup>(a)</sup> in remoteness areas<sup>(b)</sup>, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Remoteness Area									
	Major City		Inner Regional Australia		Outer Regional Australia		Remote Australia		Very Remote Australia	
	number	%	number	%	number	%	number	%	number	%
South Burnett (R)	0	0.0	18,210	58.7	12,818	41.3	0	0.0	0	0.0
Queensland	2,663,104	61.6	885,169	20.5	639,744	14.8	75,599	1.8	56,106	1.3

(a) Population based on 2011 usual resident population.

(b) Based on the Australian Bureau of Statistics Remoteness Area (RA) classification using ARIA+ mean scores.

Source: Australian Population and Migration Research Centre, University of Adelaide; ABS, Census of Population and Housing, 2011

## Reported offences

The number and rates of reported offences are collected by the Queensland Police Service. Data in this profile topic are updated annually. The next planned update is in July 2016.

The rate of total reported offences for South Burnett Regional Council LGA in 2014–15 was

**9,022 per 100,000 persons**

### South Burnett Regional Council LGA

- 3,002 reported offences in 2014–15, or 9,022 per 100,000 persons
- 260 offences against the person, or 781 per 100,000 persons
- 1,044 offences against property, or 3,138 per 100,000 persons

### Queensland

- 445,432 reported offences in 2014–15, or 9,293 per 100,000 persons
- 28,143 offences against the person, or 587 per 100,000 persons
- 198,418 offences against property, or 4,140 per 100,000 persons

**Table 30 Reported offences, South Burnett Regional Council LGA and Queensland, 2014–15**

LGA / State	Type of offence							
	Offences against the person		Offences against property		Other offences		Total	
	number	rate <sup>(a)</sup>	number	rate <sup>(a)</sup>	number	rate <sup>(a)</sup>	number	rate <sup>(a)</sup>
South Burnett (R)	260	781	1,044	3,138	1,698	5,103	3,002	9,022
Queensland	28,143	587	198,418	4,140	218,871	4,567	445,432	9,293

Refer to explanatory notes for additional information.

(a) Rate per 100,000 persons.

Source: Queensland Police Service

# Economy

## Selected medians and averages

These selected medians and averages have been derived by using data based on the 2011 Census of Population and Housing and may not reflect medians that have been derived by administrative data and published in other profile topics. Where applicable, these estimates are based on place of usual residence.

The median total personal income for South Burnett Regional Council LGA was

**\$397 per week**

### South Burnett Regional Council LGA

- Median mortgage repayment of \$1,200 per month
- Average household size of 2.4 persons per dwelling

### Queensland

- Median mortgage repayment of \$1,850 per month
- Average household size of 2.6 persons per dwelling

**Table 31 Selected medians and averages, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Median / Average					
	Median mortgage repayment	Median total family income	Median total household income	Median total personal income	Average household size	Average number of persons per bedroom
	\$/month	\$/week	\$/week	\$/week	persons	number
South Burnett (R)	1,200	952	789	397	2.4	1.1
Queensland	1,850	1,453	1,235	587	2.6	1.1

Refer to explanatory notes for additional information.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B02



## Median Rent

Median rent estimates have been derived by Queensland Treasury using rental bond lodgements sourced by the Residential Tenancies Authority (RTA). Medians are only calculated where there are 10 or more lodgements over the 12 month period. Data in this profile topic are updated quarterly with an approximate delay of 3 months after the reporting period. The next planned update is in April 2016.

The median rent in South Burnett Regional Council LGA for a 3 bedroom house in the 12 months ending 31 December 2015 was

# \$240 per week

### South Burnett Regional Council LGA

- Median rent of \$185 per week for a 2 bedroom flat/unit in the 12 months ending 31 December 2015
- Median rent of \$240 per week for a 3 bedroom house

### Queensland

- Median rent of \$340 per week for a 2 bedroom flat/unit in the 12 months ending 31 December 2015
- Median rent of \$350 per week for a 3 bedroom house

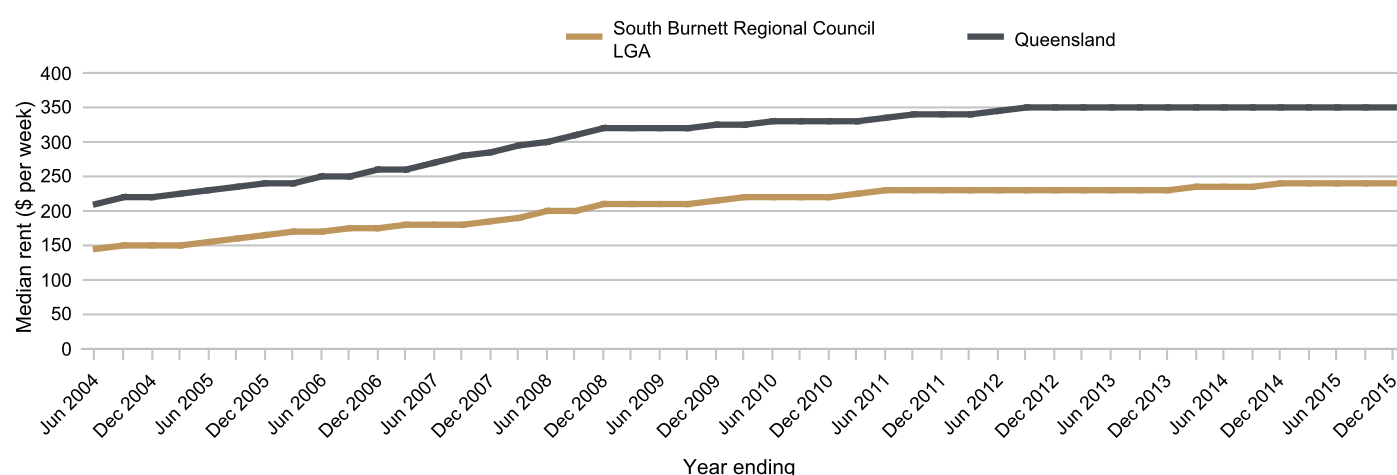
**Table 32 Lodgements and median rent by dwelling type, South Burnett Regional Council LGA and Queensland, 12 months ending 31 December 2015**

LGA / State	Lodgements				Median rent			
	1 bedroom flat/unit	2 bedroom flat/unit	3 bedroom house	4 bedroom house	1 bedroom flat/unit	2 bedroom flat/unit	3 bedroom house	4 bedroom house
	— number —				— \$ per week —			
South Burnett (R)	49	218	616	351	155	185	240	300
Queensland	23,509	52,852	53,673	50,308	290	340	350	410

Refer to explanatory notes for additional information.

Source: Residential Tenancies Authority, Rental Bonds data (Queensland Government Statistician's Office derived)

**Figure 9 Median rent of three bedroom house, South Burnett Regional Council LGA and Queensland**



Refer to explanatory notes for additional information.

Source: Residential Tenancies Authority, Rental Bonds data (Queensland Government Statistician's Office derived)

## Total personal income

Total personal income has been derived from the 2011 Census of Population and Housing question '*What is the total of all wages/salaries, government benefits, pensions, allowances and other income a person usually receives?*'. Median total personal income estimates have been calculated by the ABS. The variable is based on persons aged 15 years and over by place of usual residence.

### South Burnett Regional Council LGA

- Median total personal income of \$20,644 per year

### Queensland

- Median total personal income of \$30,524 per year

The median total personal income in South Burnett Regional Council LGA was

**\$20,644 per year**

**Table 33 Total personal income, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Less than \$20,800 per year		\$20,800 to \$51,999 per year		\$52,000 to \$103,999 per year		\$104,000 or more per year		Total <sup>(a)</sup>	Median (\$/year)
	number	%	number	%	number	%	number	%	number	\$
South Burnett (R)	11,277	46.2	7,577	31.1	2,884	11.8	678	2.8	24,400	20,644
Queensland	1,195,059	34.6	1,095,509	31.7	689,495	19.9	191,236	5.5	3,456,877	30,524

Refer to explanatory notes for additional information.

(a) Includes personal income not stated.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B02 and B17

## Total family income

Total family income is the sum of the total personal incomes of each family member present in the household on 2011 Census Night. Family income only applies to classifiable families in occupied private dwellings. Low-income families have been defined as families in occupied private dwellings whose family income was less than \$600 per week or less than \$31,200 per year. Median total family income estimates have been calculated by the ABS.

The median total family income in South Burnett Regional Council LGA was

**\$49,504 per year**

### South Burnett Regional Council LGA

- 1,950 low-income families (22.9%)
- Median total family income of \$49,504 per year

### Queensland

- 149,707 low-income families (13.0%)
- Median total family income of \$75,556 per year

**Table 34 Total family income, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	Less than \$31,200 per year		\$31,200 to \$77,999 per year		\$78,000 to \$155,999 per year		\$156,000 or more per year		Total <sup>(a)</sup>	Median (\$/year)
	number	%	number	%	number	%	number	%	number	\$
South Burnett (R)	1,950	22.9	3,405	40.0	1,708	20.1	358	4.2	8,512	49,504
Queensland	149,707	13.0	373,050	32.5	363,201	31.6	125,205	10.9	1,148,178	75,556

Refer to explanatory notes for additional information.

(a) Includes partially stated and not stated income responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B02 and B26

## Unemployment and labour force

Estimates of unemployment and labour force are produced by the Australian Government Department of Employment. The estimates are calculated by utilising administrative data such as Centrelink Newstart and Youth Allowance (Other) recipients as well as ABS labour force estimates. Data in this profile topic are updated quarterly with an approximate delay of 3 months after the reporting period. The next planned update is in June 2016.

### South Burnett Regional Council LGA

- 1,325 unemployed persons in December quarter 2015
- Unemployment rate of 9.6%

### Queensland

- 157,388 unemployed persons in December quarter 2015
- Unemployment rate of 6.3%

The unemployment rate in South Burnett Regional Council LGA at December quarter 2015 was

**9.6%**

**Table 35 Unemployment and labour force<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland, December quarter 2015**

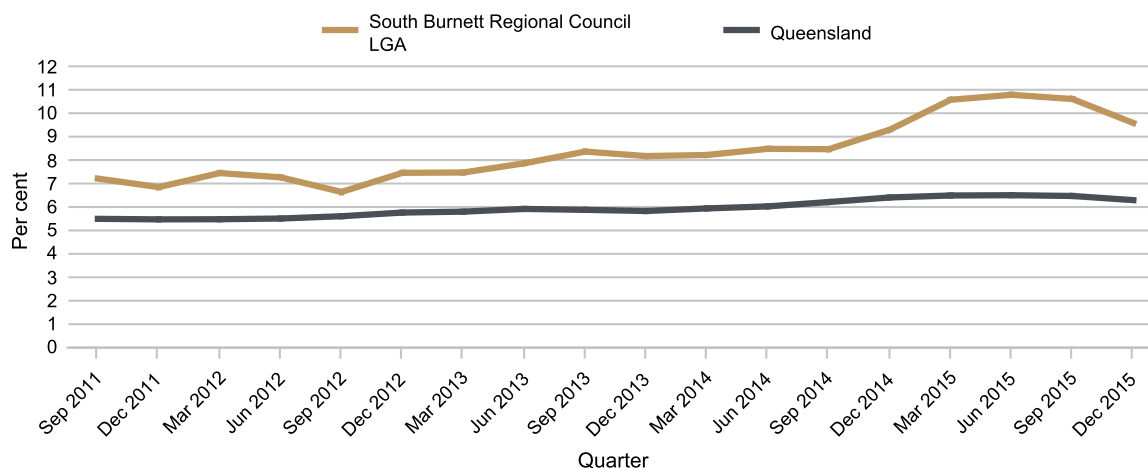
LGA / State	Unemployed	Labour force	Unemployment rate
	— number —		%
South Burnett (R)	1,325	13,824	9.6
Queensland	157,388	2,501,302	6.3

Refer to explanatory notes for additional information.

(a) Based on a 4-quarter smoothed series.

Source: Australian Government Department of Employment, *Small Area Labour Markets Australia*, various editions

**Figure 10 Unemployment rate<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland**



(a) Based on a 4-quarter smoothed series.

Source: Australian Government Department of Employment, *Small Area Labour Markets Australia*, various editions



## Employment by industry

Employment by industry has been derived from the 2011 Census of Population and Housing data. A person's industry of employment was classified based on responses to a range of questions from the Census and is applicable to persons aged 15 years and over who work. This is based on place of usual residence.

The top five industry subdivisions of employment for South Burnett Regional Council LGA were:

1. Agriculture (10.6%)
2. Preschool and School Education (7.9%)
3. Food Product Manufacturing (5.7%)
4. Other Store-Based Retailing (5.3%)
5. Construction Services (4.4%)

### South Burnett Regional Council LGA

- 12.3% of employed persons worked in Health care and social assistance industry
- 12.2% of employed persons worked in Retail trade industry
- Highest specialisation ratio of 4.28 in Agriculture, forestry and fishing industry

### Queensland

- 11.9% of employed persons worked in Health care and social assistance industry
- 10.7% of employed persons worked in Retail trade industry

**Table 36 Employment by industry, South Burnett Regional Council LGA and Queensland, 2011**

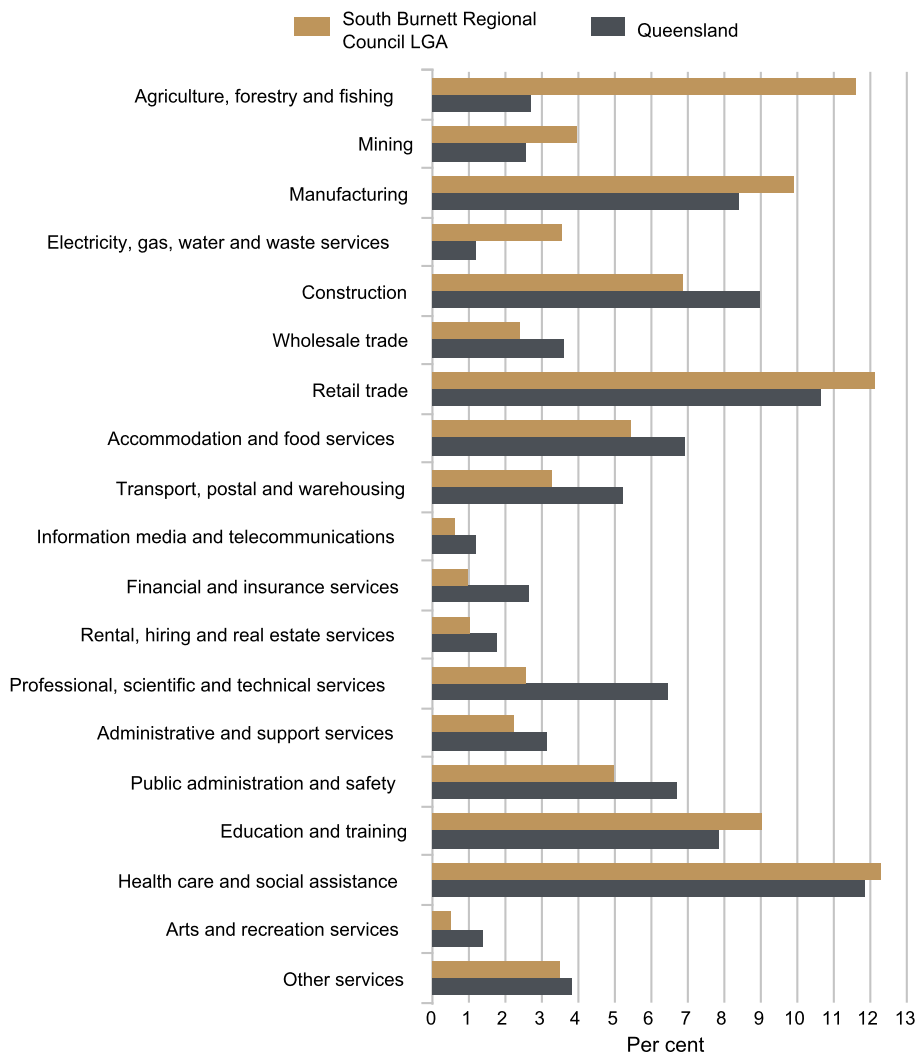
Industry	South Burnett Regional Council LGA		Queensland		Specialisation ratio
	number	%	number	%	number
Agriculture, forestry and fishing	1,386	11.6	55,416	2.7	4.28
Mining	477	4.0	52,955	2.6	1.54
Manufacturing	1,184	9.9	171,669	8.4	1.18
Electricity, gas, water and waste services	429	3.6	24,828	1.2	2.96
Construction	823	6.9	183,780	9.0	0.77
Wholesale trade	293	2.5	74,288	3.6	0.67
Retail trade	1,450	12.2	217,610	10.7	1.14
Accommodation and food services	653	5.5	141,855	7.0	0.79
Transport, postal and warehousing	394	3.3	107,072	5.3	0.63
Information media and telecommunications	78	0.7	25,358	1.2	0.53
Financial and insurance services	122	1.0	54,153	2.7	0.39
Rental, hiring and real estate services	123	1.0	37,007	1.8	0.57
Professional, scientific and technical services	311	2.6	132,754	6.5	0.40
Administrative and support services	266	2.2	65,015	3.2	0.70
Public administration and safety	596	5.0	136,818	6.7	0.75
Education and training	1,083	9.1	160,921	7.9	1.15
Health care and social assistance	1,468	12.3	242,559	11.9	1.04
Arts and recreation services	64	0.5	28,444	1.4	0.39
Other services	419	3.5	78,713	3.9	0.91
<b>Total<sup>(a)</sup></b>	<b>11,916</b>	<b>100.0</b>	<b>2,039,275</b>	<b>100.0</b>	<b>1.00</b>

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B43 (usual residence)

**Figure 11 Percentage of employment by industry<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland**



(a) Total used to derive percentages includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B43 (usual residence)

## Employment by occupation

Employment by occupation has been derived from the 2011 Census of Population and Housing data. A person's occupation of employment was classified based on responses to a range of questions from the Census and is applicable to persons aged 15 years and over who work. This is based on place of usual residence.

The top five occupation sub-major groups of employment for South Burnett Regional Council LGA were:

1. Farmers and Farm Managers (8.4%)
2. Sales Assistants and Salespersons (6.9%)
3. Carers and Aides (6.0%)
4. Education Professionals (4.9%)
5. Automotive and Engineering Trades Workers (4.5%)

### South Burnett Regional Council LGA

- 16.1% of employed persons worked in Labourers occupation
- 16.0% of employed persons worked in Managers occupation
- Highest specialisation ratio of 1.53 in Labourers occupation

### Queensland

- 18.9% of employed persons worked in Professionals occupation
- 14.9% of employed persons worked in Technicians and trades workers occupation

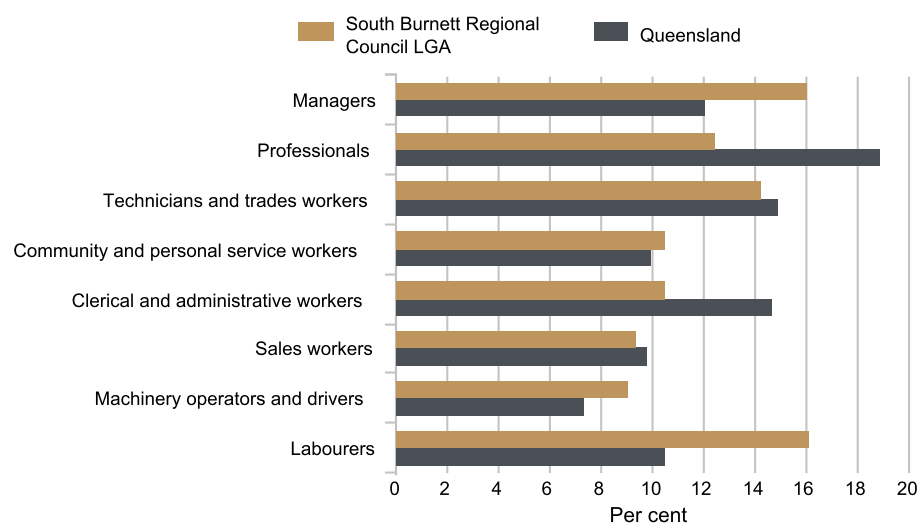
**Table 37 Employment by occupation, South Burnett Regional Council LGA and Queensland, 2011**

Occupation	South Burnett Regional Council LGA		Queensland		Specialisation ratio
	number	%	number	%	number
Managers	1,909	16.0	245,605	12.0	1.33
Professionals	1,490	12.5	385,583	18.9	0.66
Technicians and trades workers	1,701	14.3	304,564	14.9	0.96
Community and personal service workers	1,257	10.5	202,979	10.0	1.06
Clerical and administrative workers	1,257	10.5	299,326	14.7	0.72
Sales workers	1,114	9.3	199,633	9.8	0.95
Machinery operators and drivers	1,078	9.0	149,322	7.3	1.24
Labourers	1,924	16.1	215,236	10.6	1.53
<b>Total<sup>(a)</sup></b>	<b>11,919</b>	<b>100.0</b>	<b>2,039,278</b>	<b>100.0</b>	<b>1.00</b>

Refer to explanatory notes for additional information.

(a) Includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B45 (usual residence)

**Figure 12 Percentage of employment by occupation<sup>(a)</sup>, South Burnett Regional Council LGA and Queensland**

(a) Total used to derive percentages includes inadequately described and not stated responses.

Source: ABS, Census of Population and Housing, 2011, Basic Community Profile - B45 (usual residence)

## Families with children with no parent employed

Families with children with no parent employed have been derived from the 2011 Census of Population and Housing data and defined as either one parent families where the parent was either unemployed or not in the labour force or couple families where both parents were either unemployed or not in the labour force. This is based on families with children under 15 years of age.

### South Burnett Regional Council LGA

- 690 families with children under 15 years of age and no parent employed (21.8%)

### Queensland

- 62,171 families with children under 15 years of age and no parent employed (13.5%)

The percentage of families with children under 15 years of age and no parent employed in South Burnett Regional Council LGA was

**21.8%**

**Table 38 Families with children with no parent employed, South Burnett Regional Council LGA and Queensland, 2011**

LGA / State	One-parent family with parent not employed	Couple family with both parents not employed	Total families with no parent employed		Total families
	— number —		number	%	number
South Burnett (R)	460	230	690	21.8	3,166
Queensland	44,970	17,201	62,171	13.5	459,205

Source: ABS, Census of Population and Housing, 2011, unpublished data (families)



# Industry and development

## Building approvals

Information on building approvals are compiled by the ABS, and are collected from sources such as local government authorities and other principal certifying authorities. The estimates for any month may be revised or corrected in later months. This can occur as a result of corrections made by a provider of data, the late provision of approval records and, occasionally, by approvals being identified after construction work has commenced. Data in this profile topic are updated monthly with an approximate delay of 2 months after the reporting period. The next planned update is in April 2016.

The number of new houses approved in South Burnett Regional Council LGA in the 12 months ending 31 January 2016 was

# 63 approvals

### South Burnett Regional Council LGA

- 63 approved new houses in the 12 months ending 31 January 2016
- \$20.1 million of building value in residential building approvals in the 12 months ending 31 January 2016

### Queensland

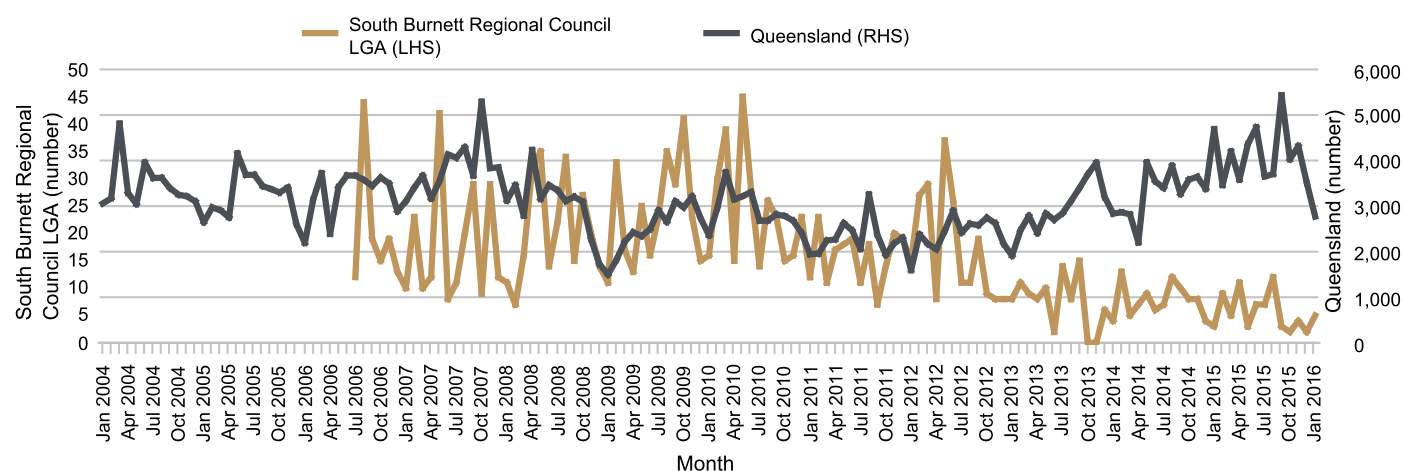
- 22,867 approved new houses in the 12 months ending 31 January 2016
- \$13,696.3 million of building value in residential building approvals in the 12 months ending 31 January 2016

**Table 39 Residential and non-residential building approvals, South Burnett Regional Council LGA and Queensland, 12 months ending 31 January 2016**

LGA / State	Residential Building Approvals				Building Value				
	New Houses	New Other	Alterations, additions and conversions	Total	Residential		Non-residential		Total
	— number —				\$'000	%	\$'000	%	\$'000
South Burnett (R)	63	6	1	70	20,062	69.5	8,822	30.5	28,884
Queensland	22,867	24,432	448	47,747	13,696,280	67.2	6,679,798	32.8	20,376,078

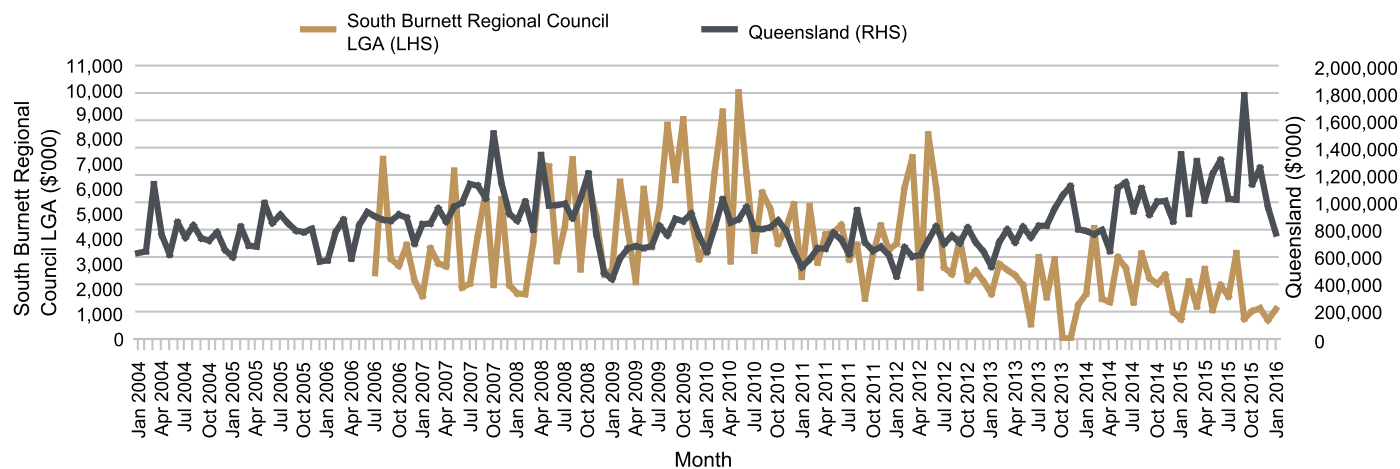
Source: ABS 8731.0, *Building Approvals, Australia*, various editions

**Figure 13 Number of residential building approvals, South Burnett Regional Council LGA and Queensland**



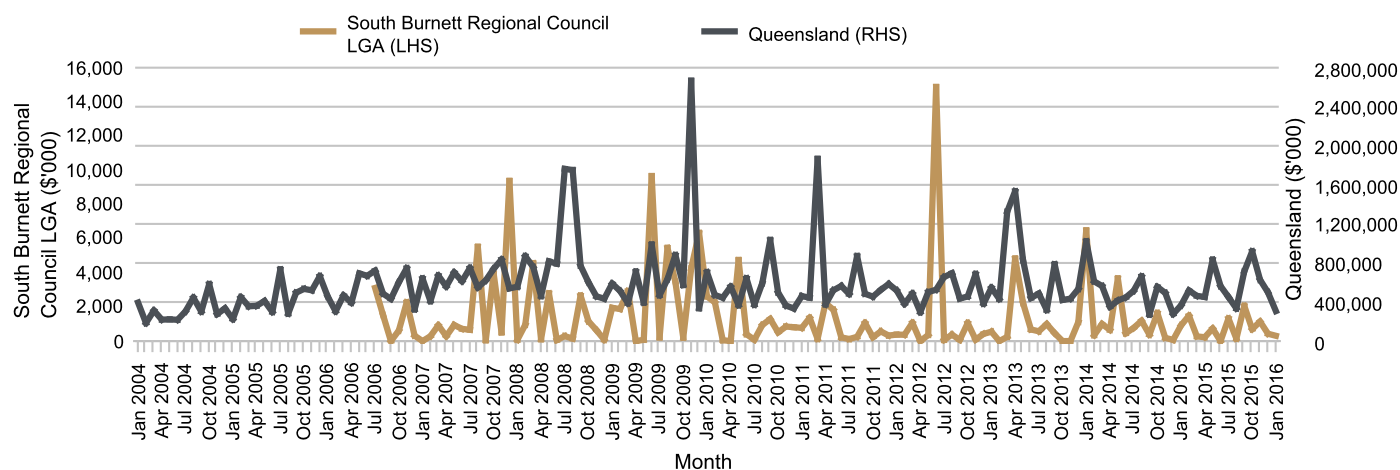
Source: ABS 8731.0, *Building Approvals, Australia*, various editions

**Figure 14 Value of residential building approvals, South Burnett Regional Council LGA and Queensland**



Source: ABS 8731.0, *Building Approvals, Australia*, various editions

**Figure 15 Value of non-residential building approvals, South Burnett Regional Council LGA and Queensland**



Source: ABS 8731.0, *Building Approvals, Australia*, various editions

## Residential dwelling sales

Residential dwelling sales data is sourced from the Queensland Valuation and Sales (QVAS) database as collected and maintained by the Queensland Department of Natural Resources and Mines. Medians are only calculated where there are ten or more sales over the time period. All figures are preliminary and are subject to further revision. Data in this profile topic are updated quarterly with an approximate delay of 6 months after the reporting period. The next planned update is in June 2016.

The median sale price in South Burnett Regional Council LGA in the 12 months ending 30 September 2015 was

**\$206,000**

### South Burnett Regional Council LGA

- 478 residential dwelling sales in the 12 months ending 30 September 2015
- Median sale price of \$206,000

### Queensland

- 111,848 residential dwelling sales in the 12 months ending 30 September 2015
- Median sale price of \$420,000

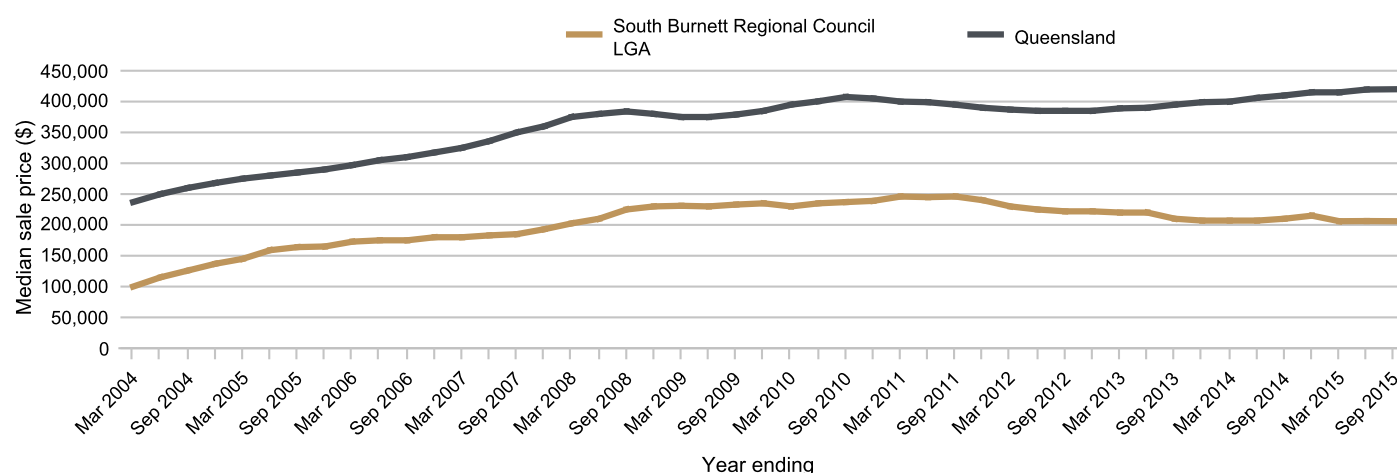
**Table 40 Residential dwelling sales, South Burnett Regional Council LGA and Queensland, 12 months ending 30 September 2015**

LGA / State	Number of sales			Median sale price		
	Detached dwellings	Attached dwellings	Total dwellings	Detached dwellings	Attached dwellings	Total dwellings
	— number —			— \$ —		
South Burnett (R)	461	17	478	206,000	205,000	206,000
Queensland	75,300	36,548	111,848	449,000	372,500	420,000

Refer to explanatory notes for additional information.

Source: Department of Natural Resources and Mines, Office of the Valuer-General, Property Sales

**Figure 16 Median value of residential dwelling sales, South Burnett Regional Council LGA and Queensland**



Refer to explanatory notes for additional information.

Source: Department of Natural Resources and Mines, Office of the Valuer-General, Property Sales

## New house and vacant land sales

New house and vacant land sales data is sourced from the Queensland Valuation and Sales (QVAS) database as collected and maintained by the Queensland Department of Natural Resources and Mines. Medians are only calculated where there are ten or more sales over the time period. All figures are preliminary and are subject to further revision. Data in this profile topic are updated quarterly with an approximate delay of 6 months after the reporting period. The next planned update is in June 2016.

A median new house sale price has not been calculated for South Burnett Regional Council LGA

### South Burnett Regional Council LGA

- 9 new house sales in the 12 months ending 30 September 2015
- A median new house sale price has not been calculated for South Burnett Regional Council LGA
- 69 vacant land sales
- Median vacant land sale price of \$32,000

### Queensland

- 3,131 new house sales in the 12 months ending 30 September 2015
- 13,992 vacant land sales
- Median new house sale price of \$433,900
- Median vacant land sale price of \$215,900

**Table 41 New house and vacant land sales, South Burnett Regional Council LGA and Queensland, 12 months ending 30 September 2015**

LGA / State	Number of sales		Median sale price	
	New houses	Vacant land	New houses	Vacant land
	— number —		— \$ —	
South Burnett (R)	9	69	n.a.	32,000
Queensland	3,131	13,992	433,900	215,900

Refer to explanatory notes for additional information.

Source: Department of Natural Resources and Mines, Office of the Valuer-General, Property Sales



## Residential lot registrations

Lot registrations data provide an indication of the volume of new lots developed and intended for residential purposes. Once a subdivisional plan has been certified by local government, it is lodged with the Department of Natural Resources and Mines (DNRM) for registration of title. For more information refer to the [Residential land development activity profiles](#).

Data in this profile topic are updated quarterly with an approximate delay of 6 months after the reporting period. The next planned update is in June 2016.

The number of residential lot registrations in South Burnett Regional Council LGA in the 12 months ending 30 September 2015 was

# 27 registrations

### South Burnett Regional Council LGA

- 27 residential lot registrations in the 12 months ending 30 September 2015
- 14 urban residential lot registrations

### Queensland

- 29,867 residential lot registrations in the 12 months ending 30 September 2015
- 27,764 urban residential lot registrations

**Table 42 Residential lot registrations, South Burnett Regional Council LGA and Queensland, 12 months ending 30 September 2015**

LGA / State	Urban residential lot registrations			Low density lot registrations (c)	Total lot registrations
	Standard lots(a)	Unit and townhouse lots(b)	Total urban lots		
	— number —			number	number
South Burnett (R)	14	0	14	13	27
Queensland	17,691	10,073	27,764	2,103	29,867

Refer to explanatory notes for additional information.

(a) Lots between 60m<sup>2</sup> to <2,500m<sup>2</sup> on a standard format plan intended for detached dwellings, including lots intended for detached dwellings in a community title scheme.

(b) Lots on a building format plan or standard format plan that represent attached dwellings within a community title scheme.

(c) Lots between 2,500m<sup>2</sup> to 5ha on standard format plans.

Source: Queensland Treasury, Queensland Government Statistician's Office, Residential Land Development Monitoring Program

# Environment

## Protected areas – parks and forest estate

Protected areas are derived from a spatial dataset sourced from the Queensland Department of National Parks, Recreation, Sport and Racing. While a relatively small area of national park is below mean sea level, data presented in this table are based on areas located above mean sea level. Areas are based on a GIS calculated spherical area and not the official gazetted area. GIS calculations reference the latitude/longitude projection and are based on the Geocentric Datum of Australia 1994 (GDA 94). Data in this profile topic are updated every two years. The next planned update is in June 2017.

### South Burnett Regional Council LGA

- Protected area of 916.0 km<sup>2</sup> as at 2015
- Largest protected area estate type of State Forests with 758.3 km<sup>2</sup>

### Queensland

- Protected area of 123,542.3 km<sup>2</sup> as at 2015
- Largest protected area estate type of National Parks with 91,116.5 km<sup>2</sup>

The total protected area within South Burnett Regional Council LGA as at 2015 was

**916.0 km<sup>2</sup>**

**Table 43 Protected areas - park and forest estate, South Burnett Regional Council LGA and Queensland, 2015**

LGA / State	National Park <sup>(a)</sup>	State Forest	Timber Reserve	Forest Reserve	Total
	— area (km <sup>2</sup> ) —				
South Burnett (R)	157.8	758.3	0.0	0.0	916.0
Queensland	91,116.5	31,105.8	664.1	655.9	123,542.3

(a) Includes Regional Parks.

Source: Queensland Department of National Parks, Sport and Racing

# Abbreviations

..	not applicable
ABS	Australian Bureau of Statistics
ASGS	Australian Statistical Geography Standard
ESB	English-speaking background
LGA	Local Government Area
LHS	left-hand side
n.a.	not available
NESB	non-English speaking background
p	preliminary
r	revised
R	Regional Council
RHS	right-hand side

# Explanatory notes

## Profile explanatory notes

### Australian Statistical Geography Standard (ASGS)

A geographical framework covering all spatial areas of Australia and its external territories. The ASGS was developed by the ABS to allow statistics from different collections to be spatially comparable. The ASGS came into effect in July 2011, replacing the Australian Standard Geographical Classification (ASGC).

### Average annual growth rate

It is calculated as a percentage using the formula below, where  $P_0$  is the population at the start of the period,  $P_n$  is the population at the end of the period and  $n$  is the length of the period between  $P_n$  and  $P_0$  in years.

$$\left[ \left( \frac{P_n}{P_0} \right)^{\frac{1}{n}} - 1 \right] \times 100$$

For example, to calculate the average annual rate of population change from 2002 to 2012,  $n$  is ten,  $P_0$  is the population in 2002 and  $P_n$  is the population in 2012.

### Cell confidentialisation

This profile utilises two types of data confidentialisation.

1. Source data confidentialisation - This refers to datasets that have been confidentialised by the data custodians. For example census data supplied by the ABS have small cell counts of 1 or 2 confidentialised to 0 or 3 and a small random adjustment made to all data to avoid any risk of releasing identifiable information. Caution should therefore be used when interpreting data where the cell count is small.
2. Concordance confidentialisation - This refers to datasets that have been concorded to a new geography and the resulting cell count is small. No reliance should be placed on these cell counts and as such have been confidentialised. Tables utilising this type of confidentialisation will report the cell as less than a specific value (for example <5).

### Census 2011 data

Census data have 'introduced random error' to ensure no data are released which could risk identifying individuals. As such, cells containing very small counts should be treated with extreme caution.

### Census undercount

Due to the size and complexity of the Census of Population and Housing, whenever a Census is conducted it is inevitable that some people will be missed and some will be counted more than once. After each Census, the Australian Bureau of Statistics conduct a Post Enumeration Survey to estimate the number of people who should have been counted in the Census and the actual Census counts. It is important to note, that all Census data reported in this profile do not have any adjustments made for Census undercount and readers should keep this in mind when making inferences from the data.

### Concordances and concorded data

A concordance, in statistical terms, is a product that allows a user to convert data from one geographical region (under which data have been collected) to a new geographical region. In order to convert data from one geographical boundary to another, each region in the new boundary is assigned percentages of data from the old regions. These percentages in the concordance can be constructed using any number of variables. This profile utilises a population based concordance (estimated resident population) at a specific point in time (2011). This type of concordance is useful when concording demographic based datasets such as labour force and family composition on a usual resident basis with time periods at or around 2011. It does not work as well when concording data on different counting methods (such as counts by place of work), non-population based datasets (such as business counts) or datasets collected at different time periods (such as data collected in 2001). Caution should therefore be used when interpreting non-resident based datasets that have been concorded.

One major assumption that is necessary to make when concording data is that the data (for example unemployed persons) are proportionately distributed across the region the same as total resident population (as total resident population is the variable used to derive the percentage splits). In some cases this assumption will not be entirely correct. In the example of unemployed persons, within the region there may be more concentrated areas with a larger proportion of unemployed persons. This assumption should therefore be considered when interpreting datasets that have been concorded.

### Local Government Area

Local Government Area(s) (LGAs) (2014) are administration boundaries for local service provision. There are 78 LGA regions that cover the state.

### Queensland

Queensland figures include the 'Migratory - Offshore - Shipping' and 'No Usual Address' counts.

### Region overview

Statistics in the region overview have been derived from administrative geographical boundaries and the Bureau of Meteorology.

### Rounding

Figures are rounded to nearest whole number. Calculations (such as percentages and rates) are based on pre-rounded figures.

### Specialisation ratio

The ratio of the percentage for the South Burnett Regional Council LGA to the percentage for Queensland. A specialisation ratio above 1.00 indicates South Burnett Regional Council LGA has a larger share for that category than in Queensland. Similarly a specialisation ratio below 1.00 indicates South Burnett Regional Council LGA has a smaller share for that category than in Queensland.

## Topic explanatory notes

### Aged care services

#### Community care services

Community care services provide home-based care for older people wanting to remain living independently in their own home improving their quality of life and helping them to remain active and connected to their own communities. The figures here include Mainstream Packaged Care places provided by Community Aged Care Package (CACP), Extended Aged Care at Home (EACH), and Extended Aged Care at Home Dementia (EACHD) services, and Flexible Care places provided in a community setting by Multi-Purpose Services (MPS), Innovative Care, Consumer Directed Care (CDC), and National Aboriginal and Torres Strait Islander Aged Care (NATSI) Services.

#### Residential aged care

Residential Aged Care provides a range of supported accommodation services for older people who are unable to continue living independently in their own homes. The figures here include Mainstream Residential Aged Care places provided by Residential Aged Care Services (RACS), and Flexible Care places provided in a Residential setting by Multi-Purpose Services (MPS), and National Aboriginal and Torres Strait Islander Aged Care (NATSI) Services.

#### Transition care

Transition care program provides a package of services to enable older people after a hospital stay to return home rather than prematurely enter residential care. The program also gives older people and their families and carers time to consider long-term care arrangements.



## Births and deaths

### Births

Births data are based on the number of births registered during a calendar year by place of usual residence of the mother. This is different to the number of births which occurred during a calendar year. For further information on the differences between estimates of registered births and births occurring in a time period, refer to ABS website (cat. no. 3301.0).

As a result of changes in the timeliness of registration of births in Queensland, care should be taken when interpreting changes in Queensland births between 2006 and 2010. This lag has reduced in recent years, indicating potential improvements in the timeliness of registration of births in Queensland. The December quarter 2009 also saw the Queensland Registry of Births, Deaths and Marriages devoting significant time and resources to follow-up and finalise birth registrations where there was previously incomplete information. As part of the Retrospective Births Project, 1,780 births were registered, with approximately 40% registered as Aboriginal and Torres Strait Islander births (see paragraph 40 of cat. no. 3301.0 explanatory notes for more information). This project is now complete.

### Deaths

Deaths data are based on the number of deaths registered during a calendar year by place of usual residence of the deceased. This is different to the number of deaths which occurred during a calendar year. For further information on the differences between estimates of registered deaths and deaths occurring in a time period, refer to ABS website (cat. no. 3302.0).

## Country of birth

Based on the most common Country of Birth responses (excluding Australia) reported in the 2006 Census.

## Department of Social Services payments

Data are extracted at a point in time, usually towards the end of the quarter.

### Confidentialisation

Cell counts under 20 have been suppressed for confidentiality purposes.

### Age pension

Age pension is a support payment for people who have reached the qualifying age. From 1 July 2013, the qualifying age for both men and women is 65 years. From 1 July 2017 the age pension qualifying age will progressively increase for non-veterans from 65 years to 67 years, reaching 67 years in 2023.

Age pension recipients have the choice of having their age pension paid by either the Department of Human Services (DHS) or the Department of Veterans' Affairs (DVA). DHS pays the vast majority of age pensions. The data in this report only includes data for the DHS customers.

### Carer allowance

A Carer allowance is a supplementary payment for carers who provide daily care and attention at home for a person with a disability, severe medical condition or who is frail and aged.

### Disability support pension

A Disability support pension (DSP) is an income support payment for people who are unable to work for 15 hours or more per week at or above the relevant minimum wage, independent of a program of support due to permanent physical, intellectual or psychiatric impairment. A DSP claimant must be aged 16 years or over and under Age pension age at date of claim, however once in receipt of DSP, a person can continue to receive DSP beyond Age pension age.

### Family tax benefit part A

Family tax benefit (FTB) was introduced to help with the cost of raising children. FTB part A is the most common payment to help with the cost of raising children and is paid per child. It includes a supplement per child that becomes payable after the end of the financial year. FTB part B gives extra assistance to single-parent families and to couple families where one income is low. It is paid on a per family basis and includes a supplement that becomes payable after the end of the financial year. FTB part A and B are income tested on family income.

### Newstart allowance

Newstart allowance is the major payment for unemployed people who are aged 22 years and over, but under the qualifying age for the age pension. Recipients must satisfy the activity test by seeking work or participating in an activity designed to improve their employment prospects. Data include recipients who are determined to be current (i.e. entitled to be paid) on the Centrelink payment system and are not in receipt of CDEP participation supplement or a zero rate of payment.

## Emergency services, schools and hospitals

### Fire stations

Does not include Rural Fire Brigade.

### Hospitals

Includes both private and public hospitals. Excludes public dental and psychiatric facilities.

### Police stations

Does not include Police Beats.

### Schools

Includes both private and public schools and centre types of associated facility, campus, community school, non-state school, special campus, special school, specific purpose school, state high school and state school.

## Employment by industry

### Employment by industry

Based on Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 edition.

### Industry subdivision

The industry subdivision refers to the 2-digit industry classification from the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 edition.

## Employment by occupation

### Employment by occupation

Based on Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2006 edition (Revision 1).

### Occupation sub-major group

The occupation sub-major group refers to the 2-digit occupation classification from the Australian and New Zealand Standard Classification of Occupations (ANZSCO), 2006 edition (Revision 1).

## Median age

Median estimates have been calculated by the ABS and Queensland Treasury.

## Median rent

Medians for regions with less than 10 lodgements in the 12 month period have not been reported.

Median rents do not include lodgements listed with \$0 rent.

## Medians and averages

### Average household size

Applicable to number of persons usually resident in occupied private dwellings. It includes partners, children, and co-tenants (in group households) who were temporarily absent on Census Night. A maximum of three temporary absentees can be counted in each household. It excludes 'Visitors only' and 'Other non-classifiable' households.

### Average number of persons per bedroom

Applicable to occupied private dwellings. It excludes 'Visitors only' and 'Other non-classifiable' households.

### Median mortgage repayment

Applicable to occupied private dwellings being purchased and includes dwellings being purchased under a rent/buy scheme. It excludes 'Visitors only' and 'Other non-classifiable' households.

### Median total family income

Applicable to families in family households. It excludes families where at least one member aged 15 years and over did not state an income and families where at least one member aged 15 years and over was temporarily absent on Census Night.

### Median total household income

Applicable to occupied private dwellings. It excludes households where at least one member aged 15 years and over did not state an income and households where at least one member aged 15 years and over was temporarily absent on Census Night. It excludes 'Visitors only' and 'Other non-classifiable' households.

### Median total personal income

Applicable to persons aged 15 years and over.

**New house and vacant land sales**

Vacant residential land have been defined as vacant - large housesites, vacant urban land and vacant rural land between 140 sq m and 2,500 sq m within planning zones.

New house and land have been defined as a single unit dwelling or dwelling large housesite on a newly registered block.

All reporting periods are based on the contract date and not the settlement date.

**Non-school qualification by field of study**

Excludes persons with a qualification out of the scope of the Australian Standard Classification of Education (ASCED).

**Non-school qualification by sex and age**

Excludes persons with a qualification out of the scope of the Australian Standard Classification of Education (ASCED).

**Population projections**

Population projections are based on a medium series.

**Proficiency in spoken English**

Based on the most common Language Spoken at Home responses reported in the 2006 Census for Australia.

**Reported offences**

The reference date for reported offences is the date an offence is reported to or detected by police. Data are based on the location in which the offence occurred. Rates are calculated using the Estimated Resident Population (ERP) as at 30 June of the reported financial year. The ERP for the latest year has been linearly extrapolated using the change between the previous two years.

**Offences against the person**

The offence division of offences against the person includes the following offence sub-divisions: homicide (murder); other homicide; assault; sexual offences; robbery; and other offences against the person.

**Offences against property**

The offence division of offences against property includes the following offence sub-divisions: unlawful entry with intent; arson; other property damage; unlawful use of motor vehicle; other theft (excluding unlawful entry); fraud; and handling stolen goods.

**Other offences**

The offence division of other offences includes the following offence sub-divisions: drug offences; prostitution offences; liquor (excluding drunkenness); gaming, racing and betting offences; breach of domestic violence protection orders; trespassing and vagrancy; weapons act offences; good order offences; stock related offences; traffic and related offences; and miscellaneous offences.

**Residential dwelling sales**

Medians are only calculated where there are ten or more sales over the time period.

**Attached dwellings**

Attached dwellings include multi-unit dwellings (flats), building units or group titles within planning zones.

**Detached dwellings**

Detached dwellings include single unit dwellings or large house sites.

**Residential dwelling sales**

Residential dwelling sales include both new and established dwellings and all reporting periods are based on the contract date and not the settlement date.

**Residential lot registrations**

Lot registration is the final stage in the development of new residential lots, and it is only after the title is registered that a lot legally exists. Lot registrations data provide an indication of the volume of new lots developed and intended for residential purposes.

The Queensland Government Statistician's Office applies a range of filters to DNRM's computer inventory of survey plans data, such as parcel size and zoning information, to extract the lots registered for residential purposes. 'Urban residential' lots include standard lots typically for detached houses (60m<sup>2</sup> to <2,500m<sup>2</sup>) and lots under community titles schemes for units and townhouses. For this monitoring program, 'low density residential' lots are defined as standard lots between 2,500m<sup>2</sup> and 5 hectares in size.

**Total family income**

Median total family income estimates have been calculated by the ABS. Medians are only calculated where there were five or more total families. Median calculation excludes families where at least one member aged 15 years and over did not state an income and families where at least one member aged 15 years and over was temporarily absent on Census Night.

**Total personal income**

Median total personal income estimates have been calculated by the ABS.

**Unemployment and labour force**

Small Area Labour Force data have been generated from a Structure Preserving Estimation (SPREE) methodology using ABS and Centrelink data. As such these estimates can exhibit considerable variability and care should be taken when interpreting these values. For further information on these data, refer to the Australian Government Department of Employment website.

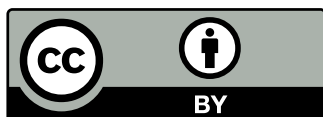


# Valuer-General's 2015 Property Market Movement Report



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## Valuer-General's foreword

I am pleased to release this year's property market movement report, ahead of the release of the 2015 annual statutory land valuations on Wednesday 4 March 2015.

Following a statewide market survey and consultation with local government and industry groups, 29 local government areas have been valued in accordance with the *Land Valuation Act 2010*. A market survey report for a local government area details the sales of land in the area since the last valuation was made and the probable impact of those sales on the value of land in an area. In addition, valuers also consider the types of issues that impact on the value of the land such as the state of the economy, including resource industries, the effects of commodity prices and population movements.

The 29 local government areas receiving annual new valuations this year are: Balonne, Banana, Brisbane, Cairns, Cassowary Coast, Central Highlands, Charters Towers, Gladstone, Gold Coast, Gympie, Hinchinbrook, Ipswich, Isaac, Livingstone, Logan, Mackay, Maranoa, Murweh, Noosa, Paroo, Redland, Rockhampton, Scenic Rim, South Burnett, Southern Downs, Sunshine Coast, Torres, Townsville, Western Downs.

The rateable local government areas being valued this year represent approximately 75% of all properties in Queensland. This valuation has resulted in all local government areas throughout Queensland being revalued within the last three years.

The new valuations will take effect on 30 June 2015 for local government rating, state land tax and state land rental purposes (where applicable).

This report summarises the comprehensive analysis of all property markets within the 2015 annual valuation program for Queensland by a team of regionally based registered valuers in the State Valuation Service of the Department of Natural Resources and Mines.

Due to the variation in land value movements within each local government area, this year the report will continue to focus on median land value movements for residential and rural residential land uses and total value movements for multi-unit residential, commercial, industrial and primary production land uses. This change in reporting provides more meaningful statistics relevant to the use of land and more accurately reflects how land values have changed.

There are continued signs of strength in some areas of Queensland's property market, for example increasing residential land values in Brisbane, Sunshine Coast, Gold Coast and Cairns local government areas.

Overall, 'The Queensland economy is in a period of transition, as construction of the liquefied natural gas

(LNG) projects near completion ahead of the production and export phase.'<sup>1</sup>

According to Queensland Treasury and Trade, 'dwelling investment in Queensland grew 4.5% in 2013–14, after six consecutive years of decline.'<sup>2</sup> This growth contrasts with the weakening of resources and agricultural exports, the latter reflecting the impact of the ongoing drought. 'A slowdown in population growth is a further restraint on overall growth.'<sup>3</sup>

Generally, across Queensland there has been limited sales activity in rural markets resulting in a continued static to softening of land values within the grazing, horticultural, small crop and dryland farming industries. All industries are currently dealing with the effects of a long-term and widespread drought, restrictive financial policies and rising costs. It is expected that these trends, where potential purchasers still remain cautious, will continue for some time until there is an improvement in the weather and there is more confidence in the economy.

The Land Valuations Globe through Queensland Globe on Google Earth™ gives landowners unprecedented access to information. This includes the spatial representation of a valuation, valuation dates, and the ability to search by property identification number and a real property description—all on a satellite imagery background that allows users to zoom in to property level.

Landowners can take advantage of this tool by visiting Queensland Globe on the Department of Natural Resources and Mines website [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au).

The Land Valuations Globe, the list of Queensland's statutory land valuations in a searchable table format, interactive maps that include market tables for major residential localities, and a rural sales map can be visited at [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au)—allowing landowners to compare their valuations with others in their area until 2 June 2015.

In line with modern business practice, landowners can elect to have future valuation notices and other valuation information sent to them by email by visiting [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au).

With access to the internet and supporting technologies continuously improving, it is appropriate that there is flexibility in how we distribute information to landowners. There will be significant benefit to the public because it is more convenient, faster, sustainable and reliable. Those landowners who do not opt in will continue to receive information by mail.

**Neil Bray**

Valuer-General  
State Valuation Service

<sup>1</sup> State budget 2104–15: *Mid year fiscal and economic review*, p5, Queensland Government

<sup>2</sup> *Ibid.* p6

<sup>3</sup> *Ibid.* p5



## 2015 Annual valuation program

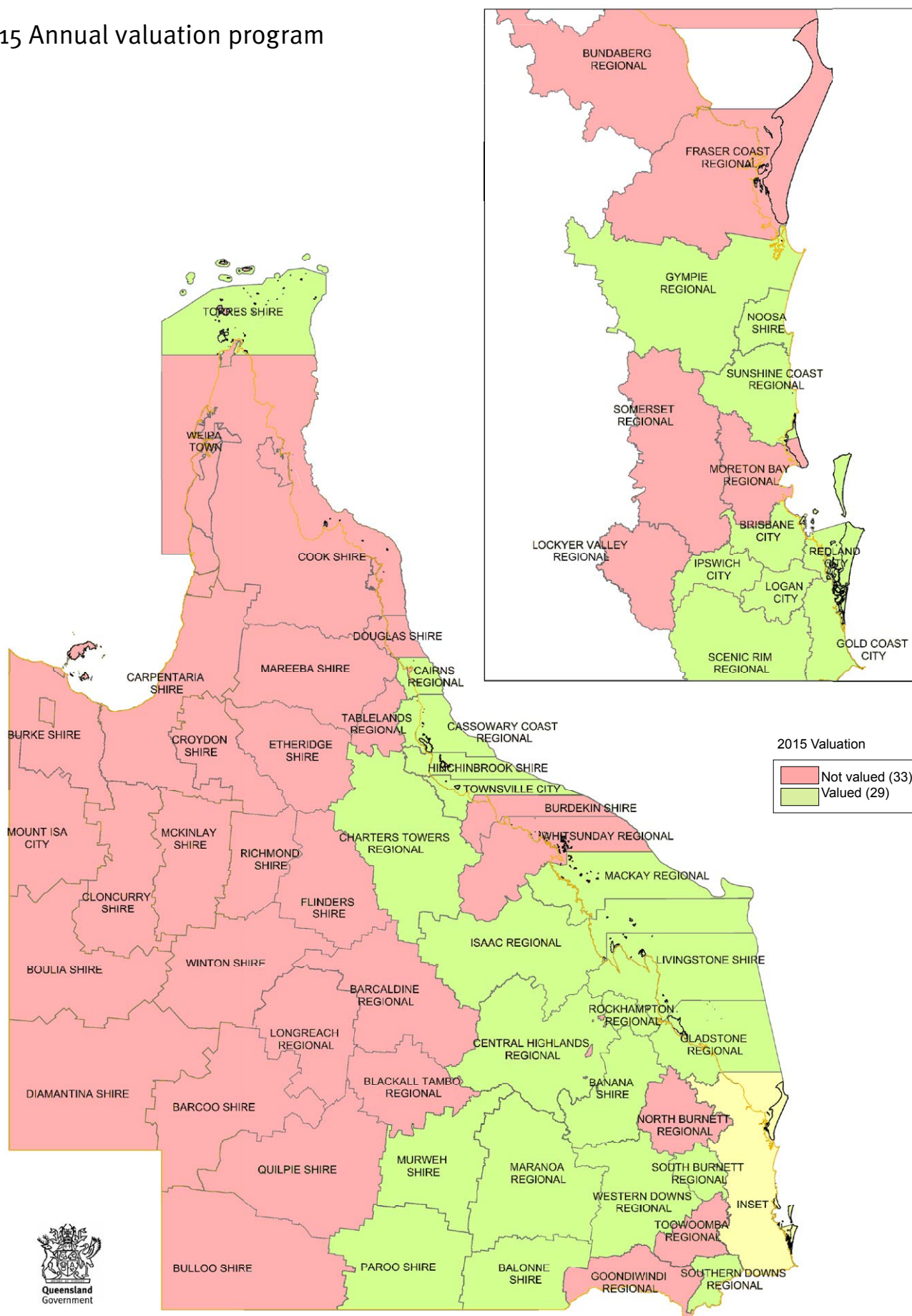


Figure 1: Local government areas and the 2015 annual valuation program

## Introduction

Two methodologies are used to undertake statutory land valuations in Queensland—site value and unimproved value.

Site value is used to value all non-rural land. It is the amount which non-rural land could be expected to sell for, at the date of valuation, without any structural improvements on the land (e.g. houses, buildings or fences). Site value includes site improvements made to the land such as earthworks (e.g. levelling, filling, or drainage works). Excavations and drainage associated with a building are not included in site value.

Unimproved value is used to value rural land. It is the amount which rural land could be expected to sell for, at the date of valuation, without physical improvements such as houses, fences, dams, levelling or earthworks. If your land has been valued on an unimproved basis, it is either zoned rural (or equivalent) or designated rural for statutory valuation purposes.

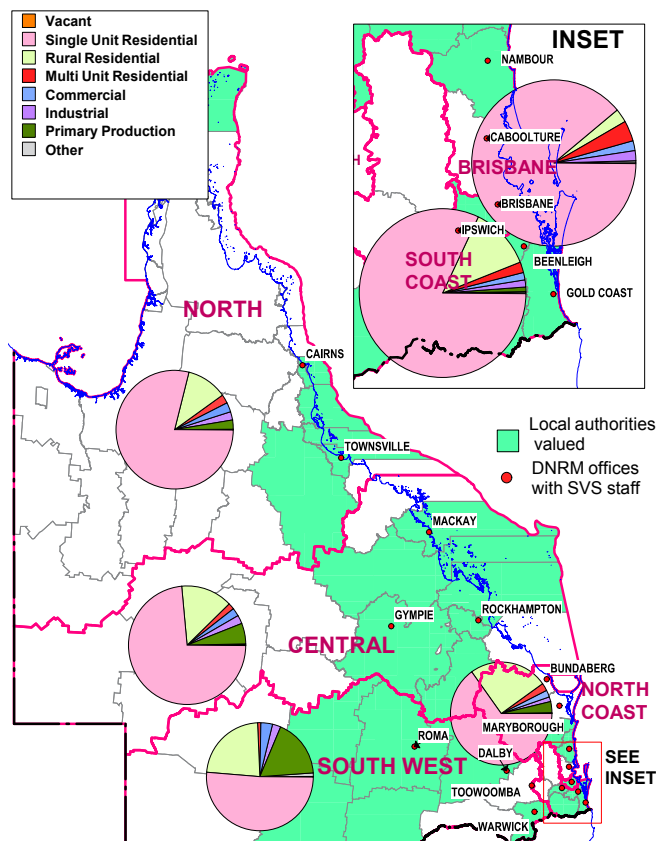


Figure 2: Property land use by region for 2015 valuation year

## Property market movement

The volume of property lodgements recorded with the Registrar of Titles increased over the first half of the 2014–15 financial year to an average of 2897 daily lodgements, up 4.3% from the previous financial year.

Property value changes, both up and down, can be attributed to a number of factors:

- supply and demand within the marketplace
- consumer confidence
- availability of finance
- local, national and global economic factors
- the effects of extreme weather events.

Table 1 shows the new median value and percentage movement for residential and rural residential land since the previous valuation. Table 2 shows new total value and percentage movement in total value for each land use category since the last annual valuation was issued. Figure 3 shows the overall percentage movement in total value since the previous valuation for each local government area and the whole state.

This year's overall percentage movements in land values for the 2015 annual valuation are summarised below.

- Eleven local government areas recorded an overall increase between 0.1% (Southern Downs) and 10.7% (Gold Coast). Of these, seven recorded increases of less than 5%.
- Seventeen local government areas recorded an overall decrease in value between 0.7% (Townsville) and 19.4% (Central Highlands).
- Of the 17 local government areas that decreased, six decreased 0–5%, nine 5–10% and the rest decreased 10–19.4%.
- Murweh was the one local government area to record no overall change in value.

## Overall market trends

Generally the major urban centres in South East Queensland—Brisbane, Sunshine Coast and Gold Coast—have seen values increase, driven by improving residential and commercial conditions. However, Redland, Logan and Ipswich remain subdued.

Regional Queensland has had mixed results with a downturn in values in centres influenced by the downturn in the mining industry, whereas tourism centres such as Cairns are showing an upswing in values caused by improvement in the tourism sector. Centres that do not rely on tourism or mining have been stable.

The market is still being influenced by:

- prevailing economic uncertainty and weak employment growth
- softer household consumption growth
- the slowdown in mining infrastructure expenditure and construction activity in some areas
- drought.

However, these drivers are offset by:

- an increase in tourist numbers
- low borrowing costs and rising rental yields
- investment opportunities from interstate and overseas buyers.

The mining and gas industries continue to influence the property market as the resources sector moves from an exploration and construction phase towards a production and export phase. This slowdown in activity is impacting on centres such as Gladstone, Wandoan, Mackay, and townships within the Bowen Basin and Central Highlands.

Limited sales activity in rural markets across Queensland resulted in a continued static-to-softening of land values in grazing, horticulture, small cropping and dryland farming.

Rural industries are dealing with the effects of a long-term and widespread drought, restrictive financial policies and rising costs.

In contrast, the effects of the recent lowering of the Australian dollar and the strengthening of beef commodity prices may not be reflected in the market place for some time. It is believed that the grazing market is at the bottom of the market cycle and has stabilised.

It is expected that these trends, in which potential purchasers remain cautious, will continue until there is an improvement in the weather and more confidence in the economy.

## Brisbane

The Brisbane City Plan 2014 (City Plan), coupled with renewed interest in city or near-city apartment living, contributed to a dramatic increase in developer interest in land suitable for unit development. While interest in Newstead and Bowen Hills has developed progressively in recent years, South Brisbane and nearby suburbs in 2014 became the areas in high demand, and this has translated into significant land value rises. The new visions represented by the Kurilpa Riverfront Renewal Draft Master Plan, the new cultural centre redevelopment, and the proximity to South Bank and the central business district (CBD) underpinned strong consumer interest in this exciting redevelopment area.

In 2014 there was increased interest in the residential market. Although property commentators highlighted reasons why there was good value in buying in Brisbane compared with the market movements in Sydney and Melbourne, the Brisbane residential sector had experienced relatively subdued conditions in many suburbs in the past few years.

In 2014, interest in most property sectors increased significantly. The demand is not just from local buyers and developers but also institutional buyers from other states of Australia and overseas. Low interest rates was only one of a number of factors that stimulated strong competition from prospective buyers that intensified throughout the year, resulting in rising values across most Brisbane suburbs. The overall median increase in residential land rose from \$320 000 in 2014 to \$355 000.

The total residential land value rose by 10.9%. In some suburbs impacted by flooding in 2011, allowances of up to 25% were applied by the Valuer-General for flood impact at that time; yet in 2014, sales revealed that buyers were purchasing flood impacted land at prices close to the prices being paid for non-flood impacted land. Flood-impacted suburbs such as Chelmer, Graceville and Sherwood showed large increases in site valuation which previously had included flood impact allowances ranging from 10% to 25%.



*Brisbane homes (image courtesy of Tourism Queensland).*



While there were increases in 164 suburbs and a large number of sales across Brisbane, a small number of suburbs showed no significant increase, suggesting the market movement trend may continue during 2015. The inner fringe suburbs located close to the CBD and CBD fringe with a median value in 2014 of over \$500 000, increased moderately. These suburbs included Teneriffe, Hamilton, New Farm, Fortitude Valley, Bulimba and Hawthorne. Nearby inner suburbs such as Ashgrove, Paddington, St Lucia, and Bowen Hills increased moderately. Some outer suburbs that had not increased in the last revaluation showed moderate increases, while the balance of suburbs had small to moderate increases.

Rural residential land represents a small market sector in Brisbane yet showed a small 7% increase in issued values, thereby following the general trend in residential lots.

As for the multi-unit market; interest in new apartments being built in the fringe CBD grew over the past few years as developers actively competed for the prime sites. The release of the new City Plan offered investors a new vision for Brisbane that has been embraced by local developers. This sector saw a 14% increase in overall valuation level with some moderate-to-large increases in CBD fringe suburbs including South Brisbane, West End, and Kangaroo Point.

Some of the commercial land in the suburbs is classified for multi-purpose use, including units and, while the traditional commercial markets remained quiet, the impact of developer and investor interest in these sites resulted in the value of commercial sites also rising by an overall 5%.

Overall, values for the CBD remained at 2013 levels. Brisbane's CBD commercial office has, according to Property Council of Australia's July 2014 Office market report<sup>1</sup>, recorded an overall vacancy rate increase. These increases range from 14.8% in July 2014 to 15.6% in January 2015, with B grade space showing a vacancy rate of 23%<sup>2</sup>, up 3% for the same period. Currently the B grade markets accounts for approximately 50% of buildings within the CBD. For the same period, the vacancy rate for premium space reduced from 14.2% to 9.1% and demand for high quality office accommodation is expected to continue.

The CBD fringe commercial market recorded an overall vacancy rate rise of 0.8–12.8% on the addition of 34 080 m<sup>2</sup>.

The issued valuations for the industrial market rose only 2% with limited vacant or lightly improved sales across the sector despite a number of improved sales in the distribution sector of the industrial market.

## Greater Brisbane

The greater Brisbane area includes the cities of Redland, Logan and Ipswich. All three were last valued in 2013.

Redland City increased overall by 2%, largely as a result of moderate increases in smaller-size residential land values in Cleveland and other areas. Some bay island lands did decrease in value but, other than some localised market movement, residential land values in general were static. Smaller-scale residential unit lands increased in value. Activity in the commercial and industrial land market in the area was limited, with the transactions that did occur generally supporting the current levels of value with some minor increases. Rural and rural residential land values remained unchanged overall.

Logan City land values remained unchanged overall. Larger homesites in the Cedar Grove area recorded significant increases with a more moderate increase in Chambers Flat and Park Ridge. Slow demand for smaller residential unit land resulted in no change in value in that market. Rural residential lands recorded some moderate increases in smaller acreage lot areas, but generally remained unchanged. Commercial and industrial land values were static with the exception of some localised movements in Slacks Creek and Berrinba.

Ipswich City land values also remained unchanged overall. The strongest market in the local government area was the greater Springfield area comprising Springfield, Springfield Lakes, Augustine Heights and Brookwater where small increases in land value were recorded. Development has continued in the Deebing Heights and Ripley area, but value has remained static. Land values in established areas of the city generally remain static except in some areas where the ongoing effects of floods are continuing to pull back price and value. Flood impact also reduced the value of some Karalee riverfront rural residential lands. In the south-west corner of the city a softer market resulted in a decrease in rural residential and farming land values.

Commercial lands generally remained unchanged across Ipswich with the exception of the Ipswich CBD where some reductions were due to flooding impact and market factors. The major industrial areas of Carole Park, Citiswitch and Redbank generally maintained their value, however more isolated areas such as Raceview, Yamanto and Wulkuraka showed significant reductions in value due to market and flooding impacts.

The Swanbank–New Chum area showed some increases in the levels of value for well-located land and for land that was once contaminated and now has been remediated. Overall, the multi-unit market showed limited activity, and the levels of value generally remained unchanged.

<sup>1</sup> Property Council of Australia, 2015, *Brisbane CBD and fringe office vacancy increases: renewal needed*, viewed 5 February 2015, <http://www.propertyoz.com.au/Article/NewsDetail.aspx?p=16&id=10522>

<sup>2</sup> Property Council of Australia, 2014, *Brisbane office market must transition*, viewed 19 February 2015, < <http://www.propertyoz.com.au/Article/NewsDetail.aspx?p=16&id=9822> >



## Gold Coast

In the past 12 months the Gold Coast property market has continued to improve with an overall increase of 10.7%.

The residential land market has shown significant recovery with median value in Bundall increasing by 38%. Other waterfront residential lands recorded moderate-to-large increases; beachfront land had only a minor increase. Generally, residential land in the coastal area increased and land value west of the motorway was static. Rural residential land value in the Currumbin Valley and Tallebudgera Valley areas recorded minor increases and remained static elsewhere.

Increasing development demand and changes to planning schemes resulted in moderate land value increases of residential unit lands in high density areas, but land values in other unit areas remained unchanged.

Commercial land value was affected by price movement in high density areas and values also increased in the Robina and Varsity Lakes area. Industrial land in the Yatala development area recorded a moderate increase in value but central areas remained static.



*Surfers Paradise, Gold Coast (image courtesy of Tourism Queensland)*

## South East Queensland

South East Queensland encompasses the valley areas west of Greater Brisbane, coastal areas north to Bundaberg and areas inland to the North Burnett Regional Council area.

These local government areas were valued in the 2015 annual valuation:

- Scenic Rim Regional Council
- Sunshine Coast Regional Council
- Noosa Shire Council
- Gympie Regional Council
- South Burnett Regional Council.

South East Queensland is undergoing a period of transition with the smaller regional centres still experiencing weaker local economies while the 'lifestyle' centres such as Noosa and Sunshine Coast are showing a marked improvement since 2013. This has translated into increasing land values in the larger coastal centres while smaller hinterland towns and villages are experiencing a static to declining market.

Scenic Rim decreased overall by 7% due to a decline in value of rural and rural residential lands throughout the area. The residential land urban areas recorded minor reductions in value and Mount Tamborine minor increases. Commercial and industrial land value generally remained unchanged with minor increases in Beaudesert. The rural residential market, which is the biggest component of value in the area, generally decreased 5–15% with minor increases around Tamborine Village. Rural land also decreased by similar amounts.

The Sunshine Coast area (comprising the newly de-amalgamated Noosa Shire Council and the Sunshine Coast Regional Council), in line with other larger coastal 'lifestyle' centres, is experiencing a period of increased sales activity and small value rises in the residential sector since the last valuation in 2013.

Demand for new houses and land is strong, which has seen renewed development activity along the coastal strip. Although demand and value growth is largely centred on the more affordable areas there is improvement in the \$500 000+ prestige land market. The unit market is steady with improving market values in most areas driven by first home buyers and owners looking to downsize.

In contrast the hinterland regions of Gympie and South Burnett have weakened, reflecting local considerations such as poor weather conditions, volatile commodity prices and uncertainty about local economies.

The Gympie local government area last valued in 2014 has shown a small to moderate fall in residential land values within Gympie city and Cooloola Cove. Land values in Tin Can Bay, Rainbow Beach and the small hinterland villages generally remain unchanged.

The South Burnett local government area was last valued in 2012. Since that time residential activity has declined with small falls in land values in Kingaroy, Wondai and some hinterland centres. Murgon, Nanango and Blackbutt are generally unchanged.

Rural home site values generally mirror the changes in the urban areas with small increases in value in Sunshine Coast with some small decreases in Gympie. South Burnett generally remains unchanged, however smaller parcels around Nanango show varying decreases while homesites around Murgon are increasing.

Industrial, retail and other commercial activity has been largely static across the region as a reflection of local market conditions. This subdued activity has seen land values generally remain unchanged in the Gympie region. The commercial and industrial areas in Kingaroy have recorded a small decrease that mirrors residential trends.

Sunshine Coast has seen minor increases in some prime industrial areas but more isolated properties have fallen. Commercial values have generally held, however there was a small increase in the Dalton Drive area within the emerging Maroochydore City Centre precinct.

Farming activities such as cattle, small crops and tree crops are significant enterprises in South East Queensland. Rural land values have generally remained steady with subdued market activity in most areas that supports existing levels.

## South West Queensland

South West Queensland encompasses Toowoomba and areas to its west and south-west as far as the Queensland border.

These local government areas were valued in the 2015 annual valuation:

- Western Downs Regional Council
- Southern Downs Regional Council
- Maranoa Regional Council
- Balonne Shire Council
- Murweh Shire Council
- Paroo Shire Council.

Rural markets throughout the region are generally static or have continued to soften. Sales evidence has been limited.

The ongoing and combined effects of the continuing drought, global economic factors, changes in bank lending policies, and rising costs have made potential rural purchasers cautious. An expanded view of the rural sector is on page 10.

Until recently the expansion of the gas industry in the Surat Basin had a significant impact on property markets within Western Downs. As this industry has moved from exploration–development into production, property markets have slowed.

Values are static in urban markets affected by this industry, including the townships of Roma, Dalby, Miles and Tara. Chinchilla has seen large reductions in residential land values. On the other hand, small towns such as Yuleba, Mitchell, Condamine and Injune in the Surat Basin, where land is much cheaper, have seen large increases.

Commercial and industrial markets continue to benefit from the gas industry. Sales in these sectors do not demonstrate any change in values.

In contrast, Wandoan has been affected by the downturn in the coal industry and the shelving of a proposed large coal mine. This has resulted in uncertainty in the property market so Wandoan values have reduced significantly.

Within Western Downs the rural homesite market has also been impacted resulting in small to large reductions in Chinchilla, Wandoan and Tara.

In Southern Downs, last valued in 2012, there have been variations in value levels between towns and within towns. Generally, residential markets in Warwick and Stanthorpe have seen limited change, except for large reductions in values for properties suitable for development, moderate increases for multi-unit properties in Warwick, and small increases in the centre of Warwick.

Commercial markets in both these centres have seen small reductions and industrial markets have not changed.

Small to moderate increases occurred in the townships of Ballandean, Hendon, Emu Vale, parts of Allora, and Tannymorel. Small reductions occurred in Mt Colliery, Pratten, other parts of Allora and Killarney. Moderate to large reductions occurred in Maryvale and Leyburn. All other townships showed no change.

The rural homesite market around Warwick saw variable small increases.

Within Balonne Shire the residential market of St George is subdued, with very limited sales supporting a moderate reduction in value. The small towns of Mungindi, Nindigully and Thallon are showing large increases.

Rural homesite properties close to St George have seen moderate increases, but flooded properties saw moderate reductions.

Flood studies were carried out after the flooding events throughout the region from 2011 onward. As a result, levees were constructed in the towns of St George and Roma. From limited sales, values have been reviewed and valuations of properties outside the levees have been reduced.

The western towns of Cunnamulla and Charleville have seen no change in value in all market sectors.

Small reductions in values have occurred for small good quality brigalow/softwood scrub areas at Wandoan, and moderate reductions have occurred in the mixed grazing and farming properties surrounding Chinchilla and Miles.

A significant review of all rural valuations has occurred within the shire of Paroo to improve relativity between valuations. This market-based review generally resulted in increases and decreases being issued to landowners. Similar reviews were undertaken last year in the shires of Barcoo, Bulloo, Quilpie and Diamantina.

## Central Queensland

Central Queensland encompasses Rockhampton and extends south to Miriam Vale, north to Bowen and west to the Queensland border.

These local government areas were valued in the 2015 annual valuation:

- Central Highlands Regional Council
- Gladstone Regional Council
- Banana Shire Council
- Rockhampton Regional Council
- Livingstone Shire Council
- Mackay Regional Council
- Isaac Regional Council.

Over the last year Central Queensland has been mixed in its property movement, but generally urban property markets have softened and rural property markets have remained static.

Regional urban markets, for the last dozen years, have been influenced by the region's resource industry. The region has continued to struggle with the uncertain economic viability of the Bowen Basin coal industry. Reductions in coal prices over the last three years have seen several more uneconomic mines closed, remaining operational mines rationalised, and infrastructure development projects mothballed or abandoned.

Support industries have also been impacted by rationalised operations and staff levels that have reduced the region's workforce, with the biggest impact occurring in the mining towns themselves.

The effect on the property market has seen demand for urban lands fall considerably while the supply has increased as unemployed workers and uneconomic businesses put their properties on the market and move out of the region.

Although several new Bowen Basin mines commenced operating last year, the workforces for these mines come from outside the region and the changes have been too minor to have any positive effect on the number lost from the region's workforce.

The continued preliminary development of the new Galilee Basin coal industry is seen as a positive influence for the region. Over a billion dollars has been invested with a further billion to be spent in the near future. However associated companies are yet to build the significant infrastructure needed for coal mining in this area so mining activity in the Galilee Basin has had little positive effect on the region to this time.

As mentioned, the hardest hit areas have been the coal towns themselves. The worst affected property markets in these towns have been the improved residential property market and the residential rental market. Reliable evidence of a decline in vacant land has taken time to filter through, but there is now sufficient market evidence to indicate a significant downward movement.

The level of reduction varies from town to town: the extent of reductions relates to a combination of the town's reliance on the mining industry and when the town's associated mines rationalised their workforce. Towns like Dysart, which was one of the first to have redundancies and is solely reliant on mining, have experienced major reductions in land values. In contrast, towns like Dingo, with very little reliance on mining, have experienced only minor or no reductions.

Although there is considerable variation between mining towns, the norm throughout the local government areas of Central Highlands, Banana and Isaac has been significant value reductions for all urban land types.

Property values have been reduced in all the mining towns of Moranbah, Tieri, Dysart, Middlesbrough, Nebo, Clermont, Capella, Blackwater, Buff and Moura. These are the characteristics of the hardest-hit markets: the improved residential property market in many towns, down 15–30% from the peak values of three years ago; the residential rentals market, reduced from \$1000 to \$2000 per week to whatever property owners can get in some towns; and the development property market, which in many centres is now down to residential value levels.

The market movements in urban centres of the coastal local government areas that supported the mines have also varied greatly, but again the level of their reliance on the resource industry has played a major part in their market movement.

Rationalisation of the mining industry has impacted drive in/drive out (DIDO) workers the most.

Mackay, the Bowen Basin's major industry support area and a major dormitory for DIDO workers, is now feeling the full impact of the resource industry decline. All urban property markets have experienced at least minor reductions, the hardest hit being multi-unit and development lands. The improved market, though still softening, is showing recent signs of stabilising, however the vacant market may continue to soften for the next year or two while supply and demand find equilibrium.

Livingstone Shire is a major DIDO dormitory for the Bowen Basin coal mines. Coupled with a sluggish tourist industry, the shire's property market has weakened. The effect on the urban coastal centres has been most evident. Movement has been mixed as market focus moves from executive property attributes (such as elevated views) to economic issues (such as ease of development). Significant reductions occurred in the executive residential market whereas the lower valued standard residential properties have either remained static or slightly strengthened.

Although the shire markets have softened, the impact has been at the same level of the mining towns. The shire's hardest hit lands have been future development and industrial values.

Rockhampton is least reliant on the mining industry of any of the coastal support areas, so it has been the least affected by the resource downturn. Rockhampton values have remained flat though all land types and locations have experienced a mix of small reductions and increases. The exception has been some development lands which have experienced more substantial reductions.

Gladstone, although very much a resource centre, has surprisingly bucked the trend of reductions in labour force associated with mining towns: worker numbers for the local government area actually increased in the last year. Work camps on Curtis Island now house 95% of all non-residential workers, rather than Gladstone's residential and multi-unit residential market. As a result, Gladstone City's accommodation numbers have reduced 85% since 2011 so there is an oversupply of residential properties and small to moderate reductions throughout urban markets. The most affected land uses are the multi-unit and development lands.



*Gladstone harbour (image courtesy of Tourism Queensland)*



Property markets will remain soft for at least the next year as infrastructure projects that originally created the increase in property demand start to come to a close.

The major rural markets for Central Queensland are grazing and sugar cane. The grazing markets throughout the region, after several years of softening, are believed to have reached the bottom of the property cycle. Although over the last year the industry has experienced the impacts of drought, the weak Australian dollar, and restrictive financial environment sales, the region has shown little evidence of any downward movement. Values this year have remained static throughout with the only exception being minor isolated reductions in western Isaac and southern Banana.

The sugar cane market has been limited in activity but values remain static. The industry remains generally optimistic in the face of industry uncertainty about marketing and lower commodity prices.

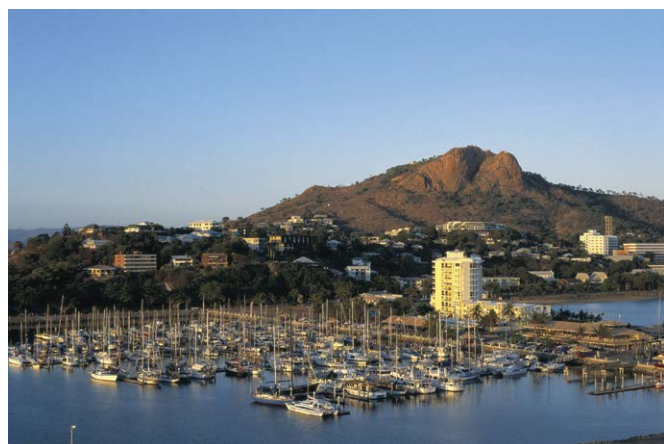
## North Queensland

North Queensland encompasses the Burdekin in the south, north to Cape York and west to the Queensland border.

These local government areas were valued in the 2015 annual valuation:

- Cairns Regional Council
- Townsville City Council
- Cassowary Coast Regional Council
- Hinchinbrook Shire Council
- Charters Towers Regional Council
- Torres Shire Council.

The Cairns property market is showing signs of growth, particularly within the residential sector. Values in all other sectors, including industrial and commercial, are stabilising.



Townsville (image courtesy of Tourism Queensland)

The tourism industry is recovering due to the Australian dollar's fall from a high of \$US1.05 in mid-2013. For the financial year to date, international passenger numbers to Cairns have increased by about 5% with growth in domestic visitation of about 4%. Over the period December 2013–December 2014, airport passenger numbers increased by 3.1% compared to 2013.

Growth is expected to continue during 2015 due to a more competitive Australian dollar and the establishment of new international air routes to mainland China, Bali and Singapore.

Demand for improved residential properties has continued to strengthen throughout 2014. Median property prices for houses in Cairns have continued to grow over the last three years, with the median house price trend rising by 5.6% over the last 12 months to reach \$380 000 in October 2014. This is back to the levels experienced in the peak of 2007–08.

Property prices in central Cairns have increased due to high levels of demand. The more prestigious locations of upper Edge Hill, Whitfield and Kanimbla Heights are once again the most attractive localities, with sales evidence showing moderate valuation increases depending on location and views. Building construction approvals have increased strongly. The scarcity of development land within the central Cairns area has resulted in vacant parcels generally emanating from infill development.

Residential lands in the northern beaches and Redlynch Valley have all experienced an increase in land values.

Similar to residential lands elsewhere, increases have occurred in the southern corridor from Woree through to Edmonton, and Gordonvale.

Moderate increases within Gordonvale are due to increased demand; the absorption of distressed estate properties from the market; and the rise from a relatively low valuation platform.

Land values in the Babinda locality have remained static due a lack of demand, while values in the Bramston Beach locality have continued to soften.

The rural homesite market in the Cairns district has generally increased over the last 12 months. The exceptions are areas south of Bellenden Ker where the market has softened.

There has been negligible movement in the Cairns commercial market since the previous revaluation. Although confidence has slightly improved, this has not yet translated into increased market activity and the retail market is still floundering from the market downfall of previous years.

The industrial sector, like the commercial sector, has not demonstrated any major corrections from the level of values 12 months ago.



The Townsville property market has been impacted by loss of job security, high unemployment, high rental vacancies, and a downturn in the mining sector, all of which have created a relatively flat market.

Townsville's residential market has been subdued. The western suburbs, including Kirwan, have experienced little change in value. That trend continues in the northern suburbs in localities such as Derragun through to Balgal Beach. Inner city suburbs have maintained their current value; however reductions have been undertaken on difficult sites with building constraints and increases have occurred for lands with improved infrastructure. Justified market corrections of between 5 and 15% have occurred across the board to better improve valuation relativity from suburb to suburb.

Industrial values in the northern precincts of Garbutt, Mount St John, Mount Louisa and Bohle have softened over the last 12 months. Precincts like Stuart and Roseneath (which have recently emerged as strategic locations partly because of improved government-sponsored road, rail and port infrastructure) have experienced an increase in value having come off a much lower valuation base. Other localities such as the Townsville Port and Shaw have experienced no change to value.

Commercial values have generally remained unchanged.

As in the 2013 annual valuation, the residential market in the Cassowary Coast has been variable. The impacts of the agricultural sector, a slow tourism market and the lingering effects of Cyclone Yasi have caused values to stabilise or soften.

Residential values have generally held steady in the town of Innisfail, with the surrounding smaller coastal and hinterland communities, such as Wangan and South Johnstone, softening in value.

High-value beachfront and elevated coastal properties in the Island Coast localities of Bingil Bay, Mission Beach, Wongaling Beach and South Mission Beach have experienced a further softening of values, however residential lands outside of these areas have stabilised in value.

The southern Cassowary Coast towns of Tully, Cardwell, and components of Port Hinchinbrook have reduced in value.

Commercial, industrial and multi-unit lands have generally mirrored the residential trend in the Cassowary Coast townships.

Reductions in value have been experienced in most urban centres in Hinchinbrook Shire, including Lucinda, Forrest Beach, Taylors Beach, Toobanna, Trebonne, Halifax, Cordelia, and Ingham. Sales volumes are down compared to last year. Valuations within Abergowrie are low compared to other townships, so no value amendments have been made.

The property market in Charters Towers is exhibiting signs of stability; however there has been a reduction in sale volume over the last 12 months. The number of improved residential sales to 1 October 2014 was 90, down from 116 during the annual valuation in 2013. The median sale price for improved residential dwellings has increased slightly, up from \$190 000 in 2013 to \$207 500 in 2014.

As a consequence, there have been very few value amendments within Charters Towers township. Smaller rural townships within the local government area, including Greenvale and Ravenswood, have also not changed value. The exception is the town of Homestead where typical values have now increased to \$4400.

Torres Shire is one of the most northern local governments in Queensland. The majority of lands valued are in the Thursday Island group. These include Thursday Island, the shire's administrative centre and major service centre of the region; Horn Island, the second service centre of the Torres Strait; and Prince of Wales Island.

The property market on Thursday Island has been tightly held in the past; but slowed recent demand has resulted in declining rentals in the built environment, with both private and government bodies showing moderate falls. As a result, land valuations have slightly reduced.

There were limited amendments to valuations on Horn and Prince of Wales islands, where values are not as high as on Thursday Island.

The pastoral industry in North Queensland has continued to struggle with a run of poor seasons and low returns.

Drought conditions deteriorated further across this market segment with much of western and north western Queensland, including Charters Towers local government area, being drought declared.

A lack of buyer confidence has resulted in only a small number of transactions across the entire sector. In general, market evidence indicates a continued small to moderate decline in values for the larger grazing properties, with the smaller, more-affordable properties holding their value. The decline in values is more evident for the poorer quality, high operating-cost forest blocks.

North Queensland coastal farming is dominated by sugar cane production. Levels of value for cane land have held firm over the last 12 months though values have softened in the wet tropic areas between Babinda and Tully. Values for well-located good quality arable lands have stabilised in the Cairns locality. Distressed 'tree-farm' sales which had placed downward pressure on farms in the Herbert River locality have been absorbed into the market. Sales of going-concern cane farms since that time have demonstrated a moderate increase in valuation levels.

## Rural

Across Queensland there is limited sales activity in rural markets, resulting in a continued static to softening of land values within the grazing, horticultural, small crop and dryland farming industries.

All industries are dealing with the effects of a long-term and widespread drought, restrictive financial policies and rising costs.

In contrast, the effects of the recent weakening of the Australian dollar and the strengthening of beef commodity prices may not be reflected in the marketplace for some time. The grazing market is at the bottom of its market cycle and has probably stabilised.

These trends, where potential purchasers still remain cautious, will continue for some time until there is an improvement in the weather and more confidence in the economy.

Figures 4 and 5 illustrate the extent of the drought throughout Queensland since the date of valuation 1 October 2014.

In the western pastoral zone, the market peaked around 2008 and has since fallen back to around 2005–06 value levels. This market continues to be subdued, with very few sales transactions.

Limited sales across Queensland have shown small to large reductions in current unimproved rural values in the various markets of Cairns Regional Council at Babinda, Cassowary Coast Regional Council, Charters Towers Regional Council, Isaac Regional Council, Banana Shire Council at Taroom, Gympie Regional Council at river and creek flats on the Mary River, South Burnett Regional Council at Blackbutt, Scenic Rim Regional Council, Ipswich City Council and Western Downs Regional Council at Wandoan, Chinchilla and Miles.

Small to large increases are occurring in property values in smaller well-located farms in Hinchinbrook and a small number of properties in Balonne Shire east of the Moonie River.

Sales of rural land purchased by resource companies for the purpose of mining or other extractive industry are not used to determine statutory land values of rural land. This market activity has generally now slowed due to the state of resource sector, and respective markets are now being influenced by rural landowners.



*Boonah (image courtesy of Tourism Queensland)*

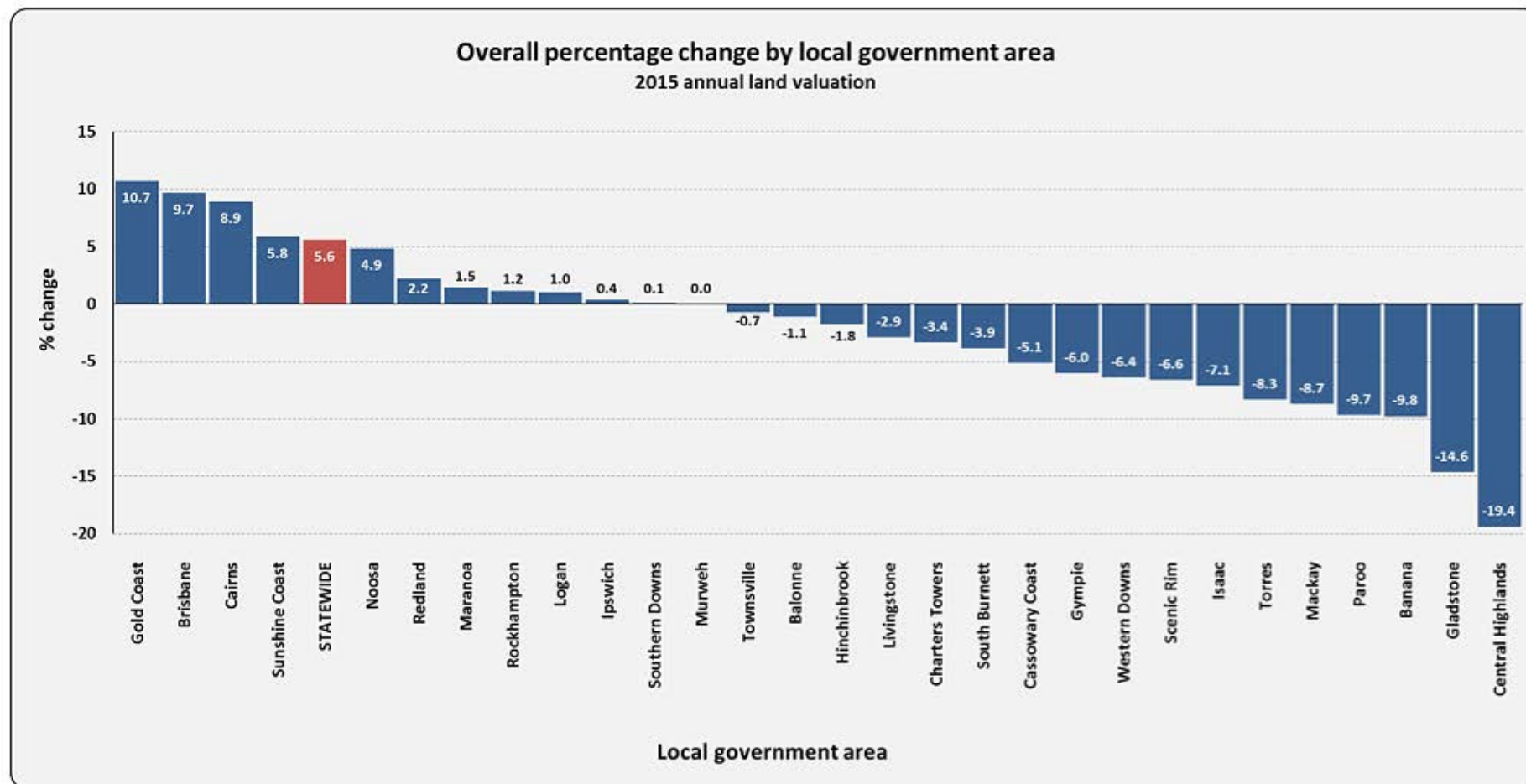


Figure 3: Overall percentage movement in total value since the previous annual valuation for the whole state and all local government areas valued in 2015.

*Table 1: New median value and percentage movement in median value for residential and rural residential land since the previous annual valuation in local government areas revalued in the 2015 annual valuation*

LGA	Residential		Rural residential	
	New median value (\$)	Median value change (%)	New median value (\$)	Median value change (%)
Balonne	37,500	-13.8	96,000	10.3
Banana	66,000	-7.0	85,000	6.3
Brisbane	355,000	10.9	590,000	7.3
Cairns	162,500	12.9	270,000	8.0
Cassowary Coast	75,000	-3.9	109,000	-4.4
Central Highlands	93,000	-38.8	215,000	-13.1
Charters Towers	52,000	0.0	110,000	-4.4
Gladstone	157,500	-19.2	152,500	-9.0
Gold Coast	260,000	9.5	315,000	1.6
Gympie	82,000	-12.8	121,000	-7.6
Hinchinbrook	71,000	-15.5	107,500	-8.1
Ipswich	139,000	0.7	220,000	0.0
Isaac	94,000	-16.8	100,000	0.0
Livingstone	146,000	2.1	180,000	-1.4
Logan	190,000	0.5	280,000	5.7
Mackay	167,500	-8.2	192,500	-6.1
Maranoa	128,000	0.0	162,500	1.6
Murweh	28,500	0.0	67,000	0.0
Noosa	220,000	8.6	180,000	5.9
Paroo	9,900	0.0	40,000	0.0
Redland	240,000	4.4	475,000	0.0
Rockhampton	116,000	1.8	157,500	0.0
Scenic Rim	147,000	-3.6	210,000	-2.3
South Burnett	62,000	-7.5	79,000	-6.0
Southern Downs	89,000	3.5	130,000	-0.8
Sunshine Coast	217,500	7.4	237,500	5.6
Torres	192,500	-8.3	149,000	1.0
Townsville	146,000	0.0	190,000	2.7
Western Downs	101,000	-3.8	68,000	-2.9



Table 2: New total value and percentage movement in total value for multi-unit, commercial, industrial and primary production land since the previous annual valuation in local government areas revalued in the 2015 annual valuation

Local government area	Multi-unit		Commercial		Industrial		Primary production	
	New total value (\$)	Total value change (%)	New total value (\$)	Total value change (%)	New total value (\$)	Total value change (%)	New total value (\$)	Total value change (%)
Balonne	1,827,800	-13.8	9,848,700	0.3	6,020,700	-1.6	313,935,000	0.4
Banana	3,872,000	-18.1	19,858,800	-15.1	38,947,378	-25.4	965,048,210	-5.6
Brisbane	19,643,419,500	14.4	16,163,107,150	5.0	10,759,818,709	1.4	107,834,000	7.9
Cairns	849,899,000	1.7	926,579,500	0.7	697,181,700	0.6	165,735,000	-0.5
Cassowary Coast	58,915,000	-3.3	126,158,200	-3.8	62,955,100	-9.3	270,441,000	-9.1
Central Highlands	55,271,500	-42.4	117,953,600	-31.3	160,027,149	-37.1	1,283,874,900	0.0
Charters Towers	2,185,600	0.0	17,206,000	0.0	14,253,010	-1.3	424,109,860	-5.7
Gladstone	208,254,000	-31.8	241,522,500	-10.2	497,822,900	-6.2	185,814,350	-0.1
Gold Coast	10,570,585,400	11.7	3,119,683,620	7.1	2,669,628,200	11.1	125,621,400	0.0
Gympie	31,609,500	-9.6	121,716,600	2.8	80,503,500	-1.6	462,192,500	-1.6
Hinchinbrook	9,156,500	-8.3	51,062,500	-10.1	16,674,500	-2.8	303,975,900	20.0
Ipswich	252,108,500	-0.1	896,490,700	0.7	967,691,700	1.1	201,162,000	-8.6
Isaac	38,400,500	-18.3	41,057,000	-18.9	43,254,530	-17.3	1,523,704,480	-0.6
Livingstone	93,330,500	-8.3	88,998,500	-4.7	52,506,500	-10.4	217,503,900	0.0
Logan	765,281,000	-0.9	1,448,304,500	3.1	1,012,865,500	1.5	124,447,600	-2.3
Mackay	311,722,500	-18.2	615,677,900	-5.0	657,544,000	-9.6	389,729,500	-0.1
Maranoa	12,325,500	0.1	78,154,200	1.1	118,315,380	12.0	940,291,030	-0.1
Murweh	256,000	0.0	10,486,200	0.0	4,188,380	0.0	168,796,100	0.0
Noosa	1,399,526,000	0.3	234,252,700	0.3	116,277,500	1.9	52,004,000	0.0
Paroo	36,000	0.0	2,608,800	0.0	993,500	0.6	90,776,500	-11.2
Redland	741,097,000	0.6	676,255,500	1.4	136,601,700	8.8	80,963,600	0.0
Rockhampton	133,585,500	10.8	498,630,300	0.4	298,308,100	5.5	215,276,600	0.2
Scenic Rim	40,866,500	-5.5	157,852,500	-1.1	64,589,800	-6.4	1,014,198,000	-13.8
South Burnett	18,316,000	-6.5	61,699,600	-4.6	42,173,700	-6.1	538,481,900	-0.4
Southern Downs	27,064,500	17.5	160,795,000	-4.1	60,165,000	0.2	407,920,720	0.0
Sunshine Coast	2,819,221,000	1.7	1,610,155,600	2.2	675,890,100	-1.2	308,667,700	0.1
Torres	28,116,000	-9.3	26,387,500	-9.0	11,949,000	-9.2	1,060,000	0.0
Townsville	731,690,000	-0.3	1,096,423,038	-0.7	935,992,060	-3.2	86,075,100	-0.1
Western Downs	45,428,500	-10.5	167,883,500	-4.1	146,229,724	-2.0	1,573,660,350	-3.4

# Queensland drought situation as at 1 October 2014

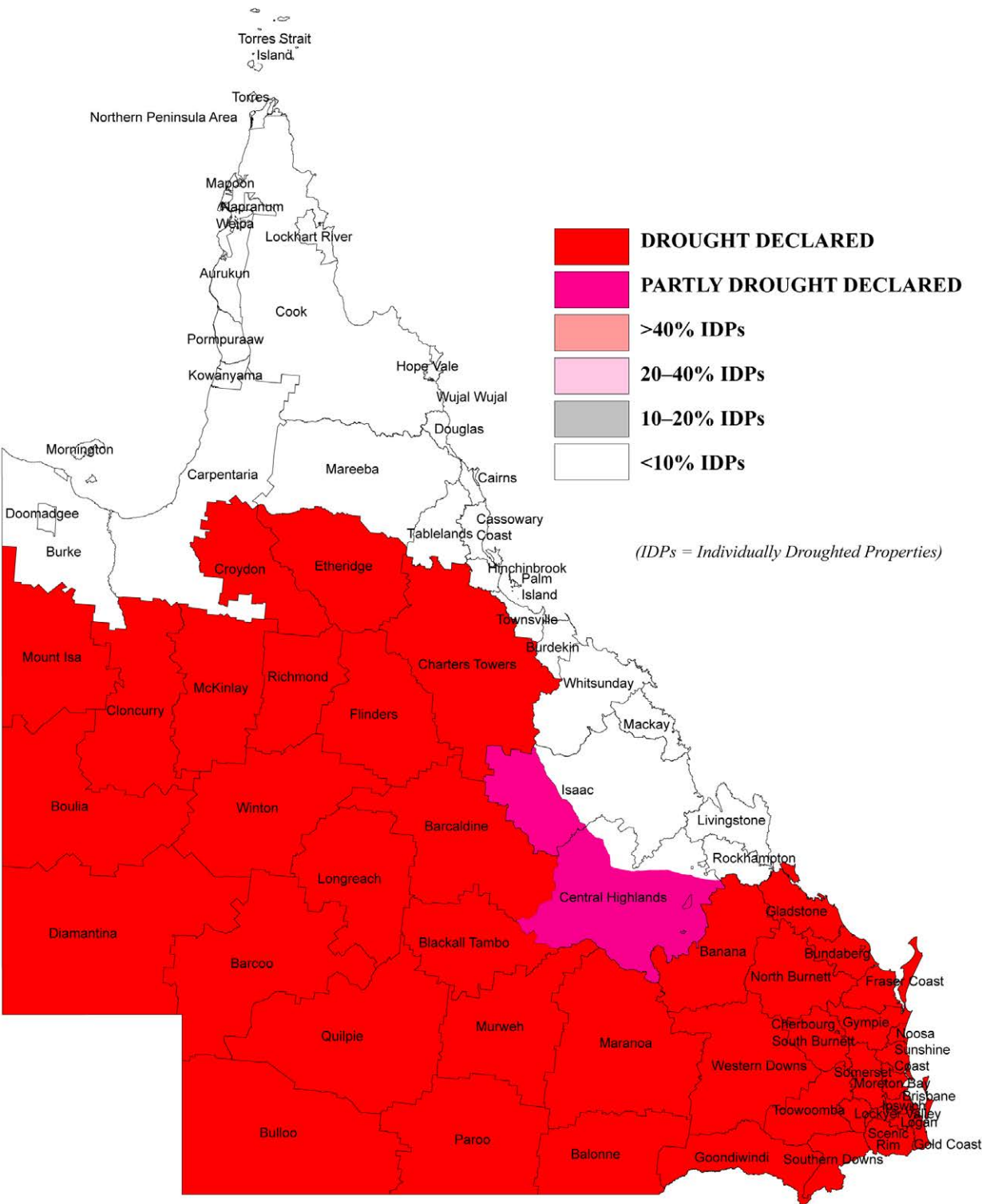


Figure 4: Queensland drought situation as at 1 October 2014

Queensland drought situation as at 1 January 2015

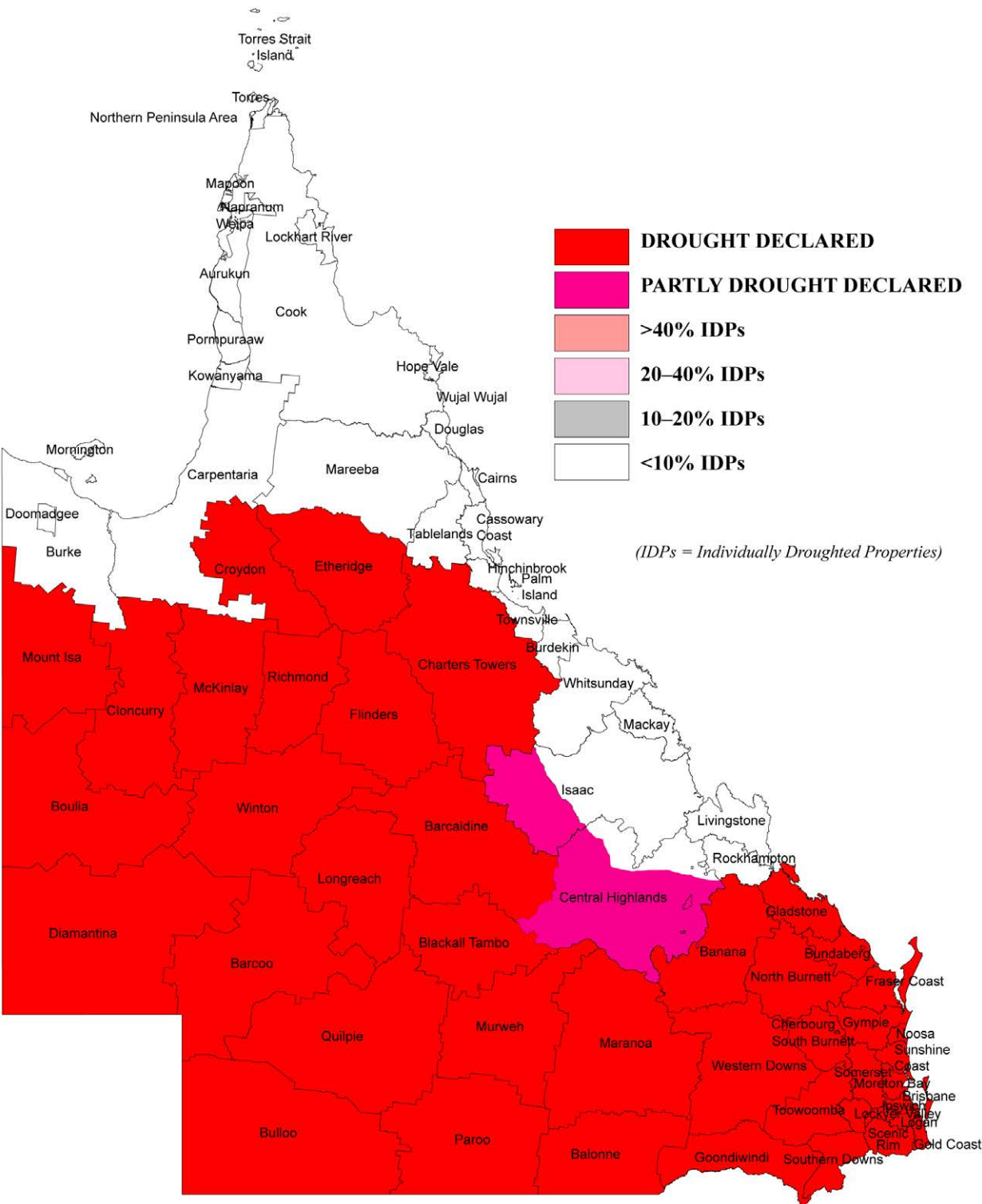
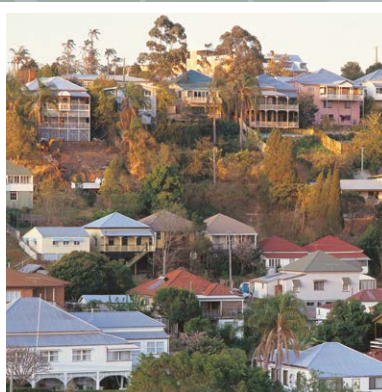


Figure 5: Queensland drought situation as at 1 January 2015





# Annual valuations released for South Burnett Regional Council area

Queensland's Valuer-General today released the annual land valuations for 17,250 properties in the South Burnett Regional Council local government area.

Valuer-General Neil Bray said the valuations reflected land values on 1 October 2014 and showed South Burnett Regional Council area's land values had decreased by 3.9 per cent overall since the last valuation issued in 2012.

"Land values have generally fallen in the major centres of Kingaroy and Wondai since the last valuation, with small decreases in most market sectors and localities," he said.

"Land values in Nanango, Murgon and a number of the smaller villages are unchanged while primary production markets have also remained static in most areas.

"Some rural home site localities around Wondai and Nanango have reflected small decreases in values due to the available sales evidence with the median value of rural residential land falling from \$84,000 to \$79,000."

Mr Bray said landowners could access online the very latest land valuations information.

"The Land Valuations Globe through Queensland Globe on Google Earth™ gives landowners access to detailed valuation information allowing users to search for a property or pan the map to areas of interest and zoom down to individual property level," he said.

"Landowners can access the 2015 valuation year round on the Land Valuations Globe on the DNRM website [www.dnrm.qld.gov.au/mapping-data/queensland-globe](http://www.dnrm.qld.gov.au/mapping-data/queensland-globe).

"Landowners can also have future valuation notices and other valuation information sent to them by email by visiting [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au) or calling 1300 664 217."

Mr Bray said it was important that landowners realised that valuation notices were not rate notices.

"Rates are set under the *Local Government Act 2009* and are determined by local government authorities," he said.

"The setting of rates is based on a number of factors—valuations are only one of those factors."

Mr Bray said landowners who believed their valuation was incorrect, and could provide information to support this, could lodge their objection online at [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au) or at the address shown at the top of their valuation notice by 4 May 2015.

"Landowners without internet access can get an objection kit that includes a step-by-step guide by phoning the toll free number 1300 664 217," he said.

"The list of Queensland's statutory land valuations in a searchable table format, interactive maps that include residential sales information for major residential localities, and a rural sales map can be viewed online at [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au) until 2 June 2015—allowing landowners to compare their valuations with others in their area.

"A hard copy of the valuation list for the South Burnett Regional Council area can be viewed at the Department of Natural Resources and Mines, Kingaroy Research Facility, 214 Kingaroy—Cooyar Road Kingaroy, during normal business hours until close of business on 2 June 2015."

For more information, including the Valuer-General's 2015 Property Market Movement Report, visit [www.dnrm.qld.gov.au](http://www.dnrm.qld.gov.au) or call 1300 664 217.

Follow Land Queensland on Facebook [facebook.com/LandQueensland](https://facebook.com/LandQueensland) and Twitter [twitter.com/LandQueensland](https://twitter.com/LandQueensland).

## Local Government Area: SOUTH BURNETT

Valuations were last issued in the South Burnett Regional Council local government area in 2012.

# Residential land

Table 1 below provides information on median values for residential land within the South Burnett Regional Council area.

Table 1 – Median value of residential land\*

<b>Residential localities*</b>	<b>Previous median value as at 1/10/2011 (\$)</b>	<b>New median value as at 1/10/2014 (\$)</b>	<b>Change in median value (%)</b>	<b>Number of properties</b>
Benarkin	34,000	34,000	0.0	39
Blackbutt	66,000	66,000	0.0	356
Boondooma	105,000	100,000	-4.8	3
Brooklands	32,500	32,500	0.0	26
Bunya Mountains	140,000	140,000	0.0	35
Cloyna	23,000	23,000	0.0	11
Coolabunia	43,000	43,000	0.0	11
Crawford	41,000	41,000	0.0	22
East Nanango	51,000	46,000	-9.8	1
Hivesville	20,500	18,400	-10.2	109
Hodgleigh	225,000	225,000	0.0	1
Kingaroy	80,000	72,000	-10.0	3380
Kumbia	34,000	34,000	0.0	102
Maidenwell	35,500	35,500	0.0	31
Memerambi	18,000	18,000	0.0	131
Moffatdale	29,500	29,500	0.0	78
Mondure	15,600	14,000	-10.3	23
Murgon	38,500	38,500	0.0	882
Nanango	58,000	58,000	0.0	1018
Proston	23,500	22,500	-4.3	167
Taabinga	64,000	61,000	-4.7	45
Tingoora	47,000	44,500	-5.3	124
Wondai	49,500	44,500	-10.1	683

Wooroolin	28,500	28,500	0.0	55
All residential localities	67,000	62,000	-7.5	7333

\* Does not include land valued as multi-unit or rural residential

## Commentary

The South Burnett was last valued in 2012 and since that time residential activity has declined with the overall median value falling by 7.5 per cent to \$62,000.

The major towns of Kingaroy and Wondai have fallen by around 10 per cent with new median values of \$72,000 and \$44,500 respectively.

Other larger centres such as Murgon, Nanango and Blackbutt are unchanged from the previous valuation.

Smaller villages such as Taabinga, Tingoorra, Proston and Hivesville have fallen in value from 4.3 to 10.2 per cent while Kumbia, Maidenwell and Memerambi are unchanged.

Median values now range from \$61,000 at Taabinga down to \$14,000 at Mondure reflecting available market evidence.

## Rural residential land

Table 2 below provides information on the median value for rural residential land within the South Burnett Regional Council area.

Table 2 – Median value of rural residential land

Land use	Previous median value as at 1/10/2011 (\$)	New median value as at 1/10/2014 (\$)	Change in median value (%)	Number of properties
Rural residential	84,000	79,000	-6.0	6631

The median value for rural residential lands has fallen by six per cent as a result of varying changes throughout the council area.

While the values for a large number of smaller parcels around Wondai and Nanango have fallen by up to 10 per cent, some larger properties around Kingaroy and Murgon have increased reflecting the available sales evidence.

## Other land uses

Table 3 below provides information on total land values for land uses other than residential and rural residential land within the South Burnett Regional Council area.

Table 3 – Total land values of other land uses

Land use	Previous total land value as at 1/10/2011 (\$)	New total land value as at 1/10/2014 (\$)	Change in total land value (%)	Number of properties
Multi-unit residential	19,591,500	18,316,000	-6.5	124
Industrial	44,903,200	42,173,700	-6.1	289

Commercial	64,657,900	61,699,600	-4.6	441
Rural	540,446,600	538,481,900	-0.4	2355

## Commentary

Commercial, multi-unit and industrial land values have generally fallen by up to 10 per cent in Kingaroy reflecting the current economic climate while other major centres are largely unchanged.

The reductions in Kingaroy have resulted in a decrease of total land values across the region with commercial values falling by 4.6 per cent, industrial values falling by 6.1 per cent and multiple unit residential by 6.5 per cent.

The overall farming value has had a minor decrease of 0.4 per cent however most property values are unchanged supported by a number of market transactions across the region.

Media contact: Brad Muir (07) 3199 8253

Last updated 2015-03-04





# Queensland Government

## Wildlife Online Extract

Search Criteria: Species List for a Specified Point

Species: All

Type: All

Status: All

Records: All

Date: All

Latitude: -26.6127

Longitude: 151.8440

Distance: 6

Email: Valeri.Melik@moretonresources.com.au

Date submitted: Wednesday 11 May 2016 09:10:30

Date extracted: Wednesday 11 May 2016 09:20:06

The number of records retrieved = 263

### **Disclaimer**

As the DSITIA is still in a process of collating and vetting data, it is possible the information given is not complete. The information provided should only be used for the project for which it was requested and it should be appropriately acknowledged as being derived from Wildlife Online when it is used.

The State of Queensland does not invite reliance upon, nor accept responsibility for this information. Persons should satisfy themselves through independent means as to the accuracy and completeness of this information.

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Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	<i>Litoria caerulea</i>	common green treefrog		C		1
animals	amphibians	Hylidae	<i>Litoria rubella</i>	ruddy treefrog		C		1/1
animals	birds	Acanthizidae	<i>Smicromis brevirostris</i>	weebill		C		2
animals	birds	Acanthizidae	<i>Acanthiza nana</i>	yellow thornbill		C		4
animals	birds	Acanthizidae	<i>Gerygone mouki</i>	brown gerygone		C		1
animals	birds	Acanthizidae	<i>Acanthiza pusilla</i>	brown thornbill		C		2
animals	birds	Acanthizidae	<i>Gerygone olivacea</i>	white-throated gerygone		C		3
animals	birds	Acanthizidae	<i>Sericornis frontalis</i>	white-browed scrubwren		C		5
animals	birds	Acanthizidae	<i>Chthonicola sagittata</i>	speckled warbler		C		1
animals	birds	Acanthizidae	<i>Sericornis magnirostra</i>	large-billed scrubwren		C		1
animals	birds	Accipitridae	<i>Aquila audax</i>	wedge-tailed eagle		C		1
animals	birds	Accipitridae	<i>Accipiter novaehollandiae</i>	grey goshawk		C		1
animals	birds	Accipitridae	<i>Circus approximans</i>	swamp harrier		C		1
animals	birds	Accipitridae	<i>Elanus axillaris</i>	black-shouldered kite		C		2
animals	birds	Aegothelidae	<i>Aegotheles cristatus</i>	Australian owl-nightjar		C		1
animals	birds	Anatidae	<i>Anas rhynchotis</i>	Australasian shoveler		C		1
animals	birds	Anatidae	<i>Anas gracilis</i>	grey teal		C		1
animals	birds	Anatidae	<i>Cygnus atratus</i>	black swan		C		1
animals	birds	Anatidae	<i>Aythya australis</i>	hardhead		C		1
animals	birds	Anatidae	<i>Anas superciliosa</i>	Pacific black duck		C		3
animals	birds	Anatidae	<i>Chenonetta jubata</i>	Australian wood duck		C		3
animals	birds	Ardeidae	<i>Ardea ibis</i>	cattle egret		SL		1
animals	birds	Ardeidae	<i>Egretta garzetta</i>	little egret		C		1
animals	birds	Artamidae	<i>Strepera graculina</i>	piebald currawong		C		5
animals	birds	Artamidae	<i>Cracticus nigrogularis</i>	piebald butcherbird		C		6
animals	birds	Artamidae	<i>Cracticus torquatus</i>	grey butcherbird		C		2
animals	birds	Artamidae	<i>Cracticus tibicen</i>	Australian magpie		C		11
animals	birds	Cacatuidae	<i>Cacatua sanguinea</i>	little corella		C		1
animals	birds	Cacatuidae	<i>Nymphicus hollandicus</i>	cockatiel		C		2
animals	birds	Cacatuidae	<i>Eolophus roseicapillus</i>	galah		C		8
animals	birds	Cacatuidae	<i>Cacatua galerita</i>	sulphur-crested cockatoo		C		3
animals	birds	Campephagidae	<i>Lalage leucomela</i>	varied triller		C		2
animals	birds	Campephagidae	<i>Coracina tenuirostris</i>	cicadabird		SL		1
animals	birds	Campephagidae	<i>Lalage tricolor</i>	white-winged triller		C		1
animals	birds	Campephagidae	<i>Coracina novaehollandiae</i>	black-faced cuckoo-shrike		C		4
animals	birds	Charadriidae	<i>Vanellus miles</i>	masked lapwing		C		1
animals	birds	Charadriidae	<i>Vanellus miles novaehollandiae</i>	masked lapwing (southern subspecies)		C		2
animals	birds	Cisticolidae	<i>Cisticola exilis</i>	golden-headed cisticola		C		1
animals	birds	Climacteridae	<i>Cormobates leucophaea</i>	white-throated treecreeper		C		3
animals	birds	Climacteridae	<i>Cormobates leucophaea metastasis</i>	white-throated treecreeper (southern)		C		1
animals	birds	Columbidae	<i>Geopelia humeralis</i>	bar-shouldered dove		C		5
animals	birds	Columbidae	<i>Geopelia striata</i>	peaceful dove		C		2
animals	birds	Columbidae	<i>Ocyphaps lophotes</i>	crested pigeon		C		2
animals	birds	Coraciidae	<i>Eurystomus orientalis</i>	dollarbird		C		1
animals	birds	Corcoracidae	<i>Struthidea cinerea</i>	apostlebird		C		1
animals	birds	Corcoracidae	<i>Corcorax melanorhamphos</i>	white-winged chough		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Corvidae	<i>Corvus orru</i>	Torresian crow		C		10
animals	birds	Cuculidae	<i>Cacomantis flabelliformis</i>	fan-tailed cuckoo		C		3
animals	birds	Cuculidae	<i>Scythrops novaehollandiae</i>	channel-billed cuckoo		C		1
animals	birds	Cuculidae	<i>Centropus phasianinus</i>	pheasant coucal		C		1
animals	birds	Dicruridae	<i>Dicrurus bracteatus</i>	spangled drongo		C		1
animals	birds	Estrildidae	<i>Taeniopygia bichenovii</i>	double-barred finch		C		4
animals	birds	Estrildidae	<i>Neochmia temporalis</i>	red-browed finch		C		1
animals	birds	Falconidae	<i>Falco berigora</i>	brown falcon		C		1
animals	birds	Halcyonidae	<i>Dacelo novaeguineae</i>	laughing kookaburra		C		3
animals	birds	Halcyonidae	<i>Todiramphus sanctus</i>	sacred kingfisher		C		1
animals	birds	Hirundinidae	<i>Hirundo neoxena</i>	welcome swallow		C		1
animals	birds	Hirundinidae	<i>Petrochelidon ariel</i>	fairy martin		C		1
animals	birds	Maluridae	<i>Malurus melanocephalus</i>	red-backed fairy-wren		C		1
animals	birds	Maluridae	<i>Malurus cyaneus</i>	superb fairy-wren		C		6
animals	birds	Maluridae	<i>Malurus lamberti</i>	variegated fairy-wren		C		2
animals	birds	Megapodiidae	<i>Alectura lathami</i>	Australian brush-turkey		C		3
animals	birds	Meliphagidae	<i>Manorina melanocephala</i>	noisy miner		C		5
animals	birds	Meliphagidae	<i>Caligavis chrysops</i>	yellow-faced honeyeater		C		1
animals	birds	Meliphagidae	<i>Philemon corniculatus</i>	noisy friarbird		C		3
animals	birds	Meliphagidae	<i>Meliphaga lewinii</i>	Lewin's honeyeater		C		6
animals	birds	Meliphagidae	<i>Philemon citreogularis</i>	little friarbird		C		1
animals	birds	Meliphagidae	<i>Plectorhyncha lanceolata</i>	striped honeyeater		C		2
animals	birds	Meliphagidae	<i>Melithreptus albogularis</i>	white-throated honeyeater		C		1
animals	birds	Meropidae	<i>Merops ornatus</i>	rainbow bee-eater		SL		1
animals	birds	Monarchidae	<i>Monarcha melanopsis</i>	black-faced monarch		SL		2
animals	birds	Monarchidae	<i>Grallina cyanoleuca</i>	magpie-lark		C		5
animals	birds	Nectariniidae	<i>Dicaeum hirundinaceum</i>	mistletoebird		C		3
animals	birds	Neosittidae	<i>Daphoenositta chrysoptera</i>	varied sittella		C		1
animals	birds	Oriolidae	<i>Sphecotheres vieilloti</i>	Australasian figbird		C		3
animals	birds	Oriolidae	<i>Oriolus sagittatus</i>	olive-backed oriole		C		1
animals	birds	Otididae	<i>Ardeotis australis</i>	Australian bustard		C		1
animals	birds	Pachycephalidae	<i>Pachycephala rufiventris</i>	rufous whistler		C		5
animals	birds	Pachycephalidae	<i>Pachycephala pectoralis</i>	golden whistler		C		3
animals	birds	Pachycephalidae	<i>Colluricincla harmonica</i>	grey shrike-thrush		C		2
animals	birds	Pardalotidae	<i>Pardalotus punctatus</i>	spotted pardalote		C		1
animals	birds	Pardalotidae	<i>Pardalotus striatus</i>	striated pardalote		C		9
animals	birds	Pelecanidae	<i>Pelecanus conspicillatus</i>	Australian pelican		C		1
animals	birds	Petroicidae	<i>Eopsaltria australis</i>	eastern yellow robin		C		4
animals	birds	Phalacrocoracidae	<i>Phalacrocorax sulcirostris</i>	little black cormorant		C		1
animals	birds	Podargidae	<i>Podargus strigoides</i>	tawny frogmouth		C		1
animals	birds	Podicipedidae	<i>Tachybaptus novaehollandiae</i>	Australasian grebe		C		3
animals	birds	Podicipedidae	<i>Podiceps cristatus</i>	great crested grebe		C		1
animals	birds	Pomatostomidae	<i>Pomatostomus temporalis</i>	grey-crowned babbler		C		1
animals	birds	Psittacidae	<i>Alisterus scapularis</i>	Australian king-parrot		C		2
animals	birds	Psittacidae	<i>Trichoglossus haematodus moluccanus</i>	rainbow lorikeet		C		6
animals	birds	Psittacidae	<i>Trichoglossus chlorolepidotus</i>	scaly-breasted lorikeet		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Psittacidae	<i>Aprosmictus erythropterus</i>	red-winged parrot		C		1
animals	birds	Psittacidae	<i>Platycercus adscitus</i>	pale-headed rosella		C		5
animals	birds	Psophodidae	<i>Psophodes olivaceus</i>	eastern whipbird		C		3
animals	birds	Ptilonorhynchidae	<i>Ptilonorhynchus violaceus</i>	satin bowerbird		C		1
animals	birds	Ptilonorhynchidae	<i>Sericulus chrysocephalus</i>	regent bowerbird		C		1
animals	birds	Rallidae	<i>Porphyrio melanotus</i>	purple swamphen		C		1
animals	birds	Rallidae	<i>Gallinula tenebrosa</i>	dusky moorhen		C		1
animals	birds	Rallidae	<i>Fulica atra</i>	Eurasian coot		C		1
animals	birds	Rhipiduridae	<i>Rhipidura leucophrys</i>	willie wagtail		C		4
animals	birds	Rhipiduridae	<i>Rhipidura albiscapa</i>	grey fantail		C		7
animals	birds	Strigidae	<i>Ninox boobook</i>	southern boobook		C		1
animals	birds	Sturnidae	<i>Sturnus vulgaris</i>	common starling	Y			1
animals	birds	Threskiornithidae	<i>Threskiornis molucca</i>	Australian white ibis		C		2
animals	birds	Threskiornithidae	<i>Threskiornis spinicollis</i>	straw-necked ibis		C		4
animals	birds	Timaliidae	<i>Zosterops lateralis</i>	silveryeye		C		3
animals	birds	Turnicidae	<i>Turnix melanogaster</i>	black-breasted button-quail		V	V	2
animals	birds	Tytonidae	<i>Tyto delicatula</i>	eastern barn owl		C		2
animals	mammals	Macropodidae	<i>Macropus parryi</i>	whiptail wallaby		C		1
animals	mammals	Muridae	<i>Rattus tunneyi</i>	pale field-rat		C		1
animals	mammals	Phalangeridae	<i>Trichosurus vulpecula</i>	common brushtail possum		C		1
animals	mammals	Phascolarctidae	<i>Phascolarctos cinereus</i>	koala		V	V	9
animals	mammals	Pseudocheiridae	<i>Pseudocheirus peregrinus</i>	common ringtail possum		C		1
animals	mammals	Tachyglossidae	<i>Tachyglossus aculeatus</i>	short-beaked echidna		SL		1
animals	reptiles	Carphodactylidae	<i>Underwoodisaurus milii</i>	thick-tailed gecko		C		1
animals	reptiles	Elapidae	<i>Hoplocephalus bitorquatus</i>	pale-headed snake		C		1/1
animals	reptiles	Typhlopidae	<i>Anilius wiedii</i>	brown-snouted blind snake		C		1/1
plants	ferns	Adiantaceae	<i>Cheilanthes sieberi</i>			C		1
plants	ferns	Polypodiaceae	<i>Pyrrosia rupestris</i>	rock felt fern		C		1
plants	higher dicots	Acanthaceae	<i>Pseuderanthemum variabile</i>	pastel flower		C		1
plants	higher dicots	Amaranthaceae	<i>Nyssanthus diffusa</i>	barbed-wire weed		C		1
plants	higher dicots	Amaranthaceae	<i>Deeringia amaranthoides</i>	redberry		C		2/1
plants	higher dicots	Apocynaceae	<i>Parsonsia leichhardtii</i>	black silkpod		C		2/1
plants	higher dicots	Apocynaceae	<i>Parsonsia longipetiolata</i>			C		2/2
plants	higher dicots	Apocynaceae	<i>Carissa ovata</i>	currantbush		C		1
plants	higher dicots	Apocynaceae	<i>Parsonsia rotata</i>	veinless silkpod		C		1
plants	higher dicots	Apocynaceae	<i>Alyxia ruscifolia</i>			C		1
plants	higher dicots	Apocynaceae	<i>Parsonsia velutina</i>	hairy silkpod		C		2/1
plants	higher dicots	Apocynaceae	<i>Secamone elliptica</i>			C		1
plants	higher dicots	Apocynaceae	<i>Alstonia constricta</i>	bitterbark		C		1
plants	higher dicots	Apocynaceae	<i>Parsonsia straminea</i>	monkey rope		C		1
plants	higher dicots	Apocynaceae	<i>Marsdenia pleiadenia</i>			C		1
plants	higher dicots	Araliaceae	<i>Polyscias elegans</i>	celery wood		C		1
plants	higher dicots	Asteraceae	<i>Carthamus lanatus</i>	saffron thistle	Y			1/1
plants	higher dicots	Asteraceae	<i>Carduus thoermeri</i>	nodding thistle	Y			1/1
plants	higher dicots	Asteraceae	<i>Sonchus asper</i>	rough sowthistle	Y			1/1
plants	higher dicots	Asteraceae	<i>Cassinia laevis</i>				C	1



Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	higher dicots	Bignoniaceae	<i>Pandorea pandorana</i>	wonga vine		C		1
plants	higher dicots	Bignoniaceae	<i>Pandorea jasminoides</i>			C		1
plants	higher dicots	Boraginaceae	<i>Heliotropium amplexicaule</i>	blue heliotrope	Y			1/1
plants	higher dicots	Caesalpiniaceae	<i>Gleditsia triacanthos</i>	honey locust	Y			1/1
plants	higher dicots	Caesalpiniaceae	<i>Caesalpinia subtropica</i>	corky pricklevine		C		1
plants	higher dicots	Capparaceae	<i>Capparis sarmentosa</i>	scrambling caper		C		1
plants	higher dicots	Capparaceae	<i>Capparis arborea</i>	brush caper berry		C		1
plants	higher dicots	Celastraceae	<i>Denhamia pittosporoides</i>			C		1
plants	higher dicots	Celastraceae	<i>Denhamia bilocularis</i>			C		1
plants	higher dicots	Celastraceae	<i>Denhamia parvifolia</i>			V	V	1/1
plants	higher dicots	Celastraceae	<i>Denhamia disperma</i>			C		2/1
plants	higher dicots	Celastraceae	<i>Celastrus subspicata</i>	large-leaved staffvine		C		1
plants	higher dicots	Chenopodiaceae	<i>Einadia nutans</i>			C		1
plants	higher dicots	Ebenaceae	<i>Diospyros pentamera</i>	myrtle ebony		C		1
plants	higher dicots	Erythroxylaceae	<i>Erythroxylum</i> sp. (Splityard Creek L.Pedley 5360)			C		1
plants	higher dicots	Euphorbiaceae	<i>Croton insularis</i>	Queensland cascarilla		C		1
plants	higher dicots	Euphorbiaceae	<i>Manihot grahamii</i>		Y			1/1
plants	higher dicots	Euphorbiaceae	<i>Acalypha eremorum</i>	soft acalypha		C		1/1
plants	higher dicots	Euphorbiaceae	<i>Acalypha capillipes</i>	small-leaved acalypha		C		1
plants	higher dicots	Euphorbiaceae	<i>Alchornea ilicifolia</i>	native holly		C		1
plants	higher dicots	Euphorbiaceae	<i>Excoecaria dallachyana</i>	scrub poison tree		C		1
plants	higher dicots	Euphorbiaceae	<i>Tragia novae-hollandiae</i>	stinging-vine		C		1
plants	higher dicots	Euphorbiaceae	<i>Beyeria viscosa</i>			C		1/1
plants	higher dicots	Euphorbiaceae	<i>Bertya opposens</i>			C	V	1/1
plants	higher dicots	Euphorbiaceae	<i>Baloghia inophylla</i>	scrub bloodwood		C		1
plants	higher dicots	Fabaceae	<i>Derris involuta</i>	native derris		C		4/3
plants	higher dicots	Fabaceae	<i>Crotalaria incana</i> subsp. <i>incana</i>		Y			1/1
plants	higher dicots	Fabaceae	<i>Austrostenisia blackii</i>	bloodvine		C		1
plants	higher dicots	Flacourtiaceae	<i>Casearia multinervosa</i>	casearia		C		4/4
plants	higher dicots	Gyrostemonaceae	<i>Codonocarpus attenuatus</i>			C		1
plants	higher dicots	Lamiaceae	<i>Spartothamnella juncea</i>	native broom		C		1
plants	higher dicots	Lamiaceae	<i>Vitex lignum-vitae</i>			C		1
plants	higher dicots	Lamiaceae	<i>Clerodendrum floribundum</i>			C		1/1
plants	higher dicots	Lamiaceae	<i>Clerodendrum tomentosum</i>			C		1
plants	higher dicots	Loganiaceae	<i>Strychnos psilosperma</i>	strychnine tree		C		1
plants	higher dicots	Malvaceae	<i>Malvastrum americanum</i> var. <i>stellatum</i>			C		1/1
plants	higher dicots	Malvaceae	<i>Abutilon oxycarpum</i> var. <i>oxycarpum</i>			C		1
plants	higher dicots	Meliaceae	<i>Owenia venosa</i>	crow's apple		C		2/1
plants	higher dicots	Meliaceae	<i>Melia azedarach</i>	white cedar		C		1
plants	higher dicots	Mimosaceae	<i>Acacia pustula</i>			C		1/1
plants	higher dicots	Mimosaceae	<i>Acacia leucoclada</i> subsp. <i>argentifolia</i>			C		3/3
plants	higher dicots	Mimosaceae	<i>Acacia aulacocarpa</i>			C		1
plants	higher dicots	Moraceae	<i>Trophis scandens</i> subsp. <i>scandens</i>			C		1
plants	higher dicots	Moraceae	<i>Streblus brunonianus</i>	whalebone tree		C		1
plants	higher dicots	Myrsinaceae	<i>Embelia australiana</i>	embelia		C		1
plants	higher dicots	Myrsinaceae	<i>Myrsine variabilis</i>			C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	higher dicots	Myrtaceae	<i>Rhodamnia dumicola</i>	rib-fruited malletwood		C		1
plants	higher dicots	Myrtaceae	<i>Melaleuca formosa</i>			NT		2/2
plants	higher dicots	Myrtaceae	<i>Gossia bidwillii</i>			C		1
plants	higher dicots	Oleaceae	<i>Jasminum didymum subsp. racemosum</i>			C		1
plants	higher dicots	Oleaceae	<i>Jasminum simplicifolium subsp. australiense</i>			C		2/1
plants	higher dicots	Oleaceae	<i>Notelaea microcarpa var. microcarpa</i>			C		1
plants	higher dicots	Passifloraceae	<i>Passiflora aurantia</i>			C		1
plants	higher dicots	Phyllanthaceae	<i>Phyllanthus microcladus</i>			C		1/1
plants	higher dicots	Phyllanthaceae	<i>Bridelia leichhardtii</i>			C		1
plants	higher dicots	Phyllanthaceae	<i>Breynia oblongifolia</i>			C		1
plants	higher dicots	Phyllanthaceae	<i>Phyllanthus gunnii</i>			C		1
plants	higher dicots	Phyllanthaceae	<i>Bridelia exaltata</i>			C		1
plants	higher dicots	Phytolaccaceae	<i>Phytolacca octandra</i>	inkweed	Y			1/1
plants	higher dicots	Pittosporaceae	<i>Bursaria incana</i>			C		1
plants	higher dicots	Pittosporaceae	<i>Auranticarpa rhombifolia</i>			C		1
plants	higher dicots	Pittosporaceae	<i>Pittosporum spinescens</i>	black-fruited thornbush		C		1
plants	higher dicots	Pittosporaceae	<i>Pittosporum viscidum</i>			C		1
plants	higher dicots	Polygalaceae	<i>Polygala virgata</i>		Y			1/1
plants	higher dicots	Proteaceae	<i>Grevillea robusta</i>	grey boxwood		C		1
plants	higher dicots	Putranjivaceae	<i>Drypetes deplanchei</i>			C		2/1
plants	higher dicots	Rhamnaceae	<i>Ventilago pubiflora</i>			C		1
plants	higher dicots	Rhamnaceae	<i>Alphitonia excelsa</i>	soap tree		C		1
plants	higher dicots	Rhamnaceae	<i>Pomaderris queenslandica</i>			C		1/1
plants	higher dicots	Rubiaceae	<i>Psydrax lamprophylla</i>			C		1
plants	higher dicots	Rubiaceae	<i>Everistia vacciniifolia var. nervosa</i>			C		1
plants	higher dicots	Rubiaceae	<i>Psydrax odorata forma buxifolia</i>			C		2/1
plants	higher dicots	Rubiaceae	<i>Gynochthodes canthoides</i>			C		1
plants	higher dicots	Rubiaceae	<i>Triflorensia cameronii</i>			C		1
plants	higher dicots	Rubiaceae	<i>Pavetta australiensis</i>			C		1
plants	higher dicots	Rutaceae	<i>Phebalium distans</i>			E	CE	1/1
plants	higher dicots	Rutaceae	<i>Flindersia collina</i>	broad-leaved leopard tree		C		1
plants	higher dicots	Rutaceae	<i>Coatesia paniculata</i>			C		1
plants	higher dicots	Rutaceae	<i>Dinosperma erythrococcum</i>			C		1
plants	higher dicots	Rutaceae	<i>Flindersia xanthoxyla</i>	yellow-wood		C		2/1
plants	higher dicots	Rutaceae	<i>Flindersia australis</i>	crow's ash		C		2/1
plants	higher dicots	Rutaceae	<i>Melicope micrococca</i>	white evodia		C		3/2
plants	higher dicots	Rutaceae	<i>Geijera salicifolia</i>	brush wilga		C		1
plants	higher dicots	Santalaceae	<i>Exocarpos latifolius</i>			C		2/1
plants	higher dicots	Sapindaceae	<i>Arytera foveolata</i>			C		1
plants	higher dicots	Sapindaceae	<i>Elattostachys xylocarpa</i>			C		1
plants	higher dicots	Sapindaceae	<i>Cupaniopsis parvifolia</i>	small-leaved tuckeroo		C		1
plants	higher dicots	Sapindaceae	<i>Alectryon subdentatus</i>			C		1
plants	higher dicots	Sapindaceae	<i>Alectryon tomentosus</i>			C		1
plants	higher dicots	Sapindaceae	<i>Atalaya salicifolia</i>			C		1
plants	higher dicots	Sapindaceae	<i>Arytera microphylla</i>			C		2/1
plants	higher dicots	Sapindaceae	<i>Alectryon connatus</i>			C		1
plants	higher dicots			grey birds-eye				

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	higher dicots	Sapindaceae	<i>Jagera pseudorhus</i>			C		1
plants	higher dicots	Sapotaceae	<i>Planchonella pohlmaniana</i>			C		1
plants	higher dicots	Sapotaceae	<i>Planchonella cotinifolia</i>			C		1
plants	higher dicots	Solanaceae	<i>Datura stramonium</i>	common thornapple	Y			1/1
plants	higher dicots	Solanaceae	<i>Solanum latens</i>			C		5/5
plants	higher dicots	Solanaceae	<i>Solanum tetraethecum</i>			C		2/2
plants	higher dicots	Solanaceae	<i>Solanum corifolium</i>	straggling nightshade		C		2/1
plants	higher dicots	Solanaceae	<i>Solanum stelligerum</i>	devil's needles		C		1
plants	higher dicots	Sterculiaceae	<i>Brachychiton populneus</i>			C		1
plants	higher dicots	Sterculiaceae	<i>Brachychiton acerifolius</i>	flame tree		C		1
plants	higher dicots	Thymelaeaceae	<i>Wikstroemia indica</i>	tie bush		C		1
plants	higher dicots	Thymelaeaceae	<i>Pimelea neoanglica</i>	poison pimelea		C		1/1
plants	higher dicots	Vitaceae	<i>Cayratia clematidea</i>	slender grape		C		1
plants	higher dicots	Vitaceae	<i>Cissus oblonga</i>			C		1
plants	lower dicots	Annonaceae	<i>Melodorum leichhardtii</i>			C		1
plants	lower dicots	Lauraceae	<i>Cinnamomum camphora</i>	camphor laurel	Y			1/1
plants	lower dicots	Lauraceae	<i>Cryptocarya cercophylla</i>			C		1
plants	monocots	Commelinaceae	<i>Commelina diffusa</i>	wandering jew		C		1
plants	monocots	Commelinaceae	<i>Aneilema biflorum</i>			C		1
plants	monocots	Cyperaceae	<i>Cyperus gracilis</i>			C		1
plants	monocots	Hemerocallidaceae	<i>Geitonoplesium cymosum</i>	scrambling lily		C		1
plants	monocots	Hyacinthaceae	<i>Ledebouria petiolata</i>		Y			1/1
plants	monocots	Juncaceae	<i>Juncus cognatus</i>		Y			1/1
plants	monocots	Laxmanniaceae	<i>Eustrephus latifolius</i>	wombat berry		C		1
plants	monocots	Orchidaceae	<i>Dockrillia teretifolia</i>	rat's tail orchid		C		1
plants	monocots	Orchidaceae	<i>Dockrillia bowmanii</i>	scrub pencil orchid		C		1
plants	monocots	Poaceae	<i>Austrostipa ramosissima</i>	bamboo grass		C		1
plants	monocots	Poaceae	<i>Ancistrachne uncinulata</i>	hooky grass		C		1
plants	monocots	Poaceae	<i>Panicum lachnophyllum</i>	don't panic		C		1
plants	monocots	Poaceae	<i>Sporobolus elongatus</i>			C		1/1
plants	monocots	Poaceae	<i>Panicum pygmaeum</i>	dwarf panic		C		1
plants	monocots	Poaceae	<i>Oplismenus aemulus</i>	creeping shade grass		C		1
plants	monocots	Typhaceae	<i>Typha domingensis</i>			C		1/1

#### CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992*. The codes are Extinct in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999*. The values of EPBC are Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Extinct in the Wild (XW) and Vulnerable (V).

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).

This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.

This number is output as 999 if it equals or exceeds this value.



# EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 15/06/16 15:43:34

[Summary](#)

[Details](#)

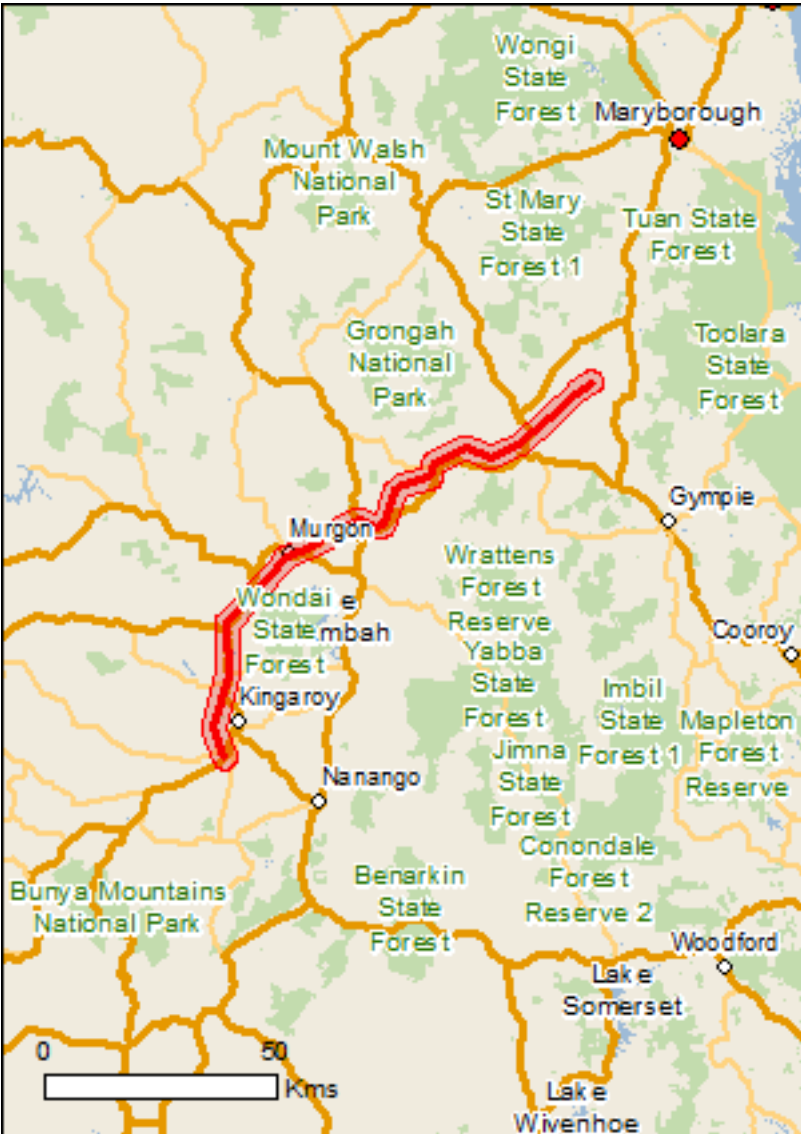
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

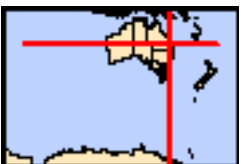
[Acknowledgements](#)



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

[Coordinates](#)

[Buffer: 2.5Km](#)





# Summary

## Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance:</a>	1
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	None
<a href="#">Listed Threatened Ecological Communities:</a>	4
<a href="#">Listed Threatened Species:</a>	45
<a href="#">Listed Migratory Species:</a>	14

## Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

<a href="#">Commonwealth Land:</a>	1
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	18
<a href="#">Whales and Other Cetaceans:</a>	None
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Commonwealth Reserves Marine:</a>	None

## Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

<a href="#">State and Territory Reserves:</a>	1
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	38
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

# Details

## Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)		[ Resource Information ]
Name	Proximity	
<a href="#">Great sandy strait (including great sandy strait, tin can bay and tin can</a>	30 - 40km upstream	

Listed Threatened Ecological Communities	[ Resource Information ]
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For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
<a href="#">Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions</a>	Endangered	Community may occur within area
<a href="#">Lowland Rainforest of Subtropical Australia</a>	Critically Endangered	Community likely to occur within area
<a href="#">Weeping Myall Woodlands</a>	Endangered	Community may occur within area
<a href="#">White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland</a>	Critically Endangered	Community likely to occur within area

Listed Threatened Species	[ Resource Information ]
---------------------------	--------------------------

Name	Status	Type of Presence
Birds		
<a href="#">Anthochaera phrygia</a> Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour may occur within area
<a href="#">Botaurus poiciloptilus</a> Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
<a href="#">Cyclopsitta diophthalma coxeni</a> Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area
<a href="#">Dasyornis brachypterus</a> Eastern Bristlebird [533]	Endangered	Species or species habitat may occur within area
<a href="#">Erythrotriorchis radiatus</a> Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Geophaps scripta scripta</a> Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat may occur within area
<a href="#">Grantiella picta</a> Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Poephila cincta cincta</a> Black-throated Finch (southern) [64447]	Endangered	Species or species

Name	Status	Type of Presence
		habitat may occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
<a href="#">Turnix melanogaster</a> Black-breasted Button-quail [923]	Vulnerable	Species or species habitat known to occur within area
Fish		
<a href="#">Maccullochella mariensis</a> Mary River Cod [83806]	Endangered	Species or species habitat known to occur within area
<a href="#">Neoceratodus forsteri</a> Australian Lungfish, Queensland Lungfish [67620]	Vulnerable	Species or species habitat known to occur within area
Insects		
<a href="#">Phyllodes imperialis smithersi</a> Pink Underwing Moth [86084]	Endangered	Species or species habitat may occur within area
Mammals		
<a href="#">Chalinolobus dwyeri</a> Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Dasyurus hallucatus</a> Northern Quoll [331]	Endangered	Species or species habitat likely to occur within area
<a href="#">Nyctophilus corbeni</a> Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat may occur within area
<a href="#">Petauroides volans</a> Greater Glider [254]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Petrogale penicillata</a> Brush-tailed Rock-wallaby [225]	Vulnerable	Species or species habitat may occur within area
<a href="#">Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)</a> Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pteropus poliocephalus</a> Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Other		
<a href="#">Cycas megacarpa</a> [55794]	Endangered	Species or species habitat known to occur within area
<a href="#">Cycas ophiolitica</a> [55797]	Endangered	Species or species habitat may occur within area
<a href="#">Macrozamia pauli-guilielmi</a> Pineapple Zamia [5712]	Endangered	Species or species habitat likely to occur within area
Plants		
<a href="#">Acacia grandifolia</a> [3566]	Vulnerable	Species or species habitat may occur within area

Name	Status	Type of Presence
<a href="#">Bosistoa transversa</a> Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Cossinia australiana</a> Cossinia [3066]	Endangered	Species or species habitat likely to occur within area
<a href="#">Cupaniopsis shirleyana</a> Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Denhamia parvifolia</a> Small-leaved Denhamia [18106]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Fontainea rostrata</a> [24039]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Fontainea venosa</a> [24040]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Haloragis exalata subsp. velutina</a> Tall Velvet Sea-berry [16839]	Vulnerable	Species or species habitat may occur within area
<a href="#">Lepidium peregrinum</a> Wandering Pepper-cress [14035]	Endangered	Species or species habitat may occur within area
<a href="#">Phaius australis</a> Lesser Swamp-orchid [5872]	Endangered	Species or species habitat may occur within area
<a href="#">Phebalium distans</a> Mt Berryman Phebalium [81869]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Plectranthus omissus</a> [55729]	Endangered	Species or species habitat likely to occur within area
<a href="#">Rhaponticum australe</a> Austral Cornflower, Native Thistle [22647]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Samadera bidwillii</a> [29708]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Sophora fraseri</a> [8836]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Thesium australe</a> Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
<a href="#">Delma torquata</a> Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area
<a href="#">Egernia rugosa</a> Yakka Skink [1420]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Elseya albagula</a> Southern Snapping Turtle, White-throated Snapping Turtle [81648]	Critically Endangered	Species or species habitat known to occur within area



Name	Status	Type of Presence
<a href="#">Elusor macrurus</a> Mary River Turtle, Mary River Tortoise [64389]	Endangered	Species or species habitat known to occur within area
<a href="#">Furina dunmalli</a> Dunmall's Snake [59254]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species		[ <a href="#">Resource Information</a> ]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat likely to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat known to occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
Migratory Wetlands Species		
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Breeding known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Species or species habitat likely to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land

[ Resource Information ]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name

Defence - WONDAI TRAINING DEPOT

Listed Marine Species

[ Resource Information ]

\* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		

<a href="#">Anseranas semipalmata</a> Magpie Goose [978]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Breeding known to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Cuculus saturatus</a> Oriental Cuckoo, Himalayan Cuckoo [710]		Species or species habitat may occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat likely to occur within area
<a href="#">Lathamus discolor</a> Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Species or species habitat known to occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Species or species habitat known to occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area
<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Pandion haliaetus</a> Osprey [952]	Endangered*	Species or species habitat likely to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]		Species or species habitat known to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]		Species or species habitat may occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[ Resource Information ]
Name	State
Oakview Wildlife	QLD

Invasive Species

[ Resource Information ]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Acridotheres tristis Common Myna, Indian Myna [387]		Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Lonchura punctulata Nutmeg Mannikin [399]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Streptopelia chinensis Spotted Turtle-Dove [780]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		

Name	Status	Type of Presence
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]		Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Acacia nilotica subsp. indica Prickly Acacia [6196]		Species or species habitat may occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]		Species or species habitat likely to occur within area
Asparagus aethiopicus Asparagus Fern, Ground Asparagus, Basket Fern, Sprengi's Fern, Bushy Asparagus, Emerald Asparagus [62425]		Species or species habitat likely to occur within area
Asparagus africanus Climbing Asparagus, Climbing Asparagus Fern [66907]		Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]		Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina		Species or species habitat likely to occur



Name	Status	Type of Presence
Fanwort, Common Cabomba [5171] Chrysanthemoides monilifera		within area
Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. rotundata Bitou Bush [16332]		Species or species habitat likely to occur within area
Cryptostegia grandiflora Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913]		Species or species habitat likely to occur within area
Dolichandra unguis-cati Cat's Claw Vine, Yellow Trumpet Vine, Cat's Claw Creeper, Funnel Creeper [85119]		Species or species habitat likely to occur within area
Lantana camara Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]		Species or species habitat likely to occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Parthenium hysterophorus Parthenium Weed, Bitter Weed, Carrot Grass, False Ragweed [19566]		Species or species habitat likely to occur within area
Protasparagus densiflorus Asparagus Fern, Plume Asparagus [5015]		Species or species habitat likely to occur within area
Protasparagus plumosus Climbing Asparagus-fern, Ferny Asparagus [11747]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salvinia molesta Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area
Reptiles		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area

# Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

# Coordinates

-26.5958 151.8139,-26.5449 151.793,-26.4493 151.8202,-26.3636 151.8173,-26.2694 151.9144,-26.248 151.933,-26.2365 151.9686,-26.1851 152.0714,-26.1966 152.1043,-26.1951 152.1186,-26.1352 152.1414,-26.1238 152.1585,-26.1123 152.2099,-26.0881 152.2156,-26.0595 152.2785,-26.0766 152.3241,-26.0567 152.3798,-26.0095 152.4384,-25.9667 152.4883,-25.9468 152.5194

# Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Parks and Wildlife Commission NT, Northern Territory Government](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Atherton and Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.





Approximation and Determination boundary data compiled by National Native Title Tribunal or sourced from the Department of Natural Resources and Mines (Grain Representation). Boundary Areas compiled by NATTS based on reference material sourced from FarmComp.

Topographic vector data is © Commonwealth of Australia (Geoscience Australia) 2015.

Maritime boundaries data is © Commonwealth of Australia (Geoscience Australia) 2006. A300-08-010 issued in February 2006.

As part of the transitional provisions of the amended Native Title Act in 1998, all applications were taken to have been filed in the Federal Court.

Any changes to these applications and the filing of new applications happened

[illegible]