WEDGETAIL
PROJECT CONSULTING

Cabbage Tree Road Sand Quarry

Western Extension – Modification 4

Response to Submissions Report

Williamtown Sand Syndicate Pty Ltd

398 Cabbage Tree Road, Williamtown, NSW 2318

REPORT PREPARED FOR:

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Version Control

Version	Date	Author	Reviewed by	Details
1	15.04.2026	Jason Princehorn Senior Advisor	Jonathan Berry Principal Environmental Advisor	Final

DECLARATION

Project Details	
Project Number	SSD-6125
Project Name	Cabbage Tree Road Sand Quarry
Address of the land in respect of which the development application is made	398 Cabbage Tree Road Williamtown NSW 2318 Lot 100 DP 1263921, Lot 121 DP 556403, Lot 11 DP 629503, Lot 1012 DP 814078
Applicant Details	
Applicant Name	Williamtown Sand Syndicate Pty Ltd
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The undersigned declares that this Document:

- this document is a Response to Submissions Report
- contains all available information relevant to the Response to Submissions for the activity or infrastructure
- does not contain information that is false or misleading
- addresses issues raised in the submissions received on the project
- contains a simple and easy to understand summary of the project as a whole, having regard to the economic, environmental and social impacts of the project and the principles of ecologically sustainable development
- has been prepared with regard to *State significant development guidelines – preparing a submissions report* (March 2026)

Date	15 April 2026
Signature	

EXECUTIVE SUMMARY

Williamtown Sand Syndicate Pty Ltd (WSS) are proposing to modify the Development Consent for the Cabbage Tree Road Sand Quarry (SSD-6125). WSS are the applicant and the owners of the quarry operations. The quarry is located north of the Cabbage Tree Road in the Port Stephens LGA, approximately 12.5 kilometres north of Newcastle and 3 kilometres south-west of Newcastle Airport.

The Modification

The Cabbage Tree Road Sand Quarry was approved under SSD_6125 on 9 May 2018. The approved development is a sand quarry extending over an area of 42.3 ha, extracting up to 530,000 tonnes per annum over a period of up to 15 years.

The proposed modification (MOD4) includes the following seven key components:

- *An additional 5.01 ha extraction area on adjacent land to the west within Lot 9 DP239608 (Western Extension). The disturbance footprint for the Western Extension has been reduced from that originally exhibited for MOD4 in response to agency feedback.*
- *A net reduction in the extent of the impact area within the land holding originally assessed under SSD-6125. This involves both the expansion of some areas and relinquishment of other areas, with a net increase in area proposed for the onsite Biodiversity Stewardship Area. The areas of expansion are less than 20m beyond the edge of the existing approved impact areas. Refer to the disturbance expansion areas (D3,D4,D5) and proposed increased offset areas (OF1-OF6).*
- *Amendment to Condition 34 and Appendix 6 in SSD-6125 relating to the Biodiversity Offset Strategy that reflects the change in boundary of the proposed onsite Stewardship Site and requirement to retire additional credits to offset the impacts of the Western Extension.*
- *Amendment to the Statement of Commitments to reduce duplication with Conditions of Consent (CoC) and enable management plans to adapt to changing conditions on the site.*
- *Permit the import of up to 6,000 tonnes per annum of Virgin Excavated Natural Material (VENM) sand with provenance from construction sites within local sand beds for on-site processing.*
- *Clarify methodologies used for sand extraction, processing and rehabilitation.*
- *Amend condition relating to the Radiation Survey in Schedule 3, Condition 46.*

The Process

Wedgetail Project Consulting (WPC) commenced an application to modify SSD-6125 on behalf of WSS in late 2024, commencing with pre-lodgement consultation, and followed by lodgement of modification report (MR4) in February 2025. MR4 was publicly exhibited from 8 July to 24 July 2025. On 29 July 2025, the DPHI instructed WPC to prepare a Response to Submissions to address submissions received during the exhibition period.

This document provides a response to all submissions received, including those received outside of the exhibition period.

The Submissions

During the public exhibition period, 25 submissions were received by DPHI comprising:

- *10 government agency submissions/comments.*

- *15 submissions from members of the public (public).*

Actions Completed Since Modification Report 4

For the preparation of this Response to Submissions (RTS) report, project refinement, additional consultation, technical investigations and reporting were undertaken beyond what was provided in Modification Report 4 to support a comprehensive response to agency and community submissions. This included:

- *Project design refinement: The Western Extension layout was refined, reducing the footprint by 2 ha in response to agency feedback to avoid and minimise environmental impacts. As part of the broader design process, proposed extraction areas D1 and D2 (located outside the Western Extension) were also removed. The final design reflects an iterative approach to impact avoidance and minimisation undertaken in consultation with agencies, including the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) – CPHR.*
- *Additional biodiversity information: Wedgetail Project Consulting prepared a revised Biodiversity Development Assessment Report (BDAR) to reflect the updated project design and disturbance footprint and agency feedback. Additional surveys were undertaken for fauna, including:*
    - *Microchiropteran bats: Four Anabat™ bat-call detectors were installed in suitable habitat and along potential flyways for four consecutive nights (16–20 February 2026). Four harp traps targeting microchiropteran bat flyways near water bodies were also installed and checked each morning (16 trap nights). Data were analysed in-house by an experienced fauna ecologist.*
    - *Reptiles: Targeted surveys for Stephens' Banded Snake (Hoplocephalus stephensii) were conducted in accordance with Threatened Reptile BAM Survey Guidelines, including spotlighting surveys on 16 and 18 February 2026.*
    - *Amphibians: Additional spotlighting surveys were completed in accordance with the NSW Survey Guide for Threatened Frogs on 16 and 18 February 2026, conducted via random meanders across suitable habitat using high-powered headtorches.*

3. Groundwater investigations: Nine additional groundwater monitoring wells were installed across the project area, with survey and periodic sampling undertaken to improve the understanding of groundwater levels. The additional data has been incorporated into an updated groundwater model and supporting groundwater assessment.

4. Noise assessment review: The Noise Impact Assessment was reviewed and updated to reflect that a previously identified sensitive receiver is no longer applicable.

5. Clarification Letter re. Consultation with Registered Aboriginal Parties (RAPs): A clarification letter was prepared by Archaeological Risk Assessment services to confirm prior consultation undertaken for the project.

6. Additional community consultation: Further consultation with the local community was undertaken through the Community Consultative Committee (CCC) meeting held on 19 December 2024, where project updates and matters including flooding were discussed.

7. Drainage investigations: Investigations of drainage infrastructure surrounding the project area were undertaken, including consultation with Hunter Water Corporation and Port Stephens Council.

Project Revisions

Following feedback from government agencies, the following amendments to the modification design have been made to address issues raised and implement the project with acceptable levels of impact. The changes made to MOD4 include:

- *Removal of northern access road into the Western Extension, reducing impacts to native vegetation, maintaining habitat connectivity to the north of the Subject Land, and avoiding direct impacts to one threatened plant, the Diuris arenaria (Sand Doubletail).*
- *Reduction of the Western Extension impact area, reducing impacts to native vegetation and habitat for threatened species (Mahony's Toadlet, Wallum Froglet, Squirrel Glider, and Diuris arenaria), reducing direct impacts to Eucalyptus parramattensis subsp. decadens (Earp's Gum), and expanding east-west and north-south movement corridors. The impact area has been reduced by approximately 30%, from 7.1 ha to 5.01 ha, resulting in 2.09 ha less disturbance.*
- *Minimised impacts to southern connectivity through staged impacts and rehabilitation between Lot 100/DP 1263921 and the Western Extension corridor, while ongoing rehabilitation within the existing sand quarry continues to enhance connectivity.*
- *A reduction in the size of the resource to be extracted within the Western Extension due to the reduced disturbance footprint. MOD4 initially targeted the recovery of an estimated 533,000 tonnes over the project's lifetime, with the redesigned disturbance footprint now targeting an estimated 480,000 tonnes.*
- *Proposed extraction areas D1 and D2 have been removed, further reducing disturbance by approximately 0.55 ha.*

Matters raised in Agency Submissions

There were multiple agency submissions received in response to Modification 4 (MOD4), including submissions from the NSW Environmental Protection Agency (two submissions), Port Stephens Council, Hunter Water Corporation, NSW Rural Fire Service, NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) – Water Group, DCCEEW Conservation Programs, Heritage and Regulation Group (CPHR) and other agencies. A summary of each submission and key issues raised is outlined below.

Environmental Protection Agency (EPA)

The EPA clarified that Virgin Excavated Natural Material (VENM) is regulated as general solid waste (non-putrescible) under the Protection of the Environment Operations Act 1997 and that licensing requirements may apply if thresholds are exceeded. The EPA also raised concerns regarding proposed increases to project noise trigger levels and requested further justification and assessment in accordance with the Noise Policy for Industry.

In response, limits have been imposed on the quantity of VENM imported, processed and stored onsite to ensure the site remains below licensing thresholds. Independent certification of VENM has also been adopted.

The Acoustic Assessment has been revised, and no increase to the approved noise criteria is proposed. The assessment demonstrates that the project can operate in compliance with existing noise limits, and therefore the EPA's concerns regarding increased noise limits are no longer applicable.

Port Stephens Council (PSC)

Port Stephens Council (PSC) raised a range of issues relating to ecology, traffic, flooding, water quality, wastewater, air quality and noise.

PSC's ecological concerns are summarised below:

- *Impacts to threatened species including Diuris arenaria, Mahony's Toadlet and other fauna species, and a request to avoid and minimise impacts where possible. These matters have been addressed through refinement of the Western Extension footprint, resulting in a reduction of approximately 30% of the impact area, and are detailed within the updated BDAR and biodiversity response.*
- *Requests for clarification regarding the presence of Eucalyptus camfieldii. This has been addressed within the updated BDAR.*
- *PSC raised concerns regarding traffic, including inappropriate use of local roads by haulage vehicles. The existing Driver's Code of Conduct will be updated to explicitly prohibit use of these routes and reinforced through driver induction and compliance measures.*
- *PSC noted flooding and water quality considerations, including the site's location within a drinking water catchment. These matters have been addressed in the Modification Report and supporting assessments, with the project maintaining Neutral or Beneficial Effect (NorBE) outcomes.*
- *PSC also raised concerns regarding the onsite wastewater system and absence of Council records. The Applicant has confirmed the system is installed as per PSC approval and operational and will liaise with Council to arrange inspection and approval to operate.*
- *PSC raised no significant concerns regarding air quality or noise, noting that relevant criteria are expected to be met.*

Hunter Water Corporation (HWC)

Hunter Water Corporation noted the site's location within the Tomago Sandbeds drinking water catchment and emphasised the importance of maintaining water quality and protecting ecological values.

HWC raised considerations regarding disturbance within the Western Extension, rehabilitation outcomes, and potential PFAS risks.

The project will continue to operate in accordance with existing approval conditions and management plans to achieve Neutral or Beneficial Effect on water quality. Additional management controls and rehabilitation measures will be implemented as required. PFAS monitoring and risk management are already addressed under existing consent conditions and ongoing monitoring programs.

HWC raised no objection to the proposed importation and processing of VENM, subject to implementation of proposed controls.

NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) - Water Group

NSW Department of Climate Change, Energy, the Environment and Water – Water Group raised concerns regarding groundwater modelling, including potential groundwater mounding and the need for additional monitoring to ensure compliance with minimum extraction levels.

In response, additional groundwater investigations were undertaken, including installation of nine new monitoring wells and an updated groundwater model. These works are included in the RTS and demonstrate that groundwater impacts can be appropriately managed.

Additional monitoring locations have been incorporated into the groundwater monitoring program, and commitments have been made to update the Water Management Plan and include monitoring results in annual reporting.

NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) - CPHR

NSW Department of Climate Change, Energy, the Environment and Water – Conservation Programs, Heritage and Regulation Group (CPHR) raised concerns regarding the adequacy of the Biodiversity Development Assessment Report (BDAR), compliance with the Biodiversity Conservation Act 2016 and the Biodiversity Assessment Method (BAM), and the justification of impacts to threatened species and biodiversity values.

In response, a revised Biodiversity Development Assessment Report (BDAR) has been prepared to reflect the updated project design and disturbance footprint and to address the issues raised by CPHR. The updated BDAR includes additional surveys and is provided in the relevant appendices of this RTS. Consultation with CPHR during this period provided in principal support for the adopted changes and rectification of the BDAR deficiencies.

NSW Rural Fire Service (RFS)

NSW Rural Fire Service recommended conditions relating to bushfire management, including preparation of a Fire Management Plan, provision of water supply, and establishment of Asset Protection Zones.

These measures are already implemented onsite through existing management plans and infrastructure. Any additional requirements will be incorporated into the modified consent, if approved

NSW Resources

NSW Resources raised no issues and provided no comment on the proposed modification.

Fire and Rescue NSW

Fire and Rescue NSW raised no issues and provided no comment on the proposed modification.

Heritage NSW

Heritage NSW requested additional documentation to demonstrate consultation with Registered Aboriginal Parties (RAPs), confirmation of consultation with relevant Aboriginal organisations, and an updated AHIMS search.

These matters have been addressed within this RTS, with supporting documentation provided in the relevant appendices.

Concerns raised in Public and Group Submissions

Fifteen public submissions were made. All submissions received were reviewed, and issues were categorised based on the nature of concerns raised. An outline of the key issues raised in a significant proportion of submissions is provided below. Other matters not specifically detailed below, but addressed within this RTS, include property value, cumulative impacts and amenity considerations.

Key issues raised include:

- ***Flooding and Drainage:*** *The majority of submissions raised concerns regarding increased flooding, altered drainage patterns, and the adequacy and maintenance of existing drainage infrastructure. Submitters attributed flooding impacts to quarry operations and water management practices.*

• ***Air Quality:*** *Concerns were raised regarding dust emissions from quarrying and haulage activities, including potential exposure to respirable crystalline silica, and the associated impacts on human health and local amenity.*

• ***Noise Impacts:*** *Submissions highlighted disturbance from operational noise, including quarry plant and equipment and truck movements, with particular concern regarding impacts on sleep and residential amenity.*

• ***Traffic and Transport:*** *Concerns were raised regarding heavy vehicle movements, road safety, and the use of local and residential streets, including Barrie Close, as well as potential disruption during unsociable hours.*

• ***Public Health and Safety:*** *Submitters raised concerns regarding potential health impacts associated with dust, noise, and traffic, including respiratory issues, sleep disturbance, stress, and risks to community safety.*

• ***Community Engagement and Consultation:*** *Several submissions expressed dissatisfaction with the level of consultation undertaken, including concerns regarding communication, transparency, and opportunities for community input.*

• ***Environmental and Habitat Impacts:*** *Concerns were raised regarding the loss and disturbance of native vegetation and fauna habitat, including impacts to koala habitat and broader biodiversity values.*

• ***PFAS and Water Quality:*** *Some submissions raised concerns regarding potential PFAS contamination and the adequacy of water quality monitoring and management, particularly in the context of flooding events.*

These matters are addressed in detail throughout ***Section 5*** *of this report.*

Justification and Conclusion

The Modification Report demonstrates that the proposed MOD4 does not fundamentally alter the nature or scale of the existing quarry development. No changes are proposed to extraction limits, haulage volumes, or operational hours, and quarrying and processing methods will remain broadly consistent with current operations. Accordingly, the assessment of MOD4 under Section 4.55(2) of the EP&A Act is fully justified.

Minor adverse environmental and social impacts will continue to be effectively managed through the implementation of existing mitigation measures and the additional controls outlined in the modification application. These include updated management plans for air quality, noise, biodiversity, traffic, water management, and PFAS, all designed to avoid, minimise, or offset impacts on the surrounding environment and community.

MOD4 will facilitate the continued supply of high-quality construction and industrial sand to the Hunter and Sydney regions, addressing identified shortfalls in quarried resources and improving the operational longevity of the quarry, and improving the utilisation of existing infrastructure. The proposal will also support the sustainable reuse of clean fill materials, provide ongoing local employment, and contribute to regional economic development, including royalty and development contributions to Port Stephens Council.

Given the minor residual impacts, comprehensive mitigation measures, and significant social, environmental, and economic benefits, the proposed MOD4 is considered justified and in the public interest.

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Figures

Tables

Appendices

1. INTRODUCTION

Wedgetail Project Consulting Pty Ltd (Wedgetail) has been engaged by Williamtown Sand Syndicate Pty Ltd (WSS) to prepare a response to the submissions report to support an application to modify the Development Consent for the Cabbage Tree Road Sand Quarry (SSD-6125). WSS are the owner of the quarry operator Newcastle Sand.

The modification report (MR4) was lodged on 5 February 2025 and publicly exhibited from 8 July to 24 July 2025. During the exhibition period, ten submissions were received from government agencies and 15 from members of the public.

The Department of Planning, Housing and Infrastructure (DPHI), formerly the Department of Planning and Environment (DPE) wrote to the Williamtown Sand Syndicate Pty Ltd (WSS) on 29 July 2025 informing WSS the submission period had ended and that a written response to issues raised in the submissions was required as per Clause 59(2) of the *Environmental Planning and Assessment Regulation 2021*.

The response has been prepared in the form of a response to submissions (RTS) report, prepared having regard to the State Significant Development Guidelines, including Appendix C – Preparing a Submissions Report (March 2026), as requested by DPHI in their letter of advice.

1.1 PROJECT OVERVIEW

Cabbage Tree Road Sand Quarry (CTRQ) is an existing sand quarry located off Cabbage Tree Road at Williamtown in the Port Stephens LGA. The quarry site is located approximately 12.5 kilometres north of Newcastle and 3 kilometres south-west of Newcastle Airport. The quarry has an annual extraction limit of 530,000 tonnes. The quarry currently employs eleven people, plus contractors and consultants involved in day-to-day operations.

The CTRQ was approved under SSD-6125 on 9 May 2018. The quarry commenced construction in August 2019, after more than nine months of construction, largely owing to delays in the construction of the intersection with Cabbage Tree Road, the quarry commenced operations in May 2020.

During the construction phase, Newcastle Sand was approached by Sibelco and Owens Illinoi (OI) regarding the supply of specific sand for glass manufacturing. Sibelco (now owned by Holcim) processes and provides glass-making quality sand to OI for glass manufacture; however, with existing reserves nearing exhaustion, a request for 5000 tonnes of sand was made to evaluate the suitability of a new sand resource. Modification 1 was requested to facilitate the trial, as the formal intersection with the quarry had not been completed. Modification 1 was granted on 26 March 2020. The trial was completed in late March / early April. The sand supply was deemed to be suitable for glass manufacture. Modification 2 was approved in March 2021 to permit the inclusion of a sand washing plant onsite.

Modification 3 was lodged in December 2022 and provided for amendments to the resource boundary and corresponding amendments to the approved Biodiversity Offset Strategy and associated conditions. The modification also sought approval to import Virgin Excavated Natural Material (VENM) sand and minor amendments to approved working methods (including the

increased use of excavators and dump trucks in the extraction process and of a diesel generator). Minor amendments to the Statement of Commitments were also sought.

On 27th November 2024, MOD3 was formally withdrawn primarily due to concerns raised by Agencies during the submissions phase associated with proposed eastern extension of existing resource Sector 7 and Sector 10. These extension areas that did form a portion of the original EIS resource had been noted as avoidance in assessments related to the original approval, as such, extraction of these areas was not considered consistent with the basis of the original approval. Other elements of MOD3, excluding these eastern extensions, were incorporated into MOD4.

1.2 MODIFICATION 4

The key details of the project are shown within **Table 1-1** below, including how MOD4 will change the project. The RTS process has provided for the refinement of the proposed modification, with the key elements outlined below:

- A reduction in the extent of the resource extraction and disturbance areas applied for in the modification. These changes are illustrated in **Figure 1-2** and **Figure 1-3**.
- Proposed administrative changes, including amendments to conditions, extraction and process methodologies and the statement of commitments remain largely unchanged from the original modification application.

Figure 1-1 shows the site layout as originally proposed for Modification 4, prior to the submission process. **Figure 1-2** and **Figure 1-3** illustrate the amendments to the site layout made in response to government and agency feedback received during and following the exhibition period, in summary the key elements of the amended proposal as shown on the figures include:

- The Western Extension, reduced in size by 2.08 ha, resulting in improved biodiversity corridor retention and avoidance of a large portion of higher value vegetation.
- Removal of proposed extraction areas D1 and D2 intended to extend the boundary of previously approved resource areas.
- Avoidance of several previously approved resource areas OF1-OF6, that are now proposed for inclusion in the offset area.
- Avoidance of the northern haulage route through D1.
- Disturbance areas D3, D4 and D5 remain proposed, these are only for improving the safety for resource access and are not areas of sand extraction.
- The processing area in the north on Figure 1-3 remains the preferred established processing area for washing sand, there is no proposal to relocate the processing area.

Figure 1-5 presents the finalised layout as shown in **Figure 1-2**, with the addition of the proposed resource extraction stages for the Western Extension. **Figure 1-5** shows the staging, rehabilitation and relationship to biodiversity corridors and demonstrates the intent of the staging plan to minimise the effects on these corridors.

Figure 1-6 shows the proposed final landform and revegetation comprising a mix of woodland vegetation consistent with the existing quarry and open grassed areas more consistent with the

existing land use. The revegetation has considered feedback from HWC in increasing the buffer from grassland areas to revegetation within the existing approved quarry.

Table 1-1: Key Aspects of the Cabbage Tree Road Sand Quarry Project

Aspect	Key Aspects of the Approved Project	Changes proposed by MOD4
Location	398 Cabbage Tree Road, Williamtown, within the Port Stephens Local Government Area.	Nil Will result in the inclusion of a portion of 442 Cabbage Tree Road, Williamtown, accessed from 398 Cabbage Tree Road.
Property Titles	Lot 1012 DP 814078 Lot 11 DP 629503 Lot 121 DP 556403 Lot 100 DP 1263921 (replaces Lot 1 DP 224587 created following the intersection creation)	Lot 9 DP 239608 is the site of the Western Extension.
Landowner	Owned by Port Stephens Council under lease to proponent.	Lot 9 DP 239608 is privately owned and under agreement with the Proponent.
Applicant & Quarry Operator	Williamtown Sand Syndicate Pty Ltd as owner of the operator Newcastle Sand.	Nil
Area	42.3 ha	The originally approved extraction area is approximately 42 ha. Of this area, approximately 1 ha has been avoided, 35 ha quarried and as of March 2026, about 5.9 ha remains unquarried. The proposed Western Extension is an additional 5.01ha of disturbance. The total extraction footprint is approximately 46 hectares
Project Life	Quarry operations may be carried out onsite until 31 December 2033	The Original Project was approved for quarrying through to 31 December 2033, allowing up to 15 years of extraction, with site rehabilitation permitted to occur beyond this timeframe. At expected demand the quarry was estimated to have an eight-year life, reduced to five years should demand require maximum extraction rates. With the first sale of material coming out of the quarry in May 2020, and an estimated 6-months remaining within the originally approved resource, the

Aspect	Key Aspects of the Approved Project	Changes proposed by MOD4
		proposed western extension will see quarrying continue until late 2027. The Western Extension has been nominally split into nine (9) sectors, each sector will be quarrying within approximately four to eight weeks, varying between each sector depending on demand and the depth of the resource.
Extraction Rate (as Product Haulage)	Maximum of 530,000 tonnes per annum.	Nil
Hours	**Quarrying Operations:** 7:00 am to 5:00 pm Monday to Friday. 7:00 am to 4:00 pm Saturday **Loading and dispatch of laden trucks:** 6:00 am to 6:00 pm Monday to Friday. 7:00 am to 4:00 pm Saturday **Maintenance:** Maintenance activities may be undertaken at any time, provided they are not audible at any privately owned residence.	Nil
Transport Rate	The approved rates as specified in the consent are: • Monday to Friday (up to 116 trucks per day) ▪ 6 laden trucks between 6 am and 7 am. ▪ 10 laden trucks between 7 am and 6 pm. • Saturday (up to 90 laden trucks per day) ▪ 10 laden trucks per hour 7 am to 4 pm.	Nil.
Resource	Approximately 3.25 Mt.	Recovery of an estimated additional 480,000 tonnes over the project's lifetime. Total estimated recovery of 3.73 million tonnes (Mt) over the project life with approval of MOD4.

Aspect	Key Aspects of the Approved Project	Changes proposed by MOD4
		Import, processing and resale of VENM sand sourced offsite.
Extraction Methods	• Excavator and/or bulldozer to clear vegetation and strip topsoil. • Bulldozer or grader to windrow sand if needed. • Front-end loader to feed conveyors. • Front-end loader or excavator to feed articulated trucks where conveyors require servicing. • Front-end loader to feed the processing plant.	Conveyors are not considered suitable to manage the variable sand resource, as such the substitute method is proposed as the primary method for resource extraction. The primary methods to be used now are: • Excavator and/or bulldozer to clear vegetation and strip topsoil. • Bulldozer or grader to windrow sand if needed. • Front-end loader or excavator to feed articulated trucks to transport sand to wash plant. • Front-end loader to feed the processing plant.
Processing Methods	An electric screen to separate coarse organic matter. Wash plant to separate the silts, clays and fine organic matter from the sands.	Nil.
Equipment & Amenities	**Site Office**: office, maintenance shed, weighbridge, fuel storage and bunded refuelling area, light vehicle parking, hardstand area and security fence. **Mobile Plant**: dry screening plant, 2 x radial stacker, yard conveyor, air separator, bagging plant, diesel generators. **General**: D9 dozer, 30 t excavator, 2 x front-end loaders, 2 x articulated trucks, grader, drum roller, water cart, site utility vehicles and off-road haulage trucks.	Nil
Biodiversity Offsets	A combination of offsite purchased of credits and the creation of an onsite biodiversity offset site on the residual 131 hectares of the Subject Land. Condition 34 of the consent as approved included prescription of the credit types that can no longer be created due to changes in methodology and legislation.	Amendment of Condition 34 to reflect current legislation and enable the satisfaction of the condition, including: • Creation of a Stewardship Site (and the retirement of all credits created) on suitable land within the residual area of the Subject Land to the satisfaction of the Secretary and BCS.

Aspect	Key Aspects of the Approved Project	Changes proposed by MOD4
		• The Stewardship Site would cover 131.47 ha, subject to BCS agreement. • Removal of Eastern Osprey credit obligation from the on-site species credit obligation in Condition 34, as these credits cannot be generated under the current methodology Changes to disturbance on Original Subject Land: • With the increase in offset area, no additional retirement of credits is proposed for minor changes in impact area within the original subject land. Offsets for the Western Extension: • For the Western Extension, retirement of credits or pay into the Biodiversity Conservation Fund as per the Biodiversity Offset Scheme requirements, as calculated in BDAR.
Environmental Management	Detailed Statement of Commitments with duplication in Consent Conditions and limited flexibility to respond to improved methods.	Amendment to the Statement of Commitments to minimise duplication and allow for more flexible and response management of the site.
Rehabilitation and Final Landform	Progressive rehabilitation of disturbed areas during operation. Site stabilisation, re-spreading topsoil, establishing a sustainable native ecosystem with retention of the office and workshop area and core roads with suitable asset protection zones. Final landform would involve a finished elevation of 4 to 5.5 m AHD with a minimum of 1 m above the highest predicted groundwater level.	Essentially consistent with existing approval. The Western Extension is intended to be returned to a condition consistent with its existing characteristic, comprising grassland and scattered trees, such that would facilitate the potential erection of a dwelling or compatible land use for the zoning inclusive of an asset protection zone.

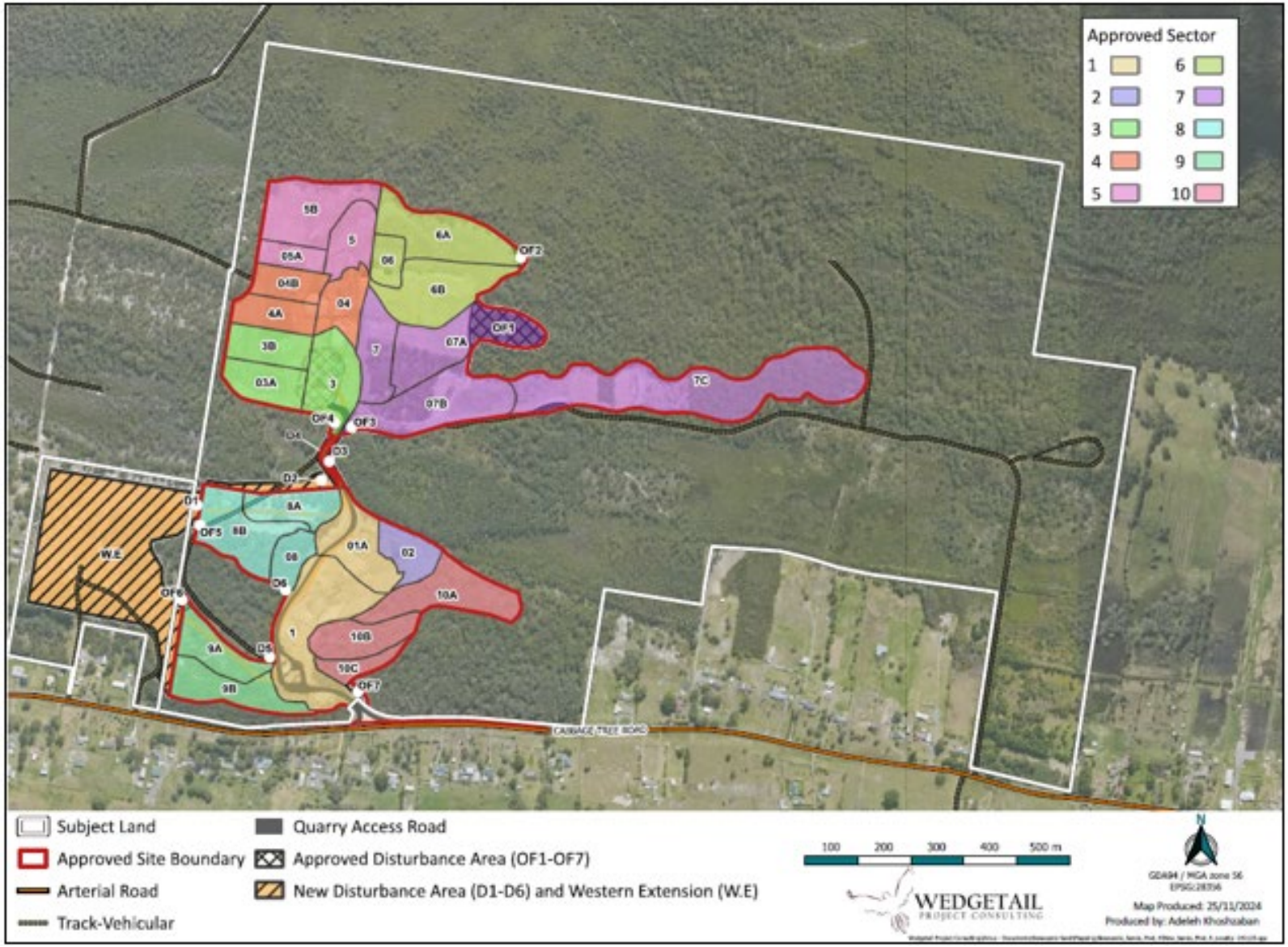

Figure 1-1: Proposed Site Layout — Modification 4 (as exhibited, now superseded)

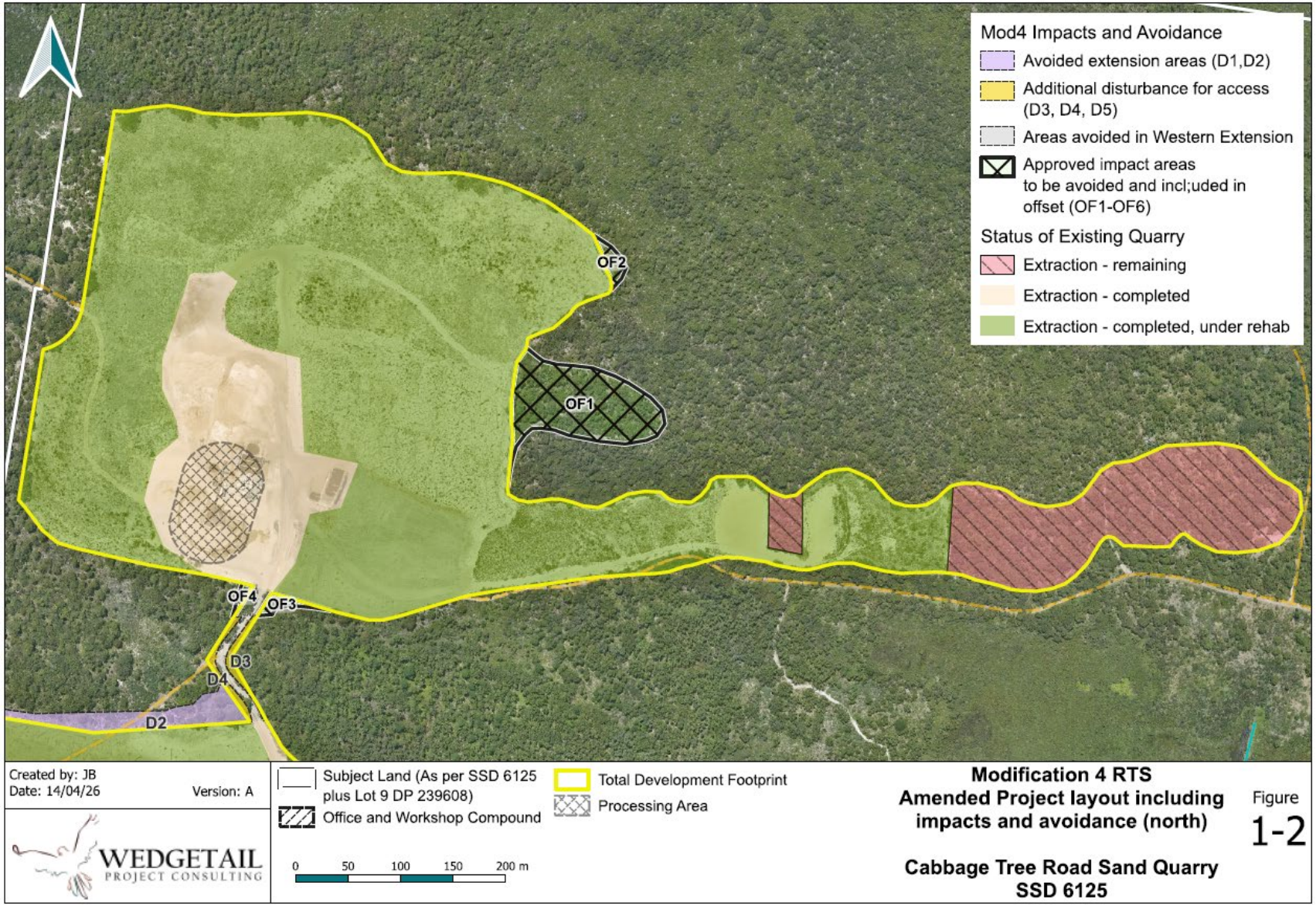

Figure 1-2: Adopted resource / disturbance boundary following exhibition

Figure 1-3: Adopted resource / disturbance boundary following exhibition

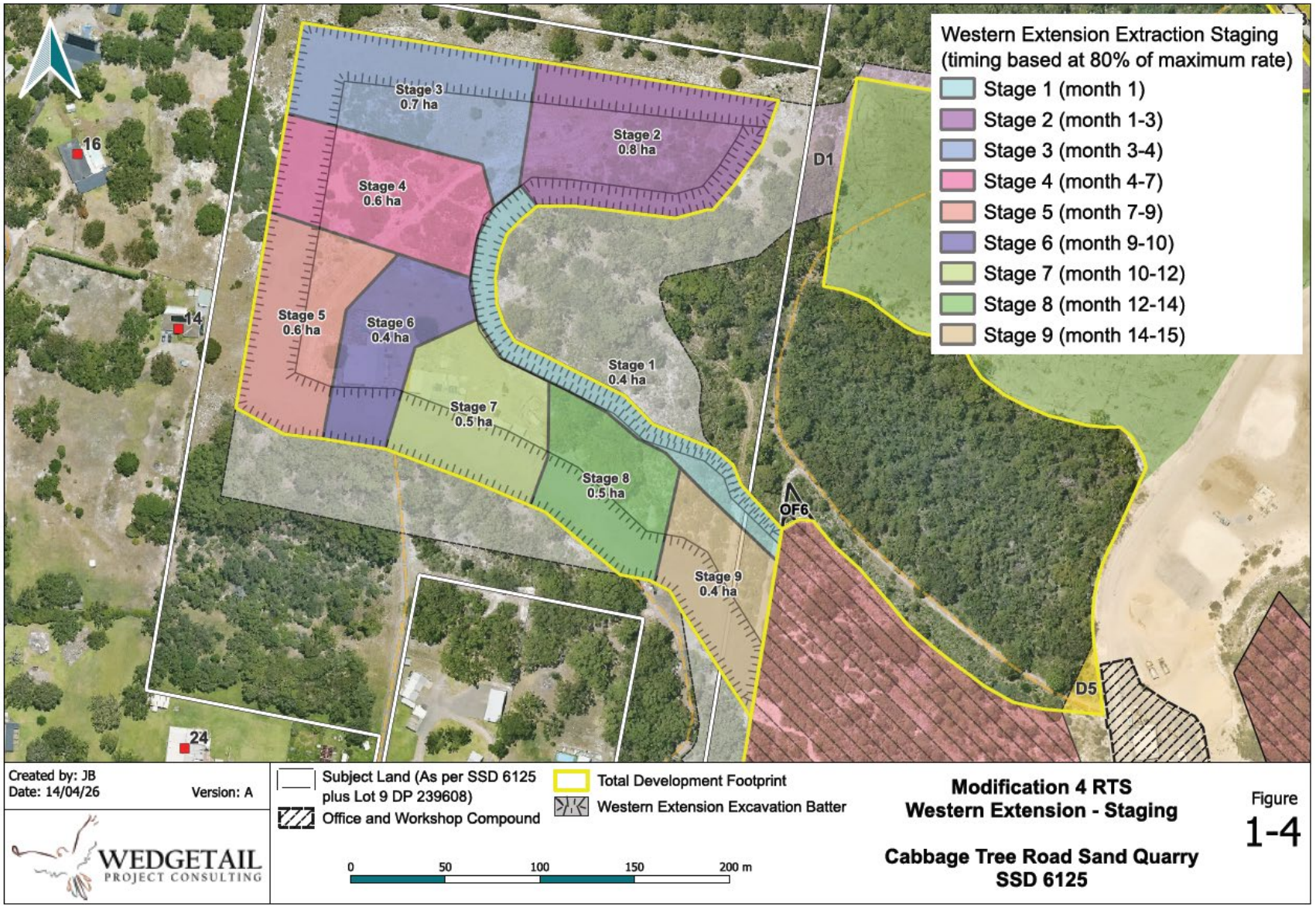

Figure 1-4: Proposed extraction staging of Western Extension

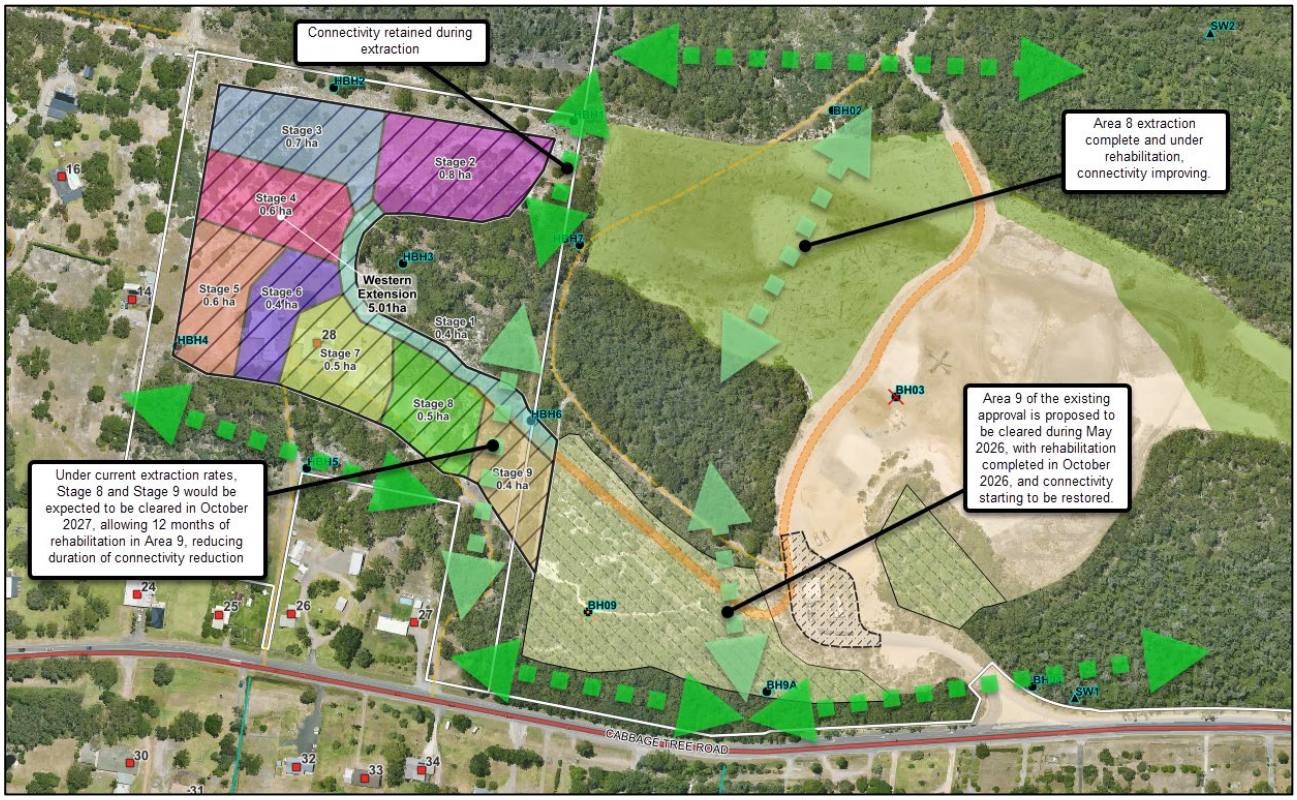

Figure 1-5: Western Extension staging showing retention areas and biodiversity corridors

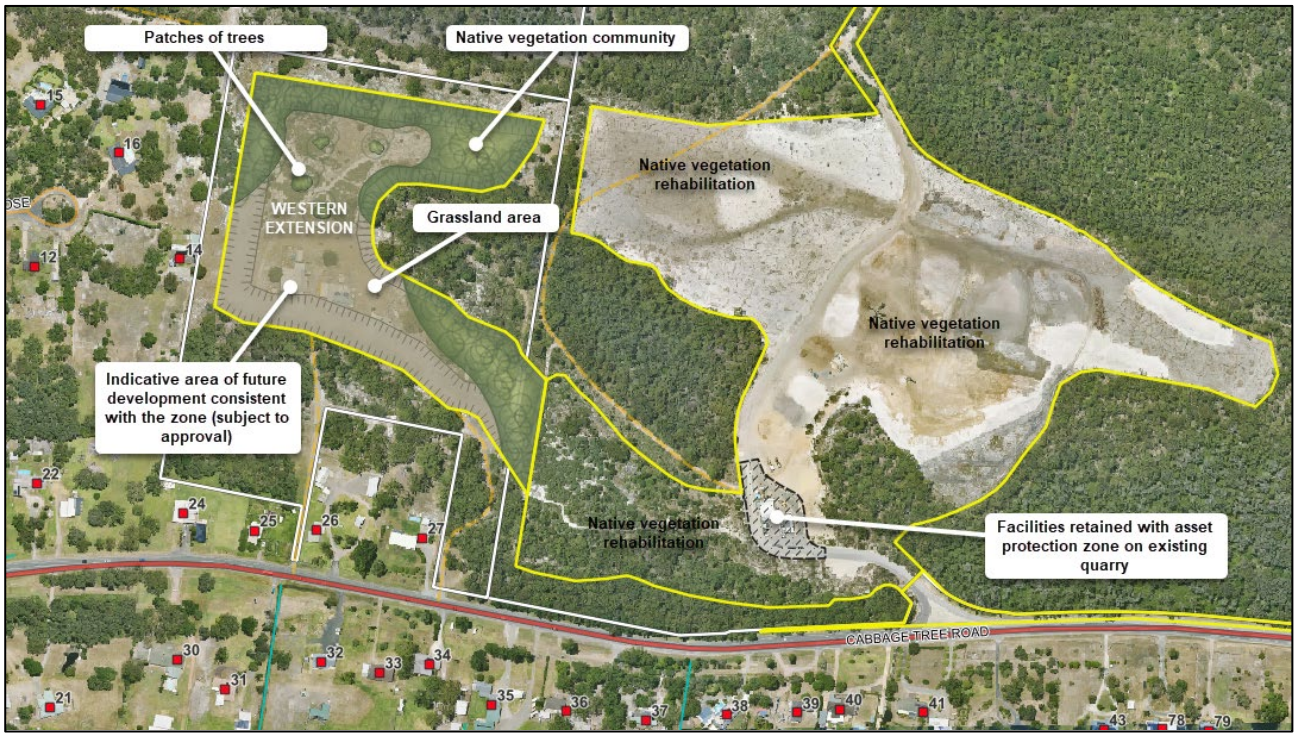

Figure 1-6: Indicative final landform and vegetation for the Western Extension

2. ANALYSIS OF SUBMISSIONS

This section provides an overview of the submissions received and the nature of those submissions. Subsequent sections provide a response to the matters raised in the submissions. Each submission was reviewed to assess and categorise the nature of the submission.

2.1 SUBMISSIONS RECEIVED

The modification report (Mod 4) was placed on public exhibition from 8 July to 24 July 2025. During the public exhibition period, 25 submissions were made on the proposed modification. This included ten government agency submissions and 15 from members of the public.

Table 1-2 provides a breakdown of the submissions received for the proposed modification.

Table 1-2: Breakdown of Submissions

Category	Number of submissions/responses
Agency	10
Members of the Public	15
Total	**25**

2.1.1 Agency Submissions

As outlined in **Table 1-2**, ten agency submissions/responses to the request for comment were received. These included:

- Environment Protection Authority (EPA) (two submissions).
- Port Stephens Council.
- Hunter Water Corporation (HWC).
- NSW Rural Fire Service (NSW RFS).
- NSW Department of Primary Industries and Regional Development – NSW Resources.
- Department of Climate Change, Energy, the Environment and Water (DCCEEW), Conservation Programs, Heritage & Regulation Group (CPHR).
- Department of Climate Change, Energy, the Environment and Water (DCCEEW), Water Group.
- Fire and Rescue NSW (FRNSW).
- Heritage NSW.

Of the ten agency submissions received, two provided no comment or raised no issues (FRNSW and NSW Resources). One (Port Stephens Council) objected to aspects of the proposal and also requested further information and assessment. The remaining seven raised concerns about specific elements or requested additional information.

2.1.2 Public Submissions

A total of 15 submissions were received from members of the public in response to the proposed modification. All 15 submissions objected to the proposal, either wholly or in part.

All submissions were received from residents of the Williamtown area, with the exception of one submission from a resident of Mayfield, which was made on behalf of her mother, who resides in Williamtown and also submitted her own objection.

2.2 PUBLIC SUBMISSIONS CATEGORIES

Each submission was reviewed, and the submission issues were broken down and classified according to the nature of the issue. This formed the basis of the topics for response within **Section 0**. A copy of the submission register is attached in **Appendix A**. Several submissions raised multiple overlapping concerns.

Out of the 15 submissions received, key issues raised included:

- Flooding and Drainage Impacts (87%, 13 out of 15 submissions)
  Concerns are primarily related to worsening flooding events, changes to natural drainage patterns, and the adequacy of existing drainage systems. Submitters reported that quarry water management practices were intensifying flood risks on nearby residential properties.
- Dust and Air Quality (67%, 10 out of 15 submissions)
  Submissions raised concerns about visible dust emissions from quarrying and haulage activities, including silica dust, and associated health impacts such as breathing difficulties and reduced outdoor amenity.
- Noise Impacts (60%, 9 out of 15 submissions)
  Complaints focused on increased noise from quarry equipment and truck movements, particularly during early morning and evening operations, with submitters emphasising impacts on sleep and overall amenity.
- Traffic and Transport (53%, 8 out of 15 submissions)
  Concerns included quarry-related heavy vehicle traffic on local roads, truck safety, use of residential streets such as Barrie Close for U-turns, and disruptions caused by trucks during unsociable hours.
- Public Health and Safety (47%, 7 out of 15 submissions)
  Health concerns raised included potential respiratory issues, sleep disturbance, stress, and mental health impacts, as well as risks to road safety from heavy vehicle movements.
- Community Engagement and Consultation (47%, 7 out of 15 submissions)
  Submitters expressed dissatisfaction with the consultation process, noting inadequate engagement, limited opportunities to provide input, and poor communication of quarry activities and impacts.
- Environmental and Habitat Impacts (27%, 4 out of 15 submissions)
  Several submissions highlighted impacts on local flora and fauna, including concerns about the loss of native vegetation and koala habitat.

- PFAS and Water Contamination (20%, 3 out of 15 submissions)
  Concerns were raised about the adequacy of water quality testing and the potential for PFAS contamination to spread through flood events or water management practices.

Figure 1-7 illustrates the frequency of the key issues raised in the public submissions.

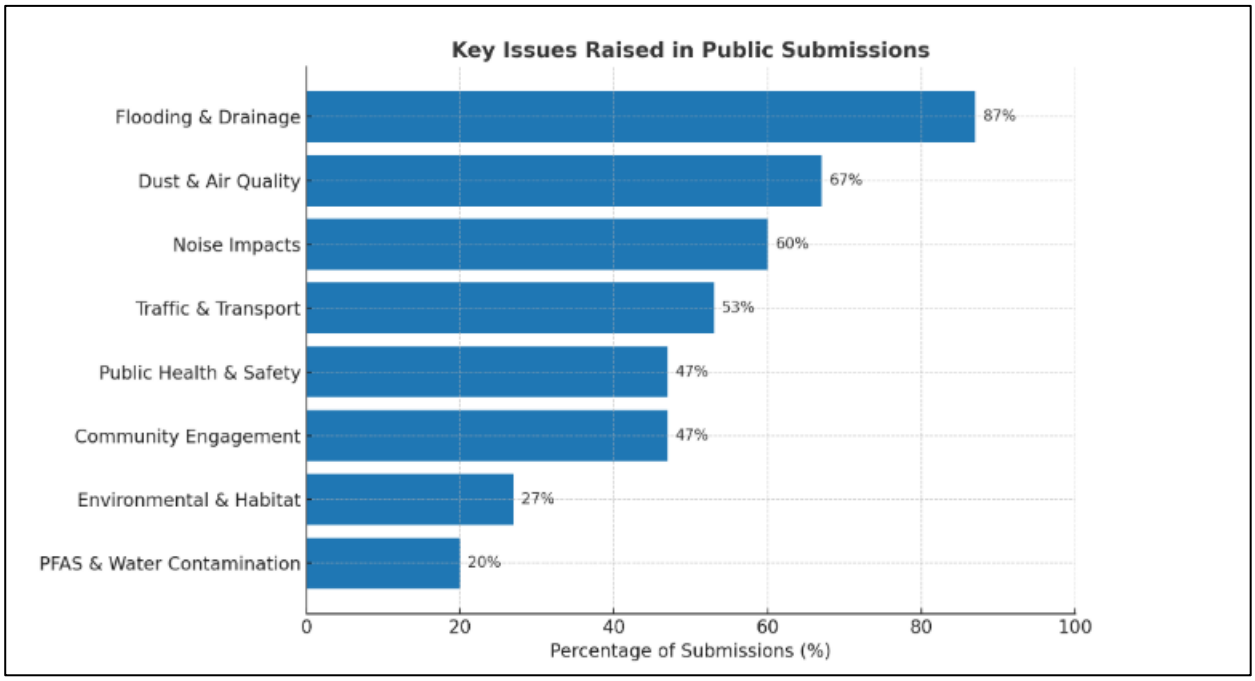

Figure 1-7: Key Issues Raised in Public Submissions

3. ACTIONS SINCE EXHIBITION OF MR4

Following the exhibition of MR4, the following additional consultation, technical investigations, surveys and field activities were undertaken to assist in the resolution of issues raised during the public exhibition period:

- Consultation with Registered Aboriginal Parties (RAPs): Archaeological Risk Assessment Services prepared a letter confirming consultation with RAPs, included as **Appendix B**.
- Groundwater investigations: Nine additional groundwater monitoring wells were installed, with survey and periodic sampling undertaken to update understanding of groundwater levels across the project area.
- Updated groundwater model: GES updated the existing groundwater model and provided a supporting report, included as **Appendix C**.
- Biodiversity assessment and additional fauna surveys: Wedgetail Project Consulting prepared a revised Biodiversity Development Assessment Report (BDAR) (**Appendix D**) to reflect the updated project design, disturbance footprint, and agency feedback. Additional surveys undertaken included:
    - Microchiropteran bats: Four Anabat™ bat-call detectors were installed in suitable habitat and along potential flyways for four consecutive nights (16–20 February 2026). Four harp traps targeting bat flyways near water bodies were also installed and checked each morning (16 trap nights). Data were analysed in-house by an experienced fauna ecologist.
    - Reptiles: Targeted surveys for Stephens' Banded Snake (*Hoplocephalus stephensii*) were conducted in accordance with Threatened Reptile BAM Survey Guidelines, including spotlighting on 16 and 18 February 2026.
    - Amphibians: Additional spotlighting surveys were conducted in accordance with the NSW Survey Guide for Threatened Frogs on 16 and 18 February 2026, using random meanders across suitable habitat and high-powered headtorches.
- Noise assessment: Spectrum Acoustics revised the Acoustic Assessment report, included as **Appendix E**, to reflect that a previously identified sensitive receiver is no longer applicable.
- Community consultation: Further consultation with local community members was undertaken during the CCC meeting held in December 2025, where information was provided regarding flooding and other project matters.
- The Western Extension layout was refined in response to agency feedback to avoid and minimise environmental impacts. As part of this broader design process, proposed extraction areas D1 and D2 (located outside the Western Extension) were removed. The final design reflects an iterative approach to impact avoidance and minimisation undertaken in consultation with agencies, including the NSW Department of Climate Change, Energy, the Environment and Water (DCCEEW) – CPHR.

- Drainage investigations: Investigations of drainage infrastructure surrounding the project area were undertaken, including discussion with Hunter Water Corporation and Port Stephens Council.

3.1 SUMMARY OF AMENDMENTS TO PROPOSED MODIFICATION

Amendments have been made to the original Modification 4 application based on submissions received by agencies and the community. These amendments have been summarised below.

- Removal of northern access road into the Western Extension reducing impacts to native vegetation, habitat connectivity to the north of the Subject Land and avoiding direct impacts to *Diuris arenaria* (Sand Doubletail).
- Reduction of Impact Area within the Western Extension reducing impacts to native vegetation, habitat for threatened species (Mahony's Toadlet, Wallum Froglet, Squirrel Glider, and Diuris arenaria), reduction of direct impacts to *Eucalyptus parramattensis subsp. decadens* (Earp's Gum), and expansion of east-west and north-south movement corridors. The impact area has been reduced by approximately 30% from 7.1 ha to 5.01 ha, 2.09 ha less disturbance.
- Impacts to connectivity to the south have been minimised by staging impacts and rehabilitation between Lot 100/DP 1263921 and the Western Extension corridor, while rehabilitation within the current sand quarry continues to enhance connectivity.
- A reduction in the size of the resource to be extracted within the Western Extension due to the reduced disturbance footprint. MOD4 initially targeted the recovery of an estimated 533,000 tonnes over the project's lifetime, with the redesigned disturbance footprint now targeting an estimated 480,000 tonnes.
- Proposed extraction areas D1 and D2 have been removed, further reducing disturbance by approximately 0.55 ha.

4. RESPONSE TO AGENCY SUBMISSIONS

Agency submissions and the response to these matters are provided below. Agency submissions are shown in *italics within a beige shaded and outlined box*. Where additional actions are adopted as a result of the submission response, these are shaded in grey.

4.1 ENVIRONMENTAL PROTECTION AGENCY

The EPA lodged a submission on 17 July 2025 and a supplementary submission on 22 July 2025. Comments made in both submissions are addressed in this section.

4.1.1 Water

Water

The Modification Report addresses potential impacts to surface water and groundwater due to the Proposal. Impacts to surface water and groundwater due to the Proposal do not appear to be significantly different to scenarios considered for the existing consent. The proposed Western Extension would retain the existing excavation limit set at 0.7m above maximum predicted groundwater levels. The Premises would continue to operate as a non-discharge site.

The EPA notes potential hazards due to handling of fuel and chemicals in or within close proximity to the Hunter Water Tomago Sandbeds Special Area. The EPA notes that the proposed operational controls, if implemented with appropriate due diligence, should mitigate the risk associated with potential contamination of the catchment.

The EPA's expectation is that if the Proposal is approved, the Proponent will implement the proposed controls and associated housekeeping measures to the highest standards.

The EPA's comments on water management and proximity to the Hunter Water Tomago Sandbeds Special Area are noted. The Proponent confirms that the site will continue to operate as a non-discharge premises and that the 0.7 m excavation buffer above the maximum predicted groundwater level will be maintained.

The Proponent commits to implementing the operational controls and housekeeping measures outlined in the Modification Report to a high standard.

4.1.2 Importation and Processing of VENM

Importation and Processing of VENM

The Modification Report incorrectly states that Virgin Excavated Natural Material (VENM) is exempt from EPA licensing requirements.

Schedule 1 clause 49(1)(p) of the Protection of the Environment Operations Act 1997 (POEO Act) defines VENM as being general solid waste (non-putrescible). Accordingly, VENM is subject to regulation under the POEO Act as a waste and may be subject to waste levy contributions required by s88 of the POEO Act where licensing thresholds are triggered.

Based on the information provided in the Modification Report, the proposed scale of processing of VENM would be up to 6,000 tonnes per annum, and stockpiling of VENM would not exceed more than 1,000 tonnes on site at any one time which is the threshold for licensing requirements. If these amounts were to be exceeded, the EPA may take regulatory action for undertaking scheduled activities without an appropriate licence.

The EPA acknowledges that the Modification Report has considered the EPA's previous advice provided in response to Modification 3, which recommended that the Proponent engage a suitably qualified person to provide independent certification of any VENM prior to it being received at the Premises. Chemical testing would be undertaken if VENM originates in areas of known PFAS zones, areas with acid sulfate soils or potential acid sulfate soils, and areas contaminated by building rubble.

The Proponent acknowledges the clarification provided by the EPA regarding the regulatory status of VENM under the POEO Act. VENM will be treated as a general solid waste (non-putrescible) and its management will comply with the applicable provisions of the POEO Act.

The Proponent confirms that the importation, processing, and management of VENM will be undertaken in accordance with the proposed controls detailed in the Modification Report. These controls include volumetric limits, independent certification requirements, and site-specific testing protocols to ensure material quality and prevent contamination risks.

4.1.3 Noise

EPA Requires Additional Information to Assess Noise Impacts

EPA Requires Additional Information to Assess Noise Impacts. The EPA has reviewed the document titled 'Acoustic Assessment Proposed Modification (Mod 4) Cabbage Tree Road Sand Quarry Williamtown, NSW' (January 2025), conducted by Spectrum Acoustics (Acoustic Assessment). The existing noise limits for the Premises are detailed in Condition L3.1 of SSD-6125 and in the Licence. The existing limits are summarised below:

- *43 dB(A) Leq, 15min(day)*
- *39 dB(A), Leq,15min (night)*
- *45 dB(A) LMax, 1min*

The Acoustic Assessment proposes to revise the project noise trigger levels to 47 dB(A) Leq, 15min(day) and 42 dB(A), Leq,15min (night). The EPA considers this to be a substantial increase in the noise limit requiring substantial consideration and justification by the Proponent, which has not been provided in the current Acoustic Assessment. The Noise Policy for Industry (NPfI) (EPA 2017) Fact Sheet B presents a procedure for determining background noise. The NPfI requires a minimum of 7 days of data to determine the rating background noise level with data affected by weather excluded from the data set. The background noise monitoring data presented in the Acoustic Assessment in Appendix 1 does not appear to show that noise data has been excluded from the data set for weather. The Proponent should be required to

demonstrate that the weather affected data exclusion requirements of the NPfI have been followed and that the resulting data meet the minimum requirements of the NPfI. Williamtown airport weather station is close to the Premises and could be used to assess weather affects. Additionally, the derived "assessment background levels" (ABL's) should be presented as required by the NPfI.

When a proponent is required to vary requirements, the EPA will take into account existing commitments and requirements, and performance against those requirements, as evidence of the ability of the proponent to implement reasonable and feasible measures to mitigate noise. That is, where a licence holder meets current noise limits or can do so, this will be considered evidence that practical measures can be implemented to mitigate pollution for the purposes of section 45(d) of the Protection of the Environment Operations Act 1997 when the EPA makes a licensing decision. Therefore, the Proponent should be required to justify why the noise limit should be increased rather than implement reasonable and feasible measures to mitigate.

For the assessment of modifications to existing Premises, the noise from the existing Premises should be excluded from background noise measurements. As the background noise monitoring has been conducted at one of the closest residential receivers to the quarry, the Proponent should be requested to justify the background noise monitoring position to ensure noise from the existing Premises has been excluded from the background noise measurements.

In response to the EPA's comments, the Acoustic Assessment has been revised (refer to **Appendix E** of this RTS) and no increase to the approved project noise trigger levels is proposed or relied upon as part of Modification 4.

The assessment has been undertaken using the existing approved noise criteria specified in Condition L3.1 of Development Consent SSD-6125 and the associated Environment Protection Licence.

As no amendment to the approved noise limits is proposed:

- The EPA's concerns regarding justification for increased noise criteria are no longer applicable.
- Further derivation of background noise levels in accordance with the NPfI, including weather filtering, presentation of ABLs, and reassessment of monitoring locations, is not required for the purposes of assessing this modification.

The revised Acoustic Assessment instead focuses on:

- Measured noise emissions from the proposed extraction methodology, which involves the use of an excavator rather than a dozer and results in lower noise emissions.
- The below ground nature of extraction activities and substantial terrain shielding provided by pit walls between operational areas and surrounding receivers.
- Historical attended compliance monitoring undertaken between June 2020 and December 2024, during which quarry operations have not been audible at residential receivers.

An agreement is in place with the nearest receiver to the proposed western extension (R14), such that project noise criteria are not applicable at that location. The assessment therefore identifies Receiver R16 as the potentially most impacted applicable receiver. Noise measurements and propagation considerations demonstrate that the retained approved noise trigger levels would not be exceeded at R16 or any other surrounding residential receiver.

Overall, the revised assessment confirms that Modification 4 can be implemented in compliance with the existing approved noise criteria, without the need for increased limits, and that reasonable and feasible measures to minimise noise impacts are already inherent in the proposed operational methodology and site layout.

4.2 PORT STEPHENS COUNCIL

Port Stephens Council (PSC) lodged a submission on 22 July 2025. Comments made in the submission are addressed in this section.

4.2.1 Ecology

1. Impacts to Diuris arenaria: Diuris arenaria was identified during targeted surveys within the proposed Modification 4 expansion area. It is stated in the Biodiversity Development Assessment Report (BDAR) that 1 individual and 5.29 ha of suitable habitat for Diuris arenaria will be impacted as part of the proposed expansion, and that no avoidance or minimisation of impacts to Diuris arenaria have been considered as part of the proposal. Diuris arenaria is listed as a species at risk of serious and irreversible impacts under Principle 3: species with very limited geographic distribution. Given that the proposal will result in the removal of 5.29 ha of suitable habitat for a species identified as having a very limited geographic distribution, Council considers the impact of the proposed expansion on Diuris arenaria to be serious and irreversible. The proposed expansion area should be modified to avoid impacts to suitable Diuris arenaria habitat to the maximum possible extent, and the BDAR should be amended to include details of measures which will minimise impacts to Diuris arenaria habitat.

2. Mahony's toadlet: Mahony's toadlet was identified during targeted surveys throughout the proposed expansion area. The Threatened Biodiversity Data Collection (TBDC) states that impacts to Mahony's toadlet frequently trigger serious and irreversible impacts and should be avoided as much as possible under the precautionary principle, due to an absence of knowledge and data on the species. Council considers that the proposed impacts to Mahony's toadlet are likely to be serious and irreversible. The BDAR should be amended to include an assessment of Mahony's toadlet conducted in accordance with section 9.1.2 of the Biodiversity Assessment Method 2020. Where required, the proposed expansion area should be modified to avoid impacts to Mahony's toadlet and the BDAR should be amended to include details of measures which will minimise impacts to Mahony's toadlet habitat.

3. Eucalyptus camfieldii Confirmation is required on whether Eucalyptus camfieldii was detected on site. Numerous records of this species occur around the proposed expansion area, and the BDAR states that targeted surveys were conducted; however, there is conflicting information in the BDAR, which states that this species was not detected on site. If Eucalyptus camfieldii was detected on site, updated figures should be provided in the BDAR showing the locations of individuals, and information provided demonstrating that impacts to this species have been avoided and minimised as part of the proposed expansion.

The proposed development has been amended to include a reduced impact area, avoiding all direct impacts to the SAII species Diuris arenaria - this is detailed within the amended BDAR.

The proposed development has been amended to include a reduced impact area and staging that minimises direct impacts to the habitat and connectivity for Mahony's Toadlet - this is detailed within the amended BDAR. A SAII assessment for the species has been provided.

Eucalyptus camfieldii was not recorded within the Impact Area during targeted surveys.

4.2.2 Traffic

Council has received complaints regarding quarry trucks using the nearby Barrie Close intersection to undertake U-turns in order to enter the site. This is impacting residents and leading to deterioration of the road surface in Barrie Close. Council suggests that a Driver's Code of Conduct be introduced to ensure that trucks are using the nominated access routes to the site

A Driver's Code of Conduct already exists for the quarry site and is available on the Newcastle Sand website under the Environment section, 'Traffic Management Plan (v7)'. While this Code currently sets out approved haulage routes and driver obligations, it does not specifically reference Barrie Close. To address community concerns, Newcastle Sand will review and update the Code of Conduct to explicitly prohibit the use of Barrie Close for U-turns or access and will circulate the updated version to all transport operators.

Management measures are in place to prevent unauthorised truck movements through residential streets, with the quarry maintaining regular communication with transport operators to ensure compliance. All drivers contracted to haul materials are required to undertake a site-specific induction, which includes detailed information on approved haulage routes, speed limits, and community expectations. Drivers are provided with a copy of the Driver's Code of Conduct so they are aware of their obligations. Any instances of non-compliance, such as unauthorised use of residential streets, are promptly investigated. Corrective actions may include warnings, suspension of haulage contracts, or removal of drivers from site access.

These measures, together with the forthcoming update to the Driver's Code of Conduct to specifically address Barrie Close, will further reduce disruptions to local residents and improve community safety.

4.2.3 Flooding

There are no flooding issues generated from the proposed modifications. There are some areas impacted by low-hazard flood fringe, and a large portion of the site is impacted by the Probable Maximum Flood (PMF) (minimal risk flood-prone land). It's noted that the proposed extension area to the west within Lot 9 DP 239608 is contained within flood-free land.

Noted. The Project will be constructed and operated in accordance with the modification report and relevant flood management controls.

4.2.4 Water Quality

The sand mine site is partially located within a Hunter Water drinking water catchment area. As such, NorBE (Neutral or Beneficial Effect) requirements would generally apply for water quality management. It is noted that water quality impacts were considered as part of the original development assessment and approval. When considering the current modification, the proposed activities that could impact water quality include:

• proposed modifications to extraction methodologies (such as reliance on vehicles); and
• proposal to import and process VENM onsite.

It appears that Consultation with Hunter Water for these amendments has occurred. Hunter Water is best placed to review the proposal in terms of water quality impacts to the drinking water catchment and operational requirements to limit potential impacts.

The Project will continue to meet NorBE (Neutral or Beneficial Effect) requirements for water quality management. Controls for extraction methodologies and VENM importation/processing will be implemented to ensure there are no adverse impacts on the drinking water catchment.

Council records indicate that a Final Approval Notice of Determination was issued on 11 June 2018 and comprised a 5000 litre Effluent Pump Out (EPO) with a high water alarm, and effluent removal recommended on a weekly basis. Council does not have any records of this wastewater system being installed in accordance with this determination or records of any Council inspections for the proposed system having been undertaken.

If this system is installed, preference would be that the inspection of this system be arranged with Council so that approval to operate can be issued, and inspections are scheduled as part of Council's routine inspection program. Alternatively, Council requests clarification that the Onsite Sewerage Management System maintenance and operation falls under the requirements of the Environment Protection Licence at the site.

If an alternative system has been or will be installed onsite, an application under Section 68 of the Local Government Act is required, in accordance with Port Stephens Council's Development Assessment Framework for on-site sewerage.

The Applicant notes Council's advice that while an approval was granted for the installation of the EPO system, it does not hold records confirming installation of the approved Effluent Pump Out (EPO) system in accordance with the 11 June 2018 determination, nor records of any Council inspections having been undertaken.

The approved 5,000-litre Effluent Pump Out (EPO) system with high water alarm has been installed onsite and is currently operational. The Applicant will liaise with Port Stephens Council to confirm the status of the system and arrange an inspection, to verify the installation and obtain an Approval to Operate.

Once confirmed, the system can be incorporated into Council's On-Site Sewage Management inspection program, which provides for periodic inspection of onsite wastewater systems.

The onsite wastewater management system is not regulated under the site's Environment Protection Licence and therefore remains subject to the requirements of the Local Government Act 1993 and relevant Council approvals.

4.2.5 Air Quality

It is assumed that the air quality impact assessment prepared by SLR Consulting is still applicable. Council does not anticipate any significant exceedance of air quality criteria.

The air quality assessment prepared by Todoroski Air Sciences for the modification remains applicable. The assessment concludes that the Project will comply with relevant air quality criteria.

4.2.6 Noise

The Noise Impact Assessment, prepared by Spectrum Acoustics dated January 2025, considered the potential impacts from the modification. Modelling identifies that noise criteria will not be exceeded and notes that the use of trucks to replace the conveyor drive would result in comparable noise levels. Council supports revising the noise monitoring location as suggested within the report.

Noted. The noise monitoring location will be revised to location R16 as recommended in the Noise Impact Assessment, should the modification be approved.

4.3 HUNTER WATER CORPORATION

4.3.1 Tomago Sandbeds Catchment Area

The Cabbage Tree Road Sand Quarry is located on the Tomago Sandbeds aquifer, near the southern boundary of this landscape unit, and predominantly within the Tomago Sandbeds Special Area, a gazetted drinking water catchment area under the Hunter Water Act 1991. The proposed modification 4 is located entirely within the special area. The aquifer can supply up to 30% of the region's drinking water supply and plays an important strategic function for Hunter Water as a critical contingency water source, providing water supply resilience for climatic and water quality hazards in other water storages, such as drought, blue-green algal events, and severe storms. Further, native ecosystems occurring on the land overlying the aquifer provide an important water quality protection function, are recognised as providing very high value habitat for biodiversity and provide an important ecological corridor function in the Lower Hunter region. The aquifer requires appropriate management to:

• protect the drinking water source from potential water quality and/or quantity impacts caused by land use activities; and

• protect the high biodiversity and regional ecological corridor values present.

Accordingly, potential impacts on these matters from the Modification 4 proposal are the main areas of interest to Hunter Water. Hunter Water expects that all development in drinking water catchments will achieve a Neutral or Beneficial Effect (NorBE) on water quality in the catchment area.

Noted. Management controls will be implemented as outlined in the Modification Report to achieve NorBE on water quality.

4.3.2 Western Extension and Resource Boundary Adjustments

The existing quarry operation has been designed to comply with the NorBE requirement, approval conditions have been imposed to ensure this occurs, and these are supported by operating protocols and site management plans. Provided there are no proposed changes to operating methods that would impact compliance with this requirement, and the proposed additional management controls are implemented, Hunter Water has no objections to this aspect of the proposed modification.

However, we note the higher level of disturbance in the proposed western extension area, the proposal to rehabilitate this area to grassland and the commensurate additional risks associated with achieving site rehabilitation objectives in other parts of the project area as a result of the disturbed land. This will require greater attention to detail and management of the site rehabilitation processes in parts of the site that are adjacent to the western extension area. Alternatively, rehabilitating the eastern part of the proposed western extension area with a native vegetation buffer (in the order of at least 30 metres) should assist greatly in achieving the rehabilitation objectives in other parts of the project area. In reality, the ongoing occupation and management of the western extension area after the completion of quarrying operations is considered to present a greater risk to the aquifer and surrounding residents than the quarry operations.

Comments regarding sporadic low levels of PFAS detected at the quarry to date are noted. While the proposed western extension area is outside the EPA's PFAS management zone, the risk of further detections remains and should be considered as an integral part of the quarry's operation and risk management.

Operations with respect to NORBE controls will continue per existing operations that have demonstrated in annual reviews to be consistent with NORBE principles.

The proposed refinement of the quarry has resulted in a 38-60m wide area of retention of existing vegetation to the west of the approved and extracted Sector 8 and greater retention of existing treed vegetation, providing a greater separation of site rehabilitation in the existing quarry to rehabilitation of the Western Extension. As such the final landform containing a combination of grassland and scattered trees is likely to be consistent with or more vegetated than the existing conditions.

Any future use of the site must be consistent with the land zoning, and must be undertaken consistent with current legislation and standards, in the event of the use of the land for a dwelling, it is likely to be a net improvement owing to newer and more stringent requirements for the dwelling and any effluent disposal system.

Any additional submissions made by the HWC relating to ecology are addressed in **Appendix D** (response to submissions relating to biodiversity and updated BDAR) of this RTS.

PFAS monitoring will continue per existing arrangements, expanded to ensure suitable cover of the Western Extension area.

4.3.3 VENM Importation and Processing

Hunter Water understands that the proposed importation of VENM from nearby sand sources is to allow on-site processing and sale of commercial sand products. The management controls proposed to be implemented to avoid potential impacts, such as chemical contamination or the introduction of weeds, are considered acceptable to Hunter Water. Consequently, Hunter Water has no objection to this aspect of the proposed modification.

Noted. Management controls to be implemented as outlined in the modification report.

4.4 NSW RURAL FIRE SERVICE

1. A Fire Management Plan (FMP) shall be prepared for the hard rock quarry development. A copy of the FMP shall be located at the quarry office. The FMP shall include:

• 24-hour emergency contact details, including alternative telephone contact, including a provision for the details to be displayed on the entrance gate;

• Site infrastructure plan - roads, voids, buildings, etc.

• Fire-fighting operations plan, including:

• type and location of hazardous materials;

• location and access to on-site firefighting water supply.

2. The land around any amenity, office or storage buildings, including associated infrastructure, for a minimum distance of 20 metres, shall be managed as an Asset Protection Zone in accordance with Appendix 4 of 'Planning for Bush Fire Protection 2019'.

3. A 10,000 litre water supply (tank) fitted with a 65mm Storz fitting shall be located adjoining the internal property access road within the required Asset Protection Zone (APZ).

4. To allow for emergency service personnel to undertake property protection activities, an unobstructed vehicle access is to be provided around the perimeter of any amenity, office or storage buildings, including associated infrastructure.

The conditions recommended by the NSW RFS are already met and addressed on-site, as detailed below. Any additional requirements will be formally incorporated and implemented as conditions of the modified consent, should it be granted:

- A Fire and Explosion Management Plan has been developed in accordance with the NSW Resources Regulator Requirements, which addresses bushfire management on the site. An Emergency Response Control Plan has also been developed for the quarry site, which outlines bushfire as a likely risk and lists controls associated with the management of those risks. If required by the modified consent, a Fire Management Plan can also be prepared for the quarry.
- The PIRMP for the quarry includes a quarry operations plan showing the type and location of hazardous materials on-site. This can be updated where required.
- A 20m APZ is already created and maintained around all infrastructure onsite, including the site office, storage sheds and wash plant. A 10m APZ is also maintained around timber stockpiles. These areas have been wholly cleared of native vegetation.
- The site has an 18,000 litre water cart onsite, which is fitted with a firefighting hose reel and a bulk fill 65mm Storz fitting. The water cart is stored within the APZ area surrounding the wash plant or site office when not in use and is refilled at the conclusion of each shift.

- Unobstructed vehicle access is present around the perimeter of the site office, storage sheds, and wash plant areas.

4.5 NSW RESOURCES

NSW Resources has reviewed the Modification Report (Mod 4) for the Cabbage Tree Road Sand Quarry project and has no comments or issues to raise.

4.6 NSW DEPARTMENT OF CLIMATE CHANGE, ENERGY, THE ENVIRONMENT AND WATER, WATER GROUP

4.6.1 Pre-determination

Conduct and present findings from a study to determine potential groundwater mounding in the sand dunes of the proposed modification area.

No evidence of groundwater investigation across the Mod 4 area has been presented to confirm the existing groundwater conditions and potential interactions with the proposed modification. The water table surface is commonly a subdued replica of landform topography and therefore may be mounded below the dune crest landform of the proposed Mod 4 Area. The dune landform has been cleared of vegetation in areas of existing occupation and hence may have enabled enhanced percolation of precipitation into the dune facies, forming a perched aquifer within the dune.

DCCEEW Water identified significant variation between model predictions and observed groundwater levels in the northwest, where terrain is flatter and prone to recharge and ponding during heavy rainfall. This is determined to be due to the Minimum Extraction Level (MEL) that was projected across the Mod 4 area, not accounting for the elevated topography of the Mod 4 area. To consider this further, DCCEEW Water overlaid the MEL plot on Google Earth and projected a traverse from the nearest Hunter Water Corporation bore to estuarine mud flats, revealing higher groundwater levels along the northern boundary.

DCCEEW Water noted a greater risk of non-compliance with Schedule 2, Condition 6, which requires excavation to remain at least 0.7 metres above the predicted maximum groundwater level. This is further supported where Groundwater Exploration Services (GES,2025) observed the greatest deviations from model predictions near BH11 in the northeast, where catchment relief is low.

Further assessment and review against the design of the project is required.

Submissions made by the DCCEEW Water Group relating to groundwater impacts have been addressed by GES and included in **Appendix C** of this RTS.

4.6.2 Post determination

The Department of Planning, Housing and Infrastructure requests the proponent to install additional groundwater monitoring locations(s) along the northern boundary of the

proposed western extension area and include them in the existing monitoring program alongside the consultant-recommended sites.

Whilst GES recommends installing three new monitoring bores in the southern part of the western extension, DCCEEW Water recommends additional monitoring along the northern boundary to:

• Track groundwater levels more accurately.

• Ensure MEL compliance.

• Support adaptive management of quarry operations.

Noted. Douglas Partners Pty Ltd, on behalf of the proponent, installed nine additional groundwater monitoring wells within the proposed western extension area, on 3 and 4 November 2025 and in March 2026. Two of the nine monitoring wells were installed along the northern boundary of the proposed extension.

The additional monitoring sites have been incorporated into the existing groundwater monitoring program to enhance tracking of groundwater levels, ensure MEL compliance, support adaptive management of quarry operations and updating of the site groundwater model.

A copy of the report showing location of groundwater wells is included in **Appendix C**, including the updated groundwater modelling report prepared by GES.

The Department of Planning, Housing and Infrastructure requests the proponent to:

• Update the Water Management Plan and monitoring program to incorporate all new monitoring sites.

• Include data from all new monitoring sites in the quarry's annual environmental reporting

The Mod 4 western extension would operate under the existing conditions of approval for SSD-6125, the Water Management Plan (WMP) and Groundwater Monitoring Programme (GWMP). Both the WMP and GWMP must be updated to include all recommended additional monitoring sites.

Annual reporting of groundwater monitoring in relation to quarry mining activities levels must be reported as part of the annual environmental reporting for the operations.

Noted. Subject to development consent being granted, the Water Management Plan and Groundwater Monitoring Programme will be updated to incorporate all new monitoring sites as requested. Data from these additional sites will be included in the quarry's annual environmental reporting, consistent with the existing conditions of approval for SSD-6125.

4.7 FIRE AND RESCUE NSW

Fire and Rescue NSW (FRNSW) has reviewed the Modification Report (Mod 4) for the Cabbage Tree Road Sand Quarry project and has no comments or issues to raise.

4.8 HERITAGE NSW

1. We recommend that additional documentation of the consultation process be requested, specifically:

a. Noting the response from the Office of the Registrar (dated 7 May 2024) included in Appendix 4, please demonstrate that the Worimi Conservation Lands (Nadine Russell, Joint Management coordinator) was contacted to determine if they wished to register an interest in the project.

b. Please confirm if the Worimi Local Aboriginal Land Council is a registered Aboriginal Party (RAP) for the project. While they are not noted in Table 2 of the ACHA, a registration of interest is noted in Appendix 4.

c. Please provide evidence that the draft assessment methodology (Stage 2/3) and the draft ACHA (Stage 4) were provided to all RAPs.

Evidence of the above-mentioned correspondences is required to assist in Heritage NSW's evaluation of the adequacy and completeness of the consultation process. This evidence can comprise copies of all dated email records with all relevant email addresses shown and may be provided to Heritage NSW separately for our review/records.

These matters have been adequately resolved and included in **Appendix B** of this RTS.

2. Heritage NSW notes that the Aboriginal Heritage Information System (AHIMS) search (provided in Appendix 4) is greater than 12 months old at the time of submission. Heritage NSW generally requires, as per Requirement 1b of the Code of Practice, that AHIMS searches are less than 12 months old. Please provide an updated AHIMS search.

An updated AHIMS search is included in **Appendix B** of this RTS, no additional sites were present.

3. The ACHA notes and existing Aboriginal Heritage Management Plan for the SSD (required as per condition 32 of SSD-6125 consolidated consent). Please provide a copy of this document to Heritage NSW.

The existing ACHMP for the site will be updated and submitted to RAPs and Heritage NSW for review and sign off prior to commencement of the sand extraction activities in the Western Extension. Submissions made by Heritage NSW are addressed in **Appendix B** of this RTS.

4.9 NSW CONSERVATION PROGRAMS, HERITAGE AND REGULATION GROUP

Due to the length and level of detail provided in the submission, it is not practical to reproduce the comments in full within this section. A copy of the submission letter and response is presented in **Appendix D**. A summary of the key actions is noted below, with a detailed response to these matters presented in **Appendix D** of this RTS.

The key assessment issues raised in the submission relate to the adequacy of the Biodiversity Development Assessment Report (BDAR), compliance with the Biodiversity

Conservation Act 2016 and Biodiversity Assessment Method (BAM), and the justification of impacts to threatened species and biodiversity values.

Noted, updates made to the BDAR. A summary of recommendations and responses is provided below.

Issue 1: Pre-Determination:

CPHR recommend that the BSS be finalised prior to or in parallel with Mod 4 to support the current application.

It is recommended the proponent finalise the BSS application as per SSD 6125 Consent Condition 34 and retire all credits generated from the BSS as identified in SSD 6125 Consent Condition 34 and the Biodiversity Offset Strategy (Kleinfelder 2016).

The onsite stewardship site (BSS) associated with the original application is currently under preparation and will be completed in parallel, but not prior to the commencement of MOD4. It is noted that BSS and Condition 34 can only be satisfied following the amendment of the Consent as proposed by MOD4.

Provide information and evidence to demonstrate the outcomes of existing obligations for conditions 33 – 41.

Condition 33 relates to Aboriginal heritage and Condition 40 and 41 relate to Property Inspections, it is assumed the questions related to Conditions 34-39. Comment on the outcomes of each of these is outline below:

- Condition 34: Biodiversity Offset Strategy. Onsite Offset Area. This condition relates to the establishment of an offset site on 131 ha of residual land within the development site, and the creation of a specified number and type of credits from this land. These credits do not relate directly to what is impacted, but what can be generated in lands outside the development footprint.
    - The credit type and number cannot be created as shown in the table die to changes in legislation and methodology.
    - This Modification includes measures to enable this condition to be amended to ensure it can be satisfied under current methods and legislation.
- Condition 34: Offsite biodiversity credits. This condition specifies the type and number of credits to be sourced offsite.
    - These credits have been purchased and retired.
- Condition 35: Rehabilitation Objectives: This condition relates to the rehabilitation objectives for the site post extraction. Each year Newcastle Sand is required to submit an annual report that includes monitoring of the rehabilitation and assessment of the site against the objectives that have been translated into performance and completion criteria within the Biodiversity and Rehabilitation Management Plan. Copies of these reports are available on the Newcastle Sand website. Rehabilitation to date has shown good progress with rehabilitated areas largely addressing the required objectives (i.e. landform height is 1m above maximum groundwater, there is no final void, koala feed species are planted, there is no apparent

pollution resulting from the works, rehabilitated slopes are safe, koalas have been observed moving through the area and the landform is merging into the surrounding lands, improving each year as rehabilitation matures.

- Condition 36: Progressive Rehabilitation:
    - Progressive rehabilitation is occurring throughout the site as evident in the rehabilitation monitoring and current aerial imagery.
- Condition 37: Biodiversity and Rehabilitation Management Plan:
    - This management plan has been prepared, updated and approved on several occasions, and is guiding these matters during operations.
- Condition 38 & 39: Rehabilitation Bond: This condition requires a rehabilitation bond be assessed by suitable expert and submitted to the Secretary. The bond is to be updated within 3 months of each independent audit.
    - The Bond has been calculated, submitted and updated during the life of quarry operations. The Bond is held by the DPHI.

Issue 2: Pre-Determination:

The BDAR and BAM-C is to be updated to ensure the impacts proposed for Mod 4 are to be assessed in accordance with the BAM. BAM credit calculations need to be in accordance with the BAM and submitted via the Biodiversity Offset and Agreement Management System (BOAMs).

Additional areas proposed to be added to the BSS may be identified within the BDAR as areas of avoidance to demonstrate the avoidance and minimisation of impacts to biodiversity from the Mod 4 Application.

The BDAR has been amended and the BOAMs updated to address the modified design.

Issue 3: Post Approval:

The proponent should finalise the BSS application as per SSD 6125 Consent Condition 34 and align the boundaries of the BSS and project footprint. All credits generated from the BSS are to be retired as identified in SSD 6125 Consent Condition 34 and the Biodiversity Offset Strategy (Kleinfelder 2016).

Once the BDAR and BAM-C is to be updated to ensure the impacts proposed for Mod 4 and credit generation is in accordance with the BAM an appropriate condition is to be prepared reflecting full credit obligation identified in the BDAR and that the proponent must meet any credit obligation before the project or impact commences.

BCD supports removing the Eastern Osprey biodiversity credit requirement from SSD 6125 Consent Condition 34.

Noted.

Issue 4: Pre-determination:

The BDAR is to be updated in accordance with Section 9.1 of the BAM. SAII assessment are to include consideration of indirect and prescribed impacts including impacts to hydrological processes and connectivity.

Assess Mahoney's Toadlet as a potential SAII entity given the impact proposed to habitat for this species, TBDC advice and its suspected limited geographical distribution.

Reduction in the impact footprint within the western extension to avoid areas high quality habitat.

Avoid isolation of breeding habitat for Mahony's toadlet as can be seen in the below plan.

This area was identified as core habitat for the species in the Habitat Assessment prepared by Kleinfelder in 2016. Connecting corridors should be maintained that link waterbodies to allow metapopulation processes and allow connection to the surrounding landscape. See below for an indicative example of how connectivity should be maintained to connect important habitat and maintain connectivity through the site. It is to be noted that this was a requirement of the previous approval.

Impacts to the identified Diuris arenaria should be avoided as it currently represents the total onsite population of the species.

Establishment of the onsite BSS to ensure the maintenance and protection of remaining habitat for both species.

Inclusion of additional areas of suitable habitat for both species into the onsite BSS to demonstrate avoidance of impacts.

Remove reference to the offset area from the SAII Assessment unless establishment of the BSS is finalised.

The proposed development has been amended to include a reduced impact area, avoiding all direct impacts to the SAII species Diuris arenaria - this is detailed within the amended BDAR.

The proposed development has been amended to include a reduced impact area and staging that minimises direct impacts to the habitat and connectivity for Mahony's Toadlet - this is detailed within the amended BDAR. A SAII assessment for the species has been provided in the amended BDAR

Recommendations provided by CPHR to reduce impacts to SAII species have been considered and an alternative impact area has been proposed and discussed with CPHR. This amended impact area is included within the amended BDAR.

Issue 5: Pre-determination

Amendments to the project boundary is required to demonstrate how the findings of the stage 1 BAM assessment have informed the boundary and met the requirements of the avoid and minimise hierarchy.

Inclusion of additional areas into the onsite BSS to demonstrate avoidance of impacts.

Note: CPHR would be available for further discussion to assist in resolving this matter.

The proposed development has been amended to include a reduced impact area and staging that reduces direct impacts to threatened species, their habitats and connectivity. This amended impact area is illustrated and assessed in the amended BDAR included in **Appendix D** of this RTS.

> *Issue 6: Pre-determination:*
>
> *Additional BAM Plots are required to be undertaken to meet the minimum requirements of the BAM.*

Vegetation mapping has been amended to ensure that vegetation zones are better defined. Tight mapping of the vegetation zones and limited space have led to some plots crossing multiple zones. However, at the time of the assessment the plots were completed within vegetation that was representative of the vegetation zone.

> *Issue 7: Pre-determination:*
>
> *Additional fauna survey effort is required to be undertaken to meet the minimum requirements of the BAM and BC Act. Alternatively, the proponent may opt to assume presence for the species or seek an expert report.*
>
> *Exclusion of species only to be undertaken if given adequate justification in accordance with the BAM.*
>
> *Wallum Froglet polygon to be in accordance with the TBDC.*

CPHR Agreement on Survey Effort

CPHR accepts that survey effort within Lot 9/DP 239608 was sufficient, and that reduced surveys in the small impact areas within Lot 100/DP 1263921 do not need to be replicated. This means no additional remote cameras (Eastern Pygmy Possum, Brush-tailed Phascogale, Long-nosed Potoroo), pitfall traps (Common Planigale), or nocturnal surveys (Bush Stone Curlew, Southern Greater Glider) are required.

Additional Surveys Committed

Two additional survey programs were undertaken:

- Spotlighting for Stephens' Banded Snake, in accordance with the DPE Threatened Reptiles BAM Survey Guide (2022).
- Frog surveys for Green and Golden Bell Frog, in accordance with the NSW Survey Guide for Threatened Frogs.

Microbat Species Excluded from Survey Requirements

Five threatened microbat species do not require surveys because the subject land does not contain the habitat features specified in the Bat Survey Guidelines as triggers for survey effort:

- *Eastern Cave Ba*t and *Large-eared Pied Bat* — no caves, cliffs, rock overhangs or disused mines within 2 km.
- *Eastern Bent-winged Bat* and *Little Bent-winged Bat* — no caves, tunnels, mines or other known/suspected roost structures within 100 m.
- *Southern Myotis* — no open water bodies ≥3 m wide within 200 m.

Species Excluded from BAM-C

Three species/groups are excluded from the BAM-C with the following justifications:

- *Lindernia alsinoides* (Noah's False Chickweed) — targeted surveys were completed in the required survey round (Round 2, November).
- *Black-necked Stork* — classified as an Ecosystem Species under the BAM; no targeted surveys required.
- Three microbat species (*V. troughtoni, M. o. oceanensis, M. australis*) — excluded as Candidate Species under the NSW threatened bats BAM guidelines.

Wallum Froglet — Top of Bank Mapping

The previous top-of-bank definition (edge of PCT) is not supported. Wedgetail will undertake DEM overlay analysis and ground-truthing to more accurately map the top of bank and the resulting species polygon.

> *Issue 8: Pre-determination:*
>
> *The BDAR is to be updated to include minimum information requirements regarding prescribed impacts in accordance with Appendix K of the BAM 2020.*
>
> *The Groundwater Impact Assessment Report is to be prepared in accordance with The Departments major projects groundwater guidelines and ensure minimum information requirements are met. This is to then inform the BDAR.*

Groundwater assessments have been undertaken for the impact area and the BDAR addresses this throughout.

> *Issue 9: Pre-determination:*
>
> *The proponent should ensure that all prescribed impacts have been identified and adequately assessed in accordance with the BAM, the BDAR is to be updated, and data provided to demonstrate evidence of this.*
>
> *Further avoidance is to be demonstrated as detailed above, to reduce the impacts on connectivity within the site.*
>
> *Depending on the outcomes of further assessment an appropriate method and metrics should be proposed to the consent authority for calculating and allocating an offset quantum for the residual prescribed impact of a proposal.*

The amended BDAR more appropriately addresses prescribed impacts under the BAM (**Section 5.1.2**).

> *Issue 10: Pre-determination:*
>
> *The BDAR is to be accompanied by the finalised credit report from the BAM calculator. A certified BDAR must be submitted within 14 days of the date that the credit report was finalised to be considered valid.*

It is a requirement to submit all digital data associated with a BAR to the decision-maker (see Appendix K BAM 2020) and the submission of the BOAMS parent case to CPHR for assessment.

BAM C and Digital data submission is to be in accordance with the BAM Operational Manual Stage 2, Appendix D and is to contain the minimum digital data requirements in accordance with Table 7.

The amended BDAR contains a finalised BAM-C case and certification in accordance with the BAM.

5. RESPONSE TO COMMUNITY SUBMISSIONS

Community submissions were combined, given the relatively small number (15) received and the overlap in issues raised. Issues raised in the submissions are shown in italics within a beige shaded and outlined box. Where additional actions are adopted as a result of the submission response, these are shaded in grey. Issue descriptions are either paraphrased or directly quoted from the submission.

5.1 AIR QUALITY

5.1.1 Air Quality Concerns and Management

Submitters raised concerns about increased dust emissions, including respirable silica dust, impacting air quality and health in the Williamtown area. They noted dust settling on properties, contaminating soil and water, and causing or exacerbating respiratory illnesses such as COPD. Some submissions indicated a perception that current dust control measures may be insufficient, citing ongoing dust pollution and a lack of transparent communication regarding monitoring results.

Air Quality Monitoring

Air quality onsite, and in the immediate surroundings, is managed and monitored in accordance with the site's Air Quality Management Plan (AQMP), prepared to comply with Condition 9 of Schedule 3 of the Development Consent (SSD-6125).

The continuous air quality-monitoring network consists of:

- Two real-time air quality monitors measuring PM_{10}. Beta Attenuation Monitors (BAMs) were installed.
- A high-volume air sampler (HVAS) with a PM_{10} inlet is positioned to the south-east of the quarry.
- A HVAS measuring Total Suspended Particulates (TSP) is positioned adjacent to RT1 south of the quarry.
- Meteorological data is used from the BoM Williamtown to assess site conditions.

Air quality monitoring results are uploaded to the Newcastle Sand website for public access on a monthly basis, with annual returns submitted to the DPHI and the EPA.

The AQMP includes a trigger response framework designed to ensure quarry operations can adapt to changing conditions to minimise dust emissions. Under this framework, quarry activities may be subject to staged shutdowns based on rolling 24-hour average PM_{10} concentrations and prevailing meteorological conditions. It is noted that the quarry has not exceeded any air quality criteria to date.

Dust Control Measures

The site currently employs a range of air quality control measures, including regular watering of the spine road through the Northern Resource Area using roadside static sprays and water carts to minimise dust generation. These measures are documented within the site's Air Quality Management Plan (AQMP) and are supported by other controls, such as maintaining unsealed road surfaces and vegetation buffers where possible.

To ensure mitigation measures are implemented appropriately for the proposed extension areas, all management plans will be reviewed and updated as necessary to incorporate the changes as a result of this modification.

Respirable Silica, Particulate Matter, and Dust Deposition Health Impacts

An independent Air Quality Impact Assessment (AQIA) was prepared by Todoroski Air Sciences (TAS) to evaluate the potential dust impacts of the proposed quarry modification, including the expansion area. The assessment examined both typical annual average and peak daily dust emissions under worst-case operational scenarios, focusing on the most dust-generating activities such as material loading/unloading, vehicle movements onsite and offsite, screening processes, and windblown dust from exposed areas.

The AQIA's modelling results predict that the modification will not cause dust levels to exceed relevant air quality criteria for particulate matter (PM_{10}, $PM_{2.5}$, Total Suspended Particulates) or dust deposition at surrounding receptor locations, including residential properties. Importantly, predicted respirable crystalline silica (RCS) levels at the most affected receptors are well below interim health guideline thresholds, addressing community health concerns related to silica dust exposure.

The assessment also confirms compliance with the Voluntary Land Acquisition and Mitigation Policy (VLAMP), indicating that dust deposition impacts will not extend beyond accepted limits on privately owned lands.

Furthermore, it is noted that while sand is processed at the quarry, it does not entail any crushing or grinding of materials and solely consists of wet processing (washing and drying). The risks associated with crystalline silica are therefore considered to be very low.

The Australian Workplace Exposure Standards (WES) for silica dust exposure is 0.05 $\mu g/m^3$ averaged over an 8-hour day. Under WHS regulations, the quarry has a duty of care to ensure the WES for crystalline silica is not exceeded and to provide health monitoring and air monitoring to workers.

ADE Consulting Group carried out respirable silica monitoring at the quarry in July 2023. Samples were taken for plant operators spending most of their time indoors and wash plant operators spending around 80% of their shift outdoors in the vicinity of the wash plant. WES were adjusted to account for shift length exceeding 8 hours, as recommended by Safe Work Australia. The adjusted WES for the Newcastle Sand Quarry was 0.032 $\mu g/m^3$.

Crystalline silica was not identified in the two samples collected from plant operators and was recorded at levels of 0.009 µg/m^3 and 0.015 µg/m^3 in the two samples collected from wash plant operators, the latter being 48% of the adjusted WES.

Crystalline silica dust exposure levels were assessed as acceptable, as they comply with the WES. Based on these results and the distance that residents are from the processing plant and extraction areas, it is deemed that the risk to local residents is negligible.

5.2 NOISE

5.2.1 Operational Noise

> *Submitters reported that noise from quarry machinery and mining activities, including loading, processing, and vehicle movements onsite, has significantly disturbed their homes. They described noise disruptions affecting bedrooms and outdoor living areas, reducing their overall amenity.*

The quarry operates under strict noise criteria defined in the Development Consent (SSD-6125) and Environmental Protection Licence (EPL 21264). The Mod 4 Noise Impact Assessment (NIA), prepared by Spectrum Acoustics, confirms that operational noise emissions are monitored and managed to ensure ongoing compliance with these regulatory limits.

Key operational noise management practices include:

- Employing a modern fleet of well-maintained equipment.
- Implementation of natural elevation differences acting as effective barriers to minimise noise transmission to nearby residences.
- Restricting noisy activities to approved hours of operation (7 am to 6 pm weekdays, 7 am to 4 pm Saturdays), with no work on Sundays or public holidays except essential maintenance.
- Responding to adverse (e.g. above criteria) noise emissions received from noise complaints, or from noise monitoring and adjusting operational practices, employing additional controls or seeking a suitable agreement with affected residences to compensate for noise impacts.

It is noted that the noise management plan for the quarry prescribes quarterly attended noise monitoring to be undertaken at the most affected neighbouring residences during the highest noise-emitting period of each phase of the project. Noise monitoring is undertaken in accordance with the following requirements of the Development Consent and in accordance with the *EPA Noise Policy for Industry 2017*. A noise monitoring report is prepared following each noise monitoring event.

Historical noise monitoring results show that off-site noise from quarry operations has generally been inaudible or below the relevant criteria at all monitored locations. Additionally, predicted noise levels for the proposed quarry extension remain within acceptable limits, with mitigation measures planned to prevent any increase in noise disturbance to the community.

Through these comprehensive controls and monitoring, the quarry is committed to minimising noise impacts and maintaining residential amenity for the surrounding community.

5.2.2 Haulage and Truck Traffic Noise

Residents expressed concerns about trucks using residential streets as shortcuts, causing excessive noise and disruption. Early morning and late-night truck operations disturb their sleep and peace.

Modification 4 does not propose any increase to the approved haulage volumes or operating hours. The current Development Consent (SSD-6125) limits truck movements to specific hourly caps and operating times designed to minimise noise impacts.

To reduce noise, the quarry's Driver Code of Conduct prohibits the use of compression braking and stipulates the haulage routes for the haulage of sand. While this Code currently sets out approved haulage routes and driver obligations, it does not specifically reference residential streets such as Barrie Close. To address community concerns, Newcastle Sand will review and update the Code of Conduct to explicitly prohibit the use of residential streets, including Barrie Close, for U-turns or access and will circulate the updated version to all transport operators.

All drivers contracted to haul materials are required to undertake site-specific induction that includes detailed information on approved haulage routes, speed limits, and community expectations. Drivers are provided with a copy of the Driver's Code of Conduct so they are aware of their obligations. Any instances of non-compliance, such as unauthorised use of residential streets, are promptly investigated. Corrective actions may include warnings, suspension of haulage contracts, or removal of drivers from site access. These measures aim to significantly reduce disruptions to local residents and enhance community safety.

These measures, together with the forthcoming update to the Driver's Code of Conduct to specifically address Barrie Close, will further reduce disruptions to local residents and improve community safety.

Noise monitoring near the quarry shows high traffic noise levels along Cabbage Tree Road, however, noise from trucks moving within the quarry site is generally lower and often indistinguishable from existing traffic noise.

Since operations began, complaints related to truck noise have mainly involved early arrivals or operational issues, which are actively managed through site controls and community engagement.

5.2.3 Safety and Health Impacts Related to Noise

Submitters raised serious concerns about the mental health impacts caused by persistent noise, particularly for vulnerable family members such as children, elderly relatives, and those with existing health conditions.

The quarry recognises the importance of community health and wellbeing, particularly for vulnerable groups such as children, elderly residents, and those with pre-existing health conditions.

Operational noise from quarry activities is strictly managed under the existing Development Consent (SSD-6125) and Environmental Protection Licence (EPL 21264), which set stringent noise limits designed to protect residents. The Noise Impact Assessment (NIA) prepared by Spectrum Acoustics confirms that quarry noise levels for Mod 4 will comply with these limits and are generally inaudible or minimal at nearby residences due to effective noise mitigation measures.

To further minimise potential impacts, attended noise monitoring is conducted, and the quarry operates only within approved hours, with no activities permitted at night or on Sundays except for essential maintenance. Additionally, the Driver Code of Conduct restricts noise-generating practices such as compression braking, reducing disturbance from truck movements.

The quarry management remains committed to engaging with the community and promptly addressing any noise concerns that arise. These measures are aimed at minimising any adverse impacts on mental health and maintaining the amenity of the local area.

5.2.4 Community Engagement and Communication

Many residents feel they have been inadequately consulted or informed about noise management and monitoring efforts. They expressed frustration over being excluded from discussions or decision-making processes regarding noise impacts and mitigation measures. Submitters called for more transparent communication and genuine engagement from quarry operators and regulators.

Newcastle Sand have a Community Consultative Committee (CCC) that meets on a quarterly basis. This is the key measure for distribution of information to the community, the content of these meetings is posted on the Newcastle Sand website. In addition, Newcastle Sand welcome enquires to discuss concerns, to date this has included review of operational practices, additional monitoring and investigations into noise concerns.

The results of the attended noise monitoring are also available on the company's website.

Newcastle Sand expects the existing systems are adequate, though note there may be a lack of awareness of the measures in place for newer residents unfamiliar with the available measures for seeking information on noise emissions from the quarry. To address this, it is proposed to deliver a simple newsletter update to all neighbouring residents highlighting the following key aspects:

- What monitoring is undertaken.
- Where can people see these results.
- For concerns, who should they contact.
- If they are not satisfied with the outcome, who can they talk to.

5.2.5 Amenity Effects

Submitters believe that noise levels have increased due to ongoing quarry expansion and relaxed operating conditions. They described a loss of their peaceful rural lifestyle and increased stress caused by persistent noise pollution, which they feel has not been properly addressed.

Quarry operations are managed in accordance with strict noise criteria outlined in the Development Consent (SSD-6125) and Environmental Protection Licence (EPL 21264).

The Noise Impact Assessment (NIA) prepared by Spectrum Acoustics for Modification 4 confirms that operational noise levels are regularly monitored and remain within the strict consent limits.

Equipment noise measurements demonstrate that the use of quieter machinery, such as excavators instead of dozers, results in lower noise emissions. Additionally natural terrain elevation differences provide effective noise barriers, ensuring that noise levels at the nearest residences, including the most impacted properties, comply with regulatory trigger levels.

Quarterly noise monitoring from 2020 to 2025 has shown that quarry noise has historically been inaudible off-site during compliance assessments. Further, the proposed modification does not relax any noise operating hours, nor does it increase truck movements or equipment noise beyond approved levels.

The proponent is committed to ongoing noise management and routine monitoring to minimise cumulative noise impacts and preserve community amenity. These measures, alongside continued community engagement, aim to balance operational requirements with the protection of residents' quality of life.

It is worth noting that noise complaints from the quarry primarily only relate to the early arrival of trucks or the use of air brakes from trucks on Cabbage Tree Road. Both of these matters are routinely addressed through the reminder of drivers and the companies of the commitments made during site inductions and the drivers code of conduct.

5.3 TRAFFIC AND TRANSPORT

> *Submitters believe that truck traffic volumes will increase with the quarry expansion and that unresolved traffic issues from current operations persist. They described concerns that the heavier and more frequent haulage disrupts daily life and contributes to road safety risks, which they feel have not been adequately managed.*

Modification 4 does not propose any increase to the approved haulage volumes or operating hours. The current Development Consent (SSD-6125) limits truck movements to specific hourly caps and operating times designed to minimise noise and safety impacts.

Truck movements are governed by a Traffic Management Plan, including a Driver Code of Conduct, prepared in accordance with Conditions 24 and 25 of Schedule 3 of the Consent. This plan, available on the Newcastle Sand website, outlines enforceable measures to ensure the safety of all local users of Cabbage Tree Road.

> *Submitters reported trucks using residential streets like Barrie Close as unauthorised shortcuts. They described the resulting traffic disruptions and heightened danger to local residents, which they feel have not been adequately addressed.*

Management measures are in place to prevent unauthorised truck movements through residential streets, with the quarry maintaining regular communication with transport operators to ensure compliance.

All drivers contracted to haul materials are required to undertake site-specific induction that includes detailed information on approved haulage routes, speed limits, and community expectations. Any instances of non-compliance, such as unauthorised use of residential streets, are promptly investigated. Corrective actions may include warnings, suspension of haulage contracts, or removal of drivers from site access. These measures aim to significantly reduce disruptions to local residents and enhance community safety.

The Code of Conduct will be updated to explicitly state that Barrie Close is not be used for turning around, and haulage contractors will be provided a notification to this effect.

> *Submitters feel there has been insufficient consultation regarding truck traffic impacts. They described frustration at being excluded from discussions and decisions about traffic management, leading to a lack of confidence in the quarry's engagement.*

Since operations commenced in 2019, the proponent has provided updates on traffic management measures through the Community Consultative Committee and the project website. The quarry operates under strict Development Consent conditions (SSD-6125) that limit truck movements to specific hourly and daily volumes, designed to minimise traffic and safety impacts. These limits and associated traffic management plans have been rigorously assessed through detailed traffic impact assessments and microsimulation modelling, confirming negligible impacts on the local road network. Traffic impacts have also been addressed comprehensively in the Environmental Impact Statement (EIS) and associated Response to Submissions, which is readily available on the Newcastle Sand website.

The proponent remains committed to ongoing community engagement and transparency regarding traffic management. Community feedback is actively sought and used to inform continuous improvements.

5.4 FLOODING AND WATER MANAGEMENT

5.4.1 Flooding Linked to Quarry Operations

> *Submitters believe that flooding has worsened since the commencement of quarry operations. They described increased frequency and severity of flood events, which they attribute to changes in local hydrology caused by excavation and pumping activities.*

The quarry and surrounding areas are situated on the Tomago Sandbeds, which typically exhibit a variable water table depth ranging from at or near the surface to several metres below ground. The large storage volume of the Sandbeds provides a reserve supply during periods of drought and serves as a backup in the event of water quality issues in the Hunter River dams. The Tomago Sandbeds can supply approximately 20 per cent of the Lower Hunter's drinking water.

It is understood that Hunter Water Corporation (HWC) is not currently pumping water from the Sandbeds due to the availability of sufficient surface water resources and potential concerns regarding emerging contaminants, including PFAS. This can contribute to a rise in the water table.

The quarry commenced construction in August 2019, for the first 18 months, cumulative rainfall was below average. Since February 2021, there has been cumulatively 240mm to 970mm more rainfall than average. This has included numerous episodic high-intensity rainfall months, including extreme months such as March 2021 (459.2 mm), July 2020 (242.6 mm), October 2020 (252 mm), July 2022 (327.4 mm), and May 2025 (502 mm). As the groundwater within the sandbeds is heavily dependent on rainfall, this higher rainfall results in higher groundwater.

Furthermore, the area is low-lying with minimal relief, and constrained drainage via poorly maintained drainage channels to Fullerton Cove. High groundwater levels, combined with the cessation of

pumping from the Sandbeds and above-average episodic high-intensity rainfall has resulted in localised flooding independent of quarry operations.

5.4.2 Drainage Infrastructure Capacity and Maintenance

Submitters raised concerns about drainage infrastructure being inadequate or poorly maintained. They described blocked drains, undersized culverts, and channels that overflow during heavy rainfall, resulting in water pooling on residential and rural properties.

Drainage infrastructure, including drains, culverts, channels, etc, outside of the quarry on public land, falls under the responsibility of Port Stephens Council for maintenance.

WSS has undertaken an inspection of public drainage in the surrounding area of the quarry. The inspection observed blockages in the main drain from Cabbage Tree Road to Fullerton, and the main drain was non-existent in other places. Such conditions can contribute to localised water pooling independently of quarry operations.

The quarry maintains its own internal drainage infrastructure in accordance with regulatory requirements and approved management plans. Observations of localised flooding or water pooling on private or public land are primarily influenced by rainfall intensity, the low-lying nature of the surrounding area, and the condition of public or private drainage infrastructure, rather than quarry operations.

5.4.3 Altered Water Flows and Site Discharges

Submitters feel that quarry operations have altered natural water flows and exacerbated flooding.

The initial EIS included a detailed assessment of the potential impacts of the proposal on groundwater resources. Assessment of the proposal found that it would not result in a significant alteration of surface drainage, disturb the underlying sandy aquifer or have a significant impact on groundwater levels or groundwater quality.

In addition, Groundwater Exploration Services (GES) was engaged by WSS to provide the Minimum Extraction Levels (MEL) for the proposed Western Extension and provide recommendations on controls to mitigate potential impacts of the proposed Modification. GES concluded that a range of controls is currently applied onsite and will largely remain consistent with the existing approval to mitigate any potential adverse impacts to groundwater.

As addressed in earlier comments, there are a number of factors that have potentially contributed to the flooding issues noted by submitters, including cessation of pumping from the Sandbeds, above-average episodic high-intensity rainfall, the area being low-lying with minimal relief, limiting the natural drainage of surface water and groundwater and inadequate or poorly maintained public drainage infrastructure.

5.4.3.1 Site Discharge Allegation

One submitter reported that water was pumped from the quarry into the surrounding catchment area.

The proponent's Environmental Protection Licence (21264) does not allow the discharge of water from the quarry site. One submitter alleged that the quarry was illegally discharging water into the surrounding catchment outside of the approved quarry boundary. The proponent was contacted by the EPA and asked to provide details of the alleged incident. The proponent responded that during a flooding event, low volumes of rainwater were temporarily pumped within the quarry site for operational management. Photographs provided to the EPA demonstrated that the water was discharged onto a vegetated area within the quarry boundary and soaked into the ground, with no flow leaving the approved quarry site.

The EPA reviewed the information and confirmed that no further action or information was required from the proponent. The proponent continues to manage stormwater in accordance with its Environmental Management Plan to prevent any offsite impacts.

5.4.4 Property Damage and Safety Risks

Submitters reported significant property damage, including homes, sheds, yards, and access ways, as a result of quarry-related flooding. They expressed concern for health and safety, particularly for children, the elderly, and vulnerable members of the community during flood events.

The concerns raised by submitters regarding property damage and potential health and safety risks during flood events are acknowledged. However, as outlined above, flooding in the area is not attributable to quarry operations. The primary contributing factors include the naturally low-lying topography of the surrounding land, the cessation of groundwater pumping from the Tomago Sandbeds, above-average and episodic high-intensity rainfall events, and the condition of public and private drainage infrastructure.

The quarry maintains its internal water management and drainage systems in accordance with regulatory requirements and approved management plans. Observed flooding or water pooling on residential or rural properties is therefore the result of broader regional hydrological and drainage conditions, rather than quarry activities.

5.4.5 Community Wellbeing and Stress

Submitters described emotional distress and financial hardship caused by recurring flooding and ongoing water issues. They highlighted frustration at the lack of accountability and described ongoing stress associated with managing the impacts of quarry-related flooding.

The emotional distress and financial hardship reported by submitters in relation to flooding and water issues are acknowledged. However, as outlined previously, available evidence indicates that flooding in the area is not the result of quarry operations.

5.5 PFAS

Submitters raised concerns about the potential for quarry activities to contribute to PFAS contamination. Specific issues included insufficient water testing, potential contamination of local water supplies, and health risks if PFAS were to be mobilised during flooding events.

Schedule 3, Condition 48 of Development Consent SSD-6125 mandates an annual assessment of whether quarrying operations increase the risk of PFAS exposure to residents or the environment. The 2024 PFAS Annual Risk Review, prepared by Kleinfelder, found that PFAS has not been detected in groundwater or surface water samples at the site during the 2024 monitoring period, and pre-operational investigations also confirmed that PFAS is not present in site soils. While PFAS has been detected at low concentrations in wash plant water and wash plant fines, results were consistently below site-specific trigger values and relevant human health criteria. These materials are tightly managed under the Soil and Water Management Plan (2021), with fines either reused onsite for rehabilitation or assessed under NSW EPA Resource Recovery Orders before any offsite use.

Importantly, quarry operations maintain a 0.7 m buffer above the groundwater table, meaning excavation does not intercept groundwater, and groundwater levels in 2024 remained below the quarry floor. Furthermore, regional modelling indicates that PFAS migration from Department of Defence sources is unlikely to reach the site during the quarry's operational life. Based on these findings, the risk of PFAS contamination being generated or exacerbated by quarrying operations, including during high rainfall or flood events, is considered to be low and acceptable.

The annual assessments are available on Newcastle Sand's website and are available to the Community Consultative Committee (CCC) and any interested person on request in accordance with Schedule 3, Condition 48 of Development Consent SSD-6125.

5.6 NATIVE FLORA AND FAUNA

Submitters highlighted that the proposed quarry extension will result in the loss or disturbance of native flora and fauna, including Koala habitat, affecting local biodiversity and natural values.

The proponent recognises the importance of protecting native flora and fauna, including Koala habitat. The Biodiversity Development Assessment Report (BDAR) for the proposed modification assessed the biodiversity values of the site and identified measures to avoid, minimise, and offset impacts.

- The proposed development is designed to avoid areas of higher biodiversity value where possible, with clearing limited to areas previously disturbed or of lower ecological value.
- Threatened species and Koala habitat that will be impacted are offset through the Biodiversity Offsets Scheme (BOS), with appropriate ecosystem and species credits retired to achieve a net benefit to biodiversity outcomes.
- The surrounding offset area and connectivity to Tilligerry State Conservation Area ensure ongoing habitat availability for Koalas and other threatened fauna.

Overall, while some vegetation and habitat clearance are unavoidable due to the location of the sand resource, the combination of avoidance, mitigation, rehabilitation, and offsets ensures that impacts on flora and fauna are appropriately managed.

5.7 PROPERTY VALUE

Submitters raised concerns that the proposed quarry extension may reduce the value and marketability of nearby properties.

The Newcastle Sand quarry and most of the surrounding properties are located within the area currently referred to as the red zone, or PFAS investigation area, with direct property access to a busy arterial road. Property values in the area have unfortunately declined due to this issue.

The proposed modification of the quarry will result in a spatial extension of the existing resource area for a period of 12 months. With consideration of this increase in spatial extent, the context of the existing market, the limited (i.e., below relevant criteria) impacts on neighbouring properties predicted by noise, vibration, air quality, the project's water quality protections, and the limited visibility of the quarry, it is unlikely that the proposed modification will result in any appreciable change in property value in the locality, and if it does, is likely to be short term in nature.

It is also noted that at the conclusion of the Project, the land will be primarily returned to a condition generally consistent with pre-disturbance conditions.

5.8 CUMULATIVE IMPACTS

Submitters highlighted that traffic, dust, noise, flooding, and changes to the landscape, etc, combine to create a noticeable cumulative impact on their daily lives

The proponent acknowledges these concerns and notes that while each individual impact is managed to comply with relevant guidelines and thresholds, cumulative effects are also considered as part of environmental management. Mitigation measures, including dust suppression, noise management, traffic planning, and stormwater controls, are designed to minimise combined impacts. The Environmental Management Framework includes ongoing monitoring to ensure that cumulative effects remain within acceptable limits and that community amenity is maintained.

The quarry operates under a series of management plans that guide all aspects of operations and aim to ensure impacts remain consistent with, or below, predicted levels. These measures help protect the health and well-being of neighbouring residents. Implementation of the management plans is regulated by the DPHI, and monitoring results are regularly reported and made available on the company's website.

It is acknowledged that the proposed westerly extension of the quarry boundary will bring quarrying activities closer to residents to the west. However, potential impacts to these residents have been assessed as part of MOD4, with no unacceptable impacts predicted.

6. CONTROLS AND OFFSETS

6.1 CONTROLS

A suite of mitigation measures is currently implemented by quarry management to avoid, minimise and mitigate any potential environmental impacts of the quarry operation. These measures have been developed and approved as part of the existing Development Consent that sets the standards for the management of the quarry activities, these include:

- The conditions of SSD-6125 (as amended).
- Environmental Protection Licence (EPL) 21264.
- The raft of environmental management plans for the site including the Air Quality Management Plan, Biodiversity and Rehabilitation Management Plan, Noise Management Plan, Traffic Management Plan and Water Management Plan.
- Statement of Commitments.

Assessment of potential environmental impacts has determined that the proposed modification will have additional, yet manageable impacts, that are consistent with the existing quarrying activities of and can be addressed by mitigation measures currently employed by the quarry.

To ensure mitigation measures are implemented appropriately for the proposed extension areas, all management plans will be reviewed and updated as necessary to incorporate the changes as a result of this modification. An application will also be made to amend the EPL as required.

6.2 BIODIVERSITY OFFSETS

The following offsets are required prior to disturbance within the Western Extension, inclusive of the minor changes to the existing operational footprint:

- Coastal Dune Dry Sclerophyll Forests <50% - 36 credits
- *Diuris arenaria* (Sand Doubletail) - 71 credits
- *Eucalyptus parramattensis subsp. decadens* (Earp's Gum) - 22 credits
- *Crinia tinnula* (Wallum Froglet) - 5 credits
- *Uperoleia mahonyi* (Mahony's Toadlet) - 48 credits
- *Petaurus norfolcensis* (Squirrel Glider) - 42 credits
- *Phascolarctos cinereus* (Koala) - 27 credits

7. UPDATED PROJECT JUSTIFICATION

7.1 JUSTIFICATION

The DPHI noted in the original assessment of the approval, the quarry as originally approved was considered justified based on the following key elements:

- "WSS estimates that the quarry could produce up to 3.25 Mt of sand which could supply a range of fine medium and medium-grained sand products to Hunter and Sydney construction and industrial markets."
    - The Western Extension is justified on a similar basis, providing an additional 480,000 tonnes of material to be accessed and processed using existing infrastructure.
- "The site is strategically located to supply these markets due to its proximity to the Pacific Highway, providing good access to major population centres and major road networks."
    - The Western Extension is accessed via the existing approved quarry and as such is also in a good location for access to the market.
- Provided a range of economic benefits including:
    - "Facilitating a supply of construction and industrial grade sand into the greater Sydney and Hunter region markets to meet identified demands."
        - The Western Extension provides the same grade of sand for these markets.
    - "Supporting the population growth in the area through the efficient supply of construction materials."
        - The Western Extension further supports this growth.
    - "Employment of six quarry personnel and up to 20 road transport drivers, with positive flow-on effects to the local and regional communities".
        - The Western Extension will provide a continuation for employment of quarry personnel and road transport drivers. Currently the quarry supports 11 employees.
    - "Contributing an estimated $16.25 million in royalties to Council in addition to site rental payments."
        - It is estimated that the existing quarry, with CPI adjustments, has contributed over $20 million in royalties to Council. The proposed Western Extension will provide a continuation of rental payments to the Council, though will only provide royalties for the sand within the lot boundary (i.e. eastern 20m of Stage 9).

The Independent Planning Commission in their assessment of the original approval, further noted "…relative to the project benefits, the impacts to the local environment are acceptable and adequately compensated through the establishment of biodiversity offsets. The implementation of the rehabilitation strategy will likely reduce the environmental impacts further."

Like the original project the assessments have shown the impacts from the Western Extension to the local community and environment can be adequately managed and offset. The Project will provide a relatively short term (12 month) continuation of the use of existing infrastructure, and

remains within the majority of the existing approved operational limitations (traffic rates, noise, dust, operational hours, approved quarry life). The proposed amendments to other ancillary matters provides for improved operational efficiencies with limited consequence.

7.2 ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Ecologically Sustainable Development (ESD) is integrated into NSW environmental legislation and government policy. Schedule 2 of the EPA Regulation lists four guiding principles to assist in achieving ESD. They are:

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

   Detailed environmental investigations have been undertaken, the results of the investigation reviewed by government agencies and the community and the project has been modified to further minimise the potential impacts on the environment. The proposed Western Extension will be operated consistent with existing environmental management practices that have been refined over the previous six years. As such there is a higher degree of certainty on the likely impacts of the proposed modification. The assessments have shown the environmental impacts to be manageable. The proposed modification is consistent with this principle.

ii. **Inter-generational equity***: the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.*

   The proposed quarry extension will result in the removal of a natural resource, however, the intended resource use is largely for housing and infrastructure that will provide for future generations. The Biodiversity Offsets Scheme will be used as the basis for offsetting residual impacts on biodiversity is intended to be in perpetuity and is fully funded for the improvement of conservation values and benefit to future generations. The proposed modification is consistent with this principle.

iii. **Conservation of biological diversity and ecological integrity:** *Conservation of biological diversity and ecological integrity should be a fundamental consideration.*

   Extensive environmental investigations have been a fundamental consideration of the potential impacts of the proposed modification with the incorporation of avoidance measures, and management practices aimed at minimising potential impacts on biological diversity and ecological integrity, with the purchase of biodiversity offsets and rehabilitation measures further minimising impacts.

iv. **Improved valuation and pricing of environmental resources:** *environmental factors should be included in the valuation of assets and services, such as polluter pays, full life cycle costing, and utilising incentive structures/market mechanisms to meet environmental goals.*

   The proposed modification will result in improved valuation of existing assets and infrastructure created for the original development. The approval of the Western Extension will allow this infrastructure to be used for a further 12 months. The costs of undertaking the quarrying is fully paid for by the developer, with strict environmental compliance requirements to ensure failure to satisfy these requirements will result in compliance actions including

associated penalties. Newcastle Sand ensure all personnel are inducted, including truck operators, such that the failure of a truck operator to comply with the code of conduct (e.g. by arriving early) may result in a direct cost by way of suspension to that operator for the "pollution" created in arriving early (i.e. "polluter pays").

The quarry development, as modified, will be operated in accordance with existing management plans, the amended Statement of Commitments and with the conditions of the modified Consent. No substantial threats of serious or irreversible environmental harm were identified during the assessment of the initial quarry or the proposed modification. Progressive rehabilitation is ongoing at the completion of each extraction stage, and site rehabilitation at the completion of quarry activities will include the establishment of native vegetation consistent with pre-development conditions.

It is not expected that the proposal will have any significant adverse environmental effects due to the suitability of the site and the existing and proposed high standards of design, management, and site rehabilitation. The management of environmental issues in this manner will maintain the health, diversity, and productivity of the environment for future generations. Hence, the proposed quarry provides for 'intergenerational equity'.

The ecological assessment prepared for the original project and the proposed modification concluded that through avoidance, environmental mitigation measures and offsets, the quarry, as modified, can be operated in a manner that will not have a significant impact on biodiversity or ecological integrity of the surrounding area.

Efficient extraction of the resource has been maximised through detailed design and planning. The proposed MOD4 increases the viability of the quarry by optimising the available quarry resources and by maximising operational and economic efficiencies. Protection of amenity and natural resources has been considered throughout the quarry planning phase. The extensive environmental controls already in place, and additional controls to be implemented, add significant operational costs to the development. The project has been developed in accordance with the polluter pays principle, with environmental management and mitigation measures associated with the development funded by the Proponent. Overall, the proposal is considered compliant with the principles of ecologically sustainable development.

8. CONCLUSION

This Response to Submissions Report, and the Modification Report, have demonstrated that the proposed MOD4 does not radically alter the nature or extent of the proposed development, with no changes sought to extraction or haulage rates or operational hours. Quarrying and processing methods will remain broadly the same. The proposal thus merits an assessment under Section 4.55(2) of the EP&A Act.

The modification proposed has been publicly exhibited, subject to comments from agencies and community and refined on the basis of these comments. The residual minor adverse social, economic, or environmental impacts will be mitigated via the existing mitigation measures implemented onsite and the proposed mitigation measures outlined in the application.

The modification will help address the shortfall in quarried sand resources in the region. The benefits outweigh any adverse impacts, and the proposal is considered to be justified and in the public interest.

With sand reserves in the approved portion of the quarry rapidly depleting, with only an estimated four months of supply remaining, timely determination of this modification is critical to minimising disruption to sand availability and the infrastructure projects that rely on these vital supplies.

Approval is therefore respectfully sought for the proposed MOD4.

9. REFERENCES

NSW Department of Planning and Environment (DPIE), 2022. *State Significant Development Guidelines*, including Appendix C – Preparing a Submissions Report.

Wedgetail Project Consulting Pty Ltd, 6 February 2025. *SSD-6125 – Cabbage Tree Road Sand Quarry – Western Extension – Modification Report No. 4 (MOD 4)*.

Spectrum Acoustics, November 2025. *Acoustic Assessment – Proposed Modification (MOD 4), Cabbage Tree Road Sand Quarry, Williamtown, NSW*.

Wedgetail Project Consulting Pty Ltd, 13 March 2026. *Biodiversity Development Assessment Report – Modification 4, Western Extension*.

Heritage Archaeological Risk Assessment Services Pty Ltd, 11 August 2025. *Letter report – Request for further Aboriginal consultation documentation to support Aboriginal Cultural Heritage Assessment Report (ACHAR), SSD Project 6125, Cabbage Tree Road Sand Quarry, Western Extension, Modification Report No. 4*.

APPENDIX A: SUBMISSIONS REGISTER SUMMARY

APPENDIX B: ARAS CONSULTATION LETTER

APPENDIX C: REVISED GROUNDWATER ASSESSMENT

APPENDIX D: REVISED BDAR AND RESPONSE TO BIODIVERSITY SUBMISSIONS (PSC, HWC AND CPHR)

APPENDIX E: REVISED NOISE ASSESSMENT