



Queensland Government

Department of Environment and Science

Environmental Reports

Biodiversity and Conservation Values

Biodiversity Planning Assessments and Aquatic Conservation Assessments

For the selected area of interest
epm: 27935

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.

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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: epm: 27935

Size (ha)	27,817.25
Local Government(s)	Mount Isa City
Bioregion(s)	Northwest Highlands
Subregion(s)	Mount Isa Inlier
Catchment(s)	Leichhardt, Nicholson

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)	Northwest Highlands v1.1
Aquatic Conservation Assessment(s) (riverine)	Southern Gulf Catchments v1.1
Aquatic Conservation Assessment(s) (non-riverine)	Southern Gulf Catchments v1.1

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

Biodiversity Status	Area (Ha)	% of AOI
Endangered	626.11	2.25
Of concern	66.97	0.24
No concern at present	27,124.17	97.51

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	7,758.71	27.89
State	12,473.18	44.84
Regional	158.3	0.57
Local or Other Values	7,427.06	26.7

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

Name	Permanency
POLICE CREEK	Non-perennial

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	1,536.87	5.52
High	26,280.37	94.48
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	7,758.71	27.89
State	12,473.18	44.84
Regional	158.3	0.57
Local or Other Values	7,427.06	26.7

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
State	Remnant contains an RE that is one of the largest of its type in the bioregion (D1) & Remnant has Ecosystem diversity in the top quartile (F)	702.86	2.53
State	Remnant contains an RE that is one of the largest of its type in the bioregion (D1) & Remnant has high connectivity or buffers an endangered RE or Sig. Wetland (G)	1,965.57	7.07
State	Remnant contains at least 1 Endangered or 2 Vulnerable or Near Threatened species (A)	7,758.71	27.89
State	Remnant contains at least 1 Endangered RE (B1)	540.2	1.94
Regional	Remnant contains at least one Of Concern RE (B1)	48.61	0.17
Local or Other Values	Refer to diagnostic data for additional information	16,801.30	60.4

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	7,758.72	27.9			20,058.54	72.1		
B1: Ecosystem Value (Bioregion)	591.92	2.1	48.61	0.2	27,104.40	97.4	72.33	0.3
B2: Ecosystem Value (Subregion)					27,817.26	100.0		
C: Tract Size			27,817.26	100.0				
D1: Relative RE Size (Bioregion)	6,765.73	24.3	2,128.02	7.7	5,221.68	18.8	13,701.83	49.3
D2: Relative RE Size (Subregion)	7,019.45	25.2	2,293.96	8.2	6,101.89	21.9	12,401.96	44.6
F: Ecosystem Diversity	8,313.41	29.9	18,938.58	68.1	565.27	2.0		
G: Context and Connection	27,817.26	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 contains Special Biodiversity Values (view Expert Panel data for further information) (I)	3,739.26	13.44
State	Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I) & Remnant forms part of a bioregional corridor (J)	3,976.37	14.29
State	Remnant forms part of a bioregional corridor (J)	8,450.35	30.38
Regional	Remnant forms part of a bioregional corridor (J)	287.98	1.04
Local	Refer to Expert Panel data for additional information	29.35	0.11

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.
- lb - 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.
- lc - areas with concentrations of disjunct populations.
- ld - areas with concentrations of taxa at the limits of their geographic ranges.
- le - areas with high species richness.
- lf - areas with concentrations of relictual populations (ancient and primitive taxa).
- lg - areas containing REs with distinct variation in species composition associated with geomorphology and other environmental variables.
- lh - 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.
- lj - 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 assess overall biodiversity significance with respect to the AOI

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
H: Core Habitat Priority Taxa					331.57	1.2		
la: Centres of Endemism								

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
Ib: Wildlife Refugia	7,715.59	27.7						
Ic: Disjunct Populations	51.54	0.2						
Id: Limits of Geographic Ranges								
Ie: High Species Richness	51.54	0.2						
If: Relictual Populations								
Ig: Variation in Species Composition								
Ih: Artificial Wetland								
Ii: Hollow Bearing Trees			51.54	0.2				
Ij: Breeding or Roosting Site								
Ik: Climate Refugia	51.54	0.2						

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	12,299.70	44.22
Regional	415.0	1.49
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
nwh_fl_06	Ecosystems with a Biodiversity Status of Endangered or Of Concern in good condition	State	Ib (topographic isolate and refuge from clearing): VH K (Condition): State
nwh_l_11	Softwood Thickets on Metamorphic Screes	State	Ib (wildlife refugia): VH Ic (disjunct populations): VH Ie (high species richness): VH Ii (habitat shelters): H Ik (Climate refugia): VH
nwh_l_12	Landscapes of least disturbance	State	Ib (topographic isolate and refuge from clearing): VH K: State
nwh_l_16	Terrestrial bioregional corridors (landscape connections) Refer to Figures 4, 5 and 6	State	Criteria J (landscape connections): State
nwh_l_17a	Riparian bioregional corridors (landscape connections)	State)	Criterion J (riparian corridor): State

Decision Number	Description	Panel Recommended Significance	Criteria Values
nwh_l_17b	Riparian bioregional corridors (landscape connections)	Regional	Criterion J (riparian corridor): Regional

Expert panel decision descriptions:

nwh_fl_06

Areas of naturally restricted and good condition "of-concern" / "endangered" (biodiversity status) non-rocky ecosystems. These ecosystems are very susceptible to degradation through overgrazing and invasion of the groundcover by Cloncurry buffel grass **Cenchrus pennisetiformis**. The buffel grass can increase carrying capacity up to 10 times.

The degraded parts of these ecosystems now have reduced biodiversity values due to the associated changes in species composition and/or soil condition. Remaining areas in relatively good condition are susceptible to what would normally be viewed as local threats or impacts and are therefore vulnerable to rapid loss of natural values. The values of these remaining good condition occurrences relate to their floristic and structural integrity, the retention of fauna susceptible to grazing impacts, and the continuation of ecological processes characteristic of the ecosystem.

nwh_l_11

Regional ecosystem 1.11.8 occurs on rock outcrops on hills and ranges on strongly folded siliceous sedimentary and metamorphic pre-Cambrian rocks (Queensland Herbarium, 2019). Some occurrences of this community are dominated by **Terminalia aridicola** and **Brachychiton collinus** softwood thickets.

The softwood thickets are characterised by large crown trees with >30% foliage projection cover. The dense canopy and hill shade results in cooler conditions allowing species to survive in an otherwise dry hot environment. Small areas of surface water can be present and along with deeper organic matter accumulation and higher soil moisture, provide a cooler microclimate. In comparison to surrounding ecosystems, the thickets have high species richness and support significant habitat for birds (e.g., bower birds). Due to their topographic position, they represent a refuge from grazing, whilst instances of this community situated on steep rock dominated slopes, also provide a refuge from fire.

Threatened species recorded include **Eucalyptus nudicaulis** and purple-necked rock-wallaby (**Petrogale purpureicollis**) and priority species Kalkadoon grasswren (**Amytornis ballarae**), sandstone frog (**Litoria coplandi**), giant rocketfrog (**Litoria watjulumensis**) and Carpentarian pseudantechinus (**Pseudantechinus mimulus**).

nwh_l_12

Inaccessible natural landscapes in the NWH are some of the least disturbed and most extensive undamaged areas in Queensland (e.g. Westmoreland Sandstones and Thornton Limestones). These remote and natural areas have had little impact from grazing by domestic stock or the associated infrastructure. They are centres of endemism with disjunct populations and are refugia from grazing. These are areas where the landscapes have been little disturbed and the biodiversity values within them have the greatest chance of being maintained in the long term.

The major threatening process to these areas is the intensification of grazing through development of infrastructure such as watering points and fencing. The current condition of the ground layer and soil is considered likely to be in very good condition and provide a refuge for sensitive plant and animal species from the impacts of grazing. Any increase in land use intensity in these areas is likely to result in degradation and the consequent loss of biodiversity values.

nwh_l_16

The broad purpose of landscape-scale connections is to provide for ecological and evolutionary processes at a bioregional scale. Maintaining connectivity across a landscape, either through "continuous linkages" or via "stepping-stones" of remnant vegetation, is important for the long-term conservation of biodiversity.

For further information regarding the broad principles and intent, as well as more specific information relating to the Northwest Highlands terrestrial corridor network, refer to Section 3.3.2.1 Terrestrial corridors and Table 14.

nwh_I_17a

Riparian corridors encompass some of the most diverse, dynamic and complex habitats incorporating both environmental and topographic gradients. Comparatively, such areas tend to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer terms impacts associated with climatic change.

At the landscape scale, networks of major and minor riparian linkages are a significant element of habitat continuity and provide important migratory and dispersal pathways for a substantial number of species (especially birds, insects and flora, but also for many arboreal mammals and reptiles).

Within the NWH, remnant vegetation within 200m and 100m of selected major and minor waterways was designated as being of State and Regional significance respectively. The significance of selected riverine systems was also modified in some instances. For further information regarding the broad principles and intent, as well as more specific information relating to the Northwest Highlands riparian corridor network, refer to Section 3.3.2.2 and Table 15.

nwh_I_17b

Riparian corridors encompass some of the most diverse, dynamic and complex habitats incorporating both environmental and topographic gradients. Comparatively, such areas tend to exhibit high species richness with respect to both flora and fauna, provide important resources in terms of water, food, shelter, nesting and nursery sites and act as a refugia during periods of drought, or in response to longer terms impacts associated with climatic change.

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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 processes

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	1,536.87	5.52

Aquatic conservation significance (riverine wetlands)	Area (Ha)	% of AOI
High	26,280.37	94.48
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
1. Naturalness aquatic	27,817.26	100.0						
2. Naturalness catchment			27,817.26	100.0				
3. Diversity and richness	1,204.06	4.3	277.17	1.0	26,336.03	94.7		
4. Threatened species and ecosystems			811.53	2.9	27,005.73	97.1		
5. Priority species and ecosystems	1,088.70	3.9	26,728.56	96.1				
6. Special features	1,536.88	5.5	26,280.38	94.5				
7. Connectivity	1,536.88	5.5						
8. Representative-ness	1,536.88	5.5						

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)
lr_r_ec_30	Perennial waterholes in north west headwaters of the Leichhardt Basin	Leichhardt	6.1.1, 6.2.1, 6.3.1, 6.3.4, 6.4.1, 7.1.1, 7.1.2, 7.2.1, 7.3.2, 7.4.1, 8.2.5	4,4,4,4,4,4,4,4,4,4,4,4
lr_r_fl_02	Riparian vegetation fringing permanent spring-fed waterholes in sandstone gorges	Leichhardt, Nicholson	5.2.1,6.1.1,6.2.1,6.3.1, 6.3.4,6.4.1	4,4,4,4,4,4
lr_r_fl_16	Riverine systems containing Terminalia bursarina	Leichhardt, Nicholson, Settlement	5.2.1,6.3.1	4,3
nr_r_ec_08	Alluvial levee riparian forests of the lower Gregory River system	Nicholson	6.1.1, 6.2.1,6.3.1 6.3.4, 6.4.1,7.1.1, 7.1.2, 7.1.3,7.2.1, 7.3.1, 7.3.2,7.4.1, 8.2.5	4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4,4
nr_r_fl_01	Riparian vegetation fringing perennial deep spring-fed waterholes in lime stone gorges	Nicholson	6.1.1,6.2.1,6.3.1,6.3.4, 6.4.1	4,4,4,4,4,4

Decision number	Special feature	Catchment	Criteria/Indicator/Measure	Conservation rating (1-4)
nr_r_fl_16	Riverine systems containing <i>Terminalia bursarina</i>	Leichhardt, Nicholson, Settlement	5.2.1,6.3.1	4,3

4 is the highest rating/value

Expert panel decision descriptions:

lr_r_ec_30

The north west headwaters of the Leichhardt River basin are comprised of three subcatchments Cartridge, Fiery, and Sandy Creeks. This part of the basin is extremely arid and only the latter two subcatchments contain natural perennial waterholes. All drain to the main Leichhardt channel. Cartridge and Fiery Creeks join the Leichhardt just upstream of the Leichhardt Falls via a long network of seasonal channels crossing the Gulf Plain. Sandy Creek has a much shorter reach length through the Gulf Plains and joins the Leichhardt in its mid floodplain reach.

Given the seasonal and spatial isolation of perennial pools in the upper catchment of Fiery and Sandy Creeks, and the dependence of infrequent sustained wet season flows to establish connectivity with lower catchment refugia, these creeks have an important function as refugia for obligate freshwater biota within these systems.

This special feature is subject to invasion by rubber vine (***Cryptostegia grandiflora***) and grazing pressure that can lead to habitat loss and erosion.

For a more detailed explanation of this special feature, please refer to Appendix III of the Southern Gulf Catchment Aquatic Conservation Assessment Expert Panel Report.K30

lr_r_fl_02

This special feature is similar to nr_r_fl_01 (Riparian vegetation fringing perennial deep spring-fed waterholes in lime stone gorges), and includes riparian vegetation communities fringing small (shallow and short) permanent instream waterholes in sandstone areas, and includes two regional ecosystems distinct to the local region (regional ecosystems 1.3.9a and 1.3.9b). Regional ecosystem 1.3.9a a is unique in the North West Highlands as it is the only regional ecosystem containing *Nauclea orientalis*, *Ficus racemosa*, *Livistona rigida*. Similarly, regional ecosystems 1.3.9 a and 1.3.9b are also the only regional ecosystems in the North West Highlands containing *Melaleuca leucadendra*. While the features captured by nr_r_fl_01 are similar, the features in this decision are functionally different due to their adjacent waterholes containing higher fertility, mostly loose, sandy (mostly) or muddy substrates resulting in variable and seasonally turbid water quality. Ground cover is more exposed and erosion-prone than the limestone gorges. Regional ecosystem 1.3.9 is described in the Regional Ecosystem Description Database (REDD) as a poorly known aquatic ecosystems threatened by increasing human use and urgently requiring survey to verify condition. Other threatening processes include weed infestation and disturbance by feral pigs (*Sus scrofa*).

lr_r_fl_16

Terminalia bursarina is a rare species occurring within-channel deposits and levees of major watercourses or on the fringes of minor watercourses. Vegetation communities in the Gulf which contain ***Terminalia bursarina*** are important because this is the only area in Queensland where it is found. This includes woodland including river red gum (***Eucalyptus camaldulensis***), swamp box (***Lophostemon grandiflorus***), ***Melaleuca argentea***, ***Terminalia bursarina***, ***Lysiphyllum cunninghamii*** and ***Acacia holosericea*** (regional ecosystem 1.3.7f), and river red gum (***Eucalyptus camaldulensis***) woodland commonly with ***Terminalia bursarina***, swamp box (***Lophostemon grandiflorus***) and paperbarks (***Melaleuca spp.***) in the canopy (regional ecosystem 2.3.26f).

nr_r_ec_08

The best developed alluvial levee systems of the Gregory River covered by this description occur downstream of the constrained upper catchment valleys associated with the Thornton subregion's limestone hills (nr_r_ec_07), and upstream

of the low gradient small channel network that characterises the Gregory's lower catchment within the clay plains of the Armraynald Plains subregion (nr_r_ec_09). Most of this area overlaps with the national Directory of Important Wetlands in Australia listing for the blue hued, limestone spring fed, perennial flowing Gregory River (which is unique within the study area), however the area extends further downstream beyond the settlement of Gregory to include the main river channel within the Armraynald Plains subregion where alluvial levees comprised of coarser material i.e. sand and loams occur rather than finer grained clays that characterises the lower channel network. The combination of a broad band of alluvial soils and perennial moisture lead this reach of the Gregory to have structurally complex and floristically rich riparian forests.

The presence of permanent riffle-race channel systems is also unique both hydrologically and geomorphologically within the study area. The described area includes flows which support a diversity of downstream aquatic, fringing riparian and floodplain habitats beyond the site that have high biodiversity values and are in effect groundwater dependent ecosystems. The persistence of perennial habitat within the area through geological time has provided aquatic refugia that have retained a host of species including the threatened 'living fossil' Gulf snapping turtle (**Elseya lavarackorum**), which occurs in lower densities within this site than at Lawn Hill Gorge, freshwater sawfish (**Pristis pristis**), and purple crowned fairy wren (**Malurus coronatus**), for which the area is a known hotspot.

Most of the catchment areas lacks intensive development and critical hydrological connectivity between groundwater, stream flow and floodplains has been retained. The system is impacted by grazing pressure, weed invasion, feral pig disturbance, and high levels of human recreational use. The catchment area for this site is highly mineralised and mining development could present a risk to system hydrology and water quality. Large scale development of irrigation in this area could present a significant risk to the values associated with this reach of the Gregory River. Climate change has the potential to impact on rainfall and groundwater reserves, which could drive changes in flora and fauna communities.

For a more detailed explanation of this special feature, please refer to Appendix III of the Southern Gulf Catchment Aquatic Conservation Assessment Expert Panel Report.

nr_r_fl_01

This special feature includes riparian vegetation communities fringing large, long, deep and almost continuously permanent instream waterholes located primarily along sections of the Gregory River (including Lawn Hill Gorge) and O'Shannassy Rivers. With hard rock or organic matter substrates, the adjacent waterholes are limestone fed systems resulting in unique water chemistry including very clear low turbidity water (no sand and silt from upland) leading to remarkably stable systems, and includes two regional ecosystems distinct to the local region (regional ecosystems 1.3.9a and 1.3.9b). Regional ecosystem 1.3.9a is unique in the North West Highlands as it is the only regional ecosystem containing *Nauclea orientalis*, *Ficus racemosa*, *Livistona rigida*. Similarly, regional ecosystems 1.3.9 a and 1.3.9b are the only regional ecosystems in the North West Highlands containing *Melaleuca leucadendra*. Regional ecosystem 1.3.9 is described in the Regional Ecosystem Description Database (REDD) as a poorly known aquatic ecosystems threatened by increasing human use and urgently requiring survey to verify condition. Other threatening processes include weed infestation and disturbance by feral pigs.

nr_r_fl_16

Terminalia bursarina is a rare species occurring within-channel deposits and levees of major watercourses or on the fringes of minor watercourses. Vegetation communities in the Gulf which contain *Terminalia bursarina* are important because this is the only area in Queensland where it is found. This includes woodland including river red gum (***Eucalyptus camaldulensis***), swamp box (***Lophostemon grandiflorus***), ***Melaleuca argentea***, ***Terminalia bursarina***, ***Lysiphyllum cunninghamii*** and ***Acacia holosericea*** (regional ecosystem 1.3.7f), and river red gum (***Eucalyptus camaldulensis***) woodland commonly with ***Terminalia bursarina***, swamp box (***Lophostemon grandiflorus***) and paperbarks (***Melaleuca spp.***) in the canopy (regional ecosystem 2.3.26f).

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

Species	Common name	NCA status	EPBC status	Back on Track rank	Migratory species*	Wetland species**	Identified flora/fauna
<i>Amytornis dorotheae</i>	Carpentarian grasswren	E	E	High	None	None	FA
<i>Amytornis dorotheae</i>	Carpentarian grasswren	E	E	None	None	None	FA
<i>Petrogale purpureicollis</i>	purple-necked rock-wallaby	V	None	Low	None	None	FA

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.

**I - wetland indicator species; D - wetland dependent 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
<i>Barnardius zonarius macgillivrayi</i>	Cloncurry parrot	L	FA
<i>Eucalyptus leucophylla</i>	None	None	FL
<i>Heteromunia pectoralis</i>	pictorella mannikin	L	FA
<i>Polygala barklyensis</i>	None	None	FL
<i>Triumfetta rupestris</i>	None	None	FL

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 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

(no results)

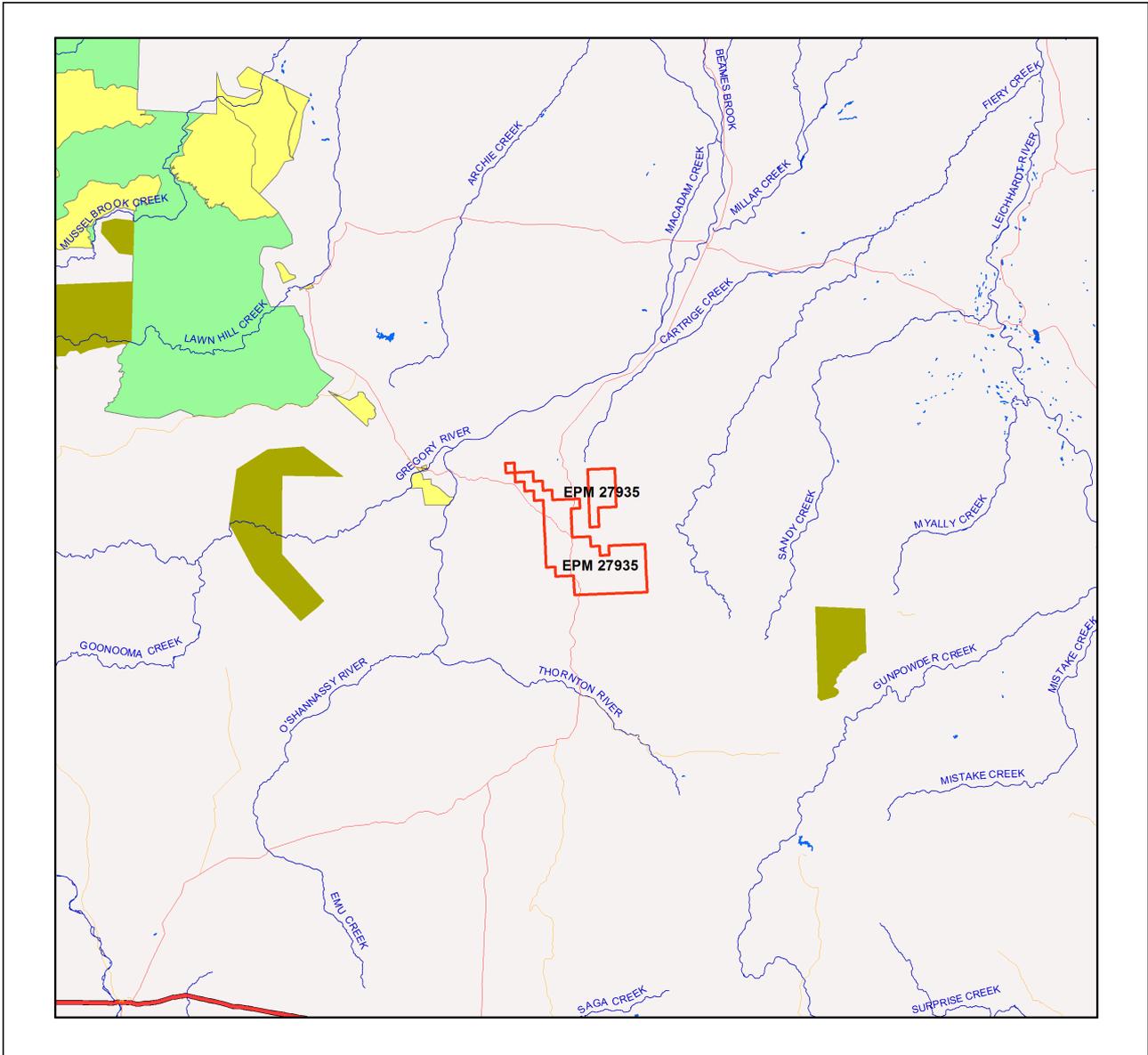
Table 25: Priority species recorded on, or within 4 km of the AOI - non-riverine

(no results)

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

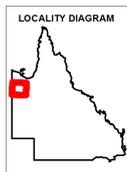
Map 1 - Locality Map



Locality Map

Legend

- Selected Exploration Permit Mineral (EPM)
- Towns
- Highway
- Connector
- Street/Local Road
- Reservoirs
- Lakes
- National Park (Scientific)
- National Park
- National Park (CYPAL)
- Conservation Park
- Resources Reserve
- Forest Reserve
- State Forest
- Timber Reserve
- Nature Refuges
- Coordinated Conservation Areas
- Major rivers/creeks
- Queensland

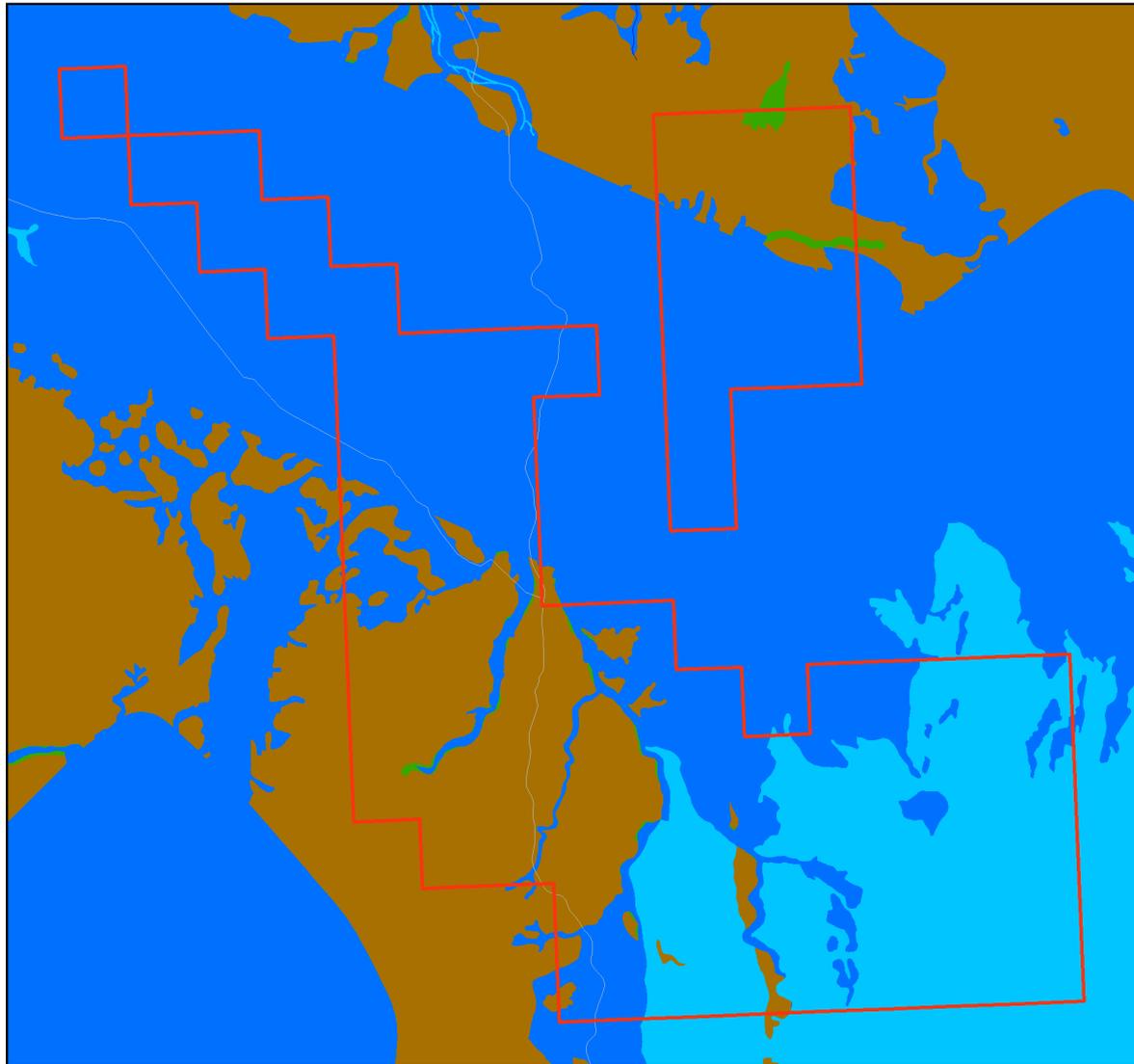


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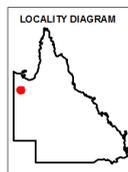
Map 2 - Biodiversity Planning Assessment (BPA)



Biodiversity Planning Assessments

Legend

- Selected Exploration Permit Mineral (EPM)
- Towns
- Roads
- Major rivers/creeks
- Queensland
- Biodiversity Planning Assessment**
- State Habitat for EVNT tax
- State
- Regional
- Local or Other Values
- Non Bioregion Ecosystem



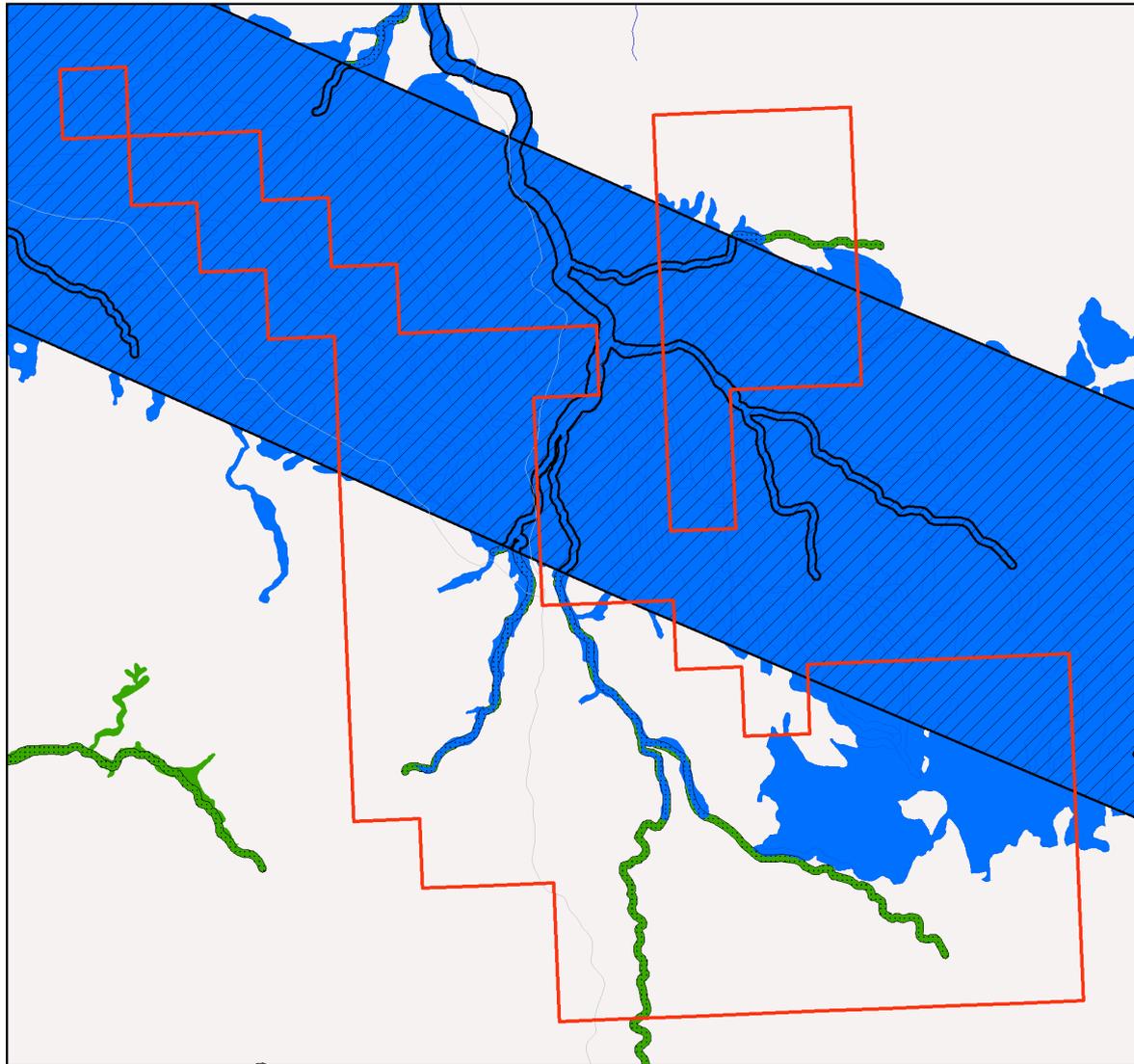
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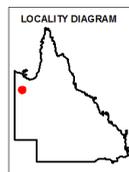
Map 3 - Corridors



Corridors

Legend

- Selected Exploration Permit Mineral (EPM)
- Towns
- Roads
- Major rivers/creeks
- Queensland
- Corridors**
- ▨ State
- ▤ Regional
- Corridor Triggered Vegetation**
- State
- Regional
- Local
- Core Area Vegetation**
- Brigalow Belt only



N



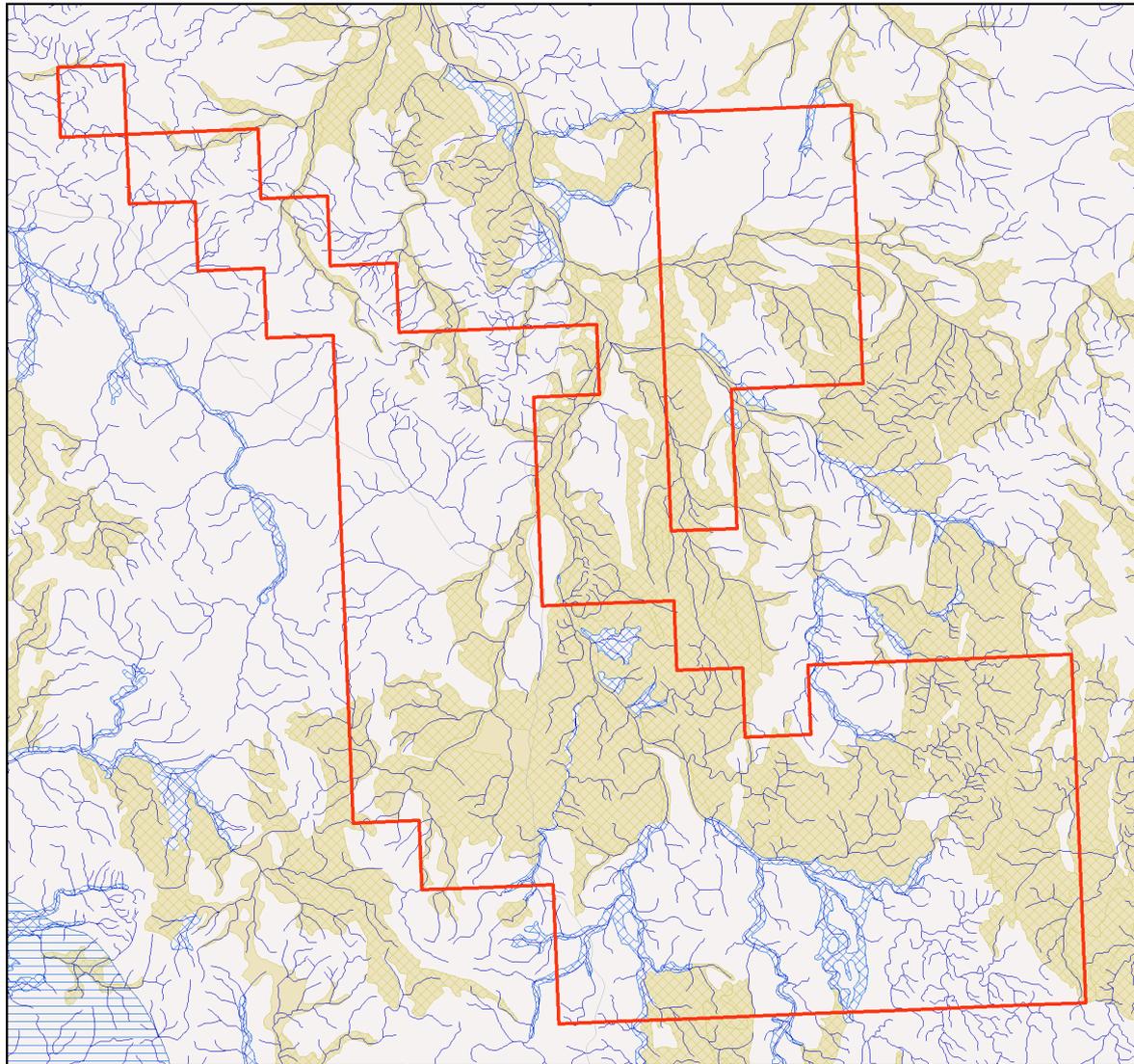
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Map 4 - Wetlands and waterways



Legend

 Selected Exploration Permit Mineral (EPM)

- Towns
- Roads
- Springs
- Rivers/Creeks
- Directory of Important Wetlands
- ▨ Ramsar Sites - QLD

Wetland Type

Hydrologically natural Wetlands

- Lacustrine Wetlands (hydrologically natural)
- Palustrine Wetlands (hydrologically natural)
- Riverine Wetlands (hydrologically natural)
- Intertidal Wetlands (hydrologically natural)
- Subtidal Wetlands (hydrologically natural)
- Intertidal/Subtidal Wetlands (hydrologically natural)

Hydrologically Modified and Artificial Wetlands

- Lacustrine Wetlands (hydrologically modified or artificial)
- Palustrine Wetlands (hydrologically modified or artificial)
- Riverine Wetlands (hydrologically modified or artificial)
- Intertidal Wetlands (hydrologically modified or artificial)
- Subtidal Wetlands (hydrologically modified or artificial)
- Intertidal/Subtidal Wetlands (hydrologically modified or artificial)

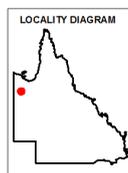
Subdominant Wetlands

- Subdominant Wetlands (51 - 80%)

Contains Wetlands

- Contains Wetlands (1 - 50%)
- Queensland

Wetlands and Waterways



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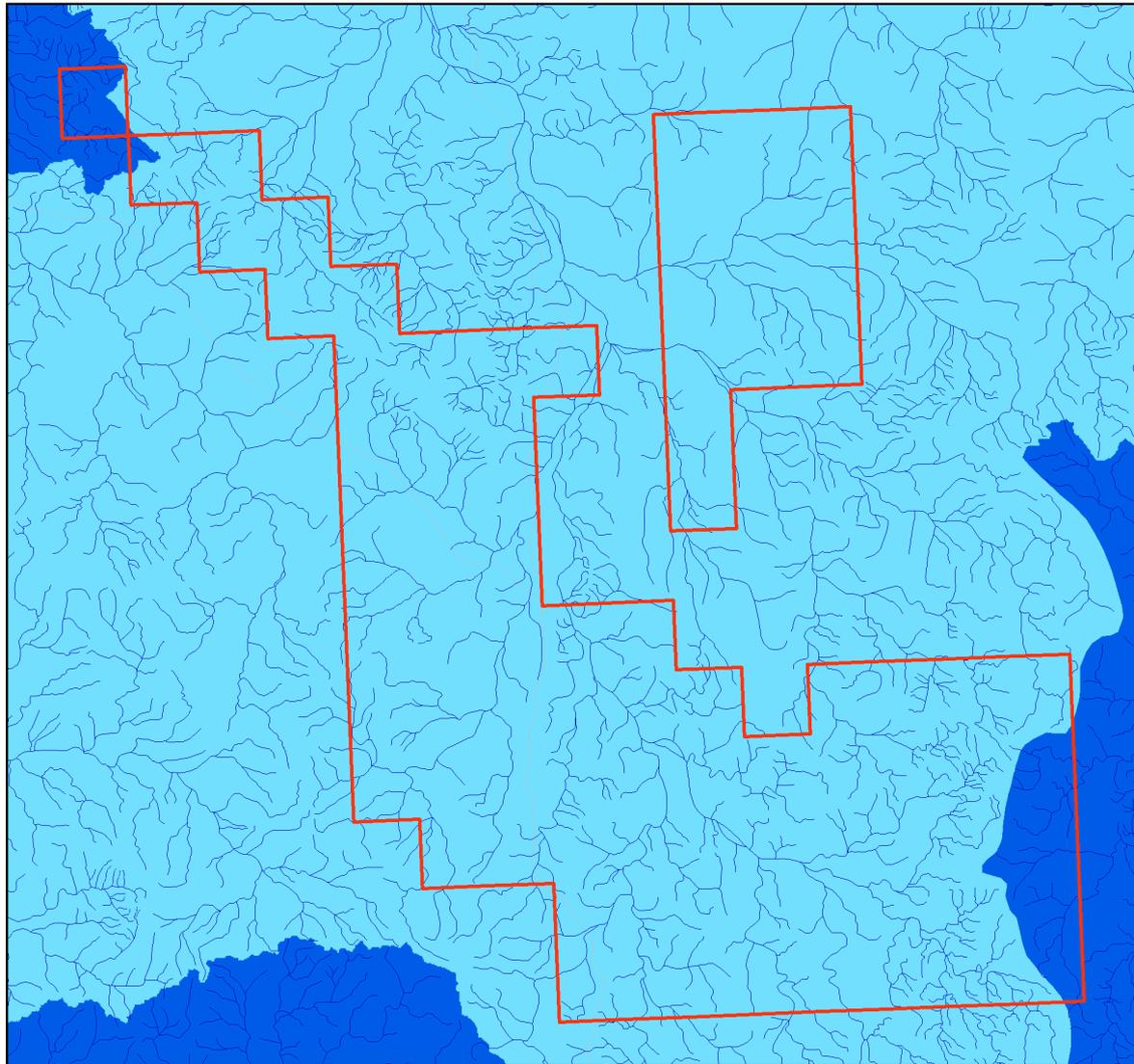
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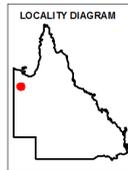
Map 5 - Aquatic Conservation Assessment (ACA) - riverine



Aquatic Conservation Assessment (ACA) - riverine

Legend

- Selected Exploration Permit Mineral (EPM)
 - Towns
 - Roads
 - Rivers/Creeks
 - Queensland
- ACA Riverine - Subcatchment Significance**
- Very High
 - High
 - Medium
 - Low
 - Very Low



This product is projected into GDA 1994 Queensland Albers

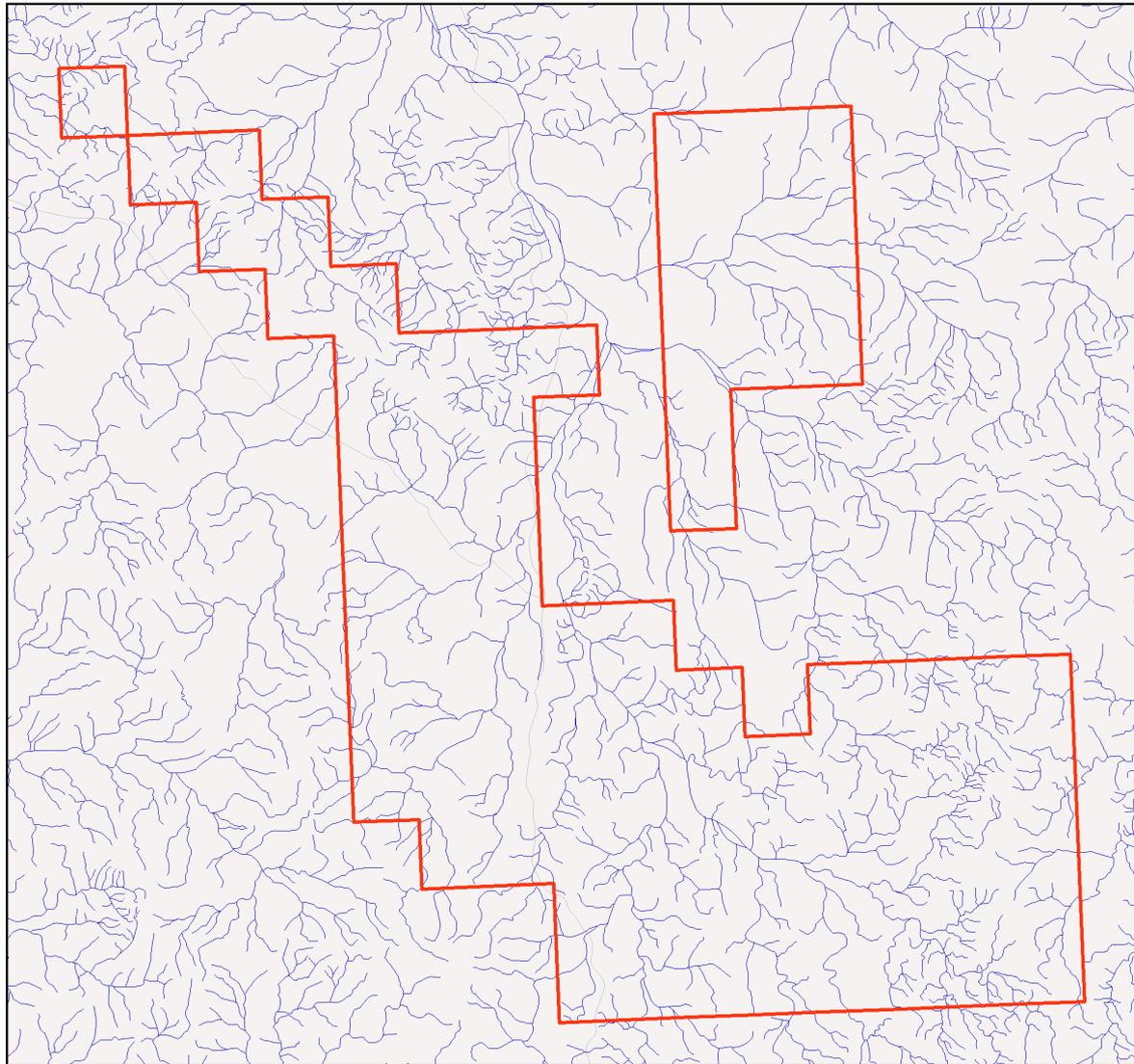
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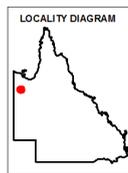
Map 6 - Aquatic Conservation Assessment (ACA) - non-riverine



Aquatic Conservation Assessment (ACA) - nonriverine

Legend

- Selected Exploration Permit Mineral (EPM)
- Towns
- Roads
- Rivers/Creeks
- Queensland
- ACA Non-riverine**
- Very High
- High
- Medium
- Low
- Very Low



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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 QMDBB Non-riverine ACA v2.1 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 QMDBB Riverine ACA v2.1 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, Herbrecks, Corveg, the QLD Museum, as well as other incidental sources.
BPA Priority Species	An internal DES database compiled from Wildnet, Herbrecks, Corveg, the QLD Museum, as well as other incidental sources.
ACA Priority Species	An internal DES database compiled from Wildnet, Herbrecks, 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	- <i>Environment Protection and Biodiversity Conservation Act 1999</i>
EVNT	- Endangered, Vulnerable, Near Threatened
GDA94	- Geocentric Datum of Australia 1994
GIS	- Geographic Information System
JAMBA	- Japan-Australia Migratory Bird Agreement
NCA	- <i>Nature Conservation Act 1992</i>
RE	- Regional Ecosystem
REDD	- Regional Ecosystem Description Database
ROKAMBA	- Republic of Korea-Australia Migratory Bird Agreement