



Construction Environmental Management Plan

Stage 1 - New Intersection Area

Deep Creek Quarry

Limeburners Creek, New South Wales

April 2026





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- Limeburners Creek, New South Wales

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1. INTRODUCTION

1.1 OVERVIEW

Ironstone Developments Pty Ltd (IDPL) proposes to develop and operate a State Significant hard rock quarry, known as the Deep Creek Quarry (DCQ). The quarry will be located on the boundary of the localities of Limeburners Creek and Allworth, within the Mid-Coast Local Government Area, New South Wales. The Project Footprint extends from a new intersection on The Bucketts Way through to the office, weighbridge, workshop, quarry pit and stockpile area approximately 2km to the west of The Bucketts Way.

The Project will involve the extraction of up to 500,000 tonnes of hard rock per annum over a period of up to 30 years. In addition to the quarry pit, supporting infrastructure will include a sealed quarry access road, site office, workshop, weighbridge, stockpile areas, and associated water management systems. The subject land and resource extraction area is shown in **Figure 1**.

Development Consent (SSD-11591659) was granted by the NSW Independent Planning Commission on 24 January 2024 under a bilateral agreement. The Project was subsequently approved by the Commonwealth Government on 7 November 2024 for construction and operation, subject to a range of conditions.

The Commonwealth determined that the New Intersection Area on The Bucketts Way did not trigger the commencement of the action, in addition, approval was sought and granted from the Secretary of the NSW Department of Planning, Housing and Infrastructure (DPHI) to a staged approach to management plans that included a Construction Environmental Management Plan (CEMP) to guide the construction within the New Intersection Area. This document is the CEMP.

1.2 PURPOSE AND STRUCTURE OF THIS CEMP

This Construction Environmental Management Plan (CEMP) has been prepared to address the relevant Development Consent conditions, including the approved staging of certain requirements in accordance with Schedule 2, Condition A22. This CEMP specifically applies to construction activities within the New Intersection Area, as identified in **Figure 2**.

The CEMP has been developed with reference to the following key documents and guidelines:

- NSW Independent Planning Commission Development Consent SSD-11591659.
- ISO 14001:2015 Environmental Management Systems.
- Department of Environment and Conservation NSW (2006): *A Resource Guide for Local Councils – Erosion and Sediment Control*.
- Landcom (2004): *Managing Urban Stormwater – Soils and Construction*.
- Department of Environment and Climate Change NSW (2009): *Interim Construction Noise Guideline*.
- Deep Creek Quarry Environmental Impact Statement (2021).
- Deep Creek Quarry Response to Submissions Report (2022).

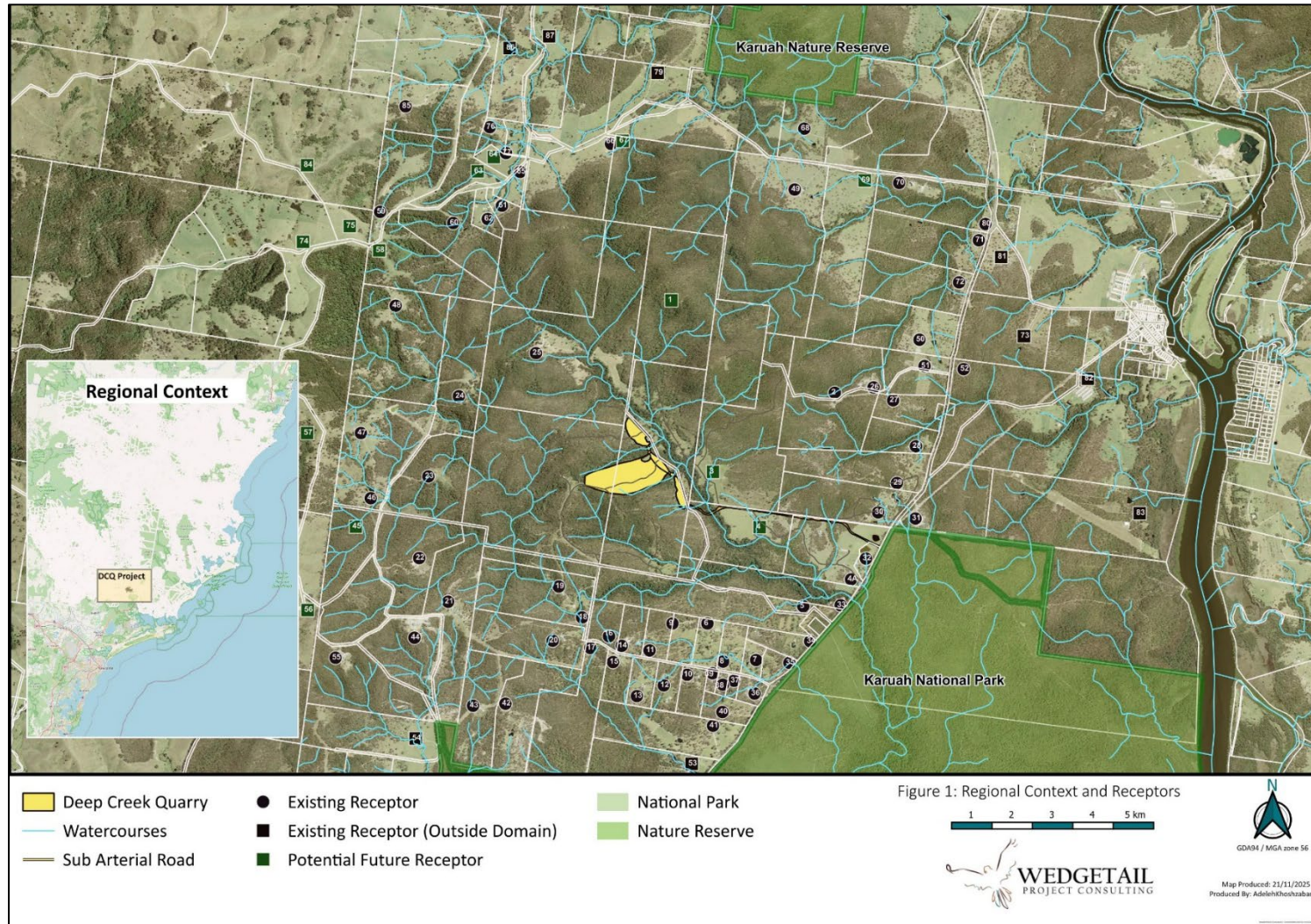


Figure 1: Resource extraction area and surrounding receptors

1.3 STAGING OF CONSENT CONDITIONS

On 8 August 2025, Wedgetail Project Consulting, on behalf of IDPL, submitted a request to the Planning Secretary seeking approval to stage the implementation of requirements under Development Consent SSD-11591659, consistent with Schedule 2, Condition A22. This staging allows for earlier commencement of construction activities, with a particular focus on the intersection with The Bucketts Way, referred to as the New Intersection Area. A copy of the request is included in **Appendix A**.

The extent of the New Intersection Area is illustrated in **Figure 2**. IDPL is adopting a proportional staging approach for the preparation and implementation of environmental management plans, commensurate with the potential environmental risks associated with initial works in this area.

The staging approach was approved by the Planning Secretary on (23 January 2026). A copy of the approval is provided in **Appendix B**. IDPL intends to commence construction within the New Intersection Area as soon as practicable, following plans approved under S138 by Mid-Coast Council provided in **Appendix C**. Due to the complexity of the intersection works and the requirement to carry out construction under traffic management, these works are expected to take longer to complete than other internal infrastructure works.

The scope of Stage 1 works within the New Intersection Area includes:

- Construction of the new intersection with The Bucketts Way.
- Establishment of a construction compound.
- Construction of the first 450 metres of access road, terminating 40 metres before the first-order tributary.
- Bunding and associated revegetation along the northern boundary of the access road.
- Installation of both rural and koala exclusion fencing.

In accordance with Schedule 2, Condition A22, the proposed staging of relevant conditions is outlined in **Table 1** below.

Table 1: Development consent conditions and timing, and proposed staging.

Condition	Component	Timing	Staging Comment
Sch2 B5 / B6	Noise Management Plan	Approved prior to commencement of construction	No change. Prior to Stage 1 Construction, DPHI approval required.
Sch2 B5(ii)	Noise Loggers	Installed prior to commencement of construction	No change. Logger purchased and installed to gather real time noise levels prior to construction.
Sch2 B21	Routine air monitoring no less than monthly	Installed prior to commencement of construction	No change. Air monitor purchased and installed prior to construction.
Sch2 B21	Air Quality Management System	Develop prior to commencement. Approval not required.	No change. System has been developed and will be implemented prior to construction.

Condition	Component	Timing	Staging Comment
Sch2 B23	Meteorology Station	Installed prior to commencement of construction	No change. Station will be installed prior to construction.
Sch2 B31/32	Water Management Plan	Approved prior to commencement of access road construction /quarrying operations	Request approved to enable works to commence on the New Intersection Area using a simplified management plan focusing on erosion and sediment controls. The Erosion and Sediment Control Plan is included within this Construction Stage 1 CEMP. Refer to Section 6.5 and Appendix D.
Sch2 B38	Traffic Management Plan	Approved prior to commencement of construction	Request approved to enable works to commence on the New Intersection Area using a simplified management plan focusing on construction traffic. Included within this Construction Stage 1 CEMP. Refer to Section 6.8 and Appendix E.
Sch2 B41/43	Heritage Management Plan	No approval required.	Plan to be developed prior to construction.
Sch2 B44	Biodiversity Offset Strategy	Prior to the commencement of native vegetation clearing	Will retire only those credits associated with Clearing in the New Intersection Area. Refer to Section 4.6.3 and Staging Approval Letter
Sch2 B45	Tree Planting & Nest Boxes	Prior to the commencement of native vegetation clearing	No Staging Prior to the commencement of clearing the proponent will plant at least 900 Preferred Koala Feed Trees and erect 294 nest boxes.
Sch2 B48/49	Biodiversity Management Plan	Approved prior to commencement of access road construction /quarrying operations	Request approved to enable works to commence on the New Intersection Area using a simplified management plan focusing on vegetation clearing protocols. Included within this Construction Stage 1 CEMP. Refer to Section 6.3.
Sch2 D1/D2	Environmental Management Strategy	Approved prior to commencement of construction	Request approved to enable works to commence on the New Intersection Area, with management strategy for this portion outlined in this Construction Stage 1 CEMP. Refer to Section 7.
Sch2 B60	Social Impact Management Plan	Within 6 months of commencement of construction	No change
Sch2 B53	Rehabilitation Management Plan	Within 12 months of commencement of construction	No change
Sch2 B55	Rehabilitation bond	Lodged within 6 months of approval of Rehabilitation Management Plan	No change
Sch2 A20	Establish CCC	Within 6 months of commencement.	No change

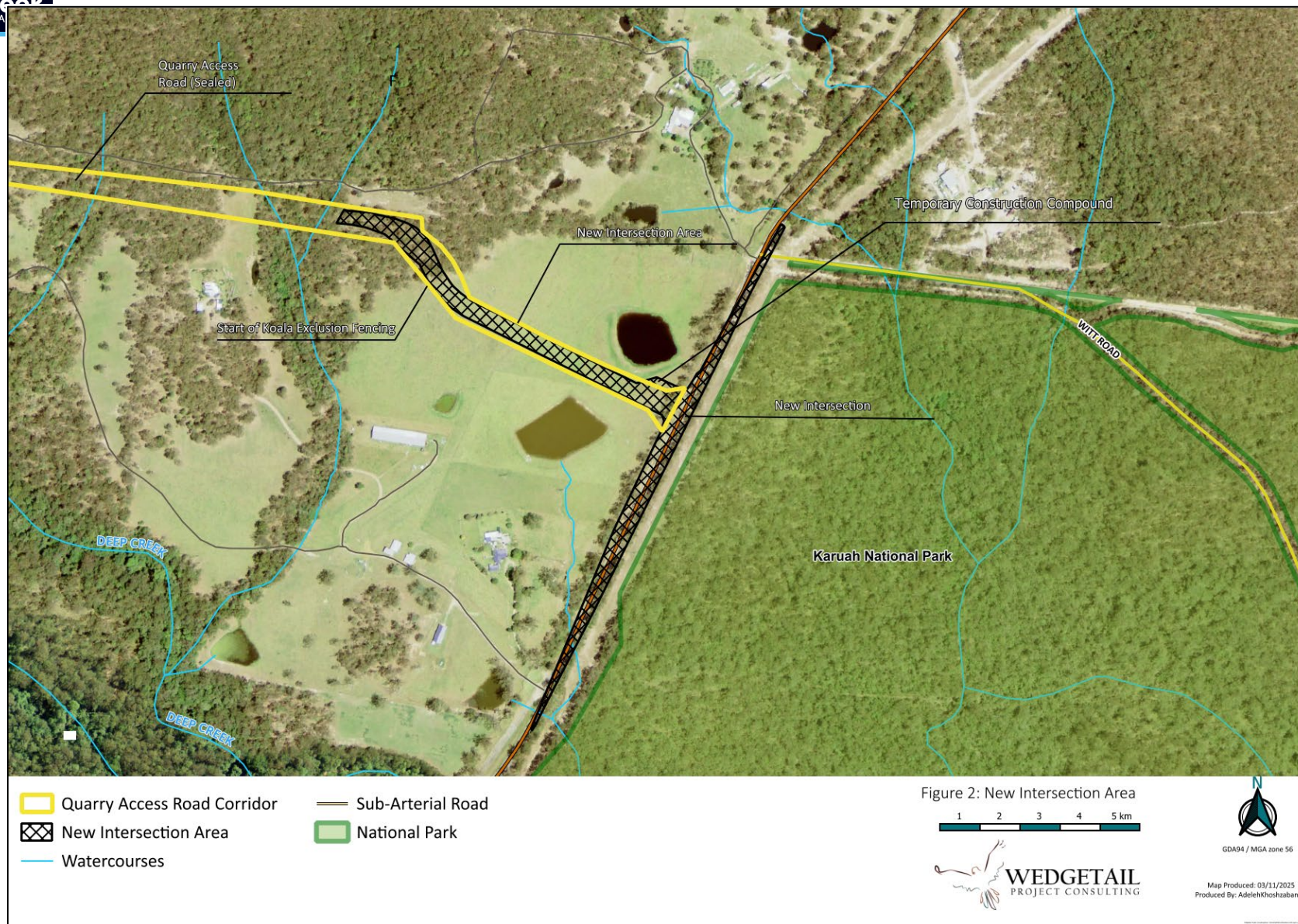


Figure 2: Area subject to this Construction Environmental Management Plan

Deep Creek Quarry – New Intersection Area

1.4 PROJECT OVERVIEW

The key details of the Project are shown within **Table 2** below. An overview of the Project Area and the New Intersection Area is shown in **Figure 1** and **Figure 2**, respectively. The CEMP applies to the New Intersection Area only, this table covers the approved project in its entirety.

Table 2: Key Aspects of the Deep Creek Quarry Project

Aspect	Key Aspects of the Project
Key elements	Hard rock quarry extracting up to 500,000 tonnes per annum over a period of up to 30 years, including a sealed access road, site office, workshop, weighbridge and stockpile area with associated water management infrastructure. Progressive rehabilitation of quarried land returning to pasture and native vegetation.
Location	279 Deep Creek Road, Limeburners Creek, NSW 2324, within the Mid-Coast local government area.
Property Titles	Lots 472 DP1162208, Lot 3 DP1322967, Lot 2 DP1322967, Lot 1 DP1322967, Deep Creek Road reserve and The Bucketts Way road reserve, located off Deep Creek Road at Limeburners Creek, NSW 2324.
Landowner	Ironstone Developments Pty Ltd
Proponent	Ironstone Developments Pty Ltd
Project Life	Up to 30 years.
Area	This CEMP applies to a 1.9ha portion called the “New Intersection Area” from the total footprint of approximately 31.9 hectares, that comprises: • 18 ha of quarry extraction area. • Less than 13.9 ha in supporting infrastructure and internal access roads.
Employment	Up to 10 full-time staff, with further support for the local and regional construction industry and associated haulage contractors.
Production and Transport Rate	• Maximum product haulage from the site of 500,000 tonnes per annum. • Maximum of 25 laden trucks per hour. • Maximum daily extraction rate of 4,000 tonnes per day. • On average, 55 laden trucks per day will meet the peak annual production level. • Up to 10 vehicles of employees would be expected to arrive and depart within one hour of opening and closing.
Operating Hours	Construction of quarry access, stockpile pad, internal road, workshop and office: • 7:00 am to 5:00 pm Monday to Friday. • 8:00 am to 1:00 pm Saturday. • No works on Sunday or public holidays. Quarrying Operations: • 7:00 am to 5:00 pm Monday to Friday. • 8:00 am to 1:00 pm Saturday. • No quarrying on Sunday or a Public Holiday. Loading and dispatch of trucks: • 6:00 am to 6:00 pm Monday to Friday • 6:00 am to 1:00 pm Saturday.

Aspect	Key Aspects of the Project
	- No haulage on Sunday or a Public Holiday. Blasting: 9 am to 4 pm Monday to Friday. - No blasts on weekends or public holidays.
Resources and products	Approximately 12 MT of rhyolite, arenite and weathered rock, crushed, screened and sized for various products including road construction and landscaping purposes. The key attributes of this material are: - Decorative and road construction aggregates with unique colouring. - High proportion of product to meet TfNSW specification for high grip to improve road safety. - The light-coloured nature of the resource has a high solar reflectance and is consistent with uses aimed at cooling pavements and reducing energy use.
Elevations	Approximate elevations relevant to the current approved development are: - Quarry located between 37 m to 115 m above the Australian Height Datum (AHD). - Workshop, office and stockpiles located between 31 to 49 m AHD. - Access road located between 22 to 59 m AHD. The Quarry pit is sheltered to the west by a ridge 125 m to 145 m AHD high and is above the nearby Deep Creek, which has an elevation of 28 m AHD.
Extraction	- Weathered rock stripped by a bulldozer or an excavator. - Blasting of hard rock. - Excavator and articulated trucks to feed the mobile crusher and screen on the pit floor. - Excavator or front-end loader and articulated trucks, to distribute materials between processing and stockpile areas. - Front-end loader to load road-registered haulage trucks for saleable products.
Support facilities and utilities	- Site office, weighbridge, workshop, stores, and car parking. - New intersection on The Bucketts Way with a private sealed access road. - Power supply from diesel generators or solar. - If a physical telecommunications line is installed, it will run adjacent to the access road, with new mobile technology also proposed to improve connectivity. - Water supply sourced from rainwater, onsite dams, surface water runoff, groundwater seepage and imported potable water as needed.
Rehabilitation	On completion of extraction, benches will be revegetated with native trees consistent with surrounding vegetation, with a free-draining quarry floor consisting of open grassland and scattered woodland that may provide a dwelling site generally consistent with the existing approved subdivision of the property.

1.5 SITE DESCRIPTION

The Deep Creek Quarry (DCQ) is located approximately 10 kilometres northeast of Clarence Town and 11 kilometres northwest of Karuah, within the Mid-Coast Local Government Area (LGA) of New South Wales. The site is accessed via The Bucketts Way, with the intersection of The Bucketts Way and the Pacific Highway located approximately 11.5 kilometres to the south, near Twelve Mile Creek.

The DCQ is located within a rural environment, comprising a combination of forested hills and ridgelines intersected by vegetated drainage lines. Large parcels of vegetation remain within the valley floodplain, with some clearing of vegetation for residential, commercial, utility and

infrastructure use. The Subject Land is located within the Mid-Coast LGA and is zoned as RU2 – Rural Landscape (RU2).

This CEMP applies specifically to the New Intersection Area of the DCQ Project. This area includes the first 450 metres of the proposed quarry access road, terminating approximately 40 metres before the first-order tributary along the access road alignment, as shown in **Figure 2**, covering approximately 1.9 ha.

The New Intersection Area has four receptors within 500m of the main works area as shown within **Figure 3**, this includes:

- Receptor 4 (associated receptor with agreement).
- Receptor 30 (known sensitivity to diesel emissions): 310m from intersection, The Bucketts Way approach works approximately 160m.
- Receptor 31: 420m to intersection, The Bucketts Way approach works approximately 230m.
- Receptor 32 (associated receptor): 240m to intersection, approach works 120m.

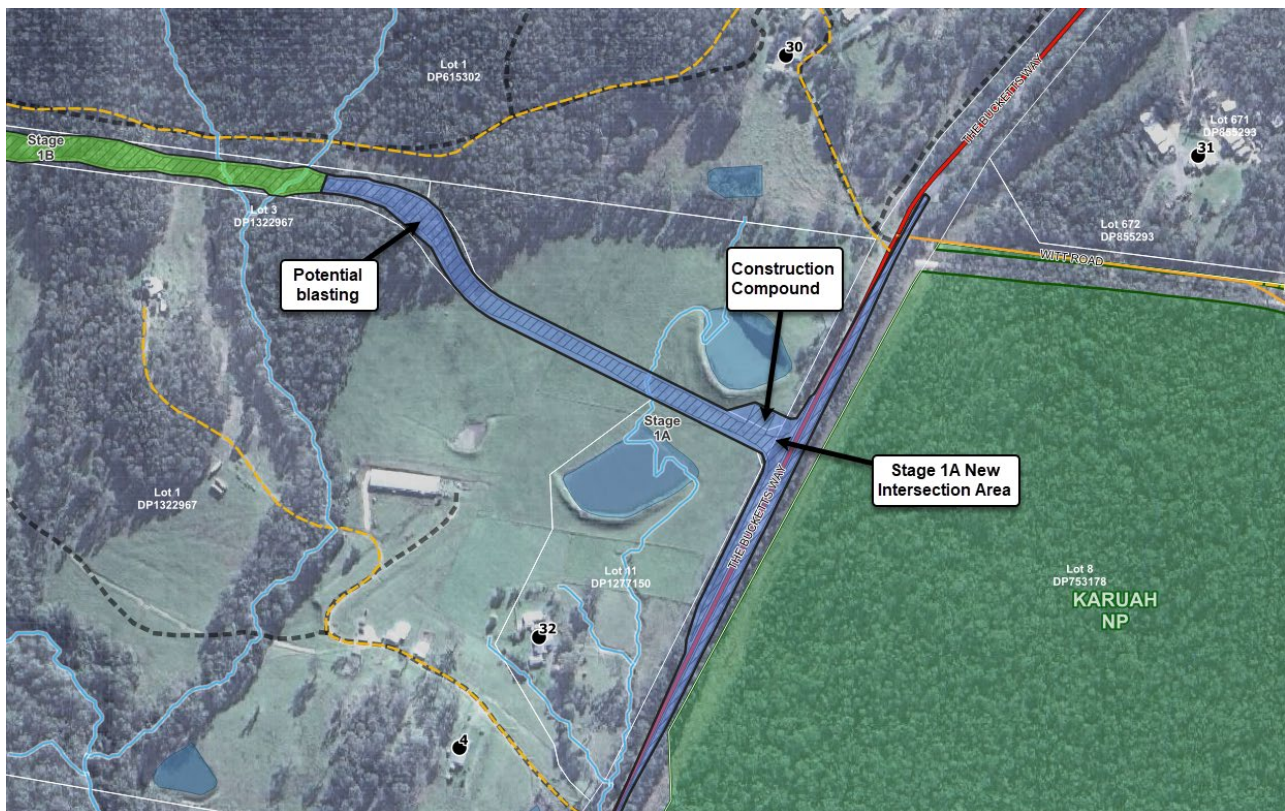


Figure 3: Receptors surrounding the New Intersection Area

There is a total of 87 residential receptors (known or potential dwellings) within 3 km of the DCQ (including the New Intersection Area). Receptors are spread throughout all directions surrounding the DCQ, with the largest density of dwellings along Forest Gen Road to the south of the project, which provides access to 20 dwellings. Twenty-two (22) dwellings are within 1 km of the DCQ (including the New Intersection Area).

Anthropological land use within 1 km of the Subject Land comprises the following:

- Large lot private properties and associated dwellings.

- Private businesses.
- Farming (primarily beef cattle grazing).
- Utility easements (e.g. powerline).
- Maintained private accessways, fire trails, public roads and trails.

The Karuah State Conservation Area and Karuah National Park are located approximately 2.1 km southeast of the quarry and on the eastern side of The Bucketts Way adjacent to the New Intersection Area. The private access road and The Bucketts Way intersection is located immediately to the west of the National Park. DCQ is not located within an area that has been mapped as Biophysical Strategic Agricultural Lands or Critical Industry Cluster Land (Equine or Viticulture).

1.6 PURPOSE AND SCOPE

The objective of this CEMP is to outline practical and achievable management controls to ensure that Stage 1 construction activities in the New Intersection Area associated with the Deep Creek Quarry (DCQ) are undertaken in a manner that minimises impacts on the surrounding environment, local communities, and human health. This CEMP applies specifically to works within the New Intersection Area, which includes the intersection with The Bucketts Way and the initial 450 metres of access road construction.

The CEMP also addresses ancillary environmental risks typically associated with the early stages of quarry development and civil construction works, including vegetation clearing, noise and dust generation, sedimentation, and traffic impacts.

The scope of work undertaken in preparing this CEMP includes:

- Providing environmental management controls to minimise potential impacts associated with road construction and vegetation clearing within the New Intersection Area (Stage 1).
- Describing the Stage 1 construction activities, with specific focus on those that may result in environmental disturbance, such as earthworks, access road development, and native vegetation removal.
- Evaluating environmental risks associated with construction activities, including potential impacts to biodiversity (e.g., koala habitat), water quality, and surrounding land uses.
- Outlining environmental management procedures, including control measures, performance criteria, and mitigation strategies aimed at reducing potential adverse impacts.
- Detailing the monitoring and reporting mechanisms that will be implemented to ensure compliance with relevant approval conditions and environmental objectives.

1.7 CONSULTATION

Consultation has been undertaken with relevant stakeholders throughout the planning and approvals process for the DCQ and continues to be a key component of the project's environmental management approach. This CEMP has been informed by this ongoing consultation and addresses the requirements of relevant approval conditions and agency feedback, particularly in relation to the staging of construction activities within the New Intersection Area.

Key consultation activities relevant to this CEMP include:

- NSW Department of Planning, Housing and Infrastructure (DPHI): Engagement was undertaken in relation to the proposed staging of Development Consent SSD-11591659, in accordance with Schedule 2, Condition A22. The Department reviewed and approved the proposed staging approach on 23 January 2026, enabling early works to proceed within the New Intersection Area.
- Mid-Coast Council: IDPL obtained approval from Mid-Coast Council to undertake road works and associated activities within the local road network, including the intersection with The Bucketts Way, as detailed in **Appendix C**.
- Specialist Consultants and Advisors: The preparation of this CEMP was supported by input from environmental specialists in areas including noise, air quality, biodiversity, traffic and access and water management to ensure compliance with Development Consent conditions and to reflect best-practice environmental controls.
- Engagement has occurred with the immediate neighbours of the New Intersection Area, notice will be provided by way of a Newsletter to previously interested stakeholders.
- Community Consultation Committee (CCC): While formal establishment of the CCC is required within six months of construction commencement (Condition A20), IDPL has committed to early and ongoing engagement with nearby residents and landowners to communicate construction timeframes, traffic movements, and environmental management practices during Stage 1 works.

Further consultation will continue during construction in accordance with the CEMP, which includes mechanisms for community feedback, complaints handling, and regular reporting to relevant authorities.

2. STATUTORY CONTEXT

2.1 STATUTORY APPROVALS

The development and operation of the Deep Creek Quarry (DCQ) is regulated through a range of statutory approvals, licences and permits issued under both State and Commonwealth legislation. These approvals establish the legal framework for the construction and operation of the Project and define the environmental management obligations that must be met by the Proponent.

The primary approval for the Project is Development Consent SSD-11591659, granted by the NSW Independent Planning Commission on 24 January 2024 under the Environmental Planning and Assessment Act 1979 (EP&A Act). The Development Consent authorises the construction and operation of a hard rock quarry and associated infrastructure, subject to a range of environmental management conditions.

In addition to the State approval, the Project was approved by the Commonwealth Government on 7 November 2024 under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). This approval includes conditions relating to the protection of Matters of National Environmental Significance (MNES), including listed threatened species and ecological communities.

Other statutory requirements may apply to the construction and operation of the Project, including permits or licences issued under relevant NSW legislation such as the Protection of the Environment Operations Act 1997, Biodiversity Conservation Act 2016, National Parks and Wildlife Act 1974, and Water Management Act 2000, where applicable.

The statutory approvals required for the Project are summarised in **Table 3** below. These approvals collectively authorise quarrying, processing, water management and associated infrastructure activities.

Compliance with the conditions of these approvals is achieved through the implementation of this Construction Environmental Management Plan (CEMP) and supporting Environmental Management Plans (EMPs).

Copies of relevant approvals, licences and permits will be maintained on site and made available to regulatory authorities upon request.

Table 3: Statutory Approvals Applicable to Deep Creek Quarry

Approval/Licence	Legislation/Administering Authority	Description	Status
State Significant Development Consent (SSD-11591659)	<i>Environmental Planning and Assessment Act 1979</i> – NSW Department of Planning, Housing and Infrastructure (DPHI) / Independent Planning Commission (IPC)	Authorises the extraction and processing of up to 500,000 tonnes of hard rock per annum for up to 30 years and associated infrastructure and rehabilitation works.	Granted 24 January 2024 by IPC. Current and active.
Environment Protection Licence (EPL)	<i>Protection of the Environment Operations Act 1997</i> – NSW Environment Protection Authority (EPA)	An EPL is required for scheduled extractive industry activities where more than 30,000 tonnes per year of material is extracted, processed, or	Application has been made, status is pending.

Approval/Licence	Legislation/Administering Authority	Description	Status
		handled. The EPL regulates emissions to air, noise, water, waste management, and sets monitoring and reporting obligations.	
Water Access Licence(s) and/or Water Supply Work Approval(s)	<i>Water Management Act 2000</i> – NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) / Water NSW	Authorises the extraction and use of surface water and groundwater for quarry operations and dust suppression.	Surface water take by the quarry is authorised under an exemption under the Water Management (General) Regulation 2018, or in the case of supplemental water take from other dams on the land holding is within the permissible Maximum Harvestable Rights Dam Capacity (MHRDC).
Groundwater Bore Licence(s)	<i>Water Management Act 2000</i> or <i>Water Act 1912</i> (transitional) – DCCEEW / Water NSW	Permits the installation and operation of groundwater monitoring bores for environmental monitoring purposes.	Existing bores subject to licence(s) under Part 5. Prior to intercepting groundwater within the quarry pit a licence will be attained.
Road Works / Access Permit	<i>Roads Act 1993</i> – Transport for NSW (TfNSW) / Mid-Coast Council	Approves works within or connection to The Bucketts Way and local road network for quarry access.	S138 Approval granted by Mid Coast Council on 02 June 2025 under Public Engineering Works Permit No. RDA2024/0360
Biodiversity Offset Requirements	<i>Biodiversity Conservation Act 2016</i> – DCCEEW / Biodiversity Conservation Division	Secures and manages biodiversity offsets in accordance with the Biodiversity Offset Scheme, where required under consent conditions.	Implemented as per consent and staged offset approval. Credits must be retired in a staged approach prior to disturbance.
Commonwealth Approval (EPBC Act 1999)	<i>Environment Protection and Biodiversity Conservation Act 1999</i> – Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW)	Approves the project under the bilateral agreement for actions likely to impact Matters of National Environmental Significance (MNES).	Approval granted 7 November 2024.
Local Approvals / Notifications	<i>Local Government Act 1993</i> – Mid-Coast Council	Local road and infrastructure works notifications, and	As required prior to works.

Approval/Licence	Legislation/Administering Authority	Description	Status
		compliance with relevant LEP provisions.	
National Parks and Wildlife Act 1974 (NPW Act)	<i>Heritage NSW / DCCEEW</i>	Protects Aboriginal cultural heritage, relics, and places. Unexpected finds procedures implemented through the Heritage Management Plan.	Heritage Management Plan provides for management of unexpected finds.
State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 (Mining SEPP)	<i>DPHI</i>	Establishes land use permissibility, environmental performance criteria, and strategic planning considerations for extractive industries.	Applies to the development and ongoing operations. Relevant to the Mining SEPP, including: • existing uses and approved uses of land in the vicinity of the development, and potential impacts and compatibility; • impacts on water resources and threatened species and biodiversity, and • consideration in regard to the transportation of product on public roads. Deep Creek Quarry EMS and other management plans are consistent with the aims of this policy.
Heritage Act 1977	<i>Heritage NSW</i>	Provides for the protection of non-Aboriginal heritage items and conservation of historic features.	Applies
Mid-Coast Local Environmental Plan (LEP) 2018	<i>Mid-Coast Council</i>	Zoning of the site as RU2 – Rural Landscape permits extractive industry with consent. Establishes local development controls.	Applies.

Statutory approvals, licences, and permits relevant to the Deep Creek Quarry have been identified in Table 2 above. Discussion is provided in the following sections for the Development Consent

(SSD-11591659) and the Commonwealth Approval (EPBC Act 1999), as these instruments establish the primary environmental management framework for the Project.

Other approvals, including the Environment Protection Licence, Water Management Act licences, Roads Act permits, and local government instruments, are addressed through their specific management plans and compliance procedures and are referenced within this CEMP where relevant.

2.2 DEVELOPMENT CONSENT

The Deep Creek Quarry is approved as a State Significant Development (SSD) under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Development Consent (SSD-11591659) was granted by the NSW Independent Planning Commission (IPC) on 24 January 2024.

The Development Consent includes conditions designed to:

- Ensure the protection of the environment during construction and operation.
- Define operational limits for quarrying, production, transport, and blasting activities.
- Mandate the preparation, implementation, and regular review of environmental management plans (EMPs) addressing key aspects such as air quality, noise, water, biodiversity, rehabilitation, heritage, and traffic.
- Require the preparation and maintenance of an Environmental Management Strategy in accordance with Conditions D1–D3 of the consent.
- Establish detailed requirements for management plans under Condition D4, including baseline data, statutory compliance, performance indicators, monitoring, reporting, contingency measures, continuous improvement, incident/complaint management, and periodic review.

The requirements stipulated in Part D, D1-D4 of the Development Consent (SSD-11591659) and where they are addressed in this CEMP are provided in **Table 4**.

Table 4: Development Consent Conditions Relating to the EMS

Condition Number	Development Consent Condition	Relevant Section
D1	The Applicant must prepare an Environmental Management Strategy (EMS) for the development. The Strategy must:	Section 7
	(a) provide the strategic framework for environmental management of the development;	Section 7.
	(b) identify the statutory approvals that apply to the development;	Section 2.
	(c) set out the role, responsibility, authority and accountability of all key personnel involved in environmental management;	Section 5.
	(d) set out the procedures to be implemented to: (i) keep the local community and relevant agencies informed about operations and environmental performance, including public reporting of air quality monitoring results; (ii) receive, record, handle and respond to complaints; (iii) resolve disputes; (iv) respond to non-compliance and incidents;	Section 6.

Condition Number	Development Consent Condition	Relevant Section
	(v) respond to emergencies; and	
	(e) include: (i) references to strategies, plans and programs approved under the conditions of consent; and (ii) a clear plan depicting all required environmental monitoring.	Section 6 and Section 7.6.
D2	The Applicant must not commence construction or quarrying operations until the Environmental Management Strategy is approved by the Planning Secretary.	Acknowledged.
D3	The Applicant must implement the approved Environmental Management Strategy.	Acknowledged.
D4	Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:	Acknowledged
	(a) A summary of relevant background or baseline data;	Section 4
	(b) Details of: (i) The relevant statutory requirements (including any relevant approval, licence, or lease conditions); (ii) Any relevant limits of performance measures and criteria; and (iii) The specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;	Section 2, Section 4
	(c) A description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria;	Section 4 and Section 6
	(d) A program to monitor and report on the: (i) Impacts and environmental performance of the development; and (ii) Effectiveness of the management measures set out pursuant to Condition D4(c)	Section 6 and Section 7
	(e) A contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible;	Section 7
	(f) A program to investigate and implement ways to improve the environmental performance of the development over time;	Section 7
	(g) A protocol for managing and reporting any: (i) Incident, non-compliance or exceedance of the impact assessment criteria or performance criteria; (ii) Complaint; or (iii) Failure to comply with statutory requirements; and	Section 6 and Section 7.
	(h) A protocol for periodic review of the plan.	Section 7
	Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	

2.3 COMMONWEALTH APPROVAL

The Project was determined to be a controlled action under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) due to its potential impacts on matters of national environmental significance (MNES).

Commonwealth approval was granted on 7 November 2024, subject to conditions requiring the implementation of management measures for:

- Protection of threatened species and ecological communities.
- Mitigation of potential impacts on water resources.
- Monitoring, reporting, and independent auditing to demonstrate ongoing compliance with approved environmental safeguards.

3. SITE ACTIVITIES

3.1 OVERVIEW

Stage 1 construction activities for the Deep Creek Quarry (DCQ) will focus on establishing site access and preparing critical early infrastructure to facilitate the broader quarry development. This CEMP applies specifically to the New Intersection Area, which includes the construction of a new T-intersection with The Bucketts Way and the initial 450 metres of the access road extending westward towards the quarry footprint.

Construction activities will be delivered in three core work areas:

1. **Intersection Works:** Construction of a new, sealed T-intersection with The Bucketts Way, including associated turning lanes and traffic control infrastructure. These works are designed in accordance with the Austroads Guide to Road Design and will operate as a Channelised Right Turn (CHR) / Auxiliary Left Turn (AUL) intersection. The design includes a 370-metre acceleration lane for southbound traffic exiting the site and a dedicated right-turn lane for northbound vehicles entering the quarry.
2. **Access Road Construction:** Establishment of the first 450 metres of a two-lane sealed access road, built to withstand long-term heavy vehicle use. The alignment has been selected to minimise environmental and amenity impacts, utilising previously cleared grazing land and increasing setback distances from nearby residential dwellings.
3. **Koala exclusion fencing** will be installed along the northern and southern edges of the access road corridor in the bushland area, with rural fencing along the northern and southern edges of the front paddock near The Bucketts Way and along the southern edge of the access road corridor. Erosion and sediment controls, roadside bunding, and revegetation works will also be implemented. Where feasible, these measures will be installed concurrently with roadworks.

Key construction elements are illustrated in **Figure 2** and supported by detailed design drawings provided in **Appendix C**.

3.2 CONSTRUCTION METHODOLOGY

The following activities are anticipated during Stage 1:

- Surveying and pegging of the access road alignment and clearing limits.
- Installation of temporary fencing to secure the site and define work zones.
- Pre-clearance inspection of vegetation to be cleared.
- Installation of sediment controls as necessary.
- Vegetation clearing within the defined construction footprint, including removal of identified koala feed trees and hollow-bearing trees (offsets to be delivered in accordance with consent conditions).
- Establishment of a construction compound adjacent to the access road corridor for unloading and operating machinery. The compound will include a site office, self-contained toilet, workers' car parking, machinery parking, and limited goods storage.
- Earthworks and road formation, including:
 - Topsoil stripping and subgrade preparation
 - Placement and compaction of road base

- Sealing of the surface with a two-coat bitumen
- Construction of intersection pavement, including:
 - Pavement excavation and reshaping
 - Installation of drainage and utilities
 - Placement of base layers and sealing
 - Line marking, signage, and road furniture
- Traffic control implementation on The Bucketts Way, including speed reduction signage, temporary lane closures, and placement of barriers, in accordance with the Traffic Control Plan (**Appendix E**).
- Installation of bunding and revegetation along the northern edge of the access road.
- Installation of gated access points.

3.3 TEMPORARY SITE ACCESS DURING CONSTRUCTION

While the new intersection and access road are under construction (estimated to take approximately 12 weeks), temporary access will be required to facilitate the mobilisation of construction equipment and personnel to establish the New Intersection Area.

- Primary construction access for Stage 1 works will be directly from The Bucketts Way, with appropriate traffic management measures in place in accordance with the Traffic Control Plan (refer to **Appendix E**).
- To enable early works beyond the Deep Creek crossing (which cannot initially be accessed from The Bucketts Way), limited access via Forest Glen Road may be used one time only to float in approximately five pieces of heavy machinery (e.g. dozers, dumpers, excavators). Machinery will be unloaded near the end of Forest Glen Road and moved internally across IDPL-owned land to the construction site. This will be conducted under controlled conditions and in consultation with relevant stakeholders, in accordance with the approved Development Consent.
- Deep Creek Road will not be used at any time for construction access, machinery movement, haulage, staff entry, or any other project-related activity outside of the Project Area during construction of the New Intersection Area, excepting emergency (imminent risk to life or property or environment) access.
- Forest Glen Road will not be used for any ongoing haulage, gravel transport, staff access, or regular vehicle movements beyond this one-time machinery mobilisation and 12 light vehicles accessing the site per day until the new quarry access road is operational. Once the access road and intersection are complete, all site access will occur exclusively via the new quarry access road from The Bucketts Way, excepting emergency use.
- Forest Glen Road is a legal point of access to the site and may remain so; however, its use during construction is restricted solely to this initial float-in activity if required.

3.4 CONSTRUCTION HOURS

All construction works will be undertaken in accordance with the approved hours of operation:

- Monday to Friday: 7:00 am – 5:00 pm.
- Saturday: 8:00 am – 1:00 pm.
- Sunday and Public Holidays: No work permitted.



In accordance with TfNSW guidance, no intersection construction works will be undertaken during the standard Christmas/New Year shutdown period, unless explicitly approved and required for safety reasons.

4. BASELINE CONDITIONS AND POTENTIAL ENVIRONMENTAL IMPACTS

4.1 OVERVIEW

Construction of the New Intersection Area and initial section of the access road will involve a range of activities, including vegetation clearing, earthworks, machinery mobilisation, road construction, and temporary infrastructure installation. These works have the potential to generate both direct and indirect environmental impacts if not appropriately managed.

Baseline environmental conditions for the Project were established through specialist studies undertaken for the Deep Creek Quarry Environmental Impact Statement (EIS). These studies characterised existing environmental values including background noise levels, air quality, surface water and groundwater conditions, vegetation communities, and fauna habitat within and surrounding the Project area.

This section provides a summary of the relevant baseline environmental conditions and outlines the potential environmental impacts associated with these early construction activities, together with mitigation and management strategies to minimise environmental harm. The assessment considers key environmental aspects including noise, vibration, air quality, water quality, traffic and access, and biodiversity. These issues have been identified through the Environmental Impact Statement (EIS), technical studies, and project planning documentation, and are addressed with a focus on ensuring compliance with statutory obligations, environmental performance objectives, and community expectations.

4.2 NOISE, BLAST AND VIBRATION

Noise impacts associated with the entire project, including construction and operational phases, have been comprehensively assessed using detailed noise modelling. This modelling incorporated all noise sources, including on-site activities and off-site traffic movements, and considered receivers within 3 km of the project footprint. The full project noise impact assessment confirms that noise levels are predicted to comply with relevant criteria at all sensitive receivers, with exceptions addressed through existing agreements.

The following section focuses specifically on noise considerations relevant to the construction of the New Intersection Area, which represents a limited portion of the overall project footprint.

4.2.1 Direct Impacts

During construction of the New Intersection Area, noise will primarily arise from earthmoving equipment, machinery operation, and vehicle movements along the access track. While the broader project assessment predicts low noise impacts overall, specific construction noise for this limited area is expected to remain within acceptable levels, consistent with project-wide criteria.

The worst-case predicted noise levels at the nearest receivers are below thresholds associated with sleep disturbance or significant annoyance. Traffic noise generated by construction vehicles is also expected to be minor due to controlled speeds (40 km/h) and limited vehicle numbers.

No routine blasting is planned during this phase. However, there is a potential for small, isolated blasts on the first hill/cut, depending on rock hardness, which will be managed in accordance with the project's blasting and noise management protocols.

4.2.2 Indirect and Cumulative Impacts

Temporary noise disturbance to nearby residents and fauna may occur during construction, but the limited scale and duration of works, combined with natural topographic features, will reduce noise propagation beyond the immediate area.

Cumulative noise impacts, considering both this construction phase and other local sources, are not anticipated to be significant.

4.2.3 Noise Criteria

Noise generated by the development must comply with the operational noise criteria specified in the Development Consent:

Receiver R30:

- Day (LAeq 15 min): 40 dB(A)
- Evening (LAeq 15 min): 36 dB(A)
- Night (LAeq 15 min): 52 dB(A)

All other privately-owned residences:

- Day (LAeq 15 min): 40 dB(A)
- Evening (LAeq 15 min): 35 dB(A)
- Night (LAeq 15 min): 52 dB(A)

These criteria:

- Apply at any residence on privately-owned land
- Are to be measured and assessed in accordance with the NSW Noise Policy for Industry (2017), including relevant meteorological conditions
- May be exceeded where a written agreement exists with the landowner and the relevant authority has been notified

In addition, the development is required to:

- Take all reasonable steps to minimise noise from construction, operational and transport activities, including low-frequency noise
- Implement a noise management system incorporating meteorological forecasting and real-time monitoring
- Undertake regular attended noise monitoring (at least quarterly, unless otherwise agreed)
- Review monitoring data and modify or cease operations where required to maintain compliance

4.2.4 Summary of Key Mitigation Measures

Management of noise from the project, including construction of the New Intersection Area, will be undertaken in accordance with the project's Noise Management Plan (NMP), which is to be prepared and approved in accordance with the conditions of development consent.

For the purposes of the New Intersection Area works, the following measures will be implemented to minimise noise impacts:

- Enforcing a 40 km/h speed limit on access roads to reduce vehicle noise

- Restricting construction activities to standard daytime hours where feasible
- Using well-maintained plant and equipment consistent with noise modelling assumptions
- Positioning plant and equipment to take advantage of natural landform shielding
- Implementing reasonable and feasible noise mitigation measures where required
- Undertaking noise monitoring during construction to verify performance where necessary
- Promptly investigating and responding to any noise complaints

These measures align with the broader project noise management framework and are designed to ensure that noise impacts remain within the applicable criteria. Vibration and blasting

The construction of the New Intersection Area and associated access track is not expected to cause significant vibration impacts on surrounding properties. The primary source of vibration during construction may arise from the use of vibrating rollers to achieve compaction standards. These vibrations are generally low-level, localised, and short-term.

No routine blasting is planned during this early construction phase. However, small, isolated blasts may be required on the first hill/cut, depending on rock hardness. All blasting activities will be managed in accordance with the project's Blasting and Noise Management Protocols.

4.2.5 Vibration and Blasting Criteria

Where blasting may occur, the following criteria apply:

- Airblast overpressure:
 - 120 dB(Lin Peak) at any residence on privately-owned land (0% exceedance allowed)
 - 115 dB(Lin Peak) at any residence on privately-owned land (allowable for up to 5% of total annual blasts)
- Ground vibration:
 - 10 mm/s at any residence on privately-owned land (0% exceedance allowed)
 - 5 mm/s at any residence on privately-owned land (allowable for up to 5% of total annual blasts)
- Construction vibration:
 - Low-level vibration from equipment (e.g., rollers) is expected to be well below levels that could damage structures or disturb sensitive receivers.
- Exemptions and limitations:
 - Criteria do not apply if a written agreement exists with the landowner and the Department has been notified.
- Maximum of 25 blasts per calendar year, except for:
 - Blasts generating ground vibration ≤ 0.5 mm/s at any residence,
 - Blast misfires, or
 - Blasts required for safety of the mine, workers, or the public.
- Blast definition:

- A single “blast” may involve multiple individual blasts fired in quick succession in a discrete area.
- Misfires followed by an additional blast are counted as one blast.

4.2.6 Summary of Key Mitigation Measures

To minimise vibration and potential blasting impacts:

- Blasting will only be undertaken if absolutely necessary and under qualified supervision.
- Blast designs will consider ground vibration, airblast, and proximity to sensitive receivers.
- Real-time monitoring will verify compliance with blasting criteria.
- Low-vibration construction activities will use well-maintained equipment and follow standard operating procedures.
- High-vibration activities will be restricted to daylight hours.
- Equipment will be positioned to take advantage of natural landform shielding where possible.
- Any exceedances or complaints will be recorded and addressed promptly in accordance with Incident Management Procedures.

This approach ensures that vibration from both standard construction activities and any potential blasting remains minimal, compliant with consent conditions, and unlikely to affect nearby residents or fauna during New Intersection Area construction.

4.3 AIR QUALITY

Construction activities within the New Intersection Area have the potential to generate dust and emissions primarily from vegetation clearing, earthworks, vehicle movements, and operation of plant and equipment. These impacts are expected to be short-term and localised due to the limited scale and duration of the works.

Baseline air quality conditions for the Project area were characterised in the Environmental Impact Statement (EIS), which identified generally low background pollutant levels consistent with a rural environment. Potential impacts during construction relate primarily to the generation of particulate matter (dust), which may affect nearby sensitive receivers if not appropriately managed.

4.3.1 Air Quality Criteria

Air quality management for the New Intersection Area will be undertaken in accordance with the criteria and requirements outlined in the Development Consent and the Environmental Impact Statement (EIS).

The key air quality criteria applicable to construction activities are as follows:

- Particulate Matter (PM₁₀):
 - 24-hour average: 50 µg/m³
 - Annual average: 25 µg/m³
- Particulate Matter (PM_{2.5}):
 - 24-hour average: 25 µg/m³
 - Annual average: 8 µg/m³

- Total Suspended Particulates (TSP):
 - Annual average: 90 µg/m³

These criteria apply at any residence on privately-owned land and are based on the incremental increase in pollutant concentrations attributable to the development, consistent with the EIS assessment methodology.

In addition:

- No offensive odours are to be emitted from the site, in accordance with the *Protection of the Environment Operations Act 1997*.
- The development must not cause or contribute to exceedances of the above criteria, unless otherwise agreed with affected landowners and the relevant authority.
- Dust-generating activities must be managed to avoid adverse impacts during adverse meteorological conditions (e.g. high winds), including modification, relocation, or suspension of works where necessary.
- Air quality monitoring and meteorological data will be used to inform proactive and reactive management responses.

These criteria form the basis for performance assessment, monitoring, and adaptive management during construction.

4.3.2 Summary of Key Mitigation Measures

To minimise and manage air quality impacts during construction of the New Intersection Area:

- Air quality monitoring will be implemented, with routine measurements conducted at least monthly. Monitoring equipment will be installed prior to the commencement of construction.
- An Air Quality Management System (AQMS) will be implemented to guide monitoring, forecasting, and response actions.
- Construction methods and sequencing will be adjusted, where necessary, based on monitoring results and prevailing weather conditions to minimise dust generation.
- All vehicles and plant will be maintained in good working order to minimise exhaust emissions.
- Speed limits will be enforced on site access roads to reduce dust generation from vehicle movements.
- Air quality impacts will be managed to comply with the Project criteria.

4.4 WATER

This section outlines measures to manage and protect surface water and groundwater within the New Intersection Area during construction. The measures aim to:

- Minimise sediment-laden runoff.
- Prevent pollution of nearby waterways (e.g., Deep Creek).
- Avoid adverse impacts on local groundwater resources.
- Comply with relevant regulatory requirements.

Management of potential surface and groundwater impacts from the project is addressed through the implementation of an *Erosion and Sediment Control Plan (ESCP)*, detailed in **Section 6.5** and included in **Appendix D** of this CEMP.

4.4.1 Surface Water Environment

The intersection area is located near ephemeral drainage lines that ultimately discharge towards Deep Creek, a tributary of the Karuah River. Deep Creek is located over 500m from the core construction area of the New Intersection Area, and approximately 140m from the approach works on the Bucketts Way.

These systems only flow during or after rainfall events. Surface water in the area is fresh, with low electrical conductivity (EC), and is sensitive to sediment and pollutant inputs.

The majority of the works area will drain toward an existing inline farm dam located downgradient of the disturbance area. Works will be required to avoid contamination of this farm dam. It is worth noting the dam will provide an effective buffer to Deep Creek in the event of failure of the erosion and sediment controls.

4.4.2 Groundwater Environment

The underlying geology is primarily weathered volcanic rock including rhyolite, which has low permeability and limited groundwater storage, with groundwater, where present occurring mainly in fractures. Groundwater within the New Intersection Area is likely located at depths of 10–35 m, with minimal connectivity to surface waters in the area. No registered bores or sensitive receptors are located in or near the intersection works footprint. The construction of the cutting is not expected to encounter groundwater.

4.4.3 Potential Impacts

Construction activities for the New Intersection Area may cause the following water-related impacts:

- Increased sediment-laden runoff during rainfall.
- Localised erosion and scouring of disturbed soils.
- Minor risk of hydrocarbon or chemical spills contaminating surface water or shallow groundwater.
- Slight alteration of surface flow paths if drainage is not managed appropriately.

Groundwater is not expected to be intercepted or impacted due to:

- Shallow construction depth.
- Low hydraulic conductivity of the rhyolite.
- Absence of GDEs or sensitive aquifers in the area.

4.4.4 Summary of Key Mitigation Measures

The following mitigation measures will be implemented to minimise water impacts during construction to maintain compliance with Conditions of Development Consent, and the Environmental Protection Licence.

- Erosion and Sediment Control:
 - Erosion and Sediment Control Plan (**Appendix D**).
 - Install erosion and sediment controls prior to ground disturbance, in accordance with the ESCP and the Blue Book (Managing Urban Stormwater: Soils and Construction, 4th Edition).
 - Use silt fences, sediment basins, hay bales, or sediment socks where necessary.
 - Stabilise disturbed areas progressively with gravel or vegetation.
 - Inspect and maintain controls weekly and after rainfall events >10 mm.
- Surface Water Protection:
 - Avoid stockpiling or storing materials in drainage lines or near waterways.
 - Divert clean stormwater around the construction area using bunds or drains.
 - Prevent dirty water from entering drainage lines by capturing and treating runoff on-site.
 - Ensure all concrete washout occurs in designated areas away from watercourses.
- Groundwater Protection:
 - Maintain shallow excavation depths (well above groundwater levels).
 - Prevent infiltration of contaminants by bunding fuel storage areas.
 - Use spill kits and train staff in spill response procedures.
 - Store chemicals and fuels on hardstand surfaces with secondary containment.
- Hydrocarbon and Chemical Management:
 - Refuel machinery at least 20 m from any drainage line.
 - Store fuels and lubricants in accordance with EPA and WorkSafe requirements.
 - Report any spills immediately and implement remedial actions without delay.
- Monitoring and Inspection:
 - Inspect erosion and sediment controls daily during rainfall and weekly during dry conditions.
 - Monitor runoff visually for turbidity and signs of erosion.
 - Inspect fuel storage and refuelling practices weekly.
 - Maintain a site-specific Incident Register for any water-related issues.
- Compliance and Reporting:
 - Non-compliance or environmental incidents will be reported in accordance with **Section 5.2** (Incident Management) of this CEMP.

4.5 BIODIVERSITY

Potential biodiversity impacts associated with the construction of the New Intersection Area include direct removal of vegetation and fauna habitat, as well as indirect impacts such as fauna disturbance, weed spread, and surface water quality degradation. Construction will impact approximately 0.7 ha of native vegetation within the approved disturbance footprint.

Key Biodiversity Values of the New Intersection Area include:

- Exotic grasslands within the open paddocks.
- Native vegetation community, PCT 1590: Spotted Gum - Broad-leaved Mahogany - Red Ironbark shrubby open forest, Moderate-Good condition (Weedy), located on the hill and adjacent to The Bucketts Way.
- All native vegetation was considered potential Koala and Squirrel Glider habitat.
- Hollow-bearing vegetation within 200m of the dams was deemed potential Southern Myotis Habitat.
- *Callistemon Linearifolius* (Netted Bottlebrush) was found outside the disturbance area on the hill within PCT 1590.
- No *Tetratheca Juncea*, or potential habitat was located within the New Intersection Area.

The locations of hollow bearing trees, and vegetation communities within and adjacent to the New Intersection Area are shown in **Plate 1**. Note that **Plate 1** depicts the broader project area, the New Intersection Area subject to this CEMP is the eastern portion of the disturbance footprint.

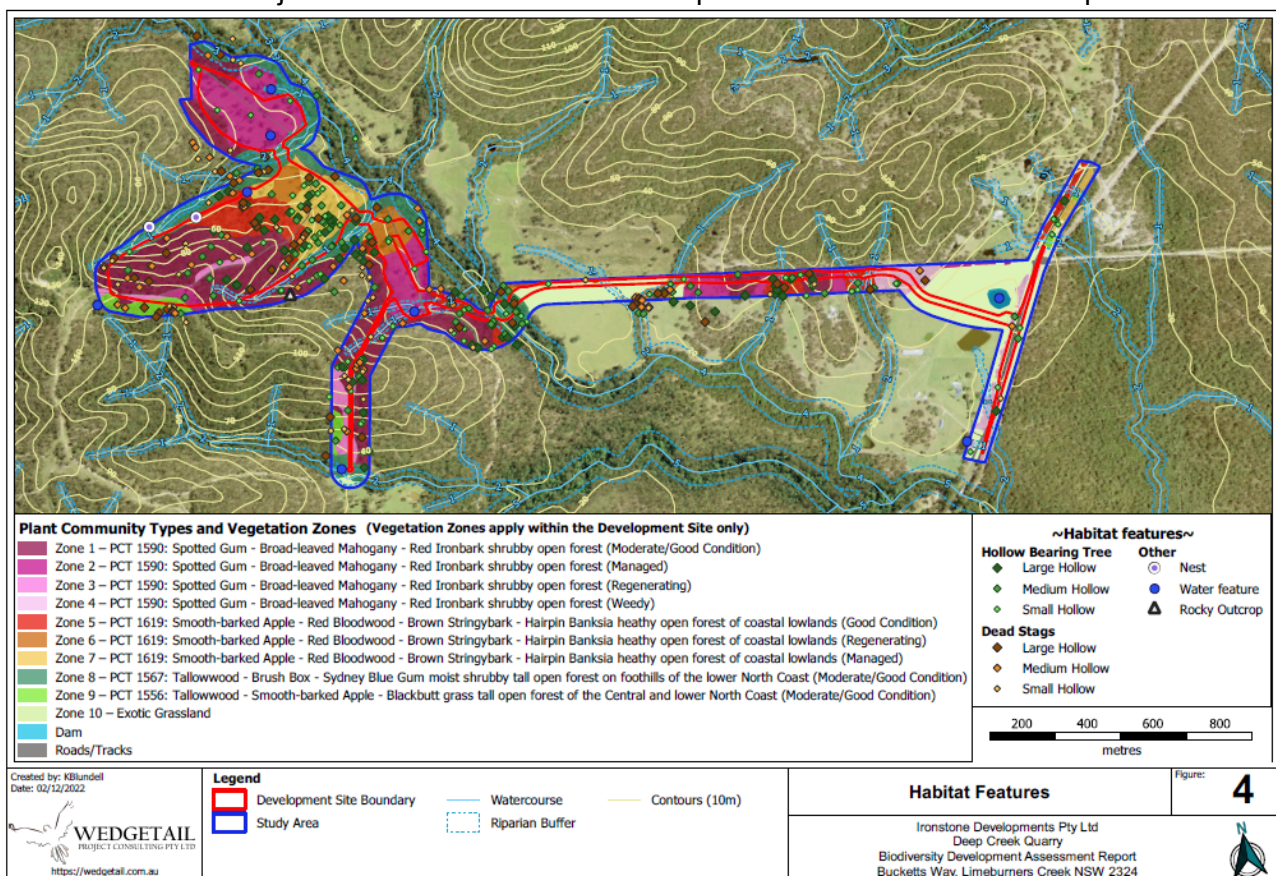


Plate 1:Vegetation and habitat features

Management of potential biodiversity impacts from the New Intersection Area works is addressed through the implementation of a simplified management plan focusing on vegetation clearing protocols (**Section 6.3**) and the retirement of biodiversity credits in accordance with Schedule 2, Condition B44 – Biodiversity Offset Strategy.

4.5.1 Direct Impacts

Construction of the New Intersection Area will require the removal of native vegetation and some fauna habitat. Vegetation clearance within this area occurs primarily in previously disturbed or cleared grazing land (1.2 ha), and a smaller area of native vegetation (0.7ha). No threatened ecological communities (TECs) or critical habitat have been identified in this limited work area, however hollow-bearing trees and other potential fauna habitat will be affected.

Clearing will be confined to the designated construction footprint, as shown in **Figure 2** and will be carried out in accordance with the management plan (**Section 6.3**) that includes pre-clearance protocols, site induction requirements, and vegetation protection measures.

4.5.2 Indirect Impacts

- **Habitat Connectivity:** While a narrow-cleared corridor will be introduced for the access road, it is not expected to significantly impede fauna movement or regional ecological connectivity due to the short width of the clearing and the surrounding intact vegetation.
- **Fauna impacts:** Clearing activities and construction vehicle movements in the New Intersection Area may increase the risk of fauna strikes. This risk will be mitigated through:
 - Pre-clearance inspections of vegetation to be cleared.
 - Ecological supervision of clearing of any vegetation above 100mm diameter at breast height (DBH).
 - Enforced 40 km/h speed limits.
 - Signage warning of fauna presence.
 - Construction activities confined to daylight hours.
- **Weed Invasion and Pathogens:** Ground disturbance and vehicle access may introduce or spread weed species and pathogens (e.g. *Phytophthora cinnamomi*). Weed management measures will include:
 - Pre-construction weed mapping.
 - Wash-down protocols for all machinery entering the site.
 - Exclusion of machinery from non-clearing areas.
 - Post-construction weed control within the disturbed footprint.
- **Noise, Vibration and Light Spill:** Increased activity, machinery operation and lighting during works may disturb local fauna. These impacts will be reduced by:
 - Using directional lighting away from vegetation edges.
 - Confining construction activities to daylight hours.
 - Maintaining equipment to reduce excess noise and vibration.
- **Water Quality and Aquatic Habitat:** Deep Creek is located downstream of the proposed New Intersection Area. Although no direct instream works are proposed at this stage, sedimentation

and runoff pose a risk to water quality, albeit negligible on account of the large inline farm dam immediately downstream. Controls to mitigate these risks will include:

- o Erosion and sediment control measures (e.g. silt fencing, diversion banks).
- o Stabilisation of cleared areas as soon as practical.
- o Spill kits will be available on site, located at the construction compound, for use with all plant, vehicles, and machinery as required.

4.5.3 Credit Obligations

To offset the impacts of clearing biodiversity credits will be retired prior to any disturbance in accordance with the approved Biodiversity Offset Strategy (Schedule 2, Condition B44). For the New Intersection Area (Stage C1/ 1A), this includes:

- Ecosystem credits:
 - o 7 credits of PCT1590 Spotted Gum - Broad-leaved Mahogany - Red Ironbark shrubby open forest in the Hunter-Macleay Dry Sclerophyll Forests <50% offset trading group.
- Species credits:
 - o 7 credits of *Callistemon linearifolius* (Netted Bottlebrush)
 - o 10 credits of *Myotis Macropus* (the bat species Southern Myotis)
 - o 19 credits of *Petaurus norfolcensis* (Squirrel Glider)
 - o 19 credits of *Phascolarctos cinereus* (Koala): 19

Staging of credit obligations for later construction stages will follow the same approach, consistent with approvals from DPHI, BCS, and DPIE. A copy of the staging Letter approval from DPHI is included in **Appendix B**.

4.5.4 Summary of Key Mitigation Measures

The following mitigation measures will be implemented during the construction of the New Intersection Area to minimise potential impacts on biodiversity and surrounding environmental values:

- Limit clearing to mapped work areas only.
- Pre-clearance fauna surveys where applicable.
- Ecological supervision of clearing of any vegetation above 100mm diameter at breast height (DBH).
- 40 km/h speed limit on access track during construction.
- Weed hygiene protocols for all machinery.
- No-go zones marked and communicated during induction.
- Temporary erosion and sediment controls prior to earthworks.
- Minimal lighting, directed away from native vegetation.
- Dust suppression and watering during dry/windy conditions.
- Retire biodiversity credits in accordance with Stage C1 obligations before any clearing.

4.6 HERITAGE

4.6.1 Historic Heritage

A Historic Heritage Assessment was prepared by Insite Heritage Pty Ltd (Christopher Carter, BA(Hons), MA, PhD) in May 2021 as part of the Deep Creek Quarry Environmental Impact Statement (EIS Appendix R). The assessment included searches of statutory and non-statutory heritage registers, including the State Heritage Inventory, the EPBC Act National and Commonwealth Heritage Lists, the Great Lakes LEP 2014, the Register of the National Estate, and the National Trust Register. A physical inspection of the study area was also undertaken.

The assessment concluded that the study area contains no items of historic heritage significance and that there are no heritage constraints affecting the development. No heritage items, structures, or potential deposits were identified during the field inspection. No evidence of any historic activity beyond historical grazing was found on site. The closest listed heritage items are on the Great Lakes LEP 2014, located more than 10 kilometres from the study area.

4.6.2 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared by Insite Heritage Pty Ltd in March 2021 as part of the Deep Creek Quarry EIS (EIS Appendix I). The ACHAR was prepared in accordance with the National Parks and Wildlife Act 1974 (NPW Act) and the Environmental Planning and Assessment Act 1979 (EP&A Act), and involved a multi-stage consultation process, an AHIMS database search, background research, and a physical field assessment.

Consultation was conducted in accordance with Regulation 80C of the NPW Act across five stages, commencing in August 2020. Registered Aboriginal Parties (RAPs) included the Karuah Local Aboriginal Land Council (KLALC) and Nur-Run-Gee, both of whom participated in the field assessment. The consultation process did not identify any specific cultural values associated with the study area, and there are no AHIMS-registered sites within the study area. The nearest recorded AHIMS site (38-4-0725, a modified tree) is located approximately 3.9 km south-east of the study area.

A foot survey was conducted over 2.5 days in November 2020. The surface survey did not identify any cultural material. Subsurface testing via eleven one-square-metre test pits identified isolated artefact finds in four pits, all located within the access road creek crossing and detention basin areas further into the project site. No artefacts were identified within the New Intersection Area, the subject of this CEMP.

The ACHAR assessed the cultural significance of the study area as moderate, representing evidence of periodic visitation associated with resource gathering, and scientific significance as low, reflecting low artefact density and peripheral occupation patterns.

4.6.3 Summary of Key Mitigation Measures

No historic or Aboriginal heritage items have been identified within the New Intersection Area. The risk of heritage impacts from Stage 1 construction is therefore assessed as low. The primary residual risk during earthworks and vegetation clearing is the unexpected discovery of previously unrecorded Aboriginal objects.

Heritage impacts will be managed through the controls set out in **Section 6.12** of this CEMP, consistent with Conditions B41–B43 of Development Consent SSD-11591659. Key measures applicable to Stage 1 works include:

- Provision of an Aboriginal Cultural Heritage Awareness Induction to all contractors undertaking earthworks, outlining protocols for the identification and management of Aboriginal objects.
- Implementation of an Unexpected Finds procedure: in the event of discovery of a previously unknown object, ground disturbance to cease immediately, the area to be secured, and RAPs and an archaeologist to be notified. If human remains are uncovered, works to halt immediately with notification to NSW Police, Heritage NSW, and RAPs, and no works to resume until written clearance is received.

Note: Artefact salvage works identified in the ACHAR relate to the access road creek crossing and detention basin areas and are not triggered by Stage 1 construction of the New Intersection Area.

4.7 ENVIRONMENTAL PERFORMANCE MEASURES AND INDICATORS

To ensure that environmental impacts associated with construction of the New Intersection Area are effectively managed, a series of environmental performance measures and indicators will be applied during construction. These indicators provide a practical mechanism for evaluating the effectiveness of mitigation measures and guiding adaptive management where required.

Performance indicators are aligned with the environmental objectives of this CEMP and the relevant conditions of development consent.

Table 5: Environmental Performance Measures and Indicators

Environmental Aspect	Performance Objective	Performance Criteria / Limits	Performance Indicators
Traffic and Access	Minimise impacts to road users and maintain safe traffic conditions	No obstruction to public roads outside approved traffic management arrangements	No traffic incidents attributable to construction traffic, traffic managed in accordance with the Traffic Management Control Plan
Biodiversity	Minimise disturbance to native vegetation and fauna habitat	Clearing limited to approved disturbance footprint	No clearing outside approved work area, disturbed areas progressively stabilised or allowed to regenerate where practical
Fauna Protection	Avoid injury or mortality to wildlife	Construction activities undertaken in accordance with clearing protocols	No wildlife injury or mortality incidents associated with construction activities where reasonable mitigation measures have been implemented
Community Amenity	Minimise disturbance to nearby residents	Construction activities undertaken within approved hours and in accordance with noise controls	Negligible community complaints relating to noise, dust or traffic
Air Quality	Minimise dust generation during construction	Visible dust emissions controlled at the site boundary	No sustained visible dust leaving the site, dust suppression measures implemented during dry or windy conditions
Water Quality	Prevent sediment or pollutants entering nearby drainage lines	Erosion and sediment controls installed and maintained	No visible sediment discharge to drainage lines; erosion controls inspected and maintained
Heritage	Protect Aboriginal objects and places and comply with Conditions B41–B43.	No works outside approved disturbance footprint, unexpected finds procedure followed if required	No unreported discoveries, all workers inducted prior to clearing, zero instances of works continuing after a find

Environmental performance will be reviewed through routine site inspections, monitoring activities and complaint management processes. Where performance indicators are not achieved, corrective actions will be implemented in accordance with the incident and non-compliance management procedures outlined in **Section 6** of this CEMP.

5. ROLES AND RESPONSIBILITIES

The effective implementation of this CEMP relies on the clear assignment of roles, responsibilities and communication pathways. For this short-term construction project, the primary objective is to ensure environmental compliance, minimise risk, and enable a timely response to any environmental issues that may arise.

As this Construction Activity of the New Intersection is of limited duration, this CEMP is a static document and will only be revised in response to:

- A significant change in site conditions,
- A request by regulatory authorities, or
- A major environmental incident or non-compliance.

Roles identified in this section relate specifically to the New Intersection Area work.

5.1 EMERGENCY CONTACTS

The following key contacts are available in the event of a complaint, enquiry, or environmental emergency:

Table 6: Key contacts in the event of a complaint, enquiry or emergency

Contact	Phone / Email
Project Coordinator – Tim Mullaney	Phone: 02 4930 3026 Mobile: 0438 011 004 Email: tim@woodburycivil.com.au
EPA – Incidents Line	131 555
EPA – Newcastle Office	02 4908 6800
DPHI – Regional Operations (Newcastle)	1300 305 695

5.2 RESPONSIBILITIES

The organisational chart for the Deep Creek Quarry Project is shown below by **Plate 2**, with responsibilities outlined in the following sections.

5.2.1 Principal

The Principal and Owner for the Deep Creek Quarry Project is IDPL, as the Principal and owner IDPL have the following responsibilities:

- Engage suitably qualified contractors to undertake works in accordance with the Development Consent and any other relevant approval and legislation.
- Engage and support employees as needed to undertake activities consistent with the Development Consent and any other relevant approval and legislation.
- Provide adequate resources (e.g. financial) to ensure works can be completed.

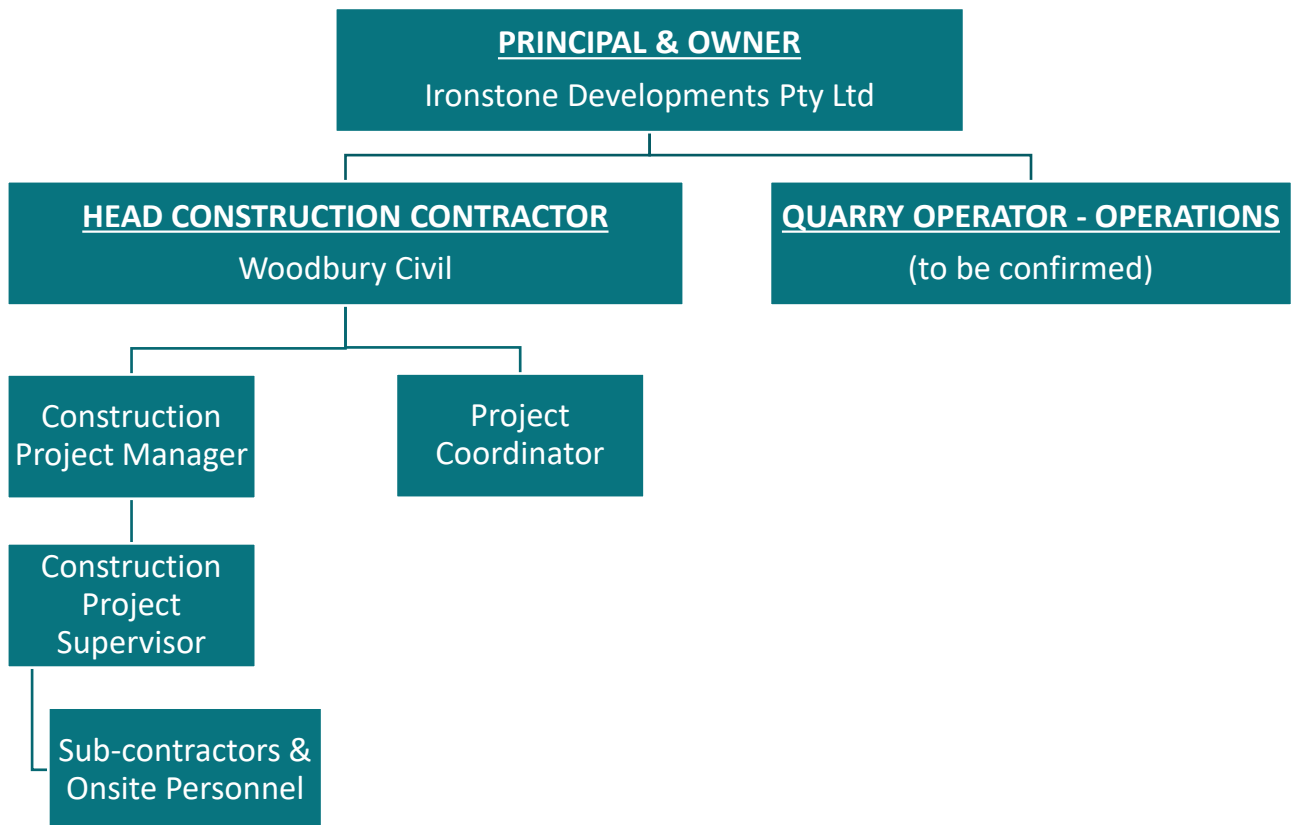


Plate 2: Organisational chart for the Deep Creek Quarry Project

5.2.2 Head Construction Contractor

Woodbury Civil Pty Ltd is the assigned Head Construction Contractor, and is responsible for:

- Undertaking works in accordance with the Development Consent and any other relevant approval and legislation.
- Assigning a suitably qualified Construction Manager and providing them with appropriate support and resources.
- Ensuring environmental compliance is upheld during all aspects of the New Intersection Area construction works.
- Until the quarry is operational and Quarry Manager employed, the Head Construction Contractor assumes all Project related environmental compliance responsibilities.

5.2.3 Project Coordinator

The Project Coordinator is responsible for:

- Managing and distributing project information.
- Coordinating tasks and activities across project teams.
- Overseeing environmental monitoring and reporting.
- Liaising with the community regarding project activities and impacts.

- Maintaining and updating the project website.

5.2.4 Construction Project Manager

The Construction Project Manager is responsible for:

- Oversight of intersection works,
- Understanding and the practical application of this CEMP,
- Is responsible for ensuring that environmental controls are implemented, maintained, and monitored,
- Acts as the key point of contact for any environmental issues related to the intersection works,
- Delegates responsibilities in their absence to a suitable alternate.

5.2.5 Construction Project Supervisor

The Construction Project Supervisor:

- Manages all road construction and intersection works on site,
- Must read, understand, and implement this CEMP as it applies to construction activities,
- Reports directly to the Construction Project Manager,
- Is responsible for ensuring that subcontractors and personnel comply with all environmental requirements during construction,
- Coordinates environmental monitoring and site inspections relevant to construction activities.

5.2.6 Onsite Personnel and Sub-contractors

All onsite personnel (including contractors and subcontractors) are required to:

- Report to the Construction Project Manager or their delegate,
- Immediately report any incidents, near misses, or environmental concerns,
- Follow site-specific environmental management procedures and protocols as outlined in this CEMP,
- Cooperate with inspections and audits,
- Implement relevant environmental controls related to their tasks,
- Take all reasonable steps to avoid causing environmental harm during their work.

5.2.7 Quarry Operator

The Quarry Operator is yet to be appointed and is not required to be appointed until the quarry becomes operational. Once the quarry is operational the Quarry Operator is responsible for the safety of site personnel and environmental compliance of the Deep Creek Quarry.

6. ENVIRONMENTAL MANAGEMENT PROCEDURES

This CEMP outlines practical and achievable environmental control measures to ensure that construction activities for the New Intersection Area are undertaken in a way that minimises potential impacts on human health, the surrounding environment, and nearby sensitive receptors.

While the works are short-term and limited in scope, the IDPL and its personnel and contractors retain a duty of care to prevent pollution, manage risks appropriately, and comply with relevant environmental legislation and guidelines throughout the construction phase.

6.1 PURPOSE

This section identifies construction-phase activities associated with the New Intersection Area works that may present environmental risks, along with corresponding management and mitigation measures designed to avoid or minimise those risks.

It also outlines roles and responsibilities for implementation, as well as requirements for compliance with environmental standards and statutory obligations.

Environmental controls have been developed in accordance with relevant best practice guidelines and are proportionate to the scale and nature of the New Intersection Area construction works.

6.2 COMMUNICATION

IDPL, as the Principal and project owner, recognises the importance of open and constructive communication with the community and stakeholders during the short-term construction of the New Intersection Area. Clear and proactive communication helps ensure that adjoining landowners and relevant agencies are aware of upcoming works and know how to contact the project team with any enquiries, concerns, or complaints.

The mechanisms for communication and consultation between IDPL, the Head Construction Contractor, and the community are summarised below.

6.2.1 Management Controls

Management controls relating to communication internally and externally on the project during construction are shown below in **Table 7**.

Table 7: Controls for Communication

Item	Action	Trigger/Timing	Responsibility	Reporting
Internal Communication				
A	Inductions for operators and contractors will include a summary of key environmental and safety requirements and site-specific controls to minimise impacts on nearby residents and the environment.	Prior to commencing work on-site.	Construction Project Supervisor	Induction Records
B	Daily pre-start meetings and toolbox talks will be held to address safety, environmental and community considerations, particularly when work changes or weather conditions may influence impacts.	Daily / As required	All Personnel	Toolbox Talk Records
Website				
A	The Project website (maintained by IDPL) will be publicly accessible and kept up to date for the duration of the project as required by Condition D15 of the Development Consent (SSD-11591659). The website will include the following information, consistent with the consent and relevant to both the broader quarry operations and the short-term intersection works: • Contact details for the project and complaints handling. • A copy of the Environmental Impact Statement (EIS). • The Response to Submissions. • A copy of the Development Consent (SSD-11591659), including: ◦ Approved plans and layouts; ◦ Statement of Commitments. • Copies of current statutory approvals, where applicable, including: ◦ Environmental Protection Licence (EPL); ◦ Pollution Incident Response Management Plan (PIRMP); ◦ Other permits relevant to the development. • All approved management plans, strategies and programs required under the consent (including this CEMP). • A summary of monitoring results required under the consent or approved plans, where relevant to the project's activities. • A complaints register, updated monthly, detailing: ◦ Date and time of complaint; ◦ Nature of the complaint;	Ongoing for the duration of the project. Air quality updated no less than monthly	Project Coordinator / IDPL (or their nominated representative).	As required under Development Consent Condition D15.

Item	Action	Trigger/Timing	Responsibility	Reporting
	○ Response actions taken. • Annual Reviews of the project (where required). • Any Independent Environmental Audit reports and IDPL's responses to audit recommendations. • Any other material required to be made publicly available by the Secretary of the Department of Planning, Housing and Infrastructure (DPHI). • Project updates or newsletters, where issued.			
Community Consultation				
A	At least one month prior to the commencement of construction, the following notice will be provided: • Notify the DPHI of the intent to commence construction. • Provide email notification to all previously interested stakeholders.	One Month prior to commencing construction	Project Coordinator / IDPL (or their nominated representative).	As required under Development Consent Condition D15.
B	Targeted Notification – Adjacent Landholders: Where short-term construction activities (e.g. vegetation clearing, intersection tie-in works, truck movements) are likely to impact nearby landholders, they will be notified at least 24 hours in advance by phone, email or mailbox drop.	24 hours prior to any works that may cause amenity impacts (noise, dust, traffic changes)	Project Coordinator	Consultation Register
C	Traffic Disruption Notices: Intersection works will require temporary traffic management (e.g. lane slowdown, signage, detours), the local community and relevant road users will be notified in advance through appropriate means (e.g. signage, letter drop, emails or Council notification where required).	Prior to traffic changes	Project Coordinator	Not applicable unless required by Council
Complaints				
A	Complaint Contact Point: All complaints relating to the Deep Creek Quarry New Intersection Area works should be directed to the Project Manager. This number will be available throughout the short-term construction period.	Ongoing during construction	Construction Project Manager	As relevant to AEMR (if applicable)
B	Consultation Register: All feedback, enquiries and complaints will be recorded in a Consultation Register, established prior to commencement of construction and maintained for the duration of the New Intersection Area works.	Ongoing	Construction Project Manager	Maintained Consultation Register
C	Register Details: Each complaint will include: • Date and time of complaint • Complainant's name and contact details • Nature of complaint • Response and any commitments made (by whom and when)	Ongoing	Construction Project Manager	Summary included in AEMR (if required)
D	Complaints Procedure:	Ongoing	Construction Project Manager	Summary included in AEMR

Item	Action	Trigger/Timing	Responsibility	Reporting
	The following procedure will be implemented for all complaints received during the intersection construction phase: • Receive and record the complaint in the Consultation Register. • Liaise with the complainant to gather full details and confirm the nature and potential source of the issue. • Where relevant, conduct monitoring or investigation to determine whether the complaint relates to an exceedance or non-compliance. • If required, initiate changes to construction methods or mitigation controls. • Respond to the complainant with the outcome of investigations and actions taken. • Follow up with the complainant to confirm satisfaction with the resolution. • Document all steps and communications in the Consultation Register.			
E	Dispute Resolution Process If a complainant is not satisfied with the resolution provided, the following process will apply: • A meeting will be arranged between the Construction Project Manager and the complainant to seek a mutually acceptable resolution. • If not resolved, the complainant may request the matter be escalated to the Department of Planning, Housing and Infrastructure (DPHI) for an independent review, in accordance with the relevant conditions of consent. • DPHI may appoint an independent facilitator to assist in reaching a final determination, if required.	Ongoing	Construction Project Manager	Summary included in AEMR

6.3 CLEARING, EXCAVATION AND SET OUT

The following management controls apply to all clearing, excavation, and set out activities within the defined construction disturbance area for the New Intersection Area works at DCQ.

These controls aim to minimise disturbance to surrounding areas, ensure compliance with relevant environmental and planning requirements, and manage potential risks associated with vegetation removal, topsoil stripping, and general earthworks.

6.3.1 Management Controls

The key management controls relevant to the short-term construction works for the New Intersection Area are summarised in **Table 8** below. These controls are designed to minimise disturbance to native vegetation, prevent off-site sedimentation, and ensure compliance with environmental obligations.

Table 8: Clearing, excavation and set-out controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Notification and Set out				
A	Notify the Department of the intended start date of construction works for the intersection.	At least one month prior to construction	Project Coordinator / IDPL (or their nominated representative).	DPHI Notification
B	Engage a registered surveyor to confirm and mark the construction footprint, including access track and intersection boundary.	Prior to any ground disturbance	Construction Project Supervisor	Survey Plan
C	Clearly delineate the construction area using high-visibility flagging, temporary fencing, or survey pegs to prevent accidental disturbance beyond approved limits. In open paddocks, where the area is already pegged out by surveyors, spray paint may be used to assist. Farm fencing will be installed in these areas prior to construction where feasible.	Prior to clearing	Construction Project Supervisor	Environmental Inspection Checklist
D	Avoid impacts to Deep Creek and its vegetated buffer by installing protective barrier fencing along the waterway exclusion zone, as defined in the approved plans.	Prior to clearing	Construction Project Supervisor	Environmental Inspection Checklist
Pre-Clearance Survey				
A	Conduct a pre-clearance ecological inspection of the construction footprint to identify and mark any habitat trees, native fauna, or sensitive features.	Within 24 hours before clearing	Suitably Qualified Ecologist engaged by Construction Project Manager.	Pre-Clearance Report
B	Clearly mark habitat trees or sensitive vegetation for protection and ensure avoidance measures are in place (e.g avoid using heavy machinery within dripline, where possible).	Prior to clearing	Suitably Qualified Ecologist engaged by Construction Project Manager.	Pre-Clearance Report
C	Ensure areas containing noxious or environmental weeds are clearly identified to prevent cross-contamination of topsoil.	Prior to topsoil stripping	Suitably Qualified Ecologist engaged by Construction Project Manager.	Pre-Clearance Report
D	All plant, equipment and vehicles entering the site must be clean and free of soil and vegetation material to minimise the introduction and spread of weeds and pathogens.	Prior to any ground disturbance	All personnel	Environmental Inspection Checklist
Clearing and Excavation				
A	Vegetation to be cleared using methods to minimise erosion and with regard to minimising the extent of clearing to only areas Approved and required for construction. Cleared vegetation will be:	During clearing	Construction Project Supervisor	Environmental Inspection Checklist

Item	Action	Trigger/Timing	Responsibility	Reporting
	- Retained onsite if it contains potential habitat value (e.g. hollows or large fissures). - Harvested for practical reuse onsite or by local timber millers. - Canopy and branches and left over timber to be mulched and retained onsite for seedbank and stabilisation of earthworks.			
B	Any identified habitat trees to be removed will be felled under the supervision of an ecologist.	During clearing (if required)	Suitably Qualified Ecologist engaged by Construction Project Manager.	Clearing Supervision Record
C	No clearing, excavation or infrastructure works are to occur within 40 m of Deep Creek.	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist
D	Implement erosion and sediment controls in accordance with the Erosion and Sediment Control Plan (Appendix D).	Prior to excavation	Construction Project Supervisor	Environmental Inspection Checklist
E	If native fauna is encountered during clearing, works will cease in the immediate area and a suitably qualified ecologist will be contacted to safely manage, rescue and relocate fauna where required	During clearing (if required)	Construction Project Supervisor	Clearing Supervision Record
Post-Clearing and Verification				
A	Visual inspection of the cleared area to confirm boundary compliance and no unapproved disturbance outside the footprint.	Post-clearing, pre-excavation	Construction Project Supervisor	Environmental Inspection Checklist
B	Document any incidents or near misses involving vegetation clearing or excavation and implement corrective actions if required.	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist

6.4 BIODIVERSITY AND REHABILITATION

Due to the short-term and localised nature of construction activities associated with the New Intersection Area, impacts to biodiversity are expected to be minor and largely confined to the approved disturbance footprint. Potential impacts include vegetation clearing, disturbance to fauna habitat, and the risk of weed spread or indirect impacts to adjacent vegetation.

Notwithstanding the limited scale of works, biodiversity management will focus on minimising residual impacts on native vegetation and fauna, preventing the spread of weeds and pathogens, and progressively rehabilitating disturbed areas where practicable

6.4.1 Management Controls

Pre-clearing ecological inspections, identification of habitat trees, and supervision of vegetation removal are addressed in **Section 6.3**. This section focuses on post-clearing management, monitoring, rehabilitation, and adaptive responses to any residual biodiversity impacts during the New Intersection Area construction works.

The following management and monitoring measures apply for the duration of the works, as summarised in **Table 9**.

Table 9: Biodiversity and rehabilitation management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Controls and Monitoring				
A	Retire biodiversity credits for Stage C1 (New Intersection Area) prior to any ground disturbance. Ecosystem credits: 7 PCT1590; Species credits: 10 Myotis macropus, 19 Petaurus norfolcensis, 19 Phascolarctos cinereus.	Before any clearing or earthworks	Project Coordinator / IDPL (or their nominated representative).	Credit retirement record / DCCEEW confirmation
B	Restrict all construction activities, vehicle movements and material storage to designated disturbance areas to avoid indirect impacts to adjacent vegetation.	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist
C	Monitor adjacent vegetation for signs of unintended disturbance (e.g. clearing, dust deposition, dieback) and implement corrective actions where required.	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist
D	Stabilise disturbed areas progressively using mulch, retained vegetation, or other suitable measures to minimise erosion and support natural regeneration.	During and post-construction	Construction Project Supervisor	Environmental Inspection Checklist
E	Retain and reuse topsoil and vegetative material, where practicable, to assist with rehabilitation and erosion control.	During clearing and rehabilitation	Construction Project Supervisor	Environmental Inspection Checklist
F	Ensure disturbed areas are left in a stable condition at the completion of works, with no exposed surfaces that may result in erosion or weed establishment.	Post-construction	Construction Project Supervisor	Environmental Inspection Checklist
G	Identify and manage any new or spreading weed infestations within disturbed areas during and following construction.	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist
H	Record and manage any biodiversity-related incidents (e.g. unexpected impacts to vegetation or fauna habitat) in accordance with the project's incident management procedures.	As required	Construction Project Supervisor	Environmental Inspection Checklist
I	Investigate and respond to any community complaints relating to biodiversity impacts in accordance with the project's complaints management procedure.	As required	Construction Project Supervisor	Consultation Register

6.5 WATER MANAGEMENT

This section outlines the management measures for protecting surface water and groundwater during the construction of the New Intersection Area.

Given the short-term and low-impact nature of these works, a full Water Management Plan (WMP) is not required at this stage. Instead, a simplified approach has been adopted, as approved by the Department of Planning, Housing and Infrastructure (DPHI) via correspondence dated 23 January 2026, which allows early works to proceed under the Stage 1 CEMP, with a focus on erosion, sediment and water quality controls.

Water management during these works is supported by:

- The Erosion and Sediment Control Plan (**Appendix D** of this CEMP).
- Management practices consistent with Landcom's *"Managing Urban Stormwater – Soils and Construction"* (4th Edition), known as *The Blue Book*.

The complete Water Management Plan for the site is currently under development and will apply to the remainder of the Project Area and for the New Intersection Area on completion of construction.

6.5.1 Management Controls

The Erosion and Sediment Control Plan (ESCP) provides detailed environmental safeguards to be implemented to manage surface water, sediment, and erosion risks during construction. This plan should be read in conjunction with this CEMP to ensure a consistent and integrated approach to environmental management.

The key management controls relevant to the short-term construction works for the New Intersection Area are summarised in **Table 10** below.

Table 10: Erosion and sediment management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Water Management and Monitoring Controls				
A	Implement erosion and sediment control measures in accordance with the ESCP (Appendix D).	Prior to the commencement of works	Construction Project Supervisor	Environmental Inspection Checklist
B	Inspect and maintain sediment and erosion controls (e.g. sediment fences, check dams, diversion drains) to ensure ongoing effectiveness, particularly after rainfall events.	Weekly and after >10 mm rainfall	Construction Project Supervisor	Environmental Inspection Checklist (Appendix F)
C	Minimise the area of disturbance at any one time to reduce erosion risk. Stabilise disturbed areas progressively with mulch or vegetation.	During construction	Construction Project Supervisor	Nil
D	Prevent uncontrolled discharge of sediment-laden water from the site. Pump water to stable vegetated areas if needed.	During dewatering or rainfall	Construction Project Supervisor	Incident report (if needed)
E	Maintain a spill kit on-site. Refuel and service machinery in designated areas away from drainage lines. Where practicable, within a contained or bunded area to minimise the risk of spills entering the environment.	Ongoing	All site personnel	Environmental Inspection Checklist
F	Report any uncontrolled discharges, water quality incidents or pollution events to the relevant authority as required.	As required	Construction Project Supervisor	Incident report
G	Groundwater is not expected to be encountered. In the unlikely event that groundwater is intercepted, work will cease and the incident will be assessed by a suitably qualified environmental consultant.	If groundwater is encountered	Construction Project Supervisor	Consultant report (if needed)

6.6 AIR QUALITY

Due to the short-term nature of construction activities associated with the New Intersection Area, air quality impacts are expected to be low and localised. However, compliance with Condition B21 of Schedule 2 of the Development Consent requires an Air Quality Management System and monthly air quality monitoring during construction.

Air quality management will focus on minimising dust generation during earthworks, vehicle movement, and material handling.

6.6.1 Management Controls

An Air Quality Management System (AQMS) has been developed and implemented for the project to manage air quality risks during construction. The AQMS integrates real-time meteorological forecasting and routine air quality monitoring to guide day-to-day operations and ensure emissions remain within acceptable levels. The following management and monitoring measures apply for the duration of the New Intersection Area construction works, as listed in **Table 11**.

Table 11: Air Quality management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Controls and Monitoring				
A	Apply all reasonable controls to minimise dust, visible emissions, odour, and fumes during construction. Examples include watering exposed surfaces, minimising exposed area, and shutting down idle plant.	During all earthworks / material handling phases	Construction Project Supervisor	Environmental Inspection Checklist
B	Use the Air Quality Management System (AQMS) to integrate meteorological forecasts and monitoring data to guide operations and trigger mitigation (e.g. postpone dusty works under adverse conditions).	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist
C	Install air quality monitoring equipment before starting works in the New Intersection Area.	Pre-construction	Construction Project Supervisor	Installation record
D	Undertake routine air quality monitoring during the New Intersection Area construction phase, in accordance with relevant NSW EPA methods.	Routine	Construction Project Supervisor	Monitoring logs
E	Review monitoring and weather data. If results approach or exceed thresholds, relocate, adjust, or suspend construction activities to maintain compliance.	As required	Construction Project Supervisor	Monitoring logs
F	Record, investigate, and respond to any community complaints relating to air quality (dust, emissions) per the project's complaints procedure.	As required	Construction Project Supervisor	Complaint register

6.7 NOISE AND VIBRATION MANAGEMENT

Noise and vibration during construction of the New Intersection Area are expected to be short-term and localised. Potential sources of noise include excavation, vegetation clearing, vehicle movements, and intermittent use of vibrating rollers. No routine blasting is planned during this phase, but small, isolated blasts may be required depending on rock hardness.

Noise and vibration management during Stage 1 construction is governed by the Deep Creek Quarry Noise Management Plan (NMP), prepared in accordance with Development Consent SSD-11591659. The NMP establishes the noise criteria, monitoring requirements, complaint response procedures, and controls applicable to all construction and operational activities. The management controls set out in this section are consistent with and supplementary to the NMP. In the event of any inconsistency, the NMP prevails.

6.7.1 Management Controls

The following noise and vibration management measures will be applied during Stage 1 works within the New Intersection Area, consistent with the requirements of the NMP, to minimise impacts on surrounding residents, fauna, and the environment.

Table 12: Noise and vibration management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Controls and Monitoring				
A	Apply all reasonable noise and vibration mitigation controls during construction, including siting plant to minimise noise and maintaining equipment to reduce excess noise and vibration.	During all construction and material handling phases	Construction Project Supervisor	Environmental Inspection Checklist
B	Implement immediate mitigation if noise exceedances or complaints occur, including operational adjustments, relocation of equipment, or additional noise controls.	As required	Construction Project Supervisor	Environmental Inspection Checklist
C	If small-scale blasting is undertaken, apply controlled procedures consistent with management plan and best practice, including pre-blast notifications, vibration monitoring, and immediate response measures for any exceedances.	During blasting	Construction Project Supervisor	Monitoring logs
D	Restrict noisy activities to approved hours and provide advance notice to local residents if blasting or other high-noise activities are planned.	During high-noise works	Construction Project Supervisor	Monitoring logs
E	Record, investigate, and respond to all complaints relating to noise or vibration in accordance with the project's complaints procedure	As required	Construction Project Supervisor	Complaint register

6.8 TRAFFIC AND PROPERTY ACCESS MANAGEMENT

This section outlines the management measures to ensure safe and efficient movement of construction vehicles and personnel during the short-term works for the New Intersection Area, and to minimise disruption to the general public using The Bucketts Way.

A Construction Traffic Management Control Plan (CTMCP) has been prepared and included as **Appendix E** of this CEMP. This CTMCP was prepared to support the commencement of works under a simplified Stage 1 traffic framework (as approved by DPHI on 23 January 2026), focusing specifically on construction-related vehicle movements and public safety during the New Intersection Area works.

Construction works will occur on and adjacent to The Bucketts Way, which is a publicly accessible route. Traffic controls will be implemented to protect road users, including the general public, and ensure that construction activities do not compromise road safety or traffic flow.

The complete Traffic Management Plan for the site is currently under development and will apply to the remainder of the Project Area and for the New Intersection Area on completion of construction.

6.8.1 Management Controls

Traffic and access management controls relevant to the New Intersection Area construction works are summarised in the **Table 13** below.

Table 13: Traffic and access management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Traffic and Access Management Controls				
A	Implement the Construction Traffic Control Management Plan (Appendix E).	Prior to construction	Construction Project Supervisor	CTCMP implementation record
B	Ensure all construction vehicles have access to the site via designated entry/exit points	Ongoing	Construction Project Supervisor	Nil
C	Install temporary traffic control measures such as signage, traffic cones, barriers, and flag personnel to safely manage public traffic around the work zone.	Prior to and during construction	Construction Project Supervisor / Traffic Controller	Nil
D	Engage qualified traffic controllers to manage vehicle flow on The Bucketts Way, ensuring the safety of both workers and the general public.	During construction	Construction Project Supervisor	Traffic control records
E	Enforce a maximum speed limit of 40 km/h for all construction vehicles and within any reduced speed zones for public traffic.	Ongoing	Construction Project Supervisor / All Drivers	Nil
F	Provide advance notice to local residents and road users of any traffic changes, potential delays, or partial lane closures.	Prior to any disruptions	Construction Project Supervisor	Community consultation record
G	Schedule construction deliveries to avoid peak public road use hours, where feasible.	Ongoing	Construction Project Supervisor	Nil
H	Maintain suitable shake-down / gravel area at the site exit to reduce tracking of dirt/mud onto public roads.	Prior to vehicle movements	Construction Project Supervisor	Nil
I	Monitor and clean The Bucketts Way if debris or materials from the construction site are deposited.	Ongoing	Construction Project Supervisor	Nil
J	Maintain emergency access at all times via The Bucketts Way.	Ongoing	Construction Project Supervisor	Nil
K	Respond to traffic-related complaints from the public or stakeholders in accordance with the project's complaints procedure (see Section 6.2.1).	As required	Construction Project Supervisor	Complaints register

Item	Action	Trigger/Timing	Responsibility	Reporting
L	All construction vehicle movements must comply with the route restrictions of Condition A14 of Development Consent SSD-11591659. Specifically: (1) no quarry-related vehicles are to use any portion of Deep Creek Road outside of the Project Area during construction of the New Intersection Area, except in an emergency involving imminent risk to life, property or the environment; (2) use of Forest Glen Road is restricted to a single one-off mobilisation of up to approximately five pieces of heavy machinery (e.g. dozers, dumpers, excavators) which will be floated in, unloaded near the end of Forest Glen Road, and moved internally across IDPL-owned land to the construction site — this will be conducted under controlled conditions and in consultation with relevant stakeholders; (3) beyond this single mobilisation, Forest Glen Road is limited to a maximum of 12 light vehicles accessing the site per day until the new quarry access road is operational; (4) once the new quarry access road and intersection are complete, all site access will occur exclusively via The Bucketts Way.	Prior to commencement of construction and ongoing	Construction Project Supervisor	Nil
M	All construction traffic movements, including deliveries, equipment mobilisation, and contractor vehicles, must comply with the approved construction hours under Condition A15 of Development Consent SSD-11591659: Monday to Friday 7:00 am to 5:00 pm; Saturday 8:00 am to 1:00 pm; no works on Sundays or public holidays. Outside these hours, vehicle movements to and from the site are not permitted except where required by Police or other public authorities, or in an emergency to avoid loss of life, property or environmental harm. Any out-of-hours activity must be notified to DPHI and affected residents prior to occurrence or as soon as practicable thereafter.	Ongoing during construction	Construction Project Supervisor	Nil

6.9 WASTE MANAGEMENT

This section outlines the measures to manage and minimise waste generated during the short-term construction works for the New Intersection Area. Waste will be managed in accordance with the principles of the Waste Avoidance and Resource Recovery Act 2001 (WARR Act) and the Protection of the Environment Operations Act 1997 (POEO Act).

The waste hierarchy will guide all practices on site, in order of preference: Avoid > Reuse > Recycle > Recover Energy > Treat > Dispose.

6.9.1 Management Controls

The New Intersection Area works are expected to generate only minor and short-term waste volumes, typical of small-scale civil construction. Waste will be managed to maximise resource recovery and ensure appropriate disposal off-site by licensed contractors. The waste management controls applicable to the intersection construction works are summarised below.

Table 14: Waste management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Waste Management Controls				
A	Segregate waste at the source into recyclables, general waste, and hazardous materials as applicable.	Ongoing during construction	Construction Project Supervisor	Waste disposal data within Annual Report
B	Ensure all waste is removed from the site by appropriately licensed waste contractors.	Ongoing	Construction Project Supervisor	Waste dockets/contractor records
C	Mulch and reuse green waste (vegetation cleared during works) for on-site purposes such as erosion control or habitat features.	During vegetation clearing	Construction Project Supervisor	Nil
D	Store all waste oils and filters in sealed, bunded containers in a covered area. Arrange collection by a licensed contractor.	If equipment maintenance occurs on-site	Construction Project Supervisor	Waste disposal data within Annual Report
E	Install and maintain a contained portable toilet system. Arrange regular pump-out by a licensed contractor.	Pre-construction and ongoing	Construction Project Supervisor	Pump-out schedule/receipts
F	Provide separate, covered bins for recyclable materials (e.g. cardboard, paper, plastics).	Prior to construction and ongoing	Construction Project Supervisor	Waste disposal data within Annual Report
G	Remove non-vegetation timber waste (e.g. pallets, crates) for reuse or recycling.	As generated	Construction Project Supervisor	Waste disposal data within Annual Report
H	Cease work if foreign or potentially hazardous materials (e.g. suspected asbestos) are encountered. Engage appropriately qualified personnel for assessment.	As required	Construction Project Supervisor	Incident report
I	Educate all workers on waste segregation and management responsibilities during inductions and toolbox talks.	Prior to work and ongoing	Construction Project Supervisor	Site induction records

6.10 VISUAL AMENITY

The short-term construction works for the New Intersection Area will be managed to minimise visual impacts on the surrounding landscape. While the nature of the works is temporary and largely contained to a linear roadside corridor, specific measures will be implemented to preserve the visual character of the area, reduce glare, and maintain screening vegetation where feasible.

6.10.1 Management Controls

The following visual amenity controls will be applied throughout the construction phase to reduce the visibility and aesthetic impact of works when viewed from nearby roads or properties.

Table 15: Visual amenity management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Visual Management Controls				
A	All temporary structures (e.g., site sheds, fencing) will be standard construction colours, consistent with typical practice along The Bucketts Way and in the region.	During setup and installation	Construction Project Supervisor	Nil
B	Lighting (if required) to be directed downward and shielded, in accordance with AS 4282 – Control of the Obtrusive Effects of Outdoor Lighting.	During installation and ongoing	Construction Project Supervisor	Nil
C	Limit disturbance to only areas necessary for construction in the near term (e.g. 3-6 months) to avoid duration of disturbed and incomplete construction works for travelling public and neighbouring properties.	During construction	Construction Project Supervisor	Nil
D	Remove temporary structures and restore disturbed areas promptly following completion of works.	Post-construction	Construction Project Supervisor	Nil

6.11 FIRE MANAGEMENT AND HAZARDS

The DCQ is located within mapped bushfire-prone land, including 'Vegetation Category 1' and 'Vegetation Buffer'. While the New Intersection Area works are non-habitable and of short duration, appropriate bushfire risk controls are required during construction to protect workers, assets, and the surrounding environment in accordance with the objectives of *Planning for Bush Fire Protection 2019 (PBP 2019)* – specifically Chapter 8: Other Development.

Bushfire risk during construction will be mitigated by applying appropriate controls relating to fuel loads, storage of flammable materials, site access, and emergency readiness. These controls are consistent with the objectives of PBP 2019, including the protection of human life, the minimisation of fire spread, and ensuring a defensible space around temporary structures.

6.11.1 Management Controls

Bushfire risk mitigation measures for the New Intersection Area are outlined below.

Table 16: Bushfire management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Bushfire Management Controls				
A	Maintain a minimum 10 m setback between any hazardous material storage and nearby bushfire-prone vegetation and structures (e.g., site sheds).	Prior to material storage	Construction Project Supervisor	Nil
B	Store all hazardous materials in accordance with applicable standard and SDS. No explosives will be stored on-site.	Prior to and during storage	Construction Project Supervisor	Safety Data Sheets (SDS)
C	Ensure all vehicles and plant are equipped with operational fire extinguishers suitable for bushfire response.	Pre-construction and ongoing	Construction Project Supervisor / Contractors	Environmental Inspection Checklist
D	During Total Fire Ban days, restrict hot works (e.g., cutting, grinding) unless compliant with RFS exemptions and appropriately controlled.	On declared Total Fire Ban days	Construction Project Supervisor	Nil
E	Establish and maintain a defensible space around all temporary site infrastructure (e.g., sheds) by regularly clearing dry vegetation and combustible materials.	Pre-construction and ongoing	Construction Project Supervisor	Environmental Inspection Checklist
F	Ensure site access and egress routes remain clear and trafficable at all times to allow emergency service access.	Ongoing	Construction Project Supervisor	Environmental Inspection Checklist
G	Brief all workers on bushfire safety procedures, emergency contacts, and evacuation routes during site induction and toolbox talks.	At induction and weekly	Construction Project Supervisor	Induction records
H	Monitor fire weather conditions daily via RFS sources. Escalate controls and review activities during Extreme or Catastrophic fire danger ratings.	Daily	Construction Project Supervisor	Nil

6.12 HERITAGE

Heritage management during Stage 1 construction is addressed under Conditions B41–B43 of Development Consent SSD-11591659.

Historic Heritage

As established by the Historic Heritage Assessment (EIS Appendix R, Insite Heritage Pty Ltd, May 2021), no items of historic heritage significance are present within the New Intersection Area or the broader study area. No heritage items, structures, or potential historic deposits were identified during the field inspection, and no heritage constraints affect Stage 1 construction works. No specific historic heritage management controls are required beyond standard unexpected finds procedures.

Aboriginal Cultural Heritage

As established by the Aboriginal Cultural Heritage Assessment Report (ACHAR, EIS Appendix I, Insite Heritage Pty Ltd, March 2021), no Aboriginal objects or sites were identified within the New Intersection Area during surface survey or subsurface testing. The four stone artefacts identified during the ACHAR investigation were located within the access road creek crossing and detention basin areas, which are not within the Stage 1 construction footprint. No Aboriginal Heritage Impact Permit (AHIP) is required for Stage 1 works.

The primary heritage management obligations during Stage 1 therefore relate to Aboriginal cultural heritage awareness, unexpected finds procedures, and the management of any previously unrecorded objects that may be encountered during earthworks and vegetation clearing. These obligations are consistent with Conditions B41–B43 of the Development Consent.

All site personnel are required to complete a site induction prior to undertaking any ground disturbance or vegetation clearing, which includes the Aboriginal Cultural Heritage Awareness Document (**Appendix G**). The Awareness Document provides guidance on the types of Aboriginal sites and objects that may be encountered in north-eastern NSW, including stone artefacts, grinding grooves, modified trees, and art sites and outlines legal obligations under the National Parks and Wildlife Act 1974 and the actions required upon discovery of an Aboriginal object or suspected human remains. The full ACHMP is held by IDPL and is available on request.

6.12.1 Management Controls

Pre-construction induction requirements and the unexpected finds procedure apply to all personnel prior to and during any vegetation clearing or ground disturbance within the New Intersection Area. Item D (suspected human remains) is a statutory obligation under Condition B42 and applies to all site personnel at all times.

The following management controls apply for the duration of Stage 1 works, as summarised in **Table 17**.

Table 17: Heritage management controls

Item	Action	Trigger/Timing	Responsibility	Reporting
Historic Heritage Management Controls				
A	No historic heritage items have been identified within the New Intersection Area. In the event that any previously unrecorded historic relics (e.g. structural remains, artefacts, deposits) are unexpectedly encountered during works, all ground disturbance in the vicinity must cease immediately. The Construction Project Supervisor must be notified and a qualified heritage specialist engaged to assess the find before works resume.	Immediately upon discovery	All site personnel / Construction Project Supervisor	Heritage NSW notification, Incident Register
Aboriginal Cultural Heritage Management Controls				
A	All workers and contractors must receive an Aboriginal cultural heritage induction prior to undertaking any activities involving vegetation clearing or ground disturbance. The induction must cover: the legal protection of Aboriginal objects and places under the National Parks and Wildlife Act 1974; the types of objects that may be encountered (e.g. stone artefacts, scarred trees); the obligation to stop work and report any find; and the Unexpected Finds Procedure (Item C). Records of all inductions must be retained on site.	Prior to any ground disturbance or vegetation clearing	Construction Project Supervisor	Site induction records

Item	Action	Trigger/Timing	Responsibility	Reporting
B	If any potential Aboriginal object is discovered during construction: (1) stop all work in the vicinity immediately; (2) secure the area to prevent further disturbance; (3) notify the Construction Project Supervisor immediately; (4) the Supervisor notifies IDPL and Heritage NSW; (5) do not recommence work in the affected area until directed by Heritage NSW. Objects must be recorded and reported to the Aboriginal Heritage Information Management System (AHIMS) in accordance with Condition B43(a).	Immediately upon discovery	All site personnel / Construction Project Supervisor	Heritage NSW notification; AHIMS report; Incident Register
C	If suspected human remains are discovered: (1) IMMEDIATELY cease all work in the surrounding area; (2) secure the area to prevent any further disturbance; (3) immediately notify NSW Police Force; (4) immediately notify Heritage NSW; (5) do NOT recommence work in the area until authorised by both NSW Police Force and Heritage NSW. This applies regardless of whether remains appear to be of Aboriginal or non-Aboriginal origin.	Immediately upon discovery	All site personnel / Construction Project Supervisor / IDPL	NSW Police Force notification; Heritage NSW notification; Incident Register
D	All clearing and ground disturbance must be confined strictly to the approved construction footprint. No works are to occur outside the marked boundary. This protects any unrecorded Aboriginal objects or places that may be present beyond the approved disturbance area, consistent with Condition B41.	Ongoing during construction	Construction Project Supervisor	Environmental Inspection Checklist
E	Any Aboriginal objects identified within the approved disturbance area must be recorded by a qualified heritage specialist before any further disturbance occurs. Records must be submitted to AHIMS. IDPL must facilitate the ongoing involvement of Registered Aboriginal Parties (RAPs) in the management of any Aboriginal cultural heritage identified on site, consistent with Condition B43(d).	As required if objects identified	IDPL / qualified heritage specialist	AHIMS submission; Heritage Register

6.13 NON-COMPLIANCE, INCIDENTS, EMERGENCIES AND EXCEEDANCES

This section provides clear procedures for managing, responding to, and reporting any environmental non-compliance, incident, emergency, exceedance of impact assessment or performance criteria, or failure to comply with statutory requirements during Stage 1 construction works at the New Intersection Area. It applies to all personnel and contractors engaged in these works and covers environmental, traffic, air quality, noise, water, biodiversity, and community-related matters.

6.13.1 Procedures

Reporting and Notification

- All non-compliances, incidents, exceedances, emergencies, or statutory failures must be reported immediately to the Construction Project Supervisor.
- The supervisor will notify the relevant parties, including IDPL, the Principal Contractor, and regulatory authorities, as required under the Development Consent or other statutory obligations.

Investigation and Corrective Action

- Investigate the event to determine the cause and implement corrective actions.
- Corrective actions may include temporary work stoppage, revised procedures, additional controls, or adaptive management measures as outlined in **Section 7.5** (Monitoring and Adaptive Management).
- Documentation of the investigation, actions taken, and follow-up results must be maintained in the Environmental Incident Register.

Controls

- Non-compliance or exceedances relating to specific environmental aspects should be managed using the controls detailed in the relevant tables presented earlier in this section.

Emergency Response

For any immediate hazard or environmental emergency:

- Stop work if necessary to prevent harm to personnel, the public, or the environment.
- Contain or mitigate the impact using available site resources (spill kits, fire extinguishers, temporary barriers).
- Evacuate personnel if safety is at risk.
- Notify the Construction Project Supervisor immediately.
- Document the emergency, actions taken, and outcomes in the site records.
- If suspected human remains are encountered at any time during works, the procedures in Section 6.12 Item C apply. This is a statutory obligation under Condition B42 of the Development Consent. Works must cease immediately in the area and must not recommence until authorised by both NSW Police Force and Heritage NSW, regardless of any project schedule pressures.



Recording and Review

- All incidents, non-compliances, exceedances, and emergency responses must be logged in the Environmental Incident Register.
- Outcomes, lessons learned, and any updates to procedures or controls must be reviewed and implemented by the Construction Project Supervisor and communicated to site personnel.

7. ENVIRONMENTAL MANAGEMENT STRATEGY (STAGE 1 WORKS)

7.1 PURPOSE AND SCOPE

In accordance with Condition D1-D3 of SSD-11591659 and the approved project staging, this Environmental Management Strategy (EMS) forms part of the CEMP for the New Intersection Area only.

This strategy has been prepared in lieu of a standalone EMS for this stage and is based on the simplified approach approved by the Planning Secretary on 23 January 2026 (refer to **Appendix B**).

The objectives of this EMS are as follows:

- Ensure compliance with statutory approvals and conditions of consent.
- Avoid and minimise environmental impacts.
- Monitor and verify environmental control effectiveness.
- Maintain transparency through reporting and community engagement.
- Apply adaptive management and contingency planning to continuously improve environmental outcomes.

7.2 STATUTORY APPROVALS

Environmental management for the New Intersection Area will comply with all applicable statutory approvals, as detailed in Section 2.1 of this CEMP. Key approvals include the Development Consent SSD-11591659, environmental protection licence, and associated management plans and strategies.

All activities during Stage 1 construction works will be undertaken in accordance with these approvals, and personnel are required to remain aware of relevant conditions and obligations.

7.3 ROLES AND RESPONSIBILITIES

Roles, responsibilities, authority, and accountability for all personnel involved in environmental management during the New Intersection Area construction are described in **Section 5** of this CEMP.

Key responsibilities include:

- Implementing environmental controls.
- Monitoring environmental performance.
- Reporting incidents, complaints, or non-compliances; and
- Responding to emergencies and disputes.

7.4 PROCEDURES

Procedures to be implemented during construction include:

1. Community and Agency Communication – Keeping the local community and relevant agencies informed of construction activities and environmental performance, including public reporting of air quality monitoring results (see **Section 6.2**).
2. Complaints Handling – Receiving, recording, managing, and responding to complaints in accordance with the process described in **Section 6.2.1**.
3. Dispute Resolution – Escalation and resolution processes as outlined in **Section 6.2.1**.
4. Non-Compliance and Incident Response – Immediate reporting, investigation, and corrective actions for any environmental non-compliance or incident (see **Section 6.13**).
5. Emergency Response – Procedures for responding to environmental or safety emergencies as outlined in **Section 6.12**.

7.5 MONITORING AND ADAPTIVE MANAGEMENT

Environmental monitoring and adaptive management are summarised as follows:

- Monitoring is undertaken as specified in **Section 6** for air quality, noise, vibration, traffic, water, biodiversity, heritage, visual amenity, and waste management.
- Adaptive management procedures (e.g., stop-work, investigation, corrective actions) are triggered where monitoring or incidents indicate a control is ineffective.
- Monitoring results, incidents, and complaints are documented and reported to IDPL and relevant regulatory authorities in accordance with consent requirements.

Should monitoring or incidents identify that an environmental control is ineffective, the following adaptive management process will be triggered:

1. Immediate mitigation of risk (e.g., stop work, deploy controls).
2. Investigation of cause and root analysis.
3. Revision of control measures or update of management plans (if needed).
4. Communication of changes to all site personnel.
5. Follow-up monitoring to confirm effectiveness.

In addition to reactive adaptive management, improvement opportunities will be actively identified during weekly site environmental inspections and through review of monitoring data, complaint records, and incident outcomes. Where opportunities to improve environmental performance are identified, these will be implemented promptly and communicated to site personnel. Any significant improvement measures will be documented in the site environmental records. Should a trigger event occur under Condition D5 of the Development Consent (including submission of an incident report, direction of the Planning Secretary, or approval of a consent modification), the suitability of this CEMP will be reviewed and revised if necessary in accordance with Condition D6.

All environmental monitoring required during Stage 1 construction works is consolidated in **Table 18** below.

Table 18: Consolidated Environmental Monitoring Schedule (Stage 1 — New Intersection Area)

Environmental Aspect	What is Monitored	Method	Frequency	Responsible Party	Reporting Destination	Consent Condition
Noise	Construction noise at nearest sensitive receiver	Real-time noise logger; attended monitoring if complaints received	Logger — continuous during works; attended — in response to complaints or exceedances	Construction Project Supervisor	Monitoring logs; complaint register; DPHI notification if exceedance within 7 days (Condition C1)	B5, B6
Air Quality	Particulate matter (dust) generation and emissions at site boundary	Air quality monitor installed pre-construction; visual observation of dust at boundary	Instrument — monthly minimum; visual — daily during earthworks and dry or windy conditions	Construction Project Supervisor	Monthly monitoring logs published on Ironstone website; DPHI notification if exceedance within 7 days (Condition C1)	B21
Meteorology	Wind speed, wind direction, temperature and atmospheric stability	Meteorological station installed and operational prior to commencement	Continuous	Construction Project Supervisor	Data used to inform AQMS and noise management decisions	B23
Water Quality and Erosion and Sediment	Condition and effectiveness of erosion and sediment controls; visual signs of turbidity or sediment discharge to drainage lines	Visual inspection of all ESC measures and drainage lines; ESCP compliance check	During rainfall — daily; dry conditions — weekly; after any rainfall event exceeding 10mm	Construction Project Supervisor	Environmental Inspection Checklist; Incident Register if discharge occurs; DPHI and EPA notification if pollution event (Condition D7)	B31, B32

Environmental Aspect	What is Monitored	Method	Frequency	Responsible Party	Reporting Destination	Consent Condition
Biodiversity — Clearing	Compliance with approved clearing footprint; condition of adjacent vegetation; fauna strikes or incidents	Visual inspection of clearing boundary markers and adjacent vegetation; ecological supervision during tree removal greater than 100mm DBH	Pre-clearance — survey prior to works; during clearing — continuous ecological supervision; post-clearing — weekly until area stabilised	Construction Project Supervisor; qualified ecologist during clearing	Environmental Inspection Checklist; Incident Register if fauna strike or boundary breach occurs	B48, B49
Biodiversity — Rehabilitation	Condition of disturbed areas; weed establishment; stabilisation progress	Visual inspection of all disturbed areas	Weekly during and post-construction until areas are stabilised	Construction Project Supervisor	Environmental Inspection Checklist	B52
Biodiversity Credits	Confirmation that Stage C1 credits retired prior to any clearing	Written confirmation from DCCEEW and BCT of credit retirement	Once — prior to any vegetation clearing or ground disturbance	Project Coordinator and IDPL	Credit retirement record held on file; provided to DPHI on request	B44
Historic and Aboriginal Heritage	Compliance with approved disturbance footprint; absence of unreported finds; worker induction records	Visual inspection of clearing boundary; review of induction records	Daily during clearing and ground disturbance	Construction Project Supervisor	Induction records; Incident Register if find occurs; Heritage NSW and NSW Police notification if human remains found (Condition B42)	B41, B42, B43

Environmental Aspect	What is Monitored	Method	Frequency	Responsible Party	Reporting Destination	Consent Condition
Traffic and Access	Compliance with construction hours; vehicle route compliance; traffic incidents or complaints	Visual observation; vehicle movement records; review of incidents or complaints	Daily during works	Construction Project Supervisor	Vehicle movement records; complaint register; DPHI notification if out-of-hours works required (Condition A16)	A14, A15
Waste	Waste generated on site; correct segregation and disposal	Visual inspection of waste storage and disposal areas; review of waste dockets	Weekly	Construction Project Supervisor	Waste disposal dockets; Environmental Inspection Checklist	B63
Complaints	All complaints received relating to any environmental aspect	Complaints register — record date, nature, response and outcome for each complaint	Ongoing — register updated within 24 hours of any complaint received	Project Coordinator and Construction Project Supervisor	Complaints register updated monthly and published on Ironstone website (Condition D15(a)(ix))	D1(d)(ii), D15
Non-Compliance and Incidents	Any non-compliance with consent conditions or environmental incident	Incident Register; investigation report	Immediately upon becoming aware	Construction Project Supervisor and IDPL	DPHI notification via Major Projects Portal — immediately for incidents (Condition D7); within 7 days for non-compliance (Condition D8)	D7, D8
Environmental Inspections	Overall site environmental	Weekly site environmental	Weekly minimum; after any	Construction Project Supervisor	Completed checklists retained on	D4

Environmental Aspect	What is Monitored	Method	Frequency	Responsible Party	Reporting Destination	Consent Condition
	performance across all aspects	inspection using Appendix F checklist	significant rainfall event or incident		site; available to DPHI on request	

Notes:

- This monitoring schedule applies to Stage 1 (New Intersection Area) works only.
- Where monitoring identifies that a control is ineffective, the adaptive management process in Section 7.5 applies immediately.
- All monitoring records must be retained on site and made available to DPHI, EPA or other regulatory authorities upon request per Condition D15.
- Exceedances of any noise, blasting or air quality criterion must be notified to affected landowners and published on the Ironstone website within 7 days per Condition C1.

7.6 REFERENCES TO OTHER PLANS

This Stage 1 EMS is implemented in conjunction with the following plans and documents, as required under Condition D1:

- Environmental Management Procedures (**Section 6**)
- Air Quality Management Plan
- Noise and Vibration Management Plan
- Construction Traffic Management Control Plan (**Appendix E**)
- Erosion and Sediment Control Plan (**Appendix D**)

7.7 REPORTING

Key reporting mechanisms for this stage 1 construction works include:

- Weekly site environmental checklist.
- Non-compliance and corrective action logs.
- Update reports to DPHI or EPA as required (if any major incident or exceedance occurs).

7.8 CONTINGENCY AND UNPREDICTED IMPACTS (STAGE 1 WORKS)

Any unpredicted environmental impacts during Stage 1 works will be reported immediately to the Construction Project Supervisor. Immediate mitigation measures will be implemented to reduce impacts below relevant consent criteria, with follow-up monitoring and adaptive management until effectiveness is confirmed.

Key performance indicators (KPIs) and contingency measures will be applied as described in **Section 4.7** and will guide the response to unpredicted impacts across all environmental aspects, including:

- Traffic and Access: Ensure safe access and minimise disruption to road users. Contingency measures may include temporary traffic controls or adjusted sequencing of works if unplanned delays or near-misses occur.
- Vegetation: Manage disturbed areas to encourage stabilisation or revegetation where practical. If natural recovery is insufficient, additional erosion controls or rehabilitation measures will be implemented.
- Wildlife: Protect fauna from injury or mortality. Any incident will trigger fauna rescue procedures, incident reporting, and review of mitigation measures to prevent recurrence.
- Community: Maintain constructive engagement with the local community. Verified complaints will be addressed promptly in line with the complaints management procedures outlined in **Section 6.2**.
- Air Quality: Ensure dust and emissions remain within acceptable levels. Exceedances may trigger additional suppression measures, work adjustments, or other mitigation actions.
- Noise: Manage construction noise to meet project criteria. Unexpected exceedances will prompt mitigation actions such as equipment relocation, adjusted operating hours, or additional noise controls.
- Water Quality: Maintain surface water and runoff quality within acceptable limits. Unpredicted impacts will be managed through enhanced erosion, sediment, or runoff controls as required.

This approach ensures that all unpredicted impacts are immediately addressed, with responses guided by the flexible KPIs outlined in **Section 4.7**. Adaptive management will be applied where required to confirm that mitigation measures are effective, ensuring ongoing compliance with consent conditions and maintaining environmental and community confidence.

8. REFERENCES

- NSW Independent Planning Commission Development Consent SSD-11591659.
- ISO 14001:2015 Environmental Management Systems.
- Department of Environment and Conservation NSW (2006): *A Resource Guide for Local Councils – Erosion and Sediment Control*.
- Landcom (2004): *Managing Urban Stormwater – Soils and Construction*.
- Department of Environment and Climate Change NSW (2009): *Interim Construction Noise Guideline*.

9. LIMITATIONS

The findings and conclusions contained within this Construction Environmental Management Plan are made following a review of information, reports, correspondence and data previously reported by third parties. Wedgetail does not provide guarantees or assurances regarding the accuracy and validity of information and data obtained by third parties in previously commissioned investigations. The recommendations presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report.

Wedgetail has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality.

Wedgetail does not make any representation or warranty that the conclusions in this report will be applicable in the future, as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.

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APPENDIX A: PLANNING SECRETARY STAGING REQUEST LETTER



APPENDIX B: PLANNING SECRETARY STAGING APPROVAL LETTER



APPENDIX C: COUNCIL APPROVED DESIGN PLANS



APPENDIX D: EROSION AND SEDIMENT CONTROL PLAN



APPENDIX E: TRAFFIC MANAGEMENT CONTROL PLAN



APPENDIX F: ENVIRONMENTAL SITE INSPECTION CHECKLIST

APPENDIX G: ABORIGINAL CULTURAL HERITAGE AWARENESS DOCUMENT
