

TOWN PLANNING REPORT

EXPANSION OF THE RURAL RESIDENTIAL ZONE

LONGREACH REGION PLANNING SCHEME MAJOR **AMENDMENT PROJECT**

LONGREACH REGIONAL COUNCIL

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EXECUTIVE SUMMARY

Longreach is the primary service and administrative centre in Central Western Queensland. Residents are attracted to the region for its safe, relaxed and outdoor lifestyle and strong sense of community.

As has been the case for many regional and rural communities across Queensland, the Longreach Region has experienced a period of gradual population decline over the past decade. The post-covid context presents an opportunity to review the region's policy setting with a view to stimulating growth and revitalisation of the Longreach Region.

A planning scheme is one policy mechanism a local government may use to facilitate and manage new development, so that it is consistent with the vision for, and positively contributes to, social and economic growth.

In late 2021, Longreach Regional Council committed to undertake a major amendment to its planning scheme to ensure the planning scheme remained contemporary and appropriately responded to changing community needs.

The supply of dedicated land for rural residential development in the Longreach Region has all but been exhausted. Further, established lots within the existing rural residential zone lack the capacity to yield additional development potential through subdivision. A need has been identified for the expansion of the rural residential zone, to include a new greenfield area which may be reconfigured to facilitate future rural residential development. Renewing the supply opportunities for this form of residential development will improve the diversity of housing available within the region and respond to the lifestyle aspirations of existing and potential new residents.

This options and analysis report has been prepared to inform the expansion of the rural residential zone through the major amendment of the planning scheme.

Four potential areas were identified for further consideration from the initial sieving exercise and workshops. Two options were subsequently ruled out, largely on the basis of risk of flooding to subject land and accesses. Further suitability investigations and ranking were carried out in respect of the remaining two options: Cleeve option and Rosebank option.

Cleeve option is recommended to be there preferred option for expansion of the Rural Residential Zone though a major amendment of the planning scheme. The lot attributes which worked in favour of this option included:

- that it was free of flooding associated risks
- the size and scale of the parent lot
- its sufficiency to yield in the vicinity of 30 lots (potentially staged and of varied sizes) to respond to demand for rural residential development in an orderly and contained manner
- proximity and accessibility to a high order road network connection (being the Landsborough Highway)
- proximity of less than 10km to the Longreach, the primary service centre for the region
- potential to both leverage its gateway location and contribute to an aesthetic renewal of the eastern approach to Longreach, as experienced by road and rail travellers; and

 potential for service connections and potential to achieve efficiencies in service connection and capacity where in conjunction with development potential for other nearby land (ie. Industry Investigation Zone).

Given that the rural residential development market in the Longreach Region has been largely untested for some time due to lack of supply and opportunity, it is prudent, to be somewhat conservative and measured in the expansion of the Rural Residential Zone. If strong demand was realised and residual demand warranted, the appropriateness of further expanding the Rural Residential Zone to include the Rosebank option, could be further considered in the course of a subsequent major amendment process.

To support the recommendation to expand the Rural Residential Zone to include the Cleeve option, amendments to the Rural Residential Zone Code outcomes as stated in the planning scheme have also been suggested.

1.0 INTRODUCTION

On 9 December 2021, Longreach Regional Council (Council) resolved to commence the process of making a major amendment to its planning scheme. The *Longreach Regional Planning Scheme 2015*, had at this point been in effect for almost six and a half years, having been adopted on 24 April 2015 and commencing in effect on 1 June 2015.

Prior to preparing the major amendment, Council was committed to engaging upfront with the local community about areas for improvement in local planning and development. Feedback received during this early engagement reiterated observations which had been noted by council officers, that there was an appetite in the community for increased rural residential development and rural living opportunities in the Longreach Region.

From 2 February to 4 March 2022, Council conducted a community survey which was promoted online and on social media. Question 9 of the survey asked respondents how they felt about various types of development occurring in the Longreach Region. In response to "New opportunities for rural residential development", 71.5% of respondents strongly supported the proposition, 21.5% could accept the proposition, 7% had concerns with the proposition and none of the 42 respondents indicated that they strongly opposed the proposition. Of the thirteen development propositions put forward in the community survey, this one ranked highest in both the raw 'strongly support' data and weighted average results.

In 2021, the Western Queensland Alliance of Councils (comprising 22 member local governments) commissioned the Regional Australia Institute to undertake a housing market study to understand and quantify issues with housing throughout Western Queensland, and ultimately identify solutions that best meet the region's needs. The resultant report, 'WQAC Housing Solutions Study – To Build and Grow the Potential of Western Queensland' (September 2021), included the following:

- "the quality of available housing is a significance and widespread problem...highlighted as a particular issue in the Mount Isa, Burke, Barcoo, Cloncurry, Longreach, Murweh, McKinlay, Ethridge, Carpentaria and Paroo LGAs. It is a significant handbrake on local economic growth and development for the mid-sized and smaller LGAs in particular a considerable barrier to staff attraction and retention" (p13)
- "Other common if not universal feedback was that local housing stocks did not have the right mix of housing, with a need for greater diversity in dwelling types." (p13)
- "Local feedback is that there is strong demand for (and little supply of) high-end housing, including rural-residential style housing. This is consistent with background economic dynamics of the type of labour being demanded in regional areas highly skilled professionals and skilled trades." (Appendix 3, Fieldwork notes Longreach Region, p35)
- "The Town Plan is a constraint on development particularly around developing rural residential land. There needs to be more flexibility around subdividing land. This type of development would be consistent with the local gauge that demand for high-end housing is especially strong and untapped." (Appendix 3, Fieldwork notes Longreach Region, p35).

In April and June 2022, Reel Planning facilitated two workshops in Longreach to explore in further detail with community members, the list of potential planning scheme amendments which had been collected and collated – including increasing rural residential development and rural living opportunities in the Longreach Region. It is noted that one written submission requesting a particular area of land be considered for its rural residential development potential was also received from a community member who was unable to attend the community workshops. This report provides planning analysis and support for a proposed expansion of the rural residential zone, to be facilitated by the major amendment to the planning scheme, arising from consultation with the local community and Council.

2.0 CONTEXT

The Longreach Region is a local government area of 40,572.2 km², of predominantly rural character and centrally located within Queensland. The region encompasses the outback townships of Ilfracombe, Isisford and Yaraka, as well as Longreach which serves as the administrative centre.

The Thomson and Barcoo Rivers flow through the region and serve not only as important environmental habitats, town water sources and recreational areas, but also contribute to risks to people and property, associated with flooding, to be considered and mitigated through planning and development.

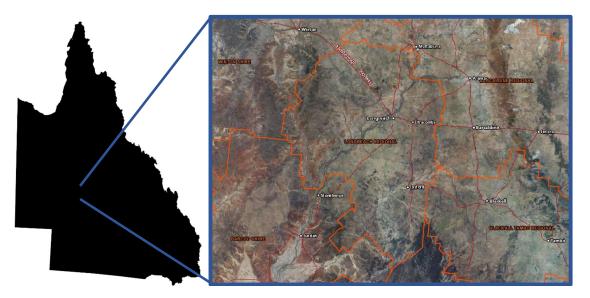


Figure 1: Locality – Longreach Region LGA (Source: Queensland Globe)

The estimated resident population of the region as at 30 June 2021 is 3,693 persons.¹ Approximately 80% of the region's population live in the township of Longreach. The median age of residents across the Longreach Region is 40.6 years and of the region's 1,364 households, 63.6% are comprised of one family households.² The most common occupied dwelling type is a stand-alone house (88.2% of occupied dwellings).³

The region has experienced a population decline of 1.5% over the previous decade.⁴ The most significant rate of recent decline was experienced in 2014-2015. The current medium series population projections forecast ongoing decline to a population of approximately 2685 by 2041.⁵ In the 12-months to 30 June 2021 however, there have been signs of growth – the first annual growth since 2010-2011.

The planning scheme is one policy instrument the Council can use, in conjunction with other strategies, to strive to simulate economic and population growth.

³ Ibid.

¹ Queensland Treasury (Queensland Government Statistician's Office), Queensland Regional Profiles: Resident Profiles: Longreach (R) LGA (ASGS 2021). Note: The 2021 Census data available via Australian Bureau of Statistics QucikStats tool, for LGA34710 (Longreach LGA), records 3647 as the population captured in the census. 'Resident population' is an adjusted measure and is yet to be updated to have regard to the 2021 Census data.

² Ibid.

⁴ Ibid.

⁵ Ibid.

3.0 CURRENT RURAL RESIDENTIAL ZONE

The planning scheme presently in effect is the *Longreach Regional Planning Scheme 2015*. It commenced in effect on 1 June 2015. This document was prepared under the now repealed *Sustainable Planning Act 2009* and based on the then Queensland Planning Provisions, version 4.0, dated January 2016. Following the commencement of the *Planning Act 2016*, an alignment amendment was made to the planning scheme commencing on 8 September 2017.

3.1 RURAL RESIDENTIAL ZONE

The planning scheme includes a Rural Residential Zone and includes provisions to regulate development within the zone. Such provisions include an acceptable outcome in the reconfiguring a lot code for a minimum lot size of 10ha and minimum frontage of 100m for new lots created in the Rural Residential Zone.

The zone is limited to an area of 290.508ha and comprising 39 existing lots in the locality of Cramsie, approximately 10km north-west of the township of Longreach. The Thomson River flows between Cramsie and Longreach.

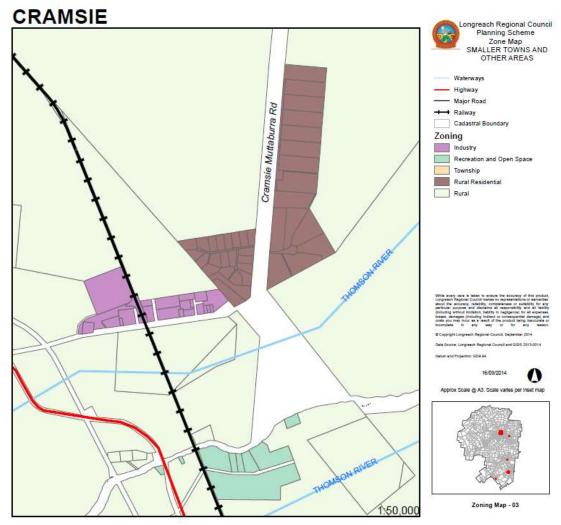


Figure 2: Extract of Cramsie inset and Legend section from Zoning Map - 03

(Source: Longreach Regional Planning Scheme 2015, Longreach Regional Council)

A Rural Residential Zone Code is included at section 6.2.10 of the planning scheme. This code articulates the purpose of the zone as being to:

- "provide for residential development on large lots where local government infrastructure and services may not be provided where the intensity of residential development is generally dispersed."
- "provide for the continuation of large semi-rural lifestyle lots in Cramsie, on which the primary use is detached housing. As the land in the zone has limited access to infrastructure and services, non-residential uses are generally limited to domestic-scale semi-rural and home based business activities. Development maintains and contributes to the character and amenity of the locality and impacts on nearby ecological values or natural resources are avoided."

As noted in the 'WQAC Housing Solutions Study – To Build and Grow the Potential of Western Queensland' (September 2021), the strategic intent of the planning scheme currently is restrictive and does not support new rural residential development. Within the higher order outcomes, the planning scheme states at 3.3.2.1 (15):

Rural residential subdivision is limited to the existing area at Cramsie. No additional rural residential development is intended in the life of the planning scheme other than that which may be provided as part of a mix of housing options within the town's designated greenfield residential areas.

The "greenfield residential areas" referred to are illustrated on Strategic Framework Map - 02 of the planning scheme. These areas are within the Low Density Residential Zone and encroach into the Tourism zone, on the eastern side of Longreach, in the vicinity of Teal Street to the north of the Landsborough Highway and the area between the Stockman's Hall of Fame and the Longreach Cemetery to the south of the highway.

3.2 DEVELOPMENT HISTORY

The 39 lots comprising the existing Rural Residential Zone, had been created prior to the preparation of the existing planning scheme. The zone covers three earlier rural lifestyle subdivision developments referred to as Acacias Estate (10 lots), Coolibah Estate (7 lots) and Sandlewoods Estate (21 lots), and a single additional lot (Lot 1 on RP839317). As a result of the way these estates were designed, to address development regulations in effect at the time they were applied for and approved, one lot from each of the three estates is dedicated for the road and water infrastructure servicing the balance of the lots within the respective estate. These three lots are not available to be developed for rural residential purposes.

Sandlewoods Estate is serviced by town water via the adjacent industrial zoned area, however Acacias Estate and Coolibah Estate rely on stand-alone water supply solutions.

In total there are 36 rural residential zoned lots in the Longreach Region able to be developed for rural residential purposes. At the time of writing this report, only one remains completely vacant (Lot 7 on GTP101601 – Sandlewoods Estate) and a further two have existing infrastructure (shed, tanks and dam and a dam respectively) but no dwellings (Lot 1 and Lot 5 on SP142649 – Acacias Estate). The latter, Lot 5 on SP142649, appears to be used in connection with a dwelling on an immediately adjoining lot.

Therefore, 33 dwelling houses are accommodated within the existing Rural Residential Zone.





Figure 3: Extract of Grey scale lot layer and QLD imagery layer – Acacias Estate (Source: Queensland Government (Department of State Development, Infrastructure, Local Government and Planning), Online DA Mapping System)





Figure 4: Extract of Grey scale lot layer and QLD imagery layer – Coolibah Estate (Source: Queensland Government (Department of State Development, Infrastructure, Local Government and Planning), Online DA Mapping System)





Figure 5: Extract of Grey scale lot layer and QLD imagery layer – Sandlewoods Estate and Lot 1 on RP839317

(Source: Queensland Government (Department of State Development, Infrastructure, Local Government and Planning), Online DA Mapping System)

For further information regarding lots within the Rural Residential Zone, refer to the table in **Appendix A**.

3.3 LACK OF EXISTING DEVELOPMENT POTENTIAL

As outlined in 3.2 above, new residential development potential remains for three rural residential zoned lots. Lot 7 on GTP101601 – Sandlewoods Estate seems the most likely at this time to realise that theoretical potential; it has recently been advertised for sale as "the last remaining lot within Sandlewoods Estate" at \$179,000, with the listing subsequently removed since September 2022. The others are presently used by persons residing in a dwelling house on a separate lot nearby.

The developable lots within Acacias Estate range from 9.938ha to 12.43ha, within Coolibah Estate range from 8.34ha to 10.06ha and within Sandlewoods Estate range from 1.999ha to 2.635ha. Based on acceptable outcome AO1.1 of the Reconfiguring a Lot Code (8.3.1) and Table 8.3.1.3(b)—Minimum lot size dimensions of the planning scheme, which indicate that new lots created within the Rural Residential Zone should be at least 10ha, there is no potential to yield additional lots in the existing Rural Residential Zone of the Longreach Region. Consequently, there is no obvious capacity for additional opportunities to develop dwelling houses in the existing Rural Residential Zone of the Longreach Region.

The process and rationale for 10ha being specified as the acceptable minimum lot size for the Rural Residential Zone when the existing planning scheme was drafted throughout 2014–2015 is unknown. It is not an atypical or unreasonable size for such lots. However, given that all of the lots within the identified zone had already been created and were less than 12.5ha, this acceptable minimum may also have been adopted knowing that it contributed to achieving the strategic intent of the planning scheme – that no additional rural residential development was intended in the life of the planning scheme.

3.4 COMPARATIVE CONTEXTS

The following is a summary of a comparative review of planning schemes for surrounding, as well as other regional and rural, local government areas of Queensland.

Barcaldine Region is the only neighbouring local government area which has a planning scheme to include a rural residential zone. Barcaldine Regional Council presently administers three legacy planning schemes adopted in 2006 – predating local government amalgamation reforms. Of these, the planning scheme for the former Barcaldine Shire includes a rural residential zone consisting of 25 previously created lots on the western fringe of the Barcaldine township. The lots seem to have been established on a similar basis to the estates at Cramsie and are accessed via Sandalwood Drive. Under this planning scheme, the acceptable minimum lot size for rural residential lots is 20ha. Two of these lots are for the provision of infrastructure and a review of current aerial imagery indicates that only three remain without established dwellings. The developable lots range from 1.49ha to 13.97ha, with half being between 4.5ha and 6ha. Barcaldine Regional Council is in the process of making a new planning scheme. It is anticipated that the extent of its rural residential zone will remain unchanged (apart from perhaps a reduction of one lot with highway frontage immediately adjoining the township), however the accepted minimum lot size is proposed to be reduced to 4ha. This change would offer theoretical potential for some of the existing larger lots which have already been developed for residential purposes to be further subdivided.

The other local government areas neighbouring Longreach Region do not adopt a rural residential zone in their planning – there is likely inadequate need coupled with sufficient existing vacant land stock due to the small, sparse and declining populations they house.

The *Isaac Region Planning Scheme 2021*, adopts a rural residential zone which incorporates significant areas of land surrounding Clermont, Nebo and Green Hill. Isaac Region has a rural character similar to the Longreach Region, but also hosts a substantial extractive resource sector. It provides for an acceptable minimum rural residential lot size of 2ha, but with an

average lot size of 4ha. The population of the Isaac Region is over 10 times that of the Longreach Region, so more intensive subdivision yield would be expected.

The more densely populated and developed local government areas of Central Highlands Region and Rockhampton Region to the east of the Longreach Region have adopted 0.4ha (4,000m²) minimum rural residential lot size, with Mackay Region adopting a 1ha minimum.

The Maranoa Region has some similarities, in terms of outback rural character, with the Longreach Region. The planning scheme for the Maranoa Region (which commenced in 2017 and was most recently amended in 2021), adopts a scaled approach to setting accepted minimum sizes for rural residential lots based on infrastructure provision as follows:

- AO 45.1 Lots in a reticulated water and sewerage area have a:
 - minimum area of 4,000m²
 - maximum area of 2ha
 - minimum frontage of 30m
 - maximum width to depth ratio of 1:4
 - sealed road access.
- AO 45.2 Lots in a reticulated water area, with no reticulated sewerage have a:
 - minimum area of 1ha
 - maximum area of 5ha
 - minimum frontage of 50m
 - maximum width to depth ratio of 1:4
 - sealed road access.
- AO 45.3 Lots not in a reticulated water area, with no reticulated sewerage have a:
 - minimum area of 14ha
 - minimum frontage of 200m
 - maximum width to depth ratio of 1:5
 - gravel road access.

This report primarily focuses on the identification and analysis of additional areas of land to include in the Rural Residential Zone for the Longreach Region. However, in the course of deliberating and making a major amendment to the planning scheme in relation to rural residential development and yield, it would be appropriate to review and consider the acceptable outcomes in the planning scheme for rural residential lot size, design and servicing.

4.0 DEMAND AND CONSULTATION OUTCOMES

The community consultation and recent housing market study demonstrates empirical evidence of demand and desire for rural residential development and rural living opportunities in the Longreach Region, as well as a need to consider using a range of mechanism available to Council, including planning policy expressed through the planning scheme, to stimulate potential economic and population growth.

Such measures however need to be exercised responsibly. In particular, in terms of land use planning, consideration should be given to:

- mitigating against unreasonable ongoing or future infrastructure and servicing costs for Council and the community
- avoiding any increase in risk to the wellbeing of people, property and the environment
- mitigating against out-of-sequence development and potential legacy issues associated with fragmented or abandoned land.

To aid in facilitating a community workshop session relating to the Rural Residential Zone and potential for expansion of the zone through the major amendment to the planning scheme, Reel Planning produced the following maps.

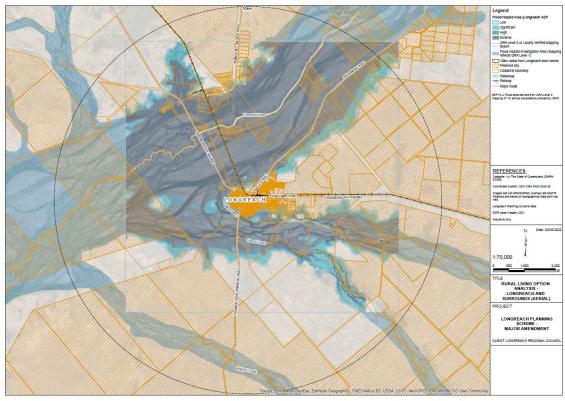


Figure 6: Longreach Rural Living Options Analysis: sieve map showing freehold lots, flood impacts and 10km radius

(Source: Reel Planning / Map & Data Co, 2022)



Figure 7: Longreach Rural Living Options Analysis: sieve map showing freehold lots, existing zoning, flood impacts and 10km radius

(Source: Reel Planning / Map & Data Co, 2022)

These maps served to sieve for areas of land potentially suited to inclusion in the Rural Residential Zone, to be used for future rural residential development. Freehold land was considered to have less market and administrative barriers to acquisition and development. Land within a 10km radius of Longreach facilitates connectivity to community services, public infrastructure and employment opportunities - factors relevant to wellbeing and livability of future residents. This is also commensurate with the established and tested separation between Longreach and Cramsie. When considering the intensification of development in rural areas, biosecurity and pest management are also relevant factors - these risks can be more readily monitored, managed and addressed if proximate to an administrative centre. Flood prone land was to be avoided, because aside from the obvious risks to people and property from flooding and added cost associated with developing flood prone land, avoiding and mitigating natural hazard risks is the subject of State planning policy which local governments in Queensland are required to demonstrate they have appropriately integrated into local planning schemes. Before a planning scheme or major amendment can be made by a local government, the proposed draft must undergo a State interest review and formal public consultation, and be approved for adoption by the Planning Minister.

Road network connectivity and safety, water supply and wastewater/effluent management are also important considerations when proposing to increase occupation density and development activity on land.

5.0 OPTIONS

Arising from the sieving exercise and informed by community consultation and Council, four areas were raised for consideration in expanding the Rural Residential Zone.

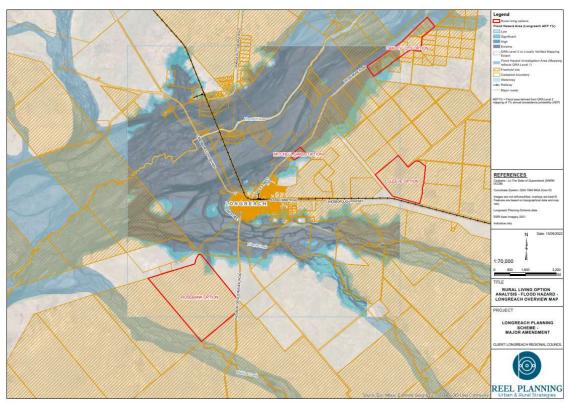


Figure 8: Options arising from consultation (Source: Reel Planning / Map & Data Co, 2022)

In order from north to south, these options are described as:

Oakley lots option: It was observed that there was an existing pattern of approximately 40 freehold lots of land, each roughly 16ha or 32ha, located on the eastern side of Crossmore Road (also referred to in some mapping as Crossmoor Road and Longreach-Muttaburra Road). These lots are between 9.5 and 15.5km north-east of Longreach, so on the outer limits of the sieved area. The lots are presently accessible via an unsealed local road. Some lots are land-locked and would require easements or reconfiguration to facilitate direct road access. On-site solutions for water supply and wastewater management would need to be addressed. Existing electricity infrastructure capacity at this location has not been determined. These lots are privately owned and presently used as part of a generational productive agricultural operation known as 'Oakley'. All of these lots with road frontage, and some of the land-locked lots which are setback however, are identified as being within the mapped flood hazard area, including the 'extreme' and 'high' flood hazard areas. Crossmore Road, which connects these lots to the township of Longreach, is also subject to inundation and impacts during flood events. Parts of some lots along the road frontage are also mapped as bushfire prone land (affected by the 'potential impact buffer' layer). Further, these lots have existed with residential land use rights⁶ for some years and in that time, despite periods of unmet demand, have not been sold or developed for rural residential or rural living purposes. It is anticipated that regulatory and market barriers would continue to work against such development of this land.

⁶ While land use rights under successive planning schemes may have theoretically permitted the use of the land for residential purposes, building regulations combined with flood risk, bushfire prone status and infrastructure/servicing deficits, may have represented a barrier to practically, efficiently and economically realising development even had such aspirations existed.

Mitchell Grass option: This is privately owned freehold land located adjacent to Crossmore Road and approximately 3km from the administrative centre of Longreach. Crossmore Road is a local road which is unsealed at the site, however partially sealed closer to Longreach. While a portion of Lot 162 on CP851193 has been developed and used for low-impact high-quality experiential tourist accommodation (Mitchell Grass Retreat), approximately 16ha surrounding remains undeveloped and has been proposed as potentially available for subdivision and rural residential development. In order to generate sufficient or viable lot yield from this site however, the scale of rural residential development would need to be akin to Sandlewoods Estate at Cramsie (1-2 ha sized lots). This intensity and scale of development would be similar to that found in the vicinity of Stork Road within Longreach. As a result of the development which has already occurred on this land, infrastructure has been installed connecting it to the Longreach town water supply and existing electricity infrastructure reportedly has additional supply capacity at this location. A review of the Ergon Energy Network Capacity Map indicates at this location. there is a 22kVA feeder (Wompoo Road, asset number LR203, Urban asset) which has >1.000 MVA capacity remaining - this is not inconsistent with capacity of electricity assets generally across Central Western Queensland. For the purposes of this report the actual extent of additional capacity at this site has not been verified by Ergon Energy. This site is subject to flooding and is wholly identified within the mapped flood hazard area. Approximately half of Lot 162 on CP851193 and along the full road frontage is subject to 'extreme' flood hazard. The balance consists of 'high' and 'significant' flood hazard areas. Crossmore Road, which connects this lot to the township of Longreach, is also subject to inundation and impacts during flood events.

- Cleeve (Lot 155) option: This option involves Lot 155 on SP259530, part of the broader acquisition by Council in 2013 of former Longreach Pastoral College land. This land has historically been used for rural and agricultural purposes, predominantly grazing. Lot 155 is freehold land adjacent to the Central Western System railway line and the Landsborough Highway. The Landsborough Highway is a state-controlled road. This lot is 400ha in area. Two kilometres to the east of this lot is the Longreach Solar Farm, a 17.4 MW solar photovoltaic installation comprised of 51,330 panels and operating since May 2018. Adjacent to and east of the solar farm is the historic Camden Park Station homestead, which is used in connection with a tourism enterprise, also offering self-contained camping. To the west of Lot 155 is another lot of Council-owned land described as Lot 153 on SP259530 and referred to as 'Cleeve paddock' (named after the nearby stock route watering facility and former station name). Lot 155 and 'Cleeve paddock' are separated by an unconstructed road reserve. Lot 155 has a gateway location on the primary eastern approach to, and approximately 7.5km from, the administration centre of Longreach. Neither this lot, nor its road connectivity to Longreach, are mapped as being affected by flood or bushfire risks. A part of Lot 155 is subject to a registered lease until 30 September 2029. A copy of the Current Title Search for this lot is provided at **Appendix D**.
- Rosebank option: This option involves the middle portion of Lot 11 on SP322812. Lot 11 on SP322812 is comprised of three portions of land separated by road reserves. The portion considered potentially suited to rural residential development is situated between Longreach—Tocal Road (also referred to in some mapping as Stonehenge River Road) and the state-controlled Thomson Developmental Road. Longreach—Tocal Road comprises the stock route network. This subject portion is approximately 5km from the administrative centre of Longreach via either road and is just under 3km in width. Directly across Longreach—Tocal Road from the subject portion of Lot 11 is the Longreach landfill site and the sewerage ponds for the Longreach town sewerage network. While those nearby land-uses may on the face of it seem inconsistent with residential use of land, this portion of Lot 11 is approximately 1044ha, so would allow more than adequately scope for design solutions (ie. buffering), while having proximate access to these public infrastructure facilities. Lot 11 is one of 29 lots owned by the Queensland Government Department of Agriculture and Fisheries (DAF), which have been identified as surplus to requirements. It was previously used in connection with the former Longreach Pastoral College. Lot 11 has

historically been used for rural and agricultural purposes, predominantly grazing and as a research site. DAF has undertaken the required processes to convert this land to freehold. Upon disposal of this land by DAF, it will likely become privately owned. The subject portion of Lot 11 is not affected by mapped bushfire prone area, however a comparatively small area is mapped as flood hazard area. The flood hazard area is mostly identified as 'significant' flood hazard area, with some adjoining 'low' and 'high' flood hazard areas. A review of aerial imagery reveals that this mapped area coincides with built dam infrastructure in the north-eastern corner of the subject portion of Lot 11. It does not represent a practical constraint to rural residential development of the land, having regard to the size of the subject portion. It represents a potential water supply source. Both Thomson Developmental Road and Longreach—Tocal Road are sealed and potentially subject to inundation between the subject portion of Lot 11 and Longreach in a major flood event. Being a state-controlled road and a local road connection to public infrastructure respectively, both would be engineered to withstand smaller flood events.

Based on State Planning Policy Online Interactive Mapping System published and maintained by the Queensland Government Department of State Development, Infrastructure, Local Government and Planning to support the State Planning Policy (July 2017), there is no mapped important agricultural areas (IAAs) or Agricultural Land Classification (ALC) Class A and Class B land within the local government area of the Longreach Region. So, from a State interest perspective, none of the above options are restricted from being fragmented/subdivided on this basis. At the local level, the planning scheme does include overlay mapping and offer protection to identified agricultural land, which is based on ALC FWA2 and BWA2 (Class C1). Comparatively, this has an insignificant difference across the four options.

All four options are affected to a substantially similar extent by the mapped airport overlays (obstacle limitation surface area/contours and wildlife buffer area) associated with the safe operation of the Longreach Airport and its associated aviation facilities.

As outlined above, the potential flood hazard risks associated with the Mitchell Grass option, together with the flood risk assessment principles (which includes now factoring in potential climate change impacts) for implementing and integrating the State interest policy with respect to natural hazards, as stated in the State Planning Policy⁷, makes this option less suitable on balance and on planning grounds, than others raised. The gross area of land associated with this option also limits the extent to which it could be developed and contribute to a diversification of residential lifestyle options in the region.

Similarly, the Oakley lots option is affected by flooding which on balance and on planning grounds, makes it a less suitable option. As outlined above, it is anticipated that regulatory and market barriers would continue to work against such development of this land. Where the opportunity for more conveniently located and serviced lots is created by way of a major amendment to the planning scheme, it is anticipated that any residual risk that these existing lots would impact rural residential land supply dynamics would further reduce.

⁷ Refer to *State Planning Policy* (July 2017) and Queensland Government (Department of State Development, Infrastructure, Local Government and Planning), 'Integrating state interests in a planning scheme: Guidance for local governments', May 2021 (VS 1.0), in particular Part 13.

State Planning Policy - Safety and resilience to hazards - State interest policy for natural hazards, risk and resilience:

The risks associated with natural hazards, including the projected impacts of climate change, are avoided or mitigated to protect people and property and enhance to enhance the community's resilience to natural hazards.



Figure 9: Oakley lots option, showing flood hazard impacts (Source: Reel Planning / Map & Data Co, 2022)



Figure 10: Mitchell Grass option, showing flood hazard impacts (Source: Reel Planning / Map & Data Co, 2022)

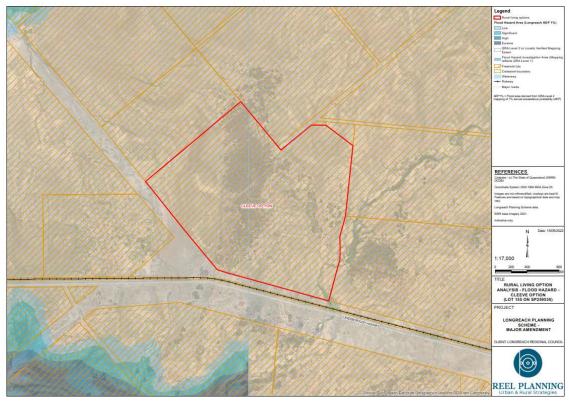


Figure 11: Cleeve option, showing flood hazard impacts (Source: Reel Planning / Map & Data Co, 2022)

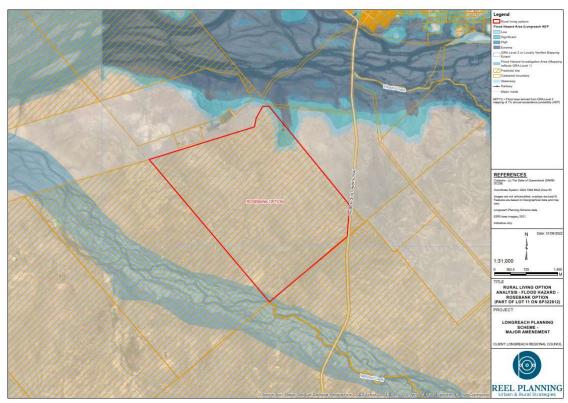


Figure 12: Rosebank option, showing flood hazard impacts (Source: Reel Planning / Map & Data Co, 2022)

On balance and on planning grounds, the Cleeve option and the Rosebank option are considered the most suitable and warrant further detailed investigation and analysis. This is addressed in the following section.

6.0 OPTIONS ANALYSIS

6.1 CLEEVE OPTION

Size and yield

Lot 155 on SP259530 is 400ha in area. It is suggested that appropriate yield from this site would be in the order of 30 lots of approximately 10ha. Together with land needed for infrastructure and services (estimated at 7-10% of the developed area, so 20-30ha), this would leave a balance of 70-80ha which would allow a contingency for subdivision design, having regard to geographic and other constraints and scope to provide a diversity of rural residential lot sizes within the developable area. It may be that smaller more intensive rural residential lots can be created along the frontage with larger rural residential holdings interfacing with the rural grazing lands on other boundaries. This development would be visible to road users approaching Longreach on the Landsborough Highway from the east, so higher visual amenity and aesthetic along the road frontage would be desirable. This contingency also allows for buffering in the event industrial uses are to establish on nearby land.

Water and sewerage

A mains town water supply is not yet available this far east of Longreach. Both the water supply service catchment boundary and the nearest sewerage pump station are situated 4km due west of the subject lot, adjacent to the Landsborough Highway at the common boundary of Lot 186 on PD225 and Lot 150 on SP259530. The viability of supplying this site with water and sewerage services via trunk infrastructure would likely be dependent on whether any other development occurs nearby. For instance, Lot 153 on SP259530, situated immediately to the west of the subject lot (together with Lot 151 on SP259530) constitutes the Industry Investigation Zone in the Longreach Region.

According to the planning scheme:

- The strategic intent for the Industry Investigation Zone includes:
 - 3.3.1 (10): The designated industry investigation area near the town of Longreach is protected for its likely long term development as a regionally significant industrial estate
 - 3.3.2 (17): Land in the industry investigation zone, (known as the old Agricultural College land) is protected for future development as a regionally significant industrial estate, accommodating transport and logistics activities, mining related industries and other medium and heavy industries. Interim uses which may prejudice its long-term capacity for industrial development are not established.
 - 3.3.2 (18): Industrial development within the industry investigation zone does not occur prior to the preparation of a master plan and commitment by Council to servicing the area with water, sewer, stormwater / drainage, telecommunications and electricity infrastructure.
- The Industry Investigation Zone Code purpose includes:

The purpose of the industry investigation zone code is to identify and protect land that may be suitable for industrial activities where further detailed planning investigations and studies are required to determine the suitability of the investigation zone for use as an industry zone.

There are also overall, performance and acceptable outcomes in the Industry Investigation Zone Code and outcomes in other parts of the planning scheme which reflect and reiterate this strategic intent. No change to the strategic intent for this land has been raised during the early consultation undertaken for this planning scheme major amendment project.

Depending on the timing of potential rural residential development of Lot 155 on SP259530, various trunk infrastructure may be available. The existing trunk infrastructure on the eastern side of Longreach is presently on the opposite side of the highway and railway line from both Lot 153 ('Cleeve paddock') and Lot 155 (Cleeve option) on SP259530. This would be a relevant factor in the design, cost and construction timing of any extension of the existing networks. Alternatively, self-sufficient on-site or estate-specific water and sewerage solutions may need to be adopted to facilitate development. This is not necessarily a constraint to development, because part of the market gap in terms of residential lifestyle diversity is for properties which offer a rural context or off-grid experience. It is also not an unusual approach in rural residential developments separated from an existing urban or township area. Such services would be a matter for the developer to address in applying to subdivide the land.

Electricity

A review of the Ergon Energy Network Capacity Map does not indicate an existing electricity connection at Lot 155 on SP259530. However, a 22kVA feeder (Ilfracombe, asset number LR209, Rural asset) crosses the highway and railway line to connect to the nearby Longreach Solar Farm and then runs diagonally north-east on to Camden Park Homestead. The network capacity map indicated this asset has >1.000 MVA capacity remaining – this is not inconsistent with capacity of electricity assets generally across Central Western Queensland. The point where this asset crosses the highway and railway line is 2.35km from the south-eastern corner of Lot 155 on SP259530.

Accessibility

Lot 155 on SP259530 is accessible from the Landsborough Highway via an existing but unconstructed road reserve which crosses the Central Western System railway line at the frontage of the lot. This site has a 'gateway' location to Longreach on the highest order road approach, being the Landsborough Highway from Barcaldine and Ilfracombe. Together with the Longreach Solar Farm it would serve as a visual marker to highway and railway travellers that they were approaching Longreach. For this reason, the character and visual attributes of development on this site would serve to influence the initial impressions of visitors arriving by road or rail.

One of the significant considerations with the proposed intensification of development on this land is safe and suitable standard access across the Central West System railway line, which separates the land from the highway. A positive attribute of a site at this location is that a level crossing of the railway line and road reserve already exist. In the course of preparing this report, Reel Planning consulted the Department of Transport and Main Roads (Rail) regarding this option.

The Department of Transport and Main Roads feedback stated:

DTMR have no objection to the proposed zoning change (to Lot 153 or Lot 155 on SP259530), in principle, provided that the creation of new level crossings is avoided.

 The council are recommended to contact Queensland Rail to discuss upgrade requirements for the level crossing to the south of Lot 155, which provides access to both lots. The QR contact is QRPropertyWayleaves@gr.com.au.

Road connection and rail crossing upgrades are usually addressed in the course of the land being developed and assessment benchmarks in the planning scheme and the *Planning*

Regulation 2017⁸, however in plan-making it is relevant to consider the economic practicalities of zoning intent being readily realised.

There is another existing level rail crossing further east of the site which serves to provide access to the Longreach Solar Farm and Camden Park Station which has been subject to more recent maintenance, however requiring road access to Lot 155 on SP259530 from this crossing would significantly reduce the convenience of connectivity between the site and Longreach. Using this crossing would add approximately 8km to the journey – this would not be a good planning outcome with respect to the objective of rural residential development.

Further guidance was sought from the QR contact using the QRPropertyWayleaves@qr.com.au address provided above, however the feedback received did not contribute further to clarifying the nature or extent of upgrade works. It is recommended that the QR contact continue to be engaged as more refined details of the development proposal emerge. A copy of the further guidance received has forwarded separately to council.

The standard and flood-free characteristics of the road network access of this site are among its stand-out attributes in terms of appropriateness for rural residential development.

Environment

The most notable environmental features relevant to this option are two low order water ways and native vegetation. The vegetated band transecting this lot has the potential to contribute to its aesthetic appeal and residential amenity and would ideally be preserved in the course of development.

The native vegetation is mapped as Category B on the regulated vegetation management map and identified as "least concern regional ecosystem". The presence of the waterways means that native vegetation along them constitutes regulated vegetation intersecting a waterway and as such are a Matter of State Environmental Significance. The proposed clearing of any regulated vegetation on the site could be addressed and managed as part of a subsequent development application process. It does not represent a constraint to the rezoning or general capacity of Lot 155 on SP259530 to be used for rural residential development.

The waterway which traverses the south-eastern corner of the lot for about 600m impacting around 7ha is identified as a level 1 – Low order stream for assessing waterway barrier works for impacts on fish passage. Development in this area could be avoided through lot layout design and as noted above, there is sufficient contingency to achieve anticipated rural residential lot yield despite this natural feature.

Potential vision

Increased residential lifestyle diversity within the region and conveniently located to Longreach are the unfulfilled community aspirations which have been identified through consultation for this project. Given that this option offers a 'greenfield', 'gateway' development setting nearby an existing tourist attraction (Camden Park Station), it is suggested that an overall outcome for rural residential development of this site be that it delivers a relatively high standard of aesthetic and amenity. It would not be desirable for a rural residential area in this location to incorporate visitor accommodation as that would detract from other areas planned to serve that purpose. However subject to being consistent and compatible with residential use and amenity of the area, home-based businesses might be able to establish here which contribute to the area becoming a destination for drop-in or weekend visits, perhaps leveraging the highway location and proximity to the nearby tourist attraction.

⁸ Particularly those relating to state transport infrastructure which would be assessed by the State Assessment and Referral agency in the course of the development application and assessment process

Suggested overall outcomes for the rural residential development of this option:

 the establishment of rural residential development within the rural residential zone between the Industry Investigation Zone and Longreach Solar Farm/Camden Park is of a scale, intensity and configuration that can make safe use of the existing or any planned road crossing of the railway line

- rural residential development within the rural residential zone on the eastern approach to Longreach is designed to promote a strong sense of community in the locality, contribute to a high cottage-style aesthetic and amenity having regard to its 'gateway' situation near the highway entrance to Longreach and complement the existing tourist operations nearby the rural residential zone in that locality
- home-based businesses involving cottage arts and crafts would be consistent with the rural residential zone in this location.

Impact of zone change

This land has and continues to be used for rural purposes including grazing. Any lawful existing use of the land is lawfully able to continue, despite a change in zone from Rural to Rural Residential.

In terms of starting a new use on the land or intensifying a use, there are some differences between what can be undertaken as accepted development (without needing to make a development application and obtaining a development approval before commencing the use) between the Rural and Rural Residential zone. These differences can be determined by comparing the respective zone tables in Part 5.4 of the planning scheme.

The greatest impacts in terms of accepted development rights with respect to the proposed change of zone, would be that new proposals for cropping, intensive animal industry (ie. feedlot), rural industry (ie. packing shed) or rural workers' accommodation would no longer be able to be undertaken without first obtaining a development approval. Subject to other potential changes proposed as part of the major amendment to the planning scheme, there would be less support offered by the planning scheme for short-term accommodation, tourist park uses and low-impact industry involving chiller boxes on this land. However, the change of zone would mean that subdivision and developing the land for rural residential purposes would be facilitated, where it is presently restricted.

In terms of impacts on matters of State interests, this land is within mapped Category B regulated vegetation. While the Rural Residential Zone facilitates a form of residential development, it is not considered an "urban area". Therefore, the proposed change in zoning would not cause the 'urban purpose, urban area' exemptions to apply in terms of regulating the clearing of native vegetation. There would be no impact on the regulation of clearing native vegetation arising from the proposed zone change.

6.2 ROSEBANK OPTION

Size and yield

Lot 11 on SP322812 has a total area of 2187ha, across three portions separated by road reserves:

West portion: The western-most portion is approximately 1134ha and bounded on the
north-west by the Thomson River. It is effectively separated from the remainder of the lot
by newer lots containing various council infrastructure (landfill and sewerage ponds) which
appear to have been extracted from what was historically part of the stock route reserve

transecting the lot and Longreach–Tocal Road which has been formed within what remains of the road and stock route reserve. It has a battle-axe shape providing a frontage/access of approximately 157m width to the road and stock route reserve (Longreach–Tocal Road). This portion is not affected by the proposed zone change addressed in this report.

- Middle portion: This is the portion which is the subject of consideration, for a change of zone from Rural to Rural Residential, in this report. It is approximately 1044ha with substantial frontage to both Longreach—Tocal Road on its north-western side and Thomson Developmental Road on its south-eastern side.
- East portion: The eastern-most portion is only 9.42ha, triangular in shape and separated from the remainder of the lot by Thomson Developmental Road. This portion is presently zoned Rural. No change is specifically proposed for this portion. By being retained in the rural zone, the land use rights of this portion would remain unchanged and consistent with the lots is shares a common boundary with. In facilitating a future reconfiguration of Lot 11 on SP322812, this portion would not be able to meet the accepted minimum lot size presently for either the rural (5,000ha) or rural residential (10ha) zones. So, there is no added benefit from this perspective including it in the rural residential zone. Its unique context and circumstance could be considered as part of any application for reconfiguration of a lot and an alternative minimum lot size or configuration would potentially be justifiable. In any future subdivision, it could remain part of a partitioned lot with land on the opposite side of Thomson Developmental Road.

A suggested total yield from the middle portion of 1044ha, would be less than 50 lots having an average size between 10 and 20ha. This larger lot size could provide for a different range of home-based activities compared with other rural residential lot offerings (existing and proposed) in the region. It is unlikely that sufficient population growth would be realised in the foreseeable future however to require that level of supply. It is anticipated that the market would influence a proponent's development proposal/s and likely result in a staged subdivision of the land and release to the market. Presently, with the planning scheme adopting an acceptable minimum lot size of 10ha, the potential yield would theoretically be significantly greater. Split-zoning of this portion or the inclusion of specific statement/outcomes in the planning scheme could be used to manage development and development fronts on this land, if council was not confident that the market would adequately or appropriately self-regulate such matters. Increasing regulation of development on the site may require more detailed site planning upfront in plan-making and reduce flexibility in terms of overall site and development design.

In terms of the viability of the balance of any residual allotment arising from rural residential subdivision of part for this middle portion of Lot 11 on SP322812, it is noted that:

- the lot is already subject to practical fragmentation
- the land is not identified as being of particular quality in terms of highly productive agricultural potential (ie. Agricultural Land Classification (ALC) Class A and Class B) or designated at a State-level as an 'Important Agricultural Area'
- the land has historically been used for research and grazing purposes and in conjunction with other surrounding land holdings
- any residual area could continue to be used consistent with how it is presently used, subject to development arrangements ensuring that it retains or is provided with a new stock watering source commensurate with stocking capacity
- there is no identified shortage of rural land in the Longreach Region or Central Western
 Queensland having the rural production characteristic of this land, however there is an
 identified shortage of rural residential zoned land in the Longreach Region as
 demonstrated by this report. This report addresses the basis on which this land has been

assessed as being one of two areas of land best suited in the Longreach Region for new future rural residential development.

Water and sewerage

There is presently no mains town water supply or sewerage service connection to this site. The north-western boundary is less than 500m from council's sewerage ponds, so there is potential for connect to the sewerage network. Water is presently stored on the site within a dam located on the north-eastern boundary.

The nearest town water supply infrastructure is located at the southern end of Galah Street where Longreach–Tocal Road and Thomson Developmental Road converse to form Eagle Street within the township area of Longreach. This is approximately 3km from the northern boundary of the site via Longreach–Tocal Road or 4km from the south-eastern corner of the site via Thomson Developmental Road. There are creek channels between the Longreach township and the site.

Alternatively, self-sufficient on-site or estate-specific water and sewerage solutions may need to be adopted to facilitate development. This is not necessarily a constraint to development, because part of the market gap in terms of residential lifestyle diversity is for properties which offer a rural context or off-grid experience. It is also not an unusual approach in rural residential developments separated from an existing urban or township area. Such services would be a matter for the developer to address in applying to subdivide the land.

If the intention is for this site to accommodate rural residential lots of greater proportions than others offered elsewhere in the region, it may in fact be better suited to self-sufficient on-site solutions.

Electricity

There is an existing electricity connection to the middle portion of Lot 11 on SP322812 at the dam adjacent to the north-eastern boundary. This supply is from a 22kVA feeder (Morella, asset number LR204, Rural asset) which transects the subject portion of Lot 11 on SP322812 northeast to south-west. Electricity infrastructure also runs along Longreach–Tocal Road at the northern point and north-western side of the subject portion. This 22kVA feeder (Ilfracombe, asset number LR209, Rural asset) supplies electricity to Council's sewerage ponds located on the opposite side of Longreach–Tocal Road from the middle portion of Lot 11 on SP322812.

Accessibility

This site has a high degree of potential for access and connectivity with the road network. It is adjacent a well-formed and maintained part of Longreach–Tocal Road; a local road. It is also adjacent the high order state-controlled Thomson Developmental Road. From the northern boundary of the site there is also a connection road between these two roads.

The site is separated from Longreach by creek channels which could cause road accesses between the two to be restricted for periods during significant flooding events, The hierarchical order of these roads mean that they will have been engineered to withstand smaller flood events. At Longreach, there is usually for-warning time before these roads would be affected by significant flooding to enable evacuation or provisioning to occur in advance of any road closure.

The road reserve within which Longreach-Tocal Road is situated is relatively wide, particularly where adjacent to this site. This road reserve also constitutes a part of the stock route network which runs adjacent to the Thomson River between Stonehenge and Longreach.

The State Planning Policy (July 2017) includes the following State interest policy:

ensuring development on, or adjacent to, the stock route network does not compromise the network's primary use for moving stock on foot, and other uses and values including grazing, environmental, recreational, cultural heritage, and tourism values.

Local governments in Queensland are required to demonstrate they have appropriately integrated State interest policies when making or amending local planning schemes. Before a planning scheme or major amendment can be made by a local government, the proposed draft must undergo a State interest review and formal public consultation, and be approved for adoption by the Planning Minister.

DAF is the current freehold landowner of Lot 11 on SP322812 and is an advice agency contributing to the State interest review process. In the course of preparing this report, Reel Planning consulted with the Department of Agriculture and Fisheries (DAF) about this option.

The DAF feedback:

- acknowledged the subject land "does not contain any ALC Class A/B land and is not within a mapped Important Agricultural Area"
- asked that consideration be given to "how any rezoning proposal would ensure the stock route network remains operational and is in no way impacted by development associated with a rural residential zone".

The planning scheme is already required to, and already does, include provisions requiring future development consider and address how it does not impact on the stock route network. This is presently done via a performance outcome in the Rural Zone Code (Part 6.2.9 of the planning scheme). Where the proposed change of zoning in the planning scheme causes a new zone to be adjacent the stock route network then it is appropriate that similar provisions be included in the zone code of the relevant zone.

If this portion of land were to be incorporated into the Rural Residential Zone, it should be accompanied by amendment to the Rural Residential Zone Code (Part 6.2.10 of the planning scheme) to include an overall outcome and a performance outcome addressing protection of the stock route network. These provisions would then be assessment benchmarks against which any future development application to subdivide this land would be assessed and decided.

Having dual road frontages and potential access to the connection road between Longreach-Tocal Road and Thomson Developmental Road gives a developer more lot layout options for responding to this relevant consideration. Given the proximity of the site to both the Longreach refuse tip and the sewerage ponds, there are also other reasons why it would be prudent in terms of lot layout design to buffer residential uses from the existing, periodic and future activities anticipated to occur to the north-west of the site. Ideally, the number of road network connections from rural residential development of the land would be limited and lots would be inward facing to an internal road network.

Environment

Similar to the Cleeve option above, the native vegetation across the middle portion of Lot 11 on SP322812 is mapped as Category B on the regulated vegetation management map and identified as "least concern regional ecosystem". The proposed clearing of any regulated vegetation on the site could be addressed and managed as part of a subsequent development application process. It does not represent a constraint to the rezoning or general capacity of the land to be used for rural residential development.

The most significant environmental feature relevant to this option is the mapped area of MSES – Wildlife habitat (endangered or vulnerable) and the area of MSES – Regulated vegetation (essential habitat) which corresponds with it. Further details are available and has been reviewed

in the course of preparing this report by conducting a search by lot number at https://www.qld.gov.au/environment/management/environmental/environmental-reports-online and generating the available Matters of State Environmental Significance (MSES) Reports.

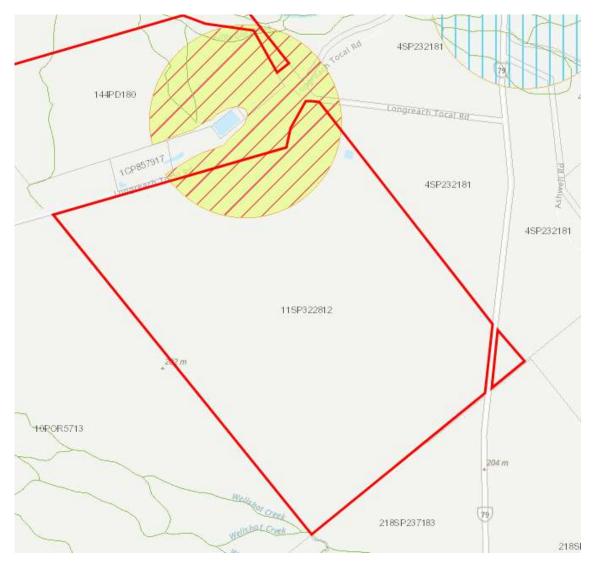


Figure 13: Extract of MSES mapping on Lot 11 on SP322812: MSES - Wildlife habitat (endangered or vulnerable) [red stripes] and MSES - Regulated vegetation (essential habitat) [yellow]

(Source: Queensland Government (Department of State Development, Infrastructure, Local Government and Planning), Online State Planning Policy Interactive Mapping System)

A review of the MSES reporting reveals that this mapping arises from the sighting location data for the critically endangered curlew sandpiper (*Calidris ferruginea*).

This feature would need to be considered in subsequent development proposals and clearing of native vegetation in this mapped area should be avoided.

The contemplated rezoning would be intended to increase the development and occupation intensity of the middle portion of Lot 11 on SP322812, however this portion is of sufficiently large size for this constraint to be accommodated through design. It is not anticipated to be a restrictive constraint to the rezoning or general capacity of the entire portion to yield and be used for rural residential development.

Similarly, there is a very small section of the southern corner of the lot which is mapped as being bushfire prone. This is not a restrictive constraint to the rezoning or the general subdivision capacity of this land. A comparative review of this mapping with aerial imagery suggests grounds may exist to challenge the accuracy of the State-wide bushfire hazard mapping at this location (perhaps it is intended to address the risk associated with vegetation along Wellshot Creek in this vicinity, which is predominantly located (with the exception of approximately five mature trees) on adjoining land).

The low and comparatively small areas of risk associated with bushfire and flood risks on the middle portion of Lot 11 on SP322812 are reasonably and appropriately able to be avoided and managed through the development design and assessment benchmarks associated with reconfiguring a lot under the planning scheme.

Potential vision

Increased residential lifestyle diversity within the region and conveniently located to Longreach are the unfulfilled community aspirations which have been identified through consultation for this project. This option offers a 'greenfield' development opportunity to offer a different lifestyle experience and opportunities from other existing and potential rural residential zoned lots in the Longreach Region. This option has the potential to make large scale rural residential lots available to the market. The location and context of this land also lends to leveraging of the pastoral history associated with it. There are potential opportunities associated with proximity to the sewerage ponds and land fill site, in terms of emerging and innovative technologies associated with recycling, repurposing and reuse of urban/township by-products. In addition to small-scale hobby farming and home-based businesses associated with rural industries, there may also be emerging opportunities for people choosing to live on rural residential scale lots and potentially work from this location.

Suggested overall outcomes for the rural residential development of this option:

- rural residential development of the rural residential zone at Rosebank respects and does
 not detract from the ongoing functionality and safety of the adjacent stock route network
 and nearby community infrastructure and facilities;
- rural residential development of the rural residential zone at Rosebank is designed to
 capture the pastoral heritage of the locality and to facilitate opportunities for home-based
 businesses of a nature that compliment rural industries, including for instance the
 incorporation of a chiller box precinct in an designated area within this locality.

Impact of zone change

This land has and continues to be used for rural purposes including grazing. It has also been used in conjunction with an education facility, however that use could be argued to have now been abandoned. The research site aspects may be justified as persisting. Any lawful existing use of the land would be able to lawfully continue, despite a change in zone from Rural to Rural Residential.

In terms of starting a new use on the land or intensifying a use, there are some differences between what can be undertaken as accepted development (without needing to make a development application and obtaining a development approval before commencing the use) between the Rural and Rural Residential zone. These differences can be determined by comparing the respective zone tables in Part 5.4 of the planning scheme.

The greatest impacts in terms of accepted development rights with respect to the proposed change of zone, would be that new proposals for cropping, intensive animal industry (ie. feedlot), rural industry (ie. packing shed) or rural workers' accommodation would no longer be able to be

undertaken without first obtaining a development approval. Subject to other potential changes proposed as part of the major amendment to the planning scheme, there would be less support offered by the planning scheme for short-term accommodation, tourist park uses and low-impact industry involving chiller boxes on this land. However, the change of zone would mean that subdivision and developing the land for rural residential purposes would be facilitated, where it is presently restricted.

In this instance, it is only contemplated that any change in zoning apply to an identifiable portion of the existing lot. Split-zoning of lots is not common (and usually avoided on administrative and clarity grounds), however is possible within Queensland's planning system. In this instance, the middle portion of Lot 11 on SP322812 is of a sufficient size and has distinct boundaries which would effectively avoid typical concerns with adopting split-zoning. The change impacts noted above would only apply to the middle portion. Land use rights under the Rural Zone would continue to apply to the west and east portions of Lot 11 on SP322812. Such a change would not alter the arrangements for the west portion of Lot 11 on SP322812 having redirect access to the stock route network. While Lot 11 remains in single ownership and undivided, the east portion would also still retain access to the stock route network. In the event the middle portion was subdivided to facilitate rural residential development, this could only be undertaken with the landowner's prior consent, and through this process consideration could be given to whether access from the small east portion through the middle portion to the stock route was to be retained, foregone or facilitated through some other tenure process (ie. easement).

In terms of impacts on matters of State interests, this land is within mapped Category B regulated vegetation. While the Rural Residential Zone facilitates a form of residential development, it is not considered an "urban area". Therefore, the proposed change in zoning would not cause the 'urban purpose, urban area' exemptions to apply in terms of regulating the clearing of native vegetation. There would be no impact on the regulation of clearing native vegetation arising from the proposed zone change.

6.3 FURTHER CONSIDERATIONS

The preference in plan-making is to avoid split-zoning lots, however the option is available to council to reduce and limit the area of each of Lot 155 on SP259530 (Cleeve option) and Lot 11 on SP322812 (Rosebank option), which it considers acceptable for rural residential development. A risk associated with this approach is that it may impede or complicate subdivision layout and design options. In split-zoning a lot, consideration should also be given to the impacts and land use facilitated on the balance area and the administrative requirements should an applicant propose development across the differently zoned parts of the lot. The process for changing the zoning of a planning scheme would likely involve greater administration, public expense and time than assessing and deciding a code or impact assessable development application with merit over a singularly zoned lot. On the other hand, the risk of over-zoning (providing more land in the Rural Residential Zone than there is anticipated demand within the planning horizon) is that a dispersed and disorderly settlement pattern may be created. To some extent with rural residential development involving larger sized lots (reduced density and intensity) should come to the market with reduced expectations in terms of public servicing and infrastructure.

If the Rural Residential Zone is to be expanded to include more than one new locality, development yield and outcome intent should be expressed for the different localities in order to manage the risks of overdevelopment in the short to mid-term. To reinforce diversity in development outcomes across the zone, council could consider adopting a similar approach to Maranoa Regional Council and set different acceptable minimum lot size and/or maximum lot sizes for the respective localities within the Reconfiguring a Lot Code (8.3.1 and Table 8.3.1.3(b) within it).

In terms of applying to reconfigure both Lot 155 on SP259530 (Cleeve option) and Lot 11 on SP322812 (Rosebank option), a development application would need to be made to council and also referred to the State Assessment and Referral Agency (SARA). The SARA referral triggers

presently applying to both lots are very similar and primarily concerned with impacts on adjacent State transport infrastructure (both have potential access via state-controlled roads and the Cleeve option is also with 25m of the rail corridor). Referral triggers and fees are set out in Schedule 10 of the *Planning Regulation 2017*. The assessment benchmarks relating to SARA referral assessment are generally set out in the State Development Assessment Provisions.

6.4 REGIONAL PLAN

The Regional Plan relevant to planning and development in the Longreach Region is the Central West Regional Plan (September 2009).

The regional plan expresses no specific strategic directions or regional outcomes with respect to rural residential development. The regional outcomes reiterate and follow consistent themes already addressed through the planning scheme and considered in this report; for instance, liveability, strong community identity, protecting ecological values, maintaining water flow integrity and quality, protecting and improving infrastructure, facilitating cost effective sustainable infrastructure provision, pest management, protecting agricultural values and enhancing economic opportunity.

The most relevant objectives and land use policies in the regional plan are:

- 4.3 Housing mix, affordability and design: Objective "To provide for a variety and mix of dwelling types, sizes and tenures to meet diverse community needs, and achieve housing choice and affordability in rural communities". The land use polices at 4.3.1 encourage water sensitive design, residential development which response to climatic conditions of the region and diversity in housing options.
- 4.4 Disaster management: The land use policy at 4.4.1 states "Development is not located in areas that are at risk of being affected by natural hazards". This policy is reiterated at various levels of land use planning and is the reason flood risk was a significant consideration in the options analysis and recommendations of this report.
- **5.1 Land availability:** Objective "To ensure land is available to meet the requirements of the region's existing and future businesses and industries". In relation to rural zoned land, the land use policy at 5.1.2 is "Planning scheme provisions relating to minimum lot sizes (rural) do not allow for subdivision of land into lots that are too small for viable rural production." For this reason, the existing planning scheme is restrictive in terms of allowing subdivision in the rural zone and hence, a reason for changing the zoning of specific areas which have been subject to options analysis in order to respond to the demand being expressed for additional rural residential lots in the Longreach Region.

The regional plan has been reviewed in undertaking the options analysis and making recommendations in this report. The proposed expansion of the Rural Residential Zone does not conflict with the strategic directions and regional policies of the regional plan – in some respects it contributes to furthering the desired outcomes.

As the lower order planning instrument, the planning scheme should appropriately integrate and provide the local expression of the planning policies and land use strategic of the regional plan. At the time of being made, the existing Longreach Regional Planning Scheme was recognised as advancing the Central West Regional Plan (Part 2.2 of the planning scheme).

7.0 RECOMMENDATION

It is recommended that the Rural Residential Zone, as represented in the planning scheme for the Longreach Region, be expanded to include land beyond the existing developed area at Cramsie.

It is recommended that the zone be expanded at this time to include Lot 155 on SP259530 (Cleeve option).

While the Rosebank option was potentially suited to rural residential development, it is not considered that additional yield, to that which can be offered by the Cleeve option, is required at this time. The Cleeve option is recommended in preference to the Rosebank options for reasons including:

- continuity of connection to Longreach and high order transport networks during flood events
- less expansive greenfield site which facilitates opportunities for more efficient management of development yield, staging, fronts and servicing
- does not involve split-zoning of a lot
- less risk associated with managing environmental and stock route constraints
- better located in relation to other potential economic and employment opportunities/drivers
- opportunity to reframe and revitalise the primary 'gateway' approach into Longreach.

A proposed amended zone map is provided below.

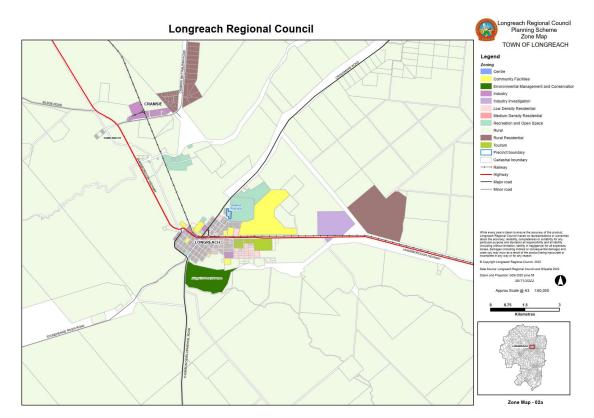


Figure 14: Proposed amended planning scheme zoning

(Source: Reel Planning, 2022)

It is recommended that the strong statements against realising additional rural residential development in the life of the planning scheme, in the higher order strategic intent statements and the Rural Residential Zone code, be amended to provide increased opportunities for rural residential development within the expanded Rural Residential Zone. The purpose statement of the Rural Residential Zone code could be amended to reflect the following:

6.2.10.2 Purpose

- (1) The purpose of the rural residential zone code is to provide for residential development on large lots where local government infrastructure and services may not be provided <u>and</u> where the intensity of residential development is generally dispersed.
- (2) The local government purpose of the code is to provide for the continuation, in the case of <u>Cramsie</u>, and the establishment of large semi-rural lifestyle lots, on which the primary use is detached housing. As the land in the zone has limited access to infrastructure and services, non-residential uses are generally limited to domestic-scale semi-rural and home-based business activities. Development maintains and contributes to the character and amenity of the locality and impacts on nearby ecological values or natural resources are avoided.
- (3) The purpose of the zone will be achieved through the following overall outcomes:
 - (a) the zone accommodates predominantly dwelling houses on large lots supporting a semirural lifestyle with limited access to town services;
 - (b) residential development occurs in the form of dwelling houses, to the general exclusion of other more intensive residential uses;
 - (c) home-based businesses occur where they do not unduly diminish the semi-rural residential amenity;
 - (d) the provision of visitor accommodation in the rural residential zone is not supported;
 - (e) reconfiguring existing lots within the rural residential zone at Cramsie does not occur;
 - (f) residential development abutting industrial activities <u>at</u> Cramsie is protected from the potential impacts on residential amenity;
 - (g) the establishment of rural residential development within the rural residential zone between the Industry Investigation Zone and Longreach Solar Farm/Camden Park is of a scale, intensity and configuration that can make safe use of the existing or any planned road crossing of the railway line;
 - (h) rural residential development within the rural residential zone on the eastern approach to Longreach is designed to promote a strong sense of community in the locality, contribute to a high cottage-style aesthetic and amenity having regard to its 'gateway' situation near the highway and complement the existing tourist operations nearby the rural residential zone in that locality;
 - (i) <u>home-based businesses involving cottage arts and crafts would be consistent with the rural residential zone on the eastern approach to Longreach;</u>
 - (j) development is protected as far as possible from the risk of bushfire hazard; and
 - (k) development does not diminish water quality either locally or in the Lake Eyre Basin, and does not intensify impacts on other environmental values including remaining areas of environmental significance near the zone.

In addition to the above, guidance could be offered in terms of lot yield or alternatively, this development opportunity may be left open to market determination.

As noted within the report, no change is presently proposed to the accepted minimum lot sizes stated in the planning scheme, however consideration could be given to providing more refined lot size guidance in the planning scheme to further regulate to achieve the potential vision for the rural residential area if desired.

If in the future, the expanded rural residential zone was to near exhaustion in terms of development yield or potential, then consideration could be given at that time to further

expanding the rural residential zone by way of another plan-making or major amendment process. The Rosebank option could be reconsidered for appropriateness as a part of that process.

8.0 CONCLUSION

In conclusion, this report finds that there is a present shortage of rural residential development opportunities with the Longreach Region and the existing Longreach Region Planning Scheme does not facilitate the creation of further lots for rural residential development.

An options analysis has been undertaken to consider areas which may be appropriate for expansion of the Rural Residential Zone in the Longreach Region Planning Scheme in order to facilitate new rural residential development opportunities. Through initial sieving, four areas were identified for consideration and from those, two areas were determined to warrant more detailed planning analysis.

It is recommended that the Rural Residential Zone be expanded through a major amendment of the planning scheme to include Lot 155 on SP259530. To support the inclusion of this expanded area, amendments to the strategic outcomes and the overall outcomes of the Rural Residential Zone Code in the planning scheme are also suggested.

Should you wish to discuss any aspect of this report please contact the undersigned on (07) 4927 3878.

Kind Regards,

Kate Lipke | Principal Planner REEL PLANNING

APPENDIX A: TABLE OF LOT DETAILS – EXISTING RURAL RESIDENTIAL ZONED LOTS

Table 1: Acacias Estate - Cramsie

Plan	Tenure	Area (sqm)	Notes
SP142649	Freehold	41060	Water and road infrastructure – not intended to be developed for rural residential purposes
SP142649	Freehold	99380	Equestrian complex – listed as last sold Sept 2012
SP142649	Freehold	124300	House
SP142649	Freehold	100000	House
SP142649	Freehold	100100	House
SP142649	Freehold	100000	Vacant with dam infrastructure – appears to be used in conjunction with Lot 4
SP142649	Freehold	100000	House
SP142649	Freehold	100000	House
SP142649	Freehold	100000	House – last transferred July 2018
SP142649	Freehold	100000	House
tate area		964840	(96.484ha)
Total RR developable area		923780	(92.378ha)
R lots		9	
eveloped (resider	ntial) RR lots	7	
	SP142649 Reference area	SP142649 Freehold SP142649 Freehold	SP142649 Freehold 41060 SP142649 Freehold 99380 SP142649 Freehold 124300 SP142649 Freehold 100000 SP142649 Freehold 100100 SP142649 Freehold 100000 SP142649 Freehold 100000

Table 2: Coolibah Estate - Cramsie

TUDIC Z.	able 2. Cooliban Estate - Cramsie					
Lot	Plan	Tenure	Area (sqm)	Notes		
0	SP127208	Freehold	22230	Water and road infrastructure – not intended to be developed for rural residential purposes		
1	SP127208	Freehold	92810	House		
2	SP127208	Freehold	85670	House – last transferred Dec 2009		
3	SP127208	Freehold	88380	House		
4	SP127208	Freehold	100600	House – last transferred Aug 2020		
5	SP127208	Freehold	83400	House – last transferred May 2010		
6	SP127208	Freehold	95770	House		
Total es	state area		568860	(56.886ha)		
Total RR developable area		546630	(54.663ha)			
No of R	No of RR lots		6			
No of developed (residential) RR lots		6				

Table 3: Sandlewoods Estate - Cramsie

Lot	Plan	Tenure	Area (sqm)	Notes
0	GTP101601	Freehold	78760	Water and road infrastructure – not intended to be developed for rural residential purposes
1	GTP101601	Freehold	19990	House (Aug 2019)
2	GTP101601	Freehold	20000	House (Aug 2019)
3	GTP101601	Freehold	20000	House
4	GTP101601	Freehold	23960	House (Feb 1999)
5	GTP101601	Freehold	22240	House (Oct 2005)
6	GTP101601	Freehold	21350	House – listed as sold Nov 2019
7	GTP101601	Freehold	19990	Vacant – As at August 2022 was adverstised for sale as "last remaining lot in Sandlewoods Estate" for \$179,000. Listing since removed.
8	GTP101601	Freehold	21200	House – listed for sale for \$475,000 in February 2022
9	GTP101601	Freehold	23170	House
10	GTP101601	Freehold	25550	House
11	GTP101601	Freehold	20720	House
12	GTP101601	Freehold	20600	House
13	GTP101601	Freehold	26350	House
14	GTP101601	Freehold	24660	House – last transferred 1 Dec 2018
15	GTP101601	Freehold	20000	House
16	GTP101601	Freehold	20000	House – listed as sold May 2020
17	GTP101601	Freehold	20000	House – last transferred 11 June 2021
18	GTP101601	Freehold	20000	House
19	GTP101601	Freehold	20000	House
20	GTP101601	Freehold	20000	House – listed for sale May 2022 and updated to sold Sept 2022
Total e	estate area	·	508540	(50.854ha)
Total F	RR developable a	rea	429780	(42.978ha)
No of I	RR lots		20	
No of o	developed (reside	ential) RR lots	19	

Table 4: Balance RRZ Lot - Cramsie

Lot	Plan	Tenure	Area (sqm)	Notes
1	RP839317	Freehold	52840	House
Total estate area		52840	(5.284ha)	
Total RR developable area		52840	(5.284ha)	

No of RR lots	1	
No of developed RR lots	1	

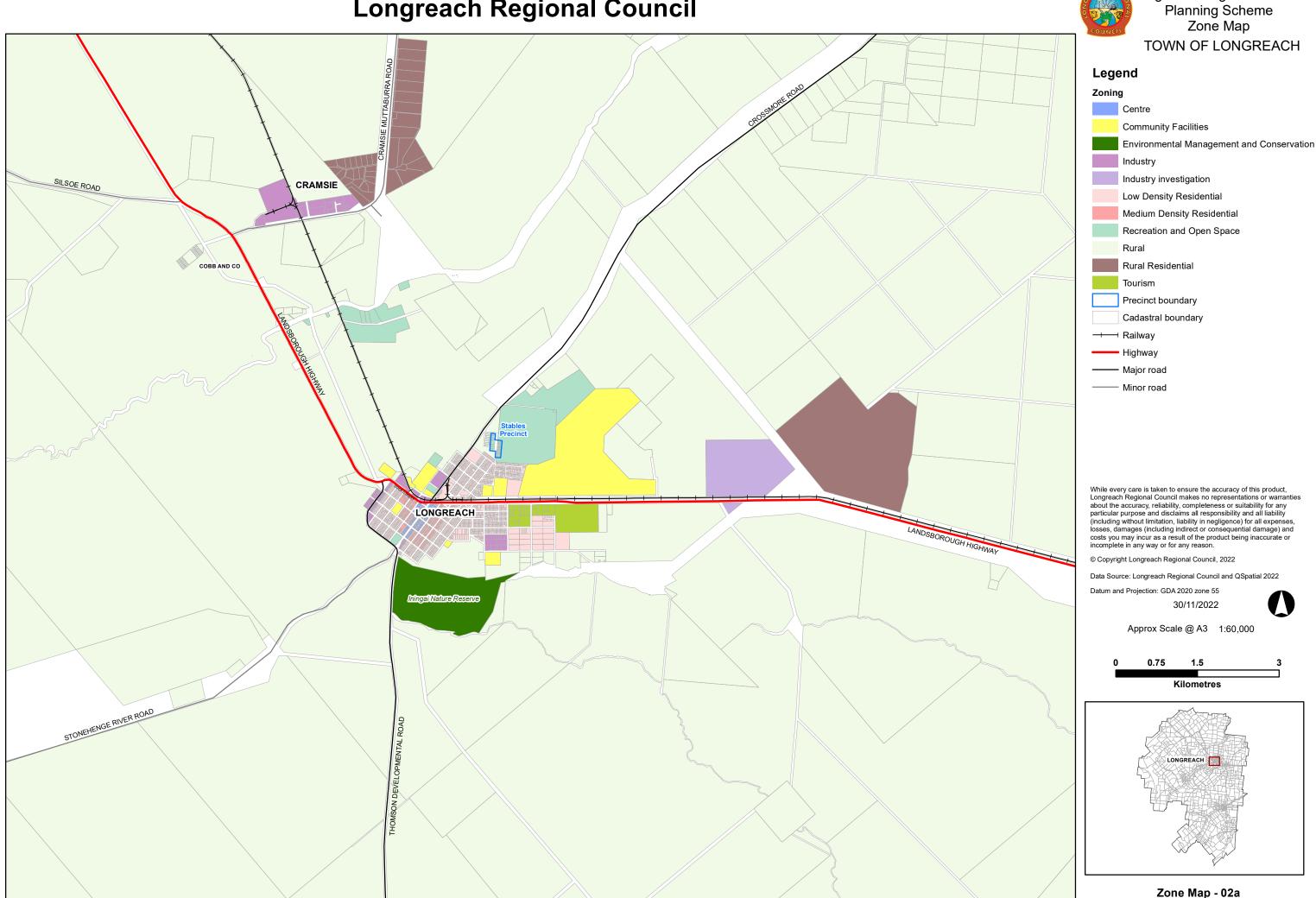
Table 5: Summary – Existing Rural Residential Zone – Cramsie

Estate description	Total Area (ha)	Total RR Developable Area (ha)	Total No. RR Developable Lots	Total No. Undeveloped (residential) RR Developable Lots
Acacias Estate	96.484	92.378	9	2
Coolibah Estate	56.886	54.663	6	0
Sandlewoods Estate	50.854	42.978	20	1
Balance RRZ lot	5.284	5.284	1	0
TOTALS	209.508	195.303	36	3

Note: There are also 3 lots within the existing Rural Residential Zone used for road and water infrastructure purposes. These lots total 14.205ha and account for the difference between columns 2 and 3 in the above table.

APPENDIX B: PROPOSED ZONE MAP

Longreach Regional Council



Longreach Regional Council

APPENDIX C: MATTERS OF STATE ENVIRONMENTAL SIGNIFICANCE (MSES) REPORTS – LOT 155 ON SP259530



Department of Environment and Science

Environmental Reports

Biodiversity and Conservation Values

Biodiversity Planning Assessments and Aquatic Conservation Assessments

For the selected area of interest Lot: 155 Plan: SP259530

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or Area of Interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "Central co-ordinates" option, the resulting assessment area encompasses an area extending from 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Please direct queries about these reports to: biodiversity.planning@des.qld.gov.au

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.



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Summary Information

Tables 1 to 8 provide an overview of the AOI with respect to selected topographic and environmental values.

Table 1: Area of interest details: Lot: 155 Plan: SP259530

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek

The following table identifies available Biodiversity Planning Assessments (BPAs) and Aquatic Conservation Assessments (ACAs) with respect to the AOI.

Table 2: Available Biodiversity Planning and Aquatic Conservation Assessments

Assessment Type	Assessment Area and Version	
Biodiversity Planning Assessment(s)	Mitchell Grass Downs v1.1	
Aquatic Conservation Assessment(s) (riverine)	Lake Eyre and Bulloo Basins v1.1	
Aquatic Conservation Assessment(s) (non-riverine)	Lake Eyre and Bulloo Basins v1.1	

Table 3: Remnant regional ecosystems within the AOI as per the QId Herbarium's 'biodiversity status'

Biodiversity Status	Area (Ha)	% of AOI
Endangered	0.0	0.0
Of concern	0.0	0.0
No concern at present	400.17	100.0

The following table identifies the extent and proportion of the user specified area of interest (AOI) which is mapped as being of "State", "Regional" or "Local" significance via application of the Queensland Department of Environment and Science's Biodiversity Assessment and Mapping Methodology (BAMM).

Table 4: Summary table, biodiversity significance

Biodiversity significance	Area (Ha)	% of AOI
State Habitat for EVNT taxa	0.0	0.0
State	400.17	100.0
Regional	0.0	0.0
Local or Other Values	0.0	0.0

Table 5: Non-riverine wetlands intersecting the AOI

Non-riverine wetland types intersecting the area of interest	#
(No Records)	

NB. The figures presented in the table above are derived from the relevant non-riverine Aquatic Conservation Assessment(s). Later releases of wetland mapping produced via the Queensland Wetland Mapping Program may provide more recent

information in regards to wetland extent.

Table 6: Named waterways intersecting the AOI

(no results)

Refer to Map 1 for general locality information.

The following two tables identify the extent and proportion of the user specified AOI which is mapped as being of "Very High", "High", "Medium", "Low", or "Very Low" aquatic conservation value for riverine and non-riverine wetlands via application of the Queensland Department of Environment and Science's *Aquatic Biodiversity Assessment and Mapping Method* (AquaBAMM).

Table 7: Summary table, aquatic conservation significance (riverine)

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
Very High	3.44	0.86
High	396.73	99.14
Medium	0.0	0.0
Low	0.0	0.0
Very Low	0.0	0.0

Table 8: Summary table, aquatic conservation significance (non-riverine)

Aquatic conservation significance (non-riverine wetlands)	Area (Ha)	% of AOI
(No Records)		

Biodiversity Planning Assessments

Introduction

The Department of Environment and Science (DES) attributes biodiversity significance on a bioregional scale through a Biodiversity Planning Assessment (BPA). A BPA involves the integration of ecological criteria using the *Biodiversity* assessment and *Mapping Methodology* (BAMM) and is developed in two stages: 1) **diagnostic criteria**, and 2) **expert panel criteria**. The diagnostic criteria are based on existing data which is reliable and uniformly available across a bioregion, while the expert panel criteria allows for the refinement of the mapped information from the diagnostic output by incorporating local knowledge and expert opinion.

The BAMM methodology has application for identifying areas with various levels of significance solely for biodiversity reasons. These include threatened ecosystems or taxa, large tracts of habitat in good condition, ecosystem diversity, landscape context and connection, and buffers to wetlands or other types of habitat important for the maintenance of biodiversity or ecological processes. While natural resource values such as dryland salinity, soil erosion potential or land capability are not dealt with explicitly, they are included to some extent within the biodiversity status of regional ecosystems recognised by the DES.

Biodiversity Planning Assessments (BPAs) assign three levels of overall biodiversity significance.

- State significance areas assessed as being significant for biodiversity at the bioregional or state scales. They also include areas assessed by other studies/processes as being significant at national or international scales. In addition, areas flagged as being of State significance due to the presence of endangered, vulnerable and/or near threatened taxa, are identified as "State Habitat for EVNT taxa".
- **Regional significance** areas assessed as being significant for biodiversity at the subregional scale. These areas have lower significance for biodiversity than areas assessed as being of State significance.
- Local significance and/or other values areas assessed as not being significant for biodiversity at state or regional scales. Local values are of significance at the local government scale.

For further information on released BPAs and a copy of the underlying methodology, go to:

http://www.qld.gov.au/environment/plants-animals/biodiversity/planning/

The GIS results can be downloaded from the Queensland Spatial Catalogue at:

http://qspatial.information.qld.gov.au/geoportal/

The following table identifies the extent and proportion of the user specified AOI which is mapped as being of "State", "Regional" or "Local" significance via application of the BAMM.

Table 9: Summary table, biodiversity significance

Biodiversity significance	Area (Ha)	% of AOI
State Habitat for EVNT taxa	0.0	0.0
State	400.17	100.0
Regional	0.0	0.0
Local or Other Values	0.0	0.0

Refer to Map 2 for further information.

Diagnostic Criteria

Diagnostic criteria are based on existing data which is reliable and uniformly available across a bioregion. These criteria are diagnostic in that they are used to filter the available data and provide a "first-cut" or initial determination of biodiversity significance. This initial assessment is then combined through a second group of other essential criteria.

A description of the individual diagnostic criteria is provided in the following sections.

Criteria A. Habitat for EVNT taxa: Classifies areas according to their significance based on the presence of endangered, vulnerable and/or rare (EVNT) taxa. EVNT taxa are those scheduled under the *Nature Conservation Act 1992* and/or the

Environment Protection and Biodiversity Conservation Act 1999. It excludes highly mobile fauna taxa which are instead considered in Criterion H and brings together information on EVNT taxa using buffering of recorded sites or habitat suitability models (HSM) where available.

Criteria B. Ecosystem value: Classifies on the basis of biodiversity status of regional ecosystems, their extent in protected areas (presence of poorly conserved regional ecosystems), the presence of significant wetlands; and areas of national importance such as the presence of Threatened Ecological Communities, World Heritage areas and Ramsar sites. Ecosystem value is applied at a bioregional (**B1**) and regional (**B2**) scale.

Criteria C. Tract size: Measures the relative size of tracts of vegetation in the landscape. The size of any tract is a major indicator of ecological significance, and is also strongly correlated with the long-term viability of biodiversity values. Larger tracts are less susceptible to ecological edge effects and are more likely to sustain viable populations of native flora and fauna than smaller tracts.

Criteria D. Relative size of regional ecosystems: Classifies the relative size of each regional ecosystem unit within its bioregion (**D1**) and its subregion (**D2**). Remnant units are compared with all other occurrences with the same regional ecosystem. Large examples of a regional ecosystem are more significant than smaller examples of the same regional ecosystem because they are more representative of the biodiversity values particular to the regional ecosystem, are more resilient to the effects of disturbance, and constitute a significant proportion of the total area of the regional ecosystem.

Criteria F. Ecosystem diversity: Is an indicator of the number of regional ecosystems occurring within an area. An area with high ecosystem diversity will have many regional ecosystems and ecotones relative to other areas within the bioregion.

Criteria G. Context and connection: Represents the extent to which a remnant unit incorporates, borders or buffers areas such as significant wetlands, endangered ecosystems; and the degree to which it is connected to other vegetation.

A summary of the biodiversity status based upon the diagnostic criteria is provided in the following table.

Table 10: Summary of biodiversity significance based upon diagnostic criteria with respect to the AOI

Biodiversity significance	Description	Area (Ha)	% of AOI
Regional	Remnant contains at least one Of Concern RE (B1)	62.82	15.7
Local or Other Values	Refer to diagnostic data for additional information	337.35	84.3

Assessment of diagnostic criteria with respect to the AOI

The following table reflects an assessment of the individual diagnostic criteria noted above in regards to the AOI.

Table 11: Assessment of individual diagnostic criteria with respect to the AOI

Diagnostic Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
A: Habitat for EVNT Taxa							400.17	100.0
B1: Ecosystem Value (Bioregion)			62.82	15.7	337.35	84.3		
B2: Ecosystem Value (Subregion)					400.17	100.0		
C: Tract Size			400.17	100.0				
D1: Relative RE Size (Bioregion)							400.17	100.0
D2: Relative RE Size (Subregion)							400.17	100.0
F: Ecosystem Diversity	311.48	77.8	88.69	22.2				
G: Context and Connection	400.17	100.0						

Other Essential Criteria

Other essential criteria (also known as expert panel criteria) are based on non-uniform information sources and which may rely more upon expert opinion than on quantitative data. These criteria are used to provide a "second-cut" determination of biodiversity significance, which is then combined with the diagnostic criteria for an overall assessment of relative biodiversity significance. A summary of the biodiversity status based upon the other essential criteria is provided in the following table.

Table 12: Summary of biodiversity significance based upon other essential criteria with respect to the AOI

Biodiversity significance	Description	Area (Ha)	% of AOI	
State	Remnant forms part of a bioregional corridor (J)	400.17	100.0	

A description of each of the other essential criteria and associated assessment in regards to the AOI is provided in the following sections.

Criteria H. Essential and general habitat for priority taxa: Priority taxa are those which are at risk or of management concern, taxa of scientific interest as relictual (ancient or primitive), endemic taxa or locally significant populations (such as a flying fox camp or heronry), highly specialised taxa whose habitat requirements are complex and distributions are not well correlated with any particular regional ecosystem, taxa important for maintaining genetic diversity (such as complex spatial patterns of genetic variation, geographic range limits, highly disjunct populations), taxa critical for management or monitoring of biodiversity (functionally important or ecological indicators), or economic and culturally important taxa.

Criteria I. Special biodiversity values: areas with special biodiversity values are important because they contain multiple taxa in a unique ecological and often highly biodiverse environment. Areas with special biodiversity values can include the following:

- la centres of endemism areas where concentrations of taxa are endemic to a bioregion or subregion are found.
- Ib wildlife refugia (Morton *et al.* 1995), for example, islands, mound springs, caves, wetlands, gorges, mountain ranges and topographic isolates, ecological refuges, refuges from exotic animals, and refuges from clearing. The latter may include large areas that are not suitable for clearing because of land suitability/capability.
- Ic areas with concentrations of disjunct populations.
- Id areas with concentrations of taxa at the limits of their geographic ranges.
- le areas with high species richness.
- If areas with concentrations of relictual populations (ancient and primitive taxa).
- Ig areas containing REs with distinct variation in species composition associated with geomorphology and other environmental variables.
- Ih an artificial waterbody or managed/manipulated wetland considered by the panel/s to be of ecological significance.
- li areas with a high density of hollow-bearing trees that provide habitat for animals.
- Ij breeding or roosting sites used by a significant number of individuals.
- lk climate change refuge.

The following table identifies the value and extent area of the Other Essential Criteria H and I within the AOI.

Table 13: Relative importance of expert panel criteria (H and I) used to access overall biodiversity significance with respect to the AOI

Expert Panel	Very High Rating - Area (Ha)	Very High Rating	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
H: Core Habitat Priority Taxa								
la: Centres of Endemism								
lb: Wildlife Refugia								
Ic: Disjunct Populations								
ld: Limits of Geographic Ranges								
le: High Species Richness								
If: Relictual Populations								
lg: Variation in Species Composition								
Ih: Artificial Wetland								

Expert Panel	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
li: Hollow Bearing Trees								
Ij: Breeding or Roosting Site								
Ik: Climate Refugia								

NB. Whilst biodiversity values associated with Criteria I may be present within the site (refer to tables 12 and 15), for the New England Tableland and Central Queensland Coast BPAs, area and % area figures associated with Criteria Ia through to Ij cannot be listed in the table above (due to slight variations in data formats between BPAs).

Criteria J. Corridors: areas identified under this criterion qualify either because they are existing vegetated corridors important for contiguity, or cleared areas that could serve this purpose if revegetated. Some examples of corridors include riparian habitats, transport corridors and "stepping stones".

Bioregional and subregional conservation corridors have been identified in the more developed bioregions of Queensland through the BPAs, using an intensive process involving expert panels. Map 3 displays the location of corridors as identified under the Statewide Corridor network. The Statewide Corridor network incorporates BPA derived corridors and for bioregions where no BPA has been assessed yet, corridors derived under other planning processes. *Note: as a result of updating and developing a statewide network, the alignment of corridors may differ slightly in some instances when compared to those used in individual BPAs.*

The functions of these corridors are:

- **Terrestrial** Bioregional corridors, in conjunction with large tracts of remnant vegetation, maintain ecological and evolutionary processes at a landscape scale, by:
 - Maintaining long term evolutionary/genetic processes that allow the natural change in distributions of species and connectivity between populations of species over long periods of time;
 - Maintaining landscape/ecosystems processes associated with geological, altitudinal and climatic gradients, to allow for ecological responses to climate change;
 - Maintaining large scale seasonal/migratory species processes and movement of fauna;
 - Maximising connectivity between large tracts/patches of remnant vegetation;
 - Identifying key areas for rehabilitation and offsets; and
- Riparian Bioregional Corridors also maintain and encourage connectivity of riparian and associated ecosystems.

The location of the corridors is determined by the following principles:

- Terrestrial
 - Complement riparian landscape corridors (i.e. minimise overlap and maximise connectivity);
 - Follow major watershed/catchment and/or coastal boundaries;
 - Incorporate major altitudinal/geological/climatic gradients;
 - Include and maximise connectivity between large tracts/patches of remnant vegetation;
 - Include and maximise connectivity between remnant vegetation in good condition; and
- Riparian
 - Located on the major river or creek systems within the bioregion in question.

The total extent of remnant vegetation triggered as being of "State", "Regional" or "Local" significance due to the presence of an overlying BPA derived terrestrial or riparian corridor within the AOI, is provided in the following table. For further information on how remnant vegetation is triggered due to the presence of an overlying BPA derived corridor, refer to the relevant landscape BPA expert panel report(s).

Table 14: Extent of triggered remnant vegetation due to the presence of BPA derived corridors with respect to the AOI

Biodiversity Significance	Area (Ha)	% of AOI
State	400.17	100.0
Regional	0.0	0.0
Local	0.0	0.0

NB: area figures associated with the extent of corridor triggered remnant vegetation are only available for those bioregions where a BPA has been undertaken.

Refer to Map 3 for further information.

Threatening process/condition (Criteria K) - areas identified by experts under this criterion may be used to amend (upgrade or downgrade) biodiversity significance arising from the "first-cut" analysis. The condition of remnant vegetation is affected by threatening processes such as weeds, ferals, grazing and burning regime, selective timber harvesting/removal, salinity, soil erosion, and climate change.

Assessment of Criteria K with respect to the AOI is not currently included in the "Biodiversity and Conservation Values" report, as it has not been applied to the majority of Queensland due to data/information limitations and availability.

Special Area Decisions

Expert panel derived "Special Area Decisions" are used to assign values to Other Essential Criteria. The specific decisions which relate to the AOI in question are listed in the table below.

Table 15: Expert panel decisions for assigning levels of biodiversity significance with respect to the AOI

Decision Number	Description	Panel Recommended Significance	Criteria Values
mgd_l_25	Terrestrial corridors	State or Regional	J - State or Regional

Expert panel decision descriptions:

mgd_l_25

Recognised that in bioregions which have largely intact remnant vegetation cover some further criteria are needed to select the most ecologically effective corridor alignments. Current selections made to identify broad patterns of migration (between external bioregions) and broad areas of good condition grasslands. Corridors are indicative only and may in fact be much wider depending on species and seasons.

Aquatic Conservation Assessments

Introduction

The Aquatic Biodiversity Assessment and Mapping Method or AquaBAMM (Clayton *et al.* 2006), was developed to assess conservation values of wetlands in queensland, and may also have application in broader geographical contexts. It is a comprehensive method that uses available data, including data resulting from expert opinion, to identify relative wetland conservation/ecological values within a specified study area (usually a catchment). The product of applying this method is an Aquatic Conservation Assessment (ACA) for the study area.

An ACA using AquaBAMM is non-social, non-economic and identifies the conservation/ecological values of wetlands at a user-defined scale. It provides a robust and objective conservation assessment using criteria, indicators and measures that are founded upon a large body of national and international literature. The criteria, each of which may have variable numbers of indicators and measures, are naturalness (aquatic), naturalness (catchment), diversity and richness, threatened species and ecosystems, priority species and ecosystems, special features, connectivity and representativeness. An ACA using AquaBAMM is a powerful decision support tool that is easily updated and simply interrogated through a geographic information system (GIS).

Where they have been conducted, ACAs can provide a source of baseline wetland conservation/ecological information to support natural resource management and planning processes. They are useful as an independent product or as an important foundation upon which a variety of additional environmental and socio-economic elements can be added and considered (i.e. an early input to broader 'triple-bottom-line' decision-making processes). An ACA can have application in:

- determining priorities for protection, regulation or rehabilitation of wetlands and other aquatic ecosystems
- on-ground investment in wetlands and other aquatic ecosystems
- contributing to impact assessment of large-scale development (e.g. dams)
- water resource and strategic regional planning prcesses

For a detailed explanation of the methodology please refer to the summary and expert panel reports relevant to the ACA utilised in this assessment. These reports can be accessed at Wetland *Info*:

http://wetlandinfo.des.qld.gov.au/wetlands/assessment/assessment-methods/aca

The GIS results can be downloaded from the Queensland Spatial Catalogue at:

http://qspatial.information.qld.gov.au/geoportal/

Explanation of Criteria

Under the AquaBAMM, eight criteria are assessed to derive an overall conservation value. Similar to the Biodiversity Assessment and Mapping Methodology, the criteria may be primarily diagnostic (quantitative) or primarily expert opinion (qualitative) in nature. The following sections provide a brief description of each of the 8 criteria.

Criteria 1. Naturalness - Aquatic: This attribute reflects the extent to which a wetland's (riverine, non-riverine, estuarine) aquatic state of naturalness is affected through relevant influencing indicators which include: presence of exotic flora and fauna; presence of aquatic communities; degree of habitat modification and degree of hydrological modification.

Criteria 2. Naturalness - Catchment: The naturalness of the terrestrial systems of a catchment can have an influence on many wetland characteristics including: natural ecological processes e.g. nutrient cycling, riparian vegetation, water chemistry, and flow. The indicators utilised to assess this criterion include: presence of exotic flora and/or fauna; riparian, catchment and flow modification.

Criteria 3. Naturalness - Diversity and Richness: This criterion is common to many ecological assessment methods and can include both physical and biological features. It includes such indicators as species richness, riparian ecosystem richness and geomorphological diversity.

Criteria 4. Threatened Species and Ecosystems: This criterion evaluates ecological rarity characteristics of a wetland. This includes both species rarity and rarity of communities / assemblages. The communities and assemblages are best represented by regional ecosystems. Species rarity is determined by NCA and EPBC status with Endangered, Vulnerable or Near-threatened species being included in the evaluation. Ecosystem rarity is determined by regional ecosystem biodiversity status i.e. Endangered, Of Concern, or Not of Concern.

Criteria 5. Priority Species and Ecosystems: Priority flora and fauna species lists are expert panel derived. These are aquatic, semi-aquatic and riparian species which exhibit at least 1 particular trait in order to be eligible for consideration. For

flora species the traits included:

- It forms significant macrophyte beds (in shallow or deep water).
- It is an important food source.
- It is important/critical habitat.
- It is implicated in spawning or reproduction for other fauna and/or flora species.
- It is at its distributional limit or is a disjunct population.
- It provides stream bank or bed stabilisation or has soil binding properties.
- It is a small population and subject to threatening processes.

Fauna species are included if they meet at least one of the following traits:

- It is endemic to the study area (>75 per cent of its distribution is in the study area/catchment).
- It has experienced, or is suspected of experiencing, a serious population decline.
- It has experienced a significant reduction in its distribution and has a naturally restricted distribution in the study area/catchment.
- It is currently a small population and threatened by loss of habitat.
- It is a significant disjunct population.
- It is a migratory species (other than birds).
- A significant proportion of the breeding population (>one per cent for waterbirds, >75 per cent other species) occurs in the waterbody (see Ramsar criterion 6 for waterbirds).
- · Limit of species range.

See the individual expert panel reports for the priority species traits specific to an ACA.

Criteria 6. Special Features: Special features are areas identified by flora, fauna and ecology expert panels which exhibit characteristics beyond those identified in other criteria and which the expert panels consider to be of the highest ecological importance. Special feature traits can relate to, but are not solely restricted to geomorphic features, unique ecological processes, presence of unique or distinct habitat, presence of unique or special hydrological regimes e.g. spring-fed streams. Special features are rated on a 1 - 4 scale (4 being the highest).

Criteria 7. Connectivity: This criterion is based on the concept that appropriately connected aquatic ecosystems are healthy and resilient, with maximum potential biodiversity and delivery of ecosystem services.

Criteria 8. Representativeness: This criterion applies primarily to non-riverine assessments, evaluates the rarity and uniqueness of a wetland type in relation to specific geographic areas. Rarity is determined by the degree of wetland protection within "protected Areas" estate or within an area subject to the *Fisheries Act 1994*, *Coastal Protection and Management Act 1995*, or *Marine Parks Act 2004*. Wetland uniqueness evaluates the relative abundance and size of a wetland or wetland management group within geographic areas such as catchment and subcatchment.

Riverine Wetlands

Riverine wetlands are all wetlands and deepwater habitats within a channel. The channels are naturally or artificially created, periodically or continuously contain moving water, or connecting two bodies of standing water. AquaBAMM, when applied to riverine wetlands uses a discrete spatial unit termed subsections. A subsection can be considered as an area which encompasses discrete homogeneous stream sections in terms of their natural attributes (i.e. physical, chemical, biological and utilitarian values) and natural resources. Thus in an ACA, an aquatic conservation significance score is calculated for each subsection and applies to all streams within a subsection, rather than individual streams as such.

Please note, the area figures provided in Tables 16 and 17, are derived using the extent of riverine subsections within the AOI. Refer to **Map 5** for further information. A summary of the conservation significance of riverine wetlands within the AOI is provided in the following table.

Table 16: Overall level/s of riverine aquatic conservation significance

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
Very High	3.44	0.86

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
High	396.73	99.14
Medium	0.0	0.0
Low	0.0	0.0
Very Low	0.0	0.0

The individual aquatic conservation criteria ratings for riverine wetlands within the AOI are listed below.

Table 17: Level/s of riverine aquatic conservation significance based on selected criteria

Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
Naturalness aquatic					400.17	100.0		
Naturalness catchment					3.44	0.9	396.73	99.1
3. Diversity and richness					400.17	100.0		
4. Threatened species and ecosystems			400.17	100.0				
5. Priority species and ecosystems	400.17	100.0						
6. Special features	3.44	0.9						
7. Connectivity	400.17	100.0						
8. Representative- ness								

The table below lists and describes the relevant expert panel decisions used to assign conservation significance values to riverine wetlands within the AOI.

Table 18: Expert panel decisions for assigning overall levels of riverine aquatic conservation significance

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
cp_r_ec_03	Semi-permanent waterholes (75%-99%, >50 years)	Cooper	6.3.1	2
cp_r_fa_02	Black Gin Creek, Thomson River Confluence - Riverine wetlands	Cooper	5.1.4	2
cp_r_fa_07	Permanent waterholes - long term	Cooper	6.3.1	4

4 is the highest rating/value

Expert panel decision descriptions:

cp_r_ec_03

Semi-permanent waterholes (present 75%-99% of the time for >50 years) were considered by the expert panel as significant habitat features in the landscape. Connectivity between permanent waterholes is often maintained through less permanent waterholes acting as a conduit (lateral connectivity and longitudinal connectivity down the stream). The role that these waterholes play in the landscape depends on the wetness/season of the year. Distance from waterholes is important with

respect to frequency of flooding.

cp_r_fa_02

Small egret colony. First flood-out in the system. Unique braided channels, associated lagoons that provide bird habitat. Flowering lignum and bluebush. Coolabah lined channels. Outlier of Channel Country bioregion. There has been removal of hollow trees used by nesting birds (DERM 2009b).

cp_r_fa_07

Ecological processes in the LEBB work over vast timeframes of centuries or 1000's of years. The permanent waterholes (100% permanent >100 years) that never go dry over these longer timeframes are critically important to aquatic species persistence in these arid landscapes. They have a major influence on the genetic diversity and gene flow between river catchments. These waterholes act as refugia (Hamilton et al. 2005), e.g. metapopulation and genetics of the Cooper Creek turtle requires long time frames of persistence to sustain populations and species. However, the panel cautioned that care is required for broad application of this decision as some wetlands have been modified through water extraction (Bunn et al. 2006).

Non-riverine Wetlands

Non-riverine wetlands include both lacustrine and palustrine wetlands, however, do not currently incorporate estuarine, marine or subterranean wetland types. A summary of the conservation significance of non-riverine wetlands within the AOI is provided in the following table. Refer to **Map 6** for further information.

Table 19: Overall level/s of non-riverine aquatic conservation significance

Aquatic conservation significance (non-riverine wetlands)	Area (Ha)	% of AOI
(No Records)		

The following table provides an assessment of non-riverine wetlands within the AOI and associated aquatic conservation criteria values.

Table 20: Level/s of non-riverine aquatic conservation significance based on selected criteria

Criteria	Very High Rating - Area (Ha)	Very High Rating - % of AOI	High Rating - Area (Ha)	High Rating - % of AOI	Medium Rating - Area (Ha)	Medium Rating - % of AOI	Low Rating - Area (Ha)	Low Rating - % of AOI
(No Records)								

The table below lists and describes the relevant expert panel decisions used to assign conservation significance values to non-riverine wetlands within the AOI.

Table 21: Expert panel decisions for assigning overall levels of non-riverine aquatic conservation significance.

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
(No Records)				

4 is the highest rating/value

Expert panel decision descriptions:

(No Records)

Threatened and Priority Species

Introduction

This chapter contains a list of threatened and priority flora and/or fauna species that have been recorded on, or within 4km of the Assessment Area.

The information presented in this chapter with respect to species presence is derived from compiled databases developed primarily for the purpose of BPAs and ACAs. Data is collated from a number of sources and is updated periodically.

It is important to note that the list of species provided in this report, may differ when compared to other reports generated from other sources such as the State government's WildNet, Herbrecs or the federal government's EPBC database for a number of reasons.

Records for threatened and priority species are filtered and checked based on a number of rules including:

- Taxonomic nomenclature current scientific names and status,
- Location cross-check co-ordinates with location description,
- Taxon by location requires good knowledge of the taxon and history of the record,
- Duplicate records identify and remove,
- Expert panels check records and provide new records,
- Flora cultivated records excluded.
- Use precise records less than or equal to 2000m,
- Use recent records greater than or equal to 1975 animals, greater than or equal to 1950 plants.

Threatened Species

Threatened species are those species classified as "Endangered" or "Vulnerable" under the *Environment Protection and Biodiversity Conservation Act 1999* or "Endangered", "Vulnerable" or "Near threatened" under the *Nature Conservation Act 1992*.

The following threatened species have been recorded on, or within approximately 4km of the AOI.

Table 22: Threatened species recorded on, or within 4km of the AOI

(no results)

NB. Please note that the threatened species listed in this section are based upon the most recently compiled DES internal state-wide threatened species dataset. This dataset may contain additional records that were not originally available for inclusion in the relevant individual BPAs and ACAs.

*JAMBA - Japan-Australia Migratory Bird Agreement; CAMBA - China-Australia Migratory Bird Agreement; ROKAMBA - Republic of Korea-Australia Migratory Bird Agreement; CMS - Convention on the Conservation of Migratory Species.

BPA Priority Species

A list of BPA priority species that have been recorded on, or within approximately 4km of the AOI is contained in the following table.

Table 23: Priority species recorded on, or within 4km of the AOI

Species	Common name	Back on Track rank	Identified flora/fauna
Phaps histrionica	Flock Bronzewing	L	FA
Planigale tenuirostris	Narrow-nosed Planigale	L	FA
Pseudonaja guttata	Speckled Brown Snake	L	FA

NB. Please note that the list of priority species is based on those species identified in the BPAs, however records for these species may be more recent than the originals used. furthermore, the BPA priority species databases are updated from time to time. At each update, the taxonomic details for all species are amended as necessary to reflect current taxonomic name

^{**}I - wetland indicator species; D - wetland dependent species.

and/or status changes.

ACA Priority Species

A list of ACA priority species used in riverine and non-riverine ACAs that have been recorded on, or within approximately 4km of the AOI are contained in the following tables.

Table 24: Priority species recorded on, or within 4 km of the AOI - riverine

Species	Common name	Back on Track rank	Identified flora/fauna
Persicaria attenuata	None	None	FL

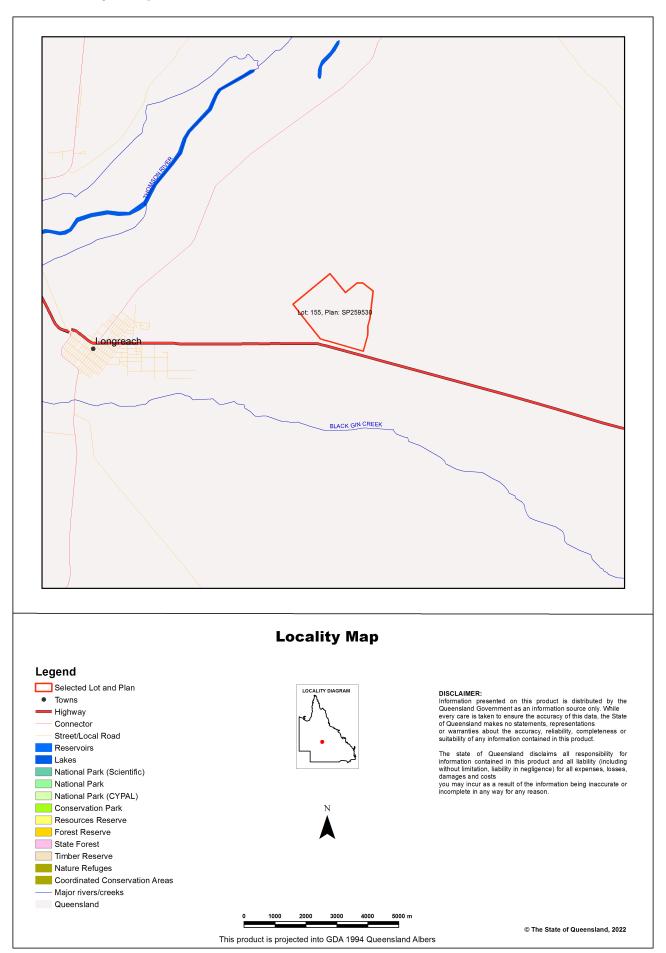
Table 25: Priority species recorded on, or within 4 km of the AOI - non-riverine

Species	Common name	Back on Track rank	Identified flora/fauna
Persicaria attenuata	None	None	FL

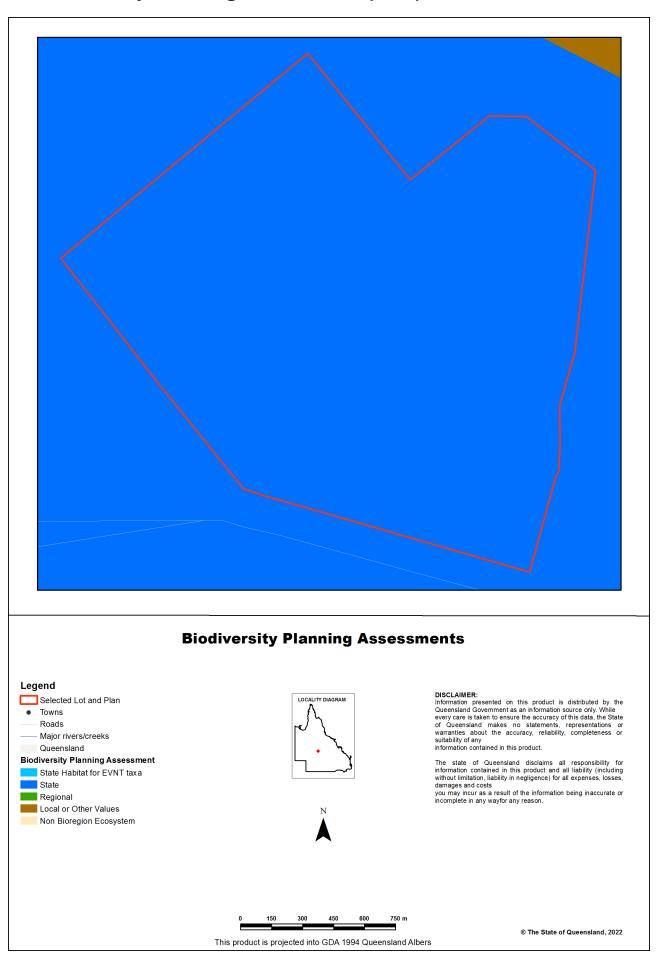
NB. Please note that the priority species records used in the above two tables are comprised of those adopted for the released individual ACAs. The ACA riverine and non-riverine priority species databases are updated from time to time to reflect new release of ACAs. At each update, the taxonomic details for all ACAs records are amended as necessary to reflect current taxonomic name and/or status changes.

Maps

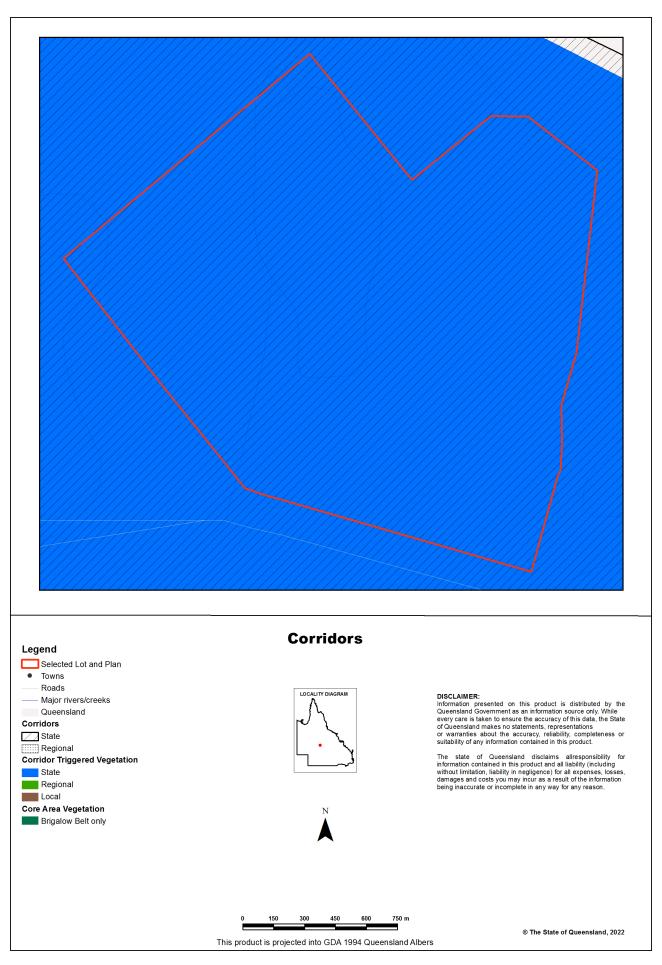
Map 1 - Locality Map



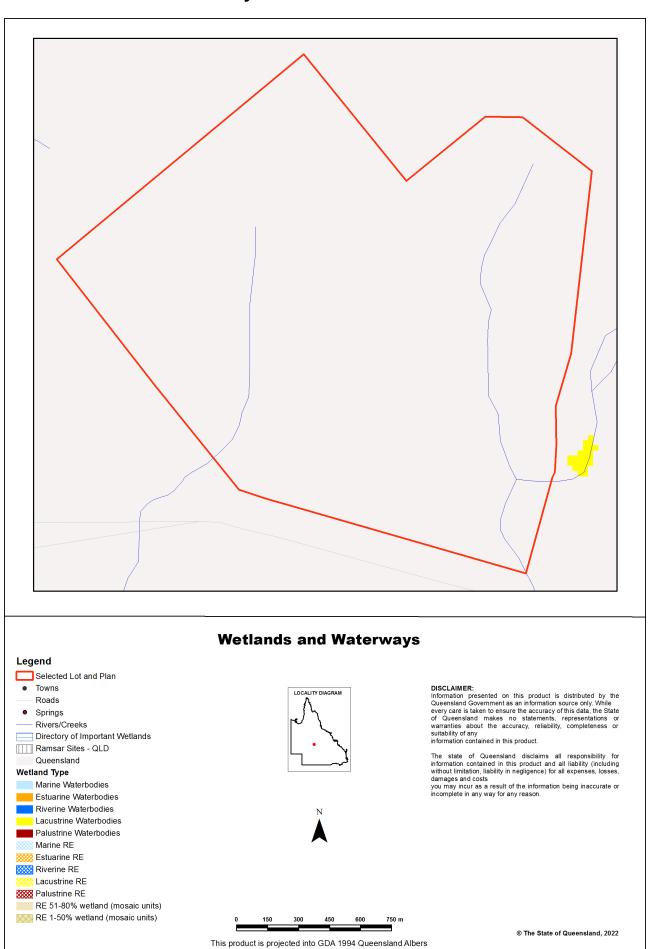
Map 2 - Biodiversity Planning Assessment (BPA)



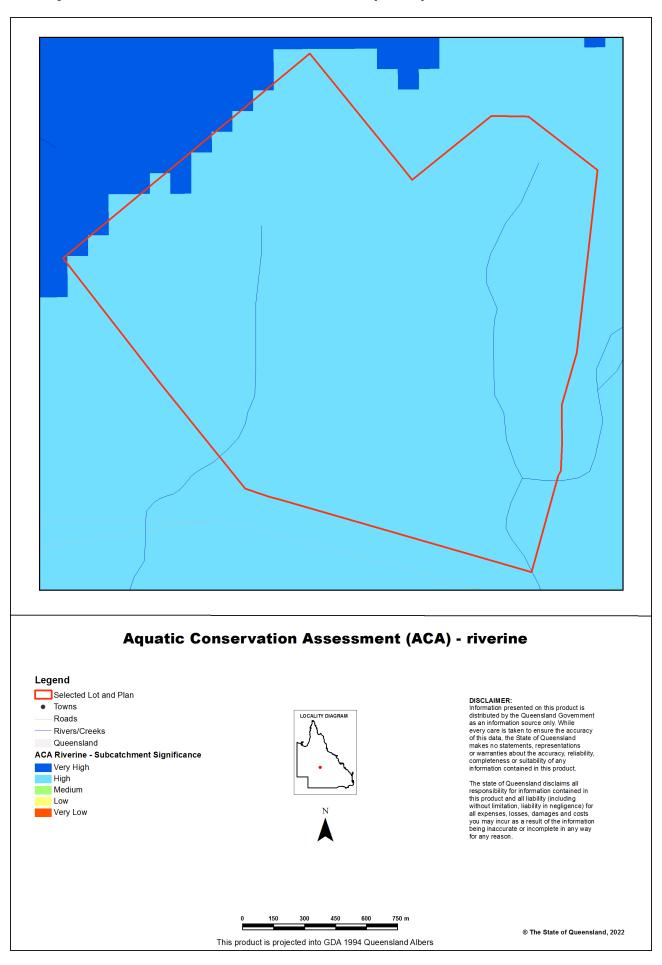
Map 3 - Corridors



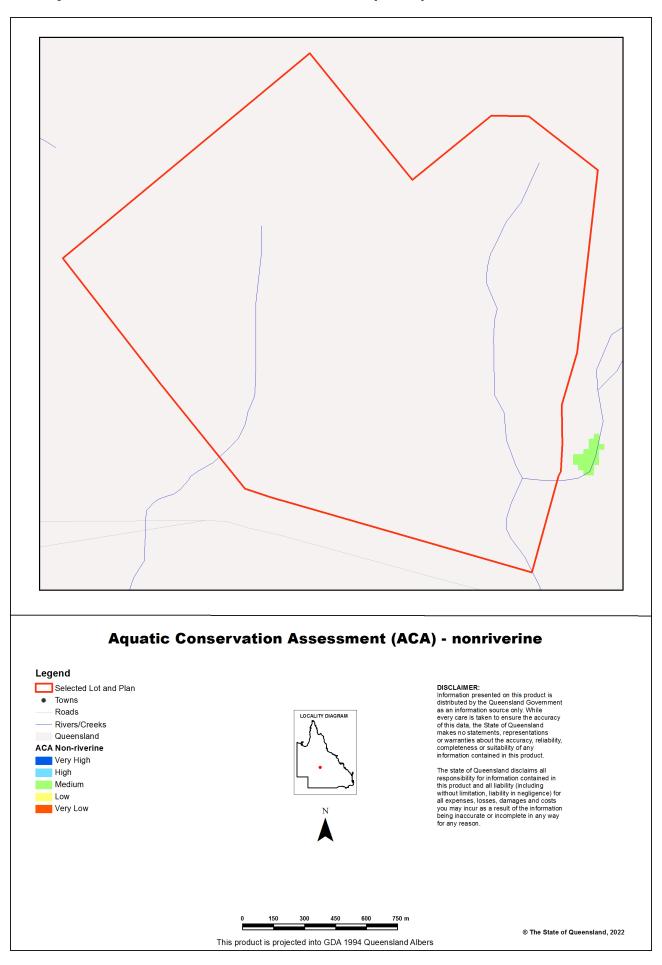
Map 4 - Wetlands and waterways



Map 5 - Aquatic Conservation Assessment (ACA) - riverine



Map 6 - Aquatic Conservation Assessment (ACA) - non-riverine



References

Clayton, P.D., Fielder, D.F., Howell, S. and Hill, C.J. (2006) *Aquatic biodiversity assessment and mapping method* (*AquaBAMM*): a conservation values assessment tool for wetlands with trial application in the Burnett River catchment. Published by the Environmental Protection Agency, Brisbane. ISBN 1-90928-07-3. Available at http://wetlandinfo.des.gld.gov.au/wetlands/assessment/assessment-methods/aca/

Environment and Heritage Protection 2014, *Biodiversity Assessment and Mapping Methodology*. Version 2.2. Department of Environment and Heritage Protection, Brisbane.

Morton, S. R., Short, J. and Barker, R. D. with an Appendix by G.F. Griffin and G. Pearce (1995). *Refugia for Biological Diversity in Arid and Semi-arid Australia. Biodiversity Series*, Paper No. 4, Biodiversity Unit, Environment Australia.

Sattler, P.S. and Williams, R.D. (eds) (1999). *The Conservation Status of Queensland's Bioregional Ecosystems*. Environmental Protection Agency, Brisbane.

Appendices

Appendix 1 - Source Data

Theme	Datasets
Aquatic Conservation Assessments Non-riverine*	Combination of the following datasets: Cape York Peninsula Non-riverine v1.1 Eastern Gulf of Carpentaria v1.1 Great Barrier Reef Catchment Non-riverine v1.3 Lake Eyre and Bulloo Basins v1.1 QMDB Non-riverine ACA v1.4 Southeast Queensland ACA v1.1 WBB Non-riverine ACA v1.1 Southern Gulf Catchments Non-riverine ACA v1.1
Aquatic Conservation Assessments Riverine*	Combination of the following datasets: Cape York Peninsula Riverine v1.1 Eastern Gulf of Carpentaria v1.1 Great Barrier Reef Catchment Riverine v1.1 Lake Eyre and Bulloo Basins v1.1 QMDB Riverine ACA v1.4 Southeast Queensland ACA v1.1 WBB Riverine ACA v1.1 Southern Gulf Catchments Riverine ACA v1.1
Biodiversity Planning Assessments*	Combination of the following datasets: Brigalow Belt BPA v2.1 Cape York Peninsula BPA v1.1 Central Queensland Coast BPA v1.3 Channel Country BPA v1.1 Desert Uplands BPA v1.3 Einasleigh Uplands BPA v1.1 Gulf Plains BPA v1.1 Mitchell Grass Downs BPA v1.1 Mulga Lands BPA v1.4 New England Tableland v2.3 Northwest Highlands v1.1 Southeast Queensland v4.1 Wet Tropics v1.1
Statewide BPA Corridors*	Statewide corridors v1.6
Threatened Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.
BPA Priority Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.
ACA Priority Species	An internal DES database compiled from Wildnet, Herbrecs, Corveg, the QLD Museum, as well as other incidental sources.

*These datasets are available at:

http://dds.information.qld.gov.au/DDS

Appendix 2 - Acronyms and Abbreviations

AOI - Area of Interest

ACA - Aquatic Conservation Assessment

AQUABAMM - Aquatic Biodiversity Assessment and Mapping Methodology

BAMM - Biodiversity Assessment and Mapping Methodology

BoT - Back on Track

BPA - Biodiversity Planning Assessment

CAMBA - China-Australia Migratory Bird Agreement
DES - Department of Environment and Science

EPBC - Environment Protection and Biodiversity Conservation Act

1999

EVNT - Endangered, Vulnerable, Near Threatened

GDA94 - Geocentric Datum of Australia 1994
GIS - Geographic Information System

JAMBA - Japan-Australia Migratory Bird Agreement

NCA - Nature Conservation Act 1992

RE - Regional Ecosystem

REDD - Regional Ecosystem Description Database

ROKAMBA - Republic of Korea-Australia Migratory Bird Agreement



Department of Environment and Science

Environmental Reports

Matters of State Environmental Significance

For the selected area of interest Lot: 155 Plan: SP259530

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the point of interest.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no values have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Please direct queries about these reports to: Planning.Support@des.qld.gov.au

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.



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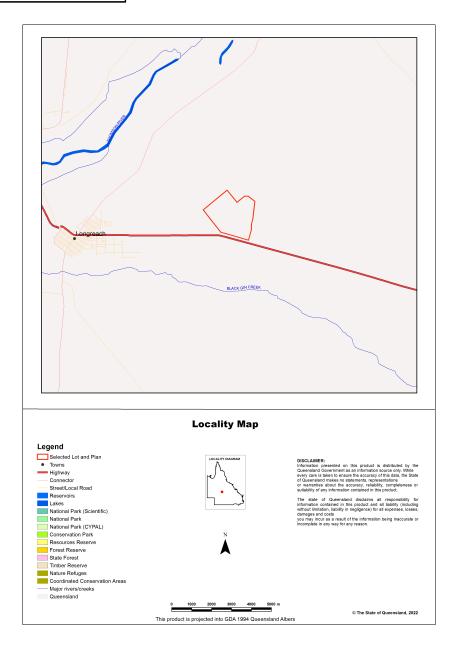
Assessment Area Details
Matters of State Environmental Significance (MSES)
MSES Categories
MSES Values Present
Additional Information with Respect to MSES Values Present
MSES - State Conservation Areas
MSES - Wetlands and Waterways
MSES - Species
MSES - Regulated Vegetation
Map 1 - MSES - State Conservation Areas
Map 2 - MSES - Wetlands and Waterways
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals
Map 3b - MSES - Species - Koala habitat area (SEQ)
Map 3c - MSES - Wildlife habitat (sea turtle nesting areas)
Map 4 - MSES - Regulated Vegetation
Map 5 - MSES - Offset Areas
Appendices
Appendix 1 - Matters of State Environmental Significance (MSES) methodology
Appendix 2 - Source Data
Appendix 3 - Acronyms and Abbreviations

Assessment Area Details

The following table provides an overview of the area of interest (AOI) with respect to selected topographic and environmental values.

Table 1: Summary table, details for AOI Lot: 155 Plan: SP259530

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek



Matters of State Environmental Significance (MSES)

MSES Categories

Queensland's State Planning Policy (SPP) includes a biodiversity State interest that states:

'The sustainable, long-term conservation of biodiversity is supported. Significant impacts on matters of national or state environmental significance are avoided, or where this cannot be reasonably achieved; impacts are minimised and residual impacts offset.'

The MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The SPP defines matters of state environmental significance as:

- Protected areas (including all classes of protected area except coordinated conservation areas) under the *Nature Conservation Act 1992*;
- Marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the *Marine Parks Act 2004*:
- Areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008;
- Threatened wildlife under the *Nature Conservation Act 1992* and special least concern animals under the Nature Conservation (Wildlife) Regulation 2006;
- Regulated vegetation under the Vegetation Management Act 1999 that is:
 - Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems;
 - Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems;
 - Category R areas on the regulated vegetation management map;
 - Regional ecosystems that intersect with watercourses identified on the vegetation management watercourse and drainage feature map;
 - Regional ecosystems that intersect with wetlands identified on the vegetation management wetlands map;
- Strategic Environmental Areas under the Regional Planning Interests Act 2014;
- Wetlands in a wetland protection area of wetlands of high ecological significance shown on the Map of Queensland Wetland Environmental Values under the Environment Protection Regulation 2019;
- Wetlands and watercourses in high ecological value waters defined in the Environmental Protection (Water) Policy 2009, schedule 2:
- Legally secured offset areas.

MSES Values Present

The MSES values that are present in the area of interest are summarised in the table below:

Table 2: Summary of MSES present within the AOI

1a Protected Areas- estates	0.0 ha	0.0 %
1b Protected Areas- nature refuges	0.0 ha	0.0 %
1c Protected Areas- special wildlife reserves	0.0 ha	0.0 %
2 State Marine Parks- highly protected zones	0.0 ha	0.0 %
3 Fish habitat areas (A and B areas)	0.0 ha	0.0 %
4 Strategic Environmental Areas (SEA)	0.0 ha	0.0 %
5 High Ecological Significance wetlands on the map of Referable Wetlands	0.0 ha	0.0 %
6a High Ecological Value (HEV) wetlands	0.0 ha	0.0 %
6b High Ecological Value (HEV) waterways	0.0 km	Not applicable
7a Threatened (endangered or vulnerable) wildlife	0.0 ha	0.0 %
7b Special least concern animals	0.0 ha	0.0 %
7c i Koala habitat area - core (SEQ)	0.0 ha	0.0 %
7c ii Koala habitat area - locally refined (SEQ)	0.0 ha	0.0 %
7d Sea turtle nesting areas	0.0 km	Not applicable
8a Regulated Vegetation - Endangered/Of concern in Category B (remnant)	0.0 ha	0.0 %
8b Regulated Vegetation - Endangered/Of concern in Category C (regrowth)	0.0 ha	0.0 %
8c Regulated Vegetation - Category R (GBR riverine regrowth)	0.0 ha	0.0 %
8d Regulated Vegetation - Essential habitat	0.0 ha	0.0 %
8e Regulated Vegetation - intersecting a watercourse	3.5 km	Not applicable
8f Regulated Vegetation - within 100m of a Vegetation Management Wetland	0.0 ha	0.0 %
9a Legally secured offset areas- offset register areas	0.0 ha	0.0 %
9b Legally secured offset areas- vegetation offsets through a Property Map of Assessable Vegetation	0.0 ha	0.0 %

Additional Information with Respect to MSES Values Present

MSES - State Conservation Areas

1a. Protected Areas - estates

(no results)

1b. Protected Areas - nature refuges

(no results)

1c. Protected Areas - special wildlife reserves

(no results)

2. State Marine Parks - highly protected zones

(no results)

3. Fish habitat areas (A and B areas)

(no results)

Refer to Map 1 - MSES - State Conservation Areas for an overview of the relevant MSES.

MSES - Wetlands and Waterways

4. Strategic Environmental Areas (SEA)

(no results)

5. High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values

(no results)

6a. Wetlands in High Ecological Value (HEV) waters

(no results)

6b. Waterways in High Ecological Value (HEV) waters

(no results)

Refer to Map 2 - MSES - Wetlands and Waterways for an overview of the relevant MSES.

MSES - Species

7a. Threatened (endangered or vulnerable) wildlife

Not applicable

7b. Special least concern animals

Not applicable

7c i. Koala habitat area - core (SEQ)

Not applicable

7c ii. Koala habitat area - locally refined (SEQ)

Not applicable

7d. Wildlife habitat (sea turtle nesting areas)

Not applicable

Threatened (endangered or vulnerable) wildlife habitat suitability models

Species	Common name	NCA status	Presence
Boronia keysii		V	None
Calyptorhynchus lathami	Glossy black cockatoo	V	None
Casuarius casuarius johnsonii	Sthn population cassowary	Е	None
Crinia tinnula	Wallum froglet	V	None
Denisonia maculata	Ornamental snake	V	None
Litoria freycineti	Wallum rocketfrog	V	None
Litoria olongburensis	Wallum sedgefrog	V	None
Macadamia integrifolia		V	None
Macadamia ternifolia		V	None
Macadamia tetraphylla		V	None
Melaleuca irbyana		E	None
Petaurus gracilis	Mahogany Glider	E	None
Petrogale persephone	Proserpine rock-wallaby	E	None
Pezoporus wallicus wallicus	Eastern ground parrot	V	None
Phascolarctos cinereus	Koala - outside SEQ*	V	None
Taudactylus pleione	Kroombit tinkerfrog	E	None
Xeromys myoides	Water Mouse	V	None

^{*}For koala model, this includes areas outside SEQ. Check 7c SEQ koala habitat for presence/absence.

Threatened (endangered or vulnerable) wildlife species records

(no results)

Special least concern animal species records

(no results)

Shorebird habitat (critically endangered/endangered/vulnerable)

Not applicable

Shorebird habitat (special least concern)

Not applicable

*Nature Conservation Act 1992 (NCA) Status- Endangered (E), Vulnerable (V) or Special Least Concern Animal (SL). Environment Protection and Biodiversity Conservation Act 1999 (EPBC) status: Critically Endangered (CE) Endangered (E), Vulnerable (V)

Migratory status (M) - China and Australia Migratory Bird Agreement (C), Japan and Australia Migratory Bird Agreement (J), Republic of Korea and Australia Migratory Bird Agreement (R), Bonn Migratory Convention (B), Eastern Flyway (E)

To request a species list for an area, or search for a species profile, access Wildlife Online at: https://www.qld.gov.au/environment/plants-animals/species-list/

Refer to Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals, Map 3b - MSES - Species - Koala habitat area (SEQ) and Map 3c - MSES - Wildlife habitat (sea turtle nesting areas) for an overview of the relevant MSES.

MSES - Regulated Vegetation

For further information relating to regional ecosystems in general, go to:

https://www.gld.gov.au/environment/plants-animals/plants/ecosystems/

For a more detailed description of a particular regional ecosystem, access the regional ecosystem search page at: https://environment.ehp.gld.gov.au/regional-ecosystems/

8a. Regulated Vegetation - Endangered/Of concern in Category B (remnant)

Not applicable

8b. Regulated Vegetation - Endangered/Of concern in Category C (regrowth)

Not applicable

8c. Regulated Vegetation - Category R (GBR riverine regrowth)

Not applicable

8d. Regulated Vegetation - Essential habitat

Not applicable

8e. Regulated Vegetation - intersecting a watercourse**

A vegetation management watercourse is mapped as present

8f. Regulated Vegetation - within 100m of a Vegetation Management wetland

Not applicable

Refer to Map 4 - MSES - Regulated Vegetation for an overview of the relevant MSES.

MSES - Offsets

9a. Legally secured offset areas - offset register areas

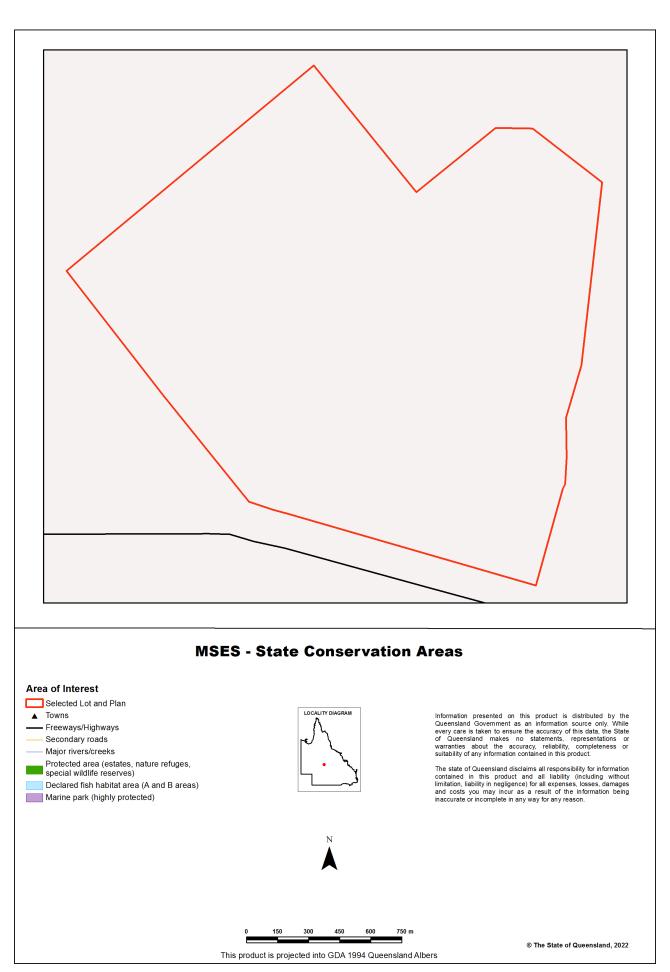
(no results)

9b. Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation

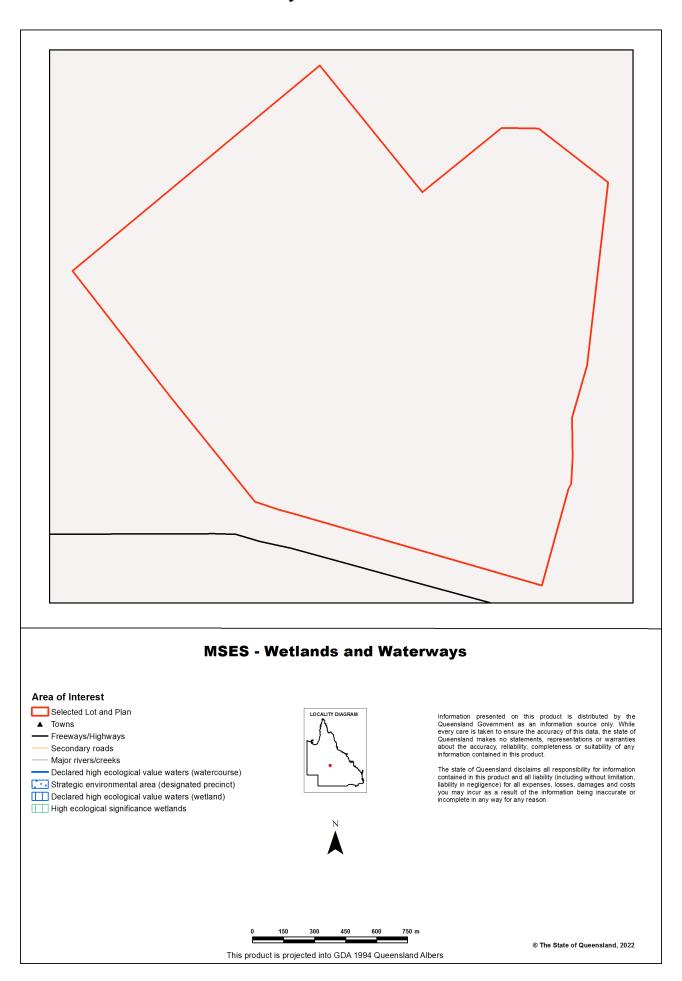
(no results)

Refer to **Map 5 - MSES - Offset Areas** for an overview of the relevant MSES.

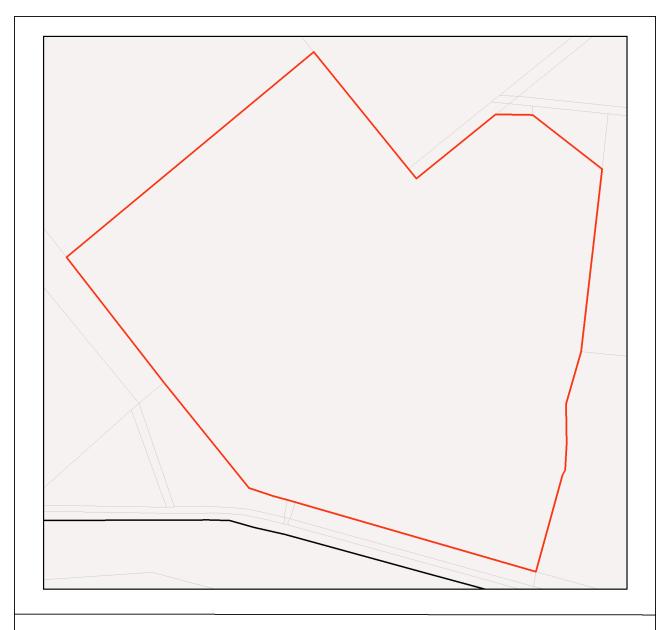
Map 1 - MSES - State Conservation Areas



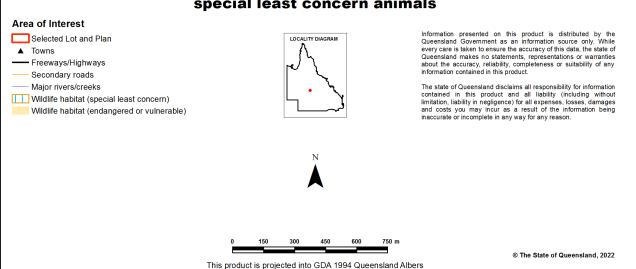
Map 2 - MSES - Wetlands and Waterways



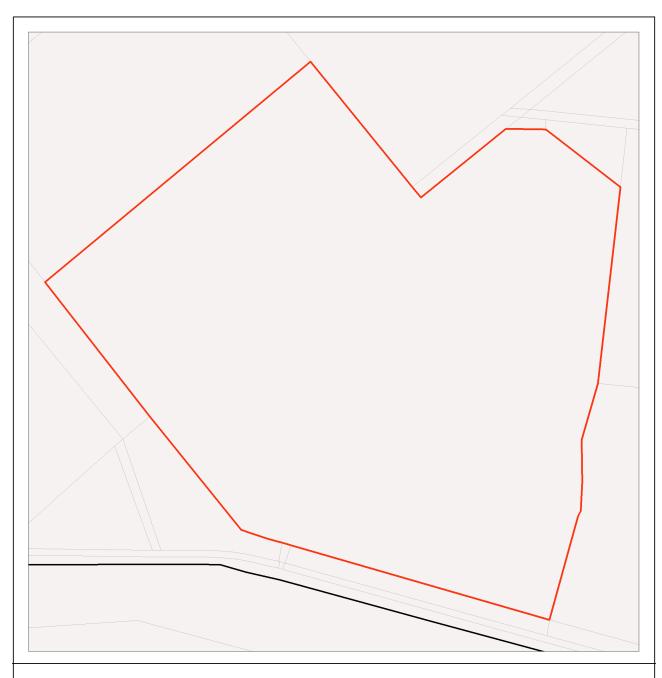
Map 3a - MSES - Species - Threatened (endangered or vulnerable) wildlife and special least concern animals



MSES - Species Threatened (endangered or vulnerable) wildlife and special least concern animals



Map 3b - MSES - Species - Koala habitat area (SEQ)



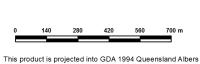
MSES - Species Koala habitat area (SEQ)



The koala habitat mapping within South East Queensland uses regional ecosystem linework compiled at a scale varying from 1:25,000 to 1:100,000. Linework should be used as a guide only. The positional accuracy of regional ecosystem data mapped at a scale of 1:100,000 is +/- 100 metres.

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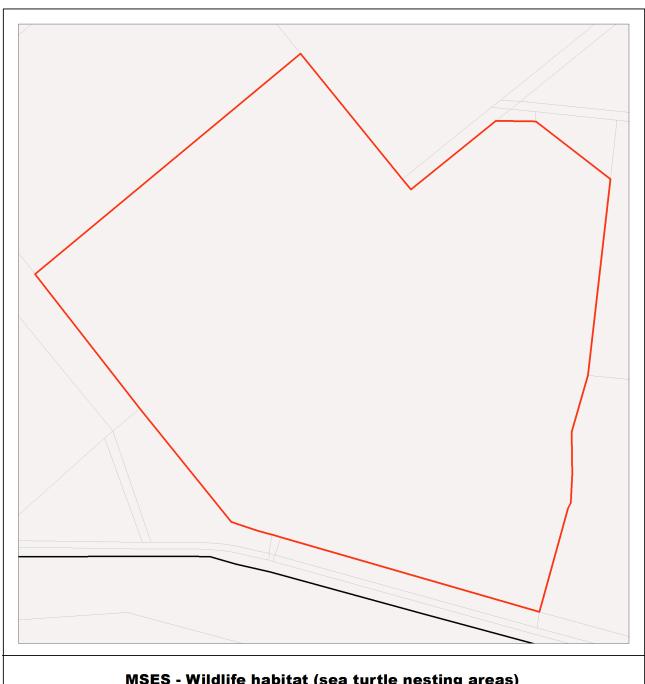


While every care is taken to ensure the accuracy of this product, the Department of Environment and Science acting on behalf of the State of Queensland makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the data being inaccurate or incomplete in any way and for any reason. Due to varying sources of data, spatial locations may not coincide when overlaid.

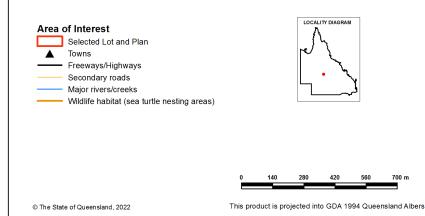
While every care is taken to ensure the accuracy of this

The represented layers for SEQ 'koala habitat area-core' and 'koala habitat area- locally refined' in MSES are sourced directly from the regulatory mapping under the Nature Conservation (Koala) Conservation Plan 2017. Whilst every effort is made to ensure the information remains current, there may be delays between updating versions. Please refer to the original mapping for the most recent version. See https://environment.des.qld.gov.au/wildlife/animals/iliving-with/koalas/mapping

Map 3c - MSES - Wildlife habitat (sea turtle nesting areas)



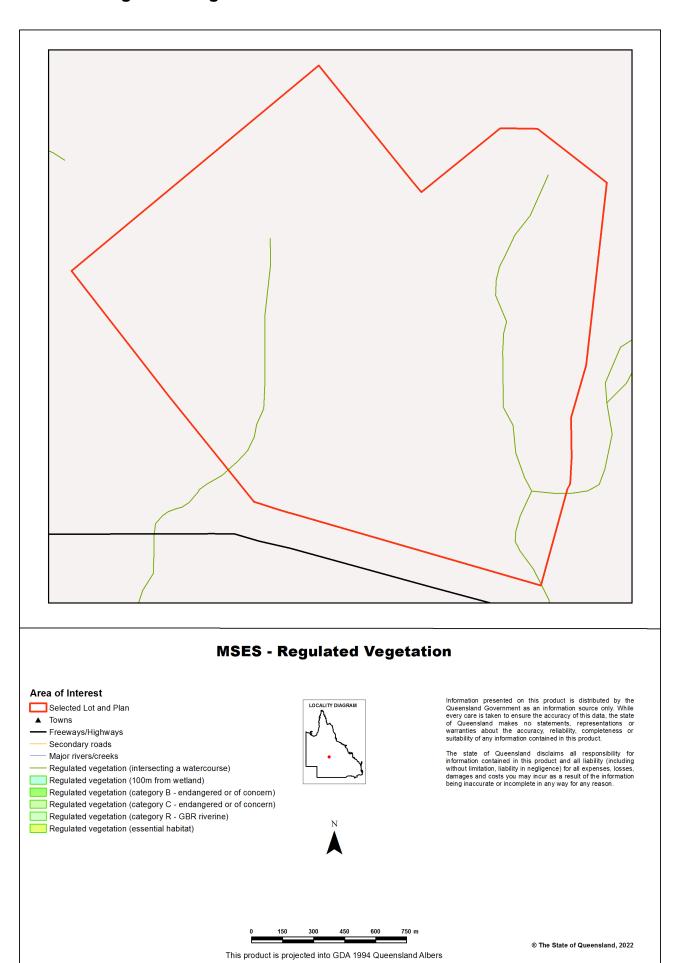
MSES - Wildlife habitat (sea turtle nesting areas)



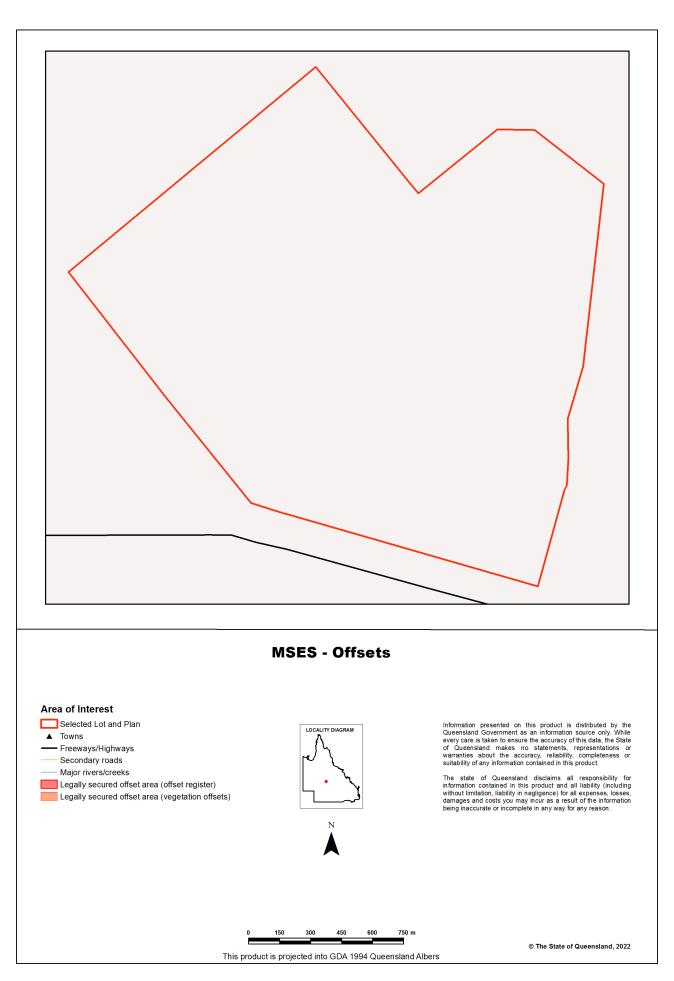
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MSES mapping of sea turtle nesting areas identifies beaches where the recorded number of turtle nests are over 1% of the turtle species or genetic stock. The linework is also deliberately extended along nearby rocky coast

Map 4 - MSES - Regulated Vegetation



Map 5 - MSES - Offset Areas



Appendices

Appendix 1 - Matters of State Environmental Significance (MSES) methodology

MSES mapping is a regional-scale representation of the definition for MSES under the State Planning Policy (SPP). The compiled MSES mapping product is a guide to assist planning and development assessment decision-making. Its primary purpose is to support implementation of the SPP biodiversity policy. While it supports the SPP, the mapping does not replace the regulatory mapping or environmental values specifically called up under other laws or regulations. Similarly, the SPP biodiversity policy does not override or replace specific requirements of other Acts or regulations.

The Queensland Government's "Method for mapping - matters of state environmental significance for use in land use planning and development assessment" can be downloaded from:

http://www.ehp.gld.gov.au/land/natural-resource/method-mapping-mses.html .

Appendix 2 - Source Data

The datasets listed below are available on request from:

http://qldspatial.information.qld.gov.au/catalogue/custom/index.page

· Matters of State environmental significance

Note: MSES mapping is not based on new or unique data. The primary mapping product draws data from a number of underlying environment databases and geo-referenced information sources. MSES mapping is a versioned product that is updated generally on a twice-yearly basis to incorporate the changes to underlying data sources. Several components of MSES mapping made for the current version may differ from the current underlying data sources. To ensure accuracy, or proper representation of MSES values, it is strongly recommended that users refer to the underlying data sources and review the current definition of MSES in the State Planning Policy, before applying the MSES mapping.

Individual MSES layers can be attributed to the following source data available at QSpatial:

MSES layers	current QSpatial data (http://qspatial.information.qld.gov.au)
Protected Areas-Estates, Nature Refuges, Special Wildlife Reserves	- Protected areas of Queensland - Nature Refuges - Queensland - Special Wildlife Reserves- Queensland
Marine Park-Highly Protected Zones	Moreton Bay marine park zoning 2008
Fish Habitat Areas	Queensland fish habitat areas
Strategic Environmental Areas-designated	Regional Planning Interests Act - Strategic Environmental Areas
HES wetlands	Map of Queensland Wetland Environmental Values
Wetlands in HEV waters	HEV waters: - EPP Water intent for waters Source Wetlands: - Queensland Wetland Mapping (Current version 5) Source Watercourses: - Vegetation management watercourse and drainage feature map (1:100000 and 1:250000)
Wildlife habitat (threatened and special least concern)	- WildNet database species records - habitat suitability models (various) - SEQ koala habitat areas under the Koala Conservation Plan 2019 - Sea Turtle Nesting Areas records
VMA regulated regional ecosystems	Vegetation management regional ecosystem and remnant map
VMA Essential Habitat	Vegetation management - essential habitat map
VMA Wetlands	Vegetation management wetlands map
Legally secured offsets	Vegetation Management Act property maps of assessable vegetation. For offset register data-contact DES
Regulated Vegetation Map	Vegetation management - regulated vegetation management map

GEM

Appendix 3 - Acronyms and Abbreviations

AOI - Area of Interest

DES - Department of Environment and Science

EP Act - Environmental Protection Act 1994

EPP - Environmental Protection Policy

GDA94 - Geocentric Datum of Australia 1994

- General Environmental Matters

GIS - Geographic Information System

MSES - Matters of State Environmental Significance

NCA - Nature Conservation Act 1992

RE - Regional Ecosystem
SPP - State Planning Policy

VMA - Vegetation Management Act 1999



Department of Environment and Science

Environmental Reports

Regional Ecosystems

Biodiversity Status

For the selected area of interest Lot: 155 Plan: SP259530

Environmental Reports - General Information

The Environmental Reports portal provides for the assessment of selected matters of interest relevant to a user specified location, or area of interest (AOI). All area and derivative figures are relevant to the extent of matters of interest contained within the AOI unless otherwise stated. Please note, if a user selects an AOI via the "central coordinates" option, the resulting assessment area encompasses an area extending for a 2km radius from the input coordinates.

All area and area derived figures included in this report have been calculated via reprojecting relevant spatial features to Albers equal-area conic projection (central meridian = 146, datum Geocentric Datum of Australia 1994). As a result, area figures may differ slightly if calculated for the same features using a different co-ordinate system.

Figures in tables may be affected by rounding.

The matters of interest reported on in this document are based upon available state mapped datasets. Where the report indicates that a matter of interest is not present within the AOI (e.g. where area related calculations are equal to zero, or no values are listed), this may be due either to the fact that state mapping has not been undertaken for the AOI, that state mapping is incomplete for the AOI, or that no matters of interest have been identified within the site.

The information presented in this report should be considered as a guide only and field survey may be required to validate values on the ground.

Important Note to User

Information presented in this report is based upon the Queensland Herbarium's Regional Ecosystem framework. The Biodiversity Status has been used to depict the extent of "Endangered", "Of Concern" and "No Concern at Present" regional ecosystems in all cases, rather than the classes used for the purposes of the *Vegetation Management Act 1999* (VMA). Mapping and figures presented in this document reflect the Queensland Herbarium's Remnant and Pre-clearing Regional Ecosystem Datasets, and not the certified mapping used for the purpose of the VMA.

For matters relevant to vegetation management under the VMA, please refer to the Department of Resources website https://www.resources.qld.gov.au/

Please direct queries about these reports to: Queensland.Herbarium@qld.gov.au

Disclaimer

Whilst every care is taken to ensure the accuracy of the information provided in this report, the Queensland Government makes no representations or warranties about its accuracy, reliability, completeness, or suitability, for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which the user may incur as a consequence of the information being inaccurate or incomplete in any way and for any reason.



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Summary Information

The following table provides an overview of the AOI with respect to selected topographic and environmental themes. Refer to **Map 1** for locality information.

Table 1: Area of interest details: Lot: 155 Plan: SP259530

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek

The table below summarizes the extent of remnant vegetation classed as "Endangered", "Of concern" and "No concern at present" regional ecosystems classified by Biodiversity Status within the area of interest (AOI).

Table 2: Summary table, biodiversity status of regional ecosystems within the AOI

Biodiversity Status	Area (Ha)	% of AOI
Endangered	0.0	0.0
Of concern	0.0	0.0
No concern at present	400.17	100.0
Total remnant vegetation	400.17	100.0

Refer to Map 2 for further information.

Regional Ecosystems

1. Introduction

Regional ecosystems are vegetation communities in a bioregion that are consistently associated with particular combinations of geology, landform and soil (Sattler and Williams 1999). Descriptions of Queensland's Regional ecosystems are available online from the Regional Ecosystem Description Database (REDD). Descriptions are compiled from a broad range of information sources including vegetation, land system and geology survey and mapping and detailed vegetation site data. The regional ecosystem classification and descriptions are reviewed as new information becomes available. A number of vegetation communities may form a single regional ecosystem and are usually distinguished by differences in dominant species, frequently in the shrub or ground layers and are denoted by a letter following the regional ecosystem code (e.g. a, b, c). Vegetation communities and regional ecosystems are amalgamated into a higher level classification of broad vegetation groups (BVGs).

A published methodology for survey and mapping of regional ecosystems across Queensland (Neldner et al 2020) provides further details on regional ecosystem concepts and terminology.

This report provides information on the type, status, and extent of vegetation communities, regional ecosystems and broad vegetation groups present within a user specified area of interest. Please note, for the purpose of this report, the Biodiversity Status is used. This report has not been developed for application of the *Vegetation Management Act 1999* (VMA). Additionally, information generated in this report has been derived from the Queensland Herbarium's Regional Ecosystem Mapping, and not the regulated mapping certified for the purposes of the VMA. If your interest/matter relates to regional ecosystems and the VMA, users should refer to the Department of Resources website.

https://www.resources.qld.gov.au/

With respect to the Queensland Biodiversity Status,

"Endangered" regional ecosystems are described as those where:

- remnant vegetation is less than 10 per cent of its pre-clearing extent across the bioregion; or 10-30% of its pre-clearing extent remains and the remnant vegetation is less than 10,000 hectares, or
- less than 10 per cent of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss*, or
- 10-30 per cent of its pre-clearing extent remains unaffected by severe degradation and/or biodiversity loss and the remnant vegetation is less than 10,000 hectares; or
- it is a rare** regional ecosystem subject to a threatening process.***

"Of concern" regional ecosystems are described as those where:

- the degradation criteria listed above for 'Endangered' regional ecosystems are not met and,
- remnant vegetation is 10-30 per cent of its pre-clearing extent across the bioregion; or more than 20 per cent of its pre-clearing extent remains and the remnant extent is less than 10,000 hectares, or
- 10-30 percent of its pre-clearing extent remains unaffected by moderate degradation and/or biodiversity loss.****

and "No concern at present" regional ecosystems are described as those where:

- remnant vegetation is over 30 per cent of its pre-clearing extent across the bioregion, and the remnant area is greater than 10,000 hectares, and
- the degradation criteria listed above for 'Endangered' or 'Of concern' regional ecosystems are not met.

*Severe degradation and/or biodiversity loss is defined as: floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 50 years even with the removal of threatening processes; or soil surface is severely degraded, for example, by loss of A horizon, surface expression of salinity; surface compaction, loss of organic matter or sheet erosion.

**Rare regional ecosystem: pre-clearing extent (1000 ha); or patch size (100 ha and of limited total extent across its range).

***Threatening processes are those that are reducing or will reduce the biodiversity and ecological integrity of a regional ecosystem. For example, clearing, weed invasion, fragmentation, inappropriate fire regime or grazing pressure, or infrastructure development.

****Moderate degradation and/or biodiversity loss is defined as: floristic and/or faunal diversity is greatly reduced but unlikely to recover within the next 20 years even with the removal of threatening processes; or soil surface is moderately degraded.

2. Remnant Regional Ecosystems

The following table identifies the remnant regional ecosystems and vegetation communities mapped within the AOI and provides their short descriptions, Biodiversity Status, and remnant extent within the selected AOI. Please note, where heterogeneous vegetated patches (mixed patches of remnant vegetation mapped as containing multiple regional ecosystems) occur within the AOI, they have been split and listed as individual regional ecosystems (or vegetation communities where present) for the purposes of the table below. In such instances, associated area figures have been generated based upon the estimated proportion of each regional ecosystem (or vegetation community) predicted to be present within the larger mixed patch.

Table 3: Remnant regional ecosystems, description and status within the AOI

Regional Ecosystem	Short Description	BD Status	Area (Ha)	% of AOI
4.3.14	Astrebla lappacea +/- Astrebla squarrosa, Aristida latifolia tussock grassland on alluvial plains	No concern at present	1.98	0.49
4.3.4x1	Eucalyptus coolabah open woodland on fringing drainage lines in clay and limestone landscapes	No concern at present	3.95	0.99
4.3.8e	Acacia cambagei low woodland on braided channels in dissected landscapes	No concern at present	0.66	0.16
4.9.11x40	Acacia cambagei low woodland with scattered shrubs such as Eremophila mitchellii and Geijera parviflora on Cretaceous sediments	No concern at present	62.82	15.7
4.9.7	Astrebla lappacea tussock grassland, wooded with Acacia tephrina +/- A. cambagei and Atalaya hemiglauca on Cretaceous sediments	No concern at present	182.22	45.54
4.9.8	Astrebla spp. grassland wooded with Atalaya hemiglauca +/- Alectryon oleifolius +/- Flindersia maculosa on Cretaceous sediments	No concern at present	148.54	37.12

Refer to **Map 2** for further information. **Map 3** also provides a visual estimate of the distribution of regional ecosystems present before clearing.

Table 4 provides further information in regards to the remnant regional ecosystems present within the AOI. Specifically, the extent of remnant vegetation remaining within the bioregion, the 1:1,000,000 broad vegetation group (BVG) classification, whether the regional ecosystem is identified as a wetland, and extent of representation in Queensland's Protected Area Estate. For a description of the vegetation communities within the AOI and classified according to the 1:1,000,000 BVG, refer to **Table 6**.

Table 4: Remnant regional ecosystems within the AOI, additional information

Regional Ecosystem	Remnant Extent	BVG (1 Million)	Wetland	Representation in protected estate
4.3.14	Pre-clearing 825000 ha; Remnant 2019 807000 ha	30a	Not a Wetland	Low
4.3.4x1	Pre-clearing 1044000 ha; Remnant 2019 1024000 ha	16a	Riverine	Low
4.3.8e	Pre-clearing 224000 ha; Remnant 2019 217000 ha	26a	Riverine	Low
4.9.11x40	Pre-clearing 1772000 ha; Remnant 2019 912000 ha	26a	Not a Wetland	Low

Regional Ecosystem	Remnant Extent	BVG (1 Million)	Wetland	Representation in protected estate
4.9.7	Pre-clearing 1263000 ha; Remnant 2019 1187000 ha	27a	Not a Wetland	Low
4.9.8	Pre-clearing 1250000 ha; Remnant 2019 1214000 ha	27a	Not a Wetland	Low

Representation in Protected Area Estate: High greater than 10% of pre-clearing extent is represented; Medium 4 - 10% is represented; Low less than 4% is represented, No representation.

The distribution of mapped wetland systems within the area of interest is displayed in Map 6.

The following table lists known special values associated with a regional ecosystem type.

Table 5: Remnant regional ecosystems within the AOI, special values

Regional Ecosystem	Special Values
4.3.14	Potential habitat for NCA listed species: Calotis suffruticosa, Dolichocarpa spathulata
4.3.4x1	Regional ecosystem of high fauna diversity. 4.3.4f: Vegetation community of high fauna diversity.
4.3.8e	High fauna diversity compared to surrounding grasslands.
4.9.11x40	High fauna diversity compared to surrounding grasslands. 4.9.11x1: High fauna diversity compared to surrounding grasslands. Habitat for Acacia crombiei (Vulnerarble). 4.9.11x40: High fauna diversity compared to surrounding grasslands.
4.9.7	Potential habitat for NCA listed species: Acacia crombiei, Calotis suffruticosa, Eremophila stenophylla
4.9.8	Potential habitat for NCA listed species: Acacia crombiei, Calotis suffruticosa

3. Remnant Regional Ecosystems by Broad Vegetation Group

BVGs are a higher-level grouping of vegetation communities. Queensland encompasses a wide variety of landscapes across temperate, wet and dry tropics and semi-arid climatic zones. BVGs provide an overview of vegetation communities across the state or a bioregion and allow comparison with other states. There are three levels of BVGs which reflect the approximate scale at which they are designed to be used: the 1:5,000,000 (national), 1:2,000,000 (state) and 1:1,000,000 (regional) scales.

A comprehensive description of BVGs is available at:

https://publications.qld.gov.au/dataset/redd/resource/

The following table provides a description of the 1:1,000,000 BVGs present and their associated extent within the AOI.

Table 6: Broad vegetation groups (1 million) within the AOI

BVG (1 Million)	Description	Area (Ha)	% of AOI
16a	Open forest and woodlands dominated by Eucalyptus camaldulensis (river red gum) (or E. tereticornis (blue gum)) and/or E. coolabah (coolabah) (or E. microtheca (coolabah)) fringing drainage lines. Associated species may include Melaleuca spp., Corymbia tessellaris (carbeen), Angophora spp., Casuarina cunninghamiana (riveroak). Does not include alluvial areas dominated by herb and grasslands or alluvial plains that are not flooded. (land zone 3) (MGD, BRB, GUP, CHC, MUL, DEU, EIU, NWH, SEQ, [NET, WET]) (All bioregions except CYP and CQC)	3.95	0.99

BVG (1 Million)	Description	Area (Ha)	% of AOI
26a	Open forests to tall shrublands dominated by Acacia cambagei (gidgee) or A. georginae (Georgina gidgee) or A. argyrodendron (blackwood). (land zones 9, 3, 4, 6, 5, 7, [8, 11]) (MGD, MUL, CHC, BRB, DEU, GUP, NWH, [EIU])	63.47	15.86
27a	Low open woodlands dominated by a variety of species including Acacia tephrina (boree), Atalaya hemiglauca (whitewood), Ventilago viminalis (supplejack) and Lysiphyllum spp. (land zones 9, 3, 4, [5]) (MGD, GUP, BRB, NWH, DEU, [CYP, EIU])	330.76	82.65
30a	Tussock grasslands dominated by Astrebla spp. (mitchell grass) or Dichanthium spp. (bluegrass) often with Eulalia aurea (silky browntop) on alluvia. (land zones 3, 4) (MGD, GUP, BRB, MUL, [DEU])	1.98	0.49

Refer to **Map 4** for further information. **Map 5** also provides a representation of the distribution of vegetation communities as per the 1:5,000,000 BVG believed to be present prior to European settlement.

4. Technical and BioCondition Benchmark Descriptions

Technical descriptions provide a detailed description of the full range in structure and floristic composition of regional ecosystems (e.g. 11.3.1) and their component vegetation communities (e.g. 11.3.1a, 11.3.1b). See:

http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/technical-descriptions/

The descriptions are compiled using site survey data from the Queensland Herbarium's CORVEG database. Distribution maps, representative images (if available) and the pre-clearing and remnant extent (hectares) of each vegetation community derived from the regional ecosystem mapping data are included. The technical descriptions should be used in conjunction with the fields from the regional ecosystem description database (REDD) for a full description of the regional ecosystem.

Technical descriptions include data on canopy height, canopy cover and native plant species composition of the predominant layer, which are attributes relevant to assessment of the remnant status of vegetation under the *Vegetation Management Act* 1999. However, as technical descriptions reflect the full range in structure and floristic composition across the climatic, natural disturbance and geographic range of the regional ecosystem, local reference sites should be used for remnant assessment where possible (Neldner et al. 2020 (PDF)* section 3.3 of:

https://publications.gld.gov.au/dataset/redd/resource/

The technical descriptions are subject to review and are updated as additional data becomes available.

When conducting a BioCondition assessment, these technical descriptions should be used in conjunction with BioCondition benchmarks for the specific regional ecosystem, or component vegetation community.

http://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks/

Benchmarks are based on a combination of quantitative and qualitative information and should be used as a guide only. Benchmarks are specific to one regional ecosystem vegetation community, however, the natural variability in structure and floristic composition under a range of climatic and natural disturbance regimes has been considered throughout the geographic extent of the regional ecosystem. Local reference sites should be used for this spatial and temporal (seasonal and annual) variability.

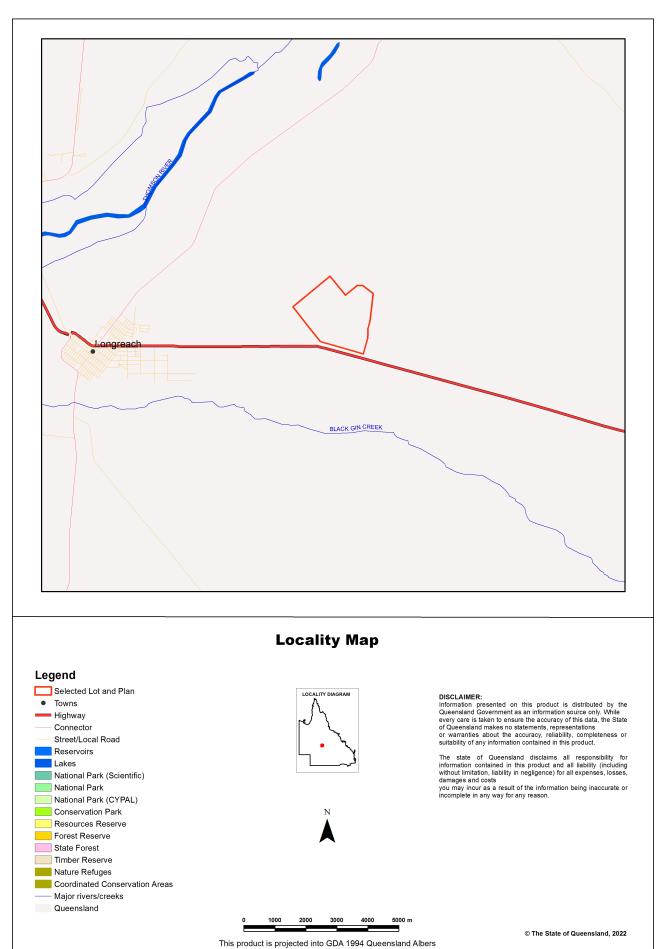
Table 7: List of remnant regional ecosystems within the AOI for which technical and biocondition benchmark descriptions are available

Regional ecosystems mapped as within the AOI	Technical Descriptions	Biocondition Benchmarks
4.3.14	Not currently available	Not currently available
4.3.4x1	Not currently available	Not currently available
4.3.8e	Not currently available	Not currently available
4.9.11x40	Not currently available	Not currently available

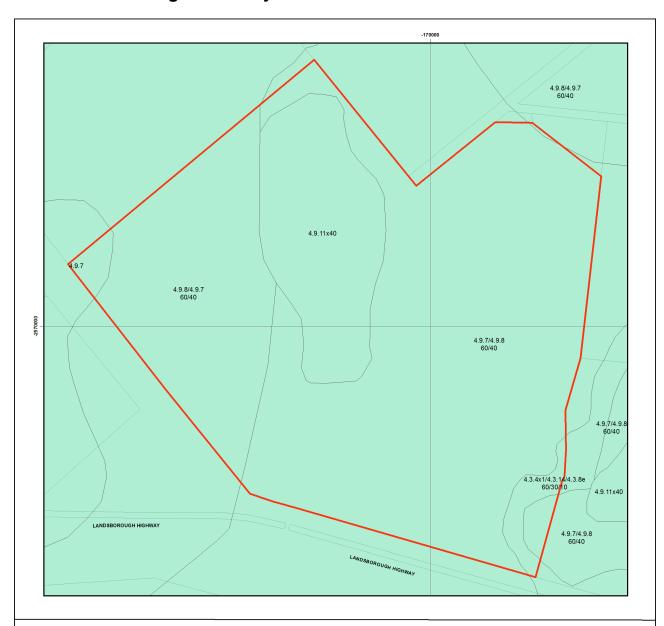
Regional ecosystems mapped as within the AOI	Technical Descriptions	Biocondition Benchmarks
4.9.7	Not currently available	Not currently available
4.9.8	Not currently available	Available

Maps

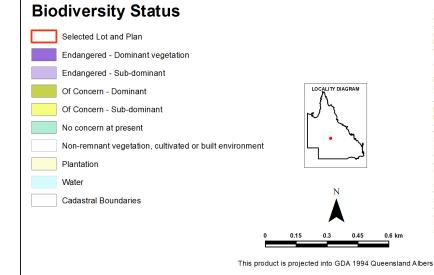
Map 1 - Location



Map 2 - Remnant 2019 regional ecosystems



Remnant 2019 Regional Ecosystems



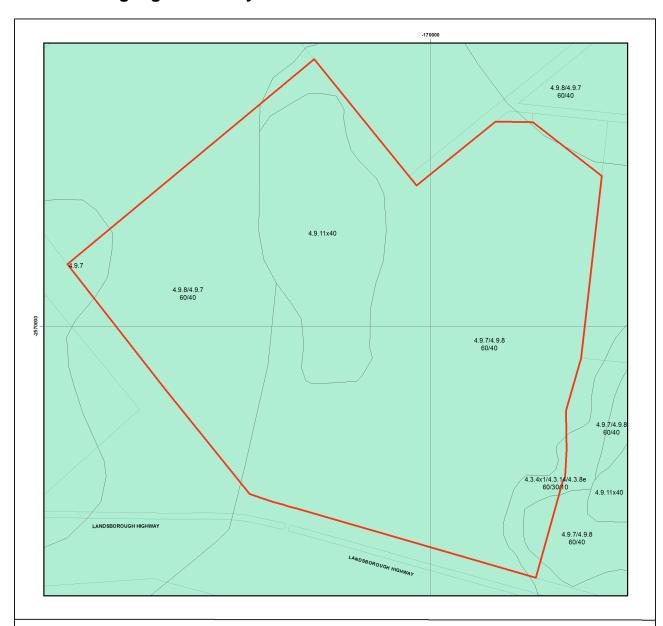
Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant width of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres.

Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The polygons are labelled by regional ecosystem (RE); where more than one RE occurs, the percentage of each is labelled. The label consists of 3 components: bioregion, land zone, and vegetation community – the dominant canopy species. e.g.: RE 12.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework".

Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM Imagery, geology, soils, land systems data, field survey and historical records.

Remnant woody vegetation is defined as vegetation that has not been cleared or vegetation that has been cleared but where the dominant canopy has >70% of the height and >50% of the cover relative to the undisturbed height and cover of that stratum and is dominated by species characteristic of the vegetation's undisturbed native vegetation.

Map 3 - Pre-clearing regional ecosystems



Pre-clearing Regional Ecosystems

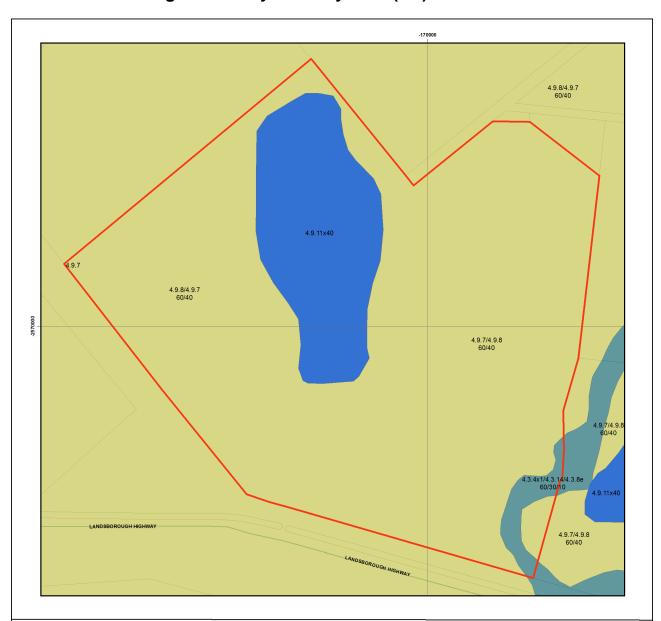
This product is projected into GDA 1994 Queensland Albers

© The State of Queensland, 2022

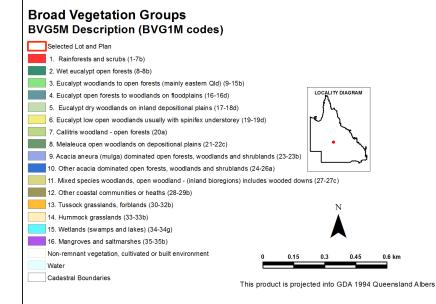
Biodiversity Status Selected Lot and Plan Endangered - Dominant vegetation Endangered - Sub-dominant Of Concern - Dominant Of Concern - Sub-dominant No concern at present Water Cadastral Boundaries Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant wdth of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres. Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The polygons are labelled by regional ecosystem (RE); where more than one RE occurs, the percentage of each is labelled. The label consists of 3 components: bioregion, land zone, and vegetation community – the dominant canopy species. e.g., RE 12:33. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework". Regional ecosystem mapping at 1:100,000 of Smets are found online. Use the search term "Regional Ecosystem framework". Regional accuracy of linework is 100 metres. No concern at present No concern at present

06/12/2022 12:49:19 Regional Ecosystems

Map 4 - Remnant 2019 regional ecosystems by BVG (5M)



Remnant 2019 Regional Ecosystems coloured by Broad Vegetation Groups



Broad Vegetation Groups (BVG) of Queensland are applied by look up table to the regional ecosystem vegetation communities. Each polygon is coloured by the dominant BVGSM and the component regional ecosystems labelled. Where more than one regional ecosystem occurs, the percentage of each is labelled. Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant width of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres.

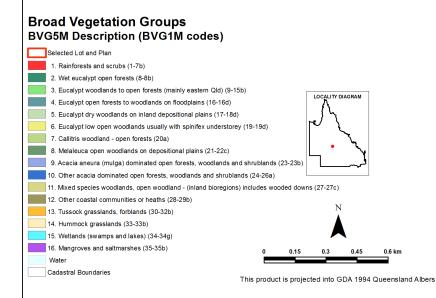
Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The label consists of 3 components: bioregion, land zone, and vegetation community - the dominant canopy species. e.g.: RE 12.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework". Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM Imagery, geology, soils, land systems data, field survey and historical records. Remnant woody vegetation is defined as vegetation that has not been cleared or vegetation that has been cleared but where the dominant canopy has >70% of the height and cover of that stratum and is dominated by species characteristic of the vegetation's undisturbed canopy.

06/12/2022 12:49:19 Regional Ecosystems

Map 5 - Pre-clearing regional ecosystems by BVG (5M)



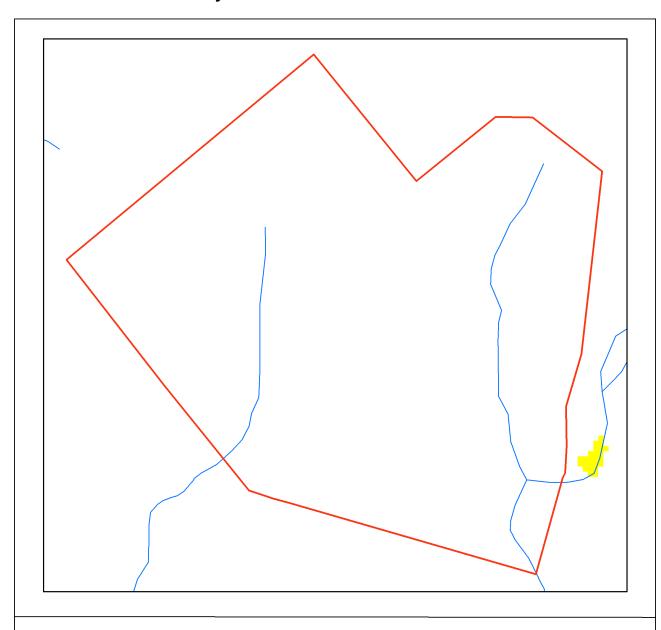
Pre-clearing Regional Ecosystems coloured by Broad Vegetation Groups



Broad Vegetation Groups (BVG) of Queensland are applied by look up table to the regional ecosystem vegetation communities. Each polygon is coloured by the dominant BVGSM and the component regional ecosystems labelled. Where more than one regional ecosystems labelled. Regional ecosystem mapping over the majority of Queensland is produced at a scale of 1:100,000. At this scale, the minimum remnant polygon area is 5 hectares or minimum remnant wdth of 75 metres. Regional ecosystem linework reproduced at a scale greater than 1:100,000, except in designated areas, should be used as a guide only. The precision of polygon boundaries or positional accuracy of linework is 100 metres. Regional ecosystems are defined as vegetation communities in a bioregion that are consistently associated with a particular combination of geology, landform and soil. The label consists of 3 components: bioregion, land zone, and vegetation community - the dominant canopy species. e.g.: RE 1.3.3. Descriptions of REs are found online. Use the search term "Regional Ecosystem Framework". Regional ecosystem mapping at 1:100,000 map scale is derived from the following sources: 1:80,000 B&W 1960's serial photography! andsat TM limagery repolacy soils land

derived from the following sources: 1:80,000 B&W 1960's aerial photography, Landsat TM imagery, geology, soils, land systems data, field survey and historical records.

Map 6 - Wetlands and waterways



Queensland Wetland Data

450

This product is projected into GDA 1994 Queensland Albers

600

Legend Selected Lot and Plan Towns **Queensland Wetland Data** Riverine Drainage Lines Springs Wetland System - Water Bodies Marine Waterbodies Estuarine Waterbodies Riverine Waterbodies Lacustrine Waterbodies Palustrine Waterbodies Wetland System - Regional Ecosystems Marine RE Estuarine RE Riverine RE Lacustrine RE RE Palustrine RE RE 51-80% wetland (mosaic units) RE 1-50% wetland (mosaic units)

Accuracy information: The positional accuracy of wetland data mapped at a scale of 1:100,000 is +/-100m with a minimum polygon size of 5ha or 75m wide for linear features, except for areas along the east coa st which are mapped at the 1:50,000 scale with a positional accuracy of +/-50m, with a minimum polygon size of 1ha or 35m wide for linear features. Wetlands smaller than 1ha are not delineated on the wetland data. Consideration of the effects of mapped scale is necessary when interpret ing data at a larger scale, e.g. 1:25,000. For property assessment, digital linework should be used as a guide only. The extent of wetlands depicted on this map is based on rectified 2013 Landsat ETM+ imagery supplied by Statewide Landcover and Trees Study (SLATS), Department of Environment and Science. The extent of water bodies is based on the maximum extent of inundation derived from available Landsat imagery up to and including the 2013 imagery.

Links and Other Information Sources

The Department of Environment and Science's Website -

http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/

provides further information on the regional ecosystem framework, including access to links to the Regional Ecosystem Database, Broad Vegetation Group Definitions, Regional Ecosystem and Land zone descriptions.

Descriptions of the broad vegetation groups of Queensland can be downloaded from:

https://publications.gld.gov.au/dataset/redd/resource/

The methodology for mapping regional ecosystems can be downloaded from:

https://publications.gld.gov.au/dataset/redd/resource/

Technical descriptions for regional ecosystems can be obtained from:

http://www.gld.gov.au/environment/plants-animals/plants/ecosystems/technical-descriptions/

Benchmarks can be obtained from:

http://www.qld.gov.au/environment/plants-animals/biodiversity/benchmarks/

For further information associated with the remnant regional ecosystem dataset used by this report, refer to the metadata associated with the Biodiversity status of pre-clearing and Remnant Regional Ecosystems of Queensland dataset (version listed in **Appendix 1**) which is available through the Queensland Government Information System portal,

http://dds.information.qld.gov.au/dds/

The Queensland Globe is a mapping and data application. As an interactive online tool, Queensland Globe allows you to view and explore Queensland maps, imagery (including up-to-date satellite images) and other spatial data, including regional ecosystem mapping. To further view and explore regional ecosystems over an area of interest, access the Biota Globe (a component of the Queensland Globe). The Queensland Globe can be accessed via the following link:

https://qldglobe.information.qld.gov.au/

References

Neldner, V.J., Niehus, R.E., Wilson, B.A., McDonald, W.J.F., Ford, A.J. and Accad, A. (2019). The Vegetation of Queensland. Descriptions of Broad Vegetation Groups. Version 4.0. Queensland Herbarium, Department of Environment and Science. (https://publications.gld.gov.au/dataset/redd/resource/78209e74-c7f2-4589-90c1-c33188359086)

Neldner, V.J., Wilson, B.A., Dillewaard, H.A., Ryan, T.S., Butler, D.W., McDonald, W.J.F, Addicott, E.P. and Appelman, C.N. (2020). Methodology for survey and mapping of regional ecosystems and vegetation communities in Queensland. Version 5.1. Updated March 2020. Queensland Herbarium, Queensland Department of Environment and Science, Brisbane. (https://publications.gld.gov.au/dataset/redd/resource/6dee78ab-c12c-4692-9842-b7257c2511e4)

Sattler, P.S. and Williams, R.D. (eds) (1999). *The Conservation Status of Queensland's Bioregional Ecosystems*. Environmental Protection Agency, Brisbane.

Appendices

Appendix 1 - Source Data

The dataset listed below is available for download from:

http://www.qld.gov.au/environment/plants-animals/plants/ecosystems/download/

• Regional Ecosystem Description Database

The datasets listed below are available for download from:

http://dds.information.qld.gov.au/dds/

- Biodiversity status of pre-clearing and 2019 remnant regional ecosystems of Queensland
- Pre-clearing Vegetation Communities and Regional Ecosystems of Queensland
- Queensland Wetland Data Version Wetland lines
- Queensland Wetland Data Version Wetland points
- Queensland Wetland Data Version Wetland areas

Appendix 2 - Acronyms and Abbreviations

AOI - Area of Interest

GDA94 - Geocentric Datum of Australia 1994

GIS - Geographic Information System

RE - Regional Ecosystem

REDD - Regional Ecosystem Description Database

VMA - Vegetation Management Act 1999

WildNet Records Conservation Significant Species List



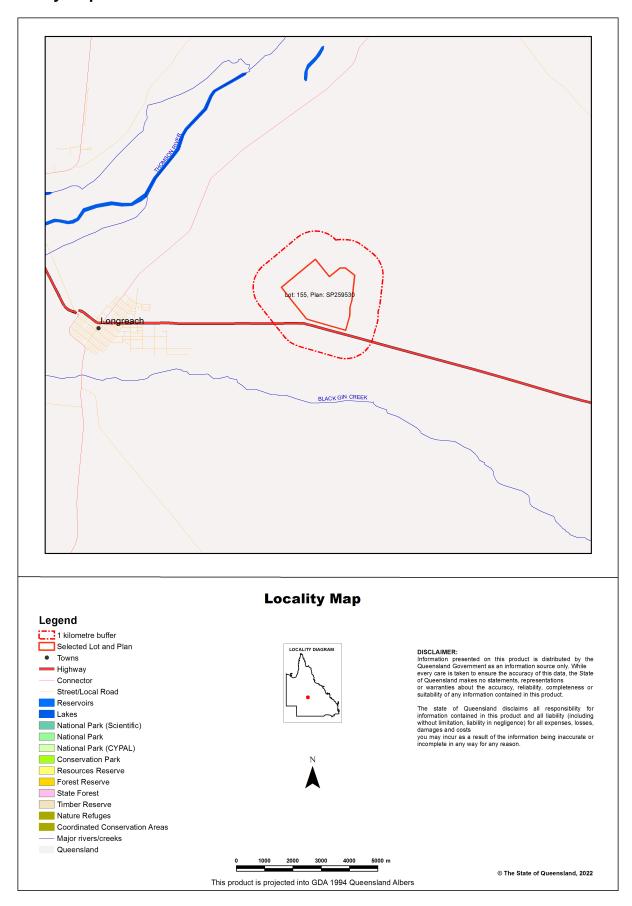
For the selected area of interest 400.17ha Lot: 155 Plan: SP259530

Current as at 06/12/2022

WildNetCSSpeciesList



Map 1. Locality Map



WildNet Records Conservation Significant Species List (06/12/2022 12:49:49)

Lot: 155 Plan: SP259530

Summary Information

The following table provides an overview of the area of interest Lot: 155 Plan: SP259530.

Table 1. Area of interest details

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek

Protected Area(s)

No estates or reserves are located within the area of interest.

World Heritage Area(s)

No World Heritage Areas are located within the area of interest.

Ramsar Area(s)

No Ramsar Areas are located within the area of interest.

Conservation Significant Species List

Introduction

This report is derived from a spatial layer generated from the <u>WildNet database</u> managed by the Department of Environment and Science. The layer which is generated weekly contains the WildNet wildlife records that are not classed as erroneous or duplicate, that have a location precision equal to or less than 10000 metres and do not have a count of zero.

Conservation significant species are species listed:

- as <u>threatened</u> or near threatened under the Nature Conservation Act 1992;
- as threatened under the Environment Protection and Biodiversity Conservation Act 1999 or
- migratory species protected under the following international agreements:
 - o Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention)
 - o China-Australia Migratory Bird Agreement
 - o Japan-Australia Migratory Bird Agreement
 - o Republic of Korea-Australia Migratory Bird Agreement

The WildNet dataset is constantly being enhanced and the taxonomic and status information revised. If a species is not listed in this report, it does not mean it doesn't occur there and listed species may also no longer inhabit the area. It is recommended that you also access other internal and external data sources for species information in your area of interest (Refer Links and Support).

Table 2 lists the species recorded within the area of interest and its one kilometre buffer.

Table 2. Conservation significant species recorded within the area of interest and its one kilometre buffer

No species found within the area of interest.

Taxon Id: Unique identifier of the taxon from the WildNet database.

NCA: Queensland conservation status of the taxon under the *Nature Conservation Act 1992* (Least Concern (C), Critically Endangered (CR), Endangered (E), Extinct (EX), Near Threatened (NT), Extinct in the Wild (PE), Special Least Concern (SL), and Vulnerable (V)).

EPBC: Australian conservation status of the taxon under the *Environment Protection and Biodiversity Conservation Act 1999* (Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Vulnerable (V), and Extinct in the Wild (XW)).

Specimens: The number of specimen-backed records of the taxon.

Records: The total number of records of the taxon. **Last record:** Date of latest record of the taxon. WildNet Records Conservation Significant Species List (06/12/2022 12:49:49) Lot: 155 Plan: SP259530

Links and Support

Other sites that deliver species information from the WildNet database include:

- <u>Species profile search</u> access species information approved for publication including species names, statuses, notes, images, distribution maps and records
- <u>Species lists</u> generate species lists for Queensland protected areas, forestry areas, local governments and areas defined using coordinates
- · Biomaps view biodiversity information, including WildNet records approved for publication, and generate reports
- Queensland Globe view spatial information, including WildNet records approved for publication
- Qld wildlife data API access WildNet species information approved for publication such as notes, images and records etc.
- WetlandMaps view species records, survey locations etc. approved for publication
- Wetland Summary view wildlife statistics, species lists for a range of area types, and access WildNet species profiles
- WildNet wildlife records published Queensland spatial layer of WildNet records approved for publication generated weekly
- <u>Generalised distribution and densities of Queensland wildlife</u> Queensland species distributions and densities generalised to a 10 km grid resolution
- <u>Conservation status of Queensland wildlife</u> access current lists of priority species for Queensland including nomenclature and status information
- Queensland Confidential Species the list of species flagged as confidential in the WildNet database.

Please direct queries about this report to the WildNet Team.

Other useful sites for accessing Queensland biodiversity data include:

- Useful wildlife resources
- Queensland Government Data
- Atlas of Living Australia (ALA)
- Online Zoological Collections of Australian Museums (OZCAM)
- Australia's Virtual Herbarium (AVH)
- Protected Matters Search Tool

Disclaimer



WildNet Records Pest List



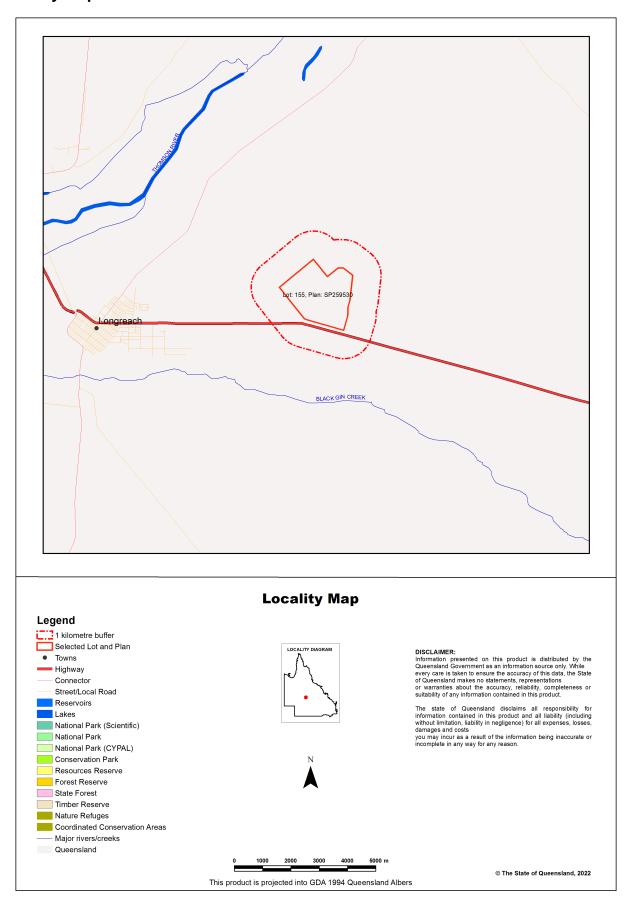
For the selected area of interest 400.17ha Lot: 155 Plan: SP259530

Current as at 06/12/2022

WildNetPestList



Map 1. Locality Map



WildNet Records Pest List (06/12/2022 12:51:58)

Lot: 155 Plan: SP259530

Summary Information

The following table provides an overview of the area of interest Lot: 155 Plan: SP259530.

Table 1. Area of interest details

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek

Protected Area(s)

No estates or reserves are located within the area of interest.

World Heritage Area(s)

No World Heritage Areas are located within the area of interest.

Ramsar Area(s)

No Ramsar Areas are located within the area of interest.

Pest List

Introduction

This report is derived from a spatial layer generated from the <u>WildNet database</u> managed by the Department of Environment and Science. The layer which is generated weekly contains the WildNet wildlife records that are not classed as erroneous or duplicate, that have a location precision equal to or less than 10000 metres and do not have a count of zero.

The WildNet dataset is constantly being enhanced and the taxonomic and status information revised. If a species is not listed in this report, it does not mean it doesn't occur there and listed species may also no longer inhabit the area. It is recommended that you also access other internal and external data sources for species information in your area of interest (Refer Links and Support).

Species Data

Contextual location information is presented in Map 1.

A summary of the pests recorded within the area of interest and its one kilometre buffer is presented in Table 2.

Table 2. Pests recorded within the area of interest and its one kilometre buffer

No pests found within the area of interest and its one kilometre buffer.

Species table headings and codes

Taxon Id: Unique identifier of the taxon from the WildNet database.

Specimens: The number of specimen-backed records of the taxon.

Records: The total number of records of the taxon.

Last record: Date of latest record of the taxon.

Endemicity: The endemicity code for the taxon (Introduced (Intranational) (IA), Introduced (International) (II), Introduced (Unknown), Exotic (Intranational) (XA), Exotic (International) (XI) and Exotic (Unknown) (XU)).

Links and Support

Other sites that deliver species information from the WildNet database include:

• <u>Species profile search</u> - access species information approved for publication including species names, statuses, notes, images, distribution maps and records

WildNet Records Pest List (06/12/2022 12:51:58) Lot: 155 Plan: SP259530

- <u>Species lists</u> generate species lists for Queensland protected areas, forestry areas, local governments and areas defined using coordinates
- · Biomaps view biodiversity information, including WildNet records approved for publication, and generate reports
- Queensland Globe view spatial information, including WildNet records approved for publication
- Qld wildlife data API access WildNet species information approved for publication such as notes, images and records etc.
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- Australia's Virtual Herbarium (AVH)
- Protected Matters Search Tool

Disclaimer



WildNet Records Species List



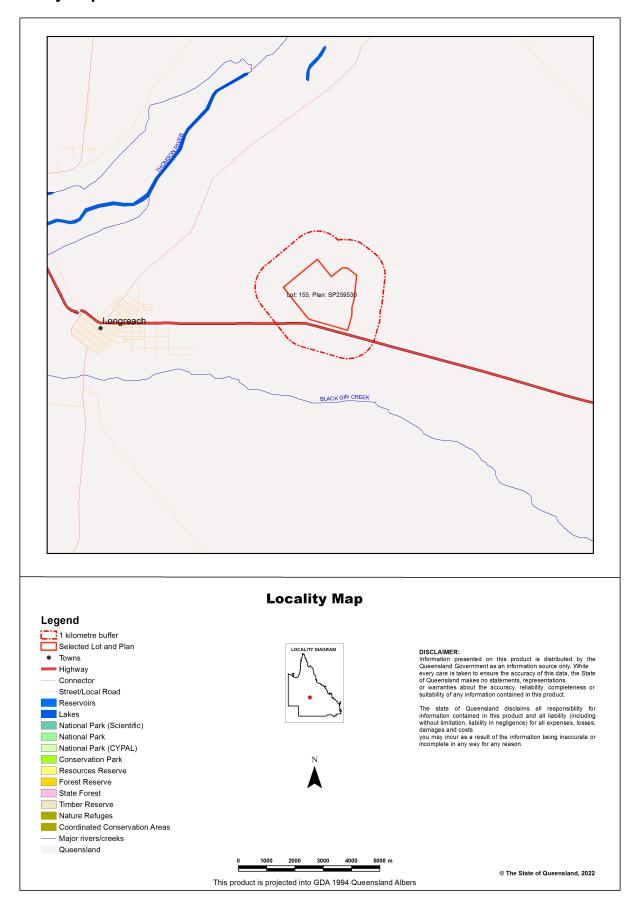
For the selected area of interest 400.17ha Lot: 155 Plan: SP259530

Current as at 06/12/2022

WildNetSpeciesList



Map 1. Locality Map



WildNet Records Species List (06/12/2022 12:50:17) Lot: 155 Plan: SP259530

Summary Information

The following table provides an overview of the area of interest Lot: 155 Plan: SP259530.

Table 1. Area of interest details

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek

Protected Area(s)

No estates or reserves are located within the area of interest.

World Heritage Area(s)

No World Heritage Areas are located within the area of interest.

Ramsar Area(s)

No Ramsar Areas are located within the area of interest.

Species List

Introduction

This report is derived from a spatial layer generated from the WildNet database managed by the Department of Environment and Science. The layer which is generated weekly contains the WildNet wildlife records that are not classed as erroneous or duplicate, that have a location precision equal to or less than 10000 metres and do not have a count of zero.

The WildNet dataset is constantly being enhanced and the taxonomic and status information revised. If a species is not listed in this report, it does not mean it doesn't occur there and listed species may also no longer inhabit the area. It is recommended that you also access other internal and external data sources for species information in your area of interest (Refer Links and Support).

Table 2 lists the animals recorded within the area of interest and its one kilometre buffer.

Table 3 lists the plants recorded within the area of interest and its one kilometre buffer.

Table 4 lists the fungi recorded within the area of interest and its one kilometre buffer.

Table 5 lists the other species recorded within the area of interest and its one kilometre buffer.

Table 2. Animals recorded within the area of interest and its one kilometre buffer

Taxon Id	Class	Family	Scientific Name	Common Name	NCA	EPBC	Specimens	Records	Last record
1658	Aves	Artamidae	Artamus cinereus	black-faced woodswallow	С	None	0	1	07/03/1976
1089	Aves	Casuariidae	Dromaius nova ehollandiae	emu	С	None	0	1	23/07/2002
1809	Aves	Columbidae	Geopelia cuneata	diamond dove	С	None	0	1	03/09/2006
1605	Aves	Corcoracidae	Struthidea cinerea	apostlebird	С	None	0	1	03/09/2006
1608	Aves	Corvidae	Corvus coronoides	Australian raven	С	None	0	1	03/09/2006
1750	Aves	Cuculidae	Cacomantis pallidus	pallid cuckoo	С	None	0	1	03/09/2006

Taxon ld	Class	Family	Scientific Name	Common Name	NCA	EPBC	Specimens	Records	Last record
1589	Aves	Monarchidae	Grallina cyanoleuca	magpie-lark	С	None	0	1	07/03/1976
1611	Aves	Nectariniidae	Dicaeum hirundinaceum	mistletoebird	С	None	0	1	03/09/2006
1431	Aves	Pachycephalida e	Oreoica gutturalis	crested bellbird	С	None	0	1	03/09/2006
1437	Aves	Pachycephalida e	Pachycephala rufiventris	rufous whistler	С	None	0	1	03/09/2006
1337	Aves	Petroicidae	Melanodryas cucullata	hooded robin	С	None	0	1	03/09/2006
1329	Aves	Petroicidae	Petroica goodenovii	red-capped robin	С	None	0	1	03/09/2006
1151	Aves	Psittacidae	Melopsittacus undulatus	budgerigar	С	None	0	1	03/09/2006
1576	Aves	Rhipiduridae	Rhipidura leucophrys	willie wagtail	С	None	0	1	03/09/2006

Table 3. Plants recorded within the area of interest and its one kilometre buffer

Taxon Id	Class	Family	Scientific Name	Common Name	NCA	EPBC	Specimens	Records	Last record
16396	Equisetopsida	Convolvulaceae	Polymeria Iongifolia	polymeria	С	None	1	1	22/09/2005
13908	Equisetopsida	Euphorbiaceae	Euphorbia parvicaruncula	rough-seeded spurge	С	None	1	1	22/09/2005
15013	Equisetopsida	Leguminosae	Swainsona campylantha	None	С	None	2	2	22/09/2005
11689	Equisetopsida	Marsileaceae	Marsilea drummondii	common nardoo	С	None	1	1	22/09/2005
9602	Equisetopsida	Phyllanthaceae	Phyllanthus ma deraspatensis	None	С	None	1	1	22/09/2005

Table 4. Fungi recorded within the area of interest and its one kilometre buffer

No species found within the area of interest and its one kilometre buffer.

Table 5. Other species recorded within the area of interest and its one kilometre buffer

No species found within the area of interest and its one kilometre buffer.

Species table headings and codes

Taxon Id: Unique identifier of the taxon from the WildNet database.

NCA: Queensland conservation status of the taxon under the Nature Conservation Act 1992 (Least Concern (C), Critically Endangered (CR), Endangered (E), Extinct (EX), Near Threatened (NT), Extinct in the Wild (PE), Special Least Concern (SL), and Vulnerable (V)).

EPBC: Australian conservation status of the taxon under the Environment Protection and Biodiversity Conservation Act 1999 (Conservation Dependent (CD), Critically Endangered (CE), Endangered (E), Extinct (EX), Vulnerable (V), and Extinct in the Wild (XW)).

Specimens: The number of specimen-backed records of the taxon.

Records: The total number of records of the taxon. Last record: Date of latest record of the taxon.

Links and Support

WildNet Records Species List (06/12/2022 12:50:17) Lot: 155 Plan: SP259530

Other sites that deliver species information from the WildNet database include:

- <u>Species profile search</u> access species information approved for publication including species names, statuses, notes, images, distribution maps and records
- <u>Species lists</u> generate species lists for Queensland protected areas, forestry areas, local governments and areas defined using coordinates
- Biomaps view biodiversity information, including WildNet records approved for publication, and generate reports
- · Queensland Globe view spatial information, including WildNet records approved for publication
- Qld wildlife data API access WildNet species information approved for publication such as notes, images and records etc.
- Wetland Maps view species records, survey locations etc. approved for publication
- Wetland Summary view wildlife statistics, species lists for a range of area types, and access WildNet species profiles
- WildNet wildlife records published Queensland spatial layer of WildNet records approved for publication generated weekly
- <u>Generalised distribution and densities of Queensland wildlife</u> Queensland species distributions and densities generalised to a 10 km grid resolution
- <u>Conservation status of Queensland wildlife</u> access current lists of priority species for Queensland including nomenclature and status information
- Queensland Confidential Species the list of species flagged as confidential in the WildNet database.

Please direct queries about this report to the WildNet Team.

Other useful sites for accessing Queensland biodiversity data include:

- Useful wildlife resources
- Queensland Government Data
- Atlas of Living Australia (ALA)
- Online Zoological Collections of Australian Museums (OZCAM)
- Australia's Virtual Herbarium (AVH)
- Protected Matters Search Tool

Disclaimer



WildNet Records Weed List



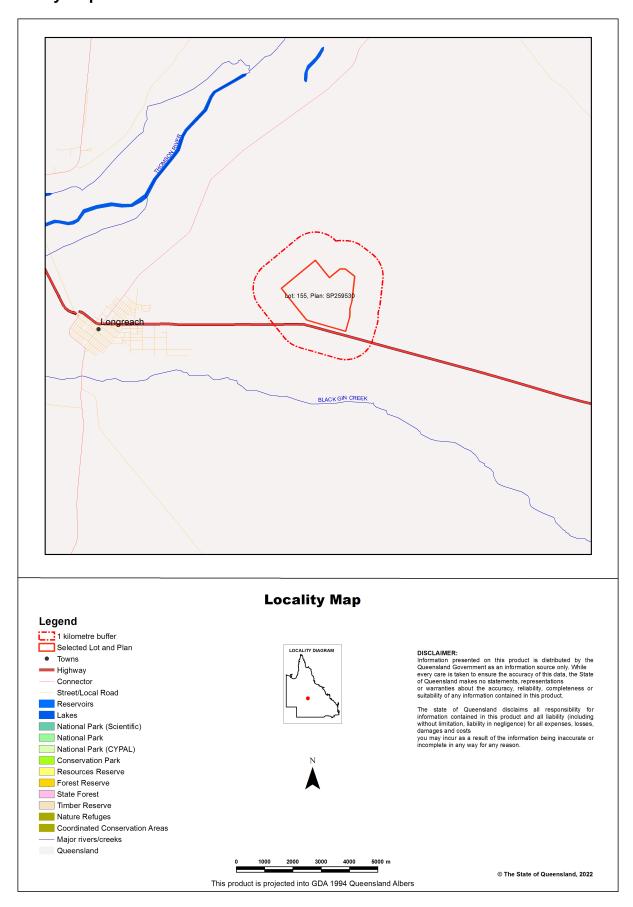
For the selected area of interest 400.17ha Lot: 155 Plan: SP259530

Current as at 06/12/2022

WildNetWeedList



Map 1. Locality Map



WildNet Records Weed List (06/12/2022 12:52:35)

Lot: 155 Plan: SP259530

Summary Information

The following table provides an overview of the area of interest Lot: 155 Plan: SP259530.

Table 1. Area of interest details

Size (ha)	400.17
Local Government(s)	Longreach Regional
Bioregion(s)	Mitchell Grass Downs
Subregion(s)	Central Downs
Catchment(s)	Cooper Creek

Protected Area(s)

No estates or reserves are located within the area of interest.

World Heritage Area(s)

No World Heritage Areas are located within the area of interest.

Ramsar Area(s)

No Ramsar Areas are located within the area of interest.

Weed List

Introduction

This report is derived from a spatial layer generated from the <u>WildNet database</u> managed by the Department of Environment and Science. The layer which is generated weekly contains the WildNet wildlife records that are not classed as erroneous or duplicate, that have a location precision equal to or less than 10000 metres and do not have a count of zero.

The WildNet dataset is constantly being enhanced and the taxonomic and status information revised. If a species is not listed in this report, it does not mean it doesn't occur there and listed species may also no longer inhabit the area. It is recommended that you also access other internal and external data sources for species information in your area of interest (Refer Links and Support).

Species Data

Contextual location information is presented in Map 1.

A summary of the weeds recorded within the area of interest and its one kilometre buffer is presented in Table 2.

Table 2. Weeds recorded within the area of interest and its one kilometre buffer

No weeds found within the area of interest and its one kilometre buffer.

Species table headings and codes

Taxon Id: Unique identifier of the taxon from the WildNet database.

Specimens: The number of specimen-backed records of the taxon.

Records: The total number of records of the taxon. **Last record:** Date of latest record of the taxon.

Endemicity: The endemicity code for the taxon (Introduced (Intranational) (IA), Introduced (International) (II), Introduced (Unknown), Exotic (Intranational) (XA), Exotic (International) (XI) and Exotic (Unknown) (XU)).

Links and Support

Other sites that deliver species information from the WildNet database include:

• <u>Species profile search</u> - access species information approved for publication including species names, statuses, notes, images, distribution maps and records

WildNet Records Weed List (06/12/2022 12:52:35) Lot: 155 Plan: SP259530

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APPENDIX D: CURRENT TITLE SEARCH – LOT 155 ON SP259530





Queensland Titles Registry Pty Ltd ABN 23 648 568 101

Title Reference:	50913070
Date Title Created:	14/05/2013
Previous Title:	30537150, 50895

ESTATE AND LAND

Estate in Fee Simple

LOT 155 SURVEY PLAN 259530

Local Government: LONGREACH

REGISTERED OWNER

Dealing No: 715315014 16/09/2013 LONGREACH REGIONAL COUNCIL

EASEMENTS, ENCUMBRANCES AND INTERESTS

 Rights and interests reserved to the Crown by Deed of Grant No. 30193184 (POR 129V) Deed of Grant No. 30195136 (POR 109V)

LEASE No 720100359 12/06/2020 at 14:35
 WESTERN GAME PROCESSING PTY LTD A.B.N. 73 625 199 420
 OF LEASE A ON SP309910

TERM: 01/10/2019 TO 30/09/2029 OPTION NIL

ADMINISTRATIVE ADVICES

NIL

UNREGISTERED DEALINGS

NIL

Caution - Charges do not necessarily appear in order of priority

** End of Current Title Search **