

Proposed Motorcycle Dirt Track, Part Lot 602  
DP1001049, Eviron  
**Preliminary Environmental Constraints Assessment**

January 2011

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<b>Executive summary</b> .....	<b>2</b>
<b>1 Introduction</b> .....	<b>4</b>
<b>2 Statutory considerations</b> .....	<b>6</b>
2.1 Permissibility and approval pathway .....	6
2.2 Commonwealth legislation .....	8
2.2.1 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) .	8
2.3 State legislation .....	11
2.4 Local.....	14
2.4.1 Tweed Local Environmental Plan 2000.....	14
2.4.2 Tweed Development Control Plan (Tweed DCP).....	14
<b>3 Environmental considerations</b> .....	<b>15</b>
3.1 Soils .....	15
3.2 Topography and drainage .....	17
3.3 Amenity .....	18
3.4 Traffic and access .....	19
3.5 Noise .....	20
3.6 Air quality .....	22
3.7 Flora and fauna .....	23
3.8 Hazards.....	26
3.8.1 Bushfire hazard.....	26
3.8.2 Flood hazard.....	27
3.9 Heritage.....	28
3.10 Contaminated land .....	29
3.11 Waste management .....	30
3.12 Utilities.....	31
3.12.1 Water .....	31
3.12.2 Power.....	31
<b>4 Permits and approvals</b> .....	<b>32</b>
<b>5 Conclusion</b> .....	<b>32</b>
<b>References</b> .....	<b>34</b>
<b>Appendix A: Preliminary concept plan</b> .....	<b>36</b>
<b>Appendix B: EPBC Protected Matters database search results</b> .....	<b>37</b>

## Executive summary

Tweed Shire Council's Design Unit has been requested to undertake a Preliminary Environmental Constraints Assessment for the establishment of a Motorcycle Dirt Track on Part of Lot 602 DP1001049, Eviron (the 'site'). This assessment is intended to provide preliminary environmental planning and ecological advice relating to the site in relation to the proposed development. The advice provided is not a comprehensive assessment; rather, it is intended to guide project planning and identify key issues and where further investigation is required.

Under the Tweed LEP 2000, the proposal footprint incorporates two zones: 1(b) Agricultural Protection (approximately 5.4 ha) and 5(a) Special Use (Garbage Depot) (approximately 5.6 ha).

There is an anomaly in the Tweed LEP 2000 in relation to the permissibility of recreation areas in the Agricultural Protection zone 1(b). Recreation areas are listed in Item 3: allowed only with consent and must satisfy the conditions of Clause 8(2); however, recreational areas are also listed under Item 4: prohibited development. Given the ambiguity regarding the permissibility of the development, consideration was given to the zone objectives. In summary, the proposal is not considered consistent with the zones objectives or the Clause 8(2) considerations and therefore not likely to be permitted within the 1(b) Agricultural Protection zone.

For the Special Use (Garbage Depot) 5(a) zone, the proposed development is permissible with consent if compatible with adjacent uses and with uses allowed (with or without consent) in adjacent zones. As mentioned above, the proposal is unlikely to be permitted in the adjoining Agricultural Protection zone and, therefore, would be prohibited development in the Special Use zone under Item 4.

The preliminary assessment of the proposal against the *Environment Protection and Biodiversity Conservation Act 1999* (EPBA Act) matters suggests it is unlikely to require referral to the Commonwealth Minister of Sustainability, Environment, Water, Population and Communities for assessment under the EPBC Act. However, final determination would be subject to an ecological assessment, particularly in relation to the potential impact of the proposal on threatened species.

In accordance with section 91 of the EP&A Act, the proposal would be 'integrated development' as s89, 90 and 91 of the *Water Management Act 2000* requires referral to the NSW Office of Water for approval to undertake water supply works and use captured surface water (for the irrigation dam).

In summary, the key issues identified for the proposal are:

- Inconsistencies with planning instruments, namely, the permissibility of the development on the sites land zones and potential difficulties with adequately addressing the Clause 8 (2) considerations of the Tweed LEP 2000.
- Protecting the visual amenity, particularly for near-by residences along Eviron Ridge and motorists using the Pacific Highway. Screening the development from highway motorists is also required to minimise the risk of the development distracting motorists.
- Providing safe access to the site. The proposed Eviron Road option may not be suitable due to the steep grade of the existing road and the presence of quarry and landfill heavy vehicles in the area. Alternate access options would likely require land acquisition which would be costly.
- Mitigating potential noise disturbance on residents in the locality. It may be difficult to shield residents along Eviron Ridge from the noise given the topographic relief.
- Mitigating potential dust disturbance to surrounding residents. The proposal needs to demonstrate it has adequate dust suppression and barriers to mitigate dust issues. Applicant must demonstrate adequate water is available for the proposed sprinkler dust suppression system.

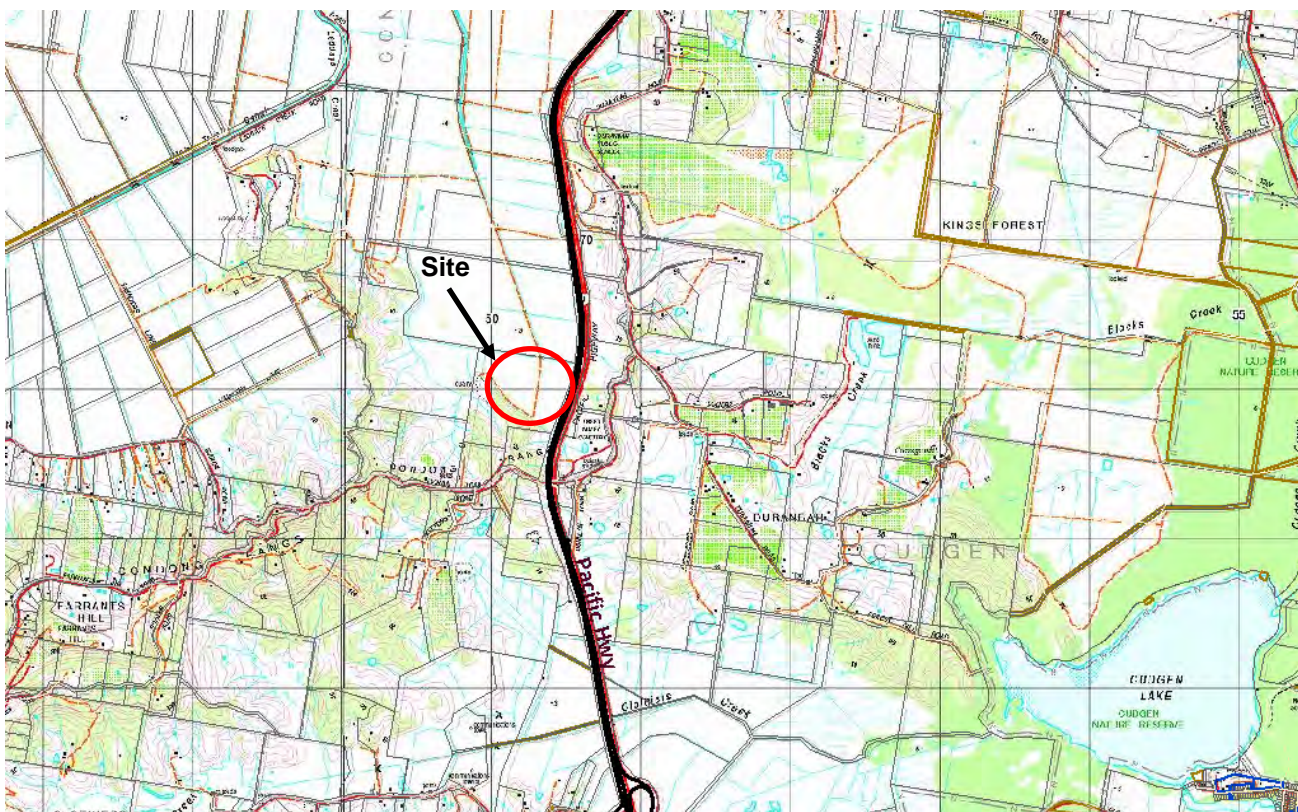
To adequately assess the potential impacts of the proposal, as would be required for the Statement of Environmental Effects accompanying the development application; more in depth assessments are required, particularly in relation to noise impact modelling, air quality impact and water supply and demand calculations and traffic assessment. It is recommended that the applicant consult with TSC's Development Assessment Panel regarding the proposal's permissibility prior to pursuing the development application any further.

## 1 Introduction

Tweed Shire Council's Design Unit has been requested to undertake a Preliminary Environmental Constraints Assessment for the establishment of a Motorcycle Dirt Track on Part of Lot 602 DP1001049, Eviron (the 'site'). Some members of the community, namely Tweed Valley Junior Development Motorcycle Club, have expressed an interest in developing a Motorcycle Dirt Track within Tweed Shire to provide facilities for motorcyclist enthusiasts and recreational opportunities for youth. A number of potential sites have previously been identified at various locations throughout the Shire, including Eviron, South Murwillumbah, Numinbah, Chinderah and Terranora, and their suitability assessed to varying degrees. A Councillor Workshop on this topic was held on 12 October 2010.

The subject Preliminary Environmental Constraints Assessment focuses on another potential site: Part of Lot 602 DP1001049 at Eviron. It was at the request of the TSC Coordinator of Waste, that the Design Unit undertake a constraints assessment on this site. The proposal footprint occurs in the north-west corner of the subject lot and covers an area of approximately 11 ha. This assessment is intended to provide preliminary environmental planning and ecological advice relating to the site in relation to the proposed development. The advice provided is not a comprehensive assessment; rather, it is intended to guide project planning and identify key issues where further investigation is required.

The site's locality, aerial photography of the site and zone designation under the *Tweed Local Environment Plan 2000* (Tweed LEP) are depicted in Figure 1, 2 and 3, respectively. A preliminary concept plan for the proposed development is provided in Appendix A.

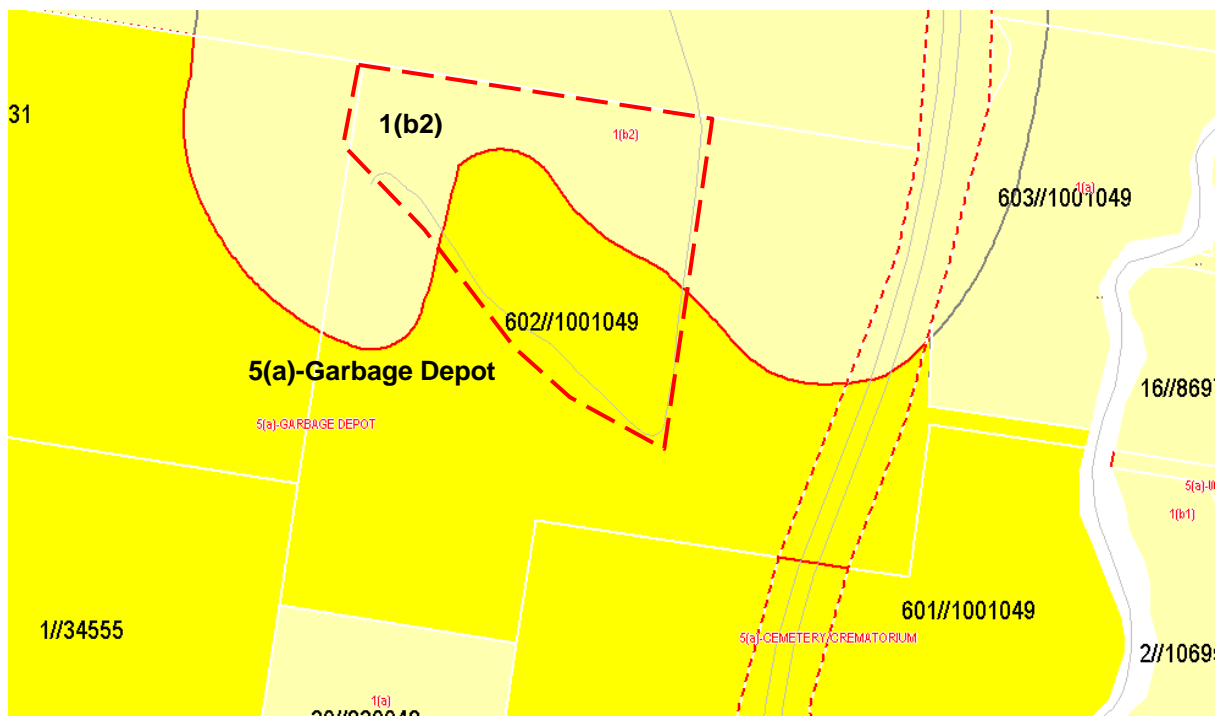


**Figure 1: Site locality**





**Figure 2: Aerial photograph of the site showing proposal footprint**



**Figure 3: Tweed Local Environment Plan 2000 zone designation**

## 2 Statutory considerations

### 2.1 Permissibility and approval pathway

Under the Tweed LEP 2000, the proposal footprint incorporates two zones: 1(b) Agricultural Protection (approximately 5.4 ha) and 5(a) Special Use (Garbage Depot) (approximately 5.6 ha).

The proposed development is consistent with the Tweed LEP 2000 definition of recreation areas:

- a) *a children's playground, or*
- b) *an area used for sporting activities or sporting facilities, or*
- c) *an area used by the Council to provide recreational facilities for the physical, cultural, or intellectual welfare of the community, or*
- d) *an area used by a body of persons associated together for the purposes of the physical, cultural and intellectual welfare of the community to provide recreational facilities for those purposes.*

*It does not include a racecourse or a showground.*

There is an anomaly in the Tweed LEP 2000 in relation to the permissibility of recreation areas in the Agricultural Protection zone 1(b). Recreation areas are listed in Item 3: allowed only with consent and must satisfy the conditions of Clause 8(2); however, recreational areas (along with recreation establishments, recreation facilities and recreation vehicle areas) are also listed under Item 4: prohibited development. Given the ambiguity regarding the permissibility of the development, consideration is given to the zone objectives.

*Primary objective:*

*To protect identified prime agricultural land from fragmentation and the economic pressure of competing land uses.*

*Secondary objective:*

*To allow other development that is compatible with agricultural activities.*

The proposed development would result in the loss of approximately 5.4 ha of land zoned Agricultural Protection to a non-agricultural activity. However, it would not fragment existing agricultural land as the proposal footprint occurs on the boundary between agricultural protection zone 1(b) and the non-agricultural special land use (garbage depot). The proposed motorcycle dirt track has the potential to place economic pressure on the surrounding agricultural land in the event that future expansion of the track and its facilities require the acquisition of additional agricultural land adjoining the proposal footprint. Accordingly, the proposal is not considered consistent with the zones primary objective.



The proposal is not considered compatible with agricultural activities in that it requires transformation of the landscape and results in the discontinuation of agricultural activities within the direct footprint. Adjoining agricultural activities outside the proposal footprint are expected to continue unaffected (assuming potential drainage and pollution issues are appropriately managed). Given the resulting discontinuation of agricultural activities within the proposal footprint, the proposal is not considered consistent with zones secondary objective.

Based on the above discussion the proposal is considered unlikely to be permitted within the 1(b) Agricultural Protection zone.

For the Special Use (Garbage Depot) 5(a) zone, the proposed development is permissible with consent if compatible with adjacent uses and with uses allowed (with or without consent) in adjacent zones. As previously discussed, the proposal is unlikely to be permitted in the adjoining Agricultural Protection zone and, therefore, would be prohibited development in the Special Use zone under Item 4.

Under the *Draft Tweed Local Environment Plan* (Draft Tweed LEP 2010) the land zone designation of the proposal area is RU1 Primary Production and SP1 Special Activities (Waste Management Facilities). It is noted that under the Draft Tweed LEP 2010 land use table (RU1 Primary Production Zone), the proposal is prohibited under Item 4, as it is not the type of development described in Item 2 or 3. This planning instrument, which is the future LEP (albeit still in draft form), provides more clarity on the permissibility of this type of development in the Primary Production zone. Therefore, it is considered reasonable to assume that the intent for the use of land in the Primary Production zone, or Agricultural Protection zone (as it is named in the Tweed LEP 2000), excludes recreation areas.

The above assessment indicates the proposal is unlikely to be permitted at the site; however, if an alternative interpretation of the proposals consistency with the zone objectives and therefore its permissibility is pursued, the approval pathway would be that of development permitted with consent and must satisfy the conditions of Clause 8(2). Accordingly, the proposed development would require approval under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). In determining a development application, a consent authority is required to take into consideration the evaluation requirements listed in Section 79C of the EP&A Act. A Statement of Environmental Effects (SEE) addressing the Section 79C requirements would need to accompany the development application.

It is noted that a DA submitted for a Trail Bike Facility at the nearby Lot 503 DP 1000612 (DA06/0225), on the eastern side of the highway and south of the Eviron Ridge, was refused for a number of planning reasons including: it was determined that the development was not permissible within the section of the site zoned 1(b2) Agricultural Protection as it was not consistent with Clause 8(2) of the Tweed LEP 2000.

Clause 8(2) requires the applicant to justify the need for the development in the context of the following.

- The community need and the potential employment opportunities generated by the proposed development.
- The absence of other suitable sites, in close proximity, where the proposal would be permissible with consent.
- The consistency of the scale and character of the proposed development with future lawful development in the immediate area.
- Consistency with the aim of the Tweed LEP 2000 and at least one of the zone objectives.

The proposed development is likely to have difficulties meeting these considerations due to the following reasons.

- The presence of alternative sites where the proposal would be permissible with consent are available in close proximity (eg. those zoned 1(a) Rural).
- The consistency of character with future lawful developments in the immediate area. It is noted that the site to the south subject to a Part 3A application for Eviron Quarry and Landfill, is intended to be developed into a Regional Botanic Gardens Facility once the Quarry and Landfill complete their operation life and are rehabilitated. A botanic garden is an area for passive recreation. A motorcycle dirt track is not consistent with this future neighbouring landuse.
- Inconsistency with the zone objectives, as discussed above.

Without adequately meeting the Clause 8(2) considerations, the proposed development would likely be refused.

## 2.2 Commonwealth legislation

### 2.2.1 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Any proposed action likely to have a significant impact on a Matter of National Environmental Significance requires assessment and approval under the EPBC Act.

The EPBC Act Protected Matters database was searched, incorporating a 10 km buffer centred on the site. The search results and an assessment of the likelihood of the proposed activity significantly impacting upon any identified MNES (as listed under the EPBC Act) are provided in Table 2.1 below. A full copy of the database results are attached in Appendix B.

**Table 2.1: Matters of National Environmental Significance and preliminary constraints assessment**

Matter of National Environmental Significance	Preliminary Constraints Assessment
World Heritage Properties	None. WHPs not a constraint to the proposal.
National Heritage Places	None. NHPs not a constraint to the proposal.
Wetlands of International Significance (Ramsar Sites)	None. RAMSAR sites not a constraint to the proposal.
Great Barrier Reef Marine Park	None. Great Barrier Reef Marine Park not a constraint to the proposal.
Commonwealth Marine Areas	None. CMAs not a constraint to the proposal.
Threatened Ecological Communities	1 – Littoral Rainforest and Coastal Vine Thickets of Eastern Australia occurs within the sites locality (within 10 km radius); however, this community does not occur within or adjacent to the proposal footprint. The nearest known occurrences of Littoral Rainforest are at Fingal Head to the north-east and Bogangar, Hasting Point and Pottsville to the south-east. These communities are considerably removed from the proposal site and are not likely to be impacted upon by the proposal. Not a constraint to the proposal.
Threatened Species	63 – An assessment on the likelihood of occurrence of these species and the potential impact of the proposal on these species would be required as part of an SEE accompanying a DA for the proposal. The outcome of the assessment would determine the need to refer to proposal to SEWPC. The EIS prepared for the adjoining Eviron Quarry and Landfill determined the project was unlikely to result in a significant impact on threatened species and did not require referral to SEWPC. This finding suggests it is unlikely that the proposal would require referral to SEWPC; however, a site and project-specific assessment is required.
Migratory Species	64 – An assessment on the likelihood of occurrence of these species and the potential impact of the proposal on these species would be required as part of an SEE accompanying a DA for proposal. The outcome of the assessment would determine the need to refer to proposal to SEWPC.

Additional matters protected under the EPBC Act identified in the EPBC Protected Matters report are summarised in Table 2.2; a preliminary constraint assessment is also provided.

**Table 2.2: Additional matters protected under the EPBC Act and preliminary constraints assessment**

Additional matter protected under the EPBC Act	Preliminary Constraints Assessment
Commonwealth Lands	<p>1 – Australian Telecommunications Commission.</p> <p>There is no telecommunications infrastructure within or in close proximity to the study area. Commonwealth Lands not a constraint to the proposal.</p>
Commonwealth Heritage Places	None. CHPs not a constraint to the proposal.
Listed Marine Species	92 – unlikely to be impacted upon as the proposal is not expected to impact upon the marine environment. Unlikely to be a constraint to the proposal.
Whales and Other Cetaceans	13 – unlikely to be impacted upon as the proposal is not expected to significantly impact upon the marine environment. Unlikely to be a constraint to the proposal.
Critical Habitats	None. Critical Habitats not a constraint to the proposal.
Commonwealth Reserves	None. Commonwealth Reserves not a constraint to the proposal.
Places on the Register of the National Estate (RNE)	<p>5 RNE places comprising 2 natural, 1 Indigenous and 2 historic.</p> <p>Natural places include:</p> <ul style="list-style-type: none"> <li>• Mount Warning Shield Volcano Remnants NSW</li> <li>• Stott’s Island Nature Reserve.</li> </ul> <p>Stott’s Island occurs approximately 3 km to the north of the site. Mount Warning Shield Volcano Remnants occur in a number of National Parks which are considerably removed from the site. Given the spatial separation and nature of the proposal, these places are unlikely to be impacted upon by the proposed activity. Not a constraint to the proposal.</p> <p>Indigenous places include:</p> <ul style="list-style-type: none"> <li>• Terranora Broadwater Middens Complex.</li> </ul> <p>The above-listed Indigenous site occurs significantly removed from the proposal site and is unlikely to be impacted upon by the proposed activity. Not a constraint to the proposal.</p> <p>The historic sites include:</p> <ul style="list-style-type: none"> <li>• Tweed River Valley</li> <li>• Cudgen Burial Ground.</li> </ul> <p>The site is situated within the Tweed River Valley. Unsympathetic development has been identified as a threat to the value of this feature. Consideration of the values of the Tweed River Valley, particularly in regards to visual amenity would need to be considered in an SEE accompanying a DA for the proposal. The RNE designation status is ‘indicative place’, meaning there has not been any formal nomination. Not considered a constraint to the proposal.</p> <p>Cudgen Burial Ground is significantly removed from the proposal site and is unlikely to be impacted upon by the proposed activity. Not considered a</p>

Additional matter protected under the EPBC Act	Preliminary Constraints Assessment
	constraint to the proposal.
State and Territory Reserves	<p>4 State and Territory Reserves within the sites locality including:</p> <ul style="list-style-type: none"> <li>• Mooball, NSW</li> <li>• Stott's Island, NSW</li> <li>• Cudgen, NSW</li> <li>• Duroby, NSW.</li> </ul> <p>None of the above-listed reserves occur within or in close proximity to the proposal site and are unlikely to be impacted upon by the proposed activity. Not considered a constraint to the proposal.</p>
Regional Forest Agreements	<p>North East NSW RFA applies over the locality; however, none of the reserves included in the RFA occur within or nearby to the proposal site. Therefore, the proposed activity is unlikely to impact upon the RFA reserves.</p>
Invasive Species	<p>17 species identified as potentially occurring within locality. An SEE accompanying the proposal DA would need to propose measures to control the introduction and spread of invasive species to the site and locality.</p>
Nationally Important Wetlands	<p>2 NIWs</p> <ul style="list-style-type: none"> <li>• Stott's Island Nature Reserve</li> <li>• Cudgen Nature Reserve.</li> </ul> <p>None of the above-listed reserves occur within or in close proximity to the proposal site and are unlikely to be impacted upon by the proposed activity. Surface water quality would need to be appropriately managed to avoid degrading aquatic environment of Stott's Island which occurs downstream of the site (approximately 3 km away). Not considered a constraint to the proposal.</p>

The preliminary assessment provided above indicates that none of the matters protected by the EPBC Act identified in site's locality are likely to be significantly impacted upon by the proposal.

A development application for the proposal would require assessment in terms of the potential impacts of the proposed development on the threatened/migratory species considered likely to occur on site. The assessment would determine whether the proposal requires referral to the Minister of Sustainability, Environment, Water, Population and Communities (SEWPC). As mentioned above, the findings of the Eviron Quarry and Landfill EIS: that the project was unlikely to result in a significant impact on threatened species and did not require referral to SEWPC, suggests it is unlikely that the proposed motorcycle dirt track would require referral to SEWPC. However, the final determination would be subject to a site and project-specific assessment.

### 2.3 State legislation

The State environmental planning instruments applicable to the proposed motorcycle dirt track are considered in Table 2.3 below.



**Table 2.3: Consideration of State EPIs**

Environmental planning instrument	Applicable to proposed development	Legislative requirements; preliminary assessment of constraints
EP&A Act	Yes	s79C matters for consideration must be addressed in application.  Proposal would be 'integrated development' under s 91 as it requires referral under Water Management Act (see WM Act discussion below).
State Environmental Planning Policy No 14—Coastal Wetlands	No	-
State Environmental Planning Policy No 26—Littoral Rainforests	No	-
State Environmental Planning Policy No 44—Koala Habitat Protection	Yes	Assessment required to establish whether site meets definitions of 'potential koala habitat' and/or 'core koala habitat', based on prevalence of koala feed tree species on site. Preliminary site assessment indicates it unlikely that the site would meet the criteria for 'potential koala habitat' or 'core koala habitat'. Regardless, Koalas have been recorded on the Eviron Quarry and Landfill site to the south and would need to be considered in the SEE.
State Environmental Planning Policy No 71—Coastal Protection	No	-
North Coast Regional Environmental Plan 1988 (NCREP)	Yes	Need to address relevant clauses in SEE.
National Parks and Wildlife Act 1974 (NPWS Act)	Yes	Under s90(1) it is an offence for a person who without obtaining the consent of the Director General, knowingly destroys, defaces or damages or knowingly causes or permits destruction or defacement or damage to a relic or Aboriginal place.  A cultural heritage due diligence assessment, undertaken in accordance with the <i>Due Diligence Assessment for the Protection of Aboriginal Objects in NSW</i> (DECCW, 2010) would be required as part of the SEE for the DA. However, previous assessments (Converge, 2009) in the area suggest a low likelihood that the site would contain Aboriginal cultural heritage areas or objects. Furthermore, the use of the site for sugar cane cropping would have potentially disturbed any artefacts on the ground surface and near surface.  As part of the due diligence assessment, the local Aboriginal community would be informed of the proposal. The local Aboriginal community may request a Cultural Heritage Monitor is present during earthworks.

Threatened Species Conservation Act 1995 (TSC ACT)	Yes	The TSC Act lists species and communities threatened in NSW. An SEE accompanying the DA would need to assess the likelihood of occurrence of threatened species/communities at the site and the potential impact of the proposal on these species/communities. Additional field assessments will be required to characterise on-site habitats and survey for threatened species. The assessment should consider the impact of operational noise on threatened species.
Fisheries Management Act 1994 (FM ACT)	No	The waterways adjoining the site are modified cane drains and therefore do require a permit under Part 7 of the Act for any dredge or reclamation works.
Protection of the Environment Operations Act (POEO ACT)	Yes	Under the POEO Act, the proposed development is not a 'Scheduled Activity' and, therefore, does not require a licence from the EPA to operate.  Council is responsible for regulating non-scheduled activities.  Under the POEO Act it is an offence to cause harm to the environment in terms of waste disposal, water pollution, air pollution, noise pollution and land pollution.
Protection of the Environment Operations (Clean Air) Regulation 2010 (POEOCAR)	Yes	Schedule 6 identifies the standards of air impurities not to be exceeded for 'non-scheduled premises'. The proposed motorcycle dirt track will need to meet these standards.
Protection of the Environment Operations (Noise Control) Regulation 2008 (POEONCR)	Yes	Aims to prevent high noise levels from vehicles caused by lack of maintenance, deliberate tampering or inappropriate use.  Schedule 1 of the Regulation specifies a noise limit of 100 decibels for motorcycles operating off-road.  There is an additional requirement under clause 13 of the Regulation that makes it an offence if off-road vehicles produce offensive noise.
Road Transport (Vehicle Registration) Regulation 2007	Yes	Schedule 2, Division 3 outlines vehicle standards for noise emissions.
Native Vegetation Act 2003 (NV Act)	Yes	s19 of the NV Act permits clearing of non-protected regrowth. Protected regrowth is vegetation which has regrown post 1990, with the assistance of public funds granted for biodiversity conservation purposes. The site is cleared of native vegetation and utilised for sugar cane cropping; it is not considered 'Protected regrowth'. Therefore, clearing of existing vegetation on site is permissible under the NV Act. Note there are still obligations under the TSC Act to protect threatened species and their habitats.
Local Government Act 1993 (LG Act)	Yes	Provides details on Councils regulatory role.
Water Management Act 2000 (WM Act)	Yes	Proposal to carry out a controlled activity, in, on or under waterfront land does not require approval from the NSW Office of Water if it is carried out by a public authorities or local councils.  However, under s 89, 90 and 91, approval by NSW Office of Water is required for water use, water supply works (eg. construction of dam) and aquifer

		<p>interception.</p> <p>The WM Act provides for ‘harvestable rights’ or Basic Landholder Rights (BLR), which permits the capture and storage of surface water for domestic and stock use or native title rights without the need for a permit or licence. However, harvestable rights restrict surface water capture to a proportion of available flow and does not allow for capture and storage of water primarily sourced from groundwater.</p> <p>As the proposal includes a dam to capture and store water for irrigating the track, and the location of the dam indicated on preliminary concept plan occurs on the low-lying floodplain where it is likely to intercept groundwater, the proposal will require referral to the NSW Office of Water.</p>
<p>Water Sharing Plan for the Tweed River Area Unregulated and Alluvial Water Sources Order 2010</p>	<p>Yes</p>	<p>The water sharing plan provides for the sharing of water between the environment, town water supplies, basic landholder rights and commercial uses of water.</p> <p>The commencement of the plan enacts the licensing provisions of the WM Act (rather than the Water Act 1912). It sets management rules for water access licences and water supply works and use approvals.</p> <p>Water extraction, other than BLR, requires a water access licence. The water access licence relevant to the proposed motorcycle dirt track is an ‘unregulated river or aquifer’ licence.</p> <p>Water supply works, such as pumps, pipes and bores used for extracting water under licence require a ‘water supply work approval’. Accordingly, the construction of the irrigation dam would require water supply works approval by the Office of Water.</p>

## 2.4 Local

### 2.4.1 Tweed Local Environmental Plan 2000

The Tweed LEP 2000 is discussed in Section 2.1 above.

### 2.4.2 Tweed Development Control Plan (Tweed DCP)

Under Section A11 Table 1, the proposed development would require the following Public notification:

- letter to adjoining owner
- letter to affected owner
- site sign
- notice in Local Newspaper or Tweed Link.

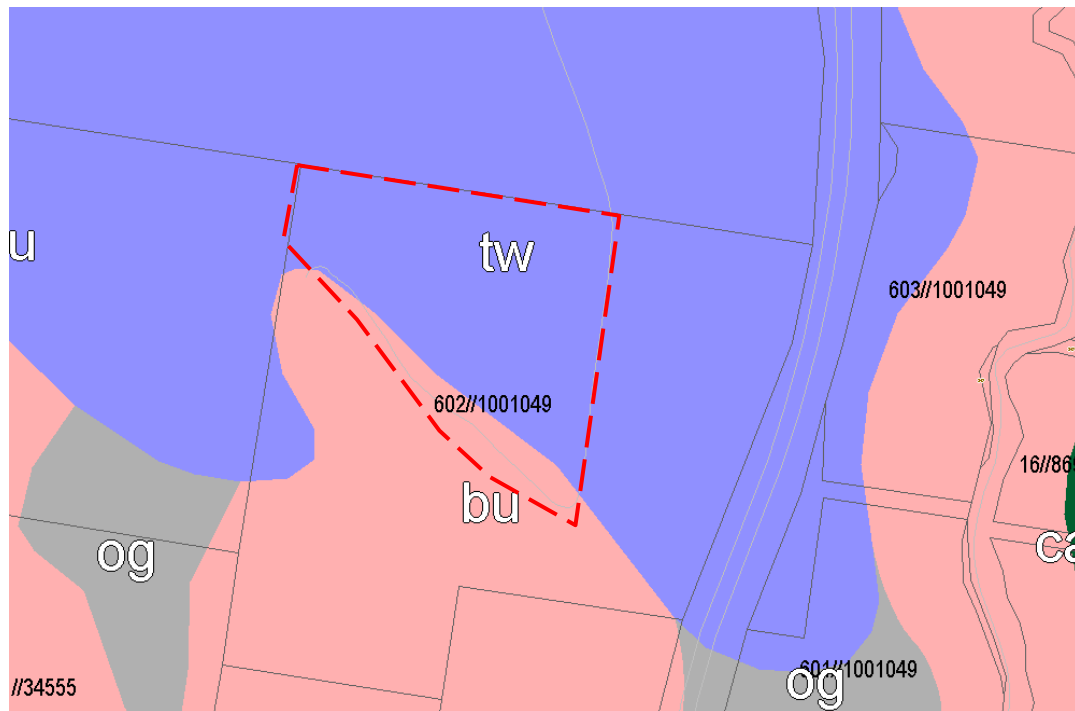
In addition, the proposal must comply with Section A3 – Development of Flood Liable Land.



### 3 Environmental considerations

#### 3.1 Soils

Morand (1996) maps the sites soils as predominantly Tweed (tw) alluvial soils. Burringbar (bu) residual soils occur along the ridge line and hill slopes to the south and east. Refer to Figure 4.

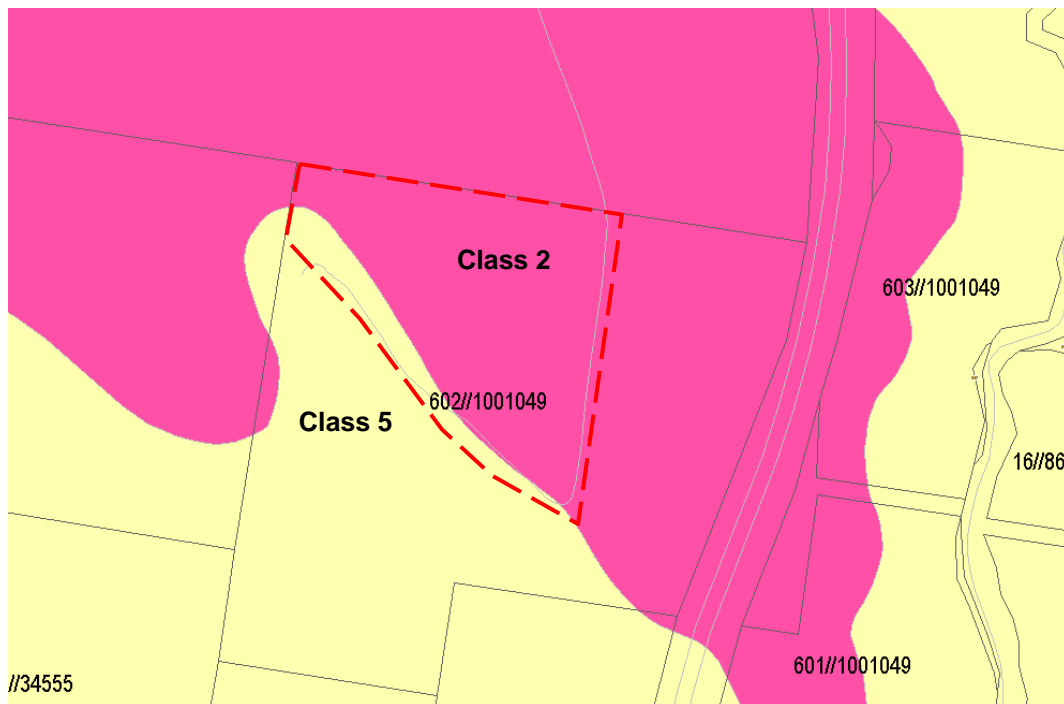


**Figure 4: Soil landscape of site (Morand, 1996)**

The Tweed alluvial soils have characteristically high water tables, are prone to waterlogging and flooding, and are known to have extensive occurrence of potential acid sulfate soils.

Burringbar residual soils characteristically occur on steep slopes and are dispersive and vulnerable to mass movement and water erosion.

The Acid Sulfate Soil planning map designates the proposal site as predominantly Class 2. The areas associated with the higher elevation hill slopes are designated Class 5. Refer to Figure 5.



**Figure 5: Acid sulfate soil planning map designation**

In relation to ASS, the ecological assessment for the adjoining Eviron Quarry and Landfill proposal notes: *'preliminary acid sulfate soils characterisation based upon the regional scale mapping and limited investigation data...suggest that acid sulfate soil materials (AASS and PASS) are likely to be present in lower lying parts of the site (GHD, 2010).*

According to the ASS Manual (Stone *et. al.*, 1998) and clause 35 of the Tweed LEP 2000, further investigations are required:

- In a Class 2 area, where works are proposed below natural ground surface and/or are likely to lower the watertable
- In a Class 5 area, where works are proposed within 500 metres of Class 1, 2, 3 or 4 land which are likely to lower the water table below 1 metre AHD in adjacent Class 1, 2, 3 or 4 land.

In relation to the proposed motorcycle dirt track, additional ASS investigations would be required if excavations below natural ground level are proposed (eg. excavations for dam construction) or works that are likely to lower the water table (eg. additional drainage) are proposed. An ASS management plan would likely be required for these works.

The potential constraints relating to soil include erosion and disturbance of acid sulphate soils. These issues can be managed with appropriate construction standards and mitigation measures and are not considered significant constraints to the proposal.



### 3.2 Topography and drainage

The site is flat and low-lying with elevation limited to between <1 and 2 m AHD. The southern access track has been raised with fill and the drainage has been modified into cane drains.

A cane drain occurs south of the southern access track ('southern drain') and flows to the northwest. Another cane drain occurs along the site's northern boundary ('northern drain') and flows west. The southern drain connects with the northern drain via a small northerly drain along the site's western boundary. The broader landscape flows in a general northwest direction from the Condong Range into Ledday's Creek and Main Trust Canal, entering the Tweed River at Stott's Island. The site falls within the Tweed Estuary Sub-catchment. Refer to Figure 6 below.



**Figure 6: Site drainage**

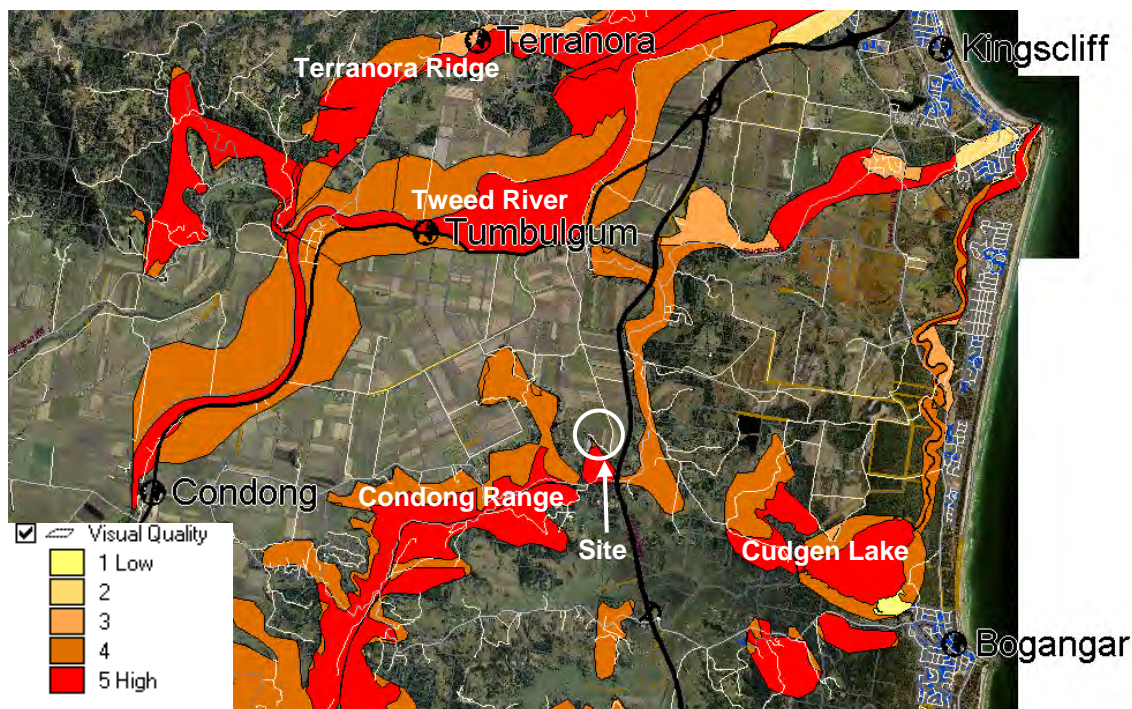
Any dredging or reclamation of these waterways does not require a permit under Part 7 of the FM Act, as they are modified cane drains.

### 3.3 Amenity

The site's landscape is generally of a rural character with sugar cane crops on the low-lying areas and bushland on the ridgelines. Natural landscape features make a significant contribution to the visual amenity of the locality, namely:

- Ridgelines – Condong Range traverses the landscape in a southwest to northeast direction. In relation to the site it occurs to the immediate south, east of the highway and in the distant northeast. Terranora Ridge traverses the landscape in a similar orientation on the northern side of the Tweed River.
- Waterways – the Tweed River, particularly from Condong to the river mouth including Stott's Island. However, the Tweed River is not visible from the site. Cudgen Lake and Cudgen Creek to the removed east is also of high visual quality; however, they too are not visible from the site.

The above-described features are designated medium (3) to high (5) visual quality; the more urbanised areas nearer to the coast are designated medium-low (2) visual quality (Corkery, 2004) (Figure 7).



**Figure 7: Visual quality rating**

Built infrastructure visible from the site includes the Pacific Highway in close proximity to the east, a water reservoir on the ridgeline to the east and a telecommunications tower on the ridgeline to the north. The cane tracks are conspicuous amongst the otherwise homogenous green of the cane fields. Tweed Valley Cemetery occurs on the north-westerly slopes of the Condong Range, east of the highway. Quirk's Quarry occurs immediately south of the site; however, from the low-lying site is mostly obscured from view by a vegetation buffer and earth bund. The site is partially screened from the Pacific Highway by



vegetation adjacent to the highway and from north bound traffic by the Condong Range (Eviron Ridge).

It is noted that one of the factors for refusing the Motorcycle Facility previously proposed on the eastern side of the highway (DA06/0225) was due to the potential risk to the safety of motorists by causing an unnecessary distraction. Whilst the subject site is further removed from the Pacific Highway, it is partially visible. Therefore, the proposal will need to incorporate visual screens on the eastern and northern boundaries of the site (as indicated in the preliminary concept plan). Vegetation screen plantings have been undertaken adjacent to the highway, as part of screening works for the proposed Eviron Quarry and Landfill. This involved the establishment of a 600 m x 3 m vegetation screen between the highway boundary fence and the adjoining cane drain. This vegetation screen would assist in minimising the impact of the proposal on visual amenity and risk of distracting motorists utilising the Pacific Highway. However, additional screening of the proposed motorcycle dirt track from viewing receptors (eg. passing motorists and visitors to Tweed Valley Cemetery) may be required.

### 3.4 Traffic and access

The site is not currently accessible via public roads. A number of unformed public road reserves in the area could potentially service the site. Three options for site access have been identified:

- Eviron Road access – this is the existing access to Quirks Quarry through Council-owned land which is not currently accessible to the public. This is the option indicated in the Preliminary Concept Plan (Appendix A).
- Tweed Valley Way access 1 – this option is via Tweed Valley Way and partly utilises the existing Leddays Creek Road (northern section), partly utilises currently unformed road reserve (southern section) and partly utilises existing cane tracks on private land.
- Tweed Valley Way access 2 – this option is via Tweed Valley Way and utilises existing cane tracks; however, the route is on private land and not public road reserve.

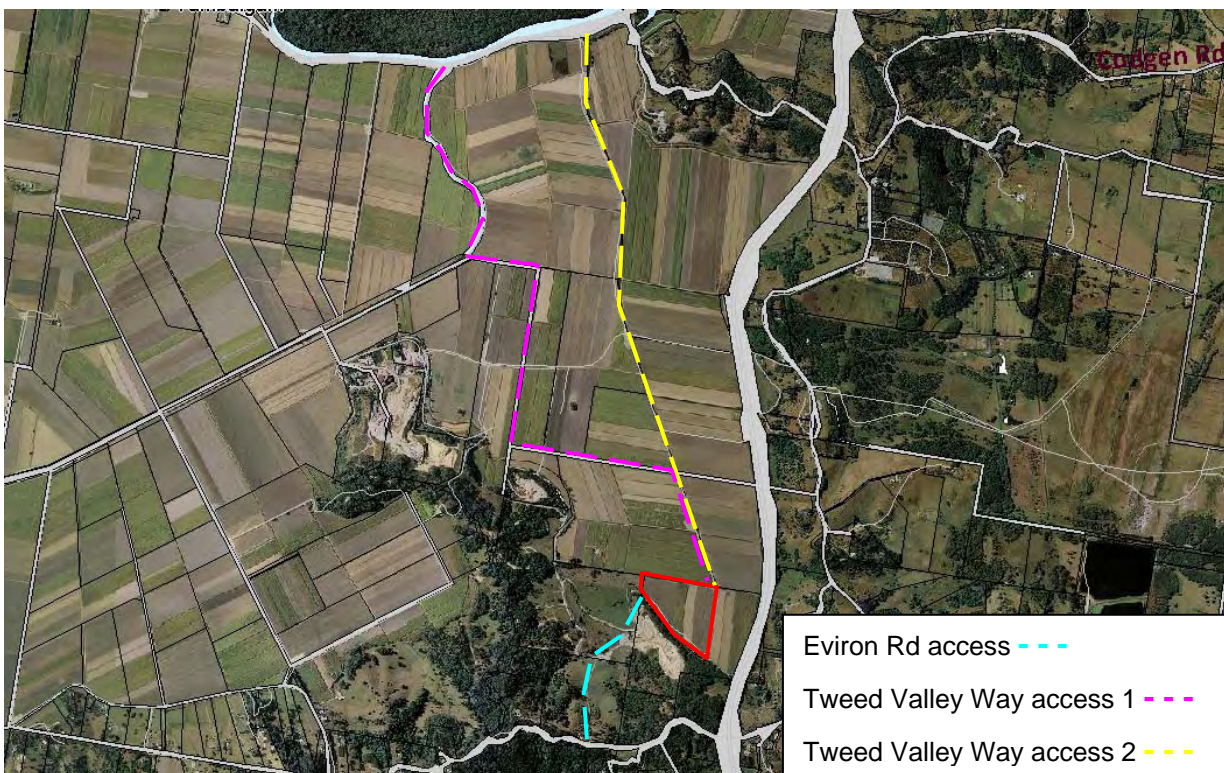
The Eviron Road option traverses land utilised for quarrying and proposed future landfill. A haul road between Stott's Creek waste management centre and Quirk's Quarry/landfill site is proposed and may conflict with public access to the proposed motorcycle dirt track. There is a potential safety risk with quarry and landfill trucks sharing the same track as the public vehicles accessing the track. However, strategies such as limiting access times to the track may limit the interaction between quarry and landfill vehicles and the public. Another consideration is that the terrain over which this route traverses is steep and may not be suitable for some vehicles towing trailers.

The Tweed Valley Way options require development of unformed road reserve and acquisition or leasing of private land to complete the route. These options are potentially quite costly and are dependent upon owners consent. There may also be access conflicts between cane harvesters and motorcycle dirt track patrons during harvest time.

Securing safe access to the site is a potential constraint to the proposal and requires further investigation.

In preparing the proposal DA further consideration should be given to the following:

- Provision of safe and fast access for emergency vehicles (i.e. fire fighting and ambulance).
- Entrance from secondary roads rather than main roads as this is likely to be less costly if modifications are required.
- Provision of adequate space for parking vehicles and trailers.
- Site access should be easily accessible for vehicles towing trailers (eg. not too steep or narrow) (DoSR, 2008).



**Figure 8: Potential site access options**

### 3.5 Noise

Off-road motorcycles often have mufflers that are not as effective as those of on-road vehicles and can create offensive noise. A dedicated motorcycle dirt track needs to consider noise attenuation measures in the planning and design phase of the project.

As mentioned in Table 2.3, Schedule 1 of the POEONCR specifies a noise limit of 100 decibels for motorcycles operating off-road. The Motorcycling Australia 2010 Manual of Motorcycle Sport specifies noise emissions from off-road bikes used on dirt tracks must not

exceed 96 dBA. Under clause 13 of the POEONCR, it is an offence for an off-road vehicle to produce offensive noise.

An acoustic assessment was undertaken by James Heddle Acoustical Consultants (JHAC), in 2007, for the Trail Bike Facility proposed on the nearby Lot 503 DP1000612, east of the Pacific Highway and south of Eviron Road. The JHAC acoustic report found ambient noise in the surrounding area to be primarily derived from dense traffic along the Pacific Highway and noted that previous noise assessments in the area (within 4 km) found a strong correlation between background noise levels and traffic volume on the highway.

At the time of the site visit, background noise was observed to be dominated by Pacific Highway traffic. Aeroplane noise was intermittently observed. Depending on the type and scale of quarrying activities at the adjoining Quirk's Quarry, noise from quarrying is likely to contribute to the background noise level at the site. Cane harvesters would also contribute to the background noise at various times of the year.

The proposal would need to manage noise in both the construction and operational phases of the project. Construction noise could be managed with standard noise mitigation measures such as work hours restrictions and machinery noise levels.

During operation, the engine noise from the motorcycles is expected to be the most significant source of noise. Standard noise attenuation measures include the following.

- Physical separation buffers between the site and sensitive receptors.
- Use of natural topographical features, such as Condong Range, as noise barrier.
- Barrier shielding to buffer noise such as earth bunds and vegetation buffers (it may be difficult to shield the noise from residences on Eviron ridge given the topographic relief).
- Limiting track users at any one time.
- Limiting operation hours.

A SEE accompanying a DA would require an updated noise impact assessment, specific to the site and reflective of current legislation and current background noise levels (eg. traffic volume on the Pacific Highway and quarry and landfill activities).

In the case of the Motorcycle Facility proposed on the eastern side of the highway (DA06/0225), the applicant submitted two noise impact assessments with each being reviewed by Tweed Shire Council's Environmental Health Officers and independent consultants. The site layout was modified in an attempt to mitigate the noise impacts. The noise assessments determined that satisfactory noise levels were achievable if the motorcycle exhausts are not acoustically viewable from the receiver locations. To achieve this, a number of mitigation measures would be required including barrier shielding (hay bale barriers were suggested). The consultant review noted that there was insufficient information on the location and dimensions of the barrier shielding to determine the effectiveness of this measure. The ambiguity surrounding the appropriateness of the



proposed mitigation measures and the potential impact of noise on adjoining properties ultimately lead TSC to deem the site unsuitable for the development.

Noise disturbance is a potentially significant constraint to the proposal; however, this constraint could potentially be managed if the development can adequately mitigate the noise at the surrounding sensitive receptors and clearly demonstrate this, through provision of adequate design plans and noise modelling results in the SEE.

### 3.6 Air quality

Air quality issues commonly associated with motorcycle dirt tracks include dust and exhaust fumes.

Schedule 6 of the POEOCAR stipulates the standards for concentrations of solid particles at non-scheduled premises such as the proposed motorcycle dirt track. The applicant would need to demonstrate the proposed development meets the required standards through provision of emissions testing. The methodology for emissions testing is prescribed in Schedule 7 of the POEOCAR.

An air quality assessment would likely be required to adequately assess the impacts of the proposal on air quality and determine the most appropriate design for the track to minimise impact on sensitive receptors. Further, compliance monitoring and reporting is likely to be required.

Motorcycle dirt tracks typically use an irrigation sprinkler system for dust suppression. Watering is generally required throughout the day when the track is in use and the soil can rapidly dry out in hot weather and when being moved about by motorcycles. The proposal would need to demonstrate that it could source sufficient water to adequately irrigate for dust suppression. The Preliminary Concept Plan indicates the water supply dam would be located on the adjoining Council-owned Lot 26 on DP 615931 to the west. The proposal would need to ensure that this feature does not conflict with the Eviron Quarry and Landfill plans, which are currently by assessed by the NSW Department of Planning.

Other mitigation measures available for dust suppression and exhaust fumes are similar to those for noise suppression and include:

- Physical separation buffers between the site and sensitive receptors.
- Vegetation screens.
- Use of natural topographical features, such as Condong Range, as dust barrier.
- Consideration of prevailing winds and direction of sensitive receptors in track design.

It is noted that the Motorcycle Facility previously proposed on the eastern side of the highway (DA06/0225) included an underground irrigation system to manage dust suppression. Tweed Shire Council determined there was not adequate information

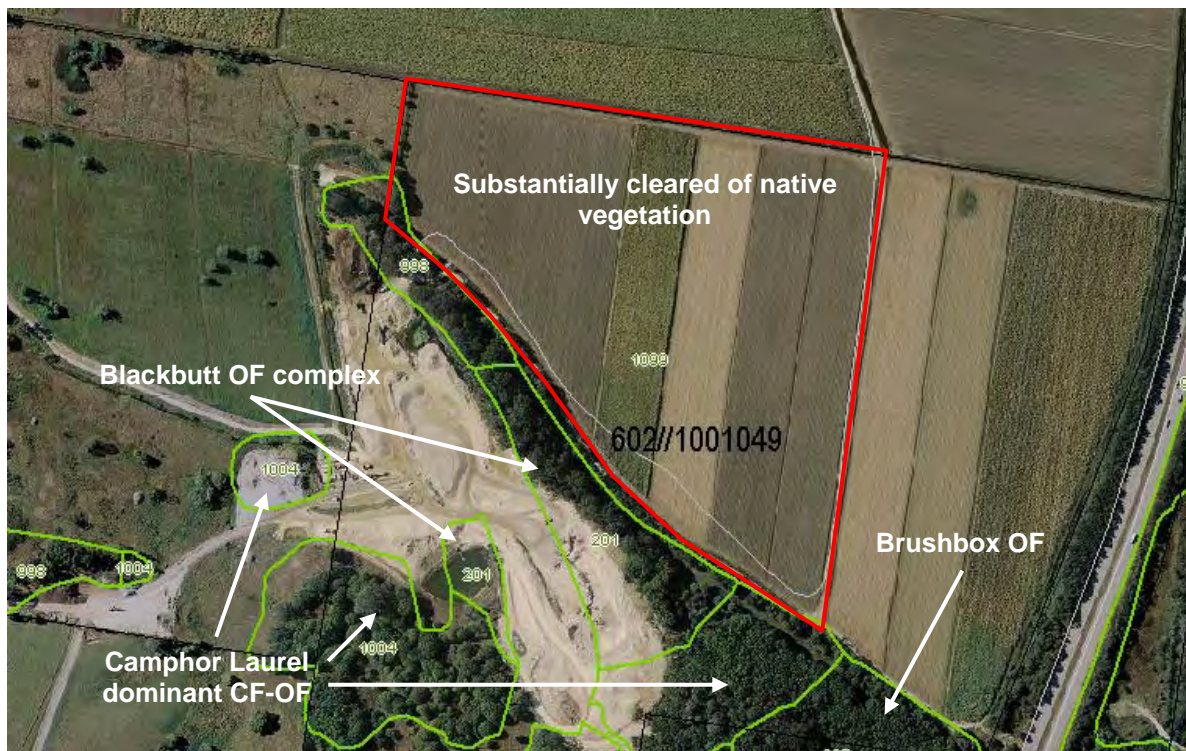


demonstrating that sufficient water was available to water the site and the close proximity of residents meant that the potential for dust nuisance was unacceptable. Accordingly, an application for the proposed motorcycle dirt track would need to include calculations on the quantity of water likely required to adequately suppress dust and where this water would be sourced. Further, consideration for the proximity of sensitive receptors and the likely impact of dust nuisance on these receptors would be necessary.

### 3.7 Flora and fauna

The desktop assessment and site visit by TSC Environmental Scientist found the site to be of highly modified and degraded by past and present land uses.

Review of the *Tweed Vegetation Management Strategy (TVMS)* (Kingston *et. al.* 2004, updated in 2008) vegetation community mapping and a site visit identified the site is predominantly cleared of native vegetation (refer to Figure 9).



**Figure 9: TVMS vegetation community mapping**

Review of historical aerial photography indicates the site was historically cleared and cropped and vegetation currently present on site is regrowth. Having regrown post 1990, the vegetation is considered 'regrowth' as defined by the NV Act. Clearing of 'non-protected regrowth' is permitted without consent under s19 of the NV Act. 'Protected regrowth' is vegetation which has regrown post 1990, with the assistance of public funds granted for biodiversity conservation purposes. The vegetation on site is not considered 'protected regrowth' and therefore any vegetation clearing associated with the proposal does not require approval under the NV Act. However, given the extent of cleared areas on the site and the location of the regrowth vegetation adjacent to the site's western and southern boundaries, the need for clearing of native vegetation is expected to be largely avoided. It is

noted that constraints to clearing threatened species habitat exist under the TSC Act, should the ecological assessment determine the proposal is likely to significantly impact upon threatened species habitat.

With the site almost entirely vegetated by Sugar Cane crop (and a mix of weedy and native herbs typically associated with crop fields), the only native regrowth vegetation occurs along the batter of the southern access track and western drain. Further south on the Quirk's Quarry property, beyond the southern drain, is a mix of native and exotic forest communities, including:

- Blackbutt Open Forest Complex.
- Camphor Laurel dominant forest.
- Brushbox Open Forest.

The community mapped 'Not Assessed' was found to be characteristic of Camphor Laurel dominant forest.

Field surveys found the on-site regrowth vegetation to be comprised of species characteristic of high levels of historic disturbance and degraded edge-effected bushland, including invasive exotics and early succession natives. Canopy species from the neighbouring native forest communities were also scattered amongst the regrowth. The canopy was dominated by Camphor Laurel (*Cinnamomum camphora*<sup>1</sup>) and Blackwood (*Acacia melanoxylon*). Occasionally occurring species in the canopy include semi-mature Brushbox (*Lophostemon confertus*), Blackbutt (*Eucalyptus pilularis*) and Pink Bloodwood (*Corymbia intermedia*). In the T2 stratum, Blackwood and Camphor Laurel were again dominant, with Guioa (*Guioa semiglauca*), Macaranga (*Macaranga tanarius*) and Umbrella Cheese Tree (*Glochidion sumatranum*) sub-dominant. The shrub stratum was dominated by weeds such as Lantana (*Lantana camara*\*), Devil's Fig (*Solanum chrysotrichum*\*), Wild Tobacco Bush (*Solanum mauritianum*\*) and pioneer natives such as Poison Peach (*Trema tomentosa*), Cockspur Thorn (*Maclura cochinchinensis*) and Native Bleeding Heart (*Homalanthus populifolius*). The ground stratum was dominated by weed grasses, herbs and climbers including Vasey Grass (*Paspalum urvillei*\*), Crofton Weed (*Ageratina adenophora*\*), Blue Morning Glory (*Ipomoea cairica*\*) and White Passionflower (*Passiflora subpeltata*\*).

No threatened species were observed during field surveys.

Fauna habitat provided by the site would be expected to be utilised by species that are adapted to highly modified and degraded conditions. The Sugar Cane crop fields provide suitable foraging habitat for raptors (a Swamp Harrier (*Circus approximans*) was observed foraging on the site during the site investigation), rodents and reptiles (particularly snakes). The aquatic environment of the cane drains is highly degraded; the northern drain lacks riparian vegetation. The southern drain has a narrow strip of regrowth riparian vegetation

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<sup>1</sup> An asterisk indicates the species is an invasive exotic



(as described above) and some aquatic habitat features such as semi-submerged logs and branches. A pair of ducks was observed in the southern drain. No tree hollows were observed.

No threatened fauna species were recorded on site during the site visit. However, a number of threatened species were recorded during the ecological assessment on the Eviron Quarry and Landfill site to the south (GHD, 2010). Several of these species would potentially utilise the regrowth vegetation on site from time to time.

The likelihood of threatened flora and fauna species occurring on site and the potential impacts of the proposal on any species likely to occur on site will need to be assessed as part of the SEE associated with the DA. Limiting disturbance to existing cleared areas and managing indirect impacts such as noise and dust emissions will minimise the likelihood of significantly impacting on threatened species. In the event that the SEE determined the proposal was likely to result in a significant impact on a threatened species protected under the TSC Act, a Species Impact Statement (SIS) would be required. If a threatened species protected under the EPBC Act is likely to be significantly impacted, referral to SEWPC is required.

The flora and fauna assessment required as part of the SEE would involve both desktop and field assessments. Field assessments are necessary to validate the site's vegetation communities, characterise habitats (including koala habitat as it relates to SEPP 44) and survey for threatened species.

Ecological considerations for the proposed motorcycle dirt track include:

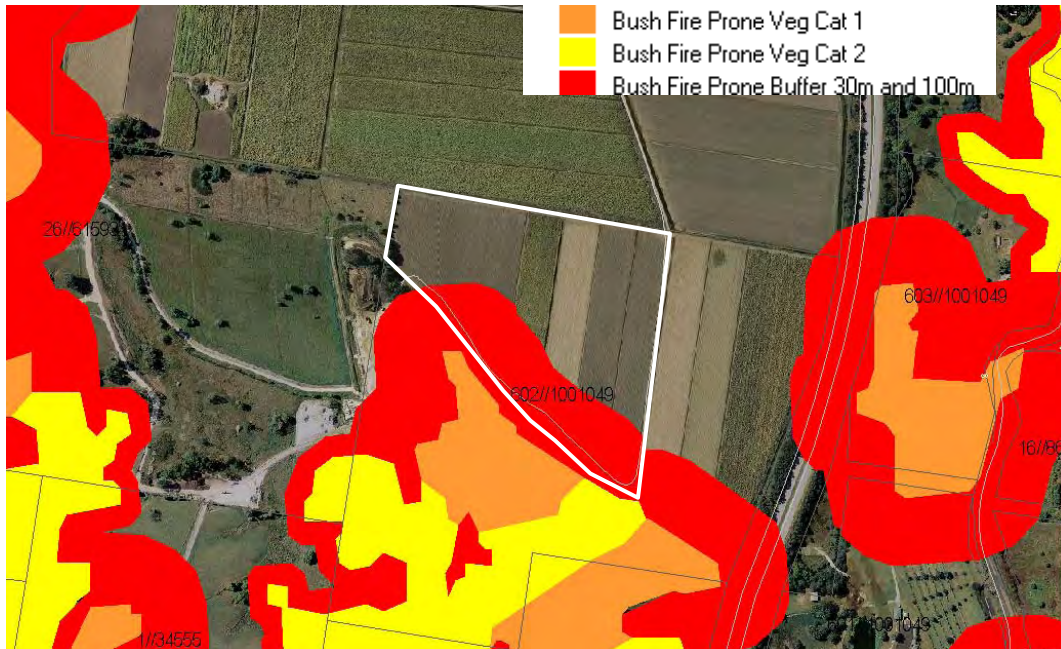
- Retaining and improving existing regrowth vegetation through weed control.
- Providing adequate vegetated buffers to drains.
- Managing erosion and sediment loss, particularly into receiving waterways.
- Maintaining and improving ecological corridors and linkages.
- Controlling the introduction and spread of weeds.
- Managing dust generation to avoid smothering of adjoining native bushland.
- Managing noise disturbance to minimise stress to wildlife in the locality.



### 3.8 Hazards

#### 3.8.1 Bushfire hazard

The southern portion of the site is mapped as bush fire prone land buffer. The buffer is associated with the bushfire prone Blackbutt Open Forest on the adjoining Quirk's Quarry. Refer to Figure 10 below.



**Figure 10: Bush fire prone land designation of the site**

Under Section 79BA of the EP&A Act, development consent cannot be granted for an activity on bush fire prone land unless the consent authority is satisfied that the development conforms to the specifications and requirements of *Planning for Bush Fire Protection (PBP)* (NSW Rural Fire Service, 2006).

The development application for the proposed motorcycle dirt track will need to be accompanied by a Bush Fire Assessment Report (BFAR). The information required in the BFAR is detailed in Appendix 4 of PBP and includes demonstrating compliance with the aim and objectives of PBP and the specific objectives and performance criteria for the land use proposed.

The Preliminary Concept Plan depicts two buildings: a Canteen/Office and a Toilet. The NSW Rural Fire Service (RFS) guidelines for lodging information on single buildings: *Building in Bush Fire Prone Areas – Single Buildings* (single building guidelines) (2007) would likely be applicable in this circumstance (subject to agreement from RFS). The single building guidelines provide a template for producing a BFAR that provides the necessary details and can be appended to the SEE.

The proposed development does not require authorisation under section 100B of the *Rural Fires Act 1997* in respect of bush fire safety as the development does not concern

subdivision of land that could lawfully be used for residential or rural residential purposes or development of land for ‘special fire protection purposes’.

The BFAR will determine the Bushfire Attack Level (BAL) at the site and any specific bushfire construction requirements, in accordance with *Australian Standard – Construction of buildings in bushfire prone areas* (AS 3959—2009).

Consideration will need to be given to the following.

- Placement of any built infrastructure in relation to the hazardous vegetation, allowing adequate separation for an Asset Protection Zone (APZ).
- Water points, ensuring adequate volume and access are available for fire-fighting purposes.
- Emergency access. The site needs to be accessible by emergency fire-fighting vehicles and provide a safe evacuation route in the event of a fire. Preferably there would be more than one access to the site.

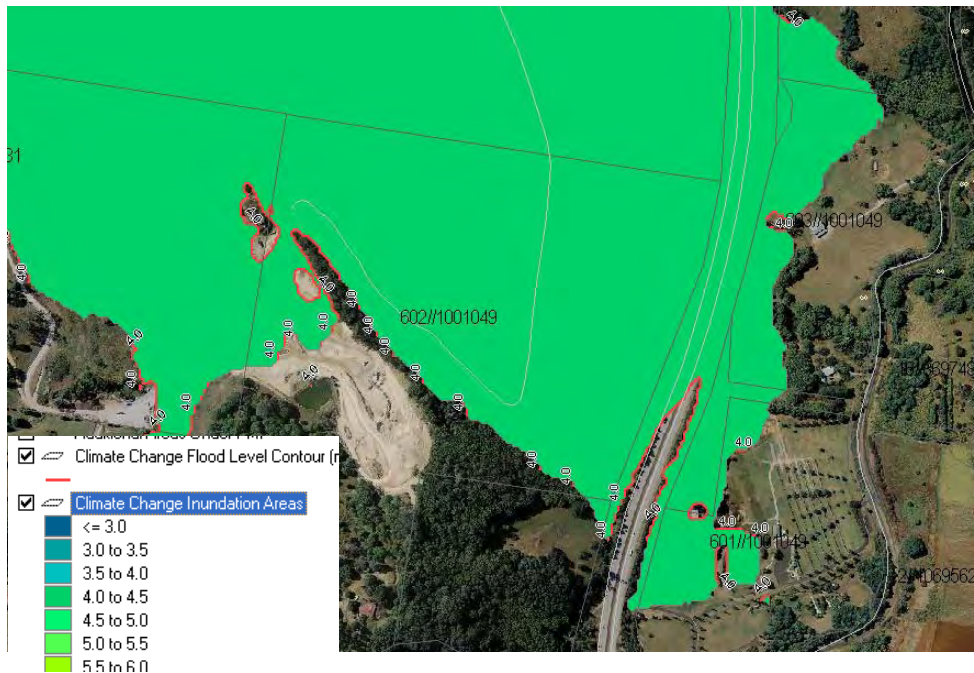
It is noted the current proposed location of the Canteen/Office and Toilet buildings may be too close to the bush fire hazardous vegetation to accommodate the necessary APZ. However, determination of APZ would be subject to Bush Fire Assessment Report and liaison with the Rural Fire Service.

### **3.8.2 Flood hazard**

The majority of the site is subject to flooding. Incorporating the BMT WBM Pty Ltd (2009) updated climate change predictions; the flood design level for the site is 4.0 m, which is 3 m above existing levels (with the exception of the filled southern access track). The areas of the proposed track subject to flooding would depend upon the final track design, the amount of fill imported and finished surface levels. Placing fill on the site is unlikely to raise concern in relation to the reduction in flood storage capacity as the site occurs in a low flow path (pers coms Danny Rose).

The finished surfaces that remain below the flood design level would potentially be subject to erosion and sedimentation of the receiving waterways given that much of the surface would be denude of vegetation and exposed to surface water erosion.





**Figure 11: Flood design level, incorporating 2009 climate change predictions**

### 3.9 Heritage

The EPBC Act Protected Matters Search determined that there are no Commonwealth Heritage Items within, or in close proximity, to the site.

Search results from the State Heritage Register found two items listed by the Heritage Council under the NSW *Heritage Act 1977* within the locality:

- High Conservation Value Old Growth Forest
- Murwillumbah Railway Station and yard group.

The vegetation on site is not identified as Old Growth Forest (NPWS, 1999) and not considered High Conservation Value Old Growth Forest. Murwillumbah Railway Station and yard group is considerably removed from the site and would not be impacted upon by the proposal. These items are not considered constraints to the proposal.

No items listed in Schedule 2 of the Tweed LEP 2000 occur within the locality.

Of the five RNE places, only one is on or in close proximity to the site: Tweed River Valley. The amenity of Tweed River Valley would need to be considered and protected by the proposal.

With regard to Aboriginal cultural heritage, the site was included in a recent Cultural Heritage Assessment for the Proposed Eviron Quarry and Landfill Site (Converge, 2009). The Converge Assessment did not locate any areas or objects of Indigenous cultural heritage significance. However, the assessment noted that this may be attributed to the low

ground integrity (GI) and poor ground surface visibility (GSV) levels that predominated over the majority of the project area and the recent ground disturbance of ridgelines, locations where there would have been a higher possibility of identifying Indigenous cultural heritage. Given that the site occurs on the low-lying portion of this study area, it is less likely to host Indigenous cultural heritage. Furthermore, the use of the site for sugar cane cropping would have potentially disturbed any artefacts on the ground surface and near surface. Regardless, an updated cultural heritage due diligence assessment, undertaken in accordance with the *Due Diligence Assessment for the Protection of Aboriginal Objects in NSW* (DECCW, 2010) would be required as part of the SEE for the DA. As part of the due diligence assessment, the local Aboriginal community would be informed of the proposal. The local Aboriginal community may request a Cultural Heritage Monitor is present during earthworks.

Should the due diligence assessment determine further investigation and impact assessment is required, consultation in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010), is required.

Regardless of the due diligence assessment findings, under s90(1) of the NPW Act, it is an offence for a person who without obtaining the consent of the Director General, knowingly destroys, defaces or damages or knowingly causes or permits destruction or defacement or damage to a relic or Aboriginal place. Accordingly, if during construction materials are found, which are believed to be Aboriginal sites or cultural remains, the works are to stop immediately in the vicinity of the find and TSC must notify DECCW.

### **3.10 Contaminated land**

The TSC's *Contaminated Land Policy* (2007) items of consideration are assessed in Table 3.1 below.

**Table 3.1: Response to TSC’s Contaminated Lands Policy items for consideration**

Item of consideration	Response
1. Please specify all land uses to which the site has been put, including the current use.	Current land use is sugar cane cropping.  Historical aerial photographs indicate past land use was agriculture – cropping. The 1962 aerial photograph shows the site already predominantly cleared with the northern portion used for sugar cane crops and the southern portion on the toe of the slopes cleared except for a small patch of vegetation retained. A network of cane drains and cane access tracks are established in 1962. By 1970 the entire site was cleared of native vegetation and being used for sugar cane cropping.
2. Is the proponent aware of uses to which properties adjoining the site have been put? If so, please specify.	The low-lying properties to the north were used for sugar cane cropping and the hill slopes to the south and east were used for grazing, prior to being quarried.
3. Do any of the uses correlate with the potentially contaminating activities set out in table 1 in Schedule 1 of this policy.	Yes – chemical use including herbicides and insecticides.
4. If the answer to 3 is yes - has there been any testing or assessment of the site and, if so, what were the results?	The site visit did not identify any evidence of agricultural chemical contamination (eg. no drums, odours or discoloured patches of earth).
5. Is the proponent aware of any contamination on the site?	No.
6. What remediation work, if any (carried out voluntarily or ordered by a government agency), has been taken in respect to contamination which is or may have been present on the site?	No known contamination and therefore no remediation work proposed.

Given the above assessment and the nature of the works proposed, contaminated land is not expected to be a significant issue to the proposal.

### 3.11 Waste management

The site is not connected to sewer and would therefore require waste water to be removed off-site for disposal or an on-site waste water treatment system. The Preliminary Concept Plan indicates waste water from the toilet would be directed to a holding tank; it is assumed this would then be collected by a waste water collection contractor. An on-site waste water system would require Council approval of a waste water management plan.

Adequate waste collection bins and opportunities for waste separation and recycling would require consideration as part of the proposal.

### 3.12 Utilities

#### 3.12.1 Water

As shown in Figure 12, there is a 600 mm trunk water main that traverses the site. Council's Water Unit has advised that the alignment of the water pipe is inaccurately depicted by the GIS imagery and in fact closely aligned with the southern access track. Council's Water Unit policy is to not provide any further tapplings of trunk mains nor to re-install a service where one has been abandoned and removed (pers coms Peter Pennycuik); therefore, this water supply may not be accessible for the development. However, there is a water meter (currently not in use) on the lot which is assigned to the Manager Recreation Services. It is possible that re-establishment of this connection may be negotiated with the Recreation Services Manager and Water Unit (pers coms Peter Pennycuik). Another consideration is that excavations above and placement of fill over the trunk main is unlikely to be supported, which may constrain the plans to extend the southern access track fill to accommodate the proposed canteen and toilet buildings.

Alternate drinking water sources may need to be considered (eg. capture of rainwater).

#### 3.12.2 Power

An overhead power line and low voltage pole services the residence of 751 Eviron Road (Lot 30 on DP 820048), on the ridge to the south of the site. It is possible that power could be sourced from this point; however, would likely be at significant cost and the alignment would likely be constrained by Quirk's Quarry (and future landfill).

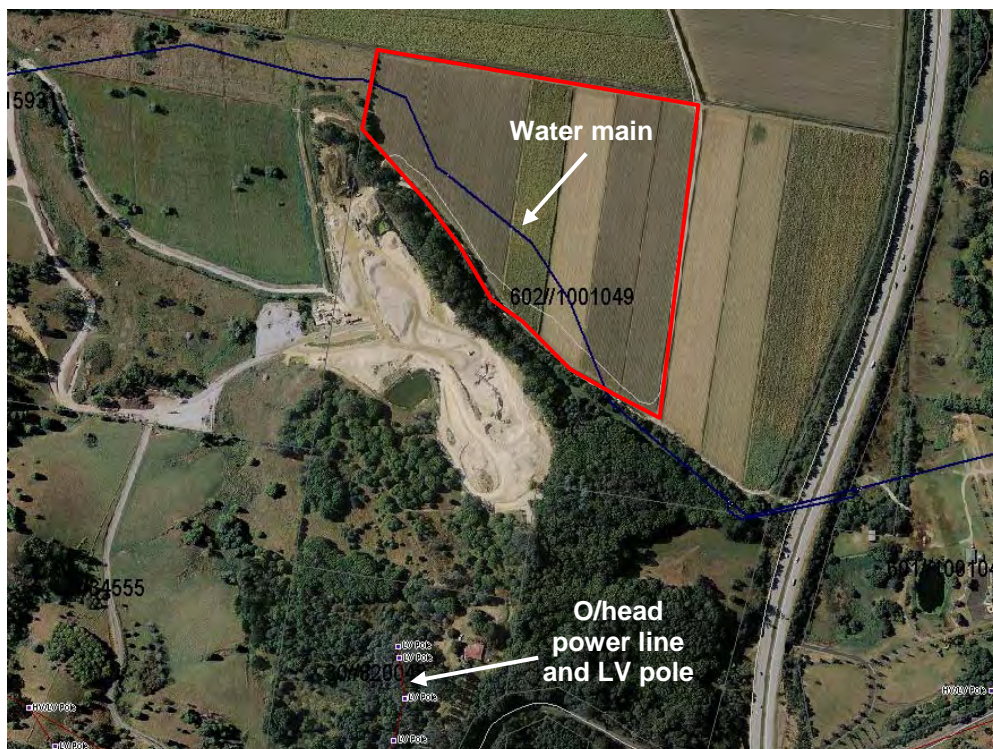


Figure 12: Water and electricity utilities in the site's locality



## 4 Permits and approvals

Tweed Shire Council Development Assessment Unit would be the determining authority for the motorcycle dirt track proposal (Part 4 application). The development is 'integrated development' under s 91 of the EP&A Act as it requires referral under Water Management Act 2000. Under Sections 89, 90 and 91 of the WM Act, approval by NSW Office of Water is required for water use, water supply works and aquifer interception. The proposed irrigation dam requires these approvals.

Further, if the SEE assessment determines that the proposal requires an Aboriginal Heritage Impact Permit (AHIP), Section 90 of the *National Parks and Wildlife Act 1974* requires referral to the Department of Environment, Climate Change and Water (DECCW).

## 5 Conclusion

The subject report provides a preliminary assessment of environmental planning constraints and opportunities relating to the proposed motorcycle dirt track at Eviron. Essentially the report is intended to guide project planning and identify key issues that require further investigation. In summary, the key issues identified for the proposal are:

- Inconsistencies with planning instruments, namely, the permissibility of the development on the sites land zones and potential difficulties with adequately addressing the Clause 8 (2) considerations of the Tweed LEP 2000.
- Protecting the visual amenity, particularly for near-by residences along Eviron Ridge and motorists using the Pacific Highway. Screening the development from highway motorists is also required to minimise the risk of the development distracting motorists.
- Providing safe access to the site. The proposed Eviron Road option may not be suitable due to the steep grade of the existing road and the presence of quarry and landfill heavy vehicles in the area. Alternate access options would likely require land acquisition which would be costly.
- Mitigating potential noise disturbance on residents in the locality. It may be difficult to shield residents along Eviron Ridge from the noise given the topographic relief.
- Mitigating potential dust disturbance to surrounding residents. The proposal needs to demonstrate it has adequate dust suppression and barriers to mitigate dust issues. Applicant must demonstrate adequate water is available for the proposed sprinkler dust suppression system.

To adequately assess the potential impacts of the proposal, as would be required for the SEE accompanying the DA, more in depth assessments are required, particularly in relation to noise impact modelling, air quality impact and water supply and demand calculations and traffic assessment. These assessments would likely require the input of specialist





consultants. As this constraints assessment suggests the proposal may not be approved on the subject site, on planning grounds, it is suggested that the applicant consult with TSC's Development Assessment Panel regarding the proposal's permissibility prior to pursuing the development application any further.

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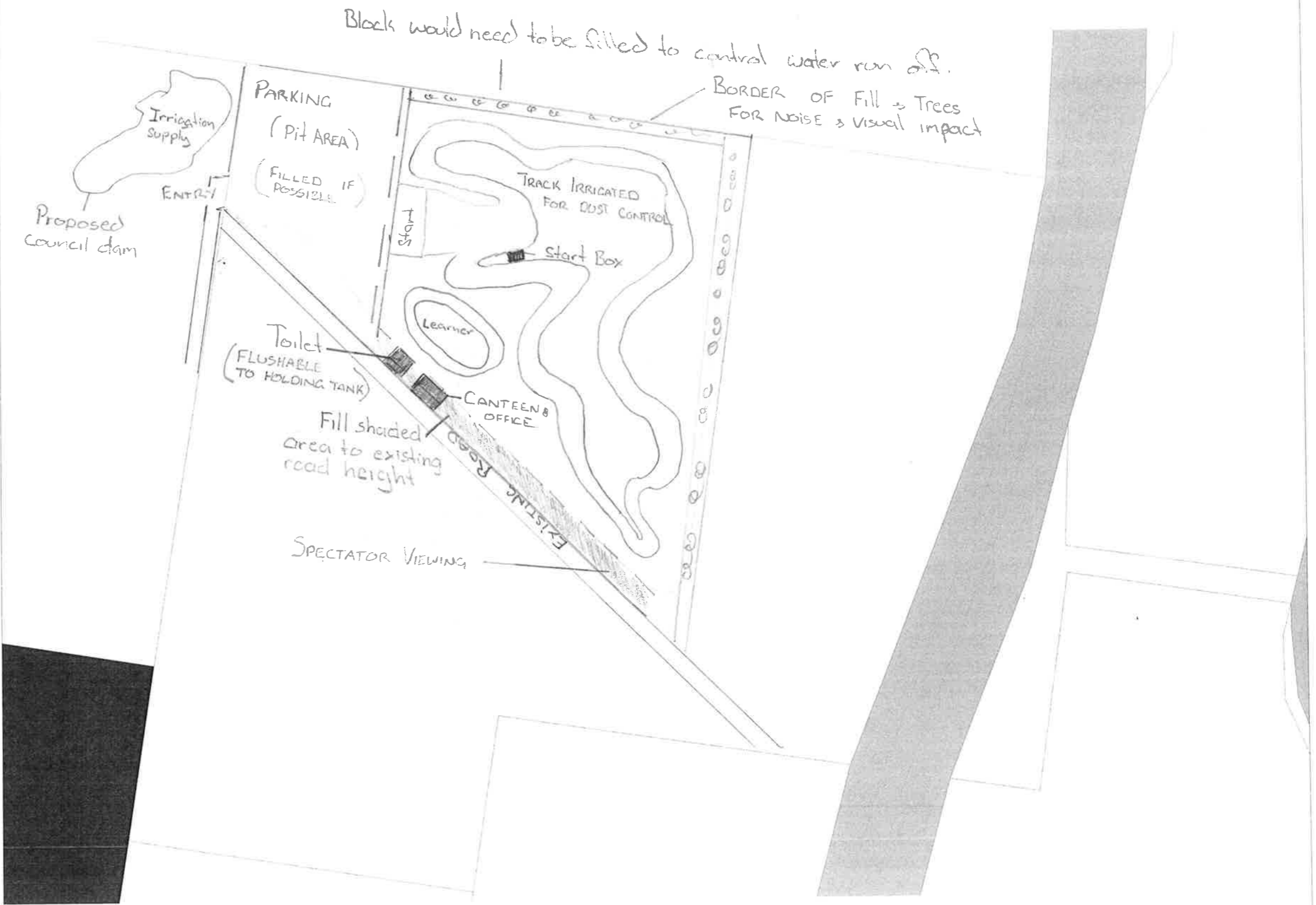
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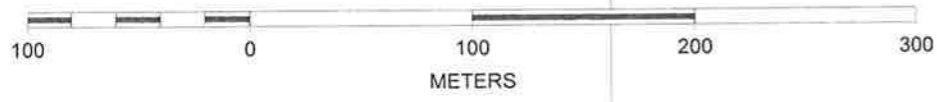
## Appendix A: Preliminary concept plan

**Basemap**

- Abc Cadastral Notes
- Surrounding Local Government Areas
- Abc Street Names (Zoomed In)
- Road Centreline
- Abc Street Number
- Parcels
  - Deposited Plan
  - Neighbourhood Property Plan
  - Other
  - Strata Plan
- Road Reserve
- Waterways
- Planning\_Redline



SCALE 1 : 3,412



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## Appendix B: EPBC Protected Matters database search results



# EPBC Act Protected Matters Report: Coordinates

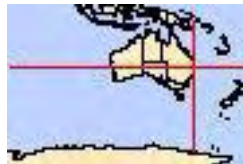
This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

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

You may wish to print this report for reference before moving to other pages or websites.

Information about the EPBC Act including significance guidelines, forms and application process details can be found at <http://www.environment.gov.au/epbc/assessmentsapprovals/index.html>

**Report created: 14/01/11 13:46:30**



## [Summary](#)

## [Details](#)

[Matters of NES](#)

[Other matters protected by the EPBC Act](#)

[Extra Information](#)

## [Caveat](#)

## [Acknowledgements](#)



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

[Coordinates](#)

Buffer: 10Km

# Summary

## Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see <http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html>.

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Significance (Ramsar Wetlands):</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Areas:</a>	None
<a href="#">Threatened Ecological Communities:</a>	1
<a href="#">Threatened Species:</a>	63
<a href="#">Migratory Species:</a>	64

## Other Matters Protected by the EPBC Act

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

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

Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at <http://www.environment.gov.au/epbc/permits/index.html>.

<a href="#">Commonwealth Lands:</a>	1
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	92

<a href="#">Whales and Other Cetaceans:</a>	13
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves:</a>	None

## Report Summary for Extra Information

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

<a href="#">Place on the RNE:</a>	5
<a href="#">State and Territory Reserves:</a>	4
<a href="#">Regional Forest Agreements:</a>	1
<a href="#">Invasive Species:</a>	17
<a href="#">Nationally Important Wetlands:</a>	2

## Details

### Matters of National Environmental Significance

#### Threatened Ecological Communities

[ [Resource Information](#) ]

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

Name	Status	Type of Presence
<a href="#">Littoral Rainforest and Coastal Vine Thickets of Eastern Australia</a>	Critically Endangered	Community likely to occur within area

#### Threatened Species

[ [Resource Information](#) ]

Name	Status	Type of Presence
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#### BIRDS

<a href="#">Anthochaera phrygia</a>	Regent Honeyeater [82338]	Endangered	Species or species habitat may occur within area
<a href="#">Cyclopsitta diophthalma coxeni</a>	Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat likely to occur within area
<a href="#">Diomedea exulans exulans</a>	Tristan Albatross [82337]	Endangered	Foraging, feeding or related behaviour may occur within area
<a href="#">Lathamus discolor</a>	Swift Parrot [744]	Endangered	Species or species habitat likely to occur within area
<a href="#">Macronectes giganteus</a>	Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a>	Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Poephila cincta cincta</a>	Black-throated Finch (southern) [64447]	Endangered	Species or species habitat likely to occur within area

[Pterodroma neglecta neglecta](#)

Kermadec Petrel (western) [64450] Vulnerable Species or species habitat may occur within area

[Rostratula australis](#)

Australian Painted Snipe [77037] Vulnerable Species or species habitat may occur within area

[Thalassarche melanophris impavida](#)

Campbell Albatross [82449] Vulnerable Species or species habitat may occur within area

[Turnix melanogaster](#)

Black-breasted Button-quail [923] Vulnerable Species or species habitat likely to occur within area

**FROGS**[Litoria olongburensis](#)

Wallum Sedge Frog [1821] Vulnerable Species or species habitat known to occur within area

[Mixophyes iteratus](#)

Southern Barred Frog, Giant Barred Frog [1944] Endangered Species or species habitat likely to occur within area

**INSECTS**[Phyllodes imperialis \(southern subsp. - ANIC 3333\)](#)

Pink Underwing Moth [67453] Endangered Species or species habitat likely to occur within area

**MAMMALS**[Balaenoptera musculus](#)

Blue Whale [36] Endangered Species or species habitat may occur within area

[Chalinolobus dwyeri](#)

Large-eared Pied Bat, Large Pied Bat [183] Vulnerable Species or species habitat may occur within area

[Dasyurus maculatus maculatus \(SE mainland population\)](#)

Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184] Endangered Species or species habitat may occur within area

[Eubalaena australis](#)

Southern Right Whale [40] Endangered Species or species habitat likely to occur within area

[Megaptera novaeangliae](#)

Humpback Whale [38] Vulnerable Species or species habitat known to occur within area

[Potorous tridactylus tridactylus](#)

Long-nosed Potoroo (SE mainland) [66645] Vulnerable Species or species habitat may occur within area

[Pseudomys novaehollandiae](#)

New Holland Mouse [96] Vulnerable Species or species habitat likely to occur within area

[Pteropus poliocephalus](#)

Grey-headed Flying-fox [186] Vulnerable Roosting known to occur within area

[Xeromys myoides](#)

Water Mouse, False Water Rat [66] Vulnerable Species or species habitat likely to occur within area

**OTHER**[Thersites mitchellae](#)

Mitchell's Rainforest Snail Critically Species or species habitat likely to occur within area



[66774] Endangered

## PLANTS

### [Acronychia littoralis](#)

Scented Acronychia [8582] Endangered Species or species habitat likely to occur within area

### [Allocasuarina defungens](#)

Dwarf Heath Casuarina [21924] Endangered Species or species habitat likely to occur within area

### [Baloghia marmorata](#)

Marbled Balogia, Jointed Baloghia [8463] Vulnerable Species or species habitat likely to occur within area

### [Bosistoa selwynii](#)

Heart-leaved Bosistoa [13702] Vulnerable Species or species habitat likely to occur within area

### [Bosistoa transversa](#)

Three-leaved Bosistoa [16091] Vulnerable Species or species habitat likely to occur within area

### [Corokia whiteana](#)

[17820] Vulnerable Species or species habitat likely to occur within area

### [Cryptocarya foetida](#)

Stinking Cryptocarya, Stinking Laurel [11976] Vulnerable Species or species habitat known to occur within area

### [Davidsonia jerseyana](#)

Davidson's Plum [67219] Endangered Species or species habitat likely to occur within area

### [Davidsonia johnsonii](#)

Smooth Davidsonia, Smooth Davidson's Plum, Small-leaved Davidson's Plum [67178] Endangered Species or species habitat likely to occur within area

### [Desmodium acanthocladum](#)

Thorny Pea [17972] Vulnerable Species or species habitat likely to occur within area

### [Diospyros mabacea](#)

Red-fruited Ebony, Silky Persimmon, Ebony [18548] Endangered Species or species habitat likely to occur within area

### [Diploglottis campbellii](#)

Small-leaved Tamarind [21484] Endangered Species or species habitat likely to occur within area

### [Elaeocarpus williamsianus](#)

Hairy Quandong [8956] Endangered Species or species habitat likely to occur within area

### [Endiandra floydii](#)

Floyd's Walnut [52955] Endangered Species or species habitat likely to occur within area

### [Endiandra hayesii](#)

Rusty Rose Walnut, Velvet Laurel [13866] Vulnerable Species or species habitat likely to occur within area

### [Floydia praealta](#)

Ball Nut, Possum Nut, Big Nut, Vulnerable Species or species habitat likely to occur within area

Beefwood [15762] <a href="#">Fontainea australis</a>		
Southern Fontainea [24037]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Gossia fragrantissima</a>		
Sweet Myrtle, Small-leaved Myrtle [78867]	Endangered	Species or species habitat likely to occur within area
<a href="#">Hicksbeachia pinnatifolia</a>		
Monkey Nut, Bopple Nut, Red Bopple, Red Bopple Nut, Red Nut, Beef Nut, Red Apple Nut, Red Boppel Nut, Ivory Silky Oak [21189]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Macadamia tetraphylla</a>		
Rough-shelled Bush Nut, Macadamia Nut, Rough-shelled Macadamia, Rough-leaved Queensland Nut [6581]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Marsdenia longiloba</a>		
Clear Milkvine [2794]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Ochrosia moorei</a>		
Southern Ochrosia [11350]	Endangered	Species or species habitat likely to occur within area
<a href="#">Randia moorei</a>		
Spiny Gardenia [10577]	Endangered	Species or species habitat likely to occur within area
<a href="#">Symplocos baeuerlenii</a>		
Small-leaved Hazelwood, Shrubby Hazelwood [19010]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Syzygium hodgkinsoniae</a>		
Smooth-bark Rose Apple, Red Lilly Pilly [3539]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Syzygium moorei</a>		
Rose Apple, Coolamon, Robby, Durobby, Watermelon Tree, Coolamon Rose Apple [12284]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Taeniophyllum muelleri</a>		
Minute Orchid, Ribbon-root Orchid [10771]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Tinospora tinosporoides</a>		
Arrow-head Vine [5128]	Vulnerable	Species or species habitat likely to occur within area

## REPTILES

<a href="#">Caretta caretta</a>		
Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a>		
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Coeranoscincus reticulatus</a>		
Three-toed Snake-tooth Skink [59628]	Vulnerable	Species or species habitat may occur within area

<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

## SHARKS

<a href="#">Carcharias taurus (east coast population)</a> Grey Nurse Shark (east coast population) [68751]	Critically Endangered	Species or species habitat may occur within area
<a href="#">Carcharodon carcharias</a> Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat may occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

## Migratory Species [ Resource Information ]

Name	Status	Type of Presence
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### Migratory Marine Birds

<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat may occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Breeding likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Breeding likely to occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat may occur within area
<a href="#">Diomedea dabbenena</a> Tristan Albatross [66471]		Foraging, feeding or related behaviour may occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Macronectes halli</a> Northern Giant-Petrel [1061]	Vulnerable	Species or species habitat may occur within area
<a href="#">Puffinus leucomelas</a> Streaked Shearwater [66541]		Species or species habitat may occur within area
<a href="#">Sterna albifrons</a> Little Tern [813]		Breeding likely to occur within area
<a href="#">Thalassarche impavida</a> Campbell Albatross [64459]		Species or species habitat may occur within area

### Migratory Marine Species

<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a>		

<a href="#">Blue Whale [36]</a> <a href="#">Carcharodon carcharias</a>	Endangered	Species or species habitat may occur within area
<a href="#">Great White Shark [64470]</a> <a href="#">Caretta caretta</a>	Vulnerable	Species or species habitat may occur within area
<a href="#">Loggerhead Turtle [1763]</a> <a href="#">Chelonia mydas</a>	Endangered	Breeding known to occur within area
<a href="#">Green Turtle [1765]</a> <a href="#">Dermochelys coriacea</a>	Vulnerable	Foraging, feeding or related behaviour known to occur within area
<a href="#">Leatherback Turtle, Leathery Turtle, Luth [1768]</a> <a href="#">Dugong dugon</a>	Endangered	Species or species habitat likely to occur within area
<a href="#">Dugong [28]</a> <a href="#">Eretmochelys imbricata</a>		Species or species habitat likely to occur within area
<a href="#">Hawksbill Turtle [1766]</a>	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Eubalaena australis</a> Southern Right Whale [40]	Endangered	Species or species habitat likely to occur within area
<a href="#">Lagenorhynchus obscurus</a> Dusky Dolphin [43]		Species or species habitat may occur within area
<a href="#">Lepidochelys olivacea</a> Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
<a href="#">Sousa chinensis</a> Indo-Pacific Humpback Dolphin [50]		Species or species habitat may occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Cyclopsitta diophthalma coxeni</a> Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat likely to occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
<a href="#">Hirundapus caudacutus</a> White-throated Needletail [682]		Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Monarcha melanopsis</a> Black-faced Monarch [609]		Breeding may occur within area
<a href="#">Monarcha trivirgatus</a> Spectacled Monarch [610]		Breeding likely to occur within area

<a href="#">Myiagra cyanoleuca</a> Satin Flycatcher [612]	Breeding likely to occur within area
<a href="#">Rhipidura rufifrons</a> Rufous Fantail [592]	Breeding may occur within area
<a href="#">Xanthomyza phrygia</a> Regent Honeyeater [430]	Species or species habitat may occur within area
<b>Migratory Wetlands Species</b>	
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]	Roosting known to occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]	Breeding likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]	Breeding likely to occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]	Roosting known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]	Roosting known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]	Roosting known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Roosting known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Roosting known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]	Roosting known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Roosting known to occur within area
<a href="#">Charadrius bicinctus</a> Double-banded Plover [895]	Roosting known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Roosting known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Roosting known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]	Roosting known to occur within area
<a href="#">Gallinago hardwickii</a> Latham's Snipe, Japanese Snipe [863]	Roosting known to occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]	Roosting known to occur within area
<a href="#">Heteroscelus brevipes</a> Grey-tailed Tattler [59311]	Roosting known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]	Roosting known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]	Roosting known to occur within area
<a href="#">Nettapus coromandelianus albipennis</a> Australian Cotton Pygmy-goose	Species or species habitat may occur within area



[25979] <a href="#">Numenius madagascariensis</a> Eastern Curlew [847]	Roosting known to occur within area
<a href="#">Numenius minutus</a> Little Curlew, Little Whimbrel [848]	Roosting known to occur within area
<a href="#">Numenius phaeopus</a> Whimbrel [849]	Roosting known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]	Roosting known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]	Roosting known to occur within area
<a href="#">Rostratula benghalensis s. lat.</a> Painted Snipe [889]	Species or species habitat may occur within area
<a href="#">Tringa glareola</a> Wood Sandpiper [829]	Roosting known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]	Roosting known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]	Roosting known to occur within area

## Other Matters Protected by the EPBC Act

### Commonwealth Lands

[ [Resource Information](#) ]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land - Australian Telecommunications Commission

### Listed Marine Species

[ [Resource Information](#) ]

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Roosting known to occur within area
<a href="#">Anseranas semipalmata</a> Magpie Goose [978]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat may occur within area
<a href="#">Ardea alba</a> Great Egret, White Egret [59541]		Breeding likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Breeding likely to occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Roosting known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Roosting known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Roosting known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]		Roosting known to occur within area

<a href="#">Calidris ferruginea</a>		Roosting known to occur within area
Curlew Sandpiper [856]		
<a href="#">Calidris ruficollis</a>		Roosting known to occur within area
Red-necked Stint [860]		
<a href="#">Calidris tenuirostris</a>		Roosting known to occur within area
Great Knot [862]		
<a href="#">Calonectris leucomelas</a>		Species or species habitat may occur within area
Streaked Shearwater [1077]		
<a href="#">Catharacta skua</a>		Species or species habitat may occur within area
Great Skua [59472]		
<a href="#">Charadrius bicinctus</a>		Roosting known to occur within area
Double-banded Plover [895]		
<a href="#">Charadrius leschenaultii</a>		Roosting known to occur within area
Greater Sand Plover, Large Sand Plover [877]		
<a href="#">Charadrius mongolus</a>		Roosting known to occur within area
Lesser Sand Plover, Mongolian Plover [879]		
<a href="#">Charadrius ruficapillus</a>		Roosting known to occur within area
Red-capped Plover [881]		
<a href="#">Charadrius veredus</a>		Roosting known to occur within area
Oriental Plover, Oriental Dotterel [882]		
<a href="#">Diomedea dabbenena</a>		Foraging, feeding or related behaviour may occur within area
Tristan Albatross [66471]		
<a href="#">Gallinago hardwickii</a>		Roosting known to occur within area
Latham's Snipe, Japanese Snipe [863]		
<a href="#">Gallinago megala</a>		Roosting likely to occur within area
Swinhoe's Snipe [864]		
<a href="#">Gallinago stenura</a>		Roosting likely to occur within area
Pin-tailed Snipe [841]		
<a href="#">Glareola maldivarum</a>		Roosting known to occur within area
Oriental Pratincole [840]		
<a href="#">Haliaeetus leucogaster</a>		Species or species habitat likely to occur within area
White-bellied Sea-Eagle [943]		
<a href="#">Heteroscelus brevipes</a>		Roosting known to occur within area
Grey-tailed Tattler [59311]		
<a href="#">Himantopus himantopus</a>		Roosting known to occur within area
Black-winged Stilt [870]		
<a href="#">Hirundapus caudacutus</a>		Species or species habitat may occur within area
White-throated Needletail [682]		
<a href="#">Lathamus discolor</a>		Species or species habitat likely to occur within area
Swift Parrot [744]	Endangered	
<a href="#">Limosa lapponica</a>		Roosting known to occur within area
Bar-tailed Godwit [844]		
<a href="#">Limosa limosa</a>		Roosting known to occur within area
Black-tailed Godwit [845]		
<a href="#">Macronectes giganteus</a>		

Southern Giant-Petrel [1060] <a href="#">Macronectes halli</a>	Endangered	Species or species habitat may occur within area
Northern Giant-Petrel [1061] <a href="#">Merops ornatus</a>	Vulnerable	Species or species habitat may occur within area
Rainbow Bee-eater [670] <a href="#">Monarcha melanopsis</a>		Species or species habitat may occur within area
Black-faced Monarch [609] <a href="#">Monarcha trivirgatus</a>		Breeding may occur within area
Spectacled Monarch [610] <a href="#">Myiagra cyanoleuca</a>		Breeding likely to occur within area
Satin Flycatcher [612] <a href="#">Nettapus coromandelianus albipennis</a>		Breeding likely to occur within area
Australian Cotton Pygmy-goose [25979] <a href="#">Numenius madagascariensis</a>		Species or species habitat may occur within area
Eastern Curlew [847] <a href="#">Numenius minutus</a>		Roosting known to occur within area
Little Curlew, Little Whimbrel [848] <a href="#">Numenius phaeopus</a>		Roosting known to occur within area
Whimbrel [849] <a href="#">Pluvialis fulva</a>		Roosting known to occur within area
Pacific Golden Plover [25545] <a href="#">Pluvialis squatarola</a>		Roosting known to occur within area
Grey Plover [865] <a href="#">Recurvirostra novaehollandiae</a>		Roosting known to occur within area
Red-necked Avocet [871] <a href="#">Rhipidura rufifrons</a>		Roosting known to occur within area
Rufous Fantail [592] <a href="#">Rostratula benghalensis s. lat.</a>		Breeding may occur within area
Painted Snipe [889] <a href="#">Sterna albifrons</a>		Species or species habitat may occur within area
Little Tern [813] <a href="#">Thalassarche impavida</a>		Breeding likely to occur within area
Campbell Albatross [64459] <a href="#">Thinornis rubricollis</a>		Species or species habitat may occur within area
Hooded Plover [59510] <a href="#">Tringa glareola</a>		Roosting known to occur within area
Wood Sandpiper [829] <a href="#">Tringa stagnatilis</a>		Roosting known to occur within area
Marsh Sandpiper, Little Greenshank [833] <a href="#">Xenus cinereus</a>		Roosting known to occur within area
Terek Sandpiper [59300]		Roosting known to occur within area
<b>Fish</b>		
<a href="#">Acentronura tentaculata</a>		
Shortpouch Pygmy Pipehorse [66187] <a href="#">Campichthys tryoni</a>		Species or species habitat may occur within area
Tryon's Pipefish [66193] <a href="#">Corythoichthys amplexus</a>		Species or species habitat may occur within area
Fijian Banded Pipefish,		Species or species habitat may occur within area

Brown-banded Pipefish [66199] <a href="#">Corythoichthys ocellatus</a>	
Orange-spotted Pipefish, Ocellated Pipefish [66203] <a href="#">Festucalex cinctus</a>	Species or species habitat may occur within area
Girdled Pipefish [66214] <a href="#">Filicampus tigris</a>	Species or species habitat may occur within area
Tiger Pipefish [66217] <a href="#">Halicampus grayi</a>	Species or species habitat may occur within area
Mud Pipefish, Gray's Pipefish [66221] <a href="#">Hippichthys cyanospilos</a>	Species or species habitat may occur within area
Blue-speckled Pipefish, Blue-spotted Pipefish [66228] <a href="#">Hippichthys heptagonus</a>	Species or species habitat may occur within area
Madura Pipefish, Reticulated Freshwater Pipefish [66229] <a href="#">Hippichthys penicillus</a>	Species or species habitat may occur within area
Beady Pipefish, Steep-nosed Pipefish [66231] <a href="#">Hippocampus kelloggi</a>	Species or species habitat may occur within area
Kellogg's Seahorse, Great Seahorse [66723] <a href="#">Hippocampus kuda</a>	Species or species habitat may occur within area
Spotted Seahorse, Yellow Seahorse [66237] <a href="#">Hippocampus planifrons</a>	Species or species habitat may occur within area
Flat-face Seahorse [66238] <a href="#">Hippocampus whitei</a>	Species or species habitat may occur within area
White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240] <a href="#">Lissocampus runa</a>	Species or species habitat may occur within area
Javelin Pipefish [66251] <a href="#">Maroubra perserrata</a>	Species or species habitat may occur within area
Sawtooth Pipefish [66252] <a href="#">Micrognathus andersonii</a>	Species or species habitat may occur within area
Anderson's Pipefish, Shortnose Pipefish [66253] <a href="#">Micrognathus brevirostris</a>	Species or species habitat may occur within area
thorntail Pipefish, Thorn-tailed Pipefish [66254] <a href="#">Microphis manadensis</a>	Species or species habitat may occur within area
Manado Pipefish, Manado River Pipefish [66258] <a href="#">Solegnathus dunckeri</a>	Species or species habitat may occur within area
Duncker's Pipehorse [66271] <a href="#">Solegnathus hardwickii</a>	Species or species habitat may occur within area
Pallid Pipehorse, Hardwick's Pipehorse [66272] <a href="#">Solegnathus spinosissimus</a>	Species or species habitat may occur within area
Spiny Pipehorse, Australian Spiny Pipehorse [66275]	Species or species habitat may occur within area

[Solenostomus cyanopterus](#)

Robust Ghostpipefish,  
Blue-finned Ghost Pipefish,  
[66183]

Species or species habitat may occur within area

[Solenostomus paegnius](#)

Rough-snout Ghost Pipefish  
[68425]

Species or species habitat may occur within area

[Solenostomus paradoxus](#)

Ornate Ghostpipefish, Harlequin  
Ghost Pipefish, Ornate Ghost  
Pipefish [66184]

Species or species habitat may occur within area

[Stigmatopora nigra](#)

Widebody Pipefish,  
Wide-bodied Pipefish, Black  
Pipefish [66277]

Species or species habitat may occur within area

[Syngnathoides biaculeatus](#)

Double-end Pipehorse,  
Double-ended Pipehorse,  
Alligator Pipefish [66279]

Species or species habitat may occur within area

[Trachyrhamphus bicoarctatus](#)

Bentstick Pipefish, Bend Stick  
Pipefish, Short-tailed Pipefish  
[66280]

Species or species habitat may occur within area

[Urocampus carinirostris](#)

Hairy Pipefish [66282]

Species or species habitat may occur within area

[Vanacampus margaritifer](#)

Mother-of-pearl Pipefish  
[66283]

Species or species habitat may occur within area

**Mammals**

[Dugong dugon](#)

Dugong [28]

Species or species habitat likely to occur within area

**Reptiles**

[Astrotia stokesii](#)

Stokes' Seasnake [1122]

Species or species habitat may occur within area

[Caretta caretta](#)

Loggerhead Turtle [1763]

Endangered

Breeding known to occur within area

[Chelonia mydas](#)

Green Turtle [1765]

Vulnerable

Foraging, feeding or related behaviour known to occur within area

[Dermochelys coriacea](#)

Leatherback Turtle, Leathery  
Turtle, Luth [1768]

Endangered

Species or species habitat likely to occur within area

[Eretmochelys imbricata](#)

Hawksbill Turtle [1766]

Vulnerable

Species or species habitat likely to occur within area

[Hydrophis elegans](#)

Elegant Seasnake [1104]

Species or species habitat may occur within area

[Lepidochelys olivacea](#)

Olive Ridley Turtle, Pacific  
Ridley Turtle [1767]

Endangered

Species or species habitat likely to occur within area

[Natator depressus](#)

Flatback Turtle [59257]

Vulnerable

Species or species habitat likely to occur within area



[Pelamis platurus](#)

Yellow-bellied Seasnake [1091]

Species or species habitat may occur within area

**Whales and Other Cetaceans** [ **Resource Information** ]

Name Status Type of Presence

**Mammals**

[Balaenoptera acutorostrata](#)

Minke Whale [33]

Species or species habitat may occur within area

[Balaenoptera edeni](#)

Bryde's Whale [35]

Species or species habitat may occur within area

[Balaenoptera musculus](#)

Blue Whale [36]

Endangered

Species or species habitat may occur within area

[Delphinus delphis](#)

Common Dophin, Short-beaked  
Common Dolphin [60]

Species or species habitat may occur within area

[Eubalaena australis](#)

Southern Right Whale [40]

Endangered

Species or species habitat likely to occur within area

[Grampus griseus](#)

Risso's Dolphin, Grampus [64]

Species or species habitat may occur within area

[Lagenorhynchus obscurus](#)

Dusky Dolphin [43]

Species or species habitat may occur within area

[Megaptera novaeangliae](#)

Humpback Whale [38]

Vulnerable

Species or species habitat known to occur within area

[Orcinus orca](#)

Killer Whale, Orca [46]

Species or species habitat may occur within area

[Sousa chinensis](#)

Indo-Pacific Humpback Dolphin  
[50]

Species or species habitat may occur within area

[Stenella attenuata](#)

Spotted Dolphin, Pantropical  
Spotted Dolphin [51]

Species or species habitat may occur within area

[Tursiops aduncus](#)

Indian Ocean Bottlenose  
Dolphin, Spotted Bottlenose  
Dolphin [68418]

Species or species habitat likely to occur within area

[Tursiops truncatus s. str.](#)

Bottlenose Dolphin [68417]

Species or species habitat may occur within area

**Extra Information**

**Places on the RNE** [ **Resource Information** ]

Note that not all Indigenous sites may be listed.

Name Status

**Natural**

[Mount Warning Shield Volcano Remnants NSW](#) Indicative Place

[Stotts Island Nature Reserve NSW](#) Registered

**Indigenous**

[Terranora Broadwater Middens Complex NSW](#) Indicative Place

**Historic**

[Tweed River Valley NSW](#) Indicative Place

[Cudgen Burial Ground NSW](#) Registered

## State and Territory Reserves

[ [Resource Information](#) ]

Mooball, NSW  
Stotts Island, NSW  
Cudgen, NSW  
Duroby, NSW

## Regional Forest Agreements

[ [Resource Information](#) ]

Note that all areas with completed RFAs have been included.

[North East NSW RFA, New South Wales](#)

## Invasive Species

[ [Resource Information](#) ]

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

Name	Status	Type of Presence
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### Frogs

[Bufo marinus](#)

Cane Toad [1772]		Species or species habitat likely to occur within area
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### Mammals

[Bubalus bubalis](#)

Water Buffalo, Swamp Buffalo [1]		Species or species habitat may occur within area
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[Capra hircus](#)

Goat [2]		Species or species habitat may occur within area
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[Felis catus](#)

Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
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[Oryctolagus cuniculus](#)

Rabbit, European Rabbit [128]		Species or species habitat may occur within area
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[Sus scrofa](#)

Pig [6]		Species or species habitat may occur within area
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[Vulpes vulpes](#)

Red Fox, Fox [18]		Species or species habitat likely to occur within area
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### Plants

[Cabomba caroliniana](#)

Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]		Species or species habitat may occur within area
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[Chrysanthemoides monilifera](#)

Bitou Bush, Boneseed [18983]		Species or species habitat likely to occur within area
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[Genista sp. X Genista monspessulana](#)

Broom [67538]		Species or species habitat may occur within area
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[Lantana camara](#)

Lantana, Common Lantana, Kamara Lantana, Large-leaf Lantana, Pink Flowered		Species or species habitat likely to occur within area
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Lantana, Red Flowered Lantana,  
Red-Flowered Sage, White  
Sage, Wild Sage [10892]

[Lycium ferocissimum](#)

African Boxthorn, Boxthorn  
[19235]

[Nassella trichotoma](#)

Serrated Tussock, Yass River  
Tussock, Yass Tussock,  
Nassella Tussock (NZ) [18884]

[Pinus radiata](#)

Radiata Pine Monterey Pine,  
Insignis Pine, Wilding Pine  
[20780]

[Rubus fruticosus aggregate](#)

Blackberry, European  
Blackberry [68406]

[Salvinia molesta](#)

Salvinia, Giant Salvinia,  
Aquarium Watermoss, Kariba  
Weed [13665]

[Ulex europaeus](#)

Gorse, Furze [7693]

Species or species habitat may occur within area

Species or species habitat may occur within area

Species or species habitat may occur within area

Species or species habitat likely to occur within area

Species or species habitat likely to occur within area

Species or species habitat may occur within area

## **Nationally Important Wetlands**

**[ Resource Information ]**

[Stotts Island Nature Reserve, NSW](#)

[Cudgen Nature Reserve, NSW](#)

## **Caveat**

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

## Coordinates

153.51139 -28.30333

## Acknowledgements

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

- [-Department of Environment, Climate Change and Water, New South Wales](#)
- [-Department of Sustainability and Environment, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment and Natural Resources, South Australia](#)
- [-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [-Environmental and Resource Management, Queensland](#)
- [-Department of Environment and Conservation, Western Australia](#)
- [-Department of the Environment, Climate Change, Energy and Water](#)
- [-Birds Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-SA Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Atherton and Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)

[-Australian Government, Department of Defence](#)  
[-State Forests of NSW](#)

-Other groups and individuals

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

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