

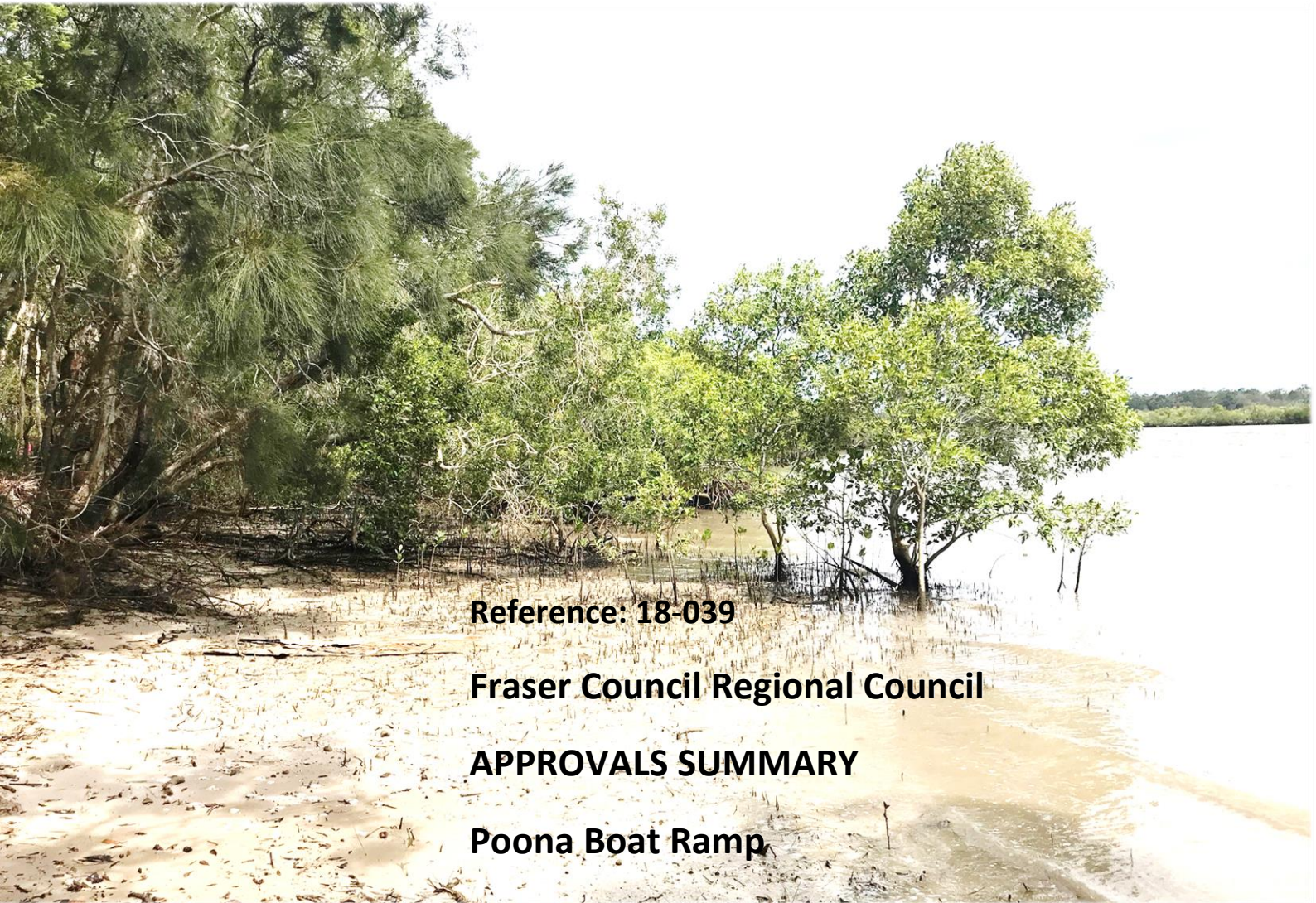
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Fraser Council Regional Council

APPROVALS SUMMARY

Poona Boat Ramp

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Disclaimer

This assessment has been prepared by Urban Catalyst 3 Pty Ltd for Fraser Coast Regional Council and may only be used and relied upon by Fraser Coast Regional Council and the Department of Transport and Main Roads for the purposes set out in Section 1.1 of this report. No responsibility is held to any person other than Fraser Coast Regional Council for any decision or action arising from or in connection with this report. All implied warranties and conditions are excluded to the extent permitted by law. All opinions and conclusions are based on assumptions detailed in this report and no responsibility is held for any error or omission arising from these assumptions being incorrect.

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1.0 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

Fraser Coast Regional Council (Council) is undertaking a joint feasibility study with the Department of Transport and Main Roads (TMR) for the development of a new boat ramp on Poona Creek at Poona. Option 3A has been identified as a potential preferred option. This report has been prepared for Council to identify specific environmental or cultural heritage constraints and associated statutory environmental and planning approvals required to facilitate the development of the boat ramp in accordance with the Option 3A concept design.

This report:

- identifies environmental legislation relevant to the site and proposed works associated with the provision of the proposed boat ramp
- identifies environmental values protected under legislation that may be impacted by the project and provides a description of how the legislation relates to the site
- outlines any approvals required to progress the works
- identifies the assessing authority for each approval
- provides details on timeframes, fees and supporting information required to support any application
- provides an indication of offsetting requirements (where applicable).

1.2 SUBJECT SITE

The project area is located on the east coast of Queensland, in the town of Poona. Poona is located approximately 28 km south-east of Maryborough and approximately 23 km north-west of Tin Can Bay. The subject site is located on the south-western extent of the Poona township, which is currently accessed via an unformed track off Poona Road (refer Figure 1 and Plate 1).

The design extends over reserve tenured land described as Lot 94 on MCH5498, as well as unallocated State land described as Lot 1 on AP15926 and unallocated State land associated with Poona Creek (refer Figure 2). A concept design plan showing the proposed layout of Option 3A is included in Appendix A. The existing unformed site access traverses wallum vegetation and leads to a cleared area of 2,000 m² (approximate) used for car parking and a low intensity use picnic area overlooking the waterway (refer Plate 2 to Plate 4).

The topography of the site varies significantly. The elevation of the unformed access and car parking area ranges between an approximate height of 8.5 m to 9 m AHD, while land south of the access track and car parking area grades steeply towards the tidal extent of the Poona Creek estuary. A set of informal stairs cut into the steep embankment and supported by timber currently provide access from the car parking area to the water (refer Plate 5). Scour has resulted in a bank of approximately 0.5 m – 1 m of vertical height forming along the water's edge, with a narrow

area of relatively flat land separating the waterway from the steep embankment that climbs back to the car parking area (refer Plate 6 – Plate 10).



Figure 1 – Location of subject site
[Queensland Globe image]



Figure 2 – Land titles at the site of the proposed boat ramp
[Queensland Globe image]

Land associated with the project area and immediate surrounds comprises wallum vegetation. Vegetation to the east of the project area is adjoined by residential properties, the closest of which is located approximately 110 m east of the point where the proposed boat ramp will access Poona Creek, and approximately 40 m east of the site entrance (refer Figure 2). Poona Road adjoins the subject site to the north and Poona Creek to the south.



Plate 1 – Site entrance via unformed access track



Plate 2 – Unformed access track leading to car park



Plate 3 – Car park (looking west)



Plate 4 – Car park (looking north)



Plate 5 – Stairs from car park to Poona Creek



Plate 6 – Marine plants on lower bank



Plate 7 – Vegetation within project area



Plate 8 – Vegetation within project area



Plate 9 – Marine plants on lower bank



Plate 10 – 0.5 m fall between upper and lower bank

1.3 PROJECT NEED

The proposed boat ramp was identified during a demographic assessment completed for TMR as a means of accommodating urban growth in the Poona township and surrounding region. Council and TMR are currently undertaking a feasibility study to determine whether the ramp is viable for progression to detailed design and construction phases. The existing site does not provide any formal mean of boat access to Poona Creek, however the informal stairs from the car parking area suggest access is gained to the water for less recreation purposes.

The proposed boat ramp will facilitate boat access to the water at Poona irrespective of tidal cycles. The proposed infrastructure will include a boat ramp, turn around area and provision of a sealed access track sufficient to accommodate cars with trailers and will accommodate increasing user demand in a safe manner.

1.4 PROPOSED DEVELOPMENT

Option 3A has been identified by TMR and Council as the potential preferred option for the Poona site. The proposed infrastructure at the site includes both water and land based elements, with key features including the boat ramp and vehicle turning areas sufficient to accommodate a car and trailer and improved site access. The Option 3A concept design is provided as Appendix A.

The proposed works are anticipated to include the following:

- Site establishment including the temporary improvement of the existing access track to accommodate heavy machinery, formalisation of stock piling and loading areas, as well as provision of a site office
- Set out and installation of erosion and sediment control devices
- Vegetation clearing, including trimming of any inhibiting vegetation
- Stripping and removal of unsuitable material, treatment of land water interface as required
- Importation of geofabric, rock, road base, gravel and other suitable material (where required) and stockpiling
- Provision of geofabric or similar material over boat ramp location and preload with rock
- Construction of boat ramp
- Construction of formalised access
- Installation of signage and completion of line marking
- Rehabilitation and removal of temporary erosion and sediment control devices
- Site disestablishment and making good the impacted area

Following the completion of the feasibility study, Council and TMR will determine whether the project is viable and whether it will proceed to detailed design and construction.

2.0 REVIEW OF APPROVAL REQUIREMENTS

2.1 DESKTOP ASSESSMENT

A desktop investigation of Commonwealth and State government databases and interactive mapping was undertaken with respect to the project area. The purpose of the desktop investigation was to gain an understanding of the local environment, provide information on environmental values within the project area and identify potential legislative constraints and approvals that may apply to the proposed works. Databases reviewed as part of the desktop investigation include the following:

- Department of Aboriginal and Torres Strait Islander Partnerships Aboriginal and Torres Strait Islander Cultural Heritage Database and Register
- Department of Environment and Science (DES) Wildlife Online Database
- Department of Natural Resources, Mines and Energy (DNRME) Regulated Vegetation Management Mapping
- Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) State Planning Policy (SPP) Interactive Mapping System
- Department of the Environment and Energy (DEE) *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) Protected Matters Search Tool
- DES Coastal Hazard Mapping
- DES Protected Plants Flora Survey Trigger Mapping
- DES Referable Wetlands Mapping
- DSDMIP Development Assessment Mapping System (DAMS)
- Queensland Globe mapping
- Fraser Coast Regional Council overlay mapping

Database searches were conducted using a 2 km buffer around a set of central coordinates (-25.72021,152.90151). Where databases were not able to be searched using a central coordinate, the cadastral boundary of the property (Lot 94 on MCH5498) was used. A copy of reporting available from the desktop searches completed is included as Appendix B of this report.

2.2 SITE INVESTIGATION

Details derived from the desktop assessment were used to guide the extent of field investigations required for the project. The field investigation involved a site walkover conducted on 9 November 2018 to confirm the presence and extent of environmental values identified during the desktop assessment and to determine the likely impact associated with the proposed works.

Key observations from the site investigation that may have a bearing on the project have been further discussed under relevant legislation in Section 2.3 of this report.

2.3 PLANNING AND ENVIRONMENTAL APPROVALS OVERVIEW

Table 1 below provides an overview of the planning and environmental approvals required for the development of the proposed boat ramp at Poona.

TMR are currently undertaking Aboriginal and cultural heritage, native title and geotechnical assessments for the project. Therefore, this assessment does not include assessment against the *Aboriginal Cultural Heritage Act 2003* or the *Native Title Act 1993*.

Table 1 – Approvals overview

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|---|-------------------------|---|--|--|
| Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) | | | | |
| Referral and approval | DEE | <p>A person must not take an action that has, will have or is likely to have a significant impact on any of the matters of environmental significance or other protected matters without approval from the Australian Government. The nine matters of national environmental significance protected under the EPBC Act are:</p> <ol style="list-style-type: none"> 1. world heritage properties 2. national heritage places 3. wetlands of international importance (listed under the Ramsar Convention) 4. listed threatened species and ecological communities 5. migratory species protected under international agreements 6. Commonwealth marine areas 7. the Great Barrier Reef Marine Park 8. nuclear actions (including uranium mines) 9. a water resource, in relation to coal seam gas development and large coal mining development | TBA by DEE following further investigation | Referral forms and supporting investigatory reports (where required) |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>The EPBC Act protected matters search tool identified the following matters of Commonwealth interest as having potential to occur within 2 km of the project area based on climatic modelling:</p> <ul style="list-style-type: none"> • Great Sandy Strait (listed as a Ramsar wetland site of international importance) • Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales (NSW) and South East Queensland (SEQ) threatened ecological community (TEC) listed as 'endangered' under the EPBC Act • Subtropical and temperate coastal saltmarsh TEC listed as 'vulnerable' under the EPBC Act • 50 fauna species of conservation significance • 9 flora species of conservation significance • 69 listed migratory species <p>The project area includes a portion of Poona Creek and adjoining land. The lower portion of Poona Creek within and adjoining the project area is mapped as the Great Sandy Strait Ramsar wetland. Approval is required for an action occurring within or outside a declared Ramsar wetland if the action has, will have, or is likely to have a significant impact on the ecological character of the Ramsar wetland.</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>Reference to the Department of the Environment <i>Matters of National Environmental Significance – Significant impact guidelines 1.1</i> (2013) details that an action is likely to have a significant impact on the ecological character of a declared Ramsar wetland if there is a real chance or possibility that it will result in:</p> <ul style="list-style-type: none"> • areas of the wetland being destroyed or substantially modified • a substantial and measurable change in the hydrological regime of the wetland, for example, a substantial change to the volume, timing, duration and frequency of ground and surface water flows to and within the wetland • the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependent upon the wetland being seriously affected • a substantial and measurable change in the water quality of the wetland – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland, or water temperature which may adversely impact on biodiversity, ecological integrity, social amenity or human health, or | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <ul style="list-style-type: none"> an invasive species that is harmful to the ecological character of the wetland being established (or an existing invasive species being spread) in the wetland. <p>While the works will result in an area (albeit very small in comparison to the size of the overall Great Sandy Strait Ramsar wetland) being destroyed or substantially modified, the portion of the project within Poona Creek is limited to the development of a boat ramp for local access to the waterway and the majority of works will be undertaken above the high-water mark.</p> <p>TMR has advised that a larger, four-lane boat ramp has recently been constructed at Bullock Point which is also within the RAMSAR wetland area and no referral was required. Given the small scale associated with the Poona boat ramp infrastructure project, a self-assessment against the Significant Impact Guidelines should be completed during the design development once further design details associated with the proposed ramp are known.</p> <p>Vegetation within the project area comprises mapped remnant vegetation. Site investigation confirmed that the vegetation present does not conform to the description of the Coastal Swamp Oak (<i>Casuarina glauca</i>) Forest of New South Wales</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>(NSW) and South East Queensland (SEQ) TEC listed as 'endangered' under the EPBC Act, or the Subtropical and temperate coastal saltmarsh TEC listed as 'vulnerable' under the EPBC Act.</p> <p>The fauna species of conservation significance comprise 26 birds, one frog, one insect, eleven mammals, seven reptiles and four shark species. The protected matters search tool shows that seven bird species, four mammals, five reptiles and one shark species are known to be present or are known to have suitable habitat within 2 km of the project area based on climatic modelling.</p> <p>Given the majority of works will occur on the banks of Poona Creek and adjoining land, the humpback whale and the shark are not anticipated to be affected by the works. The remainder of the species with habitat known to occur within the area include the following:</p> <ul style="list-style-type: none"> • <i>Calidris canutus</i> (red knot) – listed as 'endangered' • <i>Calidris ferruginea</i> (curlew sandpiper) – listed as 'critically endangered' • <i>Calidris tenuirostris</i> (great knot) – listed as 'critically endangered' | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <ul style="list-style-type: none"> • <i>Charadrius leschenaultia</i> (greater sand plover) – listed as ‘vulnerable’ • <i>Charadrius mongolus</i> (lesser sand plover) – listed as ‘endangered’ • <i>Limosa lapponica baueri</i> (bar-tailed godwit) – listed as ‘vulnerable’ • <i>Numenius madagascariensis</i> (eastern curlew) – listed as ‘critically endangered’ • <i>Phascogaleus cinereus</i> (koala) – listed as ‘vulnerable’ • <i>Pteropus poliocephalus</i> (grey-headed flying-fox) – listed as ‘vulnerable’ • <i>Xeromys myoides</i> (water mouse) – listed as ‘vulnerable’ • <i>Caretta caretta</i> (loggerhead turtle) – listed as ‘endangered’ • <i>Chelonia mydas</i> (green turtle) – listed as ‘vulnerable’ • <i>Eretmochelys imbricate</i> (hawksbill turtle) – listed as ‘vulnerable’ • <i>Lepidochelys olivacea</i> (Olive Ridley turtle) – listed as ‘endangered’ • <i>Natator depressus</i> (flatback turtle) – listed as ‘vulnerable’ <p>Of the aforementioned species, the eastern curlew, bar-tailed godwit and the water mouse have previously been recorded</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>within 2 km of the project area reported on the Wildlife Online database.</p> <p>The preliminary site investigation identified that a number of the aforementioned species may have suitable habitat in proximity to the site, although the area to be impacted does not comprise habitat for the water mouse and is likely to be marginal at best for the eastern curlew and bar-tailed godwit due to the absence of large mudflats and sand banks for feeding. The location of the proposed boat ramp enjoys access to relatively deep waters adjacent to the land and is well drained, and is therefore unlikely to be suitable for turtles or for intensive feeding areas for a range of water birds.</p> <p>Where appropriate site controls are implemented during the construction phase, impacts to fauna species identified by the EPBC Act Protected Matters Search are anticipated to be limited.</p> <p>Of the nine threatened flora species identified by the protected matters search tool, none are known to occur within the search area however a search of the Wildlife Online database shows that <i>Macrozamia pauli-guilielmi</i> (pineapple zamia), listed as 'endangered' as previously been recorded within 2 km of the project area. No <i>Macrozamia pauli-guilielmi</i> individuals were</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>identified during the preliminary site walkover however a detailed flora survey will be required to be undertaken by a suitably qualified person to confirm the presence or absence of conservation significant flora species within the project area to comply with the <i>Nature Conservation Act 1992</i> (refer to relevant section) which will assist in confirming whether requirements under the EPBC Act exist with respect to protected flora. Where the works are found to have a significant impact on a threatened species, approval will be required.</p> <p>Where threatened flora are identified within the project area during surveys, the project will require self-assessment against the DEE <i>Matters of National Environmental Significance</i> (MNES) <i>Significant impact guidelines 1.1</i> to determine whether the works are likely to have a significant impact to any matters of national environmental significance (MNES).</p> <p>If after undertaking a self-assessment it is concluded that the action is likely to have a significant impact on a MNES, or if the conclusion is unsure, the project should be referred to the Australian Government environment minister.</p> <p>Where the project is referred and approval is required, the project is likely to be subject to Commonwealth offsetting</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|---|--|---|---|---|
| | | requirements. Notwithstanding, and on the basis of the preliminary site walkover, it is not anticipated that the project will have a significant impact to MNES although further investigation is required to conclude the matter. | | |
| Biosecurity Act 2014 | | | | |
| N/A | Department of Agriculture and Fisheries (DAF) | All restricted plants on the subject land will require management in accordance with the Act. | N/A | N/A |
| Coastal Protection and Management Act 1995 (Coastal Act) | | | | |
| Development permit for operational works (tidal works or work in a coastal management district) for tidal works and interfering with quarry material, | State Assessment and Referral Agency (SARA), TMR and Department of Environment and Science (DES) | <p>The proposed development is located in a tidal area, within a mapped coastal management district.</p> <p>The area is mapped as erosion prone associated with storm impact and long-term trends of sediment loss and channel migration.</p> <p>Schedule 10, Part 17, Division 1, Section 28, Item 1 of the <i>Planning Regulation 2017</i> states that operational works for tidal works or works in a coastal management district is assessable development if the work is –</p> | 50% of the \$3,240.00 fee (Schedule 10, Part 17, Division 2, Table 1, Clause 5d of the <i>Planning Regulation 2017</i>) for SARA (chief executive of the Planning Act) as assessment | <p>DA form 1</p> <p>Land owner's consent documentation (requiring application to be made to DNRME for owner's consent, including relevant application forms)</p> <p>Site plan and plan of the proposed development showing site details</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|---|-------------------------|---|--|--|
| as defined under the Coastal Act, on State coastal land above the high-water mark | | <p>(a) tidal works; or</p> <p>(b) any of the following carried out completely or partly in a coastal management district—</p> <p>(i) interfering with quarry material, as defined under the Coastal Act, on State coastal land above high-water mark;</p> <p>(ii) disposing of dredge spoil, or other solid waste material, in tidal water;</p> <p>(iii) constructing an artificial waterway;</p> <p>(iv) removing or interfering with coastal dunes on land, other than State coastal land, that is in an erosion prone area.</p> <p>However, Item 1 does not apply to operational work that—</p> <p>(a) is accepted development under Schedule 7, Part 3, Section 10 of the <i>Planning Regulation 2017</i>; or</p> <p>(b) is excluded work; or</p> <p>(c) is PDA-related development.</p> <p>The works will be undertaken in, on or above land under tidal water (constituting tidal works) and requires interfering with quarry material above the high-water mark on unallocated State land and reserve tenure land (both considered State</p> | <p>manager pursuant to Section 38 of the <i>Planning Regulation 2017</i></p> <p>3-4 months</p> <p>Resource allocation royalties – \$0.74/m³</p> | <p>Engineering plans showing specific details of the proposed boat ramp</p> <p>Technical report providing a response to the relevant modules from the SDAP</p> <p>Supporting information for resource allocation should include details as required in Sections 73 and 75 of the <i>Coastal Protection and Management Act 1995</i>. Where material from the waterway is not removed from the tidal area, no resource allocation is deemed necessary.</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
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| | | <p>coastal land under the Coastal Act). In this regard a development approval will be required unless the works constitute accepted development, excluded work or PDA-related development.</p> <p>Operational works for tidal works is considered accepted development when it is:</p> <ul style="list-style-type: none"> (a) Either tidal works or work carried out completely or partly in a coastal management district that involves interfering with quarry material, as defined under the Coastal Act, on State coastal land above high-water mark, and (b) Undertaken by a local government, and (c) Complies with the requirements for the work prescribed under the Coastal Act, section 167(5)(b). <p>The proposed development adheres to the requirements of parts (a) and (b) however additional consideration of part (c) has been documented as follows. Section 167(5)(b) of the Coastal Act states that the operational work must comply with the document titled <i>Code for accepted development—For tidal works, or work completely or partly in a coastal management district</i> dated August 2017 and published on the department's website, in order to adhere to part (c) of the accepted development requirements.</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
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| | | <p>Part B.1 of the <i>Code for accepted development</i> lists a series of requirements for undertaking minor public marine development. Given that the works involve the construction of a new boat ramp and does not include the replacement or expansion of an existing boat ramp, the works do not constitute minor public marine development and therefore, may not proceed as accepted development.</p> <p>In this regard, a tidal works approval will be required for the construction of the proposed boat ramp within Poona Creek. Section 15 of the <i>Coastal Protection and Management Regulation 2017</i> details that tidal works for a new or existing structure used for the operation of a public marine facility constructed by or for Queensland Transport does not comprise prescribed tidal works. Therefore, the application will require submission to SARA and will require assessment against State code 8: Coastal development and tidal works of the State development assessment provisions (SDAP). Given that Poona Creek is also a navigable waterway, works will also require assessment against State code 7: Maritime safety of the SDAP.</p> <p>In addition to the above, Section 101 of the <i>Coastal Protection and Management Act 1995</i> prohibits the removal of quarry material from tidal water unless this occurs under an allocation</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
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| | | <p>notice for the material. Where the project involves removal of material from the tidal zone, a resource allocation will be required. Retention of material in the tidal zone precludes the requirement for a resource allocation.</p> <p>Section 12 of the <i>Coastal Protection and Management Regulation 2017</i> exempts the requirement for a royalty to be payable for quarry material removed under an allocation notice if the material—</p> <p>(a) has been, or is being, used for beach nourishment for which the person has a development approval; or</p> <p>(b) is mostly mud, silt, or clay that has been, or is being, disposed of on land for filling or reclamation purposes; or</p> <p>(c) has been, or is being, placed on land to avoid an adverse effect, or a potential adverse effect, on the environment.</p> | | |
| Environmental Offsets Act 2014 | | | | |
| Discharge of environmental offset obligations | DES | <p>Environmental offsets may be required where the project has a significant residual impact on one of the following ten matters of State environmental significance:</p> <ol style="list-style-type: none"> 1. Regulated vegetation 2. Connectivity areas | <p>Approximately \$2250.00 - \$4500.00 (based on a clearing impact area between 150 – 300</p> | <p>Site plan confirming the area of marine plants to be cleared.</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|---|--|
| | | <p>3. Wetlands or watercourses</p> <p>4. Protected wildlife habitat</p> <p>5. Koala habitat in South East Queensland</p> <p>6. Protected areas declared under the <i>Nature Conservation Act 1992</i></p> <p>7. Fish habitat areas and highly protected zones of State marine parks</p> <p>8. Waterway providing for fish passage</p> <p>9. Marine plants</p> <p>10. Legally secured offset areas</p> <p>Details from the SARA SPP mapping indicate that the site may support the following matters of State environmental significance:</p> <ul style="list-style-type: none"> • MSES regulated vegetation (Category B) • MSES regulated vegetation (essential habitat) • MSES regulated vegetation (wetland) • MSES regulated vegetation (intersecting Poona Creek) • MSES high ecological significance wetlands • MSES wildlife habitat <p>On the basis of information gained through the site investigation, regulated vegetation (Category B, wetland and intersecting a waterway) and marine plants are present within</p> | <p>m² of marine plants)</p> <p>Subject to protected plants flora survey (where applicable)</p> | <p>Site plan confirming the area of EVNT flora species to be cleared (where applicable).</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>the project area and will require clearing for the works to proceed.</p> <p>Where clearing works are greater than 0.5 ha where in a dense to mid-dense regional ecosystem that is listed as endangered or of concern, the works are found to have a significant residual impact to regulated vegetation. Three different types of regional ecosystems have been identified at the site through desktop studies, two of which are listed as 'least concern' and one listed as 'of concern'. The latter makes up 10% of a mixed polygon area of RE located on the northern portion of the subject site. Clearing is not anticipated to include 0.5 ha of this regional ecosystem, and therefore offsetting is not anticipated to be required for the clearing of regulated vegetation.</p> <p>Where the protected plant flora survey required under the <i>Nature Conservation Act 1992</i> identifies the presence of EVNT flora species and the works are found to have a significant residual impact to these species, offsetting will be required.</p> <p>An action is likely to have a significant residual impact on marine plants where the, impacts of the development shall result in public infrastructure works impacting more than 25 m² of fish habitat and a proposed reduction in the extent of marine plants through the removal, destruction or damage of marine</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
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| | | <p>plants. In this regard, the proposed works will have a significant impact to marine plants.</p> <p>Marine plants were present on the lower banks of the project area, over a distance of approximately 5-10 m. The proposed boat ramp, abutments and a buffer area around the boat ramp is anticipated to occupy a width of approximately 30 m. In this regard, it is anticipated that an area of approximately 150 m² – 300 m² of marine plants will require clearing as a result of the proposed works.</p> <p>Offsetting estimates were obtained from the DES financial offset calculator for marine plants within the inshore (non-remote) bioregion within the Tweed-Moreton bioregion. Where a larger area of marine plants is required to be cleared, financial offsetting obligations will be greater.</p> <p>Consideration has also been given to the potential for offsets to also be applied to works undertaken in the conservation park zone of the Great Sandy Strait Marine Park. While the Conservation Park Zone is included in the definition of a 'highly protected zone' within a marine park, Section 9.1 of the Queensland Environmental Offsets Policy Significant Residual Impact Guideline sets out that a public boat ramp is not</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|--|-------------------------|--|-------------------------------|------------------------|
| | | considered to result in a significant residual impact and therefore does not require offsetting. | | |
| Environmental Protection Act 1994 | | | | |
| Contaminated land | DES | <p>No search of the Environmental Management Register or Contaminated Land Register has been completed for the subject site. No evidence of notifiable activities or contamination of the area was observed during the site investigation.</p> <p>The project involves development works limited to areas comprising the existing unformed site access, car parking area, stairway, undisturbed vegetated land and the estuary. Satellite imagery available from Queensland Globe online mapping system dating back to 1958 confirmed that undisturbed vegetated areas within and surround the project area have not previously been subject to development.</p> <p>Given a portion of the proposed development area is located within unallocated State land (not included on these registers) and the land has not been developed for anything other than the existing use, there would appear to be little to suggest that the site has been subject to contamination as a result of a previous land use.</p> | N/A | N/A |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| Acid sulfate soils | DES | <p>The <i>Fraser Coast Planning Scheme 2014</i> acid sulfate soils mapping overlay (OM-001.2) shows that the project area is located on land above 5 m AHD but below 20 m AHD and is at risk of encountering acid sulfate soils. Land immediately adjacent to and within the estuary is below 5 metres AHD.</p> <p>TMR are currently undertaking geotechnical investigations for the area. It would be advisable for any investigation to include assessment for the presence of acid sulfate soils to ascertain whether this matter will have bearing on the project. Where acid sulfate material is identified as present within the works area, provisions will need to be undertaken during the construction phase to manage impacts associated with acid sulfate soils.</p> <p>Compliance with the general environmental duty is required during all works within the project area. The general environmental duty and duty to notify set out under Chapter 7, Divisions 1 and 2 of the <i>Environmental Protection Act 1994</i> remain applicable at all times for all persons undertaking works within the project area.</p> <p>All construction works in Queensland are required to comply with the <i>Environmental Protection Regulation 2008</i>.</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|---|-------------------------|---|-------------------------------|------------------------|
| Environmentally Relevant Activity | DES | The works are unlikely to involve dredging or extraction activities that exceed the thresholds nominated under Schedule 2 of the <i>Environmental Protection Regulation 2008</i> . In this regard, the works are unlikely to require an environmental authority for conducting an environmentally relevant activity on the subject land. | N/A | N/A |
| Water | DES | As the site is in immediate proximity and extends into Poona Creek, works are required to be undertaken in accordance with the requirements under the <i>Environmental Protection (Water) Policy 2009</i> . No specific approval is required with respect to matters relating to water quality. | N/A | N/A |
| Referable wetland | DES | The project area is not mapped as a wetland protection area however a portion of the project area is mapped as high ecological significance (HES) wetland, associated with Poona Creek. Given that the project area is not mapped as a wetland protection area, approval is not required for undertaking operational work that is high impact earthworks in a wetland protection area. | N/A | N/A |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-------------------------------|-------------------------|---|--|--|
| | | HES wetlands are identified as matters of State environmental significance. Any works comprising assessable development that are deemed to have a significant residual impact on this matter may be subject to offsetting. | | |
| Fisheries Act 1994 | | | | |
| Declared fish habitat area | SARA and DAF | Operational work completely or partly in a declared fish habitat area is assessable development requiring approval. The subject site is not located within a declared fish habitat area and therefore an approval for operational works in a declared fish habitat is not required. | N/A | N/A |
| Marine plants | SARA and DAF | <i>Avicennia marina</i> (grey mangrove), <i>Rhizophora stylosa</i> (red mangrove) and a small area of <i>Sporobolus virginicus</i> (salt water couch) were confirmed present within the project area during the preliminary site walkover. Operational work that is the removal, destruction or damage of a marine plant is assessable development, unless it comprises accepted development under Schedule 7, Part 3, Item 8 of the <i>Planning Regulation 2017</i> , or where the works are part of a material change of use or reconfiguring a lot development while satisfying several criteria. | 50% of the nominated \$6,479.00 referral fee to SARA as per Section 38 of the <i>Planning Regulation 2017</i> 3-6 months | Supporting documentation for application for disturbance to marine plants including plans Response to State code 11: Removal, destruction or damage of marine plants |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>Section 705 of the <i>Fisheries Regulation 2008</i> states that the document <i>Accepted development requirements for operational work that is the removal, destruction or damage of marine plants</i>, prepared and held by the chief executive nominates the accepted development requirements for the removal, destruction or damage of marine plants.</p> <p>Section 4.2, Table 2, Item 2.17 of the accepted development requirements states that works must involve the upgrade of an existing lawful single or dual lane boat ramp in its original location. Given that the works involve the construction of a new boat ramp, the works do not constitute accepted development.</p> <p>The project requires approval for the removal, destruction or damage of a marine plant and will require referral to the chief executive for assessment against SDAP State code 11: Removal, destruction or damage of marine plants.</p> <p>The site investigation concluded that more than 25 m² but less than 500 m² of marine plants are anticipated to be impacted as a result of the proposed works.</p> | | |
| Waterway barrier works | SARA and DAF | Operational work that is constructing or raising waterway barrier works is assessable development. | N/A | N/A |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|------------------------------|-------------------------|--|-------------------------------|---|
| | | No mapped Queensland waterways for waterway barrier works intersects the subject site. Boat ramps are not considered to be waterway barriers in accordance with DAF information available from their website on what is not a waterway barrier. In this regard, no approval is required with respect to inhibiting fish passage. | | |
| Marine Parks Act 2004 | | | | |
| Marine parks/ permit | DES | <p>Poona Creek is within the Great Sandy Marine Park in an area shown as the Great Sandy Area which falls within the conservation park zone and includes additional restrictions of fishing to those for other areas included in the conservation zone.</p> <p>A permit is required to undertake works (construction, installation, operation, repairs) within a protected marine park.</p> <p>Minor works involve minimal disturbance to the substrate or aquatic communities, or minor alienation of parts of the marine park from enjoyment by the public. The proposed works fall within the category of minor works being the installation of a boat ramp.</p> <p>Advice from TMR indicates that the department met with marine parks permit assessment officers on 20 September 2018</p> | No fee 2-3 months | <p>Application form for a permit for (State only) marine park areas</p> <p>Supporting information - maps of where the activity is proposed to take place, design plans and a description of the proposed activity and associated impacts and mitigation measures.</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|--|-------------------------|---|---|---|
| | | <p>to discuss the proposed construction of a public boat ramp at this location any no major concerns were raised with respect to the proposal, provided no navigational dredging for access is required.</p> <p>The proposed works require a permit to undertake minor works within the Great Sandy Marine Park. The application may be submitted to Parkaccess@des.qld.gov.au.</p> <p>While a conservation park zone is identified as a highly protected zone within a marine park and therefore comprises a prescribed environmental matter liable for offsetting, Section 9.1 of the <i>Queensland Environmental Offsets Policy Significant Residual Impact Guideline</i> (2014) details that various public works, including boat ramps are not considered to result in a significant residual impact and therefore do not require offsetting.</p> | | |
| Nature Conservation Act 1992 (NC Act) | | | | |
| Clearing permit | DES | In Queensland, all plants that are native to Australia are considered 'protected plants' under the NC Act. The Act regulates the taking, keeping and use of protected plants (whole plants and plant parts) to maintain species viability. | Protected Plant Clearing Permit fee (only applicable where EVNT flora species will be | Flora survey report Exempt clearing notification (where EVNT flora species will not be impacted) |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|--|--|
| | | <p>The project area is located within a high-risk area for protected plants on the Department's Protected Plants Flora Survey Trigger Area mapping (refer Appendix B).</p> <p>Consequently, completion of a flora survey is required to be undertaken in accordance with the <i>Flora Survey Guidelines – Protected Plants</i> and submission of the flora survey report to DES is required for Council/TMR to discharge their obligations defined under the NC Act.</p> <p>A Wildlife Online database search returned records of 70 conservation significant flora species within 2 km of the project area. <i>Macrozamia pauli-guilielmi</i> (pineapple zamia) listed as 'endangered' under the EPBC Act and NC Act has the highest conservation significance while the remainder of species are listed as 'least concern' under the NC Act.</p> <p>If the flora survey does not detect any endangered, vulnerable or near threatened (EVNT) plants in the clearing impact area or the impacts on EVNT plants can be avoided (i.e. clearing will not take place within 100m of the EVNT plants), a clearing permit is not required but an exempt clearing notification must be submitted to DES within one year of the survey being undertaken and at least one week prior to the clearing</p> | <p>impacted) – \$2,966.00</p> <p>Submission of documentation within 1 year of the protected plants flora survey and at least one week prior to the commencement of clearing works.</p> | <p>Impact management report and clearing permit application form (where EVNT flora species will be impacted)</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|---|
| | | <p>commencing. Re-clearing or routine maintenance may occur for up to 10 years after the original authorised clearing.</p> <p>If the flora survey identifies the presence of EVNT plants in the clearing impact area, a clearing permit is required before any potential clearing. The flora survey report, as well as an impact management report, will need to be included with the clearing permit application form and submitted to DES within one year of the flora survey.</p> | | |
| Species management program | DES | <p>A species management program (SMP) authorises activities if it will impact on breeding places of protected animals that are classified as extinct in the wild, endangered, vulnerable, near threatened (EVNT), special least concern, colonial breeder or least concern. A SMP is only required where an animal breeding place has been identified and activities are required to tamper with the breeding place in order to complete the scope of works. Animal breeding places include obvious structures such as bird nests and tree hollows, as well as more cryptic places such as amphibian or reptile habitat where breeding takes place.</p> <p>The project area comprises two polygons of REs including RE 12.3.13/12.3.14 located on the southern side of Poona Road and RE 12.2.11 on land adjoining Poona Creek. RE</p> | N/A | <p>High risk species management program to be completed and approved by the regulator (where breeding habitat for an EVNT species is identified during targeted surveys).</p> <p>Low risk species management program to be completed and registered with the regulator.</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>12.3.13/12.3.14 is mapped as essential habitat for <i>Crinia tinnula</i> (wallum froglet) and <i>Litoria freycineti</i> (wallum rocketfrog).</p> <p>A Wildlife Online database search returned records of 109 conservation significant fauna species previously recorded within a 2 kilometre radius of the subject site. The following species are of high conservation significance:</p> <ul style="list-style-type: none"> • Eastern curlew (<i>Numenius madagascariensis</i>) listed as 'critically endangered' under the EPBC Act and 'endangered' under the NC Act • Western Alaskan bar-tailed godwit (<i>Limosa lapponica baueri</i>) listed as 'vulnerable' under the EPBC Act and NC Act • Water mouse (<i>Xeromys myoides</i>) listed as 'vulnerable' under the EPBC Act and NC Act <p>Seven other bird species listed as 'special least concern' under State legislation have also previously been recorded within 2 km of the project area while the remainder of species are listed as 'least concern' under the NC Act.</p> <p>The subject site is not anticipated to support suitable breeding habitat for frog species due to natural drainage in the area</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>associated with the relatively steep banks, the presence of saline water associated with the estuary and the lack of pooling water. Due to the limited area of salt water couch marine plant identified within the project are during the preliminary site walkover, the subject site is not anticipated to support breeding habitat for the water mouse.</p> <p>A number of small hollows were identified beneath the steep embankment below the car parking area and the edge of the estuary. These were limited in number and did not seem to be active at the time, but may be associated with seasonal use by birds, such as the rainbow bee-eater. In addition, potential exists for breeding habitat for conservation significant species to be impacted as a result of the project given that the works are located in proximity to wetlands and vegetation clearing is proposed for areas which are previously undisturbed.</p> <p>In the absence of a fauna survey being progressed across the site, a 'low risk of impacts' SMP should be prepared to guide any potential construction works proposed (refer to https://environment.des.qld.gov.au/licences-permits/plants-animals/documents/tp-wl-smp-high-risk.pdf).</p> <p>In the event that breeding habitat for EVNT species listed under the <i>Nature Conservation (Wildlife) Regulation 2006</i> is</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|---|-------------------------|---|---------------------------------|--|
| | | identified, a 'high risk of impacts' SMP should be prepared in order to mitigate any unlawful impacts to native fauna breeding places (as defined under section 332 of the <i>Nature Conservation (Wildlife Management) Regulation 2006</i>) for EVNT species (refer to https://environment.des.qld.gov.au/licences-permits/plants-animals/documents/tp-wl-smp-high-risk.pdf). | | |
| Vegetation Management Act 1999 (VM Act) | | | | |
| Operational works development permit for clearing native vegetation | SARA and DNRME | <p>The DNRME vegetation management mapping shows the project area as supporting remnant vegetation. The project area comprises two polygons of regional ecosystems (REs) including RE 12.3.13/12.3.14 located on the southern side of Poona Road and RE 12.2.11 on land adjoining Poona Creek. Each RE is described as follows:</p> <ul style="list-style-type: none"> RE 12.3.13 is described as closed heathland on seasonally waterlogged alluvial plains usually near coast, listed as 'least concern' and makes up 90% of the mixed polygon RE 12.3.14 is described as <i>Banksia aemula</i> low woodland on alluvial plains usually near coast, listed as 'of concern' and makes up 10% of the mixed polygon RE 12.2.11 is described as <i>Corymbia tessellaris</i> +/- <i>Eucalyptus tereticornis</i>, <i>C. intermedia</i> and <i>Livistona decora</i> | \$12,956.00 3 – 4 months | <p>Site plan and plan of the proposed development showing site details and vegetation to be cleared.</p> <p>Engineering plans showing specific details of the proposed boat ramp.</p> <p>Technical report providing a response to the relevant module from the SDAP.</p> |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|---|-------------------------------|------------------------|
| | | <p>woodland on beach ridges in the northern half of bioregion, and is listed as 'least concern'</p> <p>Site observations revealed three vegetation types were observed in proximity to the proposed boat ramp including the following:</p> <ul style="list-style-type: none"> Vegetation in proximity to Poona Road and within the northern extent of the site at higher elevations comprised an open woodland dominated by <i>Allocasuarina littoralis</i> with a heathy understorey. <i>Banksia aemula</i> and <i>Ricinocarpus pinifolius</i> were also observed within this community, with <i>Phebalium woombye</i> prevalent along the existing access track. <i>Baekea fruticosa</i>, <i>Xanthorrhoea fulva</i> and <i>Sowerbae juncea</i> were also common. Additional investigation of this area may be required to confirm the regional ecosystem, however initial observation would indicate that with the absence of eucalypts, the community may best conform to the description of RE 12.3.13 Closed heathland on seasonally waterlogged alluvial plains usually near coast with a 'least concern' conservation significance. This RE is a palustrine wetland. An open woodland of <i>Melaleuca quinquenervia</i> to 8 metres height was present with <i>Eucalyptus latisinensis</i> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>and <i>Callitris columellaris</i> also present in the canopy layer, with <i>Casuarina glauca</i> bordering the edge of the tidal extent. An understorey of <i>Myrsine variabilis</i>, <i>Endiandra sieberi</i>, <i>Monotoca scoparia</i> and <i>Syzigium oleosum</i> was present along the edge of the embankment, with <i>Livistona</i> sp. present and <i>Austromyrtus dulcis</i> and <i>Baloskion tetraphyllum</i> common. The vines <i>Smilax glycophylla</i> and <i>Smilax australis</i> were observed. At lower elevations, <i>Lindsaea ensifolia</i>, <i>Imperata cylindrica</i>, <i>Baumea</i> sp and <i>Pteridium esculentum</i> were evident, with a very small area of <i>Sporobolus virginicus</i> fringing the edge of the scarp to the immediate west of the proposed boat ramp location.</p> <ul style="list-style-type: none"> • A small area of mangrove woodland to 4 metres comprising <i>Avicennia marina</i> and <i>Rhizophora stylosa</i> was present to the south of the terrestrial vegetation along the edge of the estuary. <p>An additional vegetation type may also be present in proximity to the western extent of the project area, comprising larger woody vegetation species such as eucalypts, however no detailed investigation of this area was conducted.</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>Schedule 21, Part 1, Item 14 of the Planning Regulation 2017 states that clearing for the construction or maintenance of infrastructure stated in schedule 5, is exempt development if—</p> <p>(a) the clearing is on designated premises; or</p> <p>(b) the infrastructure is government supported transport infrastructure.</p> <p>Looking at the requirements for this exemption to apply, the works are likely to conform to the requirement of being government supported transport infrastructure – defined as infrastructure for transport that is for public use and is—</p> <p>(a) funded, wholly or partly, by the State or Commonwealth;</p> <p>Transport infrastructure is defined in Schedule 24 of the <i>Planning Regulation 2017</i> as including:</p> <p>(g) public marine transport infrastructure as defined under the Transport Infrastructure Act, schedule 6;</p> <p>Reference to Schedule 6 of the <i>Transport Infrastructure Act 1994</i> defines public marine transport infrastructure as meaning State-owned or State-controlled transport infrastructure relating to Queensland waters, other than port or miscellaneous transport infrastructure.</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>The proposed boat ramp, funded by TMR, therefore appears to conform to the definition of government supported transport infrastructure.</p> <p>The second criteria that enables this exemption to apply is whether the boat ramp is infrastructure mentioned in Schedule 5 of the <i>Planning Regulation 2017</i>. Schedule 5 does not explicitly nominate a public boat ramp in the list of transport infrastructure provided, with the closest infrastructure listed being wharves, public jetties, port facilities and navigational facilities identified at Clause 3 in the Regulation. Clause 5 allows for any other facility for transport not stated in this part that is intended mainly to accommodate government functions and may apply to a public boat ramp that accommodates a public sector structure that functions to provide access to the waterway. Notwithstanding, the application of Schedule 5 to the site does not appear to be clear and therefore further consultation with SARA may be warranted by way of a pre-lodgement meeting.</p> <p>In addition to the above general exemption, specific exemptions are given to certain types of clearing activities on different land tenures. The project spans reserve tenured land</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
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| | | <p>and unallocated State land. Matters relating to reserve tenured land have been detailed below initially, followed by considerations associated with the unallocated State land.</p> <p>Reserve tenured land is defined as trust land under the <i>Land Act 1994</i>. A title search undertaken for the site in 2017 confirmed that Council is the trustee for Lot 94 on MCH5498 and it is under reserve tenure for the purpose of local government and sub-purpose of environmental protection. The property is zoned as environmental management and conservation under <i>Fraser Coast Planning Scheme 2014</i>.</p> <p>Part 6 of Schedule 21 of the <i>Planning Regulation 2017</i> sets out exemptions that apply for trust land. Key criteria that need to be satisfied in order to access this exemption include:</p> <p>(a) that the clearing is carried out, or allowed to be carried out, by the trustee; and</p> <p>(b) that the clearing is consistent with achieving the purpose of the trust; and</p> <p>(c) that the clearing is —</p> <p style="padding-left: 40px;">(i) is necessary for essential management; or</p> <p style="padding-left: 40px;">(ii) is in a category R area or category X area; or</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>(iii) is to remove vegetation that is not native vegetation; or</p> <p>(iv) is in accordance with a relevant biosecurity plan under the <i>Biosecurity Act 2014</i>; or</p> <p>(v) is for urban purposes in an urban area and the vegetation is an of concern regional ecosystem, or a least concern regional ecosystem, in a category B area; or</p> <p>(vi) is necessary for routine management in an area of the land, if the vegetation is a least concern regional ecosystem in a category B area; or</p> <p>(vii) is under an accepted development vegetation clearing code, other than in a category A area.</p> <p>While the works can be undertaken by the trustee (Fraser Coast Regional Council), difficulties may arise in demonstrating that the clearing for a boat ramp and associated parking area is consistent with the purpose of the trust (environmental protection). Even if this criterion can be satisfied, it remains unlikely that the works would comprise routine management. Schedule 24 states that routine management, for clearing native vegetation on land, means (amongst other things) the clearing of native vegetation—</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|-----------------------------|-------------------------|--|-------------------------------|------------------------|
| | | <p>(a) to establish a necessary fence, road or vehicular track, if the maximum width of the clearing for the fence, road or track is 10m; or</p> <p>(b) to build necessary built infrastructure, including core airport infrastructure, other than contour banks, fences, roads or vehicular tracks, if (for trust land) —</p> <p>(i) the clearing is not to source construction timber; and</p> <p>(ii) the total area cleared is less than 2ha; and</p> <p>(iii) the total area covered by the infrastructure is less than 2ha;</p> <p>It may be difficult to demonstrate that the proposed access track and boat ramp comprise necessary built infrastructure, and it is unlikely this exemption would apply to the site for the project.</p> <p>With respect to the unallocated State land, no clear exemptions appear to be available for clearing of least concern remnant vegetation under Part 7 of Schedule 21.</p> <p>Where no exemptions apply, the works would be considered to comprise assessable development with respect to the clearing of native vegetation and would require assessment by SARA</p> | | |

| Permit/Licence/ Approval | Regulatory Authority | Requirements | Application Fee and Timing | Supporting Information |
|---|-------------------------|--|-------------------------------|------------------------|
| | | against State code 16: Native vegetation clearing. In addition, chief executive approval under Section 22A of the <i>Vegetation Management Act 1999</i> would be required to demonstrate that the works comprise a relevant purpose. | | |
| Water Act 2000 | | | | |
| Operational works development permit for interfering with water in a watercourse or removing quarry material from a watercourse | DNRME | Poona Creek is mapped as a 'yet to be mapped' watercourse under the watercourse identification mapping. As the area of Poona Creek in which the boat ramp is proposed is tidal, the provisions under the <i>Water Act 2000</i> do not apply. | N/A | N/A |

3.0 CONCLUSION

The legislative review of statutory approvals has identified that Option 3A for the development of a boat ramp to Poona Creek will require a number of environmental approvals and specific measures to be undertaken to satisfy legislative requirements before the works may be progressed. These are summarised as follows:

- A tidal works approval for operational works (tidal works and work in a coastal management district) is required for the boat ramp and for interfering with quarry material on State coastal land above the high-water mark under the *Coastal Protection and Management Act 1995*. The application requires application to SARA and assessment against State codes 7 and 8 of the SDAP. Land owner's consent will also be required from the Department of Natural Resources, Mines and Energy for works in unallocated State land. Where material is to be removed from the waterway and deposited outside of the tidal reach, a resource allocation will be required pursuant to the *Coastal Protection and Management Act 1995*.
- Marine plants were confirmed present within the project area and any tidal works application will require referral for operational work that is the removal, destruction or damage of a marine plant. This requires assessment against State code 11 of the SDAP and will incur a referral fee of 50% of \$6,479 due to the provisions of Section 38 of the *Planning Regulation 2017*. It is estimated that an area of approximately 150 m² – 300 m² of marine plants will require clearing, which will incur a financial offset of approximately \$2250 - \$4500, depending on the size of the clearing impact area.
- Clarification should be sought from SARA through a formal prelodgement meeting to resolve if vegetation clearing will comprise assessable development where exemptions for government supported transport infrastructure are not available. In such instances, approval from the chief executive for a relevant purpose will be required prior to any application being lodged.
- A marine parks permit will be required for the proposed structure in the conservation park zone of the Great Sandy Strait Marine Park. A public boat ramp in a highly protected zone of a marine park is not considered to be a significant residual impact and therefore no offsetting is required.
- The project area is located within a high-risk area for protected plants on the protected plants flora survey trigger mapping. Consequently, completion of a flora survey is required to be undertaken in accordance with the *Flora Survey Guidelines – Protected Plants* and submission of the flora survey report to DES is required to meet legal obligations defined under the NC Act. Where protected plants are present within the project impact area a protected plant clearing permit will be required. Where EVNT flora species are identified and the works are found to have a significant impact to these species, the project may be subject to Commonwealth and State offsetting requirements.
- A number of small hollows were identified on the bank between the estuary and the car park and in vicinity to the proposed ramp access. In the absence of a targeted fauna survey for EVNT species based on a likelihood of occurrence assessment and identifying the presence of

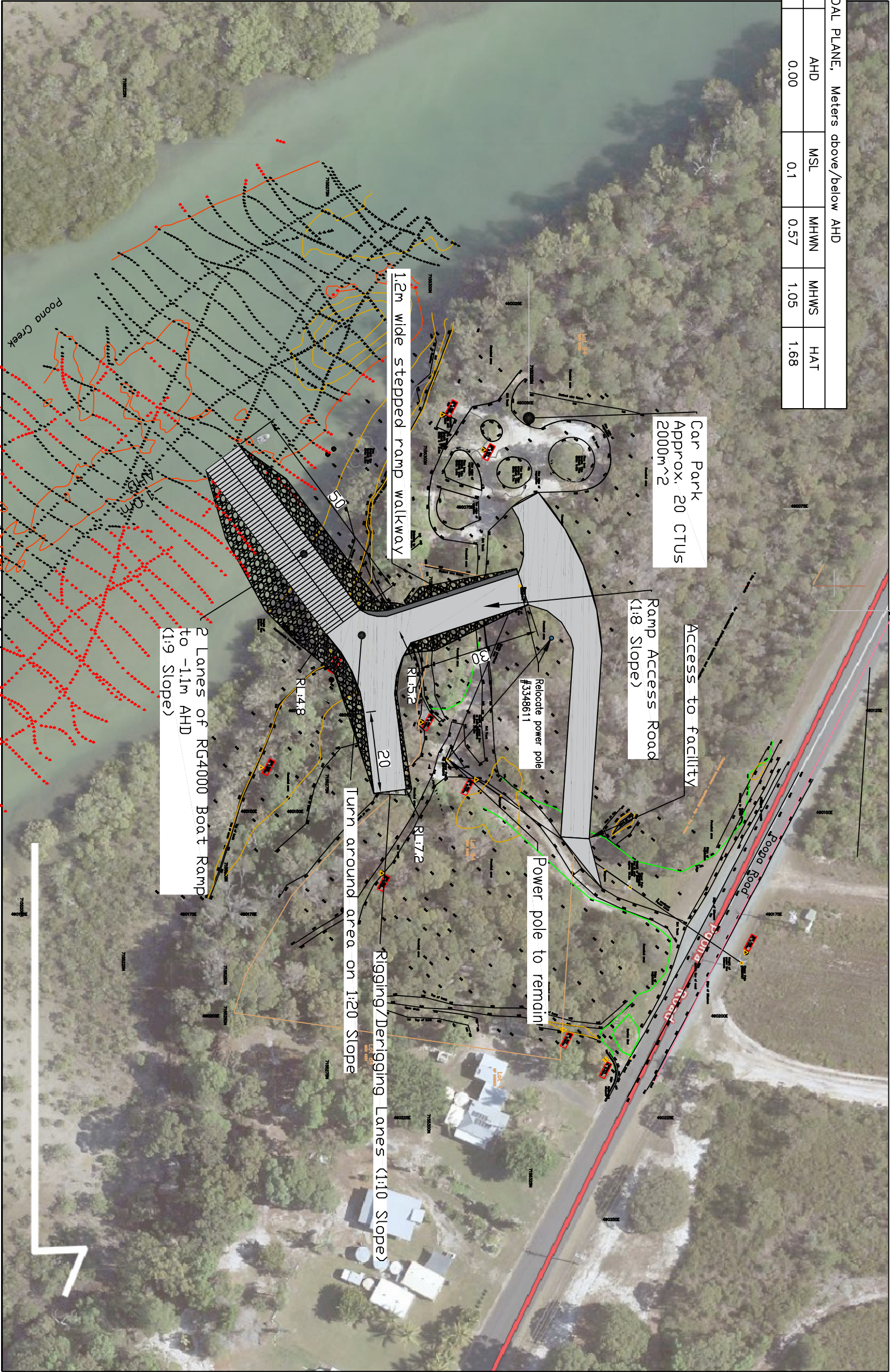
breeding habitat for conservation significant fauna, all works should also be progressed under a low risk species management program. Species identified through the essential habitat mapping as likely to occur within the project area were considered unlikely to be present due to the absence of habitat available.

- The extent to which the EPBC Act applies to the project is yet to be concluded. While initial consideration would suggest that the scale of the project is of limited consequence, TMR will undertake a self assessment during the design development phase once the extent of impact can be reviewed against the Significant impact guidelines. A determination can then be made as to whether the corresponding loss of an area of wetland due to the proposed action may be considered to be a significant impact on matters of national environmental significance.

On the basis of the information available to date, there is potential for the project to incur considerable time delays and costs as a result of the legislative constraints impacting the location and design of the proposed boat ramp. The full extent to which some approvals apply to the site are yet to be fully determined and should be considered when considering the feasibility of the project proceeding.

Appendix A: Concept Design Plan

| SNOUT POINT: SEMIDIURNAL TIDAL PLANE, Meters above/below AHD | | | | | | | |
|--|-------|-------|------|-----|------|------|------|
| LAT | MLWS | MLWN | AHD | MSL | MHWN | MHWS | HAT |
| -1.29 | -0.84 | -0.37 | 0.00 | 0.1 | 0.57 | 1.05 | 1.68 |



Appendix I - Approvals Summary Poona Boat Ramp Report

| | | | | | | | | | |
|---------------------|--|-------------------|--|-----------------|--|-------------------|--|---|--|
| Auxiliary Dwg No.'s | | SURVEY DATA | | POONA BOAT RAMP | | BOAT RAMP CONCEPT | | Queensland Government | |
| Horiz. Grid | | GDA94 MGA ZONE 56 | | Checked | | C.D.SORBELLO | | © The State of Queensland (Department of Transport and Main Roads) 2013 http://cdwcommissioning/kenes/bj/23/au | |
| Height Origin | | AHD | | Designed | | C.D.SORBELLO | | File No. ##### | |
| Survey Books | | | | Verified | | | | Contract No. ##### | |
| | | | | | | | | Drawing No. CONCEPT 3A | |
| | | | | | | | | Project Number ##### | |
| | | | | | | | | A | |

SCALE 1 : 1000 AT A3

0 5 25 50

Dimensions shown in METRES except where shown otherwise

Appendix B: Desktop Search Results

Appendix I - Approvals Summary Poona Boat Ramp Report

Search Date: 13/11/2017 10:23

Title Reference: 47034990

Date Created: 22/12/2010

OWNER

THE STATE OF QUEENSLAND

(REPRESENTED BY DEPARTMENT OF NATURAL RESOURCES AND MINES -
LAND ACT)

ESTATE

Estate in Unallocated State Land

LOT 1 CROWN PLAN AP15926
Local Government: FRASER COAST

EASEMENTS AND ENCUMBRANCES

ADMINISTRATIVE ADVICES - NIL
UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

Corrections have occurred - Refer to Historical Search

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act(1994) or
section 281 Land Act(1994)

Search Date: 13/11/2017 10:22

Title Reference: 49020785

Date GAZETTED: 21/09/1991

PAGE: 264

Opening Ref: RES 6960

Purpose: LOCAL GOVERNMENT

Sub-Purpose: ENVIRONMENTAL PROTECTION

Local Name:

Address: BORONIA DVE

County (R) No: R1766

File Ref: RES 26799

TRUSTEES

FRASER COAST REGIONAL COUNCIL GAZETTED ON 21/09/1991

PAGE 264

LAND DESCRIPTION

LOT 94 CROWN PLAN MCH5498 GAZETTED ON 21/09/1991 PAGE 264

Local Government: FRASER COAST

LOT 27 CROWN PLAN MCH5499 GAZETTED ON 21/09/1991 PAGE 264

Local Government: FRASER COAST

Area: 11.839000 Ha. (SURVEYED)

EASEMENTS AND ENCUMBRANCES

ADMINISTRATIVE ADVICES - NIL

UNREGISTERED DEALINGS - NIL

CERTIFICATE OF TITLE ISSUED - No

** End of Current Reserve Search **

Department of Environment and Heritage Protection

Environmental Reports

Biodiversity and Conservation Values

Biodiversity Planning Assessments and Aquatic Conservation Assessments

Area of Interest: Lot: 94 Plan: MCH5498

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@ehp.qld.gov.au

Disclaimer

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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

| | |
|---------------------|-----------------------------------|
| Area of Interest | 94MCH5498 |
| Size (ha) | 5.1 |
| Local Government(s) | FRASER COAST REGIONAL |
| Bioregion(s) | Southeast Queensland |
| Subregion(s) | Burnett - Curtis Coastal Lowlands |
| Catchment(s) | Noosa |

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) | Southeast Queensland v4.1 |
| Aquatic Conservation Assessment(s) (riverine) | South East Queensland Catchments v1.1 |
| Aquatic Conservation Assessment(s) (non-riverine) | South East Queensland 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 | 0.0 | 0.0% |
| Of Concern | 0.1 | 1.8% |
| No concern at present | 4.8 | 94.3% |

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 Heritage Protection's *Biodiversity Assessment and Mapping Methodology* (BAMM).

Table 4: Summary table, biodiversity significance

| Biodiversity significance | Area (Ha) | % of AOI |
|-----------------------------|-----------|----------|
| State Habitat for EVNT taxa | 0.5 | 9.8% |
| State | 4.3 | 85.3% |
| 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 Heritage Protection'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 | 0.0 | 0.0% |
| High | 5.1 | 100.0% |
| 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 Heritage Protection (EHP) 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 EHP.

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 | 0.5 | 9.8% |
| State | 4.3 | 85.3% |
| 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 intertidal zones; and areas of national importance such as 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 at least 1 Endangered or 2 Vulnerable or Near Threatened species (A) | 0.5 | 9.8 |
| State | Significant Wetland (B1) | 0.7 | 13.7 |
| Local or Other Values | Refer to diagnostic data for additional information | 3.8 | 74.5 |

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 | 0.5 | 9.8 | | | 4.2 | 82.8 | | |
| B1: Ecosystem Value (Bioregion) | 0.7 | 12.7 | 0.5 | 9.8 | | | 3.7 | 72.5 |
| B2: Ecosystem Value (Subregion) | | | | | | | 4.7 | 92.6 |
| C: Tract Size | | | 4.2 | 82.8 | | | 0.5 | 9.8 |
| D1: Relative RE Size (Bioregion) | | | | | | | 4.7 | 92.6 |
| D2: Relative RE Size (Subregion) | | | | | | | 4.7 | 92.6 |
| F: Ecosystem Diversity | | | 4.7 | 92.6 | | | | |
| G: Context and Connection | 4.2 | 82.4 | | | 0.5 | 10.3 | | |

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 Core Habitat for Priority Taxa (H) & Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I) & Remnant forms part of a bioregional corridor (J) | 1.0 | 19.6 |
| State | Remnant contains Special Biodiversity Values (view Expert Panel data for further information) (I) & Remnant forms part of a bioregional corridor (J) | 3.9 | 76.5 |

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.

This criterion can be used to identify essential and general habitat for EVNT and other priority taxa additional to that derived under Diagnostic Criterion A. Information sources include expert and local knowledge, technical reports and papers, and modelled maps of essential and general habitat.

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:

- Ia - 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.
- Ie - 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.
- Ii - 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.
- Ik - 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 - % 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 | 0.9 | 18.1 | | | | | 3.8 | 74.5 |

Appendix I - Approvals Summary Poona Boat Ramp Report

| 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 |
|--------------------------------------|------------------------------|-----------------------------|-------------------------|------------------------|---------------------------|--------------------------|------------------------|-----------------------|
| Ia: Centres of Endemism | | | 4.7 | 92.6 | | | | |
| Ib: Wildlife Refugia | 4.7 | 92.6 | | | | | | |
| Ic: Disjunct Populations | | | | | | | | |
| Id: Limits of Geographic Ranges | | | | | | | | |
| Ie: High Species Richness | | | 4.7 | 92.6 | | | | |
| If: Relictual Populations | | | | | | | | |
| Ig: Variation in Species Composition | | | | | | | | |
| Ih: Artificial Wetland | | | | | | | | |
| Ii: 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 | 4.7 | 92.6% |
| Regional | 0.0 | 0.0% |
| Local or Other Values | 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 |
|-----------------|--|--------------------------------|---|
| seqn_I_01 | Terrestrial bioregional corridors | State or Regional | Criterion J |
| seqn_I_34 | Coastal strip between Tinana Creek and mouth of Mary River - Susan River | State | 1a (SEQ endemic taxa): HIGH 1b (wildlife refugia): VERY HIGH 1e (high species richness): HIGH |

Expert panel decision descriptions:

seqn_I_01

The expert panel reviewed the existing bioregional corridors for northern SEQ. Corridors were assigned as being of State or Regional significance.

For further information, refer to sections 2.3.2 and 3.2 of this report.

seqn_I_34

The panel noted that vegetation on the mainland between Tinnanbar and the Mary River has been retained between land cleared for pine plantations and Great sandy Strait part of which is included within fish habitat reserve. The remnants contain flora and fauna species of conservation interest. Consequently it is recommended to upgrade all planning units in an area designated by the panel to State significance based upon the flora and fauna values and the threat posed by coastal development. The northern end relatively unknown. Sandy soils marginal for grazing and sugarcane. Different to wallum areas to south which are sand. Tends to be alluvium / sandy depauperate soils. Some nature refuges - Tandora and tandora wetlands.

- SEQ endemic taxa (Criterion Ia): including *Acacia attenuata*, *A. baueri* subsp. *baueri*, *A. leiocalyx* subsp. *herveyensis*, *Boronia rivularis*, *Melaleuca pachyphylla*, *Grevillea leiophylla*, *G. reptans*, *Habenaria harroldii*, *Hakea actites*, *Petrophile shirleyae*, *Prasophyllum exilis*, *Pultenaea rariflora*, *Macrozamia pauli-guilielmii*, *Strangea linearis*, *Westringia tenuicaulis*, *Xylomelum benthamii*
- Wildlife refugia (Criterion Ib): especially refugia from clearing for pine plantations and sugar growing. Refugia for fiddler crab species at their range limits *Uca signata*, *Uca seismella*
- High species richness for ground orchids (Criterion Ic).

The area delineated adjoins fish habitat reserves, a RAMSAR site and is otherwise strategically located with mainland frontage to Great Sandy Strait. For further information on the Wide Bay-Burnett area, refer to seqn_I_18.

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 *WetlandInfo*:

<http://wetlandinfo.ehp.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 | 0.0 | 0.0% |
| High | 5.1 | 100.0% |
| 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 | 5.1 | 100.0 | | | | | | |
| 2. Naturalness catchment | 5.1 | 100.0 | | | | | | |
| 3. Diversity and richness | | | | | | | 5.1 | 100.0 |
| 4. Threatened species and ecosystems | | | | | 5.1 | 100.0 | | |
| 5. Priority species and ecosystems | | | | | | | | |
| 6. Special features | | | 5.1 | 100.0 | | | | |
| 7. Connectivity | | | 5.1 | 100.0 | | | | |

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) |
|-----------------|---|-----------|----------------------------|---------------------------|
| ns_r_fl_02 | Eucalyptus tereticornis communities 12.3.11 | Noosa | 6.3.1 | 3 |

4 is the highest rating/value

Expert panel decision descriptions:

ns_r_fl_02

RE 12.3.11 provides habitat for flora and fauna and is subject to a number of threatening processes in the coastal catchments. Remnant pockets have good biodiversity. REs 12.3.3, 12.3.7, 12.3.11 in flood plain or riverine system contain **E. tereticornis**, although the expert panel decision relates specifically to 12.3.11.

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

| Crite ria | 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 Rec ords) | | | | | | | | |

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.

(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>Xeromys myoides</i> | Water Mouse | V | V | High | | Y | FA |
| <i>Macrozamia pauli-guilielmi</i> | | E | E | Critical | | | FL |
| <i>Calidris canutus</i> | Red Knot | E | E | Low | Y | Y | FA |
| <i>Calidris ferruginea</i> | Curlew Sandpiper | E | CE | Low | Y | Y | FA |
| <i>Calidris tenuirostris</i> | Great Knot | E | CE | Low | Y | Y | FA |
| <i>Charadrius leschenaultii</i> | Greater Sand Plover | V | V | Low | Y | Y | FA |
| <i>Charadrius mongolus</i> | Lesser Sand Plover | E | E | Low | Y | Y | FA |
| <i>Limosa lapponica</i> | Bar-tailed Godwit | V | V | Low | Y | Y | FA |

Appendix I - Approvals Summary Poona Boat Ramp Report

| Species | Common name | NCA status | EPBC status | Back on Track rank | Migratory species* | Wetland species** | Identified flora/fauna |
|---------------------------|----------------|------------|-------------|--------------------|--------------------|-------------------|------------------------|
| Numenius madagascariensis | Eastern Curlew | E | CE | Low | Y | Y | FA |
| Petauroides volans | Greater Glider | V | V | Low | | | FA |
| Acacia attenuata | | V | V | High | | | FL |
| Pseudomugil mellis | Honey Blue Eye | V | V | Critical | | D | FA |

NB. Please note that the threatened species listed in this section are based upon the most recently compiled DEHP 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.*

***Y - wetland indicator 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 |
|----------------------------|----------------------------|--------------------|------------------------|
| Ephippiorhynchus asiaticus | Black-necked Stork | Low | FA |
| Austromyrtus dulcis | midgen berry | | FL |
| Sternula albifrons | Little Tern | High | FA |
| Litoria tyleri | Southern Laughing Treefrog | Low | 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 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 |
|------------------------|-------------------------|--------------------|------------------------|
| Ardea modesta | Eastern Great Egret | Low | FA |
| Gallinago hardwickii | Latham's Snipe | Low | FA |
| Haliaeetus leucogaster | White-bellied Sea-Eagle | Low | FA |
| Hydroprogne caspia | Caspian Tern | Low | FA |
| Tringa stagnatilis | Marsh Sandpiper | Low | FA |
| Limosa limosa | Black-tailed Godwit | Low | FA |
| Pandion cristatus | Eastern Osprey | Low | FA |

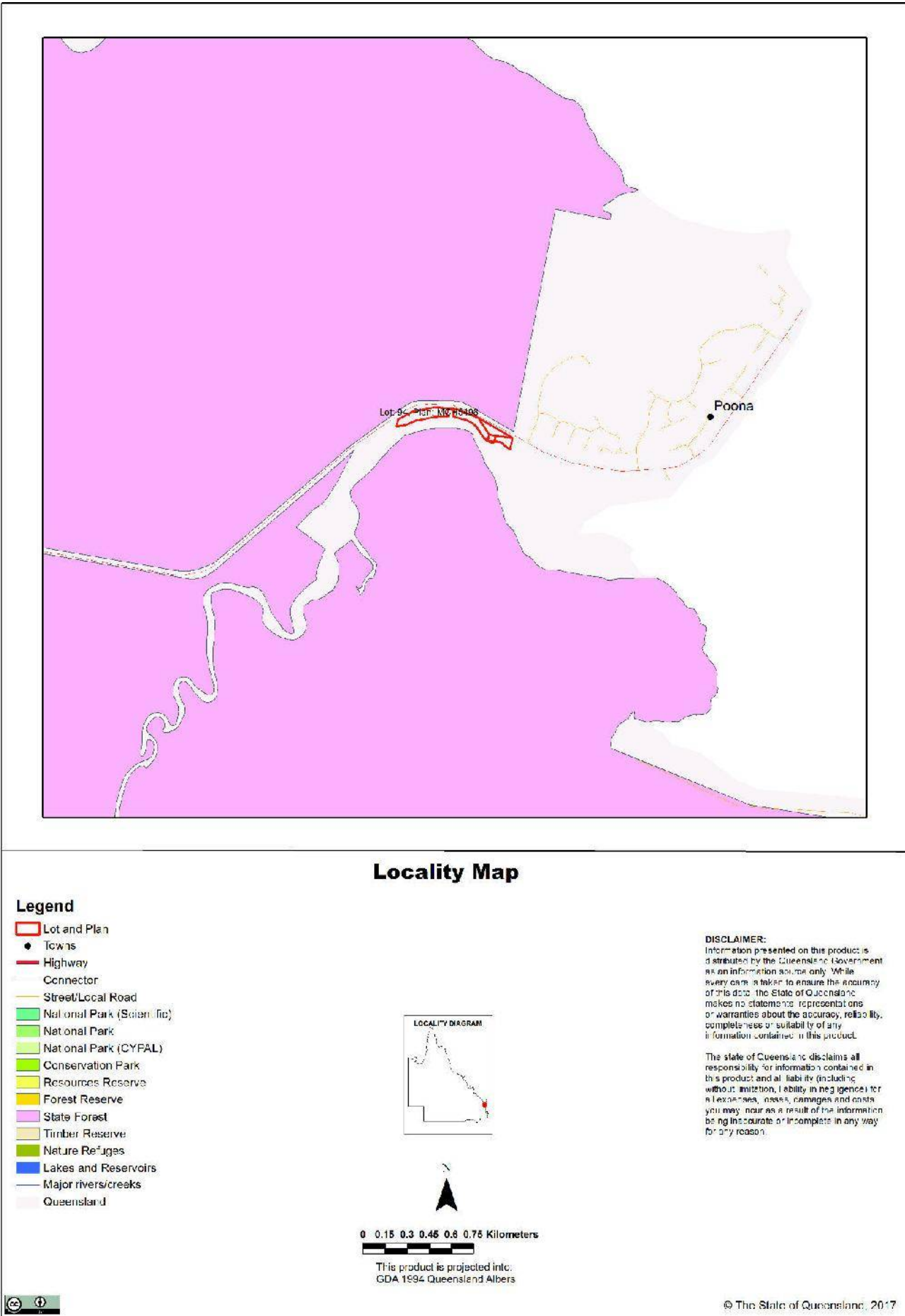
Table 25: Priority species recorded on, or within 4 km of the AOI - non-riverine

| Species | Common name | Back on Track rank | Identified flora/fauna |
|---------------------------------|-------------------------|--------------------|------------------------|
| <i>Ardea modesta</i> | Eastern Great Egret | Low | FA |
| <i>Calidris acuminata</i> | Sharp-tailed Sandpiper | Low | FA |
| <i>Calidris ferruginea</i> | Curlew Sandpiper | Low | FA |
| <i>Charadrius leschenaultii</i> | Greater Sand Plover | Low | FA |
| <i>Charadrius mongolus</i> | Lesser Sand Plover | Low | FA |
| <i>Gallinago hardwickii</i> | Latham's Snipe | Low | FA |
| <i>Haliaeetus leucogaster</i> | White-bellied Sea-Eagle | Low | FA |
| <i>Hydroprogne caspia</i> | Caspian Tern | Low | FA |
| <i>Tringa nebularia</i> | Common Greenshank | Low | FA |
| <i>Tringa stagnatilis</i> | Marsh Sandpiper | Low | FA |
| <i>Banksia robur</i> | broad-leaved banksia | | FL |
| <i>Melaleuca pachyphylla</i> | | | FL |
| <i>Limosa limosa</i> | Black-tailed Godwit | Low | FA |
| <i>Pandion cristatus</i> | Eastern Osprey | Low | FA |

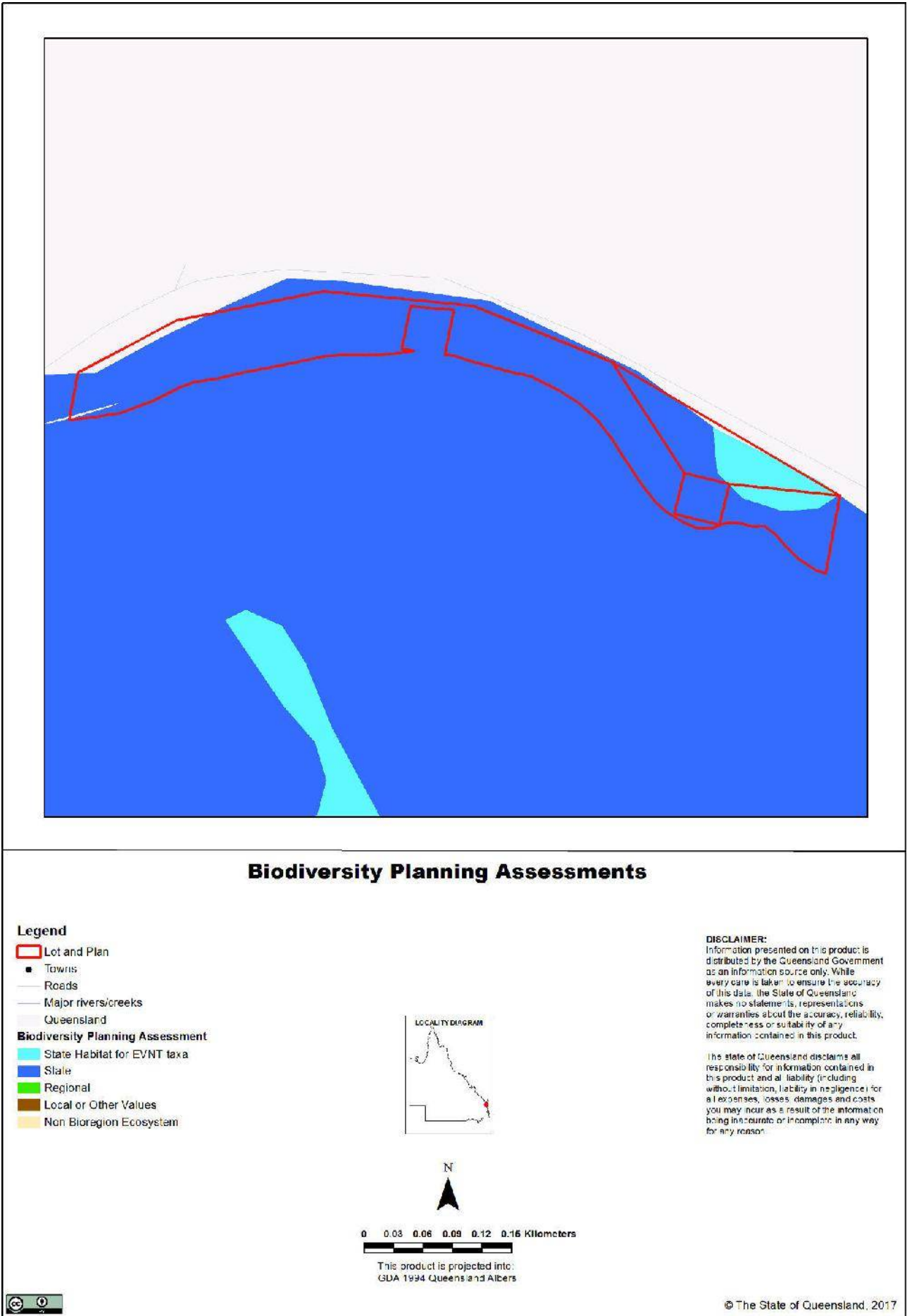
NB. Please note that the priority species records used in the above two tables are comprised of those adopted for the released individual ACAs. The ACA riverine and non-riverine priority species databases are updated from time to time to reflect new release of ACAs. At each update, the taxonomic details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

Maps

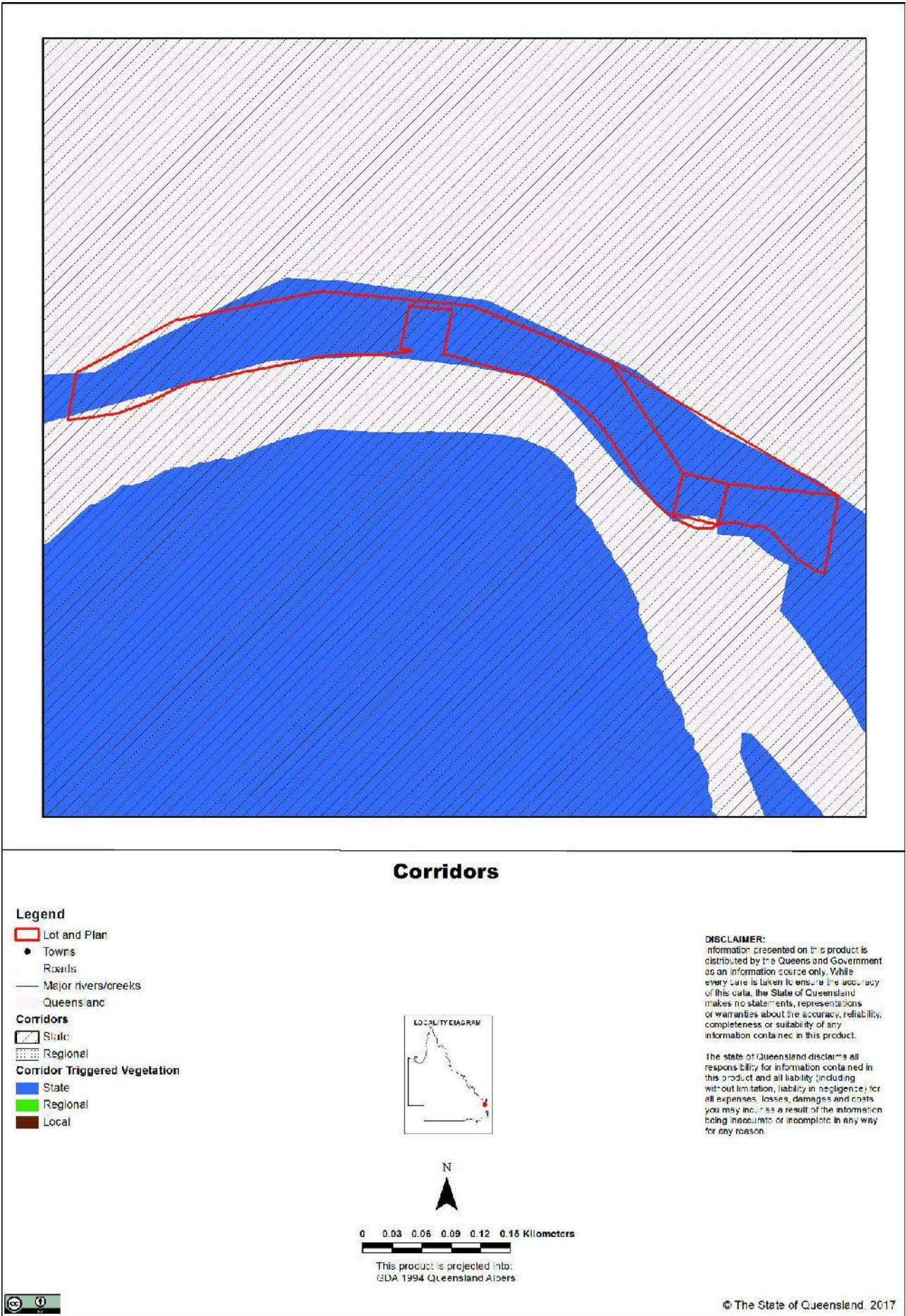
Map 1 - Locality Map



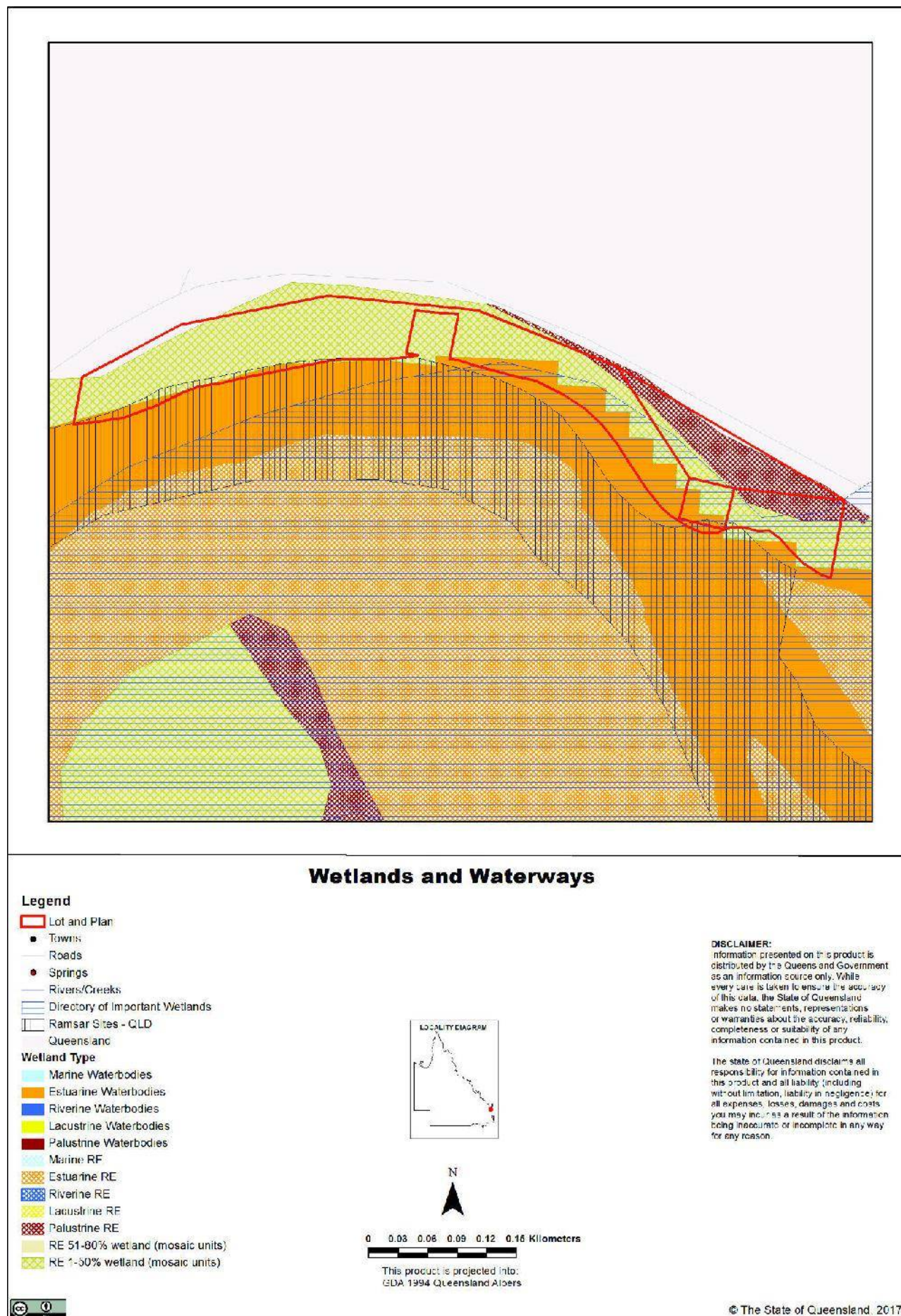
Map 2 - Biodiversity Planning Assessment (BPA)



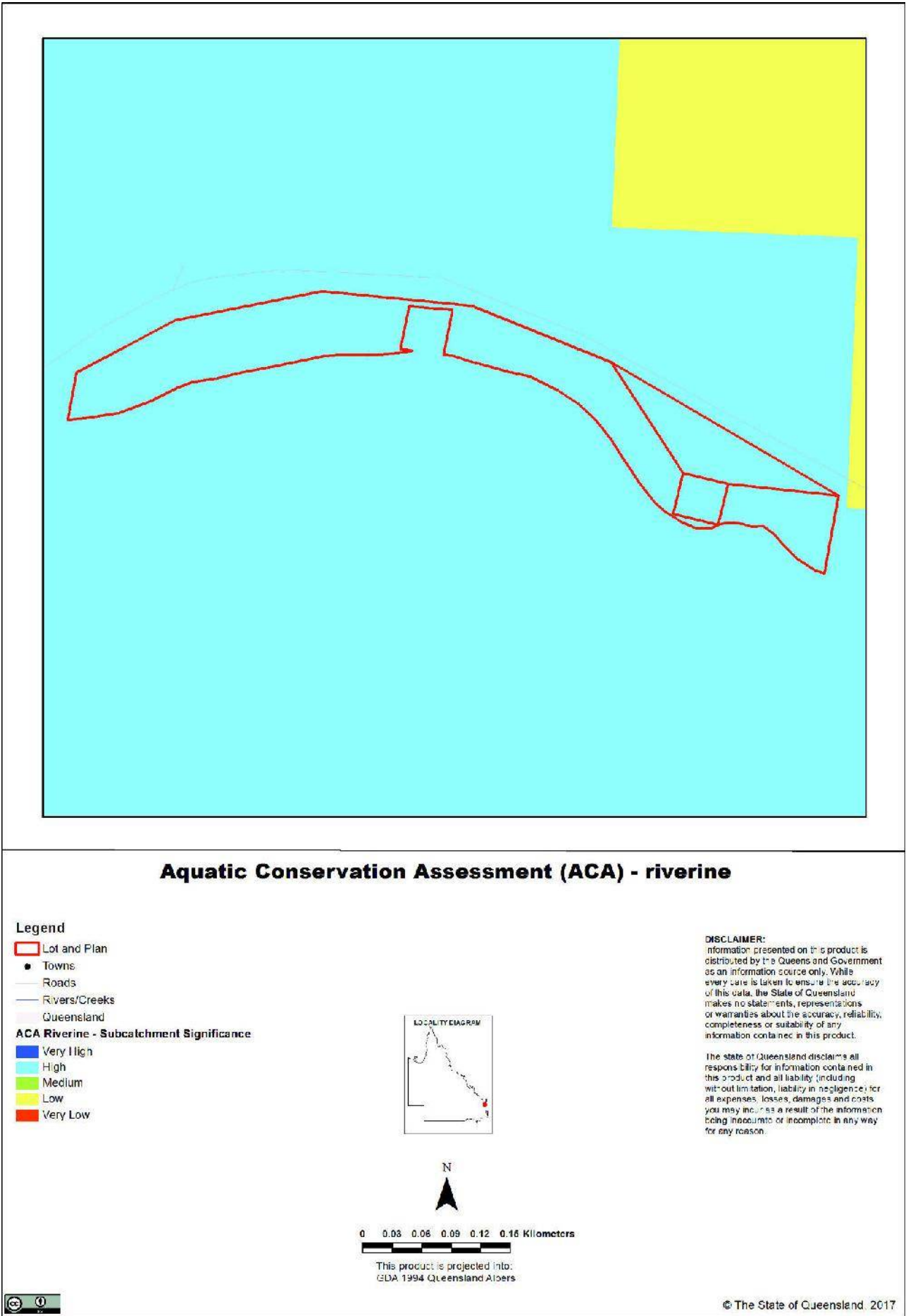
Map 3 - Corridors



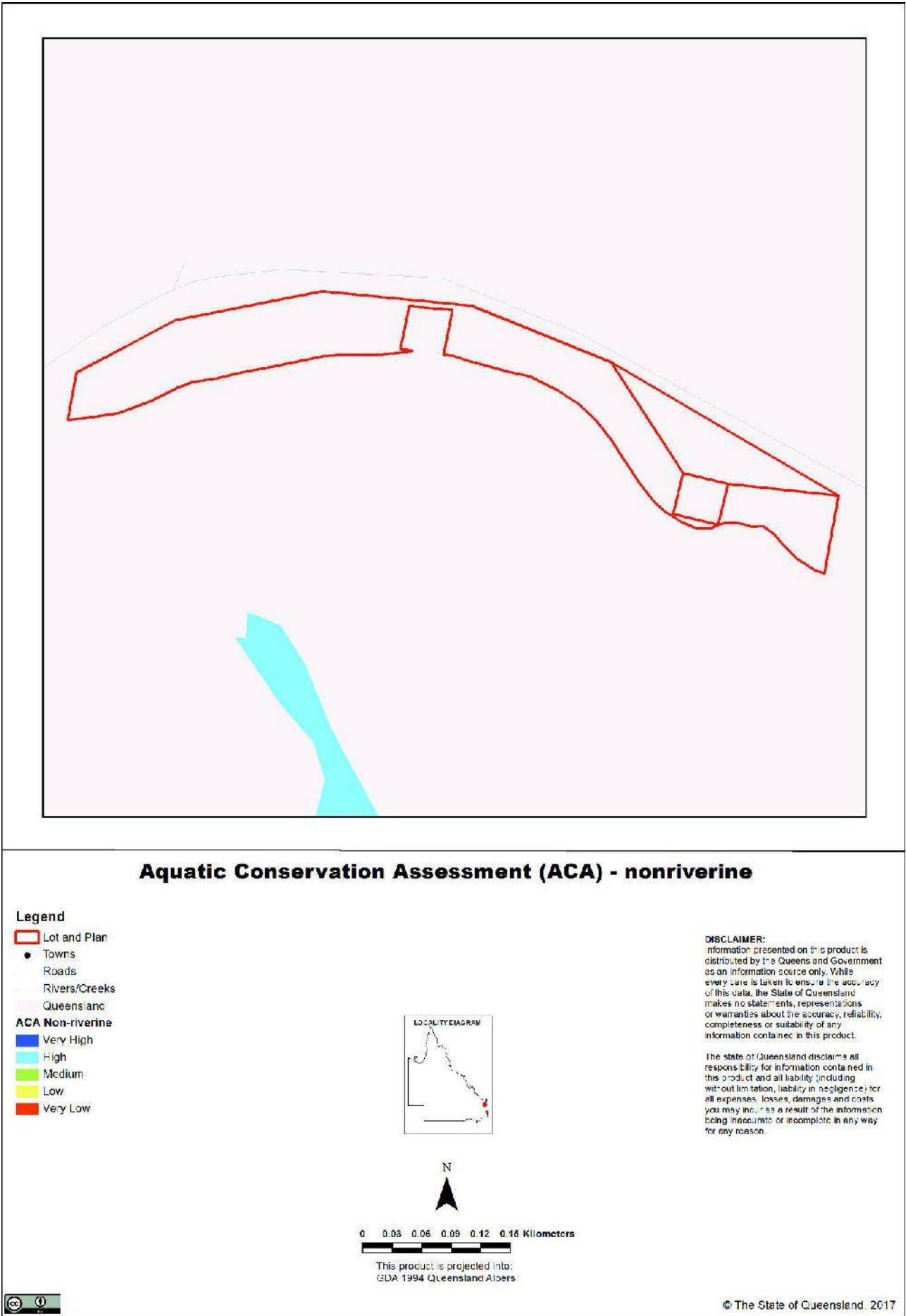
Map 4 - Wetlands and waterways



Map 5 - Aquatic Conservation Assessment (ACA) - riverine



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



References

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