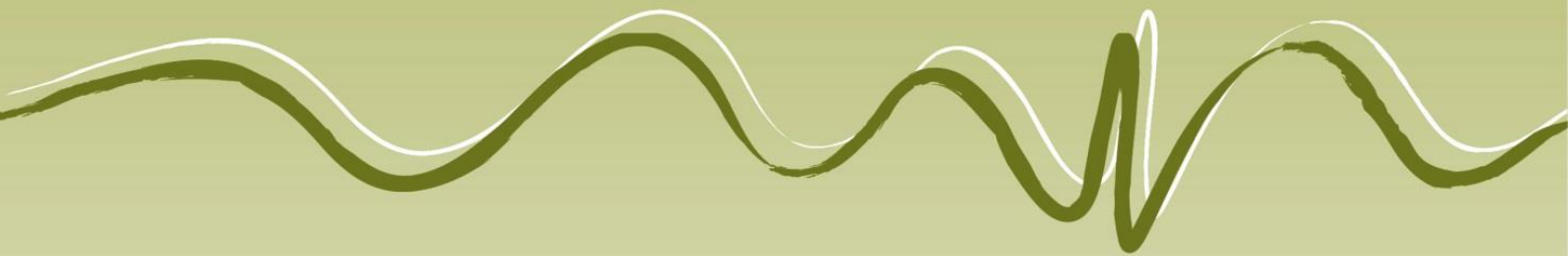


# Statement of Environmental Effects

## KB Concrete Sand Quarry



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# Executive Summary

<b>Applicant</b>	KB Concrete
<b>Background</b>	<p>KB Concrete is a regional concrete supplier operating in the Central West Region of New South Wales, supplying to remote mining, civil and construction projects.</p> <p>The Proposal addresses the following objectives:</p> <ul style="list-style-type: none"> <li>■ To secure a local, viable source of quality sand for supply to the region.</li> <li>■ Conduct operations in an environmentally sensitive manner to avoid, minimise and mitigate any potential impacts.</li> <li>■ Contribute to the local and regional economies through employment and capital expenditure.</li> </ul> <p>The development of the proposed sand quarry would facilitate the realisation of these objectives.</p> <p>This Proposal requires approval pursuant to the <i>Environmental Planning and Assessment Act 1979</i> (EP&amp;A Act).</p>
<b>Location</b>	<p>The proposed site is located on land described as Lot 39 DP753375, located at 2719 East Coonamble Road, Curban NSW 2827 (the Site). The locality is shown in <b>Illustration 1.1</b>. The site lies approximately 30 km to the north-west of the Gilgandra town centre.</p> <p>The Site is situated in the Gilgandra Local Government Area (LGA).</p>
<b>Site Features</b>	<p>The location of the proposed sand quarry is bound by a crop to the south, woodland to the west and a corridor of riparian vegetation to the north (refer to <b>Illustration 1.2</b>).</p> <p>The Site lies approximately 30 km to the north-west of the Gilgandra town centre. The immediate surrounding landscape is predominantly rural, with cattle grazing and cropping the dominant land uses. The nearest dwellings are approximately 1.6 km west of the proposed footprint.</p>
<b>Zoning and Approvals</b>	<p>The Site is zoned RU1 (Primary Production) pursuant to Gilgandra Local Environmental Plan (LEP) 2011. The Proposal is permissible with consent.</p> <p>The Proposal requires consent under Part 4 of the <i>Environmental Planning and Assessment Act 1979</i> (EP&amp;A Act). The Proposal is to be assessed by Council.</p>
<b>Planning Controls and Policies</b>	<p>The primary planning control relevant to the Site is Gilgandra Local Environmental Plan (LEP) 2011 along with Gilgandra Development Control Plan (DCP) 2015. The Site and Proposal are also subject to State policies and guidelines as prescribed by the NSW agencies and the Department of Planning and Environment. These policies and relevant legislation are discussed in this Statement of Environmental Effects (SEE).</p>



**Proposal**

KB Concrete proposes to extract sand at a proposed sand quarry located on Lot 39 DP753375 to supply sand for use in construction materials for the region.

It is proposed to obtain approval to extract up to 30,000 m<sup>3</sup> of material per year (or 18,750 tonne, assuming density of sand being 1.6 t/m<sup>3</sup>).

The proposal addresses the following objectives:

- To secure a local, viable source of quality sand for supply to the region.
- Conduct operations in an environmentally sensitive manner to avoid, minimise and mitigate any potential impacts.
- Contribute to the local and regional economies through employment and capital expenditure.

The development of the proposed sand quarry would facilitate the realisation of these objectives.

**Key Issues**

The following key matters are relevant to the Proposal:

- Soil and water management.



# 1. Introduction

## 1.1 Project Background and Justification

KB Concrete is a regional concrete supplier operating in the Central West Region of New South Wales, supplying to remote mining, civil and construction projects.

The proposal addresses the following objectives:

- To secure a local, viable source of quality sand for supply to the region.
- Conduct operations in an environmentally sensitive manner to avoid, minimise and mitigate any potential impacts.
- Contribute to the local and regional economies through employment and capital expenditure.

The development of the proposed sand quarry would facilitate the realisation of these objectives.

## 1.2 The Site and Context

The Site is located on land described as Lot 39 DP753375, located at 2719 East Coonamble Road, Curban NSW 2827 as shown in **Illustration 1.1** (the Site).

The Site lies approximately 30 km to the north-west of the Gilgandra town centre. As shown in **Illustration 1.2**, the immediate surrounding landscape is predominantly rural, with cattle grazing and cropping the dominant land uses.

## 1.3 Site Analysis

### 1.3.1 Topography and Existing Land Uses

The Site lies within a floodplain of the Castlereagh River, with level to gently undulating landscape and has an elevations ranging from approximately 240 m to 260 m Australian Height Datum (AHD). The area is characterised by undulating hills of woodland and cropped and pastured lands.

### 1.3.2 Soils

The soil at the Site is pale yellow sands derived from Quaternary Alluvium (Gilgandra 1:250,000 (SH55-16)). The Site contains local source dunes that border the sandy soil. These soils typically have low nutrient levels and are well drained.

### 1.3.3 Vegetation

The Site of the sand quarry is bound by a crop to the south, woodland to the west and a corridor of riparian vegetation to the north. The treed vegetation surrounding the proposed sand quarry is mapped as Koala Development Application Mapping (KDAM). The proposed sand quarry site and access road are not covered by KDAM.

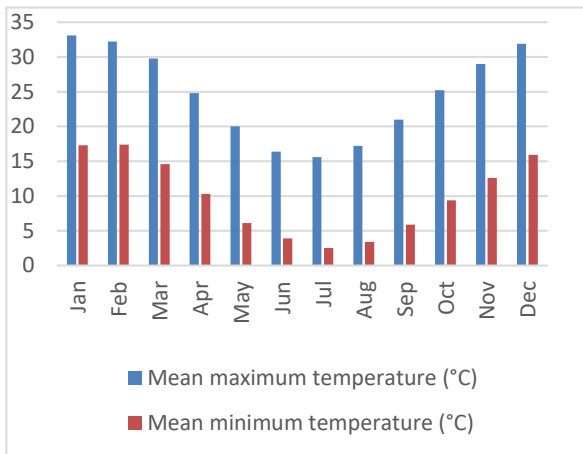
Select trees (as discussed later in this report) will require removal for the proposal.



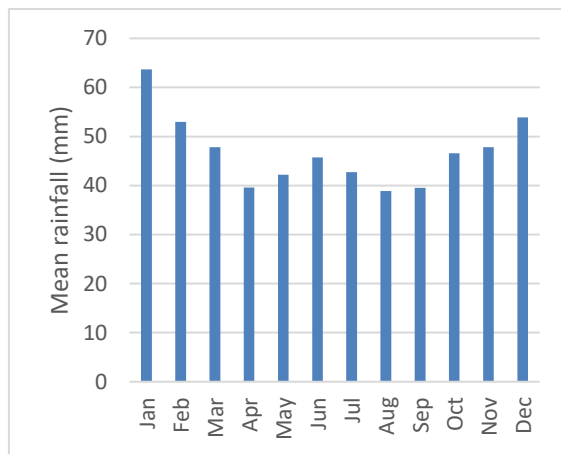
### 1.3.4 Climate

Gilgandra has a semi-arid climate with climate data statistics indicating:

- a mean minimum temperature of 2.5°C in July (refer to **Figure 1.2**)
- a mean maximum temperature of 33.1°C in January (Bureau of Meteorology) (refer to **Figure 1.1**)
- a mean annual rainfall of 557.8 mm/year, with the majority of rainfall occurring between December and February (refer to **Figure 1.2**).

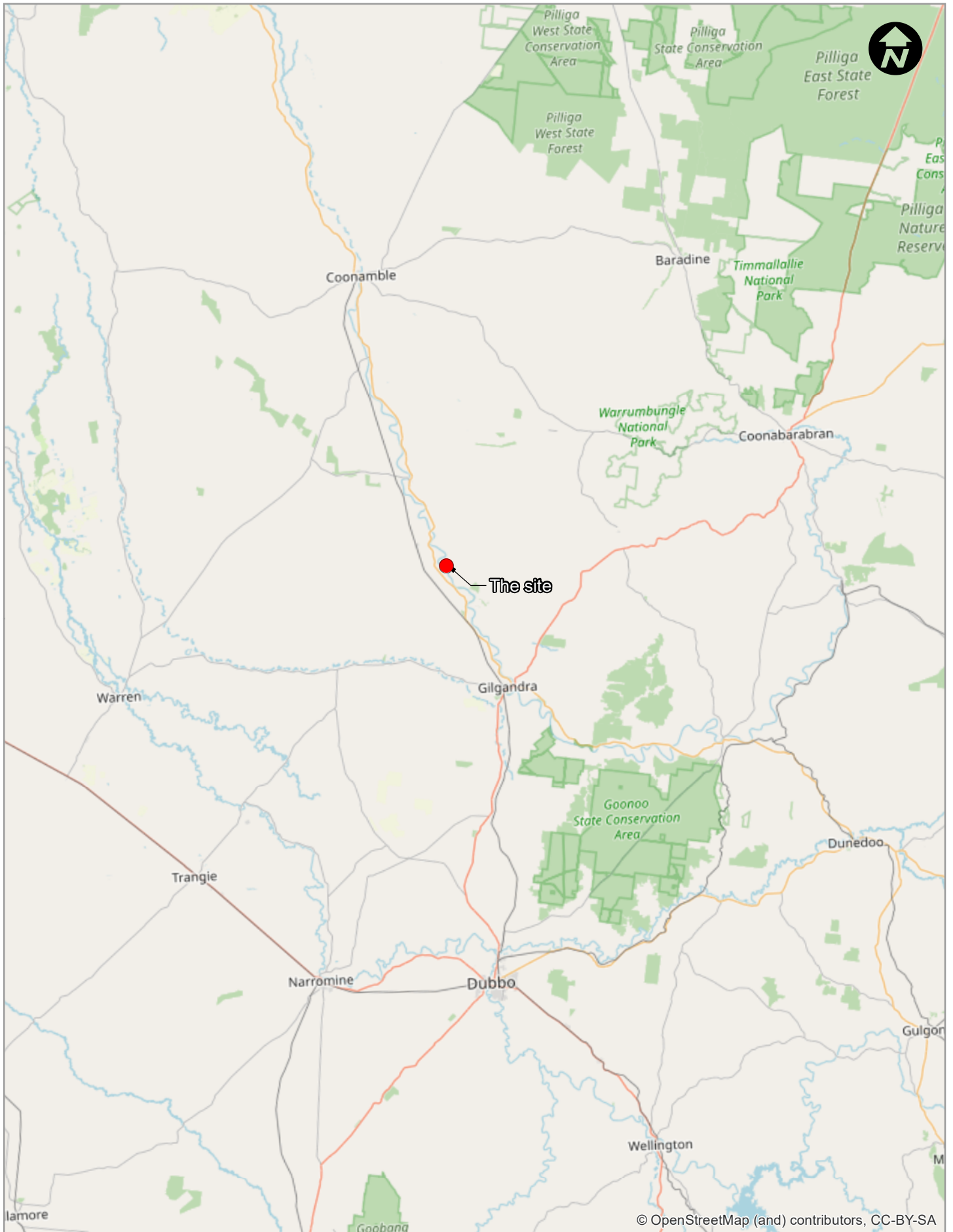


**Figure 1.2 Mean Monthly Temperature (Gilgandra (Chelmsford Ave)) (1915-1975)**



**Figure 1.1 Mean Monthly Rainfall (Gilgandra (Chelmsford Ave)) (1889-2020)**

Source: Bureau of Meteorology: Climate Statistics [Online: <http://www.bom.gov.au>]

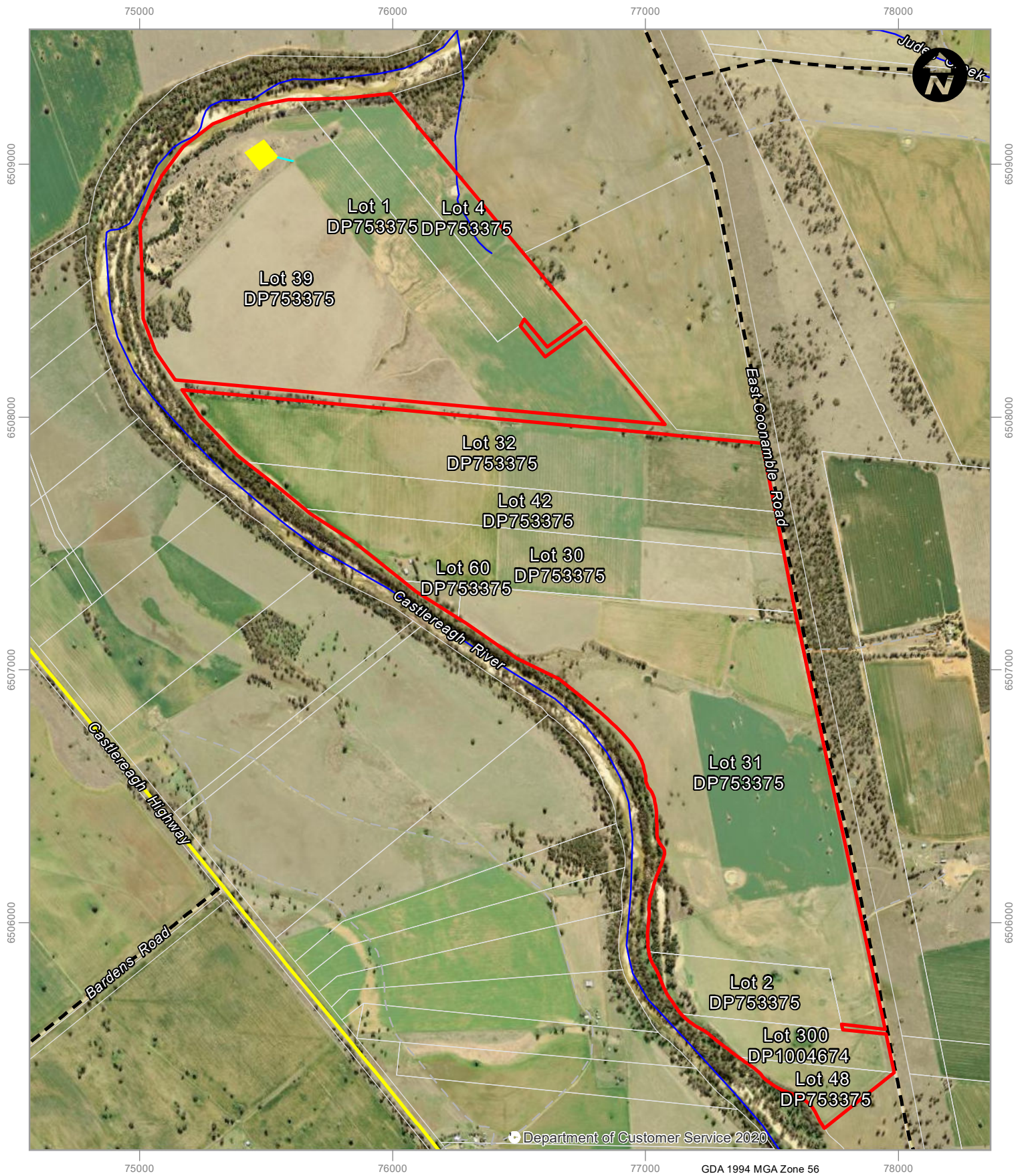


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Site Locality - Illustration 1.1





**LEGEND**

- The site
- Cadastre
- Proposed quarry
- Access
- Local road
- Primary road
- Track-vehicular
- Watercourse



The Site and Location of Proposal - Illustration 1.2



## 2. Proposal Description

### 2.1 Existing Operation

The Site is currently used for agricultural grazing and cropping. The proposed footprint of the sand quarry is used for the grazing of cattle.

### 2.2 The Proposal

KB Concrete proposes to temporarily extract sand at a proposed sand quarry located on Lot 39 DP753375 to supply sand for use in the production of concrete for local construction industry.

It is proposed to obtain approval to extract up to 30,000 m<sup>3</sup> of material per year (or 18,750 tonne, assuming density of sand being 1.6 t/m<sup>3</sup>).

#### 2.2.1 Extraction

It is proposed to extract sand by front end loader or excavator. The front-end loader would collect the sand and deposit it in a 20-tonne tipper truck to be taken off-site.

The sand quarry would require the clearing of vegetation (predominately groundcover and minor shrubs and trees) in order to access the material. Very little topsoil is present at the Site.

#### 2.2.2 Construction, Operation and Transport

The main plant likely to be used for the construction of the access roads would include:

- Excavators
- Dump trucks
- Bob cats.

Operational plant and infrastructure on site would consist of a front-end loader or excavator and a 20-tonne tipper truck.

Quarried material would be taken off-site for further processing. It is estimated that there will be approximately one return truck movement per day.

#### 2.2.3 Site Rehabilitation

Site rehabilitation will occur progressively as quarry areas are worked. A Closure and Rehabilitation Plan will be prepared for the Site and would address specified matters including preferred end land use and landform in consultation with the landholder.

#### 2.2.4 Value

The proposal has an estimated capital investment value of \$50,000 and will result in two full time equivalent construction jobs.





## 3. Planning Framework

### 3.1 Introduction

The EP&A Act 1979 is the primary legislation for environmental planning in NSW. It establishes the legislative framework that governs inter alia, land use, development assessment and decision making. The EP&A Regulations 2000 create the required administration and allocates roles and responsibilities for land use and assessments. This section summarises the process for assessment and determination of the Proposal.

### 3.2 Consent Authority

The Proposal is permissible in the zone and requires consent from Gilgandra Shire Council under Part 4 of the EP&A Act.

### 3.3 Environmental Planning and Assessment Act 1979

#### 3.3.1 Designated Development

The Proposal does not trigger the requirement of a designated development and hence an Environmental Impact Statement is not required.

Designated development extractive industries are defined as:

- (a) that obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year, or*
- (b) that disturb or will disturb a total surface area of more than 2 hectares of land by—*
  - (i) clearing or excavating, or*
  - (ii) constructing dams, ponds, drains, roads or conveyors, or*
  - (iii) storing or depositing overburden, extractive material or tailings, or*
- (c) that are located—*
  - (i) in or within 40 metres of a natural waterbody, wetland or an environmentally sensitive area, or*
  - (ii) within 200 metres of a coastline, or*
  - (iii) in an area of contaminated soil or acid sulphate soil, or*
  - (iv) on land that slopes at more than 18 degrees to the horizontal, or*
  - (v) if involving blasting, within 1,000 metres of a residential zone or within 500 metres of a dwelling not associated with the development, or*
  - (vi) within 500 metres of the site of another extractive industry that has operated during the last 5 years.*

Although the proposed development includes obtaining for processing and sale an extractive material, the proposal would process less than 30,000 m<sup>3</sup> per annum, will disturb less than two hectares and does not trigger the locational requirements for designated development. Hence, the Proposal it is not considered designated development.

### 3.3.2 Integrated Development

Integrated development is development that, in addition to development consent, requires an approval, licence, permit or authority under Legislation listed in Division 4.8 of the EP&A Act.

Clause 4.46, inter alia, states that development is 'integrated development' if it requires one or more of the approvals tabled below.

<b>Act</b>	<b>Provision</b>	<b>Approval</b>
<i>Fisheries Management Act 1994</i> (NSW Fisheries)	s144	Aquaculture permit.
	s201	Permit to carry out dredging or reclamation work.
	s205	Permit to cut, remove, damage or destroy marine vegetation on public water land or an aquaculture lease, or on the foreshore of any such land or lease.
	s219	Permit to: (a) Set a net, netting or other material, or (b) Construct or alter a dam, floodgate, causeway or weir, or (c) Otherwise create an obstruction across or within a bay, inlet, river or creek, or across or around a flat.
<i>Heritage Act 1977</i> (NSW Environment, Energy & Science)	s58	Approval on respect of the doing or carrying out of an act, matter or thing referred to in s57(1).
<i>National Parks &amp; Wildlife Act 1974</i> (NSW Environment, Energy & Science)	s90	Grant of an Aboriginal heritage impact permit.
<i>Protection of the Environment Operations Act 1997</i> (Environment Protection Authority)	ss43(a), 47 and 55	Environment protection licence to authorise carrying out of schedule development works at any premises.
	ss43(b), 48 and 55	Environment protection licence to authorise carrying out of schedule activities at any premises (excluding any activity described as a "waste activity" but including any activity described as a "waste facility").
	Ss43(d), 55 and 122	Environment protection licence to control carrying out of non-scheduled activities for the purposes of regulating water pollution resulting from the activity.
<i>Roads Act 1993</i> (Transport for New South Wales)	S138	Consent to: (a) Erect a structure or carry out a work in, or over a public road, or (b) Dig up or disturb the surface of a public road, or

<i>Act</i>	<i>Provision</i>	<i>Approval</i>
		(c) Remove or interfere with a structure, work or tree on a public road, or (d) Pump water into a public road from any land adjoining the road, or (e) Connect a road (whether public or private to a classified road)  Development is NOT Integrated Development under s138 if in order for the development to be carried out, it requires the development consent of Council and the approval under s138 of the same Council i.e. works on roads under the care and control of Council including classified roads.  Development is ONLY Integrated Development for works on or impacting on motorways i.e. M7 & M5.
<i>Rural Fires Act 1997</i> (NSW Rural Fire Service)	s100B	Authorisation under Section 100B in respect of bushfire safety of subdivision of land that could lawfully be used for residential or rural residential purposes or development of land for special fire protection purposes.
<i>Water Management Act 2000</i> (Department of Primary Industries - Water)	ss89, 90, 91	Water use approval, water management work approval or activity approval under Part 3 of Chapter 3 of the Act.

The proposal does not trigger any of the other approvals required under section 4.46 and consequently is not integrated development.

In relation to the need for an Environmental Protection Licence, the proposal would not involve extractive activities of more than 30,000 tonnes of extractive materials per year and hence the development is not considered a 'scheduled activity' pursuant to clause 19 of Schedule 1 of the *Protection of the Environment Operations Act 1997* and is not required to hold an Environmental Protection Licence (EPL) for the activity.

### 3.4 Gilgandra Local Environmental Plan 2011

#### 3.4.1 Zoning Permissibility

The Site is zoned RU1 (Primary Production) pursuant to Gilgandra Local Environmental Plan (LEP) 2011 as shown in **Illustration 3.1**.

The objectives of the zone are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base
- To encourage diversity in primary industry enterprises and systems appropriate for the area
- To minimise the fragmentation and alienation of resource lands
- To minimise conflict between land uses within this zone and land uses within adjoining zones
- To enable development that supports agriculture to be carried out on land within this zone in a manner that does not significantly reduce the agricultural and horticultural production potential of land in the locality

- To encourage eco-tourist facilities and tourist and visitor accommodation that minimise any adverse effect on primary industry production and scenic amenity of the area
- To allow the development of non-agricultural land uses that are compatible with the character of this zone.

Pursuant to the land use definitions in the Gilgandra LEP, the sand quarry would be classed as 'Extractive industries', which is defined as: *the winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunnelling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming.*

*Extractive material means sand, soil, gravel, rock or similar substances that are not minerals within the meaning of the Mining Act 1992.*

As the proposed sand quarry would involve excavating sand for transport off-site to supply remote mining, civil and construction projects in the region, it is consistent with the objectives of the zone.

The proposed sand quarry is considered permissible with consent in the RU1 zone.

### 3.4.2 LEP Provisions

The relevant clauses of LEP 2011 are discussed in **Table 3.1**.

**Table 3.1 Gilgandra LEP Provisions**

<b>Relevant Provision</b>	<b>Comment</b>
Clause 7.1 Biodiversity protection	The proposed sand quarry is located adjacent to areas mapped as "Biodiversity Sensitivity" on the Sensitivity Biodiversity Map (refer to <b>Illustration 3.2</b> ). The vegetation to be cleared for the proposed sand quarry is highly degraded White Cypress Woodland (refer to <b>Section 4.7</b> ).
Clause 7.2 Riparian land and watercourses	The proposed sand quarry is located adjacent to Sensitive Watercourse on the Watercourse Map (refer to <b>Illustration 3.2</b> ). The proposed sand quarry is situated more than 40 m from the top of the bank of the Castlereagh River. Appropriate safeguards and mitigation measures are outlined in <b>Section 4.4</b> .

## 3.5 Gilgandra Development Control Plan 2011

The Gilgandra DCP is designed to accompany the Gilgandra LEP 2011 and is the sole DCP applying to any one parcel of land in Gilgandra LGA. An assessment of the Proposal against the relevant provisions of Gilgandra DCP is outlined below in **Table 3.2**.



**Table 3.2 Gilgandra DCP 2011 Assessment**

<i>DCP Section</i>	<i>Comment</i>
1. Introduction	-
2. Submitting an Application	This SEE has been prepared to satisfy the requirements as outlined in Section 2 of the DCP.
3. Notification	Notification would be undertaken as outlined in Section 3 of the DCP.
4. Site Context Analysis	This SEE has been prepared to satisfy the requirements as outlined in Section 4 of the DCP.
5. Subdivision	Not applicable.
6. Rural Zones	-
6.3 Extractive Industries	Given the small scale of the proposed sand quarry, distance to the nearest receiver, consultation is not considered essential. No other licences, permits or approvals would be required. Neighbouring residents will be notified as part of the DA assessment process.
6.3.1 Visual amenity	Visual impacts associated with the Proposal would be limited to a minor and even negligible level within the surrounding landscape due to the adequate setback from any relevant street frontage and the distance of sensitive visual receivers from the Proposal (the closest being more than 1.6 km away), the lack of direct line of sight and the screening and concealment effect of surrounding vegetation (see <b>Section 4.1</b> ).
6.3.2 Noise and vibration	Given the small scale of the proposed sand quarry and nature of the plant equipment being consistent with current agricultural operations, the additional noise emissions from the proposed sand quarry are likely to be negligible. No blasting activities are proposed for this proposed sand quarry, as such a Blasting Plan would not be required.
6.3.3 Air quality and pollution control	A qualitative assessment of air and pollution control are discussed in <b>Section 4.3</b> . Given the small scale and nature of extraction of the proposed sand quarry, a quantitative assessment was deemed not necessary.
6.3.4 Water resources	Appropriate mitigation measures and safeguards would be implemented for water management for the proposed sand quarry (as discussed in <b>Section 4.4</b> ). As such, a Water Strategy would not be required.

<b>DCP Section</b>	<b>Comment</b>
6.3.5 Transport	Details regarding the extraction and transportation of material to and from the proposed Site are included in <b>Section 4.4</b> . Given the small scale of the proposed sand quarry, a Traffic Survey would not be required.
7. Residential Development	Not applicable.
8. Business Development	Not applicable.
9. Enterprise Corridor	Not applicable.
10. Industrial Development	The proposal is for the development of a sand quarry. The development is generally consistent with relevant requirements and would not result in adverse impacts. Of particular note, the proposal would increase the traffic movements by one return truck movement per day, causing a minor increase in noise and vibration and amenity, odour and pollution control, however, this is generally consistent with the existing cropping land use at the property. The Proposal is for a sand quarry. The Proposal has been appropriately designed for the purpose and required functions of the works and to ensure there would be no adverse impacts.
11. Indigenous Heritage	A search of the NSW Environment, Energy and Science's (EES) Aboriginal Heritage Information Management System (AHIMS) database returned no records of Aboriginal objects and/or places of cultural heritage significance. The footprint of the sand quarry area has been subject to previous ground disturbance including the grazing of cattle and historical clearing (refer to <b>Section 4.6.3</b> ).
12. Non-indigenous Heritage	Not applicable.
13. Bed and Breakfast/Farm Stay Accommodation	Not applicable.
14. Car Parking	Not applicable.
15. Advertising	Not applicable.
16. Child Care Centres	Not applicable.
17. Aerodrome	Not applicable.
18. Brothels (Sex Services)	Not applicable.
19. Telecommunication Facilities	Not applicable.
20. Street Trading	Not applicable.
21. Environmental Hazards	The Proposal is not expected to adversely affect or be affected by natural resources and hazards, including contamination, flooding or bushfire prone land. Refer to <b>Section 4</b> .

<b>DCP Section</b>	<b>Comment</b>
22. Waste Minimisation and Management	Details regarding the waste management of material resulting from the proposed sand quarry are included in <b>Section 4.8</b> . The waste produced from the proposed sand quarry is not expected to adversely affect the environment.
23. On-site Sewage Management	Not applicable.
24. Utility Services, Water and Roads	Given the small scale of the proposed sand quarry and nature of the plant equipment being consistent with current agricultural operations, the additional road requirements from the proposed sand quarry are likely to be negligible.
25. Erosion and Sediment Control	Details regarding the erosion and sediment control for the proposed sand quarry are included in <b>Section 4.4.3</b> .
26. Stormwater Management	Details regarding the erosion and sediment control for stormwater management for the proposed sand quarry are included in <b>Section 4.4.3</b> .
27. Preservation of Trees of Vegetation	Minimal tree removal would be required for the proposed sand quarry. The vegetation at the footprint of the proposed quarry is degraded native vegetation (refer to <b>Section 4.7</b> ). No threatened ecological communities occur within the subject Site.

### 3.6 Gilgandra Contributions Plan

Gilgandra Council has a Section 94A Contributions Plan. Subject to the provisions of the Plan and any Direction issued by the Minister for Planning, a levy is normally imposed as a condition of development consent on all relevant applications, where the proposed cost of development exceeds \$100,000.

Based on the Plan's schedule of contributions and given the cost of the proposed development is less than \$100,000, the contribution levy does not apply.

### 3.7 State Environmental Planning Policies

#### 3.7.1 State Environmental Planning Policy - Koala Habitat Protection

State Environmental Planning Policy (SEPP) (Koala Habitat Protection) 2019 was gazetted in March 2020 and replaces (the now repealed) SEPP 44 Koala Habitat Protection. The new Koala SEPP is triggered when a development application for land over one hectare in area occurs within land depicted on the Koala Development Application Map (KDAM). The subject lot is mapped on the KDAM.

The following Koala feed trees occur on the subject lot:

- River Red Gum (*Eucalyptus camaldulensis*)
- White Cypress Pine (*Callitris glaucophylla*).

The above trees were searched for Koala scats with none detected. Of these trees, only up to two White Cypress Pines would require clearing as part of the proposal.

Examination of Koala records in BioNet shows no Koala records in the locality of Curban with the nearest record (from 2019) occurring approximately 25 km south-east of the Site on the outskirts of Gilgandra. Most records in the locality however occur north-east of the Site at Warrumbungle National Park, located approximately 38 km from the Site.

Based on Koala records, habitat at the Site and the lack of scats detected on site, Koala feed trees on site are likely to represent low use Koala habitat which may be utilised on occasion by Koalas ranging throughout the broader locality as opposed to core Koala habitat.

As the Proposal requires the removal of native vegetation it comprises a Tier 2 development, and the preparation of a Koala Assessment Report (KAR) in accordance with the *Draft Koala Habitat Protection Guideline* ('the Guideline') is required. The requirements of a KAR have been addressed in table form (refer **Table 3.3**), based on the fact that the Proposal:

- Will remove minimal Koala habitat comprising up to two preferred feed trees (as per the Policy)
- Represents low quality Koala habitat
- Is unlikely to result in any significant escalation of threats to Koalas (e.g. dog attack, vehicle strike).

**Table 3.3 Koala Assessment Table**

<i>KAR Requirement</i>	<i>Response</i>
Describe the nature of the proposed development.	The proposal comprises the development of a sand quarry. It is proposed to likely involve the use of excavators, front-end loader and 20 tonne tipper truck to excavate the sand, which would be taken off-site for processing.
Define how the SEPP applies to the proposed development.	The treed vegetation surrounding the Site are mapped on the Koala Development Application Mapping (KDAM). The proposed sand quarry site and access road are not covered by areas on the KDAM. The Proposal requires the removal of native vegetation.
<b>Koala Habitat Values – Addressing Criteria 1 and 2</b>	
Describe the site area, including the general environment and condition, location and extent of the development area and any other areas that may be directly or indirectly impacted by the proposed development.	The Site occurs on Lot 39 DP753375, 2719 East Coonamble Road, Curban NSW 2827 (Gilgandra Shire Council Local Government Area). The immediate surrounding landscape is predominantly rural, with cattle grazing and cropping the dominant land uses. The lot is predominantly cleared with a riparian corridor along the Castlereagh River and patches of woodland.

<b>KAR Requirement</b>	<b>Response</b>
Provide details of koala survey as undertaken in accordance with Appendix C. This should include details of the results of the koala surveys, including how the site area meets the definition of core koala habitat and mapping that shows habitat areas and koala records within the site area and adjoining areas.	No surveys completed in accordance with Appendix C, as the KDAM is accepted. Koala scat searches were undertaken beneath all Koala feed tree species on the Site with no Koala scats detected.
Describe the site context (including mapping showing habitat that might be associated with vegetation in the adjoining landscape and records within the vicinity of the site area) and provide an analysis of the koala habitat values (including how koalas might use the site area and the relative importance of the site area to a local koala population).	<p>Several Koala feed trees occur at the Site mostly as part of a small patch of woodland occurring on the north-western side of the lot. Examination of Koala records in BioNet shows no Koala records in the locality of Curban with the nearest record (from 2019) occurring approximately 25 km south-east of the Site on the outskirts of Gilgandra. Most records in the locality however occur north-east of the Site at Warrumbungle National Park, located approximately 38 km from the Site.</p> <p>Based on Koala records, habitat at the Site and the lack of scats detected on site, Koala feed trees on site are likely to represent low use Koala habitat which may be utilised on occasion by Koalas ranging throughout the broader locality as opposed to core Koala habitat.</p>
<b>Measures Taken to Avoid Impacts to Koalas – Addressing Criteria 3, 4, 5 ,6, 7 and 8</b>	
Describe the site selection process, including how koala habitat was taken into account and any avoidance outcomes achieved through this process.	The footprint of the proposed sand quarry has been designed to minimise the removal of Koala feed trees on the Site resulting in the need to remove only up to two Koala feed trees, White Cypress Pines. Other Koala feed trees on the Site would be retained.
Describe how the proposed development avoids or minimises direct impacts to koala habitat and habitat function within the site area.	<p>The Proposal avoids direct impacts to Koala habitat by:</p> <ul style="list-style-type: none"> <li>■ Utilising cleared and disturbed areas</li> <li>■ Having minimal impacts on Koala resources (feed trees or refuge habitat)</li> <li>■ Having a low internal vehicle speed limit.</li> </ul>
<b>Analysis of Potential Impacts – Addressing Criteria 9</b>	
Identify the residual direct impacts to koalas and koala habitat within the site area, including the nature and extent of impacts and the likely implications for the viability of a local koala population.	<p>The Proposal will remove up to two Koala feed trees which may be used on occasion by Koalas locally. Other Koala feed trees on the Site would be retained.</p> <p>The Proposal may contribute to indirect impacts associated with increased traffic (at low speeds). It is noted that connectivity associated with the Site is currently compromised by surrounding crops and roads.</p>

KAR Requirement	Response
Identify the relevant potential indirect impacts to koalas and koala habitat within the site area and adjacent habitat areas, including the nature and extent of potential indirect impacts and the likely implications for the viability of a local koala population.	The Proposal will have minor residual impacts on Koalas, these being a minor removal of potential habitat and minor increase in vehicle movements. As noted, vehicle movements will be at limited speed.
<b>Plan to Manage and Protect Koalas and their Habitat – Addressing Criteria 10, 11, 12 and 13</b>	
Describe the management measures that will be implemented as part of proposed construction and operations to manage the direct and indirect impacts identified. These measures should be outcomes focused and include performance targets.	Pre-clearing surveys will be completed prior to construction to ensure no animals are present within any vegetation to be removed. Targets for the surveys will be that no native fauna are killed or injured during tree removal and construction works.
Describe any compensatory measures that will be delivered, including an analysis of the suitability of these measures against criteria 9 and 10.	Given the small area of relatively low-quality habitat to be removed on the Site no compensatory plantings are proposed.
<b>Outline a plan for monitoring, adaptive management and reporting against the key outcomes and performance targets.</b>	<b>Due to the scant resources for Koalas at the Site and that the Proposal is unlikely to impact Koalas either from construction or operation, no monitoring or reporting is proposed.</b>

### 3.8 Biodiversity Conservation Act 2016

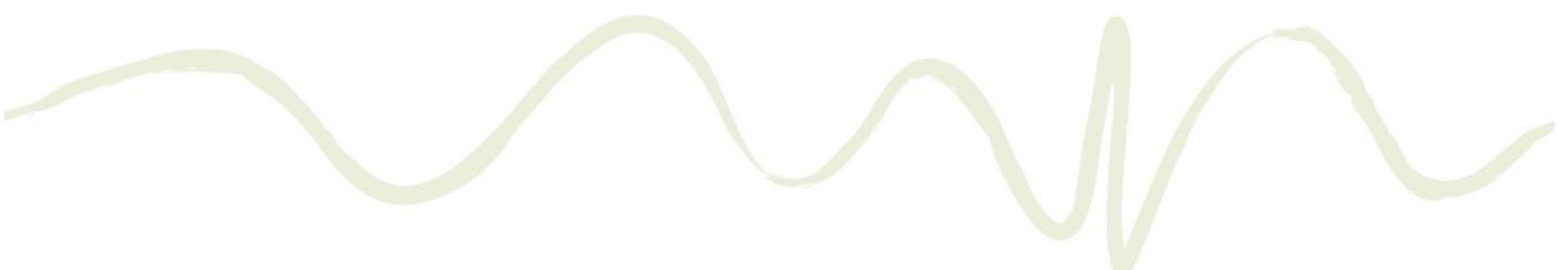
The *Biodiversity Conservation Act 2016* (BC Act) was one of a suite of Land Management and Biodiversity Conservation (LMBC) reforms that commenced in NSW on 25 August 2017. The BC Act, State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 and the *Local Land Services Amendment Act 2016* create a framework for the regulation of clearing of native vegetation in NSW. The BC Act is the applicable regulation to be considered for the clearing of native vegetation in association with a development application under Part 4 of the EP&A Act. The BC Act also sets out the framework for the conservation of biodiversity and protection of threatened species.

The proposed footprint of the sand quarry is located adjacent to land mapped as Biodiversity Sensitivity LEP mapping.

In this instance, the vegetation clearing is associated with and ancillary to a development application as the vegetation removal would be required to facilitate construction. The Plant Community Type *PCT 70 White Cypress Pine woodland on sandy loams in central NSW wheatbelt* occurs at the Site in a severely modified form. Naturally occurring, scattered individual trees can be considered as comprising this PCT.

According to the BC Act triggers, the Site does not comprise vegetation identified on the Biodiversity Value Map. Secondly, given the applicable minimum lot size of the subject lot (500 ha on the LEP lot size map), clearing is not expected to exceed the offset thresholds set under the Biodiversity Conservation Regulation 2017 (being one hectare).





The vegetation removal is required to facilitate the proposal and occurs in a highly degraded area of *PCT 70 White Cypress Pine woodland on sandy loams in central NSW wheatbelt* (refer to **Section 4.7** for relevant photos of area proposed for clearing). Tree removal and biodiversity considerations are further addressed in **Section 4.7** of this report and no significant impacts are expected given the context of the Site and nature of the proposed tree removal.

### **3.9 Environmental Protection and Biodiversity Conservation Act 1999**

Under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), any action that has, or is likely to have, a significant impact on matters of national environmental significance or other aspects of the environment, such as on commonwealth land, may progress only with approval of the Commonwealth Minister for the Environment under Part 9 of the EPBC Act. There are no matters of national environmental significance that will be affected by the Proposal and therefore no Commonwealth approval is necessary for the proposed works.

### **3.10 Heritage Act 1977**

The *Heritage Act 1977* provides for the conservation of items of environmental heritage in NSW. The Act defines heritage as items or places that are of State and/or local heritage significance and include: places, buildings, works, relics, moveable objects and precincts. As part of NSW heritage protection and management the Act establishes a register including an inventory and list to protect the listed items.

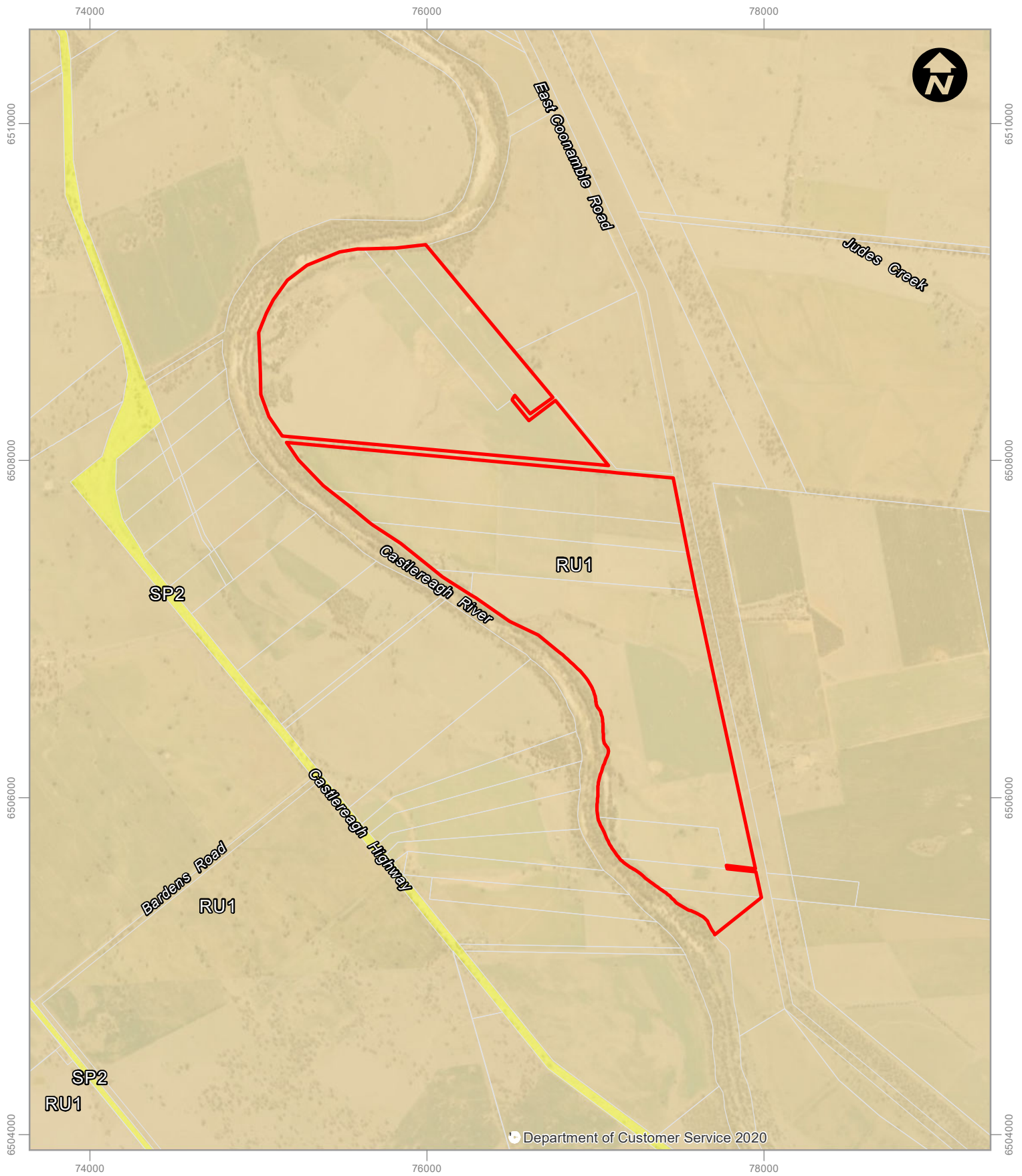
No part of the Site is listed as an item of State significance on the NSW State Heritage Register. Accordingly, development proposals for this Site do not require heritage approval under the *NSW Heritage Act 1977*.

The archaeological provisions of the *NSW Heritage Act 1977* are applicable, however, as all “relics” are protected under the NSW Heritage Act, regardless of whether or not the place is listed as a heritage item at a local, State or national level. Should any unexpected relics be disturbed these items must be managed under the archaeological provisions of the NSW Heritage Act.

### **3.11 National Parks and Wildlife Act 1974**

The *National Parks and Wildlife Act 1974* (NPW Act) provides the basis for the legal protection and management of Aboriginal sites within NSW. Sections 84 and 90 of the NPW Act provide statutory protection for any physical/material evidence of Aboriginal occupation of NSW and places of cultural significance to the Aboriginal community. The key principles of the Act in relation to Aboriginal heritage are the prevention of unnecessary or unwarranted destruction of Aboriginal objects, and the active protection and conservation of objects which are of high cultural significance. It is an offence to knowingly disturb an Aboriginal object, irrespective of its nature or significance, without the prior consent of the Director-General of the NSW Office of Environment and Heritage (OEH).

A due diligence assessment was applied to the development (refer **section 4.6.3**). The assessment found that, given the extent of existing disturbance and the overall Project footprint, the development is unlikely to result in harm to Aboriginal Heritage. **Section 4.6.4** provides precautionary recommendations if Aboriginal objects are identified during construction works.



**LEGEND**

- The site
- Cadastre
- RU1 Primary Production
- SP2 Infrastructure



**Zoning - Illustration 3.1**





**LEGEND**

- The site
- Proposed quarry
- Cadastre
- Sensitivity Biodiversity
- Sensitive area - watercourse
- Vulnerable groundwater



**Environmental Sensitivity - Illustration 3.2**



## 4. Environmental Assessment

This section addresses various aspects of the proposed development considered to have the potential for environmental impacts. It assesses the level of impact likely and how potential impacts could be avoided, minimised or mitigated.

### 4.1 Visual Amenity

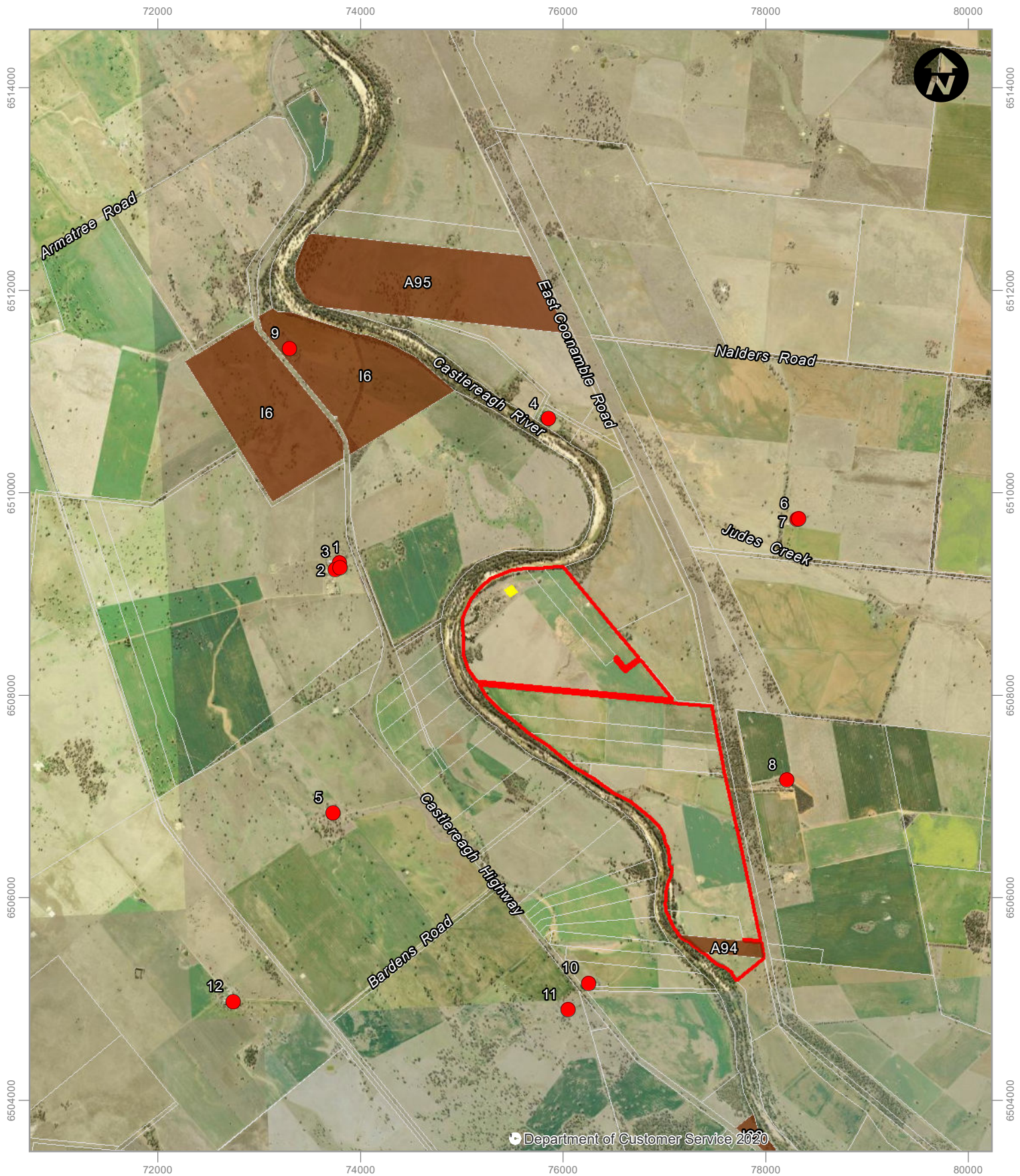
Visual aspects of the Site include rural landscapes, including cattle grazing lands and cropping as the dominant land uses. The Site lies approximately 4.5 to five kilometres to the south-east of the locality of Armatree, or approximately 24 km north-west of the urban fringe of Gilgandra. The surrounding landscape is predominantly rural, with cattle grazing and cropping the dominant land uses, including Curban State Forest located approximately eight kilometres to the south-east. The two nearest dwellings are set in a rural environment, approximately 1.6 km west and 1.7 km north of the proposed extraction area (refer to **Illustration 4.1**). Overall, the quality of the area's visual environment in which the Site is located is considered medium given the combination of surrounding vegetation and rural lands, along with scattered and clustered vegetation throughout the local landscape.

Given the location of the Proposal in the context of existing views and distance from potential sensitive receivers to the Proposal, visual sensitivity to the Proposal in this context is considered low to negligible. Visual impacts associated with the Proposal would be limited to a minor and even negligible level within the surrounding landscape due to the distance of sensitive visual receivers from the Proposal (the closest being more than 1.6 km away), the lack of direct line of sight and the screening and concealment effect of surrounding vegetation. Whilst the overall redevelopment would be substantial and obvious when viewed in its immediate context, the visual impact of the Proposal on the broader landscape and surrounding potential sensitive visual receivers is considered low to negligible. The Proposal will suitably integrate into the scale and character of the immediate rural/industry context.

#### 4.1.1 Safeguards and Management Measures

1. The implementation of the other mitigation measures and safeguards outlined throughout this report would help to prevent/minimise any visual impacts.





**LEGEND**

- The site
- Cadastre
- Proposed quarry
- Heritage item
- Sensitive receiver within 5km of the proposed quarry



Heritage and Sensitive Receivers - Illustration 4.1



## 4.2 Noise and Vibration

### 4.2.1 Existing Environment

The proposed works are located in a wider rural environment. This area would be subject to traffic noise emission from local roads; however, this is not expected to be high. There are few sensitive receivers that are located within the wider locality, consisting of dwellings located on rural properties. The closest dwelling is located approximately 1.6 m west of the Site (Lot 59 DP752589). Another dwelling is located approximately 1.7 km north of the Site (Lot 38 DP753375) (refer to **Illustration 4.1**).

#### 4.2.1.1 Construction Noise and Vibration Criteria

The main plant likely to be used for the construction of the access roads would include:

- Excavators
- Dump trucks
- Bob cats.

Construction noise is typically assessed in accordance with the Department of Environment, Climate Change and Water publication Interim Construction Noise Guideline (ICNG). In this instance, construction is limited to minimal site clearing, installation of amenities and ancillaries and delivery of plant and equipment.

The equipment likely to be used in these processes is similar to that which would be used in the current cropping operation adjacent to the proposed sand quarry. A shared access road would be used for both operations. Therefore, given that construction noise criteria are less stringent than those used to assess operational noise, a separate assessment of construction noise is not warranted.

The vibration emissions during construction would be negligible, given the large distance to the nearest receivers.

#### 4.2.1.2 Operational Noise Criteria

The main plant likely to be used for the operation of the sand quarry would include:

- Excavator
- 20 tonne tipper truck
- Front-end loader.

Noise generated by the works would not significantly impact on the surrounding environment. No long-term adverse noise impacts are expected to result from the proposed sand quarry. Operation would be comparable to the existing conditions and typical of rural road use.

#### 4.2.1.3 Operational Vibration Criteria

Vibration emissions from the Site would be negligible due to the large distance to receivers (greater than 1.6 km).





## 4.2.2 Safeguards and Management Measures

2. Best practice mitigation and management measures would be used to minimise construction noise impacts at sensitive residential receivers; guided by the Environmental Protection Authority's Interim Construction Noise Guidelines as required.
3. The most appropriately sized tool for the respective job would be used keeping in mind that the smaller the tool, the less noise is generated.
4. All vehicles and equipment would be turned off and not left idling when not required for work uses.
5. Works would be undertaken during standard hours detailed below:
  - Monday to Friday 7:00 am to 6:00 pm.
  - Saturday 8:00 am to 1:00 pm.
  - Sunday and Public Holidays No work.
6. All equipment would be well maintained in accordance with the manufacturer's specifications.
7. All plant would be fitted with appropriate exhaust systems to ensure compliance with pollution and noise emission standards.
8. A complaints register will be kept and maintained to record and respond to any noise related complaints.

## 4.3 Air Quality

### 4.3.1 Existing Environment

The subject site is distant from any townships. It is located within a rural setting where the air quality is generally good.

### 4.3.2 Potential Impacts

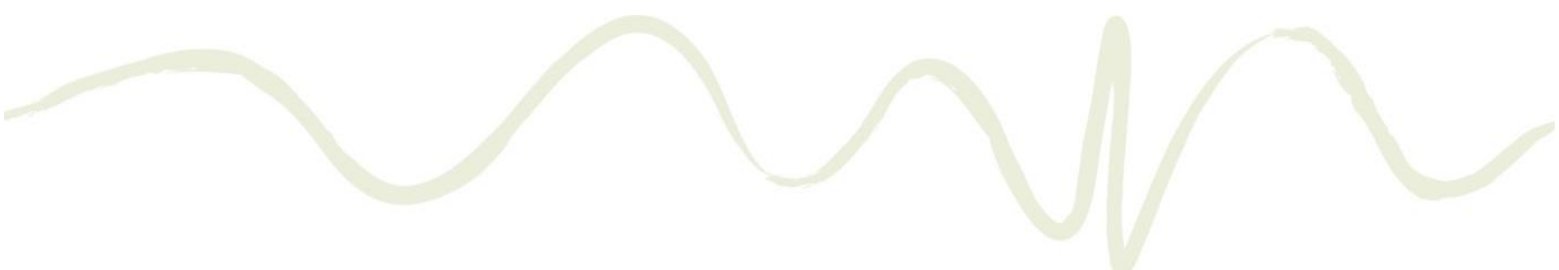
The proposed works have the potential to adversely affect air quality through exhaust emissions from machinery and dust generation during the works. The generation of dust would be limited to the immediate vicinity of the work area and dust generating work is to be avoided in windy conditions. Short-term impacts would be controlled through the implementation of dust and exhaust control measures outlined below.

Due to the nature of the works and existing dirt road surface, dust generation would occur, however significant quantities of dust would be unlikely, especially with effective implementation of appropriate safeguards and mitigation measures.

The proposed sand quarry would contribute to greenhouse gas emissions to a minor extent via the emissions from construction equipment and traffic, as well as the consumption of materials requiring carbon emissions and the removal of vegetation that may otherwise act as a carbon sink. Given the scale of the works however, the influence on greenhouse gas emissions would be negligible. However, it is appropriate to implement measures that can reduce or minimise such effects.

### 4.3.3 Safeguards and Management Measures

9. Vegetation or other materials would not be burnt on site.
10. Dust suppression techniques such as water spraying would be utilised to minimise the potential for dust generation/dispersal during works.

- 
11. Vehicles transporting waste or other materials that may produce dust would be covered during transportation.
  12. Debris and waste would be immediately collected into appropriate covered storage facilities and removed from the Site as soon as practical to ensure light-weight material is not dispersed by wind gusts.
  13. Construction works are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
  14. Machinery and vehicles not in use during construction are encouraged to be turned off and not left to unnecessarily run idle.
  15. Vehicles, machinery and equipment would be maintained in accordance with manufacturer's specifications in order to meet the requirements of the *Protection of the Environment Operations Act 1997* and associated regulation.

## 4.4 Soil and Water Management

### 4.4.1 Land Contamination

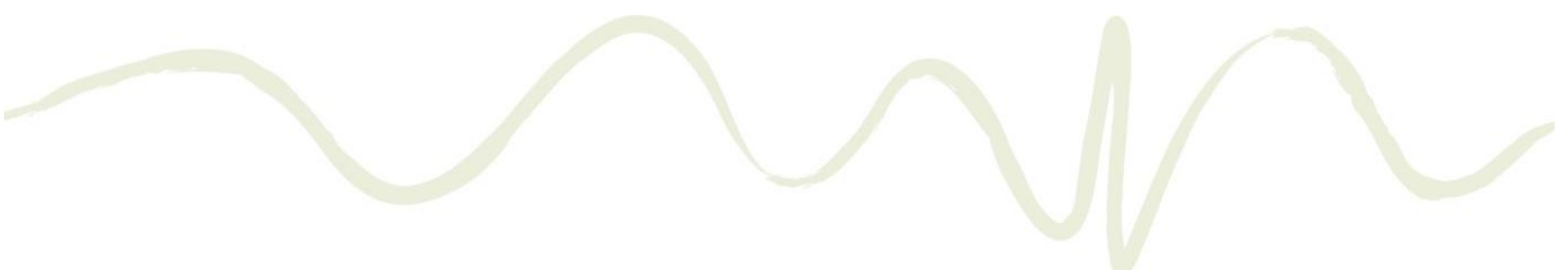
A search of the NSW Environmental Protection Authority contaminated land database (EPA 2018) did not find any records of contaminated land in the Gilgandra Council area (see **Appendix A**).

### 4.4.2 Safeguards and Management Measures

16. Any exposure or disturbance of potentially/suspected contaminated soil or material would be managed in accordance with relevant EPA and Council policy and guidelines. Any required disposal of such waste would be at a licensed facility.
17. Water quality control measures are to be used to prevent any materials (e.g. concrete, fill sediment and spoils) entering any waterways or drains and drainage lines.
18. Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) adjacent to the Site is to be undertaken on a regular basis to identify any potential spills or deficient erosion and sediment controls during construction.
19. Refuelling of equipment is to be managed in order to prevent any potential spills leaving the refuelling area.
20. Required fuels and other liquids would be stored in self-safe chemical storage containers. Unnecessary storage of these materials would be avoided.
21. All equipment would be maintained in good working order and operated according to manufacturer's specifications.

### 4.4.3 Soil and Erosion Control

The Site of the proposed sand quarry has been subject to previous ground disturbance. However, there is the potential for works to impact soils and water resources during the construction phase and operational. During construction, the key risks would be from erosion and sedimentation as a result of the works and ground disturbance. The local topography is relatively flat to gently undulating and Castlereagh River occurs to north of the Site. Whilst this water resource exists locally, no watercourses or water bodies traverse the proposed Site and none are found immediately adjacent to the Site.



Therefore, the level of risk for erosion and sedimentation impacts is low and standard construction management measures for the control of erosion and sedimentation would appropriately avoid and/or mitigate any potential impacts. An erosion and sediment control plan would be prepared for the development and implemented on site before the works commence. Subject to implementation of the safeguards below, no adverse impacts would result.

#### 4.4.4 Safeguards and Management Measures

22. Prepare a detailed and site-specific Sediment and Erosion Control Plan in accordance with the Landcom/Department of Housing *Managing Urban Stormwater, Soils and Construction Guidelines* (the Blue Book) and implement on site before works commence.
23. Implement (before works commence) and maintain appropriate control measures to prevent sediment laden water and other potential pollutants from entering waterways and the receiving environment.
24. Limit site access during construction to minimise disruption to traffic. Install a temporary construction entry/exit sediment trap at all site accesses to minimise mud and sediment from the Site being tracked onto public road, particularly during wet weather or when the Site is muddy.
25. Install and maintain appropriate sediment fences around construction areas:
  - Divert clean stormwater runoff, using catch drains, around construction areas to existing or new stormwater drainage system.
  - Install sandbags and other pollution containment devices around stormwater drains and any other locations where required to prevent sediment entering the trunk stormwater system.
  - Cover open earth/soil areas progressively (with concrete slabs and pavements or mulch) to minimise areas of bare earth/soil.
  - Any stockpiles of excavated soil and demolition/construction waste must be located where risk of erosion and sediment is minimal, and must be protected from wind and water erosion.
26. Implement and maintain appropriate control measures such as catch drains and sediment fences to prevent ponding of stormwater or discharge of stormwater from the Site to adjacent areas.
27. Provision of spill/pollution control equipment that is readily accessible to clean up spills and leaks.
28. Ensure spill/pollution control measures are available and maintained in working condition.
29. Sediment contained by the sediment control devices such as sandbags, sediment fences and containment bunds must be frequently removed and placed in a controlled area.
30. Implement an inspection schedule for any spill or leaks of any potential polluting areas or activities.
31. Regularly check and maintain erosion, sedimentation and stormwater control measures.

## 4.5 Traffic and Parking

Access to the property on which the proposed sand quarry is situated is currently provided off East Coonamble Road. The Site is situated approximately six kilometres along East Coonamble Road (from Gilgandra) reached by turning right off Castlereagh Highway via National Park Road. This existing access also provides vehicular access for ingress and egress from the cropping area immediately to the south of the proposed sand quarry.

It is anticipated there will be approximately one return truck movements per day from the sand quarry.

#### 4.5.1 Safeguards and Management Measures

32. Where possible, current traffic movements would be maintained during the works.
33. Regard to public safety would be maintained at all times.
34. In the unlikely event of a requirement to close a road or alter access during works, sufficient and appropriate notification will be provided to affected users and a Traffic Control Plan implemented.

## 4.6 Heritage and Archaeology

### 4.6.1 Non-Aboriginal Heritage

Searches of the Department of Agriculture, Water and the Environment Australian Heritage database, NSW Environment, Energy and Science (EES) State Heritage Inventory database (NSWHO 2019) (see **Appendix A**) and Schedule 5 of LEP 2011 were undertaken in relation to the Proposal. The searches identified three heritage items within four kilometres of the Site (refer to **Table 4.1** and **Illustration 4.1**).

**Table 4.1 Summary of Heritage Items within 4 km of the Proposed Site**

<i>Suburb</i>	<i>Item Name</i>	<i>Address</i>	<i>Property Description</i>	<i>Item No. (GLEP 2011)</i>	<i>State Heritage Reference Number</i>	<i>Distance from Site (km)</i>	<i>Direction from Site</i>
Curban	Abraham Meers murder site	East Coonamble Road	Lot 300, DP 1004674	A94	-	2km	NNW
Armatree	Sunnyside private cemetery	"Sunnyside", Castlereagh Highway	Lot 8, DP 752549	I6	-	3.7km	SSE
Curban	Corduroy Road Historic Site	East Coonamble Road	Lot 14, DP 753375	A95	02015	2.4km	N

Given the nearest heritage item is two kilometres from the Site, the proposal is unlikely to impact any known heritage sites.

### 4.6.2 Safeguards and Management Measures

35. If any suspected archaeological items are uncovered during works associated with the proposal, all works will cease in the vicinity of the material/find. Contact with Council and NSW EES Heritage Branch will be made immediately. Works would not recommence until the all clear is given.

### 4.6.3 Aboriginal Heritage

Searches of Aboriginal heritage databases were undertaken to identify the presence and location of any registered Aboriginal sites within proximity to the Site. These databases included:

- NSW Aboriginal Heritage Information Management System (AHIMS) database (OEH 2019) (refer to search results at **Appendix A**)
- Gilgandra Local Environmental Plan (LEP 2011).



Search results indicate that no registered Aboriginal heritage sites occur within one kilometre of the study area.

The footprint of the sand quarry area has been subject to previous ground disturbance including the grazing of cattle and historical clearing. The Due Diligence Code of Practice for the Protection of Aboriginal Objects (OEH 2018) has been applied and the excavation area is consistent with the definition of disturbed land under the code (refer to **Table 4.2**).

**Table 4.2 Due Diligence Code of Practice for the Protection of Aboriginal Objects**

Step		Comment
1	<p>Will the activity disturb the ground surface? Disturbed land is defined under the code as: <i>Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable.</i></p> <p><i>Examples include ploughing, construction of rural infrastructure (such as dams and fences), construction of roads, trails and tracks (including fire trails and tracks and walking tracks), clearing vegetation, construction of buildings and the erection of other structures, construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure) and construction of earthworks.</i></p>	<p>The proposed excavation would result in ground disturbance within an area that has already been subject to significant disturbance as a result of historical agricultural practices (tree clearing to establish pasture and grazing). The footprint of the excavation area is also located within an area subject to previous ground disturbance suggested by the highly degraded nature of the current vegetation and scarcity of trees.</p> <p>The activity described above, within the footprint of the excavation area, includes historical clearing that has resulted in an observable change in the land surface. The development area therefore meets the definition of disturbed land under the code.</p>
2a	AHIMS database	<p>An AHIMS search was undertaken for Lot 39 DP753375 on June 2020. The results of the AHIMS search determined that no known items or objects of Aboriginal cultural heritage were identified within the development area (refer to <b>Appendix A</b>).</p>
2b	<p>Is the activity:</p> <ul style="list-style-type: none"> <li>■ within 200 m of waters</li> <li>■ located within a sand dune system</li> <li>■ located on a ridge top, ridge line or headland</li> <li>■ located within 200 m below or above a cliff face</li> <li>■ within 20 m of or in a cave, rock shelter, or a cave mouth</li> <li>■ is on land that is <b>not disturbed land?</b></li> </ul> <p>If after completing steps 2a and 2b it is reasonable to conclude that there are no known Aboriginal objects or a low probability of objects occurring in the area of the proposed activity, you can proceed with caution without applying for an AHIP.</p>	<p>The excavation area occurs on local source dunes, a type of sand dune and within 200 m of Castlereagh River.</p> <p>As detailed in Step 1, the excavation area is consistent with the definition of disturbed land under the code.</p>

Step		Comment
3	Can you avoid harm to the object or disturbance of the landscape feature	This step only applies if the activity is on land that is not disturbed land or contains known Aboriginal objects.
4	Desktop assessment and visual inspection	Only applies if the activity is on land that is not disturbed land or contains known Aboriginal objects.
5	Further investigations and impact assessment	If after a detailed investigation and impact assessment has been undertaken and that harm will occur to Aboriginal objects, then an AHIP application must be made.  Only applies if the activity is on land that is not disturbed land or contains known Aboriginal objects

#### 4.6.4 Safeguards and Management Measures

36. If Aboriginal cultural material is identified on site, a Stop Work Procedure will be followed, which includes:

- Works will cease immediately
- A temporary exclusion zone established
- Land Aboriginal Land Council contacted immediately
- EES contacted immediately.

37. Aboriginal human remains – should skeletal material be exposed during ground disturbance, work will cease immediately and contact made with NSW Police, National Parks and Wildlife and the Local Aboriginal Land Council as per Environment, Energy and Science requirements.

38. Notifying NSW Environment, Energy and Science – it is a legislative requirement that cultural heritage materials uncovered as a result of the Proposal are registered as Aboriginal sites with NSW Environment, Energy and Science on the AHIMS database within the required timeframe.

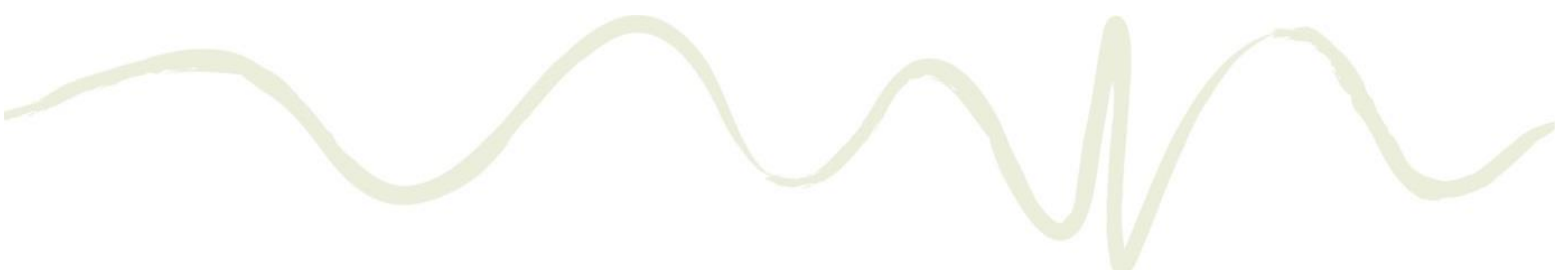
## 4.7 Vegetation and Biodiversity

The Site does not contain land mapped as being of biodiversity value (as per the Office of Environment and Heritage (OEH) Biodiversity Values Map and Threshold Tool).

The Site comprises two plant community types (PCTs) (refer to **Appendix B**):

- Plant Community Type (PCT) 36 River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion.
- PCT 70 White Cypress Pine woodland on sandy loams in central NSW wheatbelt.

The riparian corridor comprises Plant Community Type (PCT) 36. The canopy is dominated by River Red Gum (*Eucalyptus camaldulensis*) and White Cypress Pine (*Callitris glaucophylla*) and a shrub layer of Wilga (*Geijera parviflora*) The remainder of the property is comprised of PCT 510 where the canopy exists and PCT 569 in areas that have been cleared of an overstorey.



The remainder of the vegetation is mapped as PCT 70. This PCT is dominated by White Cypress Pine and Kurrajong (*Brachychiton populneus* subsp. *populneus*), a sparse shrub layer of Green Wattle (*Acacia deanei*) and a sparse native groundcover comprising of predominantly native grasses such as Slender Bamboo Grass (*Austrostipa verticillata*), Purple Wiregrass (*Aristida ramosa*) and Jericho Wiregrass (*Aristida jerichoensis*), and also Spiny Burr Grass\* (*Cenchrus incertus*).

The proposed footprint of the sand quarry is mapped as PCT 70 and consists of 40 per cent vegetation cover and is dominated by Spiny Burr Grass\* and Camel Melon\* (*Citrullus amarus*). There is a sparse canopy and shrub layer consisting of Kurrajong and Green Wattle. There is a patch of Common Couch (*Cynodon dactylon*) in the northern portion of the cleared area.

\* denotes introduced species.

No threatened flora species were confirmed on site. Although the time of survey was not appropriate to survey for the threatened species *Prasophyllum* sp. *Wybong*, Slender Darling-pea or *Tylophora linearis*, these species are considered unlikely to occur at the Site due to the unsuitable sandy substrate for these species' habitat.

No threatened fauna species were detected at the Site. A number of White Cypress Pine and River Red Gum occur on the Site which are preferred Koala feed trees. Parts of the Site are mapped as Koala Development Application Map areas. Given the absence of recorded observations of Koalas within 20 km of the Site on the NSW BioNet Database, the Site is considered unlikely to be used by Koalas.

Based on the proposed sand quarry footprint and access road, it is estimated that approximately 0.83 ha of PCT 70 White Cypress Pine woodland would be impacted. A Biodiversity Assessment is provided at **Appendix B**.

#### 4.7.1 Safeguards and Management Measures

39. Vegetation removal is to be kept to the minimum extent required to undertake the works.
40. Trees should be directionally felled away from adjacent intact vegetation to avoid unnecessary damage.
41. Trees should be inspected before clearing to check for the presence of native fauna (including nests and hollows).
42. Vegetation with weed propagules (including *Biosecurity Act 2015* listed weed species) will be appropriately disposed of during clearing works at a licenced waste facility.

## 4.8 Waste

The Proposal would be undertaken to ensure minimal impacts are generated from waste produced on site by ensuring that all waste is managed appropriately. Waste generated from the construction and operation of the Proposal may include, but is not limited to:

- Packaging materials
- General site rubbish
- Oils and grease from machinery
- Soil spoils.



#### 4.8.1 Safeguards and Management Measures

43. During construction, the worksite will be maintained, kept free of rubbish and cleaned up at the end of each working day.
44. Ensure the responsible environmental management of wastes that cannot be avoided and would promote opportunities for the re-use of waste products where appropriate.
45. Waste that cannot be recycled will be stored in bins onsite. The bins will be collected on a regular basis and transported off-site for disposal to a licensed landfill or recycling facility.
46. Where required, excavated soil will be appropriately disposed of in accordance with the NSW EPA requirements.

#### 4.9 Bushfire

The Site is not identified as being of bushfire risk as defined by the Rural Fires Act (refer to **Appendix A**). No further assessment is required.

#### 4.10 Utilities and Services

The Site is already serviced with existing utilities and services. The Proposal would not require the provision or upgrade of any utilities or services external to the Site.

##### 4.10.1 Safeguards and Management Measures

No safeguards required.

#### 4.11 Socio-Economic

The Proposal is likely to produce social and economic benefits for the LGA and region. Sourcing sand for concrete batching locally improves triple bottom line outcomes in comparison to sourcing material at alternative locations, particularly those outside of the LGA. This would deliver benefits to the locality and region in terms of local expenditure, employment and improved social and sustainability outcomes.

Potential adverse impacts of the proposal primarily relate to environmental impacts. These would include noise and air pollution impacts on local residents and the surrounding environment (**Sections 4.2 and 4.3**), traffic impacts (**Section 4.5**), biodiversity impacts (**Section 4.7**) and impacts to visual amenity (4.1). The proposed sand quarry has the potential to cause environmental impacts if unmanaged. Minor tree removal is also required at the Site. This will impact native vegetation and habitat; however, it is not expected to have a significant adverse effect on the natural environment or biodiversity.

Given the nature of the Proposal, the Site context and temporary construction period, no adverse long-term socio-economic impacts are anticipated. The development would result in positive socio-economic outcomes.

##### 4.11.1 Safeguards and Management Measures

No safeguards required.



## 4.12 Off-site Amenity

Visual amenity, noise and air quality have previously been assessed in this SEE. In terms of other potential off-site amenity impacts, such as overshadowing, visual bulk, privacy and solar access, given the context of the Site no such impacts would result or adversely affect adjoining property.

## 4.13 Ecologically Sustainable Development

The objectives of the EP&A Act require that the principles of Ecologically Sustainable Development (ESD) are considered and evaluated in the environmental assessment process and in the determination of a development application. This section discusses the Proposal against the four principles of ESD.

Australia's National Strategy for Ecologically Sustainable Development (1992) defines ecologically sustainable development as: 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased' (DEWHA 2010).

The four core principles of sustainable development, as outlined in the EP&A Regulations 2000, are as follows:

- The precautionary principle
- Inter-generational equity
- Biodiversity conservation
- Improved valuation, pricing and incentive mechanisms.

### 4.13.1 Precautionary Principle

The EP&A Regulations 2000 defines the precautionary principle as the following:

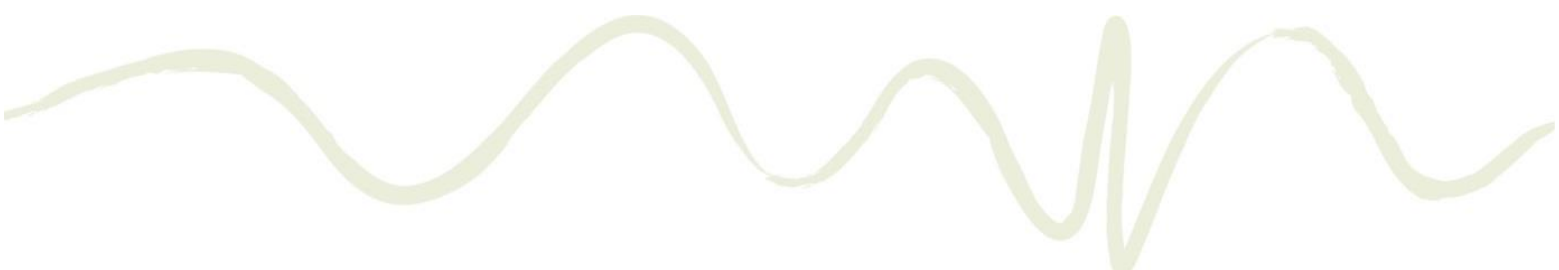
*If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.*

To satisfy the precautionary principle this SEE has conducted a thorough analysis of potential environmental, economic and social concerns. This assessment has identified and examined potential impacts and developed appropriate mitigation measures and safeguards to help avoid and/or minimise any impacts and safeguard the environment. Considering this assessment's findings, the Proposal is unlikely to impose significant and/or long-term adverse impacts on the environment, economy, or community. The mitigation measures and safeguards outlined in this SEE would be implemented to ensure sound environmental outcomes in all aspects of the Proposal.

### 4.13.2 Inter-generational Equity

The EP&A Regulations 2000 defines the inter-generational equity as the following:

*That the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.*



The Proposal would deliver social, economic and environmental benefits for Gilgandra, the region and the construction industry. KB Concrete provides an important input to construction industries, employment and economic activity. The Proposal would not significantly degrade the environment and would use resources efficiently. Development of the proposed sand quarry would not cause resources to become in short supply. These factors would support triple bottom line outcomes and the Proposal would therefore satisfy inter-generational equity.

#### **4.13.3 Conservation of Biological Diversity and Ecological Integrity**

The EP&A Regulations 2000 defines the conservation of biological diversity and ecological integrity as the following:

*That conservation of biological diversity and ecological integrity should be a fundamental consideration.*

Ecological impacts were considered, however detailed studies were not required as the Site is within a rural environment and adjacent agricultural land and has no significant vegetation present. The Proposal is not considered to have a significant negative impact on threatened species likely to occur in the area or place threatened species at significant risk of local extinction. The mitigation measures committed to as part of the SEE would ensure any indirect adverse impacts to ecological values are negated or minimised.

#### **4.13.4 Improved Valuation, Pricing and Incentive Mechanisms**

The EP&A Regulations 2000 defines improved valuation, pricing and incentive mechanisms as the following:

*That environmental factors should be included in the valuation of assets and services.*

Applying an appropriate value to services provided by the natural environment and factoring in externalities is difficult as these services have traditionally been seen as common and free. Nevertheless, this SEE has undertaken a thorough assessment of potential impacts and has consequently developed a set of mitigation measures and safeguards to ensure sound environmental practices and outcomes. This would ensure that the integrity of the environment is not degraded, is managed and enhanced.



## 5. Environmental Management Measures

**Table 5.1** provides a summary of the proposed measures and safeguards outlined in the SEE.

**Table 5.1 Summary of Mitigation Measures and Safeguards**

<b>Environmental Attribute</b>	<b>Mitigation Measures/Safeguards</b>
Visual amenity	<p>1. The implementation of the other mitigation measures and safeguards outlined throughout this report would help to prevent/minimise any visual impacts.</p>
Noise and vibration	<p>2. Best practice mitigation and management measures would be used to minimise construction noise impacts at sensitive residential receivers; guided by the Environmental Protection Authority’s Interim Construction Noise Guidelines as required.</p> <p>3. The most appropriately sized tool for the respective job would be used keeping in mind that the smaller the tool, the less noise is generated.</p> <p>4. All vehicles and equipment would be turned off and not left idling when not required for work uses.</p> <p>5. Works would be undertaken during standard hours detailed below:</p> <ul style="list-style-type: none"> <li>■ Monday to Friday                                   7:00 am to 6:00 pm.</li> <li>■ Saturday    8:00 am to 1:00 pm.</li> <li>■ Sunday and Public Holidays                    No work.</li> </ul> <p>6. All equipment would be well maintained in accordance with the manufacturer’s specifications.</p> <p>7. All plant would be fitted with appropriate exhaust systems to ensure compliance with pollution and noise emission standards.</p> <p>8. A complaints register will be kept and maintained to record and respond to any noise related complaints.</p>
Air quality	<p>9. Vegetation or other materials would not be burnt on site.</p> <p>10. Dust suppression techniques such as water spraying would be utilised to minimise the potential for dust generation/dispersal during works.</p> <p>11. Vehicles transporting waste or other materials that may produce dust would be covered during transportation.</p> <p>12. Debris and waste would be immediately collected into appropriate covered storage facilities and removed from the Site as soon as practical to ensure light-weight material is not dispersed by wind gusts.</p> <p>13. Construction works are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.</p> <p>14. Machinery and vehicles not in use during construction are encouraged to be turned off and not left to unnecessarily run idle.</p> <p>15. Vehicles, machinery and equipment would be maintained in accordance with manufacturer’s specifications in order to meet the requirements of the <i>Protection of the Environment Operations Act 1997</i> and associated regulation.</p>
Soil and water management	<p><b>Land Contamination</b></p> <p>16. Any exposure or disturbance of potentially/suspected contaminated soil or material would be managed in accordance with relevant EPA and Council policy and guidelines. Any required disposal of such waste would be at a licensed facility.</p>

Environmental Attribute	Mitigation Measures/Safeguards
	<p>17. Water quality control measures are to be used to prevent any materials (e.g. concrete, fill sediment and spoils) entering any waterways or drains and drainage lines.</p> <p>18. Visual monitoring of local water quality (i.e. turbidity, hydrocarbon spills/slicks) adjacent to the Site is to be undertaken on a regular basis to identify any potential spills or deficient erosion and sediment controls during construction.</p> <p>19. Refuelling of equipment is to be managed in order to prevent any potential spills leaving the refuelling area.</p> <p>20. Required fuels and other liquids would be stored in self-safe chemical storage containers. Unnecessary storage of these materials would be avoided.</p> <p>21. All equipment would be maintained in good working order and operated according to manufacturer's specifications.</p> <p><b>Soil and Erosion Control</b></p> <p>22. Prepare a detailed and site-specific Sediment and Erosion Control Plan in accordance with the Landcom/Department of Housing <i>Managing Urban Stormwater, Soils and Construction Guidelines</i> (the Blue Book) and implement on site before works commence.</p> <p>23. Implement (before works commence) and maintain appropriate control measures to prevent sediment laden water and other potential pollutants from entering waterways and the receiving environment.</p> <p>24. Limit site access during construction to minimise disruption to traffic. Install a temporary construction entry/exit sediment trap at all site accesses to minimise mud and sediment from the Site being tracked onto public road, particularly during wet weather or when the Site is muddy.</p> <p>25. Install and maintain appropriate sediment fences around construction areas:</p> <ul style="list-style-type: none"> <li>■ Divert clean stormwater runoff, using catch drains, around construction areas to existing or new stormwater drainage system.</li> <li>■ Install sandbags and other pollution containment devices around stormwater drains and any other locations where required to prevent sediment entering the trunk stormwater system.</li> <li>■ Cover open earth/soil areas progressively (with concrete slabs and pavements or mulch) to minimise areas of bare earth/soil.</li> <li>■ Any stockpiles of excavated soil and demolition/construction waste must be located where risk of erosion and sediment is minimal, and must be protected from wind and water erosion.</li> </ul> <p>26. Implement and maintain appropriate control measures such as catch drains and sediment fences to prevent ponding of stormwater or discharge of stormwater from the Site to adjacent areas.</p> <p>27. Provision of spill/pollution control equipment that is readily accessible to clean up spills and leaks.</p> <p>28. Ensure spill/pollution control measures are available and maintained in working condition.</p> <p>29. Sediment contained by the sediment control devices such as sandbags, sediment fences and containment bunds must be frequently removed and placed in a controlled area.</p> <p>30. Implement an inspection schedule for any spill or leaks of any potential polluting areas or activities.</p> <p>31. Regularly check and maintain erosion, sedimentation and stormwater control measures.</p>
Traffic and parking	<p>32. Where possible, current traffic movements would be maintained during the works.</p> <p>33. Regard to public safety would be maintained at all times.</p>



<b>Environmental Attribute</b>	<b>Mitigation Measures/Safeguards</b>
	34. In the unlikely event of a requirement to close a road or alter access during works, sufficient and appropriate notification will be provided to affected users and a Traffic Control Plan implemented.
Heritage and archaeology	<p><b>Non-Aboriginal heritage</b></p> <p>35. If any suspected archaeological items are uncovered during works associated with the proposal, all works will cease in the vicinity of the material/find. Contact with Council and NSW EES Heritage Branch will be made immediately. Works would not recommence until the all clear is given.</p> <p><b>Aboriginal heritage</b></p> <p>36. If Aboriginal cultural material is identified on site, a Stop Work Procedure will be followed, which includes:</p> <ul style="list-style-type: none"> <li>■ Works will cease immediately</li> <li>■ A temporary exclusion zone established</li> <li>■ Land Aboriginal Land Council contacted immediately</li> <li>■ EES contacted immediately.</li> </ul> <p>37. Aboriginal human remains – should skeletal material be exposed during ground disturbance, work will cease immediately and contact made with NSW Police, National Parks and Wildlife and the Local Aboriginal Land Council as per Environment, Energy and Science requirements.</p> <p>38. Notifying NSW Environment, Energy and Science – it is a legislative requirement that cultural heritage materials uncovered as a result of the Proposal are registered as Aboriginal sites with NSW Environment, Energy and Science on the AHIMS database within the required timeframe.</p>
Vegetation and biodiversity	<p>39. Vegetation removal is to be kept to the minimum extent required to undertake the works.</p> <p>40. Trees should be directionally felled away from adjacent intact vegetation to avoid unnecessary damage.</p> <p>41. Trees should be inspected before clearing to check for the presence of native fauna (including nests and hollows).</p> <p>42. Vegetation with weed propagules (including Biosecurity Act 2015 listed weed species) will be appropriately disposed of during clearing works at a licenced waste facility.</p>
Waste	<p>43. During construction, the worksite will be maintained, kept free of rubbish and cleaned up at the end of each working day.</p> <p>44. Ensure the responsible environmental management of wastes that cannot be avoided and would promote opportunities for the re-use of waste products where appropriate.</p> <p>45. Waste that cannot be recycled will be stored in bins onsite. The bins will be collected on a regular basis and transported off-site for disposal to a licensed landfill or recycling facility.</p> <p>46. Where required, excavated soil will be appropriately disposed of in accordance with the NSW EPA requirements.</p>
Bushfire	No safeguards required.
Utilities and services	No safeguards required.
Socio-economic	No safeguards required.



## 6. Conclusion

KB Concrete is a regional concrete supplier operating in the Central West Region of New South Wales, supplying to remote mining, civil and construction projects. KB Concrete proposes to temporarily extract sand at a proposed sand quarry located on Lot 39 DP753375 to supply sand for use in construction materials for the region.

In order to secure a local, viable source of quality sand for supply to the region in an environmentally sensitive manner.

All environmental, economic and social impacts have been assessed to determine the potential impacts of the proposed development. Overall, no significant potential impacts have been identified, nor are any anticipated. Tree removal affects non-significant vegetation and no significant impact to flora or fauna is expected. Mitigation measures and safeguards have been proposed to ensure that the Proposal can occur in a manner that will not result in significant environmental impacts.

It is therefore considered that the proposed sand quarry deserves favourable consideration.



## References

Department of Environment and Conservation (NSW) (DEC) (2005). *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*, Sydney. ISBN 1 74137 488 X.

NSW EPA Contaminated Land Register, (2018). *Contaminated Land Register for Gilgandra LGA* [Online]. Available: (<http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx>) publisher [Assessed 2020].

NSW Environmental Protection Agency (EPA) (2017). Noise Policy for Industry, [Online]. Available: <https://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/noise/17p0524-noise-policy-for-industry.pdf> [Assessed 2020]

NSW Heritage Office (2019). State Heritage Register [Online]. Available: ([http://www.heritage.nsw.gov.au/07\\_subnav\\_09.htm](http://www.heritage.nsw.gov.au/07_subnav_09.htm)) publisher [Assessed 2020].

NSW Office of Environment and Heritage (OEH) (2019) AHIMS Search. Available: (<https://www.environment.nsw.gov.au/awssapp/Login.aspx>) publisher [Assessed 2020].

NSW OEH (2018). *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* [Online] <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf> [Assessed 2020].



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## Appendix A

# Database Searches

[Home](#) [Contaminated land](#) [Record of notices](#)

## Search results

Your search for: LGA: GILGANDRA SHIRE COUNCIL

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.

This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the [POEO public register](#)

[Search Again](#)

[Refine Search](#)

### Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

... [more search tips](#)

**For business and industry**

**For local government**

**Contact us**

14 August 2020

- 131 555 (tel:131555)
- Online (<https://yoursay.epa.nsw.gov.au/epa-website-feedback>)
- [info@epa.nsw.gov.au](mailto:info@epa.nsw.gov.au) (mailto:info@epa.nsw.gov.au)
- EPA Office Locations (<https://www.epa.nsw.gov.au/about-us/contact-us/locations>)

[Accessibility \(https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index\)](https://www.epa.nsw.gov.au/about-us/contact-us/website-service-standards/help-index)

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[https://au.linkedin.com/company/nsw-environment-protection-authority-](https://au.linkedin.com/company/nsw-environment-protection-authority)

Find us on  <https://www.facebook.com/nsw/epa>  <https://www.youtube.com/channel/UC>



# Cattle dip site locator

This search retrieved 0 dip sites.

For more information about each dip site, click on the name below.

Dip name	Road	Town/Locality	Council
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## Find dip sites

Dip name

Road

Town/Locality

Council

The information contained in this web page is based on knowledge and understanding at the time of writing. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Industry& Investment NSW or the user's independent adviser.



## Search Results

6 results found.

<a href="#">Castlereagh Flour Mill</a> Castlereagh St	Gilgandra, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Goonoo State Forest</a>	Dubbo, NSW, Australia	<a href="#">(Registered)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Indigenous Place</a>	Gulgambone, NSW, Australia	<a href="#">(Indicative Place)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Warrumbungle National Park</a> John Renshaws Pkwy	Coonabarabran, NSW, Australia	<a href="#">(Listed place)</a> National Heritage List
<a href="#">Warrumbungle National Park (1980 boundary)</a> John Renshaws Pkwy	Coonabarabran, NSW, Australia	<a href="#">(Registered)</a> Register of the National Estate (Non-statutory archive)
<a href="#">Warrumbunglees</a> Oxley Hwy	Coonabarabran, NSW, Australia	<a href="#">(Rejected Place)</a> Register of the National Estate (Non-statutory archive)

Report Produced: Fri Aug 14 14:32:41 2020

[Return to search page where you can refine/broaden your search.](#)

## Statutory listed items

Information and items listed in the State Heritage Inventory come from a number of sources. This means that there may be several entries for the same heritage item in the database. For clarity, the search results have been divided into three sections.

- **Section 1** - contains Aboriginal Places declared by the **Minister for the Environment** under the National Parks and Wildlife Act. This information is provided by Heritage NSW.
- **Section 2** - contains heritage items listed by the **Heritage Council of NSW** under the Heritage Act. This includes listing on the State Heritage Register, an Interim Heritage Order or protected under section 136 of the Heritage Act. This information is provided by Heritage NSW.
- **Section 3** - contains items listed by **local councils** on Local Environmental Plans under the Environmental Planning and Assessment Act and **State government agencies** under s.170 of the Heritage Act. This information is provided by local councils and State government agencies.

### Section 1. Aboriginal Places listed under the National Parks and Wildlife Act.

Your search did not return any matching results.

### Section 2. Items listed under the Heritage Act.

Your search returned 2 records.

Item name	Address	Suburb	LGA	SHR
<a href="#">Corduroy Road Ruin Historic Site</a>	East Coonamble Road	Curban	Gilgandra	02015
<a href="#">St. Ambrose Church</a>	Myrtle Street	Gilgandra	Gilgandra	01853

### Section 3. Items listed by Local Government and State Agencies.

Your search returned 102 records.

Item name	Address	Suburb	LGA	Information source
<a href="#">Abraham Meers Murder Site</a>	East Coonamble Road	Curban	Gilgandra	LGOV
<a href="#">Armatree CWA Rooms</a>	Cambora Street	Armatree	Gilgandra	LGOV
<a href="#">Armatree Hotel</a>	Armatree-warren Rd	Armatree	Gilgandra	LGOV
<a href="#">Armatree S030 Grain Elevator</a>	Cambora Street	Armatree	Gilgandra	LGOV
<a href="#">Armatree War Memorial</a>	Armatree Warren Road	Armatree	Gilgandra	LGOV
<a href="#">Armatree War Memorial Hall (Former)</a>	Cambora Street	Armatree	Gilgandra	LGOV
<a href="#">Arthur Butler Memorial Aerodrome</a>	Tooraweenah Aerodrome Road	Tooraweenah	Gilgandra	LGOV
<a href="#">Balladoran Community Hall</a>	Bellingers Road	Balladoran	Gilgandra	LGOV
<a href="#">Bearbong Hall</a>	Bearbong Road	Bearbong	Gilgandra	LGOV
<a href="#">Bearbong Shearers Quarters</a>	Biddon Bearbong Road, Off	Bearbong	Gilgandra	LGOV
<a href="#">Bearbong Woolshed</a>	Biddon Bearbong Road, Off	Bearbong	Gilgandra	LGOV
<a href="#">Berida Bookkeeper's Residence and Office</a>	Gilgandra Rural Museum Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Berida Homestead Group</a>	121 Berida Bullagreen Road	Berida	Gilgandra	LGOV
<a href="#">Berida Shearers Quarters</a>	121 Berida Bullagreen Road	Berida	Gilgandra	LGOV
<a href="#">Berida Woolshed Group</a>	121 Berida Bullagreen Road	Berida	Gilgandra	LGOV
<a href="#">Breelong Historical Site</a>	Castlereagh Highway	Breelong	Gilgandra	LGOV

<a href="#">Breelong Inn Site</a>	Castlereagh Road (Off)	Gilgandra	Gilgandra	LGOV
<a href="#">Bullagreen Shearers Quarters</a>	Gilgandra Rural Museum Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Burial Eiraben Street</a>	13 Eiraben Street	Gilgandra	Gilgandra	LGOV
<a href="#">Butler Airlines Hangar (Former)</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Captain Cook Navigational Centre</a>	Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Castlereagh Butchery (Former)</a>	66 Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Castlereagh Flour Mill Site</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Chinnock Private Hospital (Former)</a>	13 Morris Street	Gilgandra	Gilgandra	LGOV
<a href="#">Church of St Ambrose</a>	Myrtle and Wamboin Streets, Cnr	Gilgandra	Gilgandra	LGOV
<a href="#">Church of St Mary Magdalene</a>	Bridge Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Convent (Former)</a>	11 Morris Street	Gilgandra	Gilgandra	LGOV
<a href="#">Coo-ee Heritage Centre</a>	Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Coomooroo</a>	Dooroombah	Tooraweenah	Gilgandra	LGOV
<a href="#">Corduroy Road Historic Site</a>	East Coonamble Road	Armatree	Gilgandra	LGOV
<a href="#">Curban Cemetery</a>	Hillside Road	Curban	Gilgandra	LGOV
<a href="#">Curban Hall</a>	Curban Railway Road	Curban	Gilgandra	LGOV
<a href="#">Curban Inn Site</a>	East Coonamble Road	Curban	Gilgandra	LGOV
<a href="#">Deep Creek Quarry Site</a>	4545 Castlereagh Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Dicks Family Private Cemetery</a>	Bearbung Road	Bearbong	Gilgandra	LGOV
<a href="#">Dill Killy Mountain</a>	Mountain View Tooraweenah Road	Bearbong	Gilgandra	LGOV
<a href="#">Dooroombah Homestead</a>		Tooraweenah	Gilgandra	LGOV
<a href="#">Dooroombah Shearers Quarters</a>	Dooroombah Road	Tooraweenah	Gilgandra	LGOV
<a href="#">Dooroombah Woolshed</a>	Dooroombah Road	Tooraweenah	Gilgandra	LGOV
<a href="#">Eringanerin Public School Building</a>	New Life Camp Ground Castlereagh Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Everleigh Homestead</a>	O'Connors Road	Tooraweenah	Gilgandra	LGOV
<a href="#">Feetham House</a>	58 Myrtle Street	Gilgandra	Gilgandra	LGOV
<a href="#">Frazer Bros Cash and Carry Store (Former)</a>	Denham Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Garlings Store (Former)</a>	Bridge Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Gilgandra Conservation Area</a>			Gilgandra	LGOV
<a href="#">Gilgandra Court House</a>	10 Myrtle Street	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Courthouse</a>	Myrtle Street	Gilgandra	Gilgandra	SGOV
<a href="#">Gilgandra CWA Rest Room - Baby Health Centre</a>	3 Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Flora Reserve</a>	Flora Reserve Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra General Cemetery</a>	Castlereagh Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Grain Shed</a>	Railway Street	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Post Office</a>	13 Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Racecourse Grandstand</a>	Racecourse Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Railway Station Building (Former)</a>	Gilgandra Speedway Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra S068 Grain Elevator</a>	Railway Street	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Shire Council Chambers</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Shire Hall</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Showground</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra War Memorial</a>	Miller Street	Gilgandra	Gilgandra	LGOV

<a href="#">Gilgandra War Memorial Literary Institute</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Windmill Collection</a>	Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Gilgandra Grain Shed</a>	Railway Street	Gilgandra	Gilgandra	SGOV
<a href="#">Hitchen House</a>	62 Miller Street	Gilgandra	Gilgandra	LGOV
<a href="#">Hunter Park and Gilgandra Swimming Pool</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Idaleigh Private Hospital (Former)</a>	12 Morris Street	Gilgandra	Gilgandra	LGOV
<a href="#">King Kurrajong Tree</a>	Allambie Beames Road	Bearbong	Gilgandra	LGOV
<a href="#">Lodge Warrumbungle No. 277</a>	11 Wrigley Street	Gilgandra	Gilgandra	LGOV
<a href="#">Marked Rocks, Terrabile Creek</a>	Terrabile Creek Off Curban-biddon Road	Curban	Gilgandra	LGOV
<a href="#">Mawbey Murder Site</a>	Happy Valley Castlereagh Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Memorial Avenue</a>	Bridge Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Mountain View Hotel</a>	Denham Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Nelsons Saw Mill Building</a>	Eiraben Street	Gilgandra	Gilgandra	LGOV
<a href="#">R. Buckley Universal Stores (Former)</a>	Denham Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Railway Hotel</a>	8 Bundy Street	Gilgandra	Gilgandra	LGOV
<a href="#">Railway Pump Station Operator's House (Former)</a>	4545 Castlereagh Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Royal Hotel</a>	73 Miller Street	Gilgandra	Gilgandra	LGOV
<a href="#">St. Stephens Presbyterian Church</a>	42 Myrtle Street	Gilgandra	Gilgandra	LGOV
<a href="#">Sunnyside Private Cemetery</a>	Sunnyside Castlereagh Highway	Armatree	Gilgandra	LGOV
<a href="#">Tap Hill</a>	Newell Highway	Tooraweenah	Gilgandra	LGOV
<a href="#">Tattersalls Hotel</a>	70 Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">Terrabile Creek Bridge</a>	National Park Road	Curban	Gilgandra	LGOV
<a href="#">The Igloo</a>	Warren Road	Gilgandra	Gilgandra	LGOV
<a href="#">The Pines</a>	Hargraves Lane	Gilgandra	Gilgandra	LGOV
<a href="#">The Red Geranium</a>	Murray Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Bakery (Former)</a>	Denham Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Butcher Shop (Former)</a>	Murray Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Catholic Church</a>	Murray Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah CWA Rooms</a>	Denham Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Lockup (Rural Museum)</a>	Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">Tooraweenah Post Office (Former)</a>	Bridge Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Presbyterian Church</a>	Corliss Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Public School</a>	Bridge Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Public School - Buildings B00A, B00C, B00D, B00H and B00J</a>	410 John Renshaw Parkway	Tooraweenah	Gilgandra	SGOV
<a href="#">Tooraweenah Recreation Ground</a>	Murray Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah Showground</a>	Yootha Road	Tooraweenah	Gilgandra	LGOV
<a href="#">Tooraweenah War Memorial Hall</a>	Bridge Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Uargon University (Rural Museum)</a>	Gilgandra Rural Museum Newell Highway	Gilgandra	Gilgandra	LGOV
<a href="#">W. G. Rohr Mechanical Repairs (Former)</a>	Denham Street	Tooraweenah	Gilgandra	LGOV
<a href="#">Warrumbungle Community Church</a>	Box Ridge Road	Warrumbungle	Gilgandra	LGOV
<a href="#">Weenya Homestead</a>		Warrumbungle	Gilgandra	LGOV
<a href="#">Western Monarch Theatre (Former)</a>	44 Miller Street	Gilgandra	Gilgandra	LGOV
<a href="#">Woodvale Park Private Cemetery</a>	Castlereagh Highway	Curban	Gilgandra	LGOV

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There was a total of 104 records matching your search criteria.

**Key:**

LGA = Local Government Area

GAZ= NSW Government Gazette (statutory listings prior to 1997), HGA = Heritage Grant Application, HS = Heritage Study, LGOV = Local Government, SGOV = State Government Agency.

**Note:** While Heritage NSW seeks to keep the Inventory up to date, it is reliant on State agencies and local councils to provide their data. Always check with the relevant State agency or local council for the most up-to-date information.

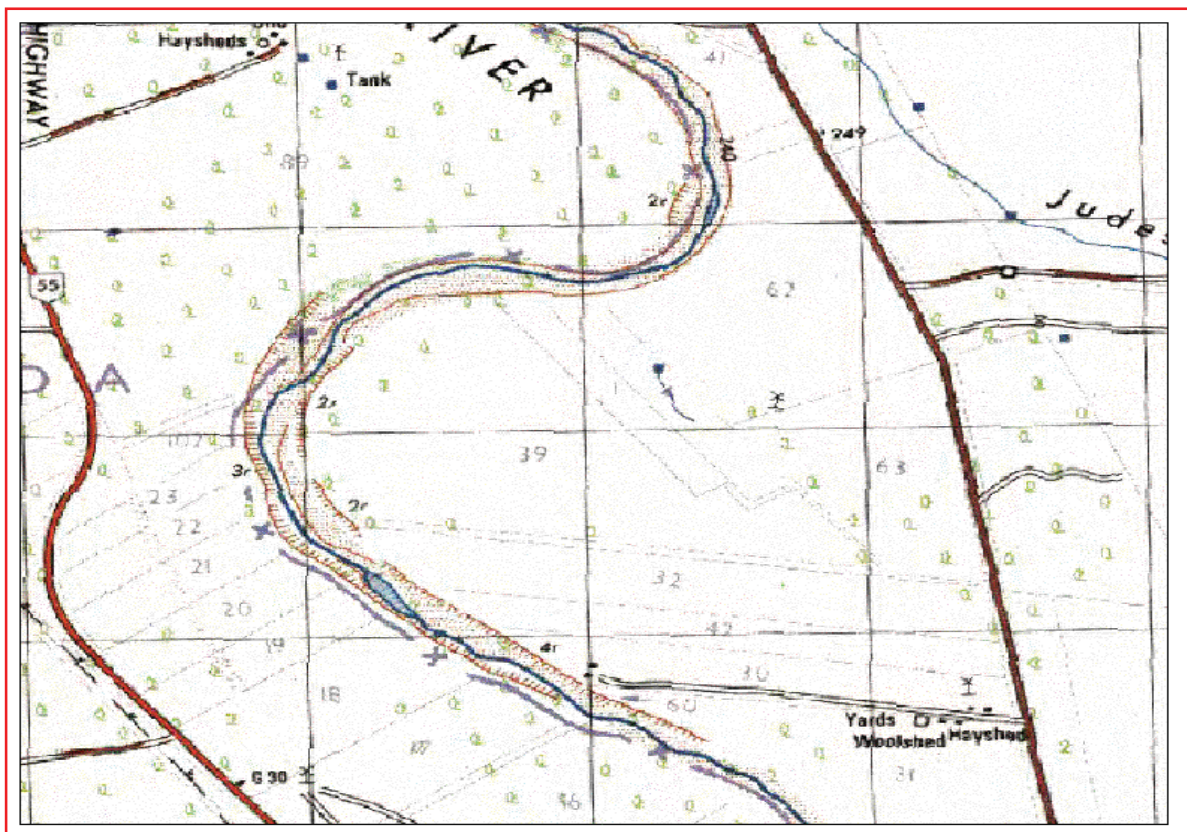
GeoLINK Consulting Pty Ltd  
PO Box 1446  
Coffs Harbour New South Wales 2450  
Attention: Theresa Choi  
Email: tchoi@geolink.net.au

Date: 16 June 2020

Dear Sir or Madam:

**AHIMS Web Service search for the following area at Lot : 39, DP:DP753375 with a Buffer of 1000 meters, conducted by Theresa Choi on 16 June 2020.**

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

<b>0</b> Aboriginal sites are recorded in or near the above location.
<b>0</b> Aboriginal places have been declared in or near the above location. *



### **If your search shows Aboriginal sites or places what should you do?**

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](http://www.nsw.gov.au/gazette) (<http://www.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

### **Important information about your AHIMS search**

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.





## Appendix B

# Biodiversity Assessment

7 August 2020  
Ref No: 3598-1004

Ken McLean  
KB Concrete

Via email: [mail@kbconcrete.com.au](mailto:mail@kbconcrete.com.au)

**Attention: Ken Maclean**

Dear Ken

### **Preliminary Biodiversity Assessment - Lot 39 DP753375**

#### **Introduction**

This report presents the results of a preliminary biodiversity constraints assessment, undertaken for Lot 39 DP753375. It is understood that the site is being investigated as a potential sand extraction area. The site is zoned as RU1 (Primary Production) in the Gilgandra Local Environmental Plan (LEP) 2011 with a minimum lot size of 500 ha. The site contains areas that are mapped as Sensitive Biodiversity Area and Sensitive Watercourses in the LEP. Further advice from Gilgandra Shire Council is recommended prior to any development on the site.

The assessment focused on identifying constraints for a future development (sand quarry) that may be pursued on the site. To facilitate this assessment, a site inspection was undertaken by ecologist, Theresa Choi on 7 July 2020. The findings of the site inspection are summarised below.

#### **Vegetation**

Vegetation at the site includes five main areas: riparian zone, Cypress Pine woodland, a shrubby area, a cleared area, and a cropped area (see **Appendix B**).

The riparian zone is dominated by a canopy of River Red Gum (*Eucalyptus camaldulensis*) and White Cypress Pine (*Callitris glaucophylla*) and a shrub layer of Wilga (*Geijera parviflora*).

Cypress Pine Woodland on the site is dominated by White Cypress Pine and Kurrajong (*Brachychiton populneus* subsp. *populneus*) and a sparse native groundcover comprising of predominantly native grasses such as Slender Bamboo Grass (*Austrostipa verticillata*), Purple Wiregrass (*Aristida ramosa*) and Jericho Wiregrass (*Aristida jerichoensis*), and also Spiny Burr Grass\* (*Cenchrus incertus*).

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The shrubby area consists of a sparse canopy layer of Kurrajong and a sparse shrub layer of Green Wattle (*Acacia deanei*). The sparse ground layer is dominated by native grasses such as Slender Bamboo Grass, Purple Wiregrass and Jericho Wiregrass (*Aristida jerichoensis*) and Windmill Grass (*Chloris truncata*).

The cleared area consists of 40 per cent vegetation cover and is dominated by Spiny Burr Grass\* and Camel Melon\* (*Citrullus amarus*). There is a sparse canopy and shrub layer consisting of Kurrajong and Green Wattle. There is a patch of Common Couch (*Cynodon dactylon*) in the northern portion of the cleared area.

Vegetation at the site aligns with Plant Community Type (PCT) 36 River Red Gum tall to very tall open forest/woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion in the riparian zone and PCT 70 White Cypress Pine woodland on sandy loams in central NSW wheatbelt for the remainder of the surveyed area.

The south-eastern majority of the lot is used for cropping.

\* denotes introduced species.

Site photos are included at **Appendix C**.

### **Threatened Flora**

No threatened flora species were confirmed on site. Although the time of survey was not appropriate to survey for the threatened species *Prasophyllum* sp. *Wybong*, Slender Darling-pea or *Tylophora linearis*, these species are considered unlikely to occur at the site due to the unsuitable sandy substrate for these species' habitat.

### **Threatened Ecological Communities**

No threatened ecological communities occur within the subject site.

### **Fauna Habitat Features**

No hollow-bearing trees were located at the site. No other significant fauna habitat features occur.

### **Threatened Fauna**

No threatened fauna species were detected at the site. A number of White Cypress Pine and River Red Gum occur on the site which are preferred Koala feed trees. Parts of the site are mapped as Koala Development Application Map areas. Given the absence of recorded observations of Koalas within 20 km of the site on the NSW BioNet Database, the site is considered unlikely to be used by Koalas.

### **Entry into the Biodiversity Offsets Scheme**

The site contains areas of 'Biodiversity Value' as mapped by the Biodiversity Values Map and Threshold Tool (refer to **Attachment A**) associated with the riparian zone of the Castlereagh River. Any impact to areas of mapped 'Biodiversity Values' would trigger entry into the Biodiversity Offsets Scheme (BOS) requiring preparation of a Biodiversity Development Assessment Report (BDAR) in accordance with the requirements of the Biodiversity Assessment Methodology. The BDAR would determine credit costs required by the developer to offset impacts of the proposal.

Based on the minimum lot size of 500 ha, up to one hectare of native vegetation may be cleared before triggering entry into the BOS and requirement of a BDAR. For the purposes of the site, this would include all areas of mapped PCTs on the site as shown in **Attachment A**. It is noted that under the *Biodiversity Conservation Act 2016* clearing of any native vegetation (including grasses and groundcovers) is required to be assessed under the threshold test for entry into the BOS.

### Future Requirements

In summary, this preliminary assessment identifies the following requirements for future development of the site:

- The site includes areas of 'Biodiversity Value' mapping along the riparian zone. If the proposal was to impact on such areas, a BDAR would be required.
- If clearing of more than one hectare of native vegetation (as shown in **Appendix A**), a BDAR would be required.
- Parts of the site are mapped, indicated by the 40 m buffer from the top of bank (**Appendix A**). Development of these areas may require compensation requirements/management measures under the *Water Management Act 2000*.
- As parts of the site are mapped on the Koala Development Application Map, a future proposal would need to address the requirements of the State Environmental Planning Policy (Koala Habitat Protection). Given that the site represents marginal Koala habitat, any requirements for a future development relating to Koala habitat are likely to be minimal.
- *Biodiversity Conservation Act 2016* (Section 7.3): Development of the site is unlikely to significantly impact on habitat for threatened species or communities. Assessments of significance for any potentially occurring threatened species would need to be undertaken as part of any future biodiversity assessment.
- *Environment Protection and Biodiversity Conservation Act 1999*: Development of the site is unlikely to significantly impact on any matters of national environmental significance and require referral to the Department of the Environment and Energy.

In summary, this preliminary assessment identifies that if a future proposal on the site involves clearing of native vegetation less than one hectare and avoids riparian areas, it can be assessed under a standard Biodiversity Assessment Report (BAR). The BAR would need to be prepared to address all requirements as mentioned above.

I trust this information suits your requirements. Please contact me if you require further information or wish to complete any further assessment of the site.

Yours sincerely

**GeoLINK**



**Theresa Choi**

Environmental Scientist

**Attach: Appendix A – Biodiversity Mapping**  
**Appendix B – Species List**  
**Appendix C – Site Photos**





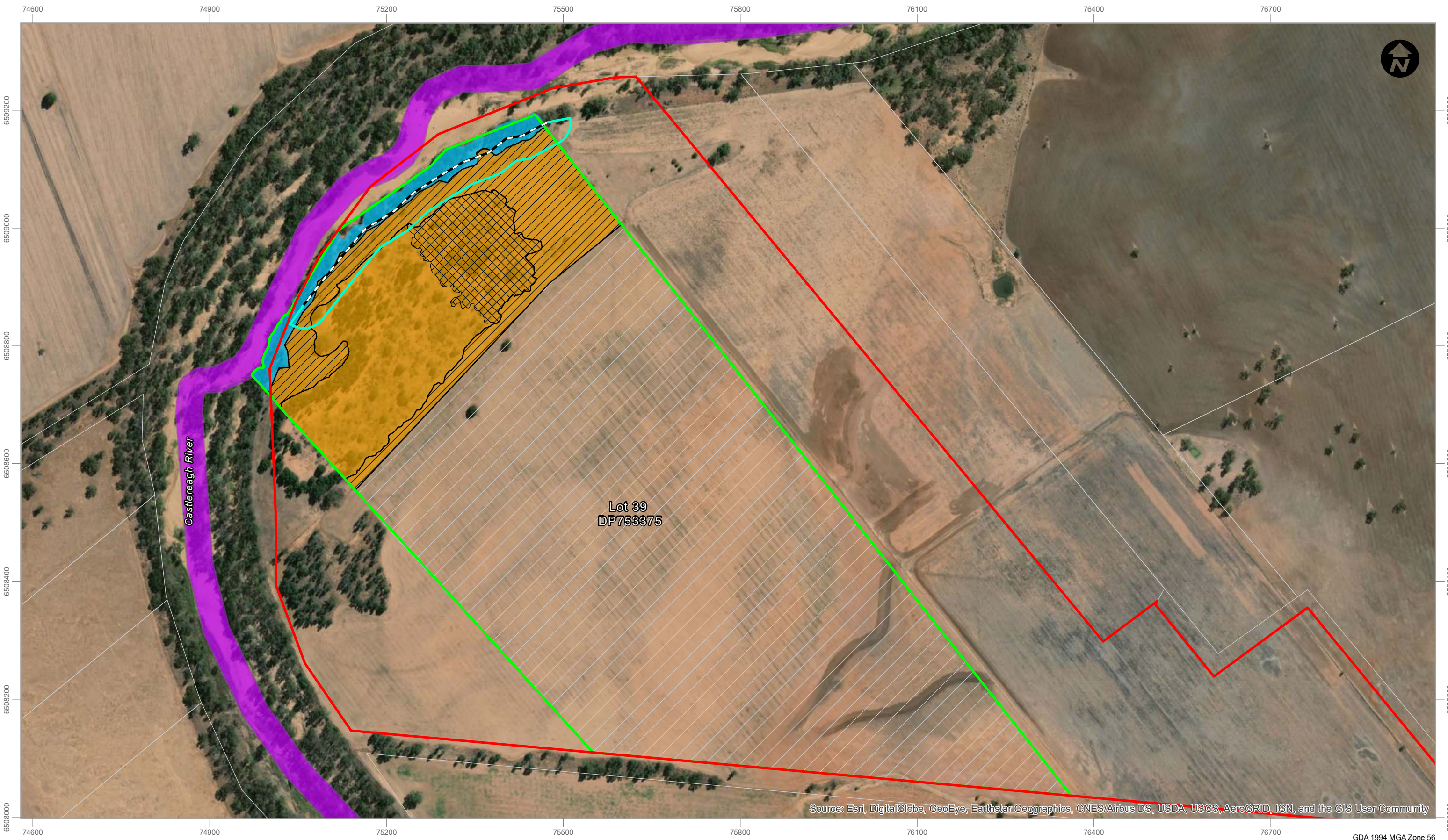
<b>UPR</b>	<b>Description</b>	<b>Date issued</b>	<b>Issued By</b>
3598-1004	First issue	07/08/2020	Simon Williams



# Appendix A

## Vegetation Mapping



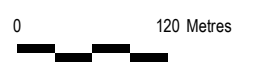


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

GDA 1994 MGA Zone 56

**LEGEND**

- The site
- Survey area
- Biodiversity Value mapping
- 40m buffer from top of bank
- Top of bank
- Cadastre
- Shrub area
- Cleared area
- Cropped area
- PCT 36 River Red Gum tall to very tall open forest / woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion
- PCT 70 - White Cypress Pine woodland on sandy loams in central NSW wheatbelt



**Vegetation Mapping - Illustration 1.1**






## **Appendix B**

# **Species List**

Family	Scientific Name	Exotic	Common Name
<b>Riparian zone</b>			
Asteraceae	<i>Bidens pilosa</i>	*	Cobblers Pegs
Boraginaceae	<i>Echium plantagineum</i>	*	Paterson's Curse
Cupressaceae	<i>Callitris endlicheri</i>		Black Cypress Pine
Cupressaceae	<i>Callitris glaucophylla</i>		White Cypress Pine
Cupressaceae	<i>Callitris glaucophylla</i>		White Cypress Pine
Malvaceae	<i>Brachychiton populneus</i> subsp. <i>Populneus</i>		Kurrajong
Myrtaceae	<i>Eucalyptus camaldulensis</i>		River Red Gum
<b>Cypress Pine Woodland</b>			
Cupressaceae	<i>Callitris endlicheri</i>		Black Cypress Pine
Cupressaceae	<i>Callitris glaucophylla</i>		White Cypress Pine
Malvaceae	<i>Brachychiton populneus</i> subsp. <i>Populneus</i>		Kurrajong
Myrtaceae	<i>Eucalyptus camaldulensis</i>		River Red Gum
Poaceae	<i>Aristida jerichoensis</i>		Jericho Wiregrass
Poaceae	<i>Aristida ramosa</i>		Purple Wiregrass
Poaceae	<i>Austrostipa verticillata</i>		Slender Bamboo Grass
Poaceae	<i>Cenchrus incertus</i>	*	Spiny Burr Grass
Rutaceae	<i>Geijera parviflora</i>		Wilga
<b>Shrubby area</b>			
Asteraceae	<i>Calotis lappulacea</i>		Yellow Burr-daisy
Asteraceae	<i>Vittadinia cuneata</i>		
Fabaceae (Mimosoideae)	<i>Acacia deanei</i>		Green Wattle
Poaceae	<i>Aristida jerichoensis</i>		Jericho Wiregrass
Poaceae	<i>Aristida ramosa</i>		Purple Wiregrass
Poaceae	<i>Austrostipa ramosissima</i>		Stout Bamboo Grass
Poaceae	<i>Austrostipa scabra</i>		Speargrass
Poaceae	<i>Austrostipa verticillata</i>		Slender Bamboo Grass
Poaceae	<i>Cenchrus incertus</i>	*	Spiny Burr Grass
Poaceae	<i>Chloris truncata</i>		Windmill Grass
Poaceae	<i>Cynodon dactylon</i>		Common Couch
<b>Cleared area</b>			
Asteraceae	<i>Calotis lappulacea</i>		Yellow Burr-daisy
Asteraceae	<i>Vittadinia cuneata</i>		
Boraginaceae	<i>Echium plantagineum</i>	*	Paterson's Curse
Cucurbitaceae	<i>Citrullus amarus</i>	*	Camel Melon
Fabaceae (Mimosoideae)	<i>Acacia deanei</i>		Green Wattle
Papervaceae	<i>Argemone ochroleuca</i>	*	Mexican Poppy
Papervaceae	<i>Eschscholzia californica</i>	*	California Poppy
Poaceae	<i>Aristida jerichoensis</i>		Jericho Wiregrass
Poaceae	<i>Aristida ramosa</i>		Purple Wiregrass





<b>Family</b>	<b>Scientific Name</b>	<b>Exotic</b>	<b>Common Name</b>
Poaceae	<i>Austrostipa ramosissima</i>		Stout Bamboo Grass
Poaceae	<i>Austrostipa scabra</i>		Speargrass
Poaceae	<i>Austrostipa verticillata</i>		Slender Bamboo Grass
Poaceae	<i>Cenchrus incertus</i>	*	Spiny Burr Grass
Poaceae	<i>Chloris truncata</i>		Windmill Grass
Poaceae	<i>Cynodon dactylon</i>		Common Couch
Solanaceae	<i>Lycium ferocissimum</i>	*	African Boxthorn



## **Appendix C**

### **Site Photos**



**Figure 1** Riparian zone dominated by River Red Gum and White Cypress Pine, looking downstream



**Figure 2** View upstream of Castlereagh River, with sandbars in river to left. Sandy river. Riparian vegetation with White Cypress Pine to right



**Figure 3** Cypress Pine Woodland in background and shrubby area in foreground, looking west



**Figure 4** Shrubby area, view east



**Figure 5** View north at cleared area in foreground and riparian zone in background



**Figure 6** Cropping area (foreground) looking north-west to the native woodland and riparian area (background)