Name of operation	**Cabbage Tree Road Sand Quarry**
Name of operator	**Newcastle Sand**
Development consent #	**SSD-6125**
Name of holder of development consent / project approval	**Williamtown Sand Syndicate Pty Ltd**
Mining lease #	***Not applicable***
Water licence #	***Not applicable***
MOP/RMP	***Not applicable***
Annual Review start date	**1 January 2021**
Annual Review end date	**31 December 2021**

I, **Jonathan Berry**, certify that this annual report is a true and accurate record of the compliance status of the **Cabbage Tree Road Sand Quarry** for the period **1 January 2021 to 31 December 2021** and that I am authorised to make this statement on behalf of **Newcastle Sand**.

Note.
a) The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.

b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or $22,000, or both).

Name of authorised reporting officer	Jonathan Berry
Title of authorised reporting officer	**Compliance Manager**
Signature of authorised reporting officer	
Date	14 September 2022

Version 2.0 of 14 September 2022

STATEMENT OF COMPLIANCE

A statement of compliance is shown below in **Table 1**, where non-compliances were identified these are outlined in **Table 2**, based on the compliance status key shown in **Table 3**.

Table 1: Statement of Compliance

Where all conditions of the relevant approvals complied with?	
SSD_6125	No
EPL 21264	No

Table 2: Non-compliances (including those identified from the 2021 Audit and relevant to the 2021 period)

Relevant Approval	Condition	Condition Summary	Compliance Status (see Table 3)	Comment	Where Addressed in Annual Review
SSD_6125	Sch 2 Cond 12	Revision of plans and strategies.	**Administrative non-compliance**	Failure to submit revised management plans consistent with consent, notably the Maximum Extraction Depth Report.	Section 11.1
SSD_6125	Sch 2 Cond 18	Provide calendar year annual quarry production data.	**Administrative non-compliance**	The resource recovery form is no longer readily accessible and is completed on a financial year basis. Data consistent with the form is provided in each Annual Review.	Section 4.1
SSD_6125	Sch 3 Cond 9	Implementation of a Trigger Action Response Plan (TARP).	**Low**	Operations are changed in response to changing conditions. The AQMP includes a TARP in response to elevated PM10 criteria. TARP adherence is not strictly followed. Works are modified in response to elevated PM_{10}. Failure to adhere to TARP is due responses not being practical for operational activities. AQMP submitted for amendment, EPL and SOC amendment underway.	Section 5.1
SSD_6125	Sch 5 Cond 11	Comply with the 2015 Annual Review Guidelines.	**Administrative non-compliance**	Review actions required from previous Annual Review.	Section 9

Relevant Approval	Condition	Condition Summary	Compliance Status (see Table 3)	Comment	Where Addressed in Annual Review
SSD_6125	Sch 5 Cond 11	Submit Annual Review by 30 March	**Administrative non-compliance**	Failed to submit annual review by 30 March 2022. COVID related delays in delivery of required reports resulted in the delay.	Section 12
SSD_6125	Sch 5 Cond 11	Reporting non-compliances in Annual Review.	**Administrative non-compliance**	Report EPL non-compliances as non-compliances in the Annual Review.	This Table.
Statement of Commitments	SoC 8.3.2 (h)	Details to be included on website.	**Administrative non-compliance**	Website does not include details of the annual open days. It is proposed to remove this requirement from Commitments.	Section 12.1
Statement of Commitments	SoC 8.3.8 (m)	Use of tracked vehicles within the Tomago Sandbeds Special area.	**Low**	Modifications to the SoC are planned to ensure suitable operational extraction practices can be followed.	Section 12.1
Statement of Commitments	SoC 8.3.12 (b)	Bitumen seal access road to northern resource area.	**Low**	Only site entrance has been sealed to weighbridge, access through to northern resource area will be sealed following construction activities of the wash plant in Sector 3.	Nil required.
Statement of Commitments	SoC 8.3.12 (g)	Draft TARP triggers included in SOC to get operations changing in response to changing PM_{10} levels.	**Low**	Operations are changed in response to changing conditions. Failure to adhere to TARP is due responses not being practical for operational activities. AQMP submitted for amendment, EPL and SOC amendment underway.	Section 5.1, as noted above
EPL 21264	O3.8	Ceasing of operations during changing PM10 levels.	**Low**	Operations are changed in response to changing conditions. Failure to adhere to specific TARP is due responses not being practical for operational activities. AQMP submitted for amendment, EPL and SOC amendment underway.	Section 5.1, as noted above
EPL 21264	R4	A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring.	**Administrative non-compliance**	Noise compliance assessments were provided in September 2021, and have been are completed and uploaded to the www.newcastlesand.com.au website accessible to the EPA, but not all reports have been supplied to the EPA within 30 days.	Nil required – all reports currently supplied to EPA.

Table 3: Compliance status key for Table 2 above.

Risk Level	Colour Code	Description
High	**Non-Compliant**	Non-compliance with potential for **significant** environmental consequences, regardless of the likelihood of occurrence
Medium	**Non-Compliant**	Non-compliance with: • Potential for **serious** environmental consequences, **but is unlikely** to occur; or • Potential for **moderate** environmental consequences**, but is likely** to occur.
Low	**Non-Compliant**	Non-compliance with: • Potential for **moderate** environmental consequences, **but is unlikely** to occur; or • Potential for **low** environmental consequences, **but is likely** to occur
Administrative non-compliance	**Non-Compliant**	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

2021
Annual Environmental Review

Cabbage Tree Road Sand Quarry
Cabbage Tree Road, Williamtown

WILLIAMTOWN SAND SYNDICATE PTY LTD

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Document Control:

Version	Description	Date	Author
1.0	Final	16 May 2022	J.Berry (Wedgetail Project Consulting Pty Ltd)
2.0	Final	14 September 2022	J.Berry (Wedgetail Project Consulting Pty Ltd)

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1. INTRODUCTION

1.1 SCOPE

Schedule 5 Condition 11 of Development Consent SSD-6125 requires an Annual Review (AR) of the environmental performance of Cabbage Tree Road Sand Quarry. This AR has been prepared for the Cabbage Tree Road Sand Quarry to report on environmental performance in the calendar year 1 January 2021 – 31 December 2021.

Works commenced onsite on 14 August 2019 and focused on construction of the access road and office and workshop compound.

Modification 1 was approved on 26 March 2020 and permitted the transport of 5,000 tonnes of sand from the site prior to the completion of the intersection with Cabbage Tree Road. The purpose of the modification was to enable a trial on the suitability of the white sand onsite for use in glass manufacturing. The activity proposed by this modification has now been completed.

WSS was provided notice of practical completion for the Intersection from Transport for NSW on 14 May 2020, with the first truck leaving site via the completed intersection on 18 May 2020.

2021 was the first year containing a full 12 months of operational activity.

This AR will be distributed to the NSW Department of Planning and Environment (DPE) for review and made publicly available on Newcastle Sands website, when authorised by DPE for access by Hunter Water Corporation (HWC) and Port Stephens Council (PSC) the Community Consultative Committee (CCC) and public.

1.2 PURPOSE OF REPORT

On 9 of May 2018, Development Consent SSD-6125 was approved under Section 4.38 of the *Environment Planning and Assessment Act 1979* (EPA Act 1979). Schedule 5 Condition 11 of SSD-6125 documents the requirements of the Annual Review and is cross referenced in **Table 4** below. Management plan commitments that must be addressed in this review are cross referenced in **Table 5**.

Table 4: Annual review requirements from SSD-6125

Condition	Where Addressed
Schedule 2, Condition 18 – Production Data	
The Applicant must: *(a) from the commencement of quarrying operations provide calendar year annual quarry production data to DRG using the standard form for that purpose; and* *(b) include a copy of this data in the Annual Review.*	See 4.1 Note. No current version of this form has been able to be located.
Schedule 2, Condition 18 – Contributions to Council	
The Applicant must pay to Council an annual financial contribution toward provision of local infrastructure. The contribution must be determined in accordance with the Port Stephens S.94A Development Contribution Plan, or any subsequent relevant contributions plan adopted by Council. This contribution must be paid to Council prior to the issue of any construction certificate for the development. Any annual contributions must be paid to Council within one month of the anniversary date of this consent and reported in the Annual Review.	See 4.2
Schedule 3, Condition 28 – Vehicle Monitoring	
The Applicant must provide a report in each Annual Review which includes details of all fauna injured or killed by development-related vehicles, time and date of any such fauna strike, species involved, action taken following the strike and any consequent measures put in place to prevent or minimise a recurrence.	See 7.7
Schedule 3, Condition 43 (d)– Waste	
(d) report on waste management and minimisation in the Annual Review	See 7.10
Schedule 3, Condition 48 – Review of PFAS Exposure Pathways	
In conjunction with preparation of each Annual Review, unless otherwise agreed with the Secretary, the Applicant shall engage a suitably qualified and experienced independent expert, approved by the Secretary, to review the currently available information on exposure pathways for PFAS contamination originating from the Williamtown RAAF Base, as may be applicable to local residents and the development. This report must assess whether or not	See 5.2.5

Condition	Where Addressed
quarrying operations are increasing the risk of PFAS exposure for local residents and/or the environment, to the satisfaction of the Secretary. *The Applicant must ensure that the Review of PFAS Exposure Pathways reports are placed on its website and are available to the CCC and any interested person on request.*	
Schedule 5 Condition 11 – Annual Review	
By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a review to the Department reviewing the environmental performance of the development to the satisfaction of the secretary. This review must:	This document
a) Describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year.	See 2.2
b) Include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the:	See 5
• *Relevant statutory requirements, limits or performance measures/criteria;*	See 5
• *Requirements of any plan or program required under this consent;*	See 5,
• *Monitoring results of previous years; and*	See 5
• *Relevant predictions in the documents listed in condition 2(a) of Schedule 2;*	
c) Identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;	See 9
d) Identify any trends in the monitoring data over the life of the development;	See each section on monitoring.
e) Identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	See 11
f) Describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.	See 12

Table 5: Management Plan Annual Review reporting commitments

Commitment	Where addressed
Soil Water Management Plan (SWMP)	
AEMR to include: • Summary of all soil and water monitoring results and management actions undertaken in the 12-month period; • Summary of any soil or water non-compliances recorded in the 12-month period; • Summary of any soil or water related complaints recorded in the 12-month period; • Summary of corrective actions and improvements to reduce impacts to soil and water. • Review of the site water balance. • Volume of water drawn from the HWC network. • Volume of water transferred from site (e.g. septic / bunded water capture). • Comparison with estimated water use (Section 5.2). Where more than 20% above estimated maximum, review water usage areas and investigate methods to minimise usage where feasible. AEMR will be uploaded to Project website within two weeks of final report being issued.	See Section 5.4 Section 7.11 Table 21
Traffic Management Plan (TMP)	
AEMR to include summary of: • All transport monitoring results and management actions undertaken in the 12-month period; • Any transport incidents or non-compliances recorded in the 12-month period; • Any transport-related complaints recorded in the 12-month period; • Corrective actions and improvements to reduce transport impacts.	See Sections 5.6, 8.3
Heritage Management Plan (HMP)	
AEMR to include summary of: • All heritage monitoring results and management actions undertaken in the 12-month period; • Any heritage non-compliances recorded in the 12-month period; • Any heritage-related complaints recorded in the 12-month period; • Corrective actions and improvements to reduce impacts to heritage.	See Section 7.4
Biodiversity and Rehabilitation Management Plan (BRMP)	
AEMR to include summary of: • All monitoring results and management actions undertaken in the 12-month period; • Work completed in maintaining the boundary delineation. • Any non-compliances recorded in the 12-month period; • Any complaints recorded in the 12-month period; • Corrective actions and improvements to reduce biodiversity impacts or improve rehabilitation.	See Section 2.2, 7.2, and 7.5
Noise Management Plan (NMP)	
AEMR to include summary of: • All noise monitoring results and management actions undertaken in the 12-month period; • Any noise non-compliances recorded in the 12-month period; • Any noise-related complaints recorded in the 12-month period; • Corrective actions and improvements to reduce noise impacts.	See Section 5.3
Air Quality Management Plan (AQMP)	
AEMR to include summary of: • All air monitoring results and management actions undertaken in the 12-month period; • Recorded weather data in the 12-month period; • Effectiveness of trigger mechanisms; • Diesel and Electricity Use in the 12-month period; • Any air non-compliances recorded in the 12-month period; • Any air quality-related complaints recorded in the 12-month period; • Corrective actions and improvements to reduce air emissions.	See Section 5.2

1.3 PROJECT SUMMARY

The key details of the Project are shown in **Table 6** with the general arrangement and resource extent shown by **Figure 1**.

Table 6: Key Aspects of the Cabbage Tree Road Sand Project.

Aspect	Key Aspects of the Project
Key elements	Sand quarry extracting up to 530,000 tonnes per annum over a period of 6 to 15 years including the construction of an intersection with Cabbage Tree Road, sealed and gravel access roads, site office, workshop and weighbridges. Progressive rehabilitation of quarried land returning to native vegetation communities with potential future use of the facilities area.
Location	398 Cabbage Tree Road, Williamtown, within the Port Stephens local government area.
Property Titles	Four titles within the Parish of Stockton, County of Gloucester including: • Lot 1 DP 224587 at 398 Cabbage Tree Road, Williamtown • Lot 121 DP 556403 at 282B Cabbage Tree Road, Williamtown. • Lot 11 DP 629503 at 282A Cabbage Tree Road, Williamtown. • Lot 1012 DP 814078 at 282 Cabbage Tree Road Williamtown.
Land Owner	Port Stephens Shire Council under lease to Williamtown Sand with royalty of up to $17.5 million over the Project life.
Area	Total Project Area of approximately 42.3 hectares from a Subject Land Area of approximately 176.2 hectares.
Proponent	Williamtown Sand Syndicate Pty Ltd, the owner of the quarry operator Newcastle Sand.
Stakeholders	Key stakeholders include: • Adjacent landowners and local community • NSW Planning & Environment (DPE) • NSW Office of Environment & Heritage (OEH) • NSW Department of Primary Industries – Office of Water • Hunter Water Corporation (HWC) • Port Stephens Council (PSC) • Commonwealth Department of Environment.
Project Life	Up to 15 years. At expected demand the quarry will have an eight (8) year life, or six (6) years at maximum extraction rates.
Extraction Rate	Maximum of 530,000 tonnes per annum, and maximum daily rate of 3,000 tonnes.
Operating Hours	Construction of intersection, access and workshop and office: • 7:00am to 5:00pm Monday to Friday. • 8:00am to 1:00pm Saturday. • No works on Sunday or public holidays. Quarrying Operations: • 7:00am to 5:00pm Monday to Friday. • 7:00am to 4:00pm on Saturday. • No quarrying on Sunday or a Public Holiday. Loading and dispatch of trucks: • 6:00am to 6:00pm Monday to Friday. • 7:00am to 4:00pm Saturday. • No works on Sunday or public holidays.

Aspect	Key Aspects of the Project
Transport Rate	• Up to 6 laden trucks per hour (12 trips per hour) during the hours of 6 am to 7 am Monday to Friday. • Up to 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 6 pm Monday to Friday (i.e. all haulage hours excluding the morning peak). • Up to 10 laden trucks per hour (20 trips per hour) during hours of 7 am to 4 pm Saturdays. • Haulage between 5 am and 6 am is subject to agreement from adjacent landowners as per Schedule 3, Condition 1. • Up to 6 vehicles of employees would be expected to arrive from approximately 5:30 am to 7 am and leave between 5 pm and 7 pm.
Resource and products	Approximately 3.25 Mt of sand, comprising the following products to be extracted from site by truck onto Cabbage Tree Road for transport to markets: • Raw fill sand. • Screened sand. • Sandy loam. • Concrete sand. • Glass sand (estimated at about 16% of total resource). The Project covers approximately 42.3 hectares (including access roads) with extraction to a depth of not more than 1m above the highest predicted groundwater level.
Extraction	• Maximum extraction rate of 530,000 tonnes per annum. • Excavator and/or bulldozer to clear vegetation and strip topsoil. • Bulldozer or grader to windrow sand. • Front-end loader to feed conveyors to convey sand to the processing plant. • Front-end loader / exacavator and haul truck to convey sand when conveyor unsuitable.
Processing Methods	• Raw sand product extracted directly from face with no processing. • Sand fed into electrically powered screen. • Screened sand sold as product or fed to electrically powered air separator, or wash plant. • Products stockpiled for loading directly into truck or fill bulker bags for removal from the site by truck.
Support facilities and utilities	• Site office, workshop, stores, car parking. • Power supply from local network • Water supply from local network.
Water demand and supply	• Water required for stockpile dust suppression and gravel haul road dust suppression. • Water sourced from mains supply fed into the site from Cabbage Tree Road. • Rainwater tanks at office and workshop area to collect rainwater from rooved areas for use in dust suppression. • Water demand estimated in EIS at up to 29.65 ML/yr. • No groundwater use. • Runoff from around processing area and hard stand collected where feasible for re-use.
Employment	Full time staff for up to six persons. Opportunities for approximately 20 contract and customer truck haulage operators.
Community and amenity	The following measures are proposed to mitigate and offset adverse impacts to the community:

Aspect	Key Aspects of the Project
	• Up to $17.5 million over the Project life in royalty payments to Port Stephens Council. • A 20 m vegetated buffer from Cabbage Tree Road to minimise visual impacts for passing motorists and adjacent residents. • A 75m long road side buffer of retained vegetation along the sides on the access from Cabbage Tree Road. • Real time triggers on air quality monitors to manage potential air quality impacts. • Six monthly attended noise monitoring and noise model confirmation based on actual data prior to extraction of areas 8, 9 or 10 (estimated at Year 6).
Biodiversity Offset Strategy	A biodiversity offset strategy that incorporates: • The in-perpetuity conservation of the remaining subject land, through the establishment of a Biobank Site. • Purchase and retirement of additional Koala species credits, as required to meet credit requirements at the impact site. • Reinstatement of lost hollows with suitable nest boxes within rehabilitation area at a ratio of one to one. • Long term conservation and security of the majority of the rehabilitated lands.

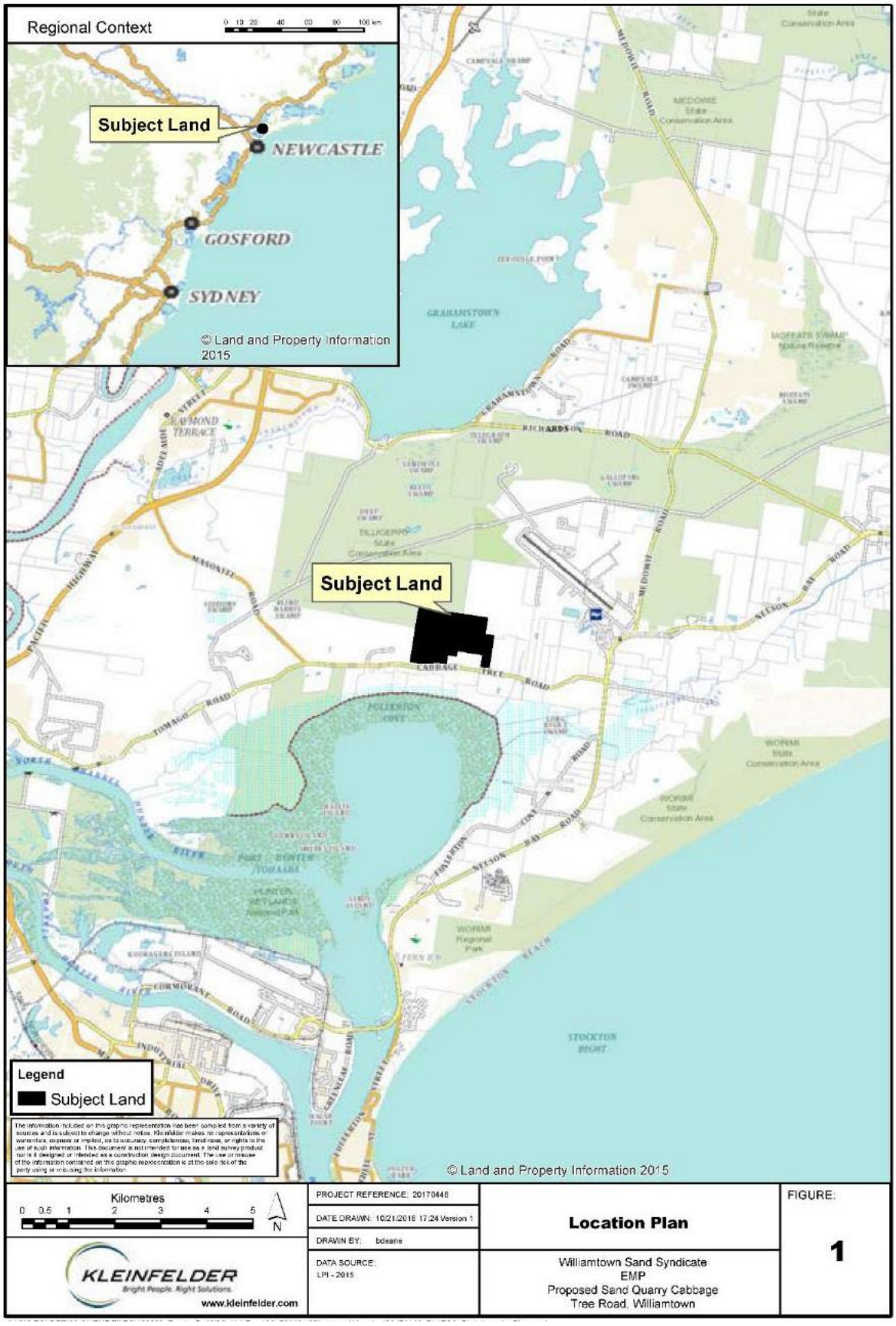


Figure 1: Location of the Cabbage Tree Road Sand Quarry

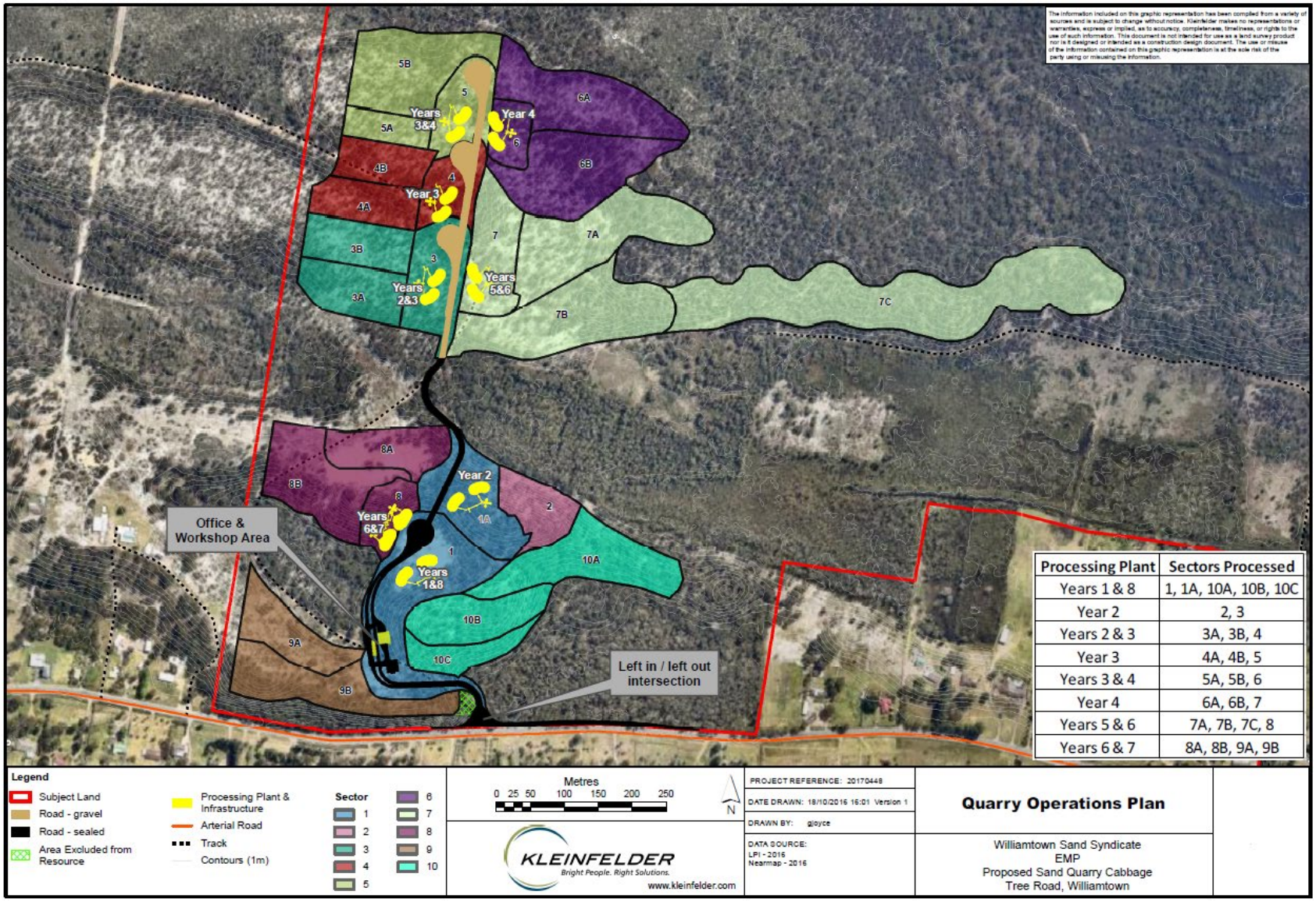


Figure 2: Resource and sequence plan (as per EIS)

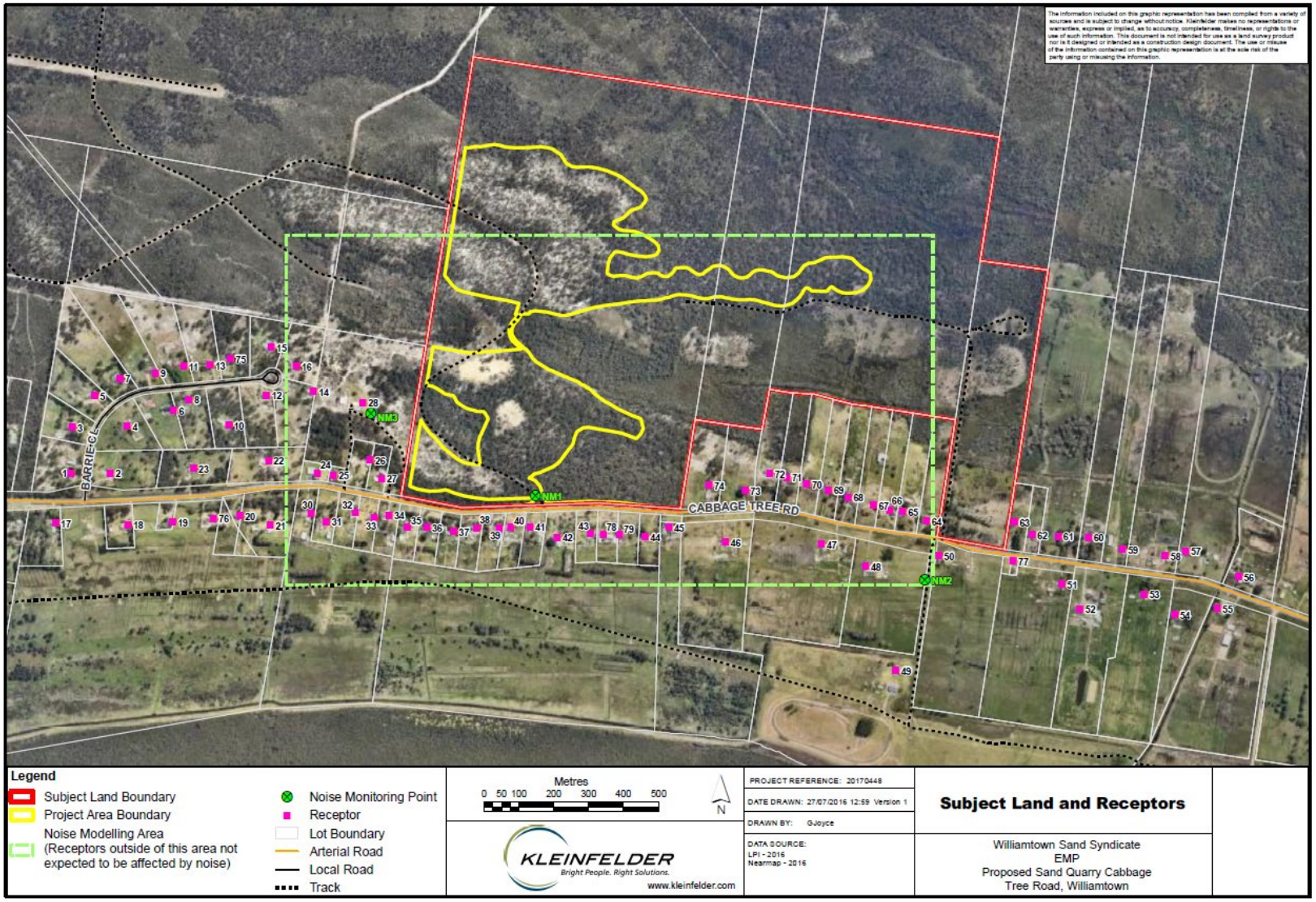


Figure 3: **Subject land, resource boundary, surrounding receptors and proposed onsite offset areas (majority of area between red and yellow boundary is onsite offset.**

1.4 ENVIRONMENTAL SETTING

Key environmental attributes of the subject land and surrounds are:

- **Landform**
  - The site is located on the southern margin of an inner coastal dune barrier system and involves the removal of vegetated Pleistocene age sand dunes that adjoin the Holocene age swamp and tidal margins of Fullerton Cove to the south (Umwelt 2015).
  - Broadly, the landform comprises a gently sloping plain from 3 m AHD in the south to 5.5 m AHD in the north with a two prominent sand dunes reaching up to 17 m AHD elevation, separated by low lying swamp area of 2 m AHD that drains to the east.
- **Water**
  - The majority of the Project is above the Tomago sand beds (a source for up to 25% of Newcastle's water supply) and as such is within the Hunter Water designated special area under the Hunter Water Regulation 2010.
  - The subject land does not contain any defined natural drainage lines, suggesting vertical infiltration into the sand is dominant over runoff and horizontal movement of water.
  - The area surrounding the Project Area is frequently water logged during high rainfall, with the groundwater close to the surface.
  - The area lies just inside the boundary of PFAS management zones, necessitating diligence in groundwater management.
- **Ecology**
  - The low-lying Swamp mahogany – paperbark community is listed as an endangered ecological community protected under NSW legislation.
  - The subject land contains preferred and supplementary Koala habitat.
  - The Project area and subject land comprises threatened flora Earp's Gum and Camfield's stringybark protected under State and Commonwealth legislation.
- **Weather**
  - Weather data is available at the Bureau of Meteorological Station located at the Williamtown Airport approximately 4 km to the north east of the northern portion of the
  - Summer mornings have light variable vectors that are slightly dominant from the south, until morning vectors through Autumn strengthen from the north west and west and become dominant right through the year until November.
  - Summer afternoon vectors are typical of the coastal location with strong onshore winds from the south, south east and east. As winter approaches vectors from the west and north west increase, before westerly and north westerly vectors become dominant. By spring south easterly vectors increase in in dominance during the lead in to summer.
  - The most sensitive time of year for the Project is likely to be during winter north westerly vectors dominate throughout both morning and afternoon periods . **Figure 4** illustrates long term average temperature, evaporation and rainfall data from the Williamtown Airport Bureau of Meteorological Station.
  - Evaporation rates are highest during summer, and are greater than the rate of rainfall. The evaporation rate is similar or less than rainfall rate during the months May, June and July.
  - The driest month on average is September, with the wettest in June.

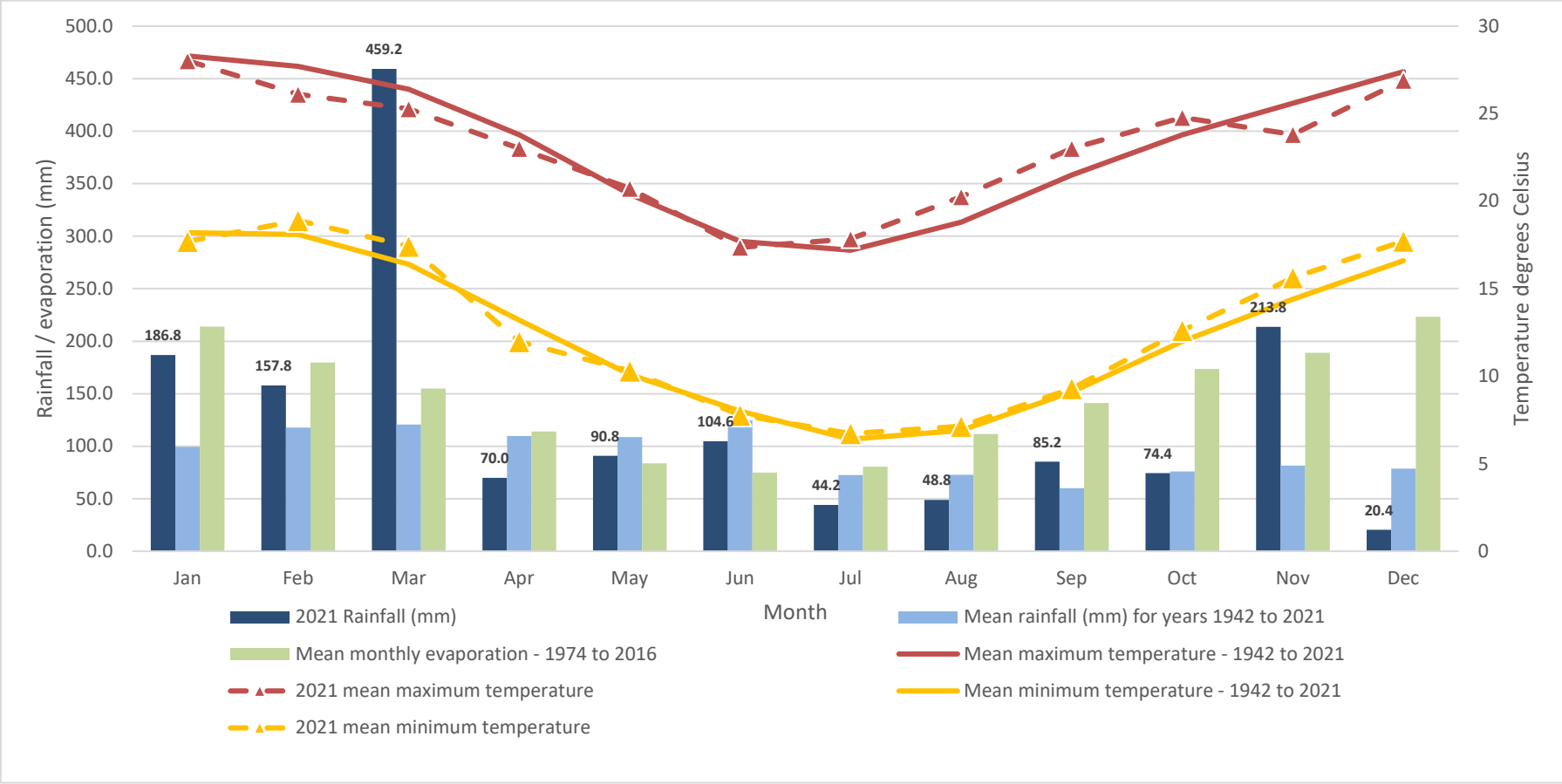


Figure 4: **Long term monthly average rainfall, evaporation, minimum and maximum temperatures against the 2021 records from the Williamtown Airport weather station**

1.5 COMMUNITY OVERVIEW

Dwellings surrounding the subject land comprise:

- No dwellings located to the north.
- East: closest dwelling is 244 m. 15 dwellings are located within 1,000 m to the east and north of Cabbage Tree Road.
- South: closest dwelling is 61 m. 29 dwellings are located within 1,000 m to the south and south of Cabbage Tree Road.
- West: closest dwelling is 83 m. 24 dwellings located within 1,000m to the west and north of Cabbage Tree Road.
- Majority of dwellings located below 3 m AHD.
- The subject land and properties immediately surrounding the area are located within the red zone for the RAAF PFAS contamination. It is noted that a low concentration contamination plume extends over only a portion of the site and some residences south and east of the Project.

Refer to **Figure 10** for locations of receptors surrounding the Project.

2. WORKS DURING PERIOD

Disturbance at the end of the period is shown in **Figure 5**.

2.1 ACTIVITIES DURING PREVIOUS PERIODS

Construction started on 14 August 2019 with notice of formal completion for the intersection with Cabbage Tree Road was issued on issued on 14 May 2020 by the Road and Maritime Service (now Transport for NSW). The first truck transported sand via the completed intersection on 18 May 2020.

During the 2019 reporting period the following construction activities were performed:

- Clearing of vegetation for development.
- Earthworks for infrastructure development including:
  - Intersection with Cabbage Tree Road.
  - Topsoil batters.
  - Excavation for pads for office area and operator compound.
  - Stockpiling of raw bulk excavated material for future use.
- Commencement of building of within the Stage 1 clearing area including:
  - Access Roads.
  - Office Area.
  - Operators Compound.
  - Weighbridge.
  - Workshop area.
  - Security camera installation.
  - Irrigation system for batters.

During 2020 the following construction activities were performed:

- The internal access road was sealed.
- The intersection received final notice of completion on 14 May 2020.

During 2020 the following operational activities were performed:

- Erection of frog fence around perimeter of Sector 1A and 2.
- Erection of frog fence along boundary of the access road between the northern and southern resource areas and around Sectors 3, 3A, 3B, and 4A.
- Clearing of vegetation within Sectors 1A and 2 on 23, 24, and 27 July 2020.
- Clearing of vegetation within the southern portion of Sector 3 (in the northern resource area) on 4 December 2020.

- Construction of an access road to the northern resource area (i.e. to access Sector 3 etc).
- Extraction within Areas 1, 1A, 2 and 3. During 2020, 124,310.70 tonnes of sand was extracted from the site since commencement of operations in May 2018. Prior to the completion of construction 5,000 tonnes was extracted for a glass sand trial in late March early April 2020 consistent with Modification 1.
- With no quarry floor exposed to enable any final rehabilitation, rehabilitation related activities onsite were limited to the improvement of the rehabilitation on the temporary and permanent roadside batters.

2.2 ACTIVITIES PERFORMED DURING THE 2021 REPORTING PERIOD

2.2.1 Hours of Operation (Sch3 Condition 1)

Schedule 3, Condition 1 relates to the permissible hours of operating hours, activities performed during this period are noted below:

- Quarry Operations may occur 7am to 5pm Monday to Friday, 7am to 4pm Saturday and at no time on Sunday or Public Holidays.
    - During the period all quarry operations were completed within the prescribed times.
- Loading and dispatch of laden trucks may occur from 6am to 6pm Monday to Friday and 7am to 4pm Saturday and at no time on Sunday or Public Holidays.
    - During the period all quarry operations were completed within the prescribed times.
    - It is noted that on some occasions trucks have arrived at the quarry prior to 6am, however, no loading or dispatch of laden trucks occurred outside the prescribed times.
- Maintenance may be conducted at anytime, provided that these activities are not audible at any privately-owned residence.
    - Maintenance activities have occurred outside the hours of loading and dispatch, primarily associated with the calibration of the weighbridge.

2.2.2 Operating Conditions

Schedule 3, Condition 4 provides prescriptive conditions for vegetation clearing activities within the Southern Resource Area to ensure noise levels at neighbouring dwellings are kept to a minimum. The Condition states the following:

4. *The Applicant must only undertake vegetation clearing operations within the Southern Resource Area under the following circumstances:*
   (a) noise generated by the development does not exceed 47 dB(A)LAeq (15 minute);
   (b) bulldozer(s) or equipment with a sound power level greater than 104 dB(A) are not permitted to be used in Sectors 9B, 10A, 10B and 10C, as shown in Figure 2 of Appendix1;
   (c) clearing operations are limited to:
   - *the Day period, Monday to Friday;*
   - *campaigns not exceeding 5 consecutive working days; and*
   - *no more than four campaigns in any calendar year.*

During 2021, no clearing activities were completed within the Southern Resource Area, as such no further consideration of the above requirements are necessary.

2.2.3 Transport Operating Conditions

Schedule 3, Condition 23 relates to speed limits and the number of laden trucks leaving the quarry. Condition 23 states that Newcastle Sand is to ensure:

(a) speed limits of 40 km/hour for vehicles entering the site on sealed roads; 60 km/hr for vehicles exiting the site; and 20 km/hour for vehicles using all other roads and areas on site are applied and enforced;
(b) trucks slowing to use the intersection of the quarry access road and Cabbage Tree Road do not use engine or compression braking systems;
(c) laden truck movements exiting the site do not exceed 6 per hour during the period from 6 am to 7 am, Monday to Friday;
(d) laden truck movements exiting the site do not exceed 10 per hour during the period from 7 am to 6 pm, Monday to Friday; and
(e) laden truck movements exiting the site do not exceed 10 per hour during the period from 7 am to 4 pm, Saturdays.
Note: In this condition, "per hour" means within any period of 60 minutes following the change of hour.

Signage is included within the quarry to guide truck drivers on required speed limits, and the intersection with Cabbage Tree Road has been designed to ensure the entry and exit speeds are maintained at appropriate levels.

The drivers code of conduct provided to all drivers during the induction includes an expectation that engine or compression braking systems are not used when entering the quarry.

The quarry weighbridge and ticket system is electronically limited to the required maximum trucking levels permitted by the Consent. This system ensures compliance with the required laden truck levels that are permitted to leave the quarry. Refer to Section 5.6 for further details on the truck monitoring.

Schedule 3, Condition 23A states:

> *The Applicant must ensure that if agreement is reached with adjoining residents under condition 1 of this Schedule, laden truck movements exiting the site do not exceed 6 per hour during the period from 5 am to 6 am, Monday to Friday.*

No agreement has been reached to enable early truck movements and no laden trucks were dispatched during this period was undertaken.

2.2.4 Overview of Activities Completed

During the 2021 reporting period the following activities were performed:

- In March 2021, Jute matting and hydromulch were applied to the batters along the access road and Sector 10C near the office, targeting areas where batter angles are steep or revegetation is limited.
- Clearing of vegetation within Sector 3 and Sector 7 (part 7B and 7C) in late March / early April 2021.
- Clearing of vegetation with part of Sector 3, 3A and part of Sector 3B in early October 2021.
- Continued extraction of sand from Sector 1A/2, 3 and 3A.
- Construction, commissioning and operation of the wash plant approved under Modification 2.
- Extraction of sand within a portion of Sector 7, targeting the glass sand resource required to meet consumer manufacturing needs, and removing the underlying general sand resource to enable commencement of rehabilitation of the quarry floor in that area.
- The rehabilitation process includes the spreading of topsoil with subsequent addition of timber from the cleared area including associated seed heads.
- Construction activities associated with the relocation of the wash plant to Sector 3 (scheduled for relocation in June 2022).

Survey plans by Centurion Civil illustrating area cleared at the end of the period and the proximity to the maximum extraction depth are shown in Figures 4, 5 and 6. Extraction levels are consistent with the quarry approval and are more than 0.7m above the maximum predicted water table as prescribed by the Maximum Extraction Depth Report.

The maximum predicted water table is above the actual water table onsite during the period (See Section 5.1.4). Groundwater levels are monitored monthly (and by continuous logger in select bores) to evaluate proximity of workings to groundwater.

Photograph 1: Temporary batter stabilisation of the batter of Sector 10C and the access road, hydromulch applied, in March 2021.

Photograph 2: Temporary batter stabilisation of the batter of Sector 10C adjacent to the Office and access road. Jute matting and hydromulch applied in March 2021.

Photograph 3: Truck loading occurring in March 2021, note extent of Sector 1A/2 remaining

Photograph 4: Road side drainage with check dams following heavy rainfall

Photograph 5: Progressively stabilising vegetation around emplaced logs on the entry batter

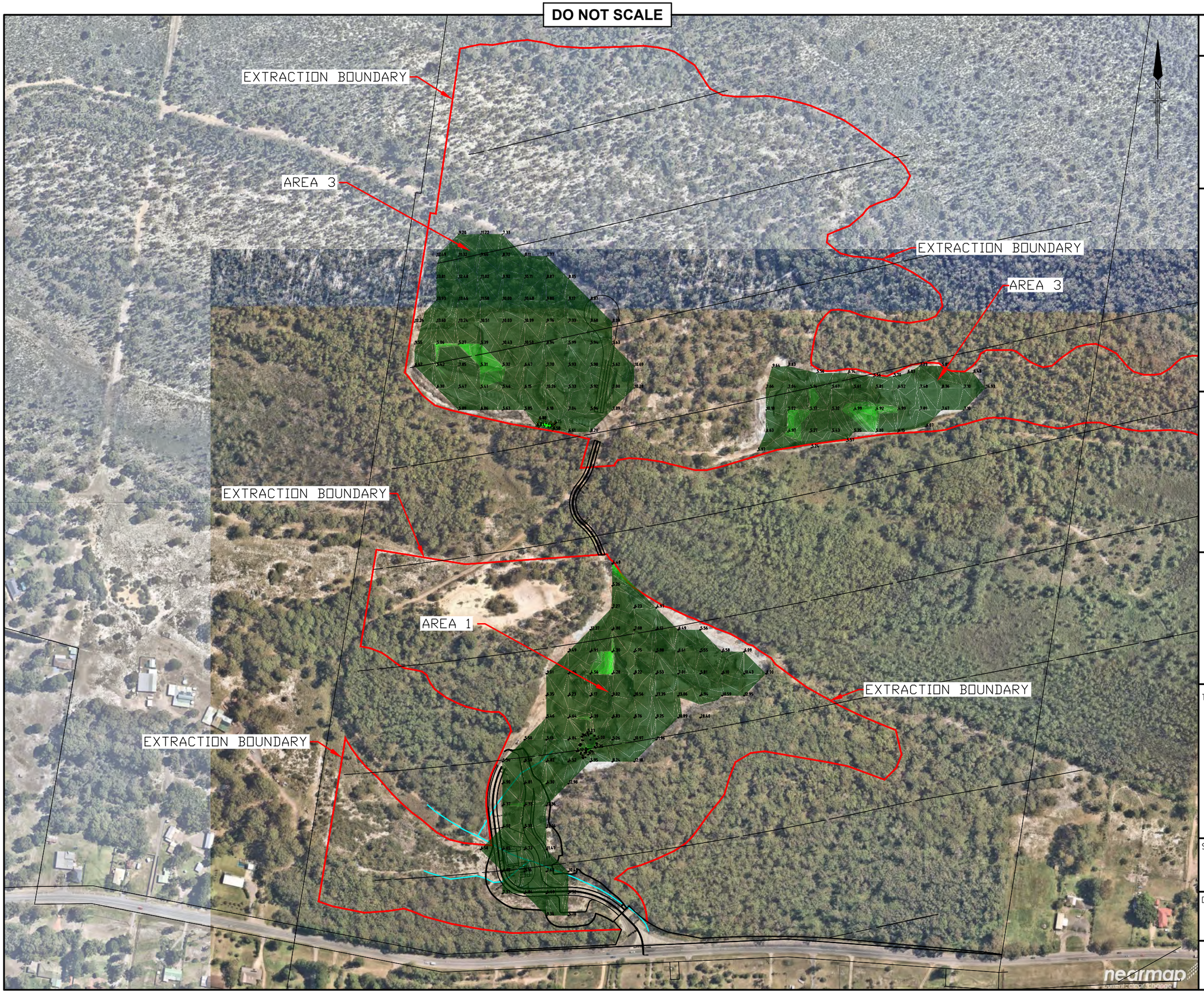
Photograph 6: Wash plant screw

Photograph 7: Wash plant shaker table, reducing water take and product sand moister content

Photograph 8: Wash plant conveyors stacking washed stand for sale, note water in fore ground from rainfall.

Photograph 9: Works underway to establish Sector 3 for the processing area.

DO NOT SCALE



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DRAWN:	CJ
CHECKED:	MH
DATUM:	AHD
ISSUE DATE:	31/03/2022
REVISION:	A

CLIENT & JOB:

WILLIAMTOWN SAND SYNDICATE

CABBAGE TREE ROAD SAND PIT

CENTURION SURVEY PTY LTD

ABN: 66 605 045 314
P: (02) 4967 5927
M: 0429 987 821
Unit 11 56 Industrial Dr
Mayfield NSW 2304

TITLE:

SURVEY EXTRACTION COMPLIANCE

STATUS: @ 31/03/2022

DRAWING NUMBER: 0163-2203-01

SHEET 1 OF 4 SHEETS

A3

DO NOT SCALE

DEPTH COMPLIANCE COMPARISON TO 0.7m ABOVE MAXIMUM PROBABLE GROUND WATER LEVEL

LOWER VALUE		UPPER VALUE		COLOUR
-0.35	to	-0.3	m	
-0.3	to	-0.2	m	
-0.2	to	-0.1	m	
-0.1	to	0.0	m	
0.0	to	0.1	m	
0.1	to	0.2	m	
0.2	to	0.5	m	
0.5	to	1.0	m	
1.0	to	2.0	m	

ACCESS ROAD TO NORTHERN PRECINCT

NOTE: THIS AREA HAS NOT BEEN CLEARED AT THIS POINT IN TIME

EXTRACTION BOUNDARY

NOTE: THIS AREA HAS NOT BEEN CLEARED AT THIS POINT IN TIME

NOTE: THIS AREA HAS NOT BEEN CLEARED AT THIS POINT IN TIME

EXTRACTION BOUNDARY

CONTOURS 0.7m ABOVE MAXIMUM PROBABLE WATER TABLE LEVEL

NOTES:
1. SPOT LEVEL IDENTIFY ACTIVE FLOOR AREA WHICH WAS SURVEYED 17/03/2022.

SOUTHERN PRECINCT (AREA 1)
CURRENT EXTRACTION FLOOR COMPLIANCE 31/03/2022

SCALE: 1:1250

FILE:	0163_CS_Extraction_Plans_220331.dwg
SURVEYED:	CJ
DRAWN:	CJ
CHECKED:	MH
DATUM:	AHD
ISSUE DATE:	31/03/2022
REVISION:	A

CLIENT & JOB:

WILLIAMTOWN SAND SYNDICATE

CABBAGE TREE ROAD SAND PIT

CENTURION SURVEY PTY LTD

ABN: 66 605 045 314
P: (02) 4967 5927
M: 0429 987 821
Unit 11 56 Industrial Dr
Mayfield NSW 2304

TITLE:

SURVEY EXTRACTION COMPLIANCE

STATUS: @ 31/03/2022

DRAWING NUMBER: 0163-2203-02

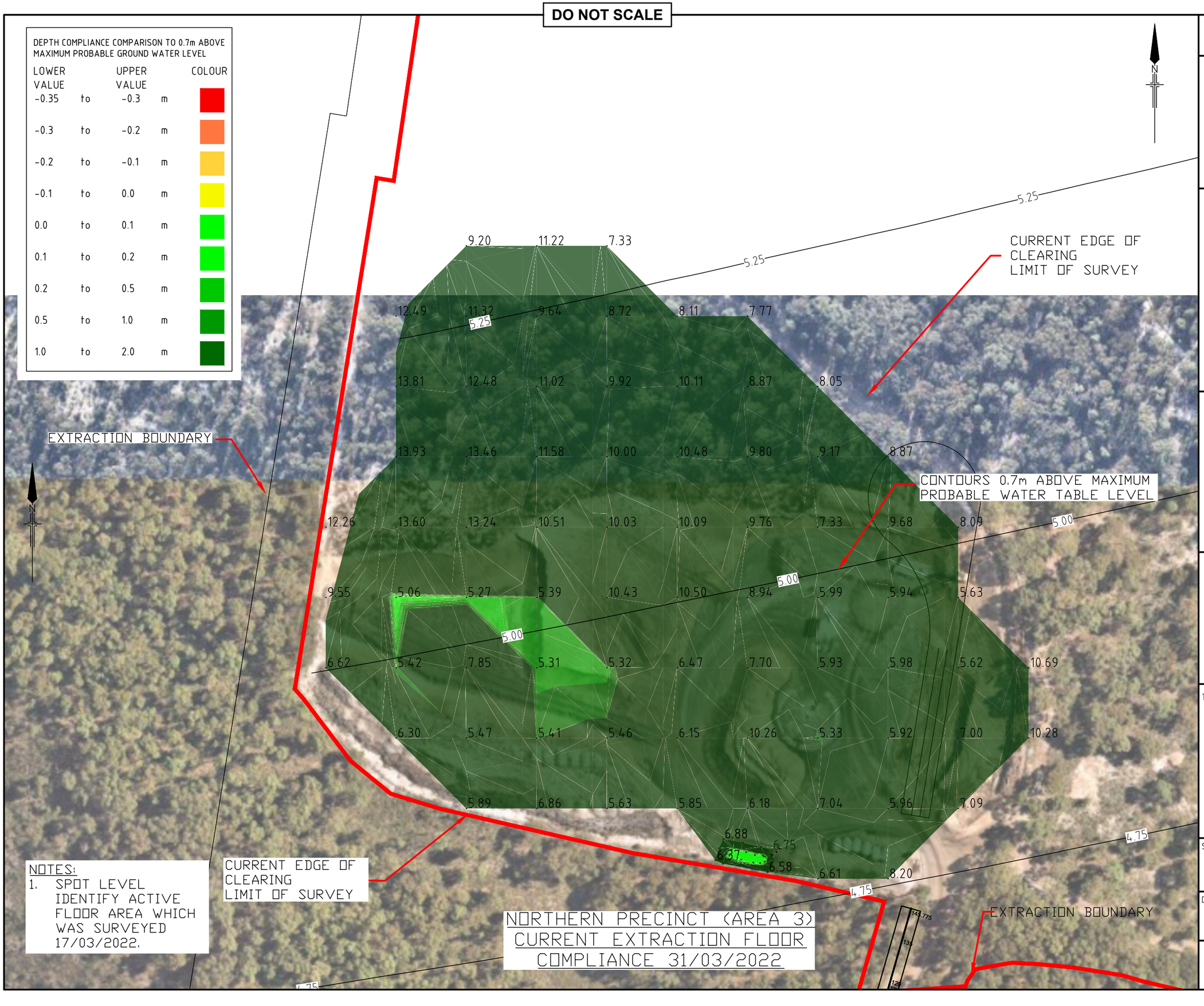
SHEET 2 OF 4 SHEETS

A3

DO NOT SCALE

DEPTH COMPLIANCE COMPARISON TO 0.7m ABOVE MAXIMUM PROBABLE GROUND WATER LEVEL

LOWER VALUE		UPPER VALUE		COLOUR
-0.35	to	-0.3	m	
-0.3	to	-0.2	m	
-0.2	to	-0.1	m	
-0.1	to	0.0	m	
0.0	to	0.1	m	
0.1	to	0.2	m	
0.2	to	0.5	m	
0.5	to	1.0	m	
1.0	to	2.0	m	



NOTES:
1. SPOT LEVEL IDENTIFY ACTIVE FLOOR AREA WHICH WAS SURVEYED 17/03/2022.

CURRENT EDGE OF CLEARING
LIMIT OF SURVEY

NORTHERN PRECINCT (AREA 3)
CURRENT EXTRACTION FLOOR COMPLIANCE 31/03/2022

EXTRACTION BOUNDARY

SCALE: 1:1250

FILE:	0163_CS_Extraction_Plans_220331.dwg
SURVEYED:	CJ
DRAWN:	CJ
CHECKED:	MH
DATUM:	AHD
ISSUE DATE:	31/03/2022
REVISION:	A

CLIENT & JOB:

WILLIAMTOWN SAND SYNDICATE

CABBAGE TREE ROAD SAND PIT

CENTURION SURVEY PTY LTD

ABN: 66 605 045 314
P: (02) 4967 5927
M: 0429 987 821
Unit 11 56 Industrial Dr
Mayfield NSW 2304

TITLE:

SURVEY EXTRACTION COMPLIANCE

STATUS: @ 31/03/2022

DRAWING NUMBER: 0163-2203-03

SHEET 3 OF 4 SHEETS

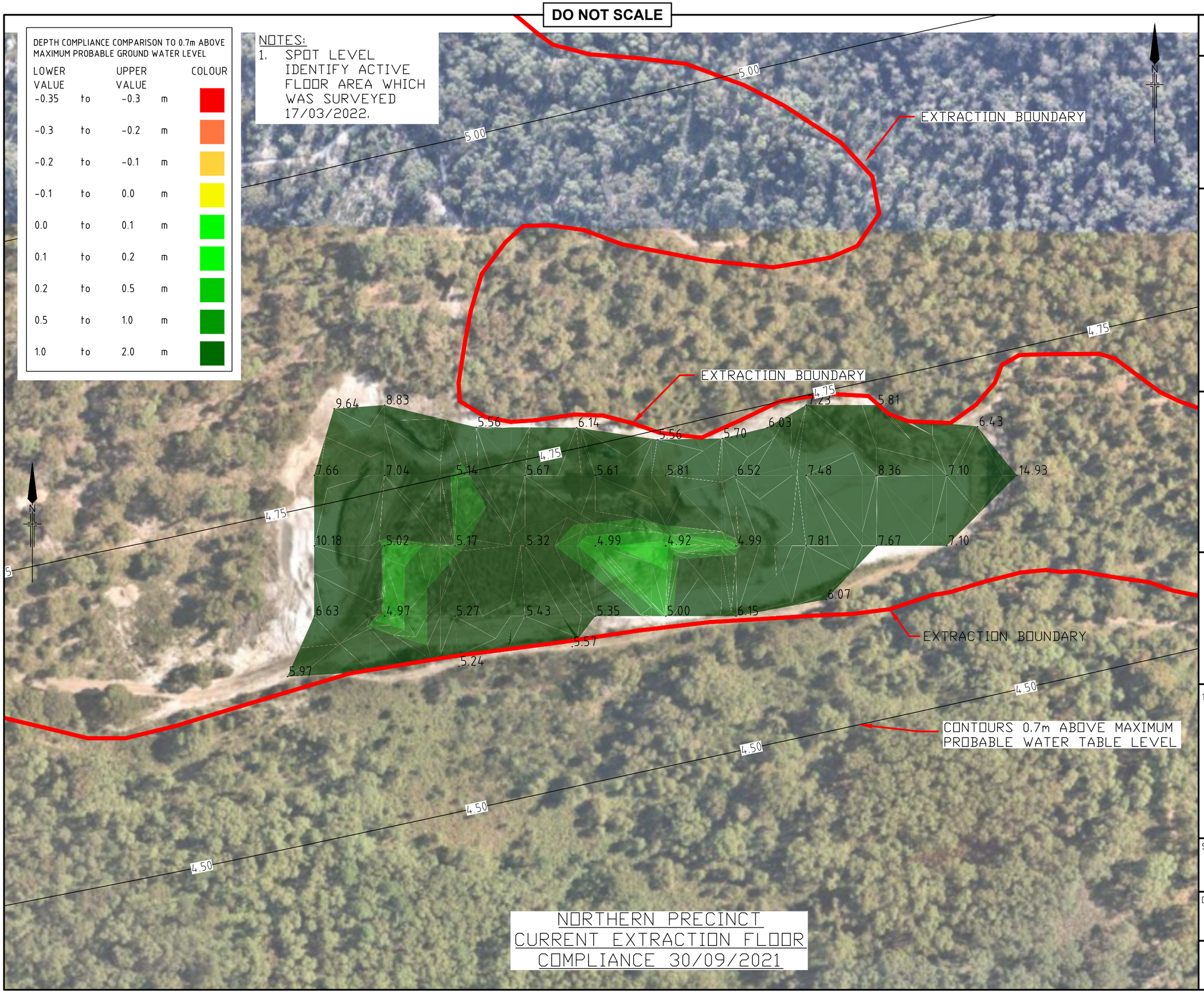
A3

DO NOT SCALE

DEPTH COMPLIANCE COMPARISON TO 0.7m ABOVE MAXIMUM PROBABLE GROUND WATER LEVEL

LOWER VALUE		UPPER VALUE		COLOUR
-0.35	to	-0.3	m	
-0.3	to	-0.2	m	
-0.2	to	-0.1	m	
-0.1	to	0.0	m	
0.0	to	0.1	m	
0.1	to	0.2	m	
0.2	to	0.5	m	
0.5	to	1.0	m	
1.0	to	2.0	m	

NOTES:
1. SPOT LEVEL IDENTIFY ACTIVE FLOOR AREA WHICH WAS SURVEYED 17/03/2022.



NORTHERN PRECINCT
CURRENT EXTRACTION FLOOR COMPLIANCE 30/09/2021

SCALE: 1:1250

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SURVEYED:	CJ
DRAWN:	CJ
CHECKED:	MH
DATUM:	AHD
ISSUE DATE:	31/03/2022
REVISION:	A

CLIENT & JOB:

WILLIAMTOWN SAND SYNDICATE

CABBAGE TREE ROAD SAND PIT

CENTURION SURVEY PTY LTD

ABN: 66 605 045 314
P: (02) 4967 5927
M: 0429 987 821
Unit 11 56 Industrial Dr
Mayfield NSW 2304

TITLE:

SURVEY EXTRACTION COMPLIANCE

STATUS: @ 31/03/2022

DRAWING NUMBER: 0163-2203-04

SHEET 4 OF 4 SHEETS

A3

2.3 FORECAST FOR FUTURE OPERATIONS

Throughout the next period (calendar year 2022) the operations will continue to be developed and refined with the operations responding to the sand resource and market demands.

Extraction will continue in Sector 1A, 2, 3A, 3B, and Sector 4, with additional clearing and extraction in Sector 7 as needed to satisfy glass sand demand. Rehabilitation of the majority of these areas will also be expected to be completed in 2022.

While rehabilitation of the floor of Sector 1A and 2 was expected toward the second half of 2021, the ability to process this sand was restricted until the wash plant was operational in July 2021 (previously expected for April 2021). With the movement of the wash plant to Sector 3 in June 2022, rehabilitation of Sector 1A and 2 is expected to commence in July 2022, noting the retention of the hardstand area for reposition of the wash plant in later years for processing of Sector 8,9 and 10.

The floors of Sector 3A, and a portion of Sector 7 will have the first of several phases of rehabilitation completed in early 2022 including the spreading of topsoil and tree material. Adjustment of timber density may be required with subsequent followup of seeding depending on germination success.

3. APPROVALS AND LICENCES

3.1 NSW DEVELOPMENT CONSENT

Project Approval was granted under the *Environmental Planning and Assessment Act 1979* by the NSW Independent Planning Commission on 9 May 2018 (amended by Modification 1 in March 2020, by Modification 2 March 2021) subject to Development Consent SSD-6125 conditions (**Appendix 1**).

Modification 1 provided for a glass sand trial to occur prior to the formal completion of the intersection and weighbridge to enable the sand to be assessed for suitability for use in glass manufacture in Sydney.

Modification 2 provided for the use of a wash plant onsite in place of the approved air separator. Both pieces of plant are permitted onsite, but only one is to operate at any one time. The wash plant is intended to minimise double handling of sand resources, and improve utilisation of the available resource through the reduction of the silt content.

3.2 COMMONWEALTH APPROVAL

Commonwealth Approval was granted on 12 December 2018 to undertake the project. Conditions of the approval are based largely on the NSW approval with some additional checks and to ensure compliance.

3.3 PERMITS AND LICENCES

3.3.1 Environment Protection Licence

Environment Protection Licence (EPL) 21264 has been issued by the NSW Environment Protection Authority (EPA) under the *Protection of Environment Operations Act 1997*. Pursuant to Schedule 1, Clause 16 “Crushing, grinding or separating” and Clause 19 “Extractive activities”.

3.3.2 Further Permits and Licences

The following permits and licences are required and in place to construct and operate the quarry:

- Permit under Section 138 of the *Roads Act 1993* from PSC / RMS.
  - *This has been attained and is no longer required with the completion of the intersection.*
- Hunter Water agreement to undertake extractive industries within the Tomago Special Area.
  - *This has been attained.*
- Lease for the land with Port Stephens Council.
  - *This has been attained.*

3.4 LEGISLATION

In addition to specific requirements referred to project approvals and licences, the Project is to be conducted in accordance with all relevant Commonwealth and New South Wales legislation outlined in **Table 7**.

Table 7: NSW and Commonwealth legislation applicable to the Project.

Act	Jurisdiction
Environment Protection and Biodiversity Conservation Act 1999	Commonwealth
Environmental Planning and Assessment Act 1979	New South Wales
Biodiversity Conservation Act 2016	New South Wales
Biosecurity Act 2015	New South Wales
Protection of the Environment Operations Act 1997	New South Wales
Roads Act 1993	New South Wales
Waste Avoidance and Resource Recovery Act 2001	New South Wales
Water Management Act 2000	New South Wales

4. ADMINISTRATIVE CONDITIONS

4.1 SCHEDULE 2 CLAUSE 18 – PRODUCTION DATA

Quarry production commenced on 18 May 2020 with the first product truck (outside of the glass sand trail) being dispatched from site. Production since the quarry commenced including 2021 is summarised below in **Table 8**.

The Regional NSW Extractive Materials Return 2020 form has been located and is assumed to be the standard DRG form for the purpose of Condition 18, this appears to be primarily for estimation of royalty payments for extraction from mineral lease or licence, or other Crown land leases. The quarry makes royalty payments to Port Stephens Council, no other royalty payments apply. This form notes the inclusion of production data for "Natural Sand", the gross value of all sales (commercially sensitive) and the number of employees. Enquires have been made to relevant departments to ascertain the most up to date form, however, no information has been forthcoming. The information provided below is considered consistent with the information noted in the condition.

Table 8: Production data

Product Type	2020	2021	Cumulative Tally	Percentage of Total for 2021
Natural Sand * Screened only or raw sand (includes sales of landscape, screened, glass and fill sand)	129,311	222,245	351,555.56	62%
Natural Sand * Estimated of sand washed in wash plant (includes sales of concrete sand – adjusted for the wash plants operational time and washed sand).	-	138,500	138,500.30	38%
Annual Total of 'Natural Sand'*	**129,311**	**360,745.16**	**490,055.86**	
Approved Maximum and Assessed Rate	530,000.00	530,000.00	1,060,000.00	68%
Anticipated production in EIS	250,000.00	300,000.00	550,000.00	120%
Cumulative planned production in EIS	250,000.00	550,000.00	550,000.00	89%
Cumulative Total	**129,310.70**	**490,055.86**		

* 'Natural Sand' is the reportable attribute for Regional NSW Extractive Materials Return 2020, no current form has been located

Table 9: Employment and trucking data

Aspect	Comment
Employment	Approximately six full time equivalent employees were employed at the quarry during operations in 2021, consistent with 2020. This includes contract machinery operators, but excludes truck drivers.
Total No. of Trucks	10,834 trucks collected sand from the quarry.
Truck Drivers	440 different truck drivers with minimum of one load, maximum of 442 loads averaging 24 loads per driver.

4.2 SCHEDULE 2 CLAUSE 21 – CONTRIBUTIONS TO COUNCIL

No Construction Certificates have been required for the earthworks and installation associated with temporary structures which construction has been limited to, therefore no Contributions were required during the reporting period.

A levy to the Council has been paid in accordance with the lease agreement for each tonne of sand sold from the quarry.

During 2021 this levy amounted to approximately **$1,803,726** dollars, bringing the cumulative levy paid to Council since commencement to over **$2.4 million dollars**.

5. MONITORING RESULTS

5.1 RAINFALL

As shown within **Figure 9** below 2021 started the year with cumulative rainfall levels recovering from below average rainfall since late 2018, and by February / March 2021 has entered a phase of above average cumulative rainfall. On a monthly basis, 6 months of the year received below average rainfall, while 6 months received rainfall above average, including, March 2021 where over 459 mm was received. Over a 10 week period from end of January to early April over 764mm of rainfall was received in Williamtown, or about 68% of the annual average in just 2 months.

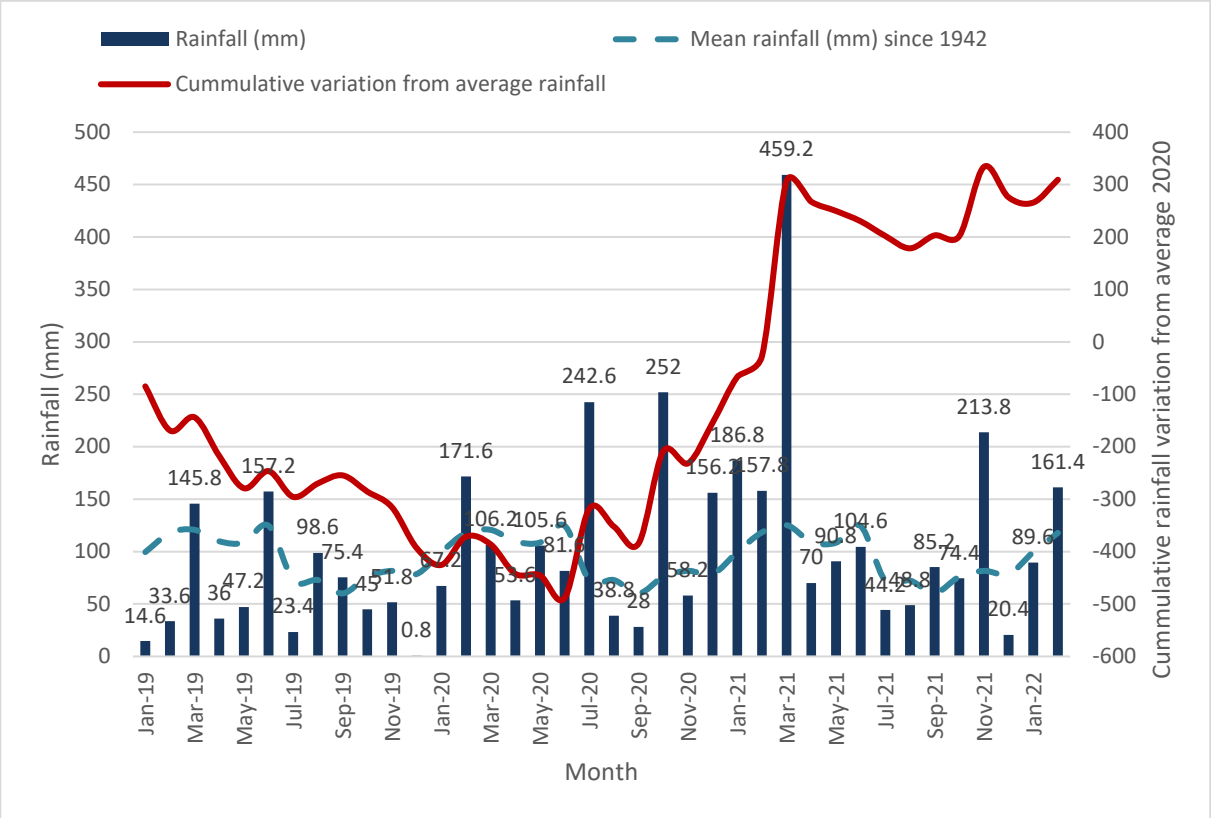

Figure 9: **Monthly Rainfall Totals (Williamtown RAAF) and variation from average**

5.2 AIR QUALITY

This section addresses compliance with the approved Air Quality Management Plant (AQMP) required by Condition 9 of Schedule 3 of the Development Consent (SSD-6125). The monitoring network was established at all air quality monitoring sites by 14 September 2019 and has been operating since that time.

5.2.1 Regulatory Requirements

Air Quality is governed by the regulatory approved AQMP and EPL, based on maintaining air quality criteria established within the Development Consent. The AQMP provides a formal framework for ongoing monitoring of air quality at the site to manage the potential impact of sand extraction on air quality.

5.2.2 Air Quality Monitoring Network

The air quality monitoring network comprises of the following key components:

- Two Beta Attenuation Monitors (BAM) real-time compliance monitors (RT1 and RT2) measuring PM_{10} installed between the quarry and dwellings to the south and west of the quarry. Each real-time monitor is fitted with wind direction sensors to enable contributions from the quarry to be better determined.
- A High-Volume Air Sampler (HVAS) with a PM_{10} inlet is located to the east of the quarry.
- A HVAS measuring TSP is located to the south of the quarry, adjacent to RT2.

The network has been established prior to the commencement of quarrying onsite to better establish site-specific background conditions.

Locations of the installed air quality monitoring units are provided in **Figure 10.**

WSS utilise local meteorological data to observe current and predicted wind speed and direction data and also generate site specific meteorological data records. The current method is to access Bureau of Meteorology forecasts on a daily basis to allow preparedness for elevated wind and potential air quality control requirements.

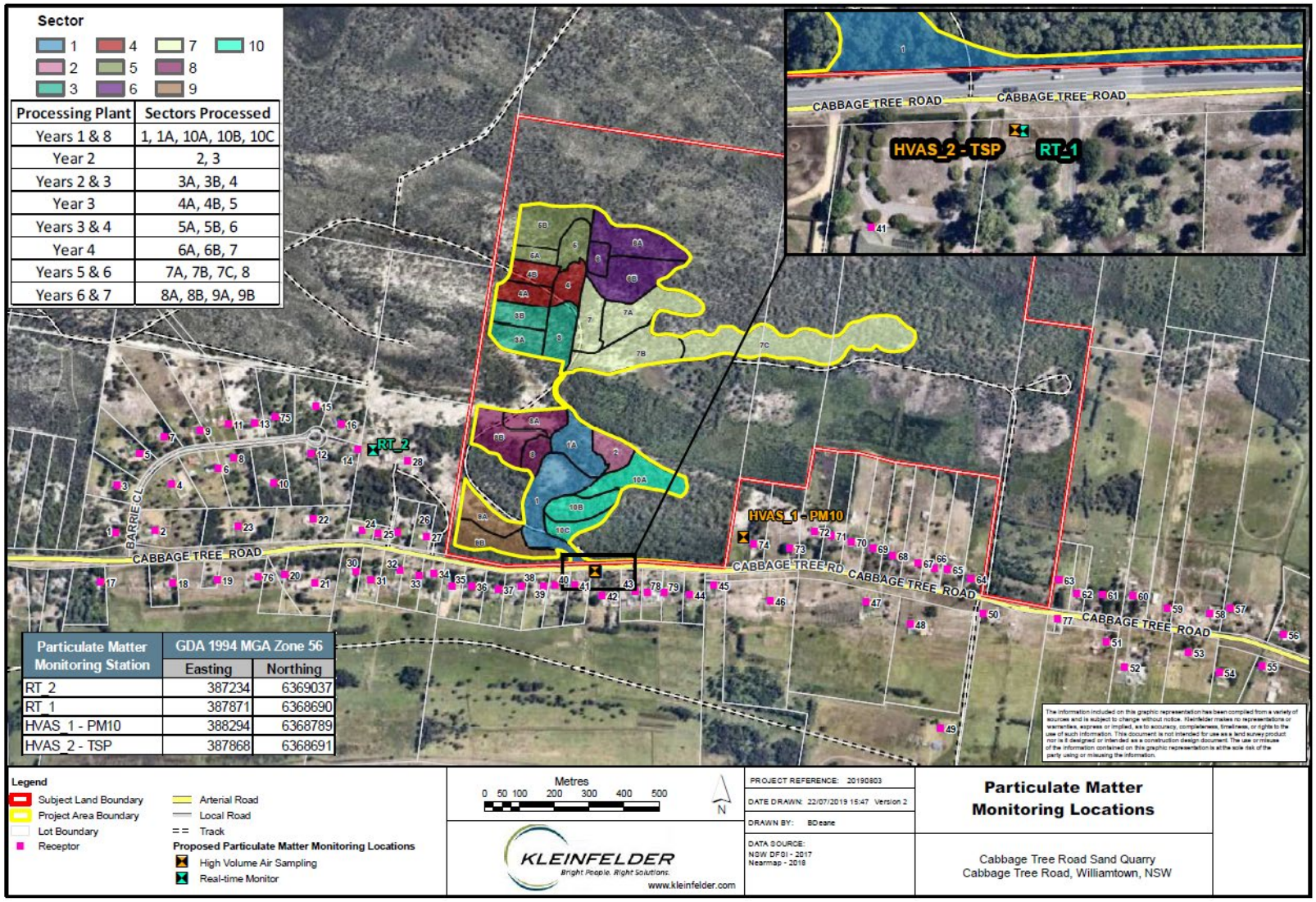

Figure 10: **Air Quality Monitoring Network Locations**

5.2.3 Air Quality Criteria

Newcastle Sand *"must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria"* in **Table 10** at any residence on privately-owned land..

Table 10: Air Quality Criteria

Pollutant	Averaging Period	Criteria*
Particulate matter < 10 µm (PM_{10})	Annual	[a c] 25 µg/m^3
Particulate matter < 10 µm (PM_{10})	24-hour	[b] 50 µg/m^3
Total suspended particulates (TSP)	Annual	[a c] 90 µg/m^3

Where:

a – Cumulative impact (i.e. increase in concentrations due to the project plus background concentrations due to all other sources)

b – Incremental impact (i.e. increase in concentrations alone, with zero allowable exceedances of the criteria over the life of the project)

c – Excludes extraordinary events such as bushfire, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by DPIE.

* Based on standard air quality assessment criteria in the *Approved Methods for Modelling and Assessment of Air Pollutants in NSW 2007*

5.2.4 Review of Air Quality Results

Data represented below summarises the air quality monitoring results at each of the monitoring sites for the reporting period.

5.2.4.1 High Volume Air Samplers (HVAS)

Figure 11 shows the monitoring results for PM_{10} and TSP in µg/m^3. Measured over 24 hours every 6 days for each of the monitoring locations during the reporting period.

At the end of 2021 the rolling annual average PM10 reached **12.1 µg/m^3**, down from **16.3 µg/m^3** in 2020, against the limit of 25 µg/m^3. Therefore there has been no exceedance of annual average PM10 levels.

For TSP, at the end of 2021, the rolling annual average reached **29.4 µg/m^3** down from the **42.0 µg/m^3** in 2020, against the limit of 90 µg/m^3. Therefore there has been no exceedance of criteria for annual average TSP levels during this period.

The reduced dust levels is likely a consequence of higher than average rainfall, improved quarry operations and stabilisation and activities onsite moving north.

The HVAS monitor for PM_{10} showed good correlation to the BAM monitor, with the BAM monitor annual average reaching **12.6 µg/m^3**.

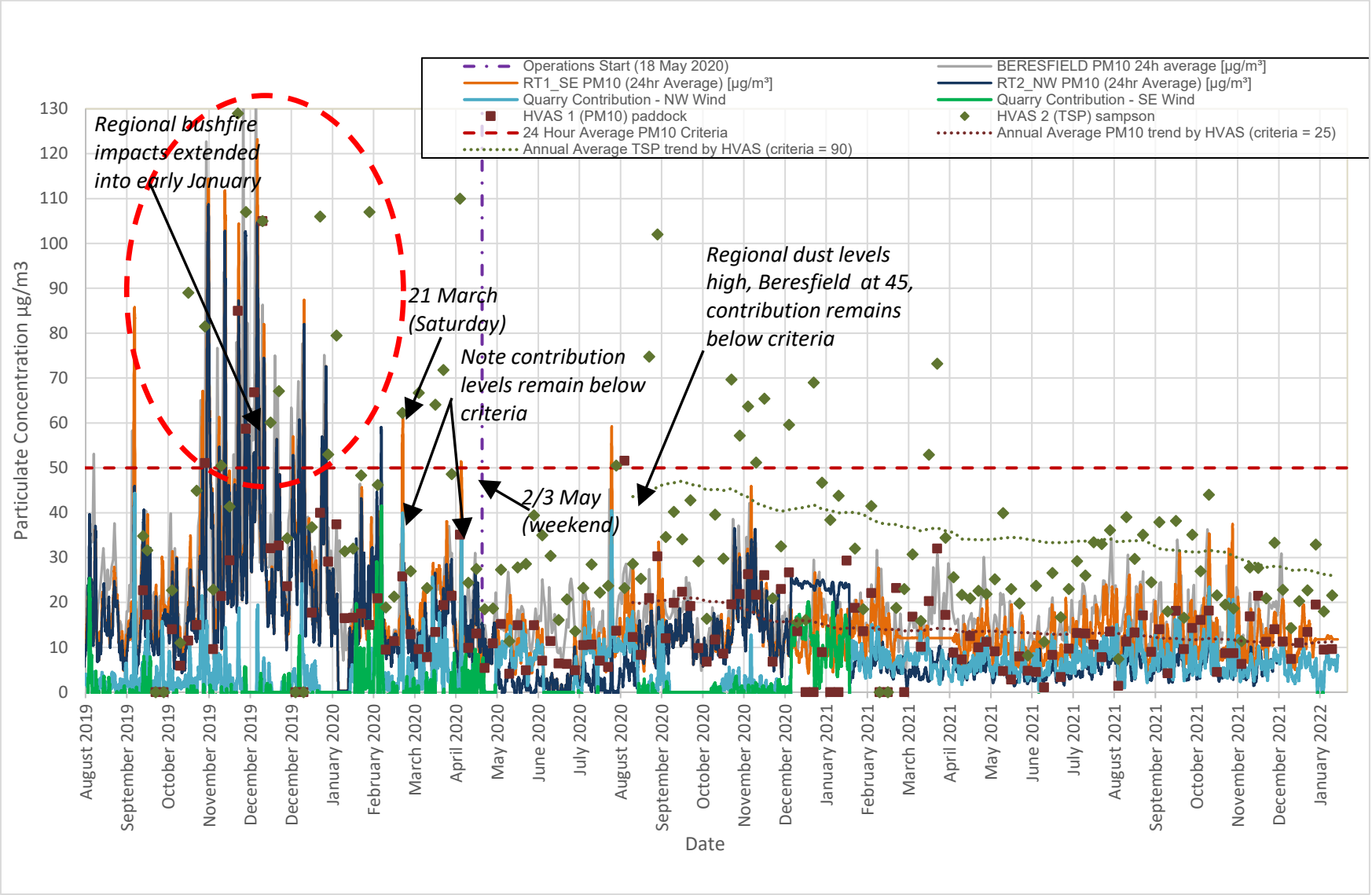

Figure 11: **Air quality sample results from HVAS and BAM stations from 14 September 2019 to 28 January 2022, shows DPIE Beresfield site for context on regional conditions**

5.2.4.2 BAM Monitoring

Two real-time monitors, which measure PM_{10} on a real-time continuous basis, have been installed as a management tool for quarry operations to guide proactive and reactive mitigation measures. The air quality management framework is based on a series of staged reactive measures taking into consideration the prevailing winds and measured PM10 levels, that enable the quarry operators to make proactive decisions on what changes may be required to site operations to maintain air quality levels below the relevant criteria.

RT1 is located to the west of the quarry, while RT2 is to the south. RT1 enables the determination of reasonable background conditions during a north-westerly wind such that the contribution of the quarry to the dust measured at RT2 can be determined, and vice-versa during a south-easterly wind.

The strongest and most persistent winds occur from the north west direction, and are considered to be the weather conditions onsite likely to have the greatest potential for air quality impacts at receptors south of the quarry. Not withstanding both potential quarry contributions (ie. north westerly wind or south easterly wind) are shown within **Figure 11**. It should noted these are potential contributions only and assume worst case, the dust source may be unrelated to the quarry.

The HVAS monitor for PM_{10} showed good correlation to the BAM monitor, with the BAM monitor annual average reaching **12.6 µg/m³**. Over the same period the average at the Beresfield DPIE monitoring station, located 13 km west (and upwind) of the site was 15.9 µg/m³.

Monitoring results for the reporting period are shown in **Figure 11** and below in **Table 11**. The BAM results are generally consistent with those measured by the HVAS units. The annual average results from the BAM units show RT2 (south of the quarry), has on average been higher showing the quarry has contributed to an increase in air quality levels. There has been no exceedance of the Annual Average or 24-hour average criteria.

Table 11: BAM monitoring results for 2021

BAM Monitoring Station	Rolling 2019 4 Month Average (µg/m³)	Rolling 2020 12 Month Average (µg/m³)	Rolling 2021 12 Month Average (µg/m³)	Annual average criteria (µg/m³)
RT1 (south of Cabbage Tree Road)	26.1 (4 months only), includes extraordinary events.	15.0	12.6	25 #
RT2 (north of Cabbage Tree Road)	23.8 (4 months only), includes extraordinary events.	12.6	7.4	
# – Excludes extraordinary events such as bushfire, prescribed burning, dust storms, sea fog, fire incidents or any other activity agreed by DPIE.				

5.2.5 Trigger Response Effectiveness

The air quality management plan provides for a series of control measures to actively reduce air quality emissions from the quarry through the use of the near-real-time BAM air quality monitors. The Stage 1 trigger is routinely applied, even in the absence of any specific triggers.

While the staged trigger response framework is considered to be in general useful in promoting improvements in air quality, the specific actions are no longer considered appropriate for the quarry. In response to this, an amendment to the AQMP has been sort, that will include adjustments to the same trigger response system that was incorporated into the EPL conditions and a resulting amendment to the EPL.

5.2.6 Monitoring Performance for the Period

Over the period there has several occurrences where various components of the monitoring system that have not performed as expected. On each occasion the matter was addressed in the following manner:

- Observation of problem.
- Local technician or quarry manager inspect the unit and where possible resolves issue.
- Where local technician or quarry manager is unable to resolve matter seek assistance of installer via phone (Thomson Environmental Services – TES - installed and supported operations).
- If matter cannot be resolved over the phone, arrange for TES technician to attend site and resolve issue.
- Where TES technician cannot resolve issue, a substitute monitor, where available, is installed while the monitor is fixed.

Table 12 provides notes with respect to the performance of the BAM units and notable local issues that may have affected air quality during the period. During early 2021, an intermittent electrical fault was detected on the RT1 monitor that resulted in power failures following some wet weather events. This has now been corrected, and the monitors through 2021 have typically been more stable than previous periods.

Table 12: Operational performance notes

Month	Comments
January 2021	- Machine error at RT2 displaying inaccurate results, machine to be serviced February 2021
February 2021	- Machine error at RT2 displaying inaccurate results, until calibration on 09.02.2021 - Both Machines serviced and calibrated by Thompson 9-10 February
November 2021	- Both machines calibrated and service by TES on 15/11/2021

5.2.7 Air Quality Complaints

Two complaints were received in relation to air quality during the period. These complaints related primarily to wheel generated dust associated with trucks leaving the quarry. Where the road is wet, sand readily sticks to the tyres of trucks leaving the quarry that is progressively released from the trucks with distance on sealed road and truck speed. Key measures undertaken to address this issue have included:

- Increasing table drain width to reduce batter sand reaching road.
- Stabilising of the batters, including hydroseeding and jute application.
- Increased frequency of sweeping along the road.
- Employment of commercial sweeping company.
- Applying asphaltic concrete to the entry road further into the site to improve sweeping effectiveness.
- Wheel wash installation is planned for 2022.
- As processing is relocated to the northern area, trucks will travel further over sealed roads that should reduce sand on tyres.

5.3 NOISE & VIBRATION MONITORING

5.3.1 Operational Noise Monitoring

With the quarry becoming operational in May 2020 noise monitoring has been undertaken on a quarterly basis as prescribed within the NMP and EPL. Monitoring occurred as follows:

- 29, 30 and 31 March 2021
- 24, 25 and 28 June 2021
- 28, 29 and 30 September 2021
- 15, 16 and 17 December 2021

Under each monitoring event completed, that occurs for the 30-minute (morning-shoulder) and 1.5 hour (day) compliance measurement periods, the noise from sand quarry was inaudible at the monitoring location. On each occasion, traffic was the dominant noise source.

5.3.2 Noise Data Trends Over Life of Project

The quarry becoming operational in May 2020. As such this AEMR presents the noise monitoring data recorded for the calendar year of 2021.

Operational quarrying activities have generally not been audible at neighbouring properties.

5.3.3 Noise Complaints

No complaints related to noise or vibration were reported during the reporting period.

5.4 WATER MONITORING

Throughout the reporting period water monitoring data continued to be collected, extending on the existing baseline data collected in 2019 and extending the baseline data collected during the EIS to enable a better assessment of potential changes in water quality and levels as a result of the quarrying operations. Kleinfelder are engaged to conduct water monitoring on behalf of Newcastle Sand.

A summary of water monitoring for 2021 prepared by Kleinfelder has been included in **Appendix 5,** documenting the following keys aspects:

- Sampling undertaken during 2021.
- Monitoring results recorded in 2021.
- Comparison of results with the adopted site specific water quality triggers.
- Consideration of prevailing trends.
- Conclusion that the monitoring demonstrates that the quarry has a neutral effect on the Hunter Water catchment.

Water monitoring regulated by the approved Soil and Water Management Plan (SWMP) required by the Development Consent. Version 3 of the SWMP was approved in July 2021 that included provision for the wash plant and adjusted the water quality trigger values based on the additional data that was collected.

Due to the strong evidence for natural increases in background concentrations, the site-specific trigger for copper is to be increased, the amount of which is to be determined by the winter 2022 trend observation. This new trigger level will be updated and implemented with the next update to the Water Management Plan.

5.4.1 Water Monitoring Network

Water monitoring was initiated in February 2019 and has continued through 2021. Sampling times were generally consistent, undertaken each time within the middle of the month.

Several wells were decommissioned or excluded from monitoring where extraction was approaching the location, at this stage, BH3 was decommissioned during 2019, with BH1, BH12 suspended from the network due to access limitations in 2021 and removal from the SWMP monitoring schedule, these bores will be decommissioned in 2022 as quarrying progresses.

The monitoring network continues to have up gradient and down gradient wells to monitor groundwater in the area, however additional bores may be considered to better evaluate the water levels as activities move north.

The water monitoring network is presented in **Figure 12**.

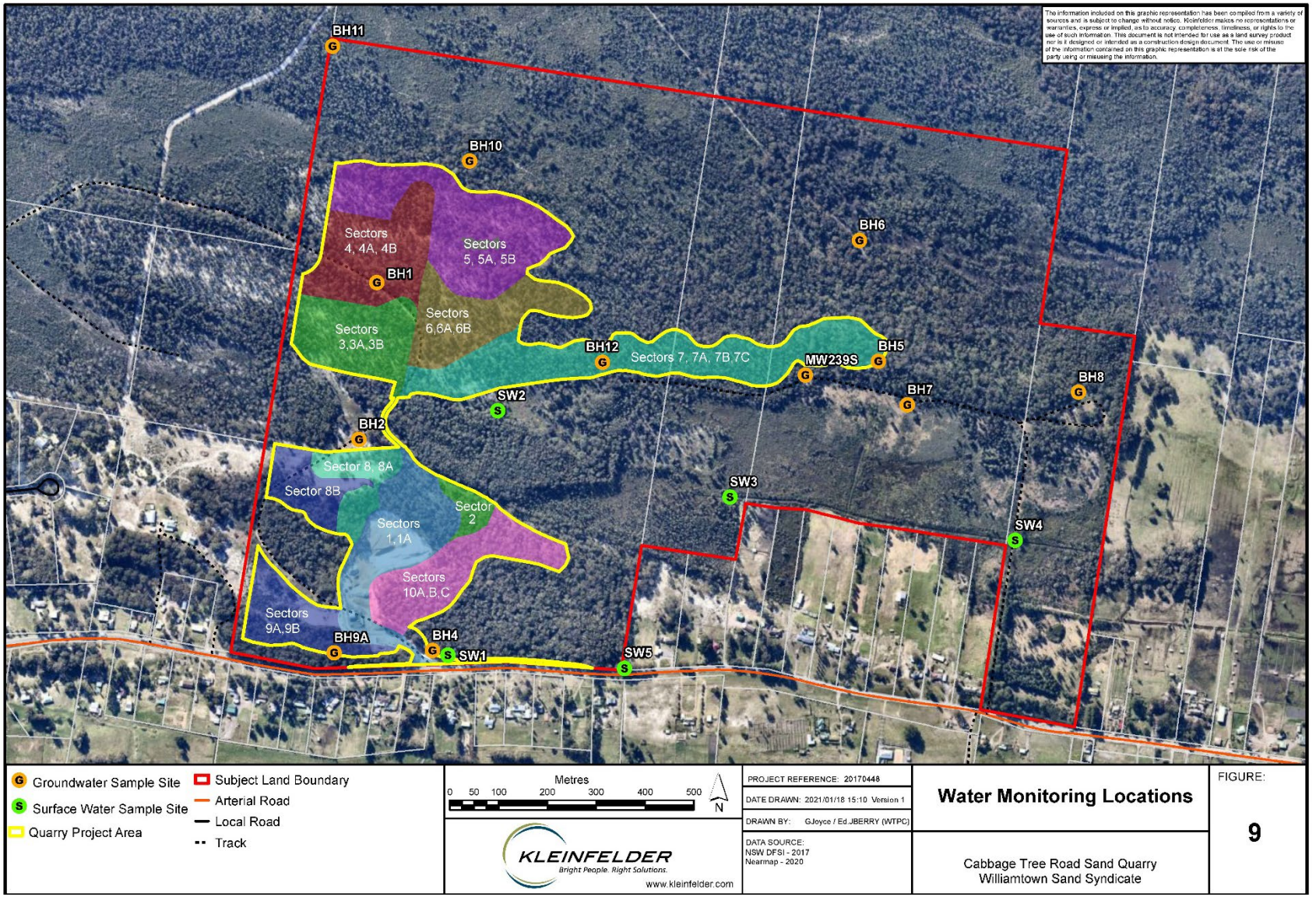

Figure 12: Water Monitoring Network - Monitoring Locations

5.4.2 Water Levels

Surface water levels increased with the increase in rainfall. SW02 was also dry through 2019 and 2020, with water levels returning in March 2021 following the significant rainfall event. All other surface water locations retained water for the duration of the period.

As shown in **Figure 13**, the groundwater levels generally declined through 2019 through to mid 2020 before increasing to peak levels in March 2021 following the significant rainfall event (see Section 5.1). From this peak in March 2021, water levels have progressively decreased. The greatest increases in water levels are generally seen within the more elevated portions of the site (BH11, BH1, BH2) where groundwater has capacity to increase within the dunes without surface expression as occurs in the lower portions of the site where low level inundation frequently occurs near the monitoring location (e.g. BH4).

Groundwater levels for key bores that include loggers are shown within **Appendix 6**. It should be noted there are small variations between manual dipping levels and logger levels, as such dipped levels are considered more accurate, while the loggers provide a more consistent stream of information to better evaluate water level response to rainfall.

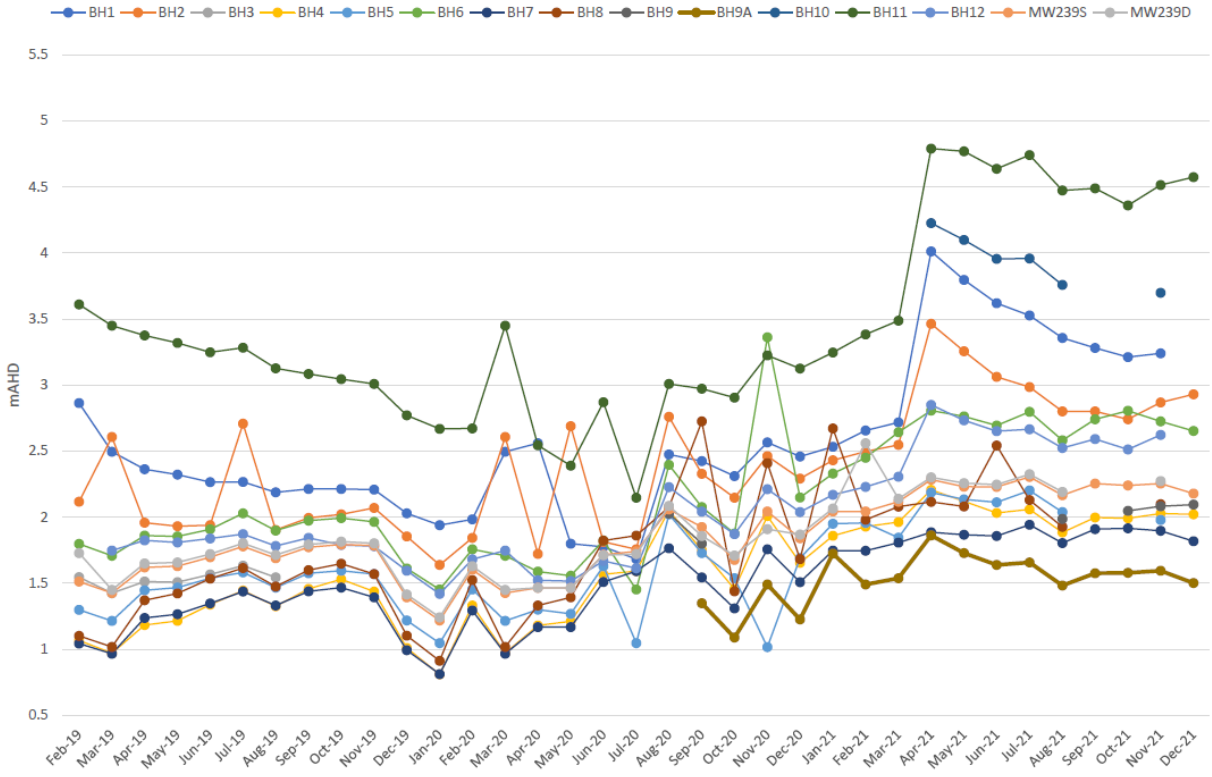

Figure 13: Monthly groundwater elevation from manual gauging from 2019 to end of period

Groundwater levels are evaluated on a monthly basis against the trigger action response plan levels defined within the Maximum Extraction Depth Report, each of these is presented within the Monthly Water Monitoring Reports in **Appendix 5**, with a summary of the groundwater levels against the trigger action response plan shown below in **Table 13**. At two bores during

the period the groundwater level increased to within 0.5m of the maximum predicted groundwater level, requiring more frequent review of water levels.

Table 13: Groundwater levels with evaluation against the TARP levels

Bore ID	Surface RL (m AHD)	Maximum Predicted Groundwater Level (m AHD) - quarry floor must remain 0.7m above this level	2021 groundwater elevation by manual gauging			Proximity to quarry floor level (m)
			Min (m AHD)	Max (m AHD)	Range (m)	
BH1	8.21	4.50	2.533	4.012	1.479	1.188
BH2	7.4	3.8	2.430	3.464	1.034	1.036
BH4	2.81	3.00	1.858	2.206	0.348	1.494
BH5	6.76	4.00	1.949	2.201	0.252	2.499
BH6	3.01	4.40	2.330	2.807	0.477	2.293
BH7	2.6	3.7	1.745	1.942	0.197	2.458
BH8	3.28	4.00	1.926	2.671	0.745	2.029
BH91	17.07	3.00	1.986	2.094	0.108	1.606
BH9A	17.07	3.00	1.481	1.861	0.380	1.839
BH10	6.08	4.90	3.699	4.226	0.527	1.374
BH11	6.02	5.50	3.246	4.791	1.545	1.409
BH12	8.06	4.00	2.168	2.850	0.682	1.850
MW239S	3.09	3.90	2.042	2.304	0.262	2.296
Key.	*TARP Level 1: Within 0.5m of maximum predicted groundwater level*			*TARP Level 0: More than 0.5m of maximum predicted groundwater level*		

5.4.3 Water Quality and Data Trends

A summary of the water quality trends is shown below in **Table 14**. Graphical representation of these trends are included in the attached **Appendix 5**. Overall it is evident that the significant rainfall in 2021 resulted in a range of changes across the site, there is dominant trend suggesting quarrying activities has had any influence on water quality

Table 14: Summary of data trends from 2021 monitoring results

Analyte	Comment	Overall Trend Comment
Hydrocarbons	Single detection at SW3, unlikely to be related to quarrying, location is closer to private land use south of the site.	**No trend**
PFAS	Concentrations of PFAS in groundwater have generally been below the LOR throughout the 2021 monitoring program with the exception of BH4. PFAS compound 6:2 FTS was identified at BH4 in November at concentrations	**No trend**

Analyte	Comment	Overall Trend Comment
	of 0.15 µg/L. This is the first detection of 6:2 FTS at BH4, however, PFDS has been reported at this location on one occasion in September 2019. No other wells (including adjacent or upstream) detected PFAS above the LOR during 2021. Since sampling began at the wash plant in August 2021, PFAS has been detected in both wash plant water (WPW) and wash plant fines (WPF) on multiple occasions, albeit below the Site-specific Trigger Values. Investigation into potential PFAS sources has been undertaken and did not identify any clear source, but confirmed PFAS was below the LOR within feed sand and product sand.	
pH	Laboratory analysed pH units in surface waters were reported to be generally consistent with historical variations and generally stable.	**Slight downward trend across site** Increasing at SW1 Decreasing at SW3
Electrical Conductivity	BH4 increasing trend to March then reduction MW239S decreasing trend BH11 increasing to peak in August then decreasing Slight increase at SW1	**Stable to slight increase**
Total Dissolved Solids	Decreasing for groundwater sites and SW3, SW4. SW1 increase to June then reduced.	**Variable**
Sodium	Spike at SW1, BH4 and BH11	**Stable overall**
Magnesium	Spike at BH4 in March 2021.	**Steady overall** Slight increase at BH11 Slight decrease at MW239S
Sulphate	Upward trends showing a general increase in concentrations were reported for BH6, BH8 and BH11. A downward trend showing a general decrease in concentration was reported for BH4. SW2 showed slight increase, while SW3 showed decrease.	**Slight Increase overall** Some variations
Chloride	Spike at BH8 and BH11 in June and August Increase at BH4 to March then fall and stable from April SW1 peaked in March and remained high SW2, SW3, SW4 stable	**Variable**
Total Phosphorous	Spike in February at BH9A	**Stable overall**
Total Nitrogen	Spikes observed in BH9A in February and BH10 in May	**Stable for groundwater** Slight upward trend in surface water
Total Hardeness (CaCO3)	Upward trend at BH11 after July SW1 and SW4 decreasing SW2 and SW3 stable	**Overall decreasing trend**
Barium	Single spike at BH4 in March, below trigger value.	**Stable overall**
Chromium	Increases at SW4 peaking in April, decrease in following months.	**Stable overall**
Copper	Seasonal peak between April and October at BH4, similar to 2020 but higher in magnitude. An investigation into copper concentrations at BH4 did not identify any relationship to the quarry and is considered to be likely related to elevated groundwater levels and historical anthropogenic sources.	**Increasing** Overall upward trend across site Seasonal trend at BH4 Downward trend at BH2 Isolated spike in July at SW1 Surface water otherwise stable
Nickel	Spike observed at BH11, similar to 2019 pattern.	**Stable overall**

Analyte	Comment	Overall Trend Comment
Iron	Concentrations in BH8 increased through 2021. Spikes at SW3 and SW4 in April 2021, It is worth noting SW3 and SW4 are within a low lying man made irrigation channel, where iron oxides within the natural sediments would be expected to mobilise in response to changing water levels.	**Stable overall** Some variations
Manganese	Spike in January 2021 at SW4.	**Stable overall**
Zinc	BH1 showed some increases from February to June 2021, peaking in April (with the groundwater level). It is worth noting that BH1 was repaired at the start of the monitoring program that may have resulted in metal contamination of the well, zinc is notably a key element of galvanised surfaces used in the well monument.	**Stable overall**

5.4.4 Trigger Value Evaluation

Based on the continued monitoring completed onsite and the change in rainfall an evaluation of the suitability of adopted water quality triggers is summarised below for those analytes that showed some variation through 2021.

While several triggers were exceeded on a month to month basis, only copper exhibited changes in concentrations, particularly at BH4 that may warrant an amendment of the copper concentrations. There are no known sources from the quarrying activities that are considered likely to result in these changes in copper.

Table 15: Trigger value evaluation based on additional data collection

Analyte	Comment	Change Required?
Electrical Conductivity	The trigger range remains suitable.	**No**
pH	The upper limit of 6.5 was exceeded at SW1, but dropped to within range, while the lower limit was exceeded at SW2, but returned to within range.	**No** Exceedances do occur but are rare.
PFAS	PFOS was detected at SW1 in February 2021 at concentrations equivalent to the LOR (0.01µg/L). This was the only detection of a PFAS compound at this location during the 12-month data gap monitoring period. SW4 reported PFOS concentrations between November 2020 to March 2021, then again in May 2021. However, concentrations remained below the site-specific trigger value (0.07µg/L). Additionally, PFAS compounds PFPeA (0.09µg/L), PFHxA (0.08µg/L), PFHpA (0.03µg/L) and PFOA (0.02µg/L) were detected at SW4 in December 2020. Trigger values have not been established for these	**No** Considering that PFAS concentrations have remained well below the site-specific trigger values at all onsite locations, it can be concluded that the trigger values remain suitable for future monitoring.

Analyte	Comment	Change Required?
	analytes, except for PFOA which was established to be 0.56µg/L.	
Copper	Elevated copper concentrations are most notable at BH4, with exceedances occurring between May 2021 and September 2021. The peak occurred in August 2021 (0.198mg/L) when concentrations more than doubled the site-specific trigger value for BH4 (0.083mg/L). BH9A also experienced elevated concentrations of copper during the May 2021 monitoring event with concentrations reaching 0.027mg/L, exceeding the former site-specific trigger value for this location (0.013mg/L). The site-specific trigger values were adjusted in July 2021 following the development of the SWMP, increasing the copper trigger value at all locations to 0.083mg/L. Changes in copper appear to be related to seasonal trends associated with rainfall and increases in groundwater elevation that typically occur over winter.	**Yes – increase recommended, with level to be determined following winter 2022 trend observation.** Overall, it has been shown that the natural background concentrations have been increasing since 2019, therefore, it is recommended that the site-specific trigger value be raised accordingly (potentially with a higher value set for BH4).
Arsenic	Arsenic concentrations have generally remained below the LOR at most locations during the baseline data gap monitoring period. However, an exceedance of arsenic concentrations was reported at BH6 in August 2021, at a concentration of 0.005mg/L.	**No** Given that arsenic levels had returned to average conditions by the following month, the current site-specific trigger value of 0.003mg/L remains suitable for all onsite locations.
Barium	BH6 experienced elevated concentrations of barium between November 2020 and May 2021, with the peak occurring in March 2021 where concentrations were reported at 0.068mg/L. The site-specific trigger value was altered in July 2021as a result of elevated background concentrations, increasing from 0.035mg/L to 0.07mg/L.	**No** Barium concentrations have not risen above this value at any location, therefore, the revised site-specific trigger value is deemed suitable.
Lead	Lead concentrations have remained either below or equivalent to the LOR (0.001mg/L) at all monitoring locations, except for BH7 which experienced a slight increase in concentration (0.002mg/L) in October 2021 to levels above the site-specific trigger value (0.001mg/L).	**No** Overall, the site-specific trigger value for lead remains suitable for the site, given that it accurately represents background concentrations.
Nickel	An exceedance of the nickel site-specific trigger value (0.02mg/L) was reported at BH11 during April 2021, when concentrations increased to 0.068mg/L. Nickel concentrations then returned to average conditions by the following month.	**No** No other site listed reported elevated concentrations of nickel above the site-specific trigger value. Therefore, the current trigger value remains appropriate for the site.
Chromium	Chromium concentrations have remained either below or slightly above the LOR (0.001mg/L) at all monitoring locations, except for BH7 which experienced a slight increase in concentration (0.003mg/L) in August 2021 which continued for the remainder of the 2021 monitoring period. Despite this increase, concentrations remained below the site-specific trigger value (0.004mg/L).	**No** Overall, the site-specific trigger value for chromium remains suitable for the site, given that it accurately represents background concentrations.
Iron	Iron concentrations reported at BH4, BH6, BH7 and MW239S generally show a stable to slightly decreasing trend and remained well below the site-specific trigger value (4.1 mg/L) throughout the 12-month extended monitoring program. The highest recorded concentration of 2.28 mg/L occurred at BH7 in March 2021, before steadily decreasing over the subsequent months.	**No** Given that current iron concentrations reflect the background conditions observed in 2019, the current site-specific trigger value remains suitable for all onsite locations.

Analyte	Comment	Change Required?
Manganese	Manganese concentrations have followed a steady trend over the course of the 12-month extended monitoring program at all monitoring locations, remaining well below the site-specific trigger value of 0.136 mg/L.	**No** The current trigger value remains appropriate for the site.
Zinc	Zinc concentrations have followed a steady trend over the course of the 12-month extended monitoring program at all required monitoring locations, remaining well below the site-specific trigger value of 0.085 mg/L. During most monitoring rounds, concentrations were reported to be below the LOR.	**No** The current site-specific trigger value for zinc remains suitable for the site, given that it accurately represents background concentrations.
Cobalt	Cobalt concentrations reported at BH4, BH6 and MW239S generally show a stable trend, while BH7 shows a gradually decreasing trend throughout the 12-month extended monitoring program. The highest recorded concentration of 0.003 mg/L occurred at BH7 in March and April 2021, before steadily decreasing over the subsequent months.	**No** Given that current cobalt concentrations reflect the background conditions observed in 2019, the current site-specific trigger value of 0.006 mg/L remains suitable for all onsite locations.

5.4.5 Conclusion

Kleinfelder concluded, the sampling program was successfully completed to meet the requirements of the EPL as well as the SWMP.

It is noted that the SWMP developed in July 2021 also details a reduced groundwater and surface water monitoring scope. Following a review of the baseline water quality data gap monitoring, as well as historical data from 2019 to 2021, it can be concluded that the reduced scope continues to be appropriate given the low concentrations of TPH, TRH, BTEX, PFAS and most metals reported during each monthly groundwater monitoring event.

As discussed in Section 7, the trigger values that were developed as part of the 2021 SWMP generally remain suitable for future monitoring. However, historical copper variations beginning in 2019 show a seasonal trend where concentrations begin to rise in May, peak during August/September and fall back to stable levels by October 2021. These increased concentrations may be attributed to the decrease in rainfall associated with the winter months. Overall trends also show a long-term temporal increase, where the peak concentrations are increasing with each seasonal event. These trends are most notable at BH4, where copper concentrations have repeatedly exceeded the currently adopted site-specific trigger value. Due to the strong evidence for natural increases in background concentrations, it is recommended that the site-specific trigger value for copper be raised accordingly (potentially with a higher value set for BH4).

The majority of the increasing trends across the site are considered likely to be derived from periods of above average rainfall, particularly for the period between January 2021 and March 2021, and the resulting infiltration through the highly permeable sands. With isolated spikes or elevated trends observed both upgradient and down gradient of the quarry activities, there is no evidence to suggest that quarrying activities has contributed to such increases, therefore, it can be considered that the quarry has neutral effects on water quality in the local area.

5.5 FAUNA MONITORING

5.5.1 Frog Monitoring

Targeted fauna monitoring for the Mahony's Toadlet *(Uperoleia mahonyi)* and Wallum Froglet *(Crinia tinnula)* was conducted by Kleinfelder ecologists during two discreet monitoring events that were conducted between Spring and Autumn after a moderate rainfall event had occurred consistent with the BRMP. The surveys are undertaken at sites were Mahony's Toadlet was recorded in optimal conditions in 2018. Surveys occurred on 8 November 2021 and 2 February 2022.

During November 2021, conditions were optimal with recent rainfall sufficient to pool within the survey locations. Despite this neither the Wallum Froglet nor the Mahony's Toadlet was found in two of the seven locations inspected. A total of five different frog species were recorded in the November survey.

During February 2022, there was less pooling water present at most of the survey locations. The Wallum Froglet was detected at one location. A total of seven different frog species were recorded in the November survey.

The surveys highlight the importance of not only receiving adequate rainfall, but also for pooling water to be present during surveys to detect these frog species. Pooling water in this sandy environment is related to proximity of the groundwater, extended dry periods result in reduced groundwater levels and quicker absorption of rainfall events.

Despite the species absence during the annual amphibian monitoring, Mahony's Toadlet has been recently detected within the site during unrelated surveys. Pit-fall trapping surveys on the 16 and 18 February 2022 detected several individuals of Mahony's Toadlet.

The survey report is included as **Appendix 7.**

5.5.2 Surveillance Cameras

Fauna surveillance cameras installed on the property have been operational for a cumulative total of over 370 days during 2021, these cameras are periodically moved around the site and positioned in various locations to assist in the monitoring of the following aspects:

- Feral animals.
- Perimeter fence and koala exclusion / inclusion.
- Frog fence exclusion.

During 2021, the cameras identified numerous feral and native animals. A copy of the summary report is enclosed in **Appendix 8**. Refer to Section 7.8 for feral animals, while the following native fauna were identified onsite by these cameras:

- Eastern Grey Kangaroo.

- Red necked Wallaby.
- Brushtail Possum.
- Long nosed Bandicoot.
- Ringtail Possum.
- Echidna.
- Brushtail Possum carrying baby on back.
- Lace Monitor.
- Yellow Robin.

5.5.3 Nest Box Monitoring

On April 20, 21 and 23 2021, an Ecologist from Wedgetail Project Consulting inspected nest boxes previously installed by Kleinfelder. A total of 93 nest boxes were inspected within the Onsite Biodiversity Offset Areas, checking for structural integrity and for signs of use. At the time of inspection, the trees were also tagged with ID numbers to assign one single identification number applicable to all installations of nest boxes, collectively.

Of the 94 nest boxes planned for inspected, 8 boxes were inaccessible due to flooding in the surrounding area, and two required repair or reinstallation and one was missing. Taking into account the nest boxes installed and remaining functional, there are 106 additional boxes installed ahead of requirements, the repair and reinstallation is not immediately required.

The remaining 83 nest boxes were found to be structurally sound, and associated data was collected including habitation. Of those nest boxes, 2 contained Common brushtail possums (*Trichosurus vulpecula* - see **Plate 1** & **Plate 2**), four contained pairs of Squirrel gliders (*Petaurus norfolcensis*) including one with offspring (see **Plate 3** & **Plate 4**) and one contained a pair of Sugar gliders (*Petaurus breviceps* – see **Plate 5**). Seven other nest boxes contained gliders nestled within dreys whose species could not be confirmed (see **Plate 6**), and 14 boxes contained nesting materials.

Plate 1: Brushtail possum (*Trichosurus vulpecula)* fleeing nest box

Plate 2: *Brushtail possum (Trichosurus vulpecula)* in nest box

Plate 3: Pair of Squirrel gliders (*Petaurus norfolcensis)* with offspring

Plate 4: Pair of Squirrel gliders (*Petaurus norfolcensis)* in drey

Plate 5: Pair of Sugar gliders (*Petaurus breviceps)* in drey

Plate 6: Uncomfirmed Glider species (*Petaurus sp.*) in drey

5.6 TRUCK MONITORING

The quarry weighbridge system provides for the logging of all sand sales for the quarry. The system is has been established and calibrated by an accredited contractor and limits the tickets that can be issued during any one hour to the levels prescribed by the Development Consent. On a monthly basis, a summary of the records is uploaded to the Newcastle Sand website (www.newcastlesand.com.au). A copy of these records is included within **Appendix 13**.

Figure 14 shows the daily tally of laden trucks leaving the quarry, as can be seen from the tally there has been an increase in truck movements over time, but demand is often project and weather related, with wet weather often resulting in reduced demand for concrete sand. The trend shown in **Figure 14** shows a gradual increasing trend in truck numbers since the commencement of the quarry.

Key statistics relating to the truck monitoring are summarised below:

- The busiest day occurred on Wednesday 14 April 2021 with 88 laden trucks leaving the quarry of a maximum possible of 116 laden trucks.
- Truck haulage occurred on a total of 294 days of a possible 302 days.
- On days where truck haulage occurred the quietest day was where one laden truck left the quarry.
- On 17 days during the period five or less laden trucks left the quarry.
- The biggest month occurred in October 2021 with 1168 laden trucks.
- Maximum number of trucks per hour was 10 laden trucks.

Complaints have been received during the period relating to trucks. Refer to Section 8.

Newcastle Sand is actively working with haulage contractors to improve driving behaviours through the induction of all drivers and provision of the Drivers Code of Conduct. Where drivers have arrived prior to opening time, Newcastle Sand implements disciplinary action in order to attempt to limit recurrence. However, it is noted that the ability and perhaps permissibility of Newcastle Sand to control truck driver behaviour outside the bounds of the quarry is limited.

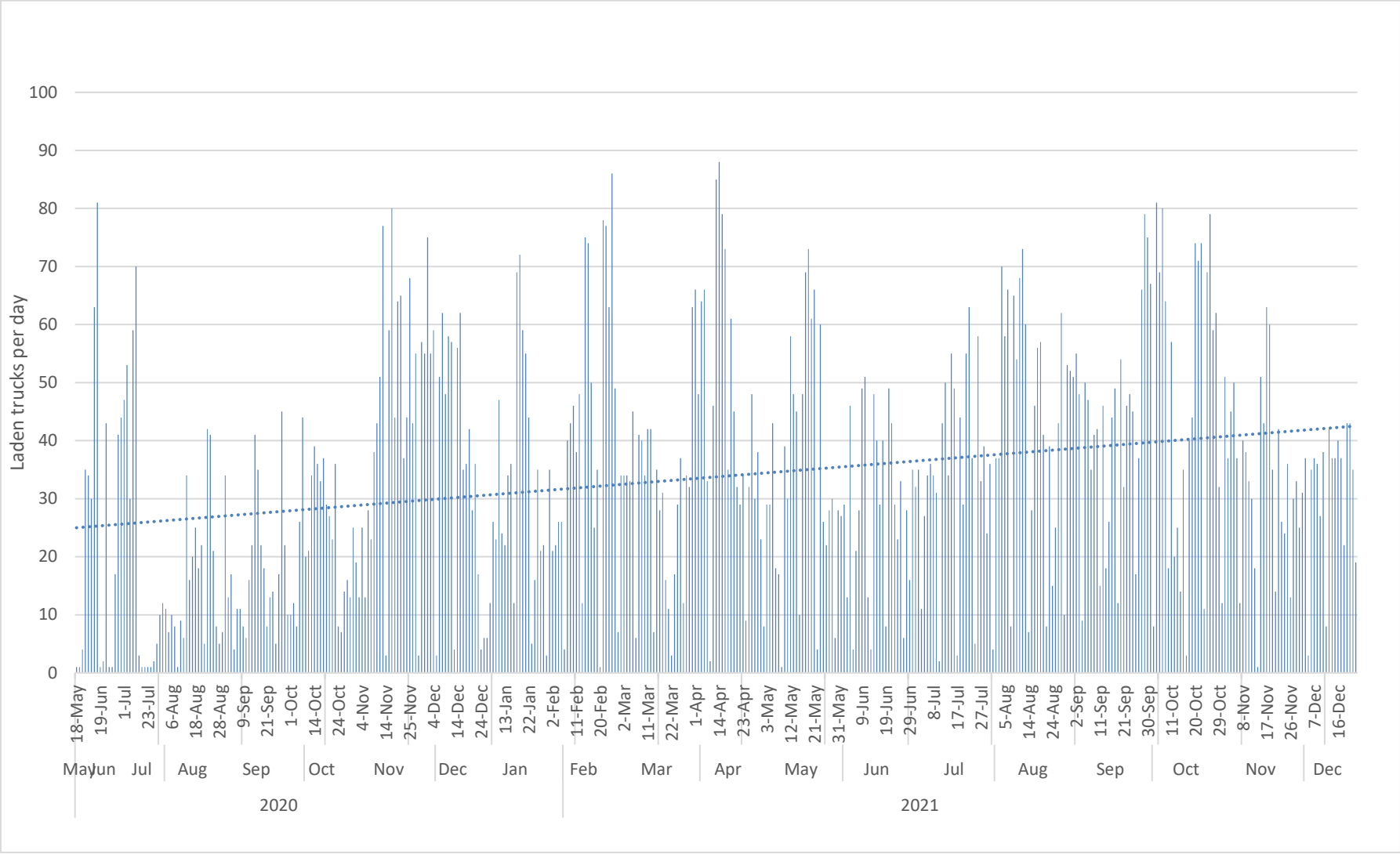

Figure 14: **Tally of daily laden trucks leaving the quarry with sand (approved maximum is 116 trucks per day on a weekday and 90 per day on a Saturday).**

6. SCHEDULE 2 CLAUSE 48 – REVIEW OF PFAS EXPOSURE PATHWAYS

WSS engaged suitably qualified and experienced independent expert, approved by the Secretary, to perform as review of PFAS exposure pathways as required by Schedule 2 Clause 48 of the Development Consent.

The report concluded that:

- Base-sourced PFAS is, and has historically been unlikely to be transported to the Site via wind, surface water or groundwater – the Site does not appear to have received PFAS from the Base and does not appear to be acting as a local tertiary PFAS source.
- A PFAS (predominantly PFOS with minor other PFAS) surface water source appears to be close to SW4 (within the eastern Site area). However, PFOS concentrations in the surface water remain below the adopted criteria.
- The source close to SW4 is attributed to backwash flooding withing the drainage network from Dawsons Creek, reporting to the Base. PFAS sources are not considered to be present within the Site, hence risks to receptors from quarrying operations are acceptable.
- The water table did not exceeded the maximum predicted water table elevation by 50mm at BH2 associated with a significant rainfall event. The quarry floor remained 650mm above this level, no increased exposure to groundwater was observed during 2021.
- The regular PFAS detections within the wash plant fines requires further investigation to determine source and suitability of material if used offsite (including the PFAS TCLP requirements).

The most recent testing from 2022 have not identified PFAS in the Wash Plant Water, not withstanding, this, the material is being used within the rehabilitation areas at this stage with no current plans for commercialisation of the material. In the event the material is planned for offsite transfer further testing and evaluation of the material suitability will be required.

The report includes a recommendation for the development of a numerical groundwater flow model, this is considered to be reasonably addressed by the existing EIS modelling and can be considered in revisions to modelling required under the consent in 2022.

Please refer to **Appendix 12** for the full report.

7. ENVIRONMENTAL PERFORMANCE

7.1 CLEARING AND REHABILITATION AREAS

Table 16 provides summary clearing and rehabilitation since commencement of the quarry. The areas for 2021 show long term rehabilitation areas and temporary stabilisation has increased, and shows the areas within the long term operational areas have increased on account of the commencement of establishing the northern processing area. During the following period, it would be expected that the area under long term rehabilitation will increase substantially as extraction from Sector 1A/2 is completed.

Table 16: Clearing and rehabilitation area

Year	Total Area Disturbed	Area Cleared	Long Term Operational Area[1]	Active Extraction Area[2]	Temporary Stabilisation[3]	Long Term Rehabilitation[4]
2019 August 2019 to 31 December 2019 Construction	3.98 ha **3.98 ha Total**	3.98 ha 3.14 in Area 1 and 0.36 ha on intersection, 0.48 in Area 9 for stockpiling topsoil	1.5 ha	~2.95 ha	~0.35 ha	~0.20 ha
2020 Construction and operations	3.93 ha **7.91 ha Total**	3.93 ha 2.57 ha of Sector 1A, 2 in June 1.36 ha of Sector 3, 3A, 3B in December	2.3 ha	6.5 ha	0.85 ha	~0.20 ha
2021	3.49 ha **11.40 ha Total**	3.49 ha Part of Sectors 3, 3B, 7B and 7C	3.93 ha	5.77 ha	1.22 ha	0.48 ha

- 1. Includes office, roads and associated drainage, processing and associated feed stockpiles and hard stand areas.
- 2. Includes areas partially extracted, areas, interim topsoil stockpiles and short term batters.
- 3. Includes batters or long term topsoil or timber stockpiles that will be disturbed in the longer term.
- 4. Includes those areas that are rehabilitated without expectation of future disturbance.

7.2 CLEARING ACTIVITIES

The clearing process typically involves the following process:

- Pegging of resource boundary.
- Pre-clearance ecological survey of area, including marking of habitat trees and recording of hollows using flagging tape and or spray paint (refer to Error! Reference source not found.).
- Mulching along inside of resource boundary.
- Erection of frog exclusion fencing.
- Where necessary mulching/ mowing of undergrowth to improve access for inspections and visibility of surface.
- Inspection for items of Aboriginal Heritage by Registered Aboriginal Parties (RAPs).
- Survey of the area by radiation specialist to account for unexpected buried radioactive monazite mineral sands left by RZM.
- Nocturnal survey of clearing area the night before clearing.
- Diurnal surveys each morning prior to clearing.
- Clearing of non-habitat trees, leaving habitat trees to stand for two nights prior to clearing.

Clearing activities and associated ecological inspections were undertaken consistent with the BRMP, copies of these letters are included within **Appendix 10**.The following clearing activities were undertaken during the period:

- Pre-clearance surveys and clearing works of Area 7B and 7C:
    - On 25 March 2021, pre-clearance surveys were completed by a Wedgetail ecologist of portions of Sectors 7B and 7C.
        - 17 habitat trees were marked, recording 35 hollows requiring replacement at a ratio of 1:1. This included 16 small hollows, 15 medium hollows and four large hollows.
    - A night survey was undertaken on 29 March 2021 by two Wedgetail ecologists within Sectors 7B and 7C.
        - No target threatened species were identified during this survey, however many grey-headed flying-fox (*Pteropus poliocephalus*) were seen and heard foraging within the site.
    - Clearing of Sectors 7B and 7C occurred on 30 March and 1 April 2021. Prior to commencing clearing on each day, a diurnal survey was undertaken. The following was identified during clearing:
        - Non-hollow bearing vegetation was cleared on 30 March 2021.
        - Habitat trees were left to standing a minimum of two nights.

        - Hollows were inspected following clearing. Five hollows were deemed by the ecologist to be suitable habitat for fauna to occupy.
        - One Eastern Bearded Dragon (*Pogonia barbata*) was captured and relocated.
        - Seed from *Corymbia gummifera* (Bloodwood) and *Eucalyptus camfieldii* (Stringybark) was recommended to be collected from multiple felled individuals.
        - No fauna injuries were reported.
- Pre-clearance surveys and clearing works of Area 3A and 3B:
    - On 7 October 2021, pre-clearance surveys of Sectors 3A and 3B were completed.
        - One Lace Monitor (*Varanus varius*) was encountered which immediately retreated up a tree. The tree was flagged, and the monitor was left to self-relocate.
        - One hollow bearing tree with a small hollow was recorded.
    - A night survey was undertaken on 7 October 2021 by two Wedgetail ecologists within Sectors 7B and 7C.
        - No target threatened species were identified during this survey.
    - Clearing of Sectors 3A and 3B occurred on 8 October 2021. Prior to commencing clearing, a diurnal survey was undertaken. The following was identified during clearing:
        - Hollows were inspected following clearing. No hollows were deemed by the ecologist to be suitable habitat for fauna to occupy.
        - Seed from *Corymbia gummifera* (Bloodwood) and *Eucalyptus camfieldii* (Stringybark) were collected from multiple felled individuals.
        - No fauna injuries were reported.

7.2.1 Habitat Trees and Nest Boxes

During the pre-clearance period, surveys were undertaken to inspect the clearing areas for hollow bearing trees, as noted above. Once hollow type and number are recorded, the following works were completed:

- In March 2021, ecologists conducted pre-installation inspections identifying 100 suitable locations for hollow installation, recording the tree species, diameter, install height, aspect and box type (40 small, 34 medium, 26 large).
- On March 29 and 30 2021, an Ecologist from Wedgetail Project Consulting installed nest boxes with the assistance of arborists from Hopper the Tree Lopper. A total of 100 nest boxes were installed within the Onsite Biodiversity Offset Area, with 91 boxes

installed north of resource sectors 7A, 7B and 7C, and the remaining nine (9) boxes installed north of Sectors 2 and 10A. For each nest box, its location, the tree species, diameter at breast height (DBH), nest box number, aspect, install height and nest box type was recorded.

Table 17 below provides a summary of the hollow inspection, removal and nest box replacement progress. As shown, based on current clearing, there are currently 106 extra hollows installed in adjoining vegetation.

Table 17: Hollow and nest box replacement summary

Year	Hollows recorded in EIS for area disturbed in that year	Hollows recorded in Preclearance Surveys#			Hollows Removed	Nest Boxes Installed		
		Small	Medium	Large		Small[1]	Medium[2]	Large[3]
August 2019 to 31 December 2019 Construction	7	7	-	-	6	-	-	-
2020 – Sectors 1A and 2	5	15	46	3	64	7	16	2
						28	30	1
2020 – access road	-	6	-	-	Nil removed	-	-	-
2020 – Sectors 3,3A, 4, 4A	-	14	-	-	Nil removed	-	-	-
March 2021 – Sectors 7B/ 7C	-	16	15	4	**5**	40	34	26
Total	**99**	**58**	**61**	**7**	**75**	**75**	**80**	29
		86				184		
Net balance of hollows removed to hollows installed					+109 (less 3 requiring maintenance/install)			

- #. Past fires have resulted in burnt and broken limbs likely to result in false identification of hollows when inspecting from the ground level.
- 1. Small boxes suited to pygmy possums / micro bats.
- 2. Medium boxes suited to gliders.
- 3. Large boxes suited to possums.

7.3 RADIATION SURVEY

A radiation survey was undertaken to determine whether the presence of any remaining deposits of heavy mineral sands and their associated radioactivity. This material may have been left as a result of either not being mined or due to past mining activities activities such as stockpiling, vehicle washdowns or track consolidation.

A radiation survey was completed by Bartolo Safety Management Service on 24 March 2021. The survey was undertaken in Sectors 7B and 7C. No significant radioactive anomalies were identified during the surveys and as such there is no need for any remedial action or intervention. A copy of the report is enclosed in **Appendix 9**.

During the 2020 period (and included in the 2020 AER), a radiation survey of the Sectors 3, 3A, 3B, 4, 4A and 4B were completed, no radioactive anomalies were identified.

7.4 HERITAGE MANAGEMENT

7.4.1 Aboriginal Heritage

AHIMS site #38-4-1381 is located within Sector 8 and has not been disturbed.

The approved Aboriginal Cultural Heritage Management Plan (ACHMP) provides for the management of cultural material on the site in consultation with the Registered Aboriginal Stakeholders (RAPs). To account for the limited visibility during initial surveys and reduce the risk of destroying insitu camp sites, the ACHMP provides the for the following procedure:

- Inspection of the extraction area prior to extraction, prior to topsoil stripping.
- Regular inspection of screen reject material. Screened material, was initially stockpiled for inspection, but is now laid out on a batter slope to provide improved visibility of the material, with an added benefit of provided batter stabilisation.
- RAPs collect store and then rebury artefacts onsite in nominated areas at end of the quarry life.

Consultation with the RAPs was undertaken during the period and has included the following inspections prior to clearing and topsoil stripping since the commencement of construction:

- Sectors 3A, 3B October 2021.
- Sector 7 cleared area in March 2021.
- Screened material in conjunction with other inspections.

Inspection of Sector 3A identified one isolated find (tuff flake) located in an area that appeared to not have been previously dredged (based on historical imagery). The artefact was retained by the RAPs for storage and later repatriation onsite. It has been agreed by RAPs that in areas that were subject to past mining, that the inspection of the screened material is adequate to

recover material providing opportunity to complete this is provided every 2-3 months, subject to approval of an amended ACHMP.

7.4.2 Historic Heritage

No historic heritage items were identified during this period.

7.5 REHABILITATION

Table 16 provides a running tally of the areas cleared and under rehabilitation.

7.5.1 Rehabilitation Bond

Under Schedule 3, Condition 38 of the consent a rehabilitation bond is to be calculated and verified by a suitably qualified quantity surveyor or expert to determine the bond necessary to cover the costs of the implementation of the Biodiversity and Rehabilitation Management Plan (BRMP) for the first three years of quarrying operations at the quarry (i.e. through to May 2023).

DPIE approved the bond on 29 January 2020, for a total of $259,278 (exclusive of GST), with payment of the bond on 5 February 2020.

7.5.2 Seed Collection

During clearing in Sector 3 any available seed head was transferred through to rehabilitation areas with Sector 7. Seed collection also occurred during early 2022 harvesting seed from Sector 3B and 4. During 2022, a broader seed collection campaign is planned focusing on a full range of native flora species available onsite.

7.5.3 Topsoil and Vegetation Management

During the period, vegetation from the areas cleared was stockpiled along the outside of the extraction area for later application on the rehabilitated quarry floor.

Topsoil was stripped at depths up to 300mm thick and stockpiled in the lowest feasible bunds with regard to available working areas toward the outside of the extraction area, typically inside the vegetation stockpile areas.

Some topsoil was stripped and applied to areas for rehabilitation.

7.5.4 Temporary Stabilization Methods

The following measures have been evaluated and adopted:

- The use of polymer sprays to seal the sand surface was evaluated in 2019, these products, while potentially effective, come at very high costs and are damaged easily within a sandy environment. There may be opportunity for use of this product in small area, however wide spread use is unlikely to be economically feasible.
- Steep batters on the edge of Sector 10 adjacent to the office area were pinned with jute matting and hydromulch with a native seed mix applied to improve stability. This provided good stability improvements, but where seed growth has been limited, the jute matting is subject to weathering and is likely to require replacement within two years.
- Batters along the edge of Sector 8 and the access road are being progressively covered in screened material.
- Medium term batters that can be constructed to suitable slopes have been selected for placement of topsoil and timber consistent with long term rehabilitation areas, these areas are irrigated initially with a sprinkler system, many of the areas initially stabilised require no further dust suppression due to vegetation growth.
- The topsoil / subsoil stockpile from the road and workshop area, has some vegetation regrowth on batters and has had additional topsoil placement to improve stability. This area is now largely stable and will not require further access until rehabilitation of Sector 8 / 9.

7.5.5 Long Term Rehabilitation

During the period, there has been limited opportunity to expose any long-term rehabilitation areas on the quarry floor as the variability of material and processing limitations in the first six months of the year (i.e. pre-wash plant) have restricted the ability to clear all resource from the quarry floor within Sector 1A/2. A portion of Sector 7B has been extracted to the quarry floor and rehabilitation in this area has commenced.

Areas under long term rehabilitation were subject to the following process:

- Application of topsoil to typical depth of 100-300mm subject to availability.
- Spreading of timber branches and brush matting.

Key aspects to be addressed in the following period within the rehabilitation areas are as follows:

- The approved management limited the timber density at up to 20% cover for any timber larger than 100mm in diameter. This density appears high, and will be progressively adapted during rehabilitation to find the most suited density, taking into account:
    - Seedling germination and potential vegetation cover.
    - Use of timber in excess of density requirements.
- How to best apply timber over rehabilitation areas with minimal impacts on the underlying topsoil.

7.6 FAUNA EXCLUSION FENCING

Frog exclusion fencing was installed along the lower edges of the disturbance area prior to and following clearing activities. The exclusion fencing is specified for the purpose of minimising the movement of frogs from wetter areas outside the disturbance area into the disturbance footprint. This movement would be expected to occur in mid- late Autumn, with frogs moving in the opposite direction (i.e. from areas potentially within the disturbance area to wetter areas outside it) in Spring.

Koala exclusion fencing was erected in April 2019. The fencing design was amended in consultation with DPIE and koala specialists to be barrier fencing that would slow the movement of koalas, but not preclude koala movement, aiming to minimising koala travel along and around fencing. The fencing has crossing fixtures at approximately 200 m intervals.

Fauna cameras have been placed along the koala exclusion fencing, no koalas have been identified in those cameras adjacent to the fencing.

Frog monitoring was undertaken during Spring 2021 and Summer 2022, this included inspection of the frog exclusion fencing.

7.7 FAUNA INCIDENTS

No fauna incidents occurred during the reporting period. As a result, no changes to current controls in place regarding fauna interactions have been implemented or are proposed as the results suggest they are adequate. They will continue to be monitored and revised if necessary.

7.8 WEEDS AND PESTS

7.8.1 Pest Survey and Management

During the reporting period fauna footprints have been observed within the sand on several occasions. It is presumed that these are either wild dogs or foxes, however, they may also be domestic animals being walked in the area or roaming from neighbouring properties.

Wild dogs were observed in late 2021 on surveillance cameras.

Fauna surveillance cameras installed on the property have been operational for a cumulative total of over 370 days during 2021, these cameras have identified the following non-native species across the site:

- Fox (*Vulpes vulpes*).
- Dog (*Canis familiaris*).
- Horse and rider.
- Rabbit *(Oryctolagus cuniculus).*

- Rat (*Rattus sp.*) – potentially native.

Fauna trapping, targeting wild dogs has been investigated, looking at the availability and type and methods for trapping, large cage traps were identified as the most preferred method accounting for potential domestic animals onsite, however, they also appear to have low effectiveness. Prior to ordering of cage traps, HWC commenced a professionally led dog trapping program within the Tiligerry SCA and fringing areas of the Site. Since the commencement of this trapping the observation of wild dogs and associated footprints has reduced.

7.8.2 Weed Survey and Control

WSS undertake progressive weed management on site using manual removal techniques and herbicide application if considered necessary. The presence of weeds on rehabilitation areas are inspected by the WSS staff and removed as necessary based on the Weed Identification Booklet (produced by Kleinfelder).

Wedgetail Project Consulting undertook several walkover inspections during the period targeting common priority weeds and Weeds of National Significance (WoNS) (e.g. Lantana, Fireweed and Bitou Bush). Small patches were identified within future resource areas and are planned for control within the 2022 period.

Preclearing surveys of Sectors 3A, 3B, 7B and 7C did not identify the presence of any large areas of weeds considered noxious or identified on Port Stephen Council's list of Priority Weeds for the LGA within the clearing areas.

Given the topsoil from this area is not subject to direct transfer, areas containing lower risk weeds have not been segregated.

7.9 OFFSETS

Newcastle Sand must prior to commencing quarrying operations identify the source and within 12 months of quarrying operations, unless otherwise agreed by the Secretary, retire these credits (i.e. within 12 months from the first sale of sand from the site). Due to a range of factors (including economic strain, administrative delays, changing credit processes and practical limitations on credit availability), Newcastle Sand was unable to retire the required credits within 12 months, and made application to the Secretary of DPE for a 12 month extension in time to retire the credits, the secretary granted this extension on 26 May 2021. Newcastle Sand has made the following progress toward satisfying the offset obligations:

- Formed an agreement with the owner of the required offsite offset credits, that will be retired in May 2022.
- Completed the required reporting for the onsite offset area, at the time of completion of this AER, the onsite offset application is currently under review by the Biodiversity Conservation Trust (BCT).

- A further request for a 12 month extension for the onsite offset credit retirement has been made to the Secretary as it is unlikely the BCT will have completed the required administrative processes to enable the retirement of credits by 18 May 2022.

The onsite offset remains protected, and the current disturbance by the quarry is adequately offset by the offsite credits and protection of the onsite offset area.

7.10 WASTE MANAGEMENT AND MINIMISATION

Waste is separated at the quarry as follows:

- Drink cans are taken to a Return & Earn facility.
- Cardboard is loaded into a trailer and taken to a recycling facility. Cardboard is not a regular waste stream and is only present where new equipment is ordered.
- Shredded paper is taken offsite and used in mulch or disposed of to the recycling facility.

During the reporting period all general waste was removed from site in 1.5m² general waste skip bins by Veolia waste services for offsite disposal. Over the period, the bin was collected on average once per fortnight (24 times), the bin is rarely full as such it is estimated that less than 36m^3 of general waste was removed from site. General waste is varied and rarely of quantities sufficient to justify dedicated recycling bins. General waster will typically consist of crib-room and office waste, weeds, left over frog/ sediment fencing waste.

Machinery servicing is completed by third party contractors that are required under the service agreement to remove and appropriately recycle or dispose of any waste generated (e.g. oil, oil filters etc).

Cleared vegetation has been used for batter stabilisation or stockpiled for future use as required. As such no waste has occurred from clearing activities.

Septic waste was removed from the site by a licenced contractor as noted below.

7.11 WATER USE

Water is sourced from the HWC network for all activities onsite or from rainwater captured from building roofs and hardstand areas around the wash plant. Disposal of water from site is limited to disposal of the onsite septic waste that is completed by a licenced third party contractor.

Table 18 shows the water usage for the quarry since the commencement of construction in comparison to the estimates provided within the EIS.

Table 18: Water usage for quarry

Year and works	Forecast Usage	Water Used (HWC Network)	Usage vs Estimate	Water Transferred offsite	Wash Plant	Water Saving Investigations
August 2019 to 31 December 2019 Construction	9.7 ML	3,087 kL over 139 days – equating to 8.1ML/year	**Lower**	Septic waste 5.4 kL	-	• Static polymer for batters. • Mobile polymer for haulage roads.
2020 Construction and operations	9.7 ML	5.68 ML	**Lower**	Septic waste 32 kL*	-	• Irrigation system installed to improve batter dust suppression. • Additional sweeping of roads to minimise dust suppression. • Batter revegetation as opposed to stabilisation.
2021 Operations plus commissioning of new wash plant.	10.2 – 29.65 ML	22.4 ML	**As expected accounting for wash plant commissioning or slightly higher given wash plant operation less than 50% of year.**	Septic waste 28 kL*	13.9 ML	• Various controls associated with improving drainage of washed sand for recirculation and grading of hard stand to maximise surface water reuse. Redesign of stockpile drainage system for new wash plant site in Sector 3.
* Septic waste is disposed on a per tank basis as opposed to an exact volume, each disposal event is up to 4 kL, as such actual disposal is likely to be lower.						

7.12 ENERGY EFFICIENCY

7.12.1 Diesel and Electricity Use

Fuel and electricity usage details estimated within the EIS and those for this and previous periods are provided in **Table 19** below. Electricity usage is currently lower than anticipated within the EIS, but is offset by substantially higher diesel usage during the period.

The increased diesel usage is likely the result of the transitional phase of the operations where increased haulage of sand is required from the extraction area to the processing area, and usage of a diesel generator as opposed to high voltage mains power. As the processing area

is relocated to the Sector 3, the diesel usage is expected to decrease. It is also worth noting cumulative diesel usage over the first two years is consistent with the EIS estimates.

Table 19: Fuel and electricity usage for quarry

Year	EIS Estimate		Actual Usage		Comment
	Diesel (L)	Electricity (kW)	Diesel (L)	Electricity (kW)	
2019	Construction period not defined		72,293	117	Construction 4 months, electricity connected on 1 November 2019.
2020	100,000	189,000*	51,746	9,805.57	Construction 4.5 months – excludes third party fuel usage for intersection construction. Operations for 7.5 months
2021	100,000	189,000*	146,897-	11,972	First full 12 months of operations.
* Potential error may be 18,900 kWh.					

7.12.2 Review of Opportunities to Improve Energy Efficiency

Energy reduction initiatives that have been implemented at the quarry include:

- Extension of water reticulation system to reduce travel distance for water cart top up.

7.13 INDEPENDANT ENVIRONMENTAL AUDIT

The first Independent Environmental Audit was undertaken by Integrated Environmental Management Australia (IEMA) on the 22 July 2021, as per Schedule 5 Condition 12 of the SSD. The audit covered a period from 8 May 2018 to 22 July 2021.

The IEA generally identified a high level of compliance with no high risks identified during the IEA. A summary of non-compliances is provided below:

- There were 11 administrative non – compliances identified.

- There were 12 low risk non – compliances identified.
- There were 8 medium risk non – compliances identified.

The site visit concluded that the Quarry is generally compliant and well maintained, with highlights including:

- Site water management.
- Good regrowth on the disturbed soils.
- Minimal weeds observed on site.
- Frog fence has been maintained well.
- Noise management and compliance was good.

Proposed actions in response to audit recommendations is detailed in Table 20.

Table 20 Proposed Actions for Response to Audit Recommendations

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
Project Approval (SSD 6125)				
Sch 2 Cond 12	The Applicant must review and update the Maximum Extraction Depth Report, in consultation with Hunter Water and DPIE - Water: (a) every two years from the date of approval of the Maximum Extraction Depth Report; and (b) if any groundwater is encountered during quarrying operations or if directed by the Secretary.	Admin Non Compliance	NC REC 1: Site to update the Maximum Extraction Depth Report for currency as it is more than two years old.	Consultant has been endorsed by the Secretary and engaged to undertake required review. Completion expected by 30 November 2021. **MED Report review has been completed and submitted to DPE, is currently with HWC for comment.**
Sch 2 Cond 18	The Applicant must: (a) from the commencement of quarrying operations provide calendar year annual quarry production data to DRG using the standard form for that purpose; and (b) include a copy of this data in the Annual Review.	Admin Non Compliance	NC REC 2: Ensure that the production data reporting covers the RR requirement and Annual Review requirements.	**Newcastle Sand are currently seeking advice from the Resource Regulator on the current submission format, noting the 2019-20 appears to have changed.** **The data from the 2019-20 form is included in the Annual Review. The form also currently notes the inclusion of full financial information this is commercially sensitive information and cannot be made publicly available.** Data consistent with the Table, excluding commercially sensitive information is presented in Section 4.
Sch 3 Cond 7	Air Quality Impact Assessment Criteria The Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not cause exceedances of the criteria in Table 3 at any residence on privately-owned land.	Low Non Compliance	NC REC 3: Site to include information about how 'incremental impact' is determined in the AQMP. Reporting is required if the site has gone above the criteria (noting the notes below	**The consent requires plans to be reviewed within 3 months of an audit and submitted 6 weeks after the review (or 18 weeks after audit). This amendment will be made to the AQMP and submitted to DPIE by 28 February 2022.**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
			the criteria) in relation to cumulative impacts, extraordinary events and incremental impacts).	**The AQMP has been submitted to DPE, and has been reviewed, it is currently pending the supply of additional information.**
Sch 3 Cond 8	**Operating Conditions** The Applicant must: (a) implement best practice management to minimise the dust emissions of the development; (b) regularly assess meteorological and air quality monitoring data and relocate, modify and/or stop operations on site to ensure compliance with the air quality criteria in this consent; (c) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see note c under Table 3); (d) monitor and report on compliance with the relevant air quality conditions in this consent; and (e) minimise the area of surface disturbance and undertake progressive rehabilitation of the site, to the satisfaction of the Secretary.	Low Non Compliance	NC REC 4: Site to record changed operations based on real time air quality triggers (as per the Air Quality Management Plan).	Improved logging of responses to air quality management will be made to enable management improvements. AQMP will be amended to provide more flexible approach aimed at reducing air emissions irrespective of the activities onsite. **Changes to TARP proposed within the AQMP and a modification to the Development Consent is proposed to improve flexibility in dust management.**
Sch 3 Cond 9	**Air Quality Management Plan** The Applicant must prepare an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared in consultation with the EPA; (b) be submitted to the Secretary for approval prior to commencing ground disturbing activities on the site, unless otherwise agree by the Secretary; (c) describe the measures to be implemented to ensure: • compliance with the air quality criteria and operating conditions of this consent; • best practice management is being employed; and • the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; (d) describe the proposed air quality management system; (e) include an air quality monitoring program that: • is capable of evaluating the performance of the development; • includes at least two real-time particulate monitors; • includes risk-based monitoring to demonstrate compliance with the criteria in Table 3; • includes a Trigger Action Response Plan (TARP), including appropriate trigger levels, and a protocol to be implemented when trigger levels are exceeded;	Low Non Compliance	NC REC 5: Improve air quality action recording when there has been a trigger based on short term PM10 criteria.	As above for REC 4. **As above.**
			NC REC 6: Look at including a figure in Annual Reviews showing two different monitors and potential contributions depending on wind direction.	Noted. Will be included in Annual Review. **Completed, refer to Section 5.2 of this Annual Review.**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
	• includes a protocol for determining any exceedances of the relevant conditions of consent; • effectively supports the air quality management system; and • evaluates and reports on the adequacy of the air quality management system. The Applicant must not commence ground disturbing activities until the Air Quality Management Plan is approved by the Secretary. The Applicant must implement the Air Quality Management Plan as approved from time to time by the Secretary.			
Sch 3 Cond 37	**Biodiversity and Rehabilitation Management Plan** The Applicant must prepare a Biodiversity and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be prepared by a suitably qualified expert; (b) be prepared in consultation with BCD and Council; (c) be submitted to the Secretary for approval prior to commencing quarrying operations, unless the Secretary agrees otherwise; (d) provide details of the conceptual final landform and associated land uses for the site; (e) describe how the implementation of the on-site Biodiversity Offset Strategy will be integrated with the overall rehabilitation of the site; (f) include detailed performance and completion criteria for evaluating the performance of the progressive and final rehabilitation of the site, including triggers for any necessary remedial action; (g) describe the short, medium and long-term measures to be implemented to: • manage remnant vegetation and habitat on site, including within the on-site Biodiversity Offset Strategy area; and • ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent; (h) include a detailed description of the measures described in paragraph (g) to be implemented over the next 3 years (to be later updated for each 3-year period following initial approval of the plan) including the procedures to be implemented for: • maximising the salvage of environmental resources within the approved disturbance area, including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation;	Medium Non Compliance	NC REC 7: Ensure practices are in place to be compliant with clearing and ecological requirements for the site. Site to track and report against these key biodiversity requirements in the Annual Review and/or ecological monitoring reports.	Noted, following Annual Review reporting to be improved. **Completed, refer to Section 5.5, 7.1 and 7.2.**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
	• restoring and enhancing the quality of native vegetation and fauna habitat in the rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features; protecting vegetation and fauna habitat outside the approved disturbance area on-site; • minimising the impacts on native fauna, including undertaking pre-clearance surveys; • minimising the potential for Koalas to come into contact with development-related vehicles on the site and on public roads: • establishing and/or retaining vegetation screening to minimise the visual impacts of the site on surrounding receivers; • minimising impacts on threatened species, populations and their habitats, particularly Koalas; • providing relevant biosecurity control measures, including measures to prevent and/or control the establishment or spread of Myrtle Rust, Root Rot Fungus and Chytrid Fungus on the site; • collecting and propagating native seed; • controlling weeds and feral pests; • controlling erosion; and • managing bushfire risk; (i) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and (j) include details of who is responsible for monitoring, reviewing, and implementing the plan. The Applicant must not commence quarrying operations until the Biodiversity and Rehabilitation Management Plan is approved by the Secretary. The Applicant must implement the Biodiversity and Rehabilitation Management Plan as approved from time to time by the Secretary.			
Sch 5 Cond 4	**Revision of Strategies, Plans & Programs** Within 3 months of the submission of an: (a) incident report under condition 9 below; (b) Annual Review under condition 11 below; (c) audit report under condition 12 below; and (d) any modifications to this consent, the Applicant must review the strategies, plans and programs required under this consent, to the satisfaction of the Secretary. The applicant must notify the Department in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document must be submitted for the approval of the Secretary.	Admin Non Compliance	NC REC 8: Update the management plans to reflect current approvals.	The consent requires plans to be reviewed within 3 months of an audit and submitted 6 weeks after the review (or 18 weeks after audit). All plans will be submitted to DPIE by 28 February 2022. **Several plans submitted to DPE for review (MED Report and AQMP, had hoped to stage the submission of each plan to ensure subsequent plans are improved, however elapsed time for first plan has delayed**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
	Note: The purpose of this condition is to ensure that strategies, plans and programs are regularly updated to incorporate any measures recommended to improve environmental performance of the development.			**submission of other plans. Will be submitted in 2022.**
Sch 5 Cond 11	**Annual Review** By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a review to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must: (a) describe the development (including any progressive rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the: • relevant statutory requirements, limits or performance measures/criteria; • requirements of any plan or program required under this consent; • monitoring results of previous years; and • relevant predictions in the documents listed in condition 2(d) of Schedule 2; (c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the development; (e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development. The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 7 above) and any interested person upon request.	Admin Non Compliance	NC REC 9: To comply with the 2015 Annual Review Guidelines, the document should also include a section on "Actions required from previous Annual Review".	Noted 2021 Annual Review to include actions from previous Annual Review. **See Section 9.**
			NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.	Noted. **Included in this Review.**
Statement of Commitments				
SoC 8.3.2 (h)	Website to include: • Contact numbers. • Copies of community newsletters. • Details of annual open days. • Copies of minutes from Community Consultative Committee. • Copies of approvals.	Admin Non Compliance	NC REC 11: Include information on the Community Open Days on the website, or seek to have this commitment removed via consultation with DPIE.	This commitment is proposed to be removed in consultation with DPIE. **Modification to amend this is currently pending submission to DPE.**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
	• Copies of licences.			
SoC 8.3.8 (f)	WSS will consult with DPI Water with regards to the locations of and construction of proposed groundwater monitoring points, installation of loggers and selection of sampling points.	Admin Non Compliance	NC REC 12: Consultation is required with DPI Water with regards to the locations of and construction of proposed groundwater monitoring points. The evidence of this consultation was not sighted. It is recommended that this information be included in the Annual Review for 2021.	DPI Water were consulted in the development of the SWMP, as included within the Appendix. No comment was received. No further inclusion of consultation is considered necessary. **Nil required.**
SoC 8.3.12 (b)	Bitumen seal access road through to the boundary for the southern boundary of the northern resource area.	Low Non-Compliance	NC REC 13: Ensure the bitumen seal access road is constructed through to the boundary for the southern boundary of the northern resource area.	Noted and agreed. **Construction activities still being completed in Sector 3 wash plant establishment, to be completed.**
SoC 8.3.12 (g)	Quarry operations will be subject to a staged shutdown of equipment based on rolling 24 hour average PM10 concentrations, PM10 concentration spikes and adverse background air quality and meteorological conditions. Indicative completion criteria are set out below, it important to note that these triggers will be adapted and refined as the project progresses based on actual monitoring data. The proposed draft triggers include: Where the wind is directed toward surrounding residences, that is the weather station indicates winds are blowing from the quadrants west (270 degrees), through North (0 degrees) to East (90 degrees) the quarry should review dust controls (e.g. stockpile sprays and need for dust suppression on trafficked areas). In addition, based on the real-time air quality monitoring network, the following controls should be implemented: 1. No topsoil stripping or dozer push to occur where: a) Wind is directed toward surrounding residences; AND b) Rolling PM10 24-hour average exceeds 35 µg/m3 OR c) Rolling PM10 1-hour average exceeds 50 µg/m3. 2. If levels continue to increase after two hours, suspend sand extraction and processing (loading trucks only) where: a) Wind is directed toward surrounding residences; AND	Low Non-Compliance	NC REC 14: Until Newcastle Sands consults with DPIE and EPA, they need to implement and record the real time triggers for air quality.	Noted, amendment to the SOC and the AQMP. As the SOC notes, the triggers are intended to be adapted and refined. **As per Section 5.2, dust levels have been low during 2021 on account of the high rainfall, also see NC REC No.4, amendments to Management Plan and SOC proposed.**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
	b) Rolling PM10 24 hour average exceeds 42.5 µg/m3 OR c) Rolling PM10 1-hour average exceeds 50 µg/m3. 3. If levels continue to increase after two hours, suspend loading trucks (no machinery operating) where: a) Wind is directed toward surrounding residences; AND b) Rolling PM10 24 hour average exceeds 45 µg/m3. OR c) Rolling PM10 1-hour average exceeds 50 µg/m3.			
Environmental Protection Licence				
O3.8	The Licensee must cease all topsoil stripping and dozer operations when the following occurs: a) Wind is directed towards surrounding residences, and b) Rolling PM10 24 hr average exceeds 35 micrograms per cubic metre.	Low Non-Compliance	NC REC 14: Until Newcastle Sands consults with DPIE and EPA, they need to implement and record the real time triggers for air quality.	Noted. With amendment of the SOC and AQMP a variation to the EPL will be sought. **As noted above.**
M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	Admin Non Compliance	NC REC 15: Future noise and air quality monitoring reports to note the name of the person completing the monitoring in accordance with EPL requirements.	Noted. All sampling personnel instructed to ensure all monitoring records are noted. **Completed, noise and air monitoring now includes required details.**
M2.2	**Air Monitoring Requirements**	Low Non-Compliance	NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.	Noted. 2022 Annual Review will include EPL non-compliance. **Included in this AER.**
M8.1	To assess compliance with the noise limits section of this licence, attended noise monitoring must be undertaken in accordance with the noise conditions and: a) at a location representative of the most affected residences in the noise limit conditions and; b) occur quarterly in a reporting period; c) occur each day and shoulder period as defined in the NSW Industrial Noise Policy for a minimum of: • 1.5 hours during the day; and • 30 minutes during the shoulder period. d) occur for three consecutive operating days. Note: It is the intention of the EPA to review the noise monitoring results required under this condition after a period of (3) years to assess the suitability of the required monitoring. "	Low Non-Compliance	NC REC 10: Ensure that future EPL non-compliances are reported as non-compliances in the Annual Review.	Noted. 2022 Annual Review will include EPL non-compliance. **Included in this AER.**

Schedule and Condition Number	Condition	Compliance Status	Recommendations	Proposed Implementation by Newcastle Sand and Status at Date of AER
R4	**Noise Monitoring Report** A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include: a) an assessment of compliance with the noise limits as detailed in this licence; and b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits detailed in this licence.	Low Non-Compliance	NC REC 16: Site to complete a noise compliance assessment and submit within 30 days of the completion of quarterly monitoring as per EPL Condition R4 requirements.	Noted. Noise compliance reports will now be submitted quarterly on completion to hunter.region@epa.nsw.gov.au **Noise reports sent to EPA.**

The full report can be found on the Newcastle Sand website.

8. COMMUNITY

8.1 COMMUNITY CONSULTATIVE COMMITTEE

Community Consultative Committee (CCC) meetings are typically held four times per year. During 2021, two meetings were held, one in April 2021, another in December 2021.

The February 2021 meeting was delayed as nominations for new members was not received, while the July meeting was cancelled due to COVID related concerns.

A copy of the meeting minutes is provided in **Appendix 3**.

Key issues raised at the meetings have related to traffic concerns relating to the intersection construction design or actions of motorists / truck operators on the public road. Other issues related to early arrival of trucks. These matters are generally consistent with the complaints records.

8.2 NEWSLETTERS

Community information newsletters are typically produced on a regular basis to provide the community with updates or changes that may affect the local community. During 2021, there were little or no changes to the quarry operations that would be expected to affect the local community, as such no newsletters were distributed. Newcastle Sand maintains good communication with many of the neighbouring property owners with residents or owners of 19 neighbouring properties contacted. some of these residents are also on the CCC. The minutes of the CCC and presentation are available on the website.

8.3 COMPLAINTS RECORDS

During 2021, 19 complaints were registered by WSS as detailed in **Table 21**. All complaints were resolved as described by the 'Response and Action' column presented in **Table 21.** Complaints received by WSS are available on the public website.

Of the 19 complaints, the following can be summarised:

- 5 were pre-emptive notifications by Newcastle Sand.
- 4 related to dust on the acceleration lane as trucks departed the site.
- 3 were in relation to vehicles turning right into the site.
- 1 was in relation to a trucks excessive speed and need to use of air brakes.
- 5 were related to truck movements outside of the approved hours.

- 2 were related to load covering (note additional complaint number due to combined complaint).

All complaints in the register were received from one property (Receptor ID 41) opposite the quarry, or from DPE or Newcastle Sand making a pre-emptive notification.

Since construction commenced there have been 48 complaints registered, 25 occurring during the nine months of construction and 23 over the last 19 months of operations. Over 77% were received from only two properties (Receptor ID 40 and 41).

The numbers of complaints has reduced since commencement of operations. The primary concern of complainants continue to relate to truck movements and traffic safety.

Table 21: Complaints Received by WSS during the 2021 reporting period

Incident ID	Receptor ID	Date	Method of Complaint Communication	Key site activities occurring at time of complaint and where - if relevant to complaint? (e.g. clearing and extraction in Sector 2)	Development Phase	Key Complaint Issue (e.g. noise, dust, traffic)	Details	Response and Action	Date of Closure
CTR_INC47	41	30/09/2021	Email	N/A	Operations	Dust - sand on road	Again on 29th September around 9.00am and between 1.30-2pm sand trucks have been seen leaving your site uncovered. Given the amount of dust that is being generated by truck movements please confirm what additional steps will be put in place to stop this from happening.	A review of video records revealed at 9:00am Mullon's Haulage truck depart whilst in the process of deploying tarps. The Haulage company has been contacted and instructed to reinforce with all drivers Newcastle Sand Drive Code of Conduct. No other uncovered loads between 1:30 and 2:00pm identified.	30/09/2021
CTR_INC48	41	30/09/2021	Email	N/A	Operations	Truck Movements - Time	On 30th September the gates of the sand quarry were opened around 5am with a sand truck entering around 5.15am. As this is significantly outside the operating times of the site please confirm why the site was open.	The early truck that arrived was not a customer of Newcastle Sand and arrived at our quarry by mistake. The truck was not loaded and departed the site at 7:05am unladden.	30/09/2021
CTR_INC45	41	23/09/2021	Email	N/A	Operations	Dust - sand on road	Again on 13th (3.10pm) and 17th September (11.25am) a blue sand truck has been seen leaving your site uncovered. Given the amount of dust that is being generated by truck movements please confirm what additional steps will be put in place to stop this from happening.	Referenced blue truck collected a 20kg sample bag and left the quarry unladen, hence no cover.	24/09/2021
CTR_INC46	41	23/09/2021	Email	N/A	Operations	Truck Movements - Numbers	Please confirm less than the approved number of trucks departed your site between 6am - 7am on 22nd September as it is believed more than the consented number departed.	No exceedences 4 x laden trucks for questioned period	24/09/2021
CTR_INC44	NS	19/09/2021	Email	NA	Operations	NS - Truck Movements - Time	Pre-emptive notification to the DPE regarding an early truck which arrived at site on Saturday 18th September around 6:42am.	Sign on road indicated quarry was closed, driver instructed he wouldn't be loaded till after 8am, driver left site unloaded. Haulage company reminded of conditions of entry to site and need to comply with opening times.	20/09/2021

Incident ID	Receptor ID	Date	Method of Complaint Communication	Key site activities occurring at time of complaint and where - if relevant to complaint? (e.g. clearing and extraction in Sector 2)	Development Phase	Key Complaint Issue (e.g. noise, dust, traffic)	Details	Response and Action	Date of Closure
CTR_INC43	DPE	2/09/2021	Email	NA	Operations	Truck Movements & Load Covering	The Department has received the following complaints via the Major Projects website regarding the Cabbage Tree Road Sand Quarry: 1. On 6th August & 12 August between 2pm and 3pm, over 10 sand trucks departed the sand quarry (alleged breach of Schedule 3 condition 23). 2. At 9.05am and 3.45pm on 9th August sand trucks left the quarry without any covers of the trailers (alleged breach of Schedule 3 condition 22). 3. On Wednesday 18th Aug at 5.45am - Sand truck (white) departed the quarry site (alleged breach of Schedule 3 condition 1 and Schedule 3 condition 23).	Truck logs provided to the department, and video footage reviewed. Two trucks were reminded of need to cover loads based on the Induction and the TfNSW requirements.	9/09/2021
CTR_INC41	41	30/08/2021	Email	N/A	Operations	Traffic Safety - Right Turn at Entry	Again on 30th Aug the same white sand truck from 27th Aug was observed turning right into your site - note attached photo of it leaving. We understand this driver has been inducted and advised that right hand turns into your site are illegal. Please provide details of your next steps.	Haulage Compnay of the correctly identified truck were contacted and advised to the unsafe driver behavior of their driver and instructed to reinforce the Newcastle Sand Drivers Code of Conduct with all drivers prior to sending another truck to Newcastle Sand.	31/08/2021
CTR_INC42	41	30/08/2021	Email	N/A	Operations	Dust - sand on road	On Monday 30th August again a number of sand trucks have been seen departing your site with their loads uncovered. These include trucks departing at 9.20am, 10.10am, 11.15am, 1.15pm. Given this breach of the sand mine consent conditions continues to happen even with your additional signage and verbal requests to drivers, we would request you install equipment to detect and stop trucks which do not have their loads covered.	Investigated confirmed the trucks departing the site at the referenced times were empty gravel delivery trucks, as such were not carrying a load ie no covers required	31/08/2021
CTR_INC37	41	27/08/2021	Email	N/A	Operations	Dust - sand on road	On 23rd August around 10.15am a Boral truck & 2.45pm a white truck were observed leaving the Sand Mine with the loads uncovered.	May be related to gravel deliveries (i.e. empty trucks). Signage reviewed that reinforces load covering requirements	31/08/2021

Incident ID	Receptor ID	Date	Method of Complaint Communication	Key site activities occurring at time of complaint and where - if relevant to complaint? (e.g. clearing and extraction in Sector 2)	Development Phase	Key Complaint Issue (e.g. noise, dust, traffic)	Details	Response and Action	Date of Closure
CTR_INC38	41	27/08/2021	Email	N/A	Operations	Traffic Safety - Right Turn at Entry	On 27th August at approx 10.45am a white truck and dog was seen turning right across double lines into your site.	Haulage Compnay of the correctly identified truck were contacted and advised to the unsafe driver behavior of their driver and instructed to reinforce the Newcastle Sand Drivers Code of Conduct with all drivers prior to sending another truck to Newcastle Sand. Refer CTR-IN40	31/08/2021
CTR_INC39	41	27/08/2021	Email	N/A	Operations	Traffic Safety - Other	On 27th Aug on a number of occasions trucks have been approaching the sand mine at excessive speed and needing to use air brakes, primarily "Skelton" branded trucks.	The offending Company has assured Newcastle Sand this will not our in the future and their approach speed has been reduced to respect our neighbours and other road users.	30/08/2021
CTR_INC40	41	27/08/2021	Email	N/A	Operations	Truck Movements - Load Covering	On 27th August a number of times throughout the day trucks were observed leaving the Sand Mine with the loads uncovered.	Two haulage companies were reminded of the need to cover loads prior to exiting the quarry site and entering Cabbage Tree Rd. Both Companies also acknowledge the drivers code of conduct plus the legal requirements of Transport for NSW for all heavy vehicles to cover their load	31/08/2021
CTR_INC36	NS	21/06/2021	Email	Trucks arriving to site	Operations	NS - Truck Movements - Load Covering on Approach	A truck arriving to the Quarry had its covers open on approach to the site	Condition 22 of the Consent requires LADEN trucks entering or exiting loads to be covered. In addition Newcastle sand reviewed the requirements of the NSW EPA POEO Act and determined there is no requirement for an unloaded vehicle to have its body covered.	21/06/2021

Incident ID	Receptor ID	Date	Method of Complaint Communication	Key site activities occurring at time of complaint and where - if relevant to complaint? (e.g. clearing and extraction in Sector 2)	Development Phase	Key Complaint Issue (e.g. noise, dust, traffic)	Details	Response and Action	Date of Closure
CTR_INC35	DPE	9/06/2021	Email	NA	Operations	Truck Movements & Operating Hours	The Department has received complaints of trucks accessing the site outside of the approved hours for loading and dispatch of trucks on the following dates: 1. Sunday 28 March 2021. Specifically, two trucks and two light vehicles entered the sand quarry site, locking gates behind them and then departing before 8:30am. The complainant allegedly heard the maintenance operations. 2. Tuesday 13 April 2021. Specifically, one truck entered the quarry before 6am.	On 28 March 2022, The referenced vehicle movements related to weighbridge maintenance that was undertaken by Newcastle Weighing Services (NWS) with a Newcastle Sand representative also present in one of the light vehicles. No quarrying operations or loading and dispatch of laden trucks occurred on this day. Maintenance activities are permitted if inaudible. The first truck that tared in at the weighbridge on entry on 13 April 2021 was at 6:01am.	21/06/2021
CTR_INC34	NS	16/04/2021	Email	N/A	Operations	NS - Truck Movements - Time	Advising the early arrival of a truck at 5:33am on 16/4/2021	Newcastle Sand was proactive in informing the Department of Planning, Idnustry & Environment of the occurance and warned the driver and followed up with an email to all customers and haulage contractors reinforcing the opening hours and arrival proceedure	16/04/2021
CTR_INC33	NS	28/03/2021	Email	Weighbridge calibration and maintenance	Operations	NS - Truck Movements - Time	Early arrival of NWS calibration truck to complete maintenance activities	Newcastle Sand was proactive in informing the Department of Planning, Idnustry & Environment of the occurance and warned the driver and followed up with an email to all customers and haulage contractors reinforcing the opening hours and arrival proceedure	28/03/2021
CTR_INC32	NS	11/03/2021	Email	N/A	Operations	NS - Truck Movements - Time	Advising the early arrival of a truck at 5:49am on the 11th March 2021.	Newcastle Sand was proactive in informing the Department of Planning, Idnustry & Environment of the occurance and warned the driver and followed up with an email to all customers and haulage contractors reinforcing the opening hours and arrival proceedures for our quarry.	16.03.2021
CTR_INC31	41	9/03/2021	Email	N/A	Operations	Traffic Safety - Right Turn at Entry	Reporting of a brown/orange 4x4 was seen making a right hand turn into the site at 0605 on the 19th February 2021.	Contractor was issued a warning and the Drivers Code of Conduct was reinforced with the contractor regarding the rules of a public road and the correct way to access our site.	11.03.2021

Incident ID	Receptor ID	Date	Method of Complaint Communication	Key site activities occurring at time of complaint and where - if relevant to complaint? (e.g. clearing and extraction in Sector 2)	Development Phase	Key Complaint Issue (e.g. noise, dust, traffic)	Details	Response and Action	Date of Closure
CTR_INC30	41	19/01/2021	Email	N/A	Operations	Truck Movements - Time	Alleged quarry breach with sand trucks arriving before 6am on a weekday (18th & 19th January 2021).	Information provided to the Department of Planning, Industry & Environment. Email sent from Newcastle Sand to all customers and haulage contractors reinforcing our Driver Code of Conduct including opening hours and arrival proceedures.	01.03.2021

9. ACTIONS REQUIRED FROM PREVIOUS ANNUAL REVIEW

Based on the 2020 Annual Review, DPE noted several aspects requiring inclusion within the next Annual Review, these are shown by **Table 22** including where addressed in this document.

Table 22: Actions from 2020 annual review and where implemented

Aspect	Comment	Where Addressed in this Annual Review
Truck Monitoring	Include a comparison of truck movements to previous years.	Section 5.5
Community	a. a summary of community contributions. b. a comparison of the number and type of complaints to previous years.	Section 4.2 Section 8.3
Non-compliances	a. identify if non-compliances were reported to the relevant agencies. b. include a summary of any formal enforcement actions (official caution, penalty notice, order, prosecution proceedings, enforceable undertaking) by any regulatory agency during the reporting period.	Section 10.0

10. NON-COMPLIANCES

Non-compliances are itemised in **Table 2**.

Newcastle Sand have entered into an Enforceable Undertaking with the DPE in relation to non-compliance with matters that occurred during previous period (i.e. during construction). The enforceable undertaking, while subject to finalisation will likely result in the payment of monetary contributions to local wildlife organisations.

Non compliances are reported as they are identified with letters to relevant agency, identified during the CCC (attended by Council and HWC), within the Annual Return for the EPL, and otherwise through the Annual Review, that is accessible to all agencies on www.newcastlesand.com.au.

11. DEVELOPMENT IMPACT PREDICTION EVALUATION

An evaluation of the predicted development impacts against the observed impacts are summarised within the **Table 23** below.

Table 23: Development impact prediction evaluation against actual

Aspect	Predicted Impact	Observed Impact	Above / below / As Expected
Extraction Rate and Truck Numbers	Estimated production of 300,000 tonnes for Year 2, from a maximum rate of 530,000 tonnes, or cumulatively to Year 2 a total of 550,000 tonnes.	68% of the approved maximum extraction rate was extracted. 20% more sand was sold for 2021 versus predicted, with overall sales at 89% of expected to end of Year 2.	Below
Noise	Operational noise levels at neighbouring properties at the current stage of works were modelled to be less than 35dB(A) at neighbouring properties.	Operationally, noise levels are potentially lower than modelling predicted. Traffic noise remains the primary noise source at properties closest to the quarry.	As expected.
Air Quality	Air quality modelling predicted that cumulative annual criteria for dust deposition and PM_{10} would be met. The modelling predicted at full production there was a small chance for isolated exceedances of 24 hour criterion occurring 1-2 days per year.	Air quality impacts as a result of the project are consistent with the modelling expectations with typically low contribution levels. Under extreme weather conditions air quality contributions from the site increase and require the implementation of real-time actions to minimise air quality impacts at properties south of Cabbage Tree Road.	As expected.
Stage of Disturbance	The end of 2021 is equivalent to approximately Year 2.5 (i.e. into Year 3). By Year 2 and Year 3 disturbance was expected	Sector 1, 1A, 2 and 3 have been cleared during Year 1 of operations. With disturbance of a portion of Sector 9A/B associated with topsoil storage.	Based on area, disturbance is less than expected.

Aspect	Predicted Impact	Observed Impact	Above / below / As Expected
	across Sectors 1, 1A, 2, 3, 3A, 3B, 4, 4A, 4B, 5, 5A. This accounts for 14.27 ha, or perhaps 12.6 ha.	During Year 2, Sectors 3A and a portion of 3B were cleared, along with a portion of Sector 7B/C. Total area disturbed by quarrying (excluding the intersection / road reserve) is currently 11.40 ha. By this stage, it would be expected that the processing area would have moved to Sector 3, but due to delays in equipment is slightly behind where expected. Difficulties in processing and changing market demands have slightly changed the expected disturbance areas but have maintained a similar or lower disturbance area overall.	
Rehabilitation	A small section of rehabilitation was expected adjacent to the office area. Batter rehabilitation was not expected.	The area proposed for rehabilitation at this stage within the EIS has not been feasible on account of the limited working area available to stockpile sands of different grades. Batter rehabilitation has progressed well adjacent to the access road, likely in excess of that expected within the EIS.	Behind where expected.
Water	No significant changes to water levels or quality were expected due to the quarry. Water usage was predicted to peak at 126.5 kL/day or up to 30ML/year.	No significant changes have been observed, changes are primarily related to changing weather conditions. PFAS has not been detected within the quarry, however, monitoring sites to the south, east and north east have shown some evidence of PFAS, these locations are consistent with the existing known or expected PFAS plumes from the RAAF base.	As expected.

12. IMPROVEMENT

As Quarrying operations continue, Newcastle Sand are progressively refining and improving operational practices to minimise the effects on the environment and maintain compliance with the extensive requirements of the management plans and the conditions of consent.

12.1 COMMITMENTS, APPROVALS AND LICENCES

Based on experiences during operations, results of the Independent Environmental Audit amendments will be sort to the Development Consent, Statement of Commitments and EPL through consultation with DPE, the EPA and associated agencies, current amendments to be sort will include:

- Re-evaluation of the need for community open days at the quarry, operational limitations and limited community demand make community open days largely unnecessary, quarterly CCC meetings and associated presentations include photographs of the quarry and are considered adequate. Specific requests to view the quarry can still be considered by the Quarry Manager if made.
- Modification to the Development Consent to provide a range of changes aimed at ensuring best practice operational practices are consistent with the development consent to improve efficiencies and redundant conditions or commitments are updated to better reflect current site conditions and operational needs.

12.2 NEXT ANNUAL RETURN

Development of the Annual Return for the 2023 period will commence in the last quarter of the period to limit the potential for delays in the provision of the report by the required March 30 timeframe.

12.3 REVISION OF STRATEGIES, PLANS & PROGRAMS

As per Schedule 5 Clause 4 of the Project approval, within 3 months of the submission of this AEMR WSS will review the strategies, plans and programs under the Development Consent and notify DPIE in writing of any such review being undertaken. Where this review leads to revisions in any such document, then within 6 weeks of the review the revised document will be submitted for approval by DPIE.

The following management plans were reviewed and submitted for approval during the period or prior to the publishing of this review:

- Soil and Water Management Plan.

- Traffic Management Plan.
- Air Quality Management Plan.
- Maximum Extraction Depth Report.

The following management plans were reviewed and will be submitted in 2022 for approval:

- Noise Management Plan.
- Biodiversity and Rehabilitation Management Plan.
- Heritage Management Plan.

APPENDIX 1. PROJECT APPROVAL

Development Consent

Section 4.38 of the *Environmental Planning and Assessment Act 1979*

The Independent Planning Commission, as the declared consent authority under clause 8A of the *State Environmental Planning Policy* (State and Regional Development) 2011 and section 4.5(a) of *the Environmental Planning and Assessment Act 1979*, approves the development application referred to in Schedule 1, subject to the conditions in Schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the development.

Dianne Leeson (Chair) **Member of the Commission**	**Peter Cochrane** **Member of the Commission**	**Peter Duncan AM** **Member of the Commission**

Development consent signed by the members of the Commission listed above.

Sydney 9 May 2018

SCHEDULE 1

Application Number	SSD-6125
Applicant	Williamtown Sand Syndicate
Consent Authority:	The Independent Planning Commission NSW
Site:	Lot 1012 DP 814078 Lot 11 DP 629503 Lot 121 DP 556403 Lot 1 DP 224587
Development	Cabbage Tree Road Sand Quarry

Modification 1 – Glass Sand Trial – March 2020 shown in red text

Modification 2 – Addition of wash plant and ancillary equipment – March 2021 shown in blue text

APPENDIX 2. EPL

Environment Protection Licence

Licence - 21264

Licence Details	
Number:	21264
Anniversary Date:	31-July

Licensee

WILLIAMTOWN SAND SYNDICATE PTY LIMITED

PO BOX 186

WARATAH NSW 2298

Premises

CABBAGE TREE ROAD SAND QUARRY

298 CABBAGE TREE ROAD

WILLIAMTOWN NSW 2318

Scheduled Activity

Crushing, grinding or separating

Extractive activities

Fee Based Activity	Scale
Crushing, grinding or separating	> 100000-500000 T annual processing capacity
Extractive activities	> 100000-500000 T annual capacity to extract or process

Region

North - Hunter

Ground Floor, NSW Govt Offices, 117 Bull Street
NEWCASTLE WEST NSW 2302

Phone: (02) 4908 6800

Fax: (02) 4908 6810

PO Box 488G

NEWCASTLE NSW 2300

Environment Protection Licence

Licence - 21264

Environment Protection Licence

Licence - 21264

Environment Protection Licence

Licence - 21264

Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

Environment Protection Licence

Licence - 21264

The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

WILLIAMTOWN SAND SYNDICATE PTY LIMITED
PO BOX 186
WARATAH NSW 2298

subject to the conditions which follow.

Environment Protection Licence

Licence - 21264

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Crushing, grinding or separating	Crushing, grinding or separating	> 100000 - 500000 T annual processing capacity
Extractive activities	Extractive activities	> 100000 - 500000 T annual capacity to extract or process

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
CABBAGE TREE ROAD SAND QUARRY
298 CABBAGE TREE ROAD
WILLIAMTOWN
NSW 2318
AS SHOWN ON PLAN TITLED "QUARRY OPERATIONS PLAN - FIGURE 1" **WITHIN ALLOTMENTS:** **LOT 1012 DP 814078** **LOT 11 DP 629503** **LOT 121 DP 556403** **LOT 1 DP 224587** **THIS PLAN HAS BEEN FILED AS EPA DOCUMENT DOC19/442133.**

A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
a) the applications for any licences (including former pollution control approvals) which this licence

replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
13	Ambient Air Monitoring		PM10 real time particulate monitoring station as described as "RT1" in the document titled "Particulate Matter Monitoring Locations , Figure 5," dated 22 July 2019, EPA file Doc19/629648.
14	Ambient Air Monitoring		PM10 real time particulate monitoring station as described as "RT2" in the document titled " Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file Doc19/629648.
15	Ambient Air Monitoring		PM10 particulate monitoring station as described as "HVAS-1 PM10" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.
16	Ambient Air Monitoring		TSP particulate monitoring station as described as "HVAS-2 TSP" in the document titled "Particulate Matter Monitoring Locations, Figure 5," dated 22 July 2019, EPA file DOC19/629648.

P1.2 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.3 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description

1	Groundwater Monitoring	Groundwater Monitoring Bore "BH2" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry" - EPL Supporting Documentation dated 19 March 2019, EPA Doc19/382742.
2	Groundwater Monitoring	Groundwater Monitoring Bore "BH4" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.
3	Groundwater Monitoring	Groundwater Monitoring Bore "BH6" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.
4	Groundwater Monitoring	Groundwater Monitoring Bore "BH7" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry - EPL Supporting Documentation: dated 19 March 2019, EPA Doc19/382742.
5	Groundwater Monitoring	Groundwater Monitoring Bore "BH9" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.
6	Groundwater Monitoring	Groundwater Monitoring Bore "BH11" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.
7	Groundwater Monitoring	Groundwater Monitoring Bore "MW239S"" as shown in Figure 7, in document titled "Cabbage Tree Road Sand Quarry - EPL Supporting Documentation" dated 19 March 2019, EPA Doc19/382742.

P1.4 The following points referred to in the table below are identified in this licence for the purposes of weather and/or noise monitoring and/or setting limits for the emission of noise from the premises.

Noise/Weather

EPA identification no.	Type of monitoring point	Location description
17	Meteorological Station	Williamtown Bureau of Meteorology Station

3 Limit Conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Waste

L2.1 The licensee must not cause, permit or allow any waste generated outside the premises to be received at the premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the premises to be disposed of at the premises, except as expressly permitted by the licence.

L3 Noise limits

L3.1 Noise Limits

Receiver	Day LAeq(15 Min)	Shoulder LAeq(15 Min)	Shoulder LA Max(1 Min)
Any residential reciever	43	39	45

L3.2 Operational noise generated at the premises must not exceed the noise limits shown in the table above.

Note: The noise limits detailed above do not apply at a particular residence if the licensee has a written agreement with that particular residence to exceed those limits.

Note: This condition does not apply to construction activities of the intersection of the quarry access road and Cabbage Tree Road or vegetation clearing in the Southern Resource Area.

L3.3 The following noise limits apply to vegetation clearing in the Southern Resource Area.

The licensee must only undertake vegetation clearing activities in the Southern Resource Area in the following circumstances:

a)noise generated by the development does not exceed 47dB(A)LAeq (15min);

b)bulldozer(s) or equipment with sound power levels greater than 104 dB(A) are not permitted to be used

in sectors 9B, 10A, 10B, and 10C as shown in Figure 2 of Appendix 1 of Project Approval SSD-6125;

c)clearing operations are limited to:

- the day period, Monday to Friday only;
- campaigns not exceeding 5 consecutive working days; and
- no more that 4 campaigns in a calendar year.

L3.4 For the purpose of the Noise limits above:

Day is the period from 7am to 6pm Monday to Friday and 7am to 4pm Saturdays.
The morning shoulder period is from 6am to 7am Monday to Friday.

L3.5 The noise limits set out in this licence apply under all meteorological conditions except for the following:

a) Wind Speeds greater than 3 metres/second at 10 metres above ground level; or
b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
c) Stability class G temperature inversions.

L3.6 For the purpose of the condition above:
a) Data recorded by the meteorological station identified as EPA monitoring point 17 must be used to determine meteorological conditions; and
b) Temperature inversion conditions (stability category) are to be determined by the sigma theta method referred to in the NSW Noise Policy for Industry.

L3.7 **Determining Compliance**

To determine compliance:
a) with the Leq (15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located:
i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
ii) within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located within 1 metre of a dwelling façade.
c) with the noise limits in the Noise Limits table, the noise measurement equipment must be located:
i) at the most affected point at a location where there is no dwelling at the location; or
ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition.

Note: A non-compliance of the Noise Limits table will still occur where noise generated from the premises in excess of the appropriate limit is measured:
i) at a location other than an area prescribed in part (a) and part (b); and/or
ii) at a point other than the most affected point at a location.

L3.8 For the purposes of determining the noise generated at the premises the modification factors in Fact Sheet C of the NSW Noise Policy for Industry must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

L4 Hours of operation

L4.1 Quarrying operations

7am to 5pm Monday to Friday
7am to 4pm Saturday
At no time on Sundays or public holidays.

Loading and dispatch of laden trucks

6am to 6pm Monday to Friday
7am to 4pm Saturday
At no time on Sundays or Public holidays.

Note: The licensee may undertake maintenance activities outside these hours provided it is not audible at any residential receiver.

L5 Potentially offensive odour

L5.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

L6 Other limit conditions

Extraction and Rehabilitation Depth Limits

L6.1 The Licensee must not undertake any sand extraction within 0.7 metres of the predicted maximum groundwater level at the premises at any time.

L6.2 The Licensee must ensure that rehabilitation final landform levels remain 1 metre above the maximum predicted groundwater height.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:
a) the processing, handling, movement and storage of materials and substances used to carry out the

activity; and
b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
a) must be maintained in a proper and efficient condition; and
b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 All areas in or on the premises must be maintained in a condition that prevents or minimises the emission of dust to the air.

O3.2 Any activity carried out in or on the premises must be carries out by such practical means as to prevent dust or minimise the emission of dust to the air.

O3.3 Any plant operated in or on the premises must be operated by such practical means to prevent or minimise dust or other air pollutants.

O3.4 All trafficable areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the emission of dust to the air, or emission from the premises of wind-blown or traffic generated dust.

O3.5 Trucks entering and leaving the premises that are carrying loads of dust generating materials must have their loads covered at all times, except during loading and unloading.

O3.6 The licensee must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations to match its available water supply for dust suppression purposes.

O3.7 The licensee must review operations and ensure that water dust suppression is active on haul roads and stockpile areas during the following conditions:

a) Where wind conditions are directed towards surrounding residences, that is, the weather station indicates winds are blowing from the quadrants west (270 degrees) through North (0 degrees) to East (90 degrees).

b) When the continuous PM10 monitor shows the rolling PM10 24 hr average exceeds the background average concentration of 22 micrograms per cubic metre.

O3.8 The Licensee must cease all topsoil stripping and dozer operations when the following occurs:

a) Wind is directed towards surrounding residences, and
b) Rolling PM10 24 hr average exceeds 35 micrograms per cubic metre.

O3.9 The Licensee must suspend all sand processing activities when:

a) Wind is directed towards surrounding residences, and
b) Rolling PM10 24 hr average exceeds 40 micrograms per cubic metre.

O3.10 The Licensee must suspend all sand extraction from the face when dust levels increase after two hours when:

a) Wind is directed towards surrounding residences, and
b) Rolling PM10 24 hr average exceeds 42.2 micrograms per cubic metre.

O3.11 If dust levels continue to increase after two hours, the Licensee must cease loading and shut down all machinery at the premises when:

a) Wind is directed towards surrounding residences, and
b) Rolling PM10 24 hr average exceeds 45 micrograms per cubic metre.

O3.12 The Licensee must progressively rehabilitate mined/quarried areas as each section is completed.

O4 Emergency response

Note: The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The licensee must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment.

The PIRMP must be tested at least annually or following a pollution incident.

The licensee must develop the Pollution Incident Response Management Plan in accordance with the requirements in Part 5.7A of the Protection of the Environment Operations (POEO) Act 1997 and POEO regulations.

O5 Processes and management

Preventing Pollution from Fuels and Chemicals

O5.1 All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.

O5.2 Bunds must:
a) have walls and floors constructed of impervious materials;
b) be of sufficient capacity to contain 110% of the volume of the tank (or 110% volume of the largest tank where a group of tanks are installed);
c) have floors graded to a collection sump; and
d) not have a drain valve incorporated in the bund structure,

or be constructed and operated in a manner that achieves the same environmental outcome.

O5.3 All fuel storage and refuelling areas at the premises must be constructed to comply with the relevant Australian Standards.

O5.4 Except as detailed in the condition below, refuelling and all storage of fuels and chemicals must be within an appropriately roofed and concrete bunded area within the workshop compound, located outside of the Tomago Sandbeds Special Area.

O5.5 Tracked plant may be refuelled on a fully bunded and lined hardstand located within the Tomago Sandbeds Special Area. This bunded and lined area must be capable of holding both the tracked equipment and the fuel tank.

O5.6 No fuel storage or refuelling activities may occur at the premises outside of the areas constructed to the relevant Australian Standards.

O5.7 The Licensee must ensure that, outside of the operating hours during which quarrying operations are permitted, all fuel powered equipment is removed from the "Tomago Sandbeds Special Area" to a secure storage, except for equipment being used in vegetation clearing operations, which may be stored within a fully bunded and lined hardstand area outside of operating hours.

Preventing Pollution from Trucks

O5.8 The Licensee must;
a)ensure that all laden trucks entering or exiting the site have their loads covered;
b)ensure that all laden trucks exiting the site are cleaned before leaving the site of material that may fall from vehicles; and
c) use its best endeavours to ensure that appropriate signage is displayed on all trucks used to transport product from the development so that they can be easily identified by road users.

Waste Classification

O5.9 The licensee must ensure that any liquid and/or non liquid waste generated and/or stored at the premises is assessed and classified in accordance with the DECC Waste Classification Guidelines as in force from time to time.

O6 Other operating conditions

Minimising Noise

O6.1 All dozers operating within the Southern Resource Area must be restricted to operating in first gear in reverse to minimise associated track noise.

O6.2 All mobile equipment used onsite must be fitted with a BBS-Tec "back alarm" broadband reversing alarm or similar such device.

Managing Contamination from Past Activities

O6.3 No groundwater on the premises is to be extracted or used on the premises without the prior approval of the EPA.

O6.4 Within the premises boundary the Licensee must accurately determine the location of areas impacted by the former mineral sand extraction operations including the settling ponds, sand tailings disposal areas, monazite trenches and the "equipment graveyard" areas and prior to works commencing on site install suitable fencing to prohibit any activities in these areas.

Stormwater Management

O6.5 The drainage from all areas at the premises which will liberate suspended solids when stormwater runs over these areas must be diverted to adequately sizes sediment basins.

O6.6 The sediment basins must be maintained to ensure that their design capacity is available for the storage of all runoff from cleared areas.

O6.7 Stormwater management measures must be prepared and implemented to mitigate the impacts of stormwater run-off from and within the premises in a manner that is consistent with the Stormwater Management Plan for the catchment. Where a Stormwater Management Plan has not yet been prepared the measures should be consistent with the guidance contained in Managing Urban Stormwater: Soils and Construction: Volume 2C Unsealed Roads and Volume 2E Mines and Quarries (DECCW 2008).

Sewage Management

O6.8 The Licensee must establish and use an on-site sewage pump out system, incorporating an adequately sized holding tank located outside of the "Tomago Sandbeds Special Area".

5 Monitoring and Recording Conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
a) in a legible form, or in a form that can readily be reduced to a legible form;
b) kept for at least 4 years after the monitoring or event to which they relate took place; and
c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
a) the date(s) on which the sample was taken;
b) the time(s) at which the sample was collected;
c) the point at which the sample was taken; and
d) the name of the person who collected the sample.

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M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

M2.2 Air Monitoring Requirements

POINT 13,14

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	Australian Standard 3580.9.8 - 2001

POINT 15

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Every 6 days	AM-18

POINT 16

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended particles	micrograms per cubic metre	Every 6 days	AM-15

M2.3 Water and/ or Land Monitoring Requirements

POINT 1,2,3,4,5,6,7

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic	micrograms per litre	Monthly	Grab sample
Conductivity	microsiemens per centimetre	Monthly	Grab sample
Depth	metres	Monthly	Probe
Iron	milligrams per litre	Monthly	Grab sample
Manganese	milligrams per litre	Monthly	Grab sample
pH	pH	Monthly	Grab sample
Turbidity	nephelometric turbidity units	Monthly	Grab sample

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M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or
c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The *Protection of the Environment Operations (Clean Air) Regulation 2010* requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Weather monitoring

M4.1 At the point(s) identified below, the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1 of the table below, using the corresponding sampling method, units of measure, averaging period and sampling frequency, specified opposite in the Columns 2, 3, 4 and 5 respectively.

POINT 17

Parameter	Sampling method	Units of measure	Averaging period	Frequency
Temperature at 2 metres	AM-4	degrees Celsius	1 hour	Continuous
Wind Direction at 10 metres	AM-2 & AM-4	Degrees	15 minutes	Continuous
Wind Speed at 10 metres	AM-2 & AM-4	metres per second	15 minutes	Continuous
Sigma Theta	AM-2 & AM-4	Degrees	15 minutes	Continuous
Rainfall	AM-4	millimetres	15 minutes	Continuous
Relative humidity	AM-4	percent	1 hour	Continuous

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M5 Recording of pollution complaints

M5.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M5.2 The record must include details of the following:
a) the date and time of the complaint;
b) the method by which the complaint was made;
c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the complaint;
e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
f) if no action was taken by the licensee, the reasons why no action was taken.

M5.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M5.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M6 Telephone complaints line

M6.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M6.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M6.3 The preceding two conditions do not apply until 60 days after the date of the issue of this licence.

M7 Other monitoring and recording conditions

Extraction Height Survey

M7.1 The licensee must ensure quarry operators are aware excavation RL heights to allow continual compliance with extraction depth limits. Such provisions may include GPS capability on quarry machinery, relevant network of survey pegs and frequent surveys of operations.

M8 Noise monitoring

M8.1 To assess compliance with the noise limits section of this licence, attended noise monitoring must be undertaken in accordance with the noise conditions and:

a) at a location representative of the most affected residences in the noise limit conditions and;

b) occur quarterly in a reporting period;

c) occur each day and shoulder period as defined in the NSW Industrial Noise Policy for a minimum of:

- 1.5 hours during the day; and
- 30 minutes during the shoulder period.

d) occur for three consecutive operating days.
Note: It is the intention of the EPA to review the noise monitoring results required under this condition after a period of (3) years to assess the suitability of the required monitoring.

6 Reporting Conditions

R1 Annual return documents

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:

1. a Statement of Compliance,
2. a Monitoring and Complaints Summary,
3. a Statement of Compliance - Licence Conditions,
4. a Statement of Compliance - Load based Fee,
5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is

given; or
b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
a) the licence holder; or
b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

Groundwater Monitoring Report

R1.8 The licensee must supply with each Annual Return a monitoring report that includes:

a) all groundwater monitoring results obtained over the reporting period;
b) a graphical presentation of all groundwater monitoring results (one parameter per graph) extending back to when monitoring began; and
c) a commentary on results that have been obtained, highlighting any changes or trends observed over time and make recommendations where adverse effects are identified.

Annual Extraction Height Survey

R1.9 The licensee must submit to the EPA with each Annual Return an annual independent survey report to demonstrate compliance with the extraction depth limit on this licence. The report must show all RL's of quarry operations and compare these against the RL's for the maximum predicted groundwater levels.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
a) where this licence applies to premises, an event has occurred at the premises; or
b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the

carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
a) the cause, time and duration of the event;
b) the type, volume and concentration of every pollutant discharged as a result of the event;
c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

Noise Monitoring Report

R4.1 A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of the quarterly monitoring. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:

a) an assessment of compliance with the noise limits as detailed in this licence; and

b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits detailed in this licence.

7 General Conditions

G1 Copy of licence kept at the premises or plant

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

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G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G1.4 The Licensee must nominate to the EPA a representative of the proponent that is available at all times and is capable of providing immediate assistance or response during emergencies or any other incidents at the premises. The name of the nominated representative and their contact details, including their telephone number, must be current at all times. The nomination and contact details must be provided to the EPA's Director - Hunter at PO BOX 488G, Newcastle NSW 2300.

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Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

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flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environmen t Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 mo nths. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.

Environment Protection Licence

Licence - 21264

TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non-putrescible), special waste or hazardous waste

Mr Peter Jamieson

Environment Protection Authority

(By Delegation)

Date of this edition: 31-July-2019

End Notes

APPENDIX 3. COMMUNITY CONSULTATIVE COMMITTEE MINUTES

Williamtown Sand Syndicate (WSS)
Cabbage Tree Road Sand Quarry
Community Consultative Committee Meeting

14th April 2021
8:59-9:58
Mercure Newcastle Airport

Meeting Number:	5th Meeting	**Type of meeting:**	General
Chairperson:	John Turner - JT	**Note taker:**	Eliza Altmann

Attendees:
Darren Williams (WSS) – DW
Shane Burton (WSS / Newcastle Sand) – SB
Jonathan Berry (Wedgetail Consultants) – JB
Wayne Sampson (Resident) – WS
Shirley Davis (Resident) – SD
Paul Hardes (Resident) – PH
Peter West (Resident) – PW
Stephen Kuehn (Resident) – SK
Greg Callaghan (Resident) – GC
John Simpson (Hunter Water Representative) – JS

Apologies:
Barry Davis (Resident) – BD
Tim Crosdale (Port Stephens Council Representative) – TC (arrived after the meeting finished)

Observers: None

Meeting Open: 8:59am

Minutes

Agenda item: 1 **Apologies** **Presenter:** John Turner

Discussion:

Apologies from Barry Davis.

Agenda item: 2 **Declaration of Pecuniary Interest** **Presenter:** NA

Discussion:

John Turner (Chairperson) – Paid for service by WSS.
Wayne Sampson (Resident) – Deed with WSS.
Jonathan Berry (Wedgetail Project Consulting) – Consultant employed by WSS.
John Simpson (Hunter Water Representative)
Barry Davis (Resident) – Nil.
Shirley Davis (Resident) – Nil.
Greg Callaghan (Resident) – Deed with WSS
Paul Hardes (Resident) – Deed with WSS
Peter West (Resident) – Deed with WSS

Stephen Kuehn (Resident) – Deed with WSS

Darren Williams (WSS) – Quarry owner.

Shane Burton (WSS) – Quarry employee.

Agenda item: 3	**Minutes to be adopted**	**Presenter:**	John Turner

Discussion:

Minutes from the last meeting were noted.

Minutes moved by WS. Minutes seconded by DW. All Agree.

Agenda item: 4	**Business Arising from Previous Minutes** • Response to issues raised or provision of additional information requested;	**Presenter:**	JT

Actions from Previous Minutes

- Residents to provide a handwritten letter or email on their concerns regarding the intersection to be included with RMS review request.

JB - No letters received by the company from residents to pass through Understood there has been some correspondence with the local member.

JB – Newcastle Sand has liaised with TfNSW on multiple occasions who confirmed the intersection was constructed as per TfNSW specifications and has passed safety audits required by TfNSW. TfNSW have not identified any issues with the design to justify, an amendment or made any request to Newcastle Sand to amend the intersection.

JT- It's not the sand quarry's remit to change a road. It is a public road under the control of TfNSW

- WSS to look into causes of dust swirling when trucks leave the quarry.

JB – More frequent sweeping of the bitumen surface now undertaken, provisional registration of site machinery to undertake task, more stabilization of batters adjacent to the road.

Agenda item: 5	**Correspondence**	**Presenter:**	John Turner

- Material for the presentation of the company's activities was distributed prior to the meeting.

Agenda item: 6	**Proponents reports & overview of activities, including;** • Progress of the project • Monitoring & environmental performances • Community complaints & responses to these complaints • Information provided to the community and any feedback	**Presenter:**	Jonathan Berry

Community Complaints & Responses to these complaints

JB – Three (3) complaints received since September 2020.Two in relation to trucks arriving before 6am and one in relation to a 4WD making a right-hand turn into the site. The truck drivers have been followed up on, the code of conduct reiterated to the truck drivers and contractors in relation to the correct time and way to enter the site and we notified the Department of Planning, Industry and Environment (DPIE).

SK – These trucks are on a public road. There are signs along the road showing no stopping areas. If the trucks get there early it's a matter for the police, not the sand quarry.

DW – The drivers that did arrive early were spoken to and an email was sent to all contractors and haulage companies. Signs have been erected in the quarry. We are doing what is required in our Traffic Management Plan. The DPIE are aware of what we have done and are happy with our response.

SB – Possible early arrivals are monitored every day. If the driver has been previously inducted and breaches the rules the driver will be told not to come back. If it's a new driver that hasn't been to site before, they are read the riot act, told to park up until it is the appropriate time to load them.

SD- There was a truck before 6.00am yesterday.

SB- There could not have been. I was at the plant at 5.30am and there was no early truck.

Regulatory Correspondence

JB - DPIE correspondence received following a DPIE investigation into possible short comings that occurred in the clearing process during construction. Operational practices have been improved. Traffic Management Plan has been updated and approved by the DPIE. Key changes were around contact details and penalties for drivers arriving before 6am.The SWMP has been submitted and will require further changes to support the recent modification.

JB- Annual review has been submitted for 2020. DPIE do not want this released publicly until they have checked the document. Once approved it will be made available on the web site.

JS - it seems to be an unusual process that the DPIE would want to check the annual review before its released. Why is this?

JB – Were not sure why. We did want to make it public but were told not to.

JS – I was wondering whether it was because this was a relatively new operation, they wanted to do a check on the adequacy of the report. Forever and up until this point, the process was for the company to prepare the report of its compliance over the past 12 months and distributes it the identified stakeholders and posts it on the website.

JB – The process last year was, we put it in, then in about June received comments back, edited the comments, it wasn't until September/October that they accepted these.

DW – We will advise everyone when it is available publicly.

Changes to the Consent

JB – Modification 2 to the consent was sought in late 2020 and approved in early 2021 to install a wash plant onsite to use instead of the approved air separator. The modification has negligible environmental impacts such as lowering the air quality as the sand will be wetter, the noise levels will be lower than the air separator and better sequencing of the resource like less double handling. The air separator would have dumped the fine silts, organics, and clays onto the ground as a dry powder, whereas this way it recovers as a slurry and blended with the landscape sand to be applied to the batters and rehabilitation areas. Water use will increase but will remain within levels approved by the EIS. Additional bitumen sealing may be undertaken of the northern haul road to minimize water use and maintain levels within approved levels. Wash plant is expected to be operational in late May 2021.

WS – Are you using tap water?

JB – Yes, it was an early warning from the DPIE that a move to site groundwater would be more complicated. We can try but we expect it will be a long-drawn-out process.

SD- I believe the bore water is poisonous

JB – Also, we are currently seeking an extension to the timing required for securing of onsite and offsite offsets on account of managing cash flow and difficulties in securing the correct offsets due to legislation. Additional field works has been completed. WSS currently have a $250,000 bond held and protection of the onsite offset areas occurs through quarry management practices, there is no environmental impact of the change. Additional weed management of the onsite offset has been proposed to account for delays in the long-term management actions starting for the offset.

SD – What's an offset mean?

DW – When you look at the quarry site, there is an area we mine and there is any area that we don't touch. So, we have to do all of the ecological tests on the area and secure that area under a biodiversity agreement and hand the credits over to the department.

JT – Its land that is set aside to compensate for the land used by the quarry. That land becomes protected.

SD – Which areas is that going to be?

DW – It's all the areas that won't be mined. About 130-140 hectares.

Progress of the project / Activities for the period (key activities)

JB – Continuing to refine and complete the construction of the batter rehabilitation and stockpile management. Completed hydro-mulching and application of geotextile to steppers batters to improve re vegetation and reduce windblown sand. Pre-clearing surveys have been undertaken for Sector 3 and the first portion of Sector 7. This involves hollow bearing tree survey, erection of nest boxes, inspection of area of Aboriginal Heritage, radiation survey, erection of frog fencing and nocturnal survey the night before the clearing campaign.

JS – What's the frog fence for?

DW – We must build a fence, so frogs don't enter the sand mine.

JB – Clearing occurred with Sector 3 and a portion of Sector 7; this includes removal of non-hollow bearing trees under the supervision of a licensed ecologist. 184 nest boxes have been installed. The company has chosen to put up all the nest boxes in advance of future clearing.

JB- Until the wash plant is operational the key focus of the quarry is ensuring the production of the right sand to meet the demands which is Concrete Sand.

JS – Is there a wash plant set up?

DW - No, a few pieces have arrived. The rest should arrive in about 6 weeks.

JB – Surface water management plan is to be updated and approved prior to the setup of the wash plant.

SK – Do you recycle that water?

DW – Yes. The only water we will lose is the moisture in the sand and when we pull out the silts. But they will be re-used for the rehabilitation.

JB- The quarry continues the progressive extraction of sand. Some sand is screened to remove rocks and roots, other sand is loaded directly into trucks. Currently selling White, Concrete, Landscape and Fill Sand.

JB- Since the last meeting, the average haulage was approximately 25% of the monthly haulage allowance. Busiest day was in November 2020 at 69% and busiest month was February 2021 at 36.6% of the monthly haulage allowance. Weighbridge system is working well, it helps regulate maximum haulage rates. We are allowed 6 trucks out between 6-7am and 10 trucks per hours from 7am to 6pm Monday to Friday.

Monitoring & environmental performances

Water Monitoring

JB – Continuous logging on groundwater depth across the site. Groundwater and surface water is sampled monthly. Results are available on the website. By the end of March 2021, rainfall was 321mm ahead of average since January 2019.

JB- Kleinfelder finished their annual review for 2020. PFAS has isolated spikes in SW1 (near the road) and more consistently in SW4 (eastern edge of the site). Levels remain below drinking water criteria and appear to vary in response to rainfall.

JS – When is the monitoring done each and have you got any information from March?

JB – I don't have the data from Kleinfelder for March yet. Usually done around the middle of the month.

Air Monitoring

JB – Network includes two Beta Attenuation Monitors (BAMs) that measure real time particulate matter smaller than 10 micron (PM10), these record every 15 minutes continuously. Two High Volume Air Samplers (HVAS) one measuring PM10 and one measuring total suspended particulates (TSP). These run for 24hrs every 6 days. The quarry has reasonable measures in place to avoid and mitigate the concentrations for air quality. Monthly data is published on the. Monitors were recently calibrated by TES and all monthly data is published on the website.

The site from September 2020 to March 2021

JB – (Goes through slides to show pictures of the quarry)

- Surplus topsoil stockpiled during construction regenerating well.
- Frog fencing installed around Sector 3 and 4.
- Extraction occurring within Sector 1A/2 – this shows the process of pushing off coffee rock to access amber sand for concrete – the wash plant will minimize this type of rehandling.

- Hydra-mulching being applied to the batter on the entry road.

JS – Was there seed in the hydra-mulch?

DW – Yes, native seeds and signed off by Kleinfelder.

SB – With all the rain, the seed has started to germinate.

JB – Wild dog footprints have been observed onsite along with recorded images from monitoring cameras. A trapping/control program to be investigated.

JS – Are you sure they are wild?

SB – We're pretty sure they are wild as we have seen an image of 3 dogs in a pack together.

DW – We aim to trap them and have them scanned for a microchip.

Information provided to the community and any feedback

JT – I understand a newsletter was distributed in February.

Agenda item: 7	**Other Agenda Items**	**Presenter:**	John Turner

Discussion:

JT – There were no other agenda items received.

Agenda item: 8	**General Business**	**Presenter:**	John Turner

Discussion:

WS – I would like to ensure something is done about the wild dog issue.

SD – Last Saturday or the Saturday before, the green open light was still on at nighttime.

DW – We've had a new solar panel put in as it was playing up. The electrician has come back to re-adjust it.

SD – What are the new site manager's details?

DW – This is Shane (SB). He has the same phone number that Paul had.

JT – The next meeting will be in about 3 months.

SD – I would like to get a hard copy of the meeting minutes.

Action items	**Person responsible**	**Deadline**
✓ WSS to start an investigation into the wild dogs	JB	

Agenda item: 9	**Next Meeting**	**Presenter:**	John Turner

Discussion:

JT – The meeting is now closed, the next meeting to be advised.

Other Information

- **Minutes to be provided as draft in the next week.**
- **Committee members have one week to provide feedback on the minutes to the Chairperson.**
- **Within two weeks of receiving feedback the minutes will be finalized and distributed to members and placed on the website.**

Meeting Close:

9:58 am

NEWCASTLE SAND

Community Consultative Committee Update

Project update for the period **3 September 2020 to April 2021**

09 April 2021

Meeting Agenda for the Cabbage Tree Road Sand Quarry Community Consultative Committee.

Wednesday 14th April 2021 at 9.00am

Agenda Items:

- 1) Apologies and welcome to new members
- 2) Declaration of pecuniary or other interests
- 3) Minutes to be adopted
- 4) Business arising from previous minutes – response to issues raised or provision of additional information requested
- 5) Correspondence
- 6) Proponents reports and overview of activities, including:
- * progress of the project
- * monitoring and environmental performance
- * community complaints and response to these complaints
- * information provided to the community and any feedback
- 7) Other agenda items
- 8) General business
- 9) Next meeting

Actions from previous minutes 3 September 2020

- Residents to provide a handwritten letter or email on their concerns regarding the intersection to be included with RMS review request
  - No letters received from residents to pass through, understood their has been some correspondence with the local member.
  - Liaised with TfNSW on multiple occasions who confirmed the intersection was constructed as per TfNSW specifications and has passed required safety audits. TfNSW have not identified any issues with the design, justification for an amendment or made any request to Newcastle Sand to amend the intersection.
- WSS to look into the causes of the dust swirling up behind the trucks when exiting the quarry.
  - More frequent sweeping of bitumen surface now undertaken, provisional registration of site machinery to undertake task, more stabilisation of batters adjacent to the road.

Community Complaints since 3 September 2020

- Community complaints register available at: https://www.newcastlesand.com.au/complaints-register/
- Three (3) complaints received since 3 September 2020:
  - Two in relation to trucks arriving before 6am.
  - One in relation to a 4wd vehicle making a right hand turn into the site.
- One entry in the register in addition to the three above is a file note by Newcastle Sand in relation to a further early truck arrival. This is included to demonstrate proactive approach to avoiding early truck arrivals.
- Our Drivers Code of Conduct has been reiterated to truck drivers and contractors in relation to the correct method and time to access the site.
- The Code of Conduct now includes a penalty barring the collection of sand by that driver for 24 hours if they arrive to site prior to 6am.

Regulatory Correspondence

- Annual Review has been submitted for 2020, DPIE do not want this released publicly until they have checked the document – will be available on the website when they do.
- DPIE correspondence received following a DPIE investigation into possible short comings that occurred in the clearing process during construction. Operational practices have been improved.
- Various correspondence with DPIE relating to trucks turning up at the gate prior to 6am. Newcastle Sand working hard to educate the drivers and have disciplinary action in the Traffic management plan. No trucks have been loaded or weighed at the site prior to 6am.
- Traffic Management Plan has been updated and approved by DPIE, key changes were around contact details and penalties for drivers arriving before 6am.
- The SWMP has been submitted for review by DPIE, and will require further changes to support the recent modification.

Changes to the Consent

- Modification 2 (Mod 2) to the consent was sort in late 2020 and approved in early 2021 to install a wash plant onsite to use instead of the approved air separator.
  - The modification has negligible environmental impacts.
  - In most cases likely to have benefits through improved air quality, lower noise levels (compared to air separator) and better sequencing of resources (i.e. less double handling).
  - Recovered fines will be blended with landscape sand or applied to batters and rehabilitation areas.
  - Water use may increase slightly, however, total water use for the site will remain within levels approved by the EIS.
  - Additional bitumen sealing may be undertaken of the northern haul road to minimise water use and maintain levels within approved levels.
  - Expect to have wash plant operational in late May 2021.

Changes to the Consent

- We are currently seeking an extension to the timing required for securing of onsite and offsite offsets on account of managing cashflow and difficulties in securing the correct offsets due to changing legislation.
  - Additional field work on the onsite offset has been completed in March 2021 due to changes in legislation.
  - Given the $250,000 bond currently held and protection of the onsite offset areas there is no environmental impact of the change.
  - Additional weed management of the onsite offset has been proposed to account for delays in the long term management actions starting for the offset.
  - This is currently under consideration.
- Other management plans will be reviewed and updated in the coming period.

Key activities completed during this period

- Continuing to refine and complete construction related aspects (e.g. batter rehabilitation, stockpile management and stabilisation).
- Completed hydro-mulching and application of geotextile to steeper batters to improve revegetation and reduce wind blown sand.
- Undertook pre-clearing surveys for Sector 3 and first portion of Sector 7 of the quarry.
- Pre-clearing includes:
  - Hollow bearing tree survey and erection of nest boxes in surrounding area proposed for offset.
  - Inspection of area of Aboriginal Heritage.
  - Survey of the area for radiation (in case of buried monzonite by RZM).

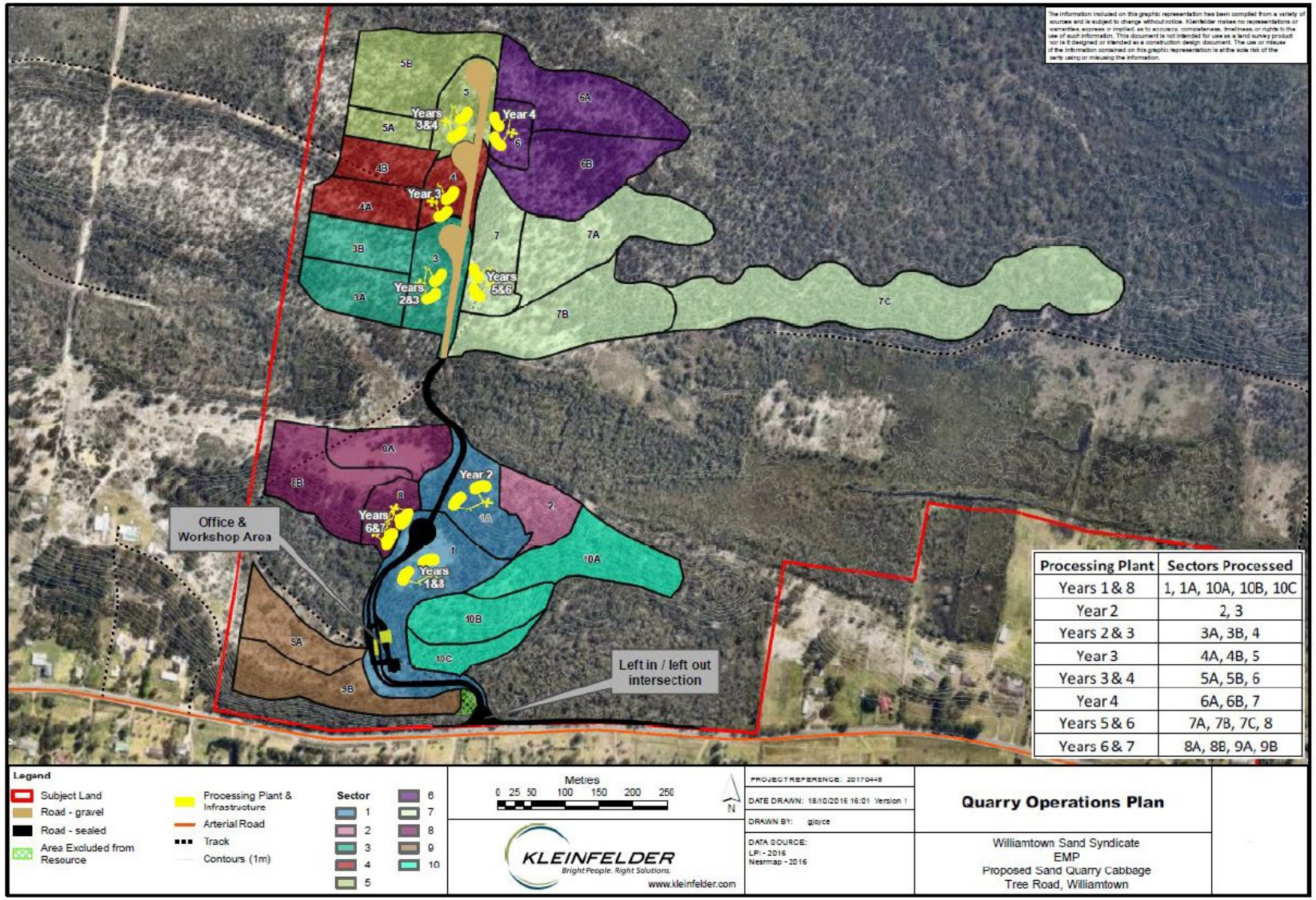
Key activities completed during this period

- Continuing to refine and complete construction related aspects (e.g. batter rehabilitation, stockpile management and stabilisation).
- Completed hydro-mulching and application of geotextile to steeper batters to improve revegetation and reduce wind blown sand.
- Undertook pre-clearing surveys for Sectors 3, 3A, 4 and first portion of Sector 7 of the quarry.
- Pre-clearing includes:
  - Inspection of area of Aboriginal Heritage.
  - Inspection for hollows and weeds.
  - Survey of the area for radiation (in case of buried monzonite by RZM).
  - Installation of the frog exclusion / sediment fence around perimeter of works area.
  - Nocturnal survey the night before the clearing campaign.

Key activities completed during this period

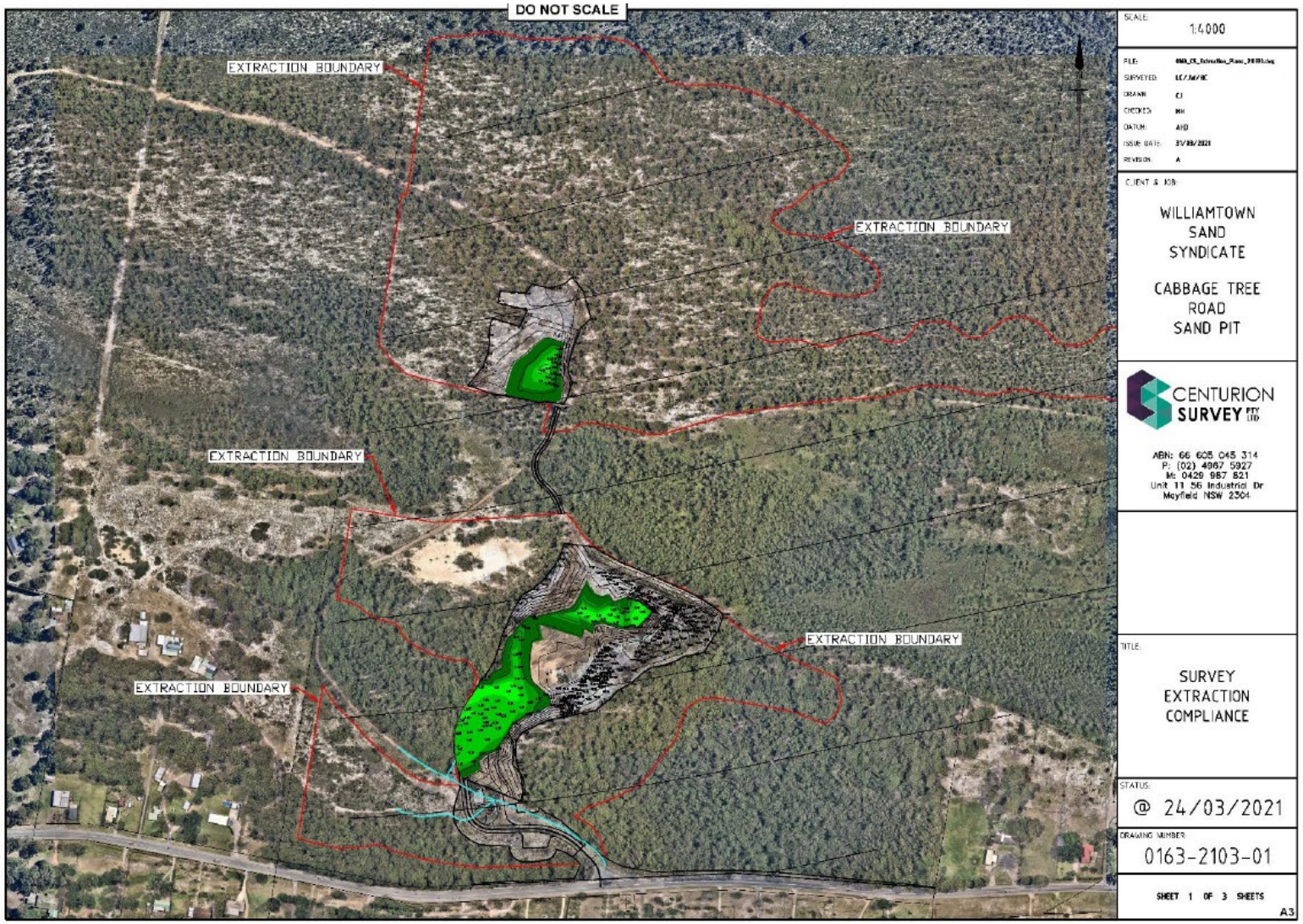
- Clearing occurred with Sector 3 and a portion of Sector 7, clearing includes:
  - Removal of non-hollow bearing trees first.
  - Leaving hollows to stand for two nights then soft felling of the tree.
  - Clearing is under the supervision of a licenced ecologist.
- Until the wash plant is operational, a key focus of the quarry is ensuring the production of the right sand to meet demands. Key demand is in relation to the concrete sand and to a lesser extent the white glass sand.
- Concrete sand must have silt levels maintained, while white glass sand has multiple requirements on size, composition and iron content, it is largely restricted to the upper layer of the sand resource.
- Wash plant will improve use of the natural resource by ensuring white glass sand is used where ever feasible for glass rather than blending to meet concrete sand.

Key activities completed during this period



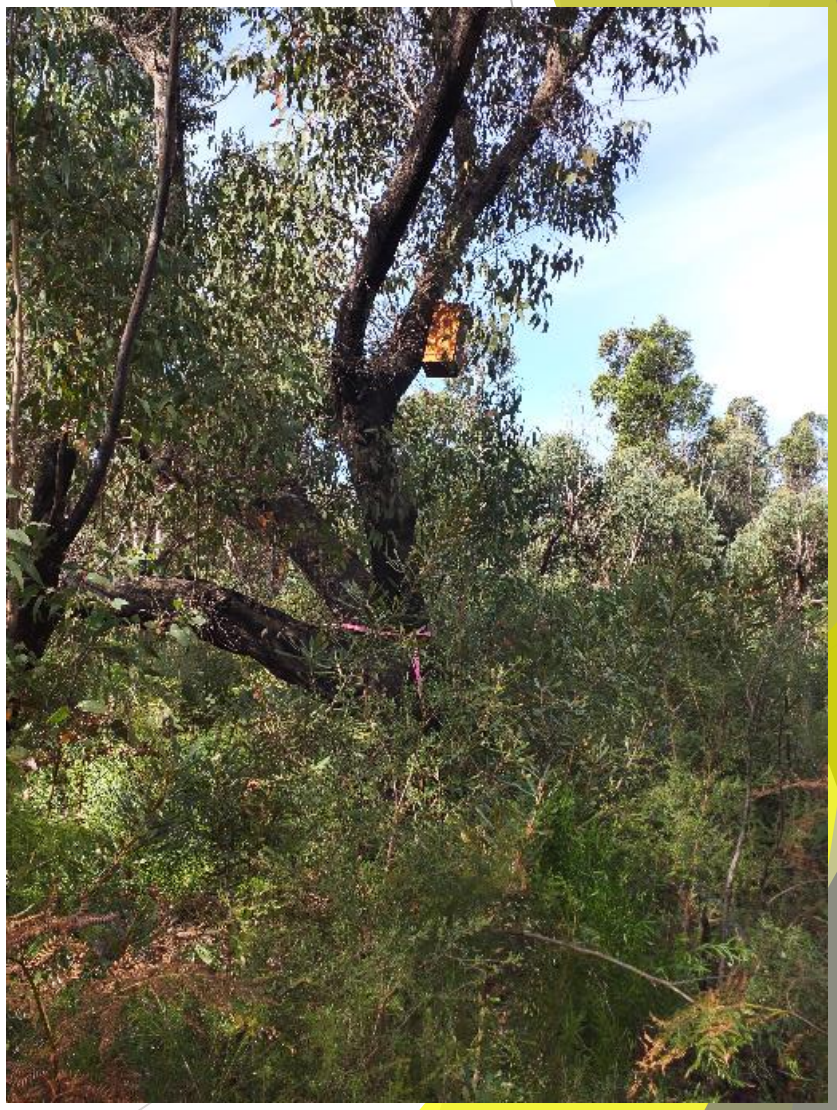
Processing Plant	Sectors Processed
Years 1 & 8	1, 1A, 10A, 10B, 10C
Year 2	2, 3
Years 2 & 3	3A, 3B, 4
Year 3	4A, 4B, 5
Years 3 & 4	5A, 5B, 6
Year 4	6A, 6B, 7
Years 5 & 6	7A, 7B, 7C, 8
Years 6 & 7	8A, 8B, 9A, 9B

Key activities completed during this period



Key Activities Completed During this Period

- Have currently installed 184 nest boxes within the offset area, this is 109 nest boxes in advance of the 75 hollows removed during clearing activities to date.



Key Activities Completed During this Period

- Continued progressive extraction of sand.
- Main focus of operations has been to ensure sufficient operational area to safely and efficient screen, stockpile, extract sand and load trucks.
- Some sand is screened to remove rocks and roots, other sand is loaded directly to trucks.
- Currently selling white, amber (concrete), landscape and fill sand from the quarry.
- Haulage since the last meeting (also see later slides):
  - Averaged approximately 25% of monthly haulage allowance.
  - Busiest day occurred in November at 69% of daily haulage allowance.
  - Busiest month was February 2021 at 36.6% of monthly haulage allowance.
- Weighbridge system is working well in helping regulating maximum haulage rates – system will not give driver a ticket unless under haulage rate.

Monitoring – Trucks August 2020

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
3-Aug	12	116	10.3%
4-Aug	11	116	9.5%
5-Aug	7	116	6.0%
6-Aug	10	116	8.6%
7-Aug	8	116	6.9%
10-Aug	1	116	0.9%
11-Aug	9	116	7.8%
12-Aug	6	116	5.2%
13-Aug	34	116	29.3%
14-Aug	16	116	13.8%
17-Aug	20	116	17.2%
18-Aug	25	116	21.6%
19-Aug	18	116	15.5%
20-Aug	22	116	19.0%
21-Aug	5	116	4.3%
24-Aug	42	116	36.2%
25-Aug	41	116	35.3%
26-Aug	21	116	18.1%
27-Aug	8	116	6.9%
28-Aug	5	116	4.3%
31-Aug	7	116	6.0%
Total trucks this month	**328**		
Approved maximum for month*		**2886**	**11.4%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks September 2020

Monthly Summary of Traffic Movements *(as per Condition 26 of Consent SSD_6125)*			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Sep	34	116	29.3%
2-Sep	13	116	11.2%
3-Sep	17	116	14.7%
4-Sep	4	116	3.4%
7-Sep	11	116	9.5%
8-Sep	11	116	9.5%
9-Sep	8	116	6.9%
10-Sep	6	116	5.2%
11-Sep	16	116	13.8%
14-Sep	22	116	19.0%
15-Sep	41	116	35.3%
16-Sep	35	116	30.2%
17-Sep	22	116	19.0%
18-Sep	18	116	15.5%
21-Sep	8	116	6.9%
22-Sep	13	116	11.2%
23-Sep	14	116	12.1%
24-Sep	5	116	4.3%
25-Sep	17	116	14.7%
28-Sep	45	116	38.8%
29-Sep	22	116	19.0%
30-Sep	10	116	8.6%
Total trucks this month	**392**		
Approved maximum for month*		**2912**	**13.5%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks October 2020

Monthly Summary of Traffic Movements			
(as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Oct	10	116	8.6%
2-Oct	12	116	10.3%
6-Oct	8	116	6.9%
7-Oct	26	116	22.4%
8-Oct	44	116	37.9%
9-Oct	20	116	17.2%
12-Oct	21	116	18.1%
13-Oct	34	116	29.3%
14-Oct	39	116	33.6%
15-Oct	36	116	31.0%
16-Oct	33	116	28.4%
19-Oct	37	116	31.9%
20-Oct	29	116	25.0%
21-Oct	27	116	23.3%
22-Oct	23	116	19.8%
23-Oct	36	116	31.0%
24-Oct	8	90	8.9%
26-Oct	7	116	6.0%
27-Oct	14	116	12.1%
28-Oct	16	116	13.8%
29-Oct	13	116	11.2%
30-Oct	25	116	21.6%
Total trucks this month	**518**		
Approved maximum for month*		**2886**	**17.9%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks November 2020

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
2-Nov	19	116	16.4%
3-Nov	13	116	11.2%
4-Nov	25	116	21.6%
5-Nov	13	116	11.2%
6-Nov	28	116	24.1%
9-Nov	23	116	19.8%
10-Nov	38	116	32.8%
11-Nov	43	116	37.1%
12-Nov	51	116	44.0%
13-Nov	77	116	66.4%
14-Nov	3	90	3.3%
16-Nov	59	116	50.9%
17-Nov	80	116	69.0%
18-Nov	44	116	37.9%
19-Nov	64	116	55.2%
20-Nov	65	116	56.0%
23-Nov	37	116	31.9%
24-Nov	44	116	37.9%
25-Nov	68	116	58.6%
26-Nov	43	116	37.1%
27-Nov	55	116	47.4%
28-Nov	3	90	3.3%
30-Nov	57	116	49.1%
Total trucks this month	**952**		
Approved maximum for month*		**2796**	**34.0%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks December 2020

Monthly Summary of Traffic Movements			
(as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Dec	55	116	47.4%
2-Dec	75	116	64.7%
3-Dec	55	116	47.4%
4-Dec	59	116	50.9%
5-Dec	3	90	3.3%
7-Dec	51	116	44.0%
8-Dec	62	116	53.4%
9-Dec	48	116	41.4%
10-Dec	58	116	50.0%
11-Dec	57	116	49.1%
12-Dec	4	90	4.4%
14-Dec	56	116	48.3%
15-Dec	62	116	53.4%
16-Dec	35	116	30.2%
17-Dec	36	116	31.0%
18-Dec	42	116	36.2%
21-Dec	28	116	24.1%
22-Dec	36	116	31.0%
23-Dec	17	116	14.7%
24-Dec	4	116	3.4%
Total trucks this month	**843**		
Approved maximum for month*		**2706**	**31.2%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks January 2021

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
4-Jan	6	116	5.2%
5-Jan	6	116	5.2%
6-Jan	12	116	10.3%
7-Jan	26	116	22.4%
8-Jan	23	116	19.8%
11-Jan	47	116	40.5%
12-Jan	24	116	20.7%
13-Jan	22	116	19.0%
14-Jan	34	116	29.3%
15-Jan	36	116	31.0%
16-Jan	12	90	13.3%
18-Jan	69	116	59.5%
19-Jan	72	116	62.1%
20-Jan	59	116	50.9%
21-Jan	55	116	47.4%
22-Jan	44	116	37.9%
23-Jan	5	90	5.6%
25-Jan	16	116	13.8%
27-Jan	35	116	30.2%
28-Jan	21	116	18.1%
29-Jan	22	116	19.0%
30-Jan	3	90	3.3%
Total trucks this month	**649**		
Approved maximum for month*		**2886**	**22.5%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks February 2021

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Feb	35	116	30.2%
2-Feb	21	116	18.1%
3-Feb	22	116	19.0%
4-Feb	26	116	22.4%
5-Feb	26	116	22.4%
6-Feb	4	90	4.4%
8-Feb	40	116	34.5%
9-Feb	43	116	37.1%
10-Feb	46	116	39.7%
11-Feb	38	116	32.8%
12-Feb	48	116	41.4%
13-Feb	12	90	13.3%
15-Feb	75	116	64.7%
16-Feb	74	116	63.8%
17-Feb	50	116	43.1%
18-Feb	25	116	21.6%
19-Feb	35	116	30.2%
20-Feb	1	90	1.1%
22-Feb	78	116	67.2%
23-Feb	77	116	66.4%
24-Feb	63	116	54.3%
25-Feb	86	116	74.1%
26-Feb	49	116	42.2%
27-Feb	7	90	7.8%
Total trucks this month	**981**		
Approved maximum for month*		**2680**	**36.6%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring – Trucks March 2021

Monthly Summary of Traffic Movements *(as per Condition 26 of Consent SSD_6125)*			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Mar	34	116	29.3%
2-Mar	34	116	29.3%
3-Mar	34	116	29.3%
4-Mar	33	116	28.4%
5-Mar	45	116	38.8%
6-Mar	6	90	6.7%
8-Mar	41	116	35.3%
9-Mar	40	116	34.5%
10-Mar	34	116	29.3%
11-Mar	42	116	36.2%
12-Mar	42	116	36.2%
13-Mar	7	90	7.8%
15-Mar	35	116	30.2%
16-Mar	28	116	24.1%
17-Mar	31	116	26.7%
18-Mar	16	116	13.8%
19-Mar	11	116	9.5%
22-Mar	3	116	2.6%
24-Mar	17	116	14.7%
25-Mar	29	116	25.0%
26-Mar	37	116	31.9%
27-Mar	12	90	13.3%
29-Mar	34	116	29.3%
30-Mar	32	116	27.6%
31-Mar	63	116	54.3%
Total trucks this month	**740**		
Approved maximum for month*		**3028**	**24.4%**

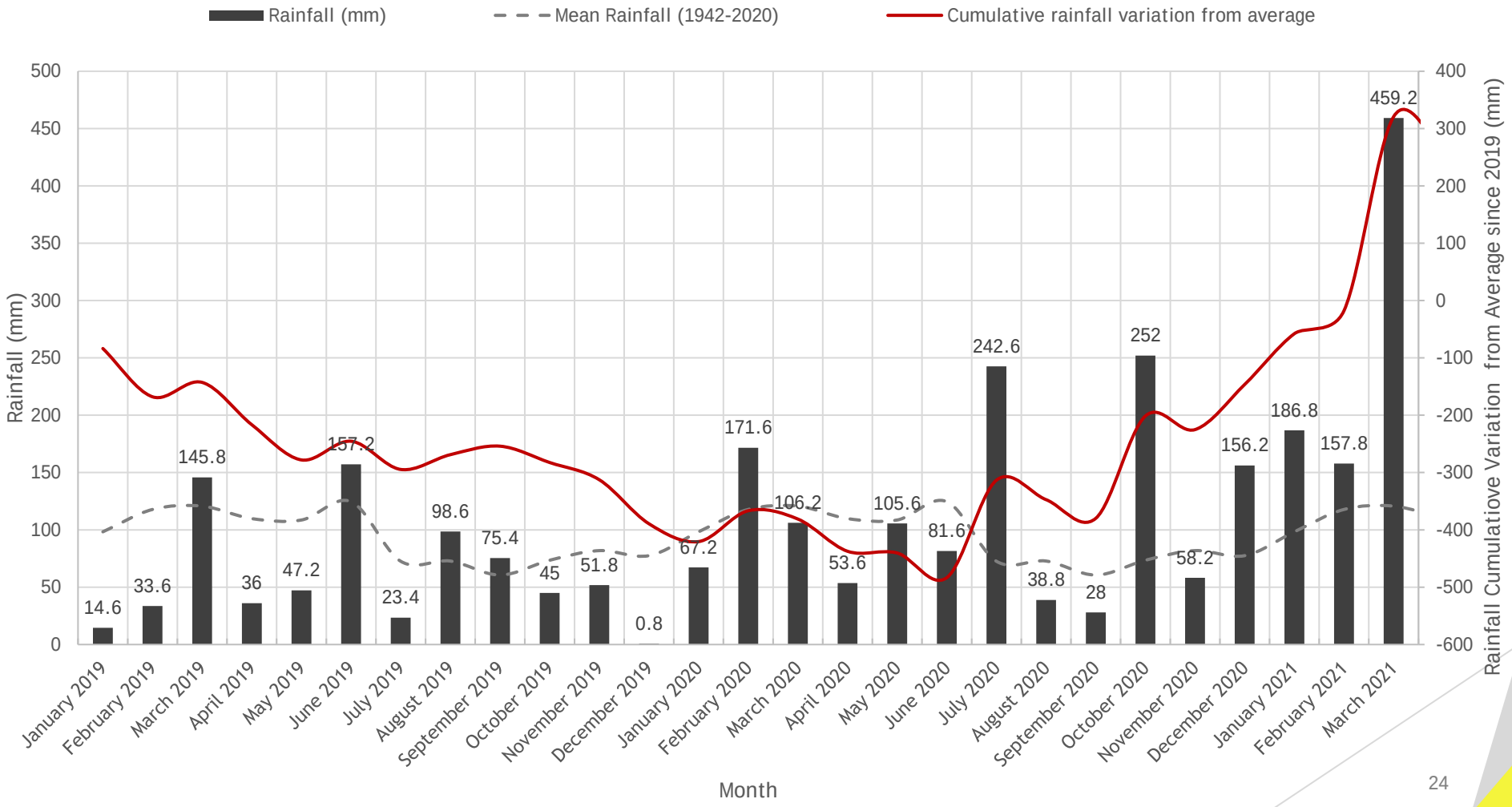
** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

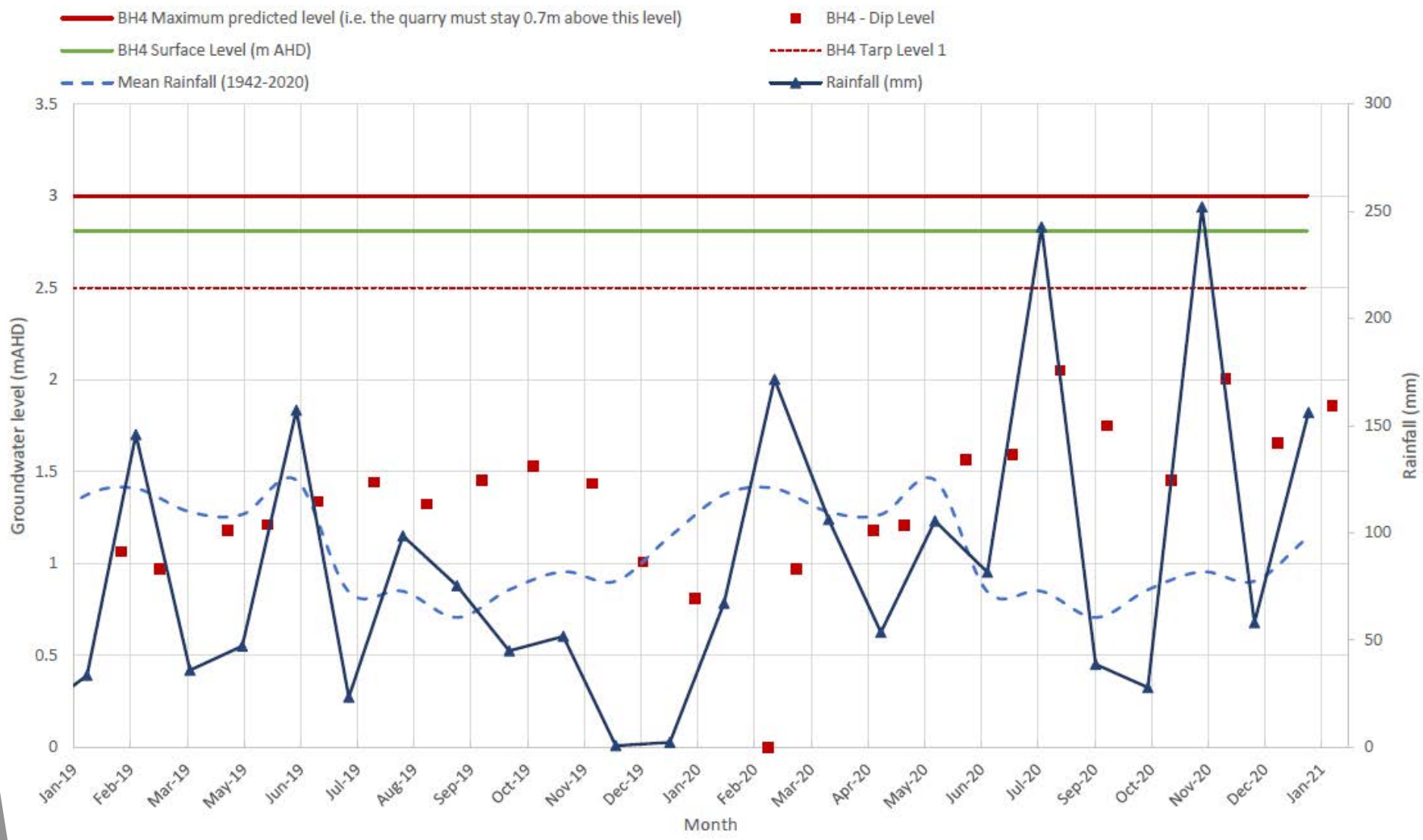
Environmental Monitoring - Water

- Continuous logging of groundwater depth data at several wells across site.
- Groundwater and surface water sampled on monthly basis, results available on the website https://www.newcastlesand.com.au/monitoring-results/.
- Recent rainfall has returned the rainfall deficit starting in 2019.
  - 2019 rainfall was reached 389mm behind average at end of December 2019
  - 2020 rainfall reached a peak deficit of 483mm in June 2020, 146mm behind at the end of December 2020.
  - By end of March 2021, rainfall was 321mm ahead of average since January 2019.
- Changing groundwater levels on account of rainfall has created more variation in water quality than in baseline data collected during 2019.
- Kleinfelder concluded in their annual review for 2020 that there is no identifiable trend in the data as a result of the quarry and that variation is most likely due to rainfall.
- PFAS has had isolated spikes in SW1 (near road) and more consistently at SW4 (channel at eastern edge of site), levels remain below drinking water criteria and appear to vary in response to rainfall.

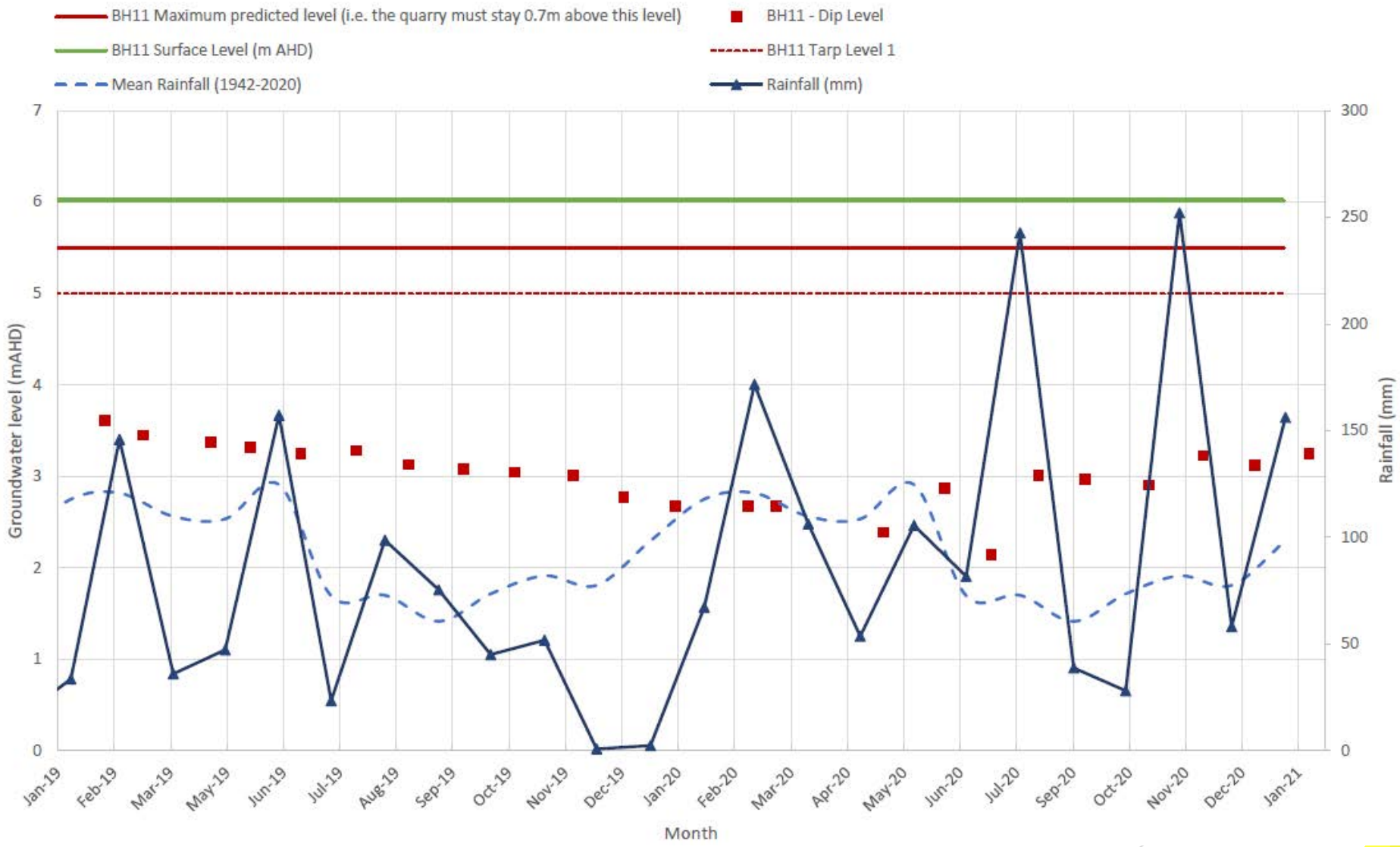
Environmental Monitoring - Water



Environmental Monitoring – Water Levels



Environmental Monitoring – Water Levels



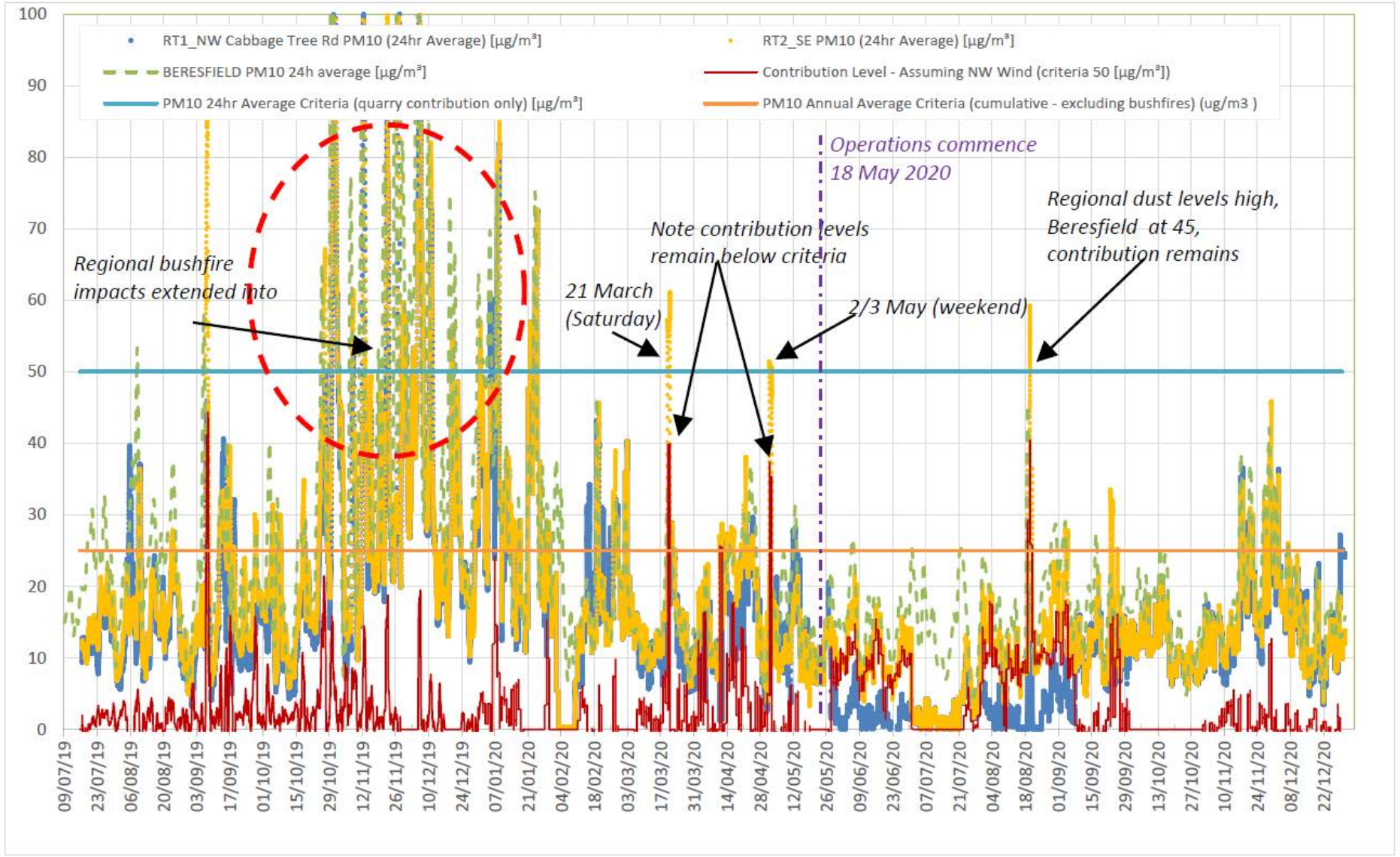
Environmental Monitoring - Air

- Network includes two Beta Attenuation Monitors (BAMs) that measure real-time particulate matter smaller than 10 micron (PM10).
  - These record average value every 15 minutes continuously.
- Two High Volume Air Sampler (HVAS) one measuring PM10 and one measuring total suspended particulates (TSP).
  - These run for 24 hours every six days.
- Quarry must implement all reasonable and feasible avoidance and mitigation measures so particulate emissions from quarry do not cause exceedance of:
  - PM10 annual average 25 $\mu g/m^3$ cumulative.
  - Quarry PM10 contribution over 24 hour average 50 $\mu g/m^3$.

Environmental Monitoring - Air

- PM10 levels measured with HVAS at 350 Cabbage Tree Road for 2020 reached 16.3 µg/m^3 against 25 µg/m^3 criteria.
- PM10 measured with BAM at 393 Cabbage Tree Road for 2020 reached 15µg/m^3 against 25 µg/m^3 criteria.
- PM10 measured with BAM at 453 Cabbage Tree Road for 2020 reached 12.2µg/m^3 against 25 µg/m^3 criteria.
- TSP levels measured with HVAS at 393 Cabbage Tree Road for 2020 reached 42.0 µg/m^3 against 90 µg/m^3 criteria.
- Outside of bushfire effects that ended at start of 2020, the highest dust levels in 2020 were on weekends in March and May, and in August as would be expected due to regional dust levels increasing, current high rainfall keeping dust levels low.
- Long term issues recently resolved with monitors, identified a leaky switch/junction box (reason for intermittent errors). Monitors recently calibrated by TES.
- Air quality model in assessment used an assumed annual average background of 19.4µg/m^3.
- Data summarised online at: https://www.newcastlesand.com.au/air-quality/

Environmental Monitoring – Air (BAM) - 2020



The site from September 2020 to March 2021

Surplus topsoil stockpiled during construction regenerating well

The site from September 2020 to March 2021

Frog fence installed around Sector 3 and 4

The site from September 2020 to March 2021

Extraction occurring within Sector 1A / 2 – this shows the process of pushing off coffee rock to access amber sand for concrete – the wash plant will minimise this type of rehandling

The site from September 2020 to March 2021

Hydromulch being applied to the batter on the entry road

The site from September 2020 to March 2021

Hydromulch and jute matting applied to the batter adjacent to the office

The site from September 2020 to March 2021

Truck loading area looking through Sector 1 to Sector 2

Wild Dog Footprints and Camera Records

Wild dog footprints have been observed onsite along with recorded images from monitoring cameras – trapping / control program to be investigated

Questions?

More Information

- www.newcastlesand.com.au
- Quarry Manager – Shane Burton - 0402 648 079

Williamtown Sand Syndicate (WSS)
Cabbage Tree Road Sand Quarry
Community Consultative Committee Meeting

02 December 2021
9:05-10:30
Mercure Newcastle Airport

Meeting Number:	6th Meeting	**Type of meeting:**	General
Chairperson:	John Turner - JT	**Note taker:**	Jonathan Berry

Attendees:
Sam Harvey (Port Stephens Council Representative)
Wayne Sampson (Resident) – WS
Barry Davis (Resident) – BD
Shirley Davis (Resident) – SD
Stephen Kuehn (Resident) – SK
Greg Callaghan (Resident) – GC
Paul Hardes (Resident) – PH
John Simpson (Hunter Water Representative) – JS
Darren Williams (WSS) – DW
Jonathan Berry (Wedgetail Consultants) – JB

Apologies: Shane Burton (WSS / Newcastle Sand) – SB, Peter West (Resident) – PW

Observers: None

Meeting Open: 9:05am

Minutes

Agenda item: 1 Apologies **Presenter:** John Turner

Discussion:

Shane Burton (WSS / Newcastle Sand) – SB, Peter West (Resident) – PW

Agenda item: 2 Declaration of Pecuniary Interest **Presenter:** NA

Discussion:

John Turner (Chairperson) – Paid for service by WSS.
Wayne Sampson (Resident) – Deed with WSS.
Jonathan Berry (Wedgetail Project Consulting) – Consultant employed by WSS.
John Simpson (Hunter Water Representative)
Barry Davis (Resident) – Nil.
Shirley Davis (Resident) – Nil.
Greg Callaghan (Resident) – Deed with WSS
Paul Hardes (Resident) – Deed with WSS
Stephen Kuehn (Resident) – Deed with WSS
Darren Williams (WSS) – Quarry owner.

Agenda item: 3	**Minutes to be adopted**	**Presenter:**	John Turner

Discussion:

Minutes from the last meeting were noted.

Minutes moved by WS. Minutes seconded by GC. All Agree.

Agenda item: 4	**Business Arising from Previous Minutes** • Response to issues raised or provision of additional information requested;	**Presenter:**	JT

Actions from Previous Minutes

- WSS to look into wild dogs.

JB – Quarry looked into cage traps, before purchase identified control program was occurring on neighbouring HWC and SCA lands. Cage traps use suspended, cameras appear to show reduced dog activity onsite.

JS – Confirmed HWC and NPWS had conducted trapping on adjoining lands following concerns raised at the previous meeting, noted the following:

- Noted NPWS caught 2-3 dogs with 1 destroyed.
- Rabbit shooting by HWC near Grahamstown Dam / Medowie area. Lots of rabbits controlled.
- Deer control being investigated.

JT – Letter tabled from Keiron Rochester dated 30 November 2021

- Key aspects of letter relate to:
  - *"Sand blowing out of the site into the air;*
  - *Sand being dragged out of the site by trucks and depositing on the public road;*
  - *Sand blowing out of the trucks into the air as they leave the site."*

JB – The quarry currently uses the following controls:

- Water cart.
- Contract road sweeper.
- Onsite skid steer is registered for use in road, however, it can be a dusty process in sweeping. It has in recent days been identified that the operation of this is substantially improved when using during wet conditions.
- The installation of a wheel wash is being investigated, likely to be placed before the weighbridge now that there is more room to install it.
- Amount of sand being tracked out should reduce as length of bitumen inside the site increases in length as operations and extraction move north.

BD – Raised observations from 14 May where truck had no tarp done up and did at Williamtown and has observed a landscaping truck with the door not sealed and was loosing sand onto the road.

SD – House covered in sand / dust.

BD – Have observed westerly wind blowing sand down the road.

BD – Noted that perhaps all the existing sand on the road side could be removed using wheelbarrow.

GC – Noted a blower might be worthwhile.

JB – Agreed that removal of sand from the road side may be of benefit in reducing dust.

SD – Which people drive the car with the Newcastle Sand Logo, has been seen turning right into the quarry several times.

DW – This is quarry manager.

BD – Showed some photos with evidence of truck wheel marks from heavy vehicles turning right into the quarry.

DW – Reiterated the need for future observations to be phoned, texted or emailed as soon as possible to ensure actions can be taken with the trucks responsible.

DW – Noted that unrelated trucks have been observed doing illegal u-turns in quarry entrance. These are police matters, the quarry site commences at the quarry gate, the outside is a public road.

WS – Questioned the exit speeds of trucks leaving the quarry.

DW – Explained that there were RMS requirements for trucks leaving the quarry to ensure they would merge at appropriate speeds for the traffic on Cabbage Tree Road.

Agenda item: 5 **Correspondence** **Presenter:** John Turner

- See presentation and below.

Agenda item: 6 **Proponents reports & overview of activities, including; Presenter:** Jonathan Berry

- Progress of the project
- Monitoring & environmental performances
- Community complaints & responses to these complaints
- Information provided to the community and any feedback

JB – Gave presentation of slides.

WS – Does the Wash Plant still use town water?

DW – Yes

Modification 3 proposal slide

JS – Has concerns about diesel in the sand beds and controls required.

JS – Has electrical trailing cables been investigated in preference of diesel generator?

SK – Noted during his working career at BHP the cables can be very painful and fail regularly.

JS – Would like Quarry to look at the cost / benefits of trailing cables rather than the diesel.

JS – Noted the need to address refueling of equipment, how this is done and how the diesel is stored safely.

Independent Audit slide

JS – Disappointed about 31 non-compliances, noted some were harsh, but others may have been under-rated.

Water related slides

JB – Noted that copper levels had also been reported to be elevated at BH4, but this appeared to be seasonal, or related to water levels with the levels peaking in winter when water levels are typically higher and reducing during summer.

JS – Confirmed the presence of copper that was observed to have an isolated peak at BH4 was unusual.

JS – Noted the sand beds are almost full.

Agenda item: 7 **Other Agenda Items** **Presenter:** John Turner

Discussion:

JT – There were no other agenda items received.

Agenda item: 8	**General Business**	**Presenter:**	John Turner

Discussion:

JT – Is there any general business?

SH – No Council business.

WS – Question about where water drained to from wash plant.

JB – Water drains back to a lined drain and sump and is recirculated.

BD – On 28 April SD sent email to JT about the minutes and Keiron's registration being rejected. Is unhappy about the process with Keiron, and was not happy with the response to the email from JT, claiming it was aggressive and unnecessary.

JT – Disputed the email was aggressive, noted it was just factual, but apologised for any upset it may have caused.

SD – Noted Keiron now lives at 397 Cabbage Tree Road.

SD – Wanted to know what was in the sand, is it dangerous?

JB – Explained the sand was likely similar to the beach, some beaches are like this sand, others have more shell material. This sand also has some silt. The likely highest risk aspect of the sand is silica and this is routinely focused on by the mines department where quarry monitoring occurs onsite within the quarry working area to ensure the silica levels are below the safe regulatory level. The expectation is that if the levels around workers are safe onsite then the levels at the neighbouring land owners should also ok.

SK – No business.

GC – asked about the use of shakers onsite to help reduce sand.

DW – noted the quarry had installed shakers, however these shakes were causing concern for truck drivers, and at the time were installed at the weighbridge due to limited space. Noted that they may be useful in the bed of the wheel wash and/or in a location where empty vehicles did not need to use them (to reduce noise).

PH – Had observed more noise of recent time from the quarry.

DW – Noted he expected this was likely due to the additional preparation works in Sector 3 and levels should reduce when these works are completed.

JS – No business.

DW – No business.

JB. No business.

Action items	**Person responsible**	**Deadline**
✓ Continue to implement the additional controls to keep sand off the acceleration lane and access road to minimise dust.	DW	
✓ Consider how to remove any surplus sand from the road side (noting RMS considerations).	DW	

Agenda item: 9	**Next Meeting 15th March 2022**	**Presenter:**	John Turner

Discussion:

JT – The meeting is now closed, the next meeting to be advised for March.

Action items	**Person responsible**	**Deadline**
None.		

Other Information

- **Minutes to be provided as draft in the next week.**
- **Committee members have one week to provide feedback on the minutes to the Chairperson.**
- **Within two weeks of receiving feedback the minutes will be finalized and distributed to members and placed on the website.**

Meeting Close:

10:30 am

NEWCASTLE SAND

Community Consultative Committee Update

Project update for the period **3 September 2020 to April 2021**

09 April 2021

Meeting Agenda for the Cabbage Tree Road Sand Quarry Community Consultative Committee.

Wednesday 14th April 2021 at 9.00am

Agenda Items:

- 1) Apologies and welcome to new members
- 2) Declaration of pecuniary or other interests
- 3) Minutes to be adopted
- 4) Business arising from previous minutes – response to issues raised or provision of additional information requested
- 5) Correspondence
- 6) Proponents reports and overview of activities, including:
- * progress of the project
- * monitoring and environmental performance
- * community complaints and response to these complaints
- * information provided to the community and any feedback
- 7) Other agenda items
- 8) General business
- 9) Next meeting

Actions from previous minutes 3 September 2020

- Residents to provide a handwritten letter or email on their concerns regarding the intersection to be included with RMS review request
  - No letters received from residents to pass through, understood their has been some correspondence with the local member.
  - Liaised with TfNSW on multiple occasions who confirmed the intersection was constructed as per TfNSW specifications and has passed required safety audits. TfNSW have not identified any issues with the design, justification for an amendment or made any request to Newcastle Sand to amend the intersection.
- WSS to look into the causes of the dust swirling up behind the trucks when exiting the quarry.
  - More frequent sweeping of bitumen surface now undertaken, provisional registration of site machinery to undertake task, more stabilisation of batters adjacent to the road.

Community Complaints since 3 September 2020

- Community complaints register available at: https://www.newcastlesand.com.au/complaints-register/
- Three (3) complaints received since 3 September 2020:
  - Two in relation to trucks arriving before 6am.
  - One in relation to a 4wd vehicle making a right hand turn into the site.
- One entry in the register in addition to the three above is a file note by Newcastle Sand in relation to a further early truck arrival. This is included to demonstrate proactive approach to avoiding early truck arrivals.
- Our Drivers Code of Conduct has been reiterated to truck drivers and contractors in relation to the correct method and time to access the site.
- The Code of Conduct now includes a penalty barring the collection of sand by that driver for 24 hours if they arrive to site prior to 6am.

Regulatory Correspondence

- Annual Review has been submitted for 2020, DPIE do not want this released publicly until they have checked the document – will be available on the website when they do.
- DPIE correspondence received following a DPIE investigation into possible short comings that occurred in the clearing process during construction. Operational practices have been improved.
- Various correspondence with DPIE relating to trucks turning up at the gate prior to 6am. Newcastle Sand working hard to educate the drivers and have disciplinary action in the Traffic management plan. No trucks have been loaded or weighed at the site prior to 6am.
- Traffic Management Plan has been updated and approved by DPIE, key changes were around contact details and penalties for drivers arriving before 6am.
- The SWMP has been submitted for review by DPIE, and will require further changes to support the recent modification.

Changes to the Consent

- Modification 2 (Mod 2) to the consent was sort in late 2020 and approved in early 2021 to install a wash plant onsite to use instead of the approved air separator.
  - The modification has negligible environmental impacts.
  - In most cases likely to have benefits through improved air quality, lower noise levels (compared to air separator) and better sequencing of resources (i.e. less double handling).
  - Recovered fines will be blended with landscape sand or applied to batters and rehabilitation areas.
  - Water use may increase slightly, however, total water use for the site will remain within levels approved by the EIS.
  - Additional bitumen sealing may be undertaken of the northern haul road to minimise water use and maintain levels within approved levels.
  - Expect to have wash plant operational in late May 2021.

Changes to the Consent

- We are currently seeking an extension to the timing required for securing of onsite and offsite offsets on account of managing cashflow and difficulties in securing the correct offsets due to changing legislation.
  - Additional field work on the onsite offset has been completed in March 2021 due to changes in legislation.
  - Given the $250,000 bond currently held and protection of the onsite offset areas there is no environmental impact of the change.
  - Additional weed management of the onsite offset has been proposed to account for delays in the long term management actions starting for the offset.
  - This is currently under consideration.
- Other management plans will be reviewed and updated in the coming period.

Key activities completed during this period

- Continuing to refine and complete construction related aspects (e.g. batter rehabilitation, stockpile management and stabilisation).
- Completed hydro-mulching and application of geotextile to steeper batters to improve revegetation and reduce wind blown sand.
- Undertook pre-clearing surveys for Sector 3 and first portion of Sector 7 of the quarry.
- Pre-clearing includes:
  - Hollow bearing tree survey and erection of nest boxes in surrounding area proposed for offset.
  - Inspection of area of Aboriginal Heritage.
  - Survey of the area for radiation (in case of buried monzonite by RZM).

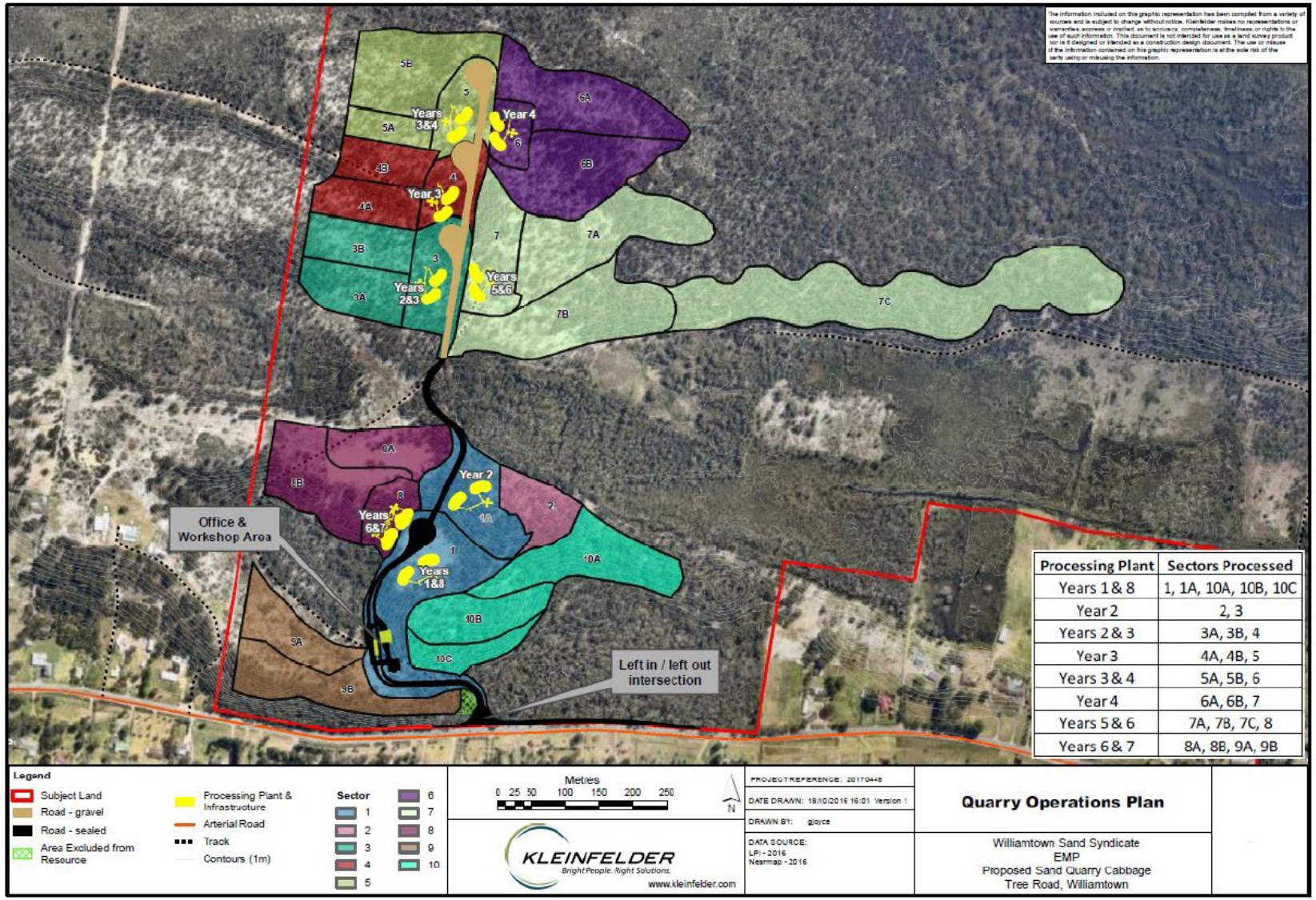
Key activities completed during this period

- Continuing to refine and complete construction related aspects (e.g. batter rehabilitation, stockpile management and stabilisation).
- Completed hydro-mulching and application of geotextile to steeper batters to improve revegetation and reduce wind blown sand.
- Undertook pre-clearing surveys for Sectors 3, 3A, 4 and first portion of Sector 7 of the quarry.
- Pre-clearing includes:
  - Inspection of area of Aboriginal Heritage.
  - Inspection for hollows and weeds.
  - Survey of the area for radiation (in case of buried monzonite by RZM).
  - Installation of the frog exclusion / sediment fence around perimeter of works area.
  - Nocturnal survey the night before the clearing campaign.

Key activities completed during this period

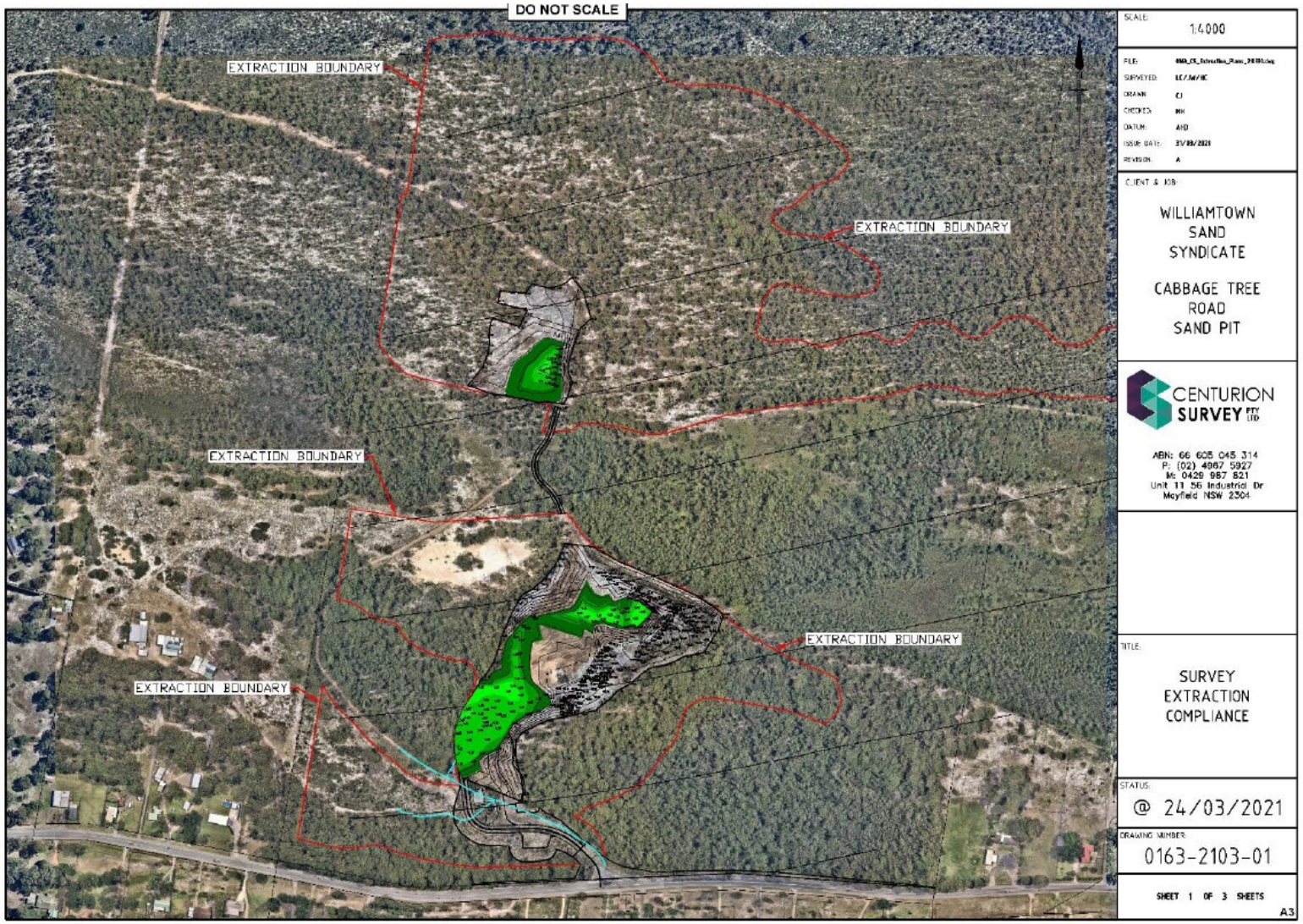
- Clearing occurred with Sector 3 and a portion of Sector 7, clearing includes:
  - Removal of non-hollow bearing trees first.
  - Leaving hollows to stand for two nights then soft felling of the tree.
  - Clearing is under the supervision of a licenced ecologist.
- Until the wash plant is operational, a key focus of the quarry is ensuring the production of the right sand to meet demands. Key demand is in relation to the concrete sand and to a lesser extent the white glass sand.
- Concrete sand must have silt levels maintained, while white glass sand has multiple requirements on size, composition and iron content, it is largely restricted to the upper layer of the sand resource.
- Wash plant will improve use of the natural resource by ensuring white glass sand is used where ever feasible for glass rather than blending to meet concrete sand.

Key activities completed during this period



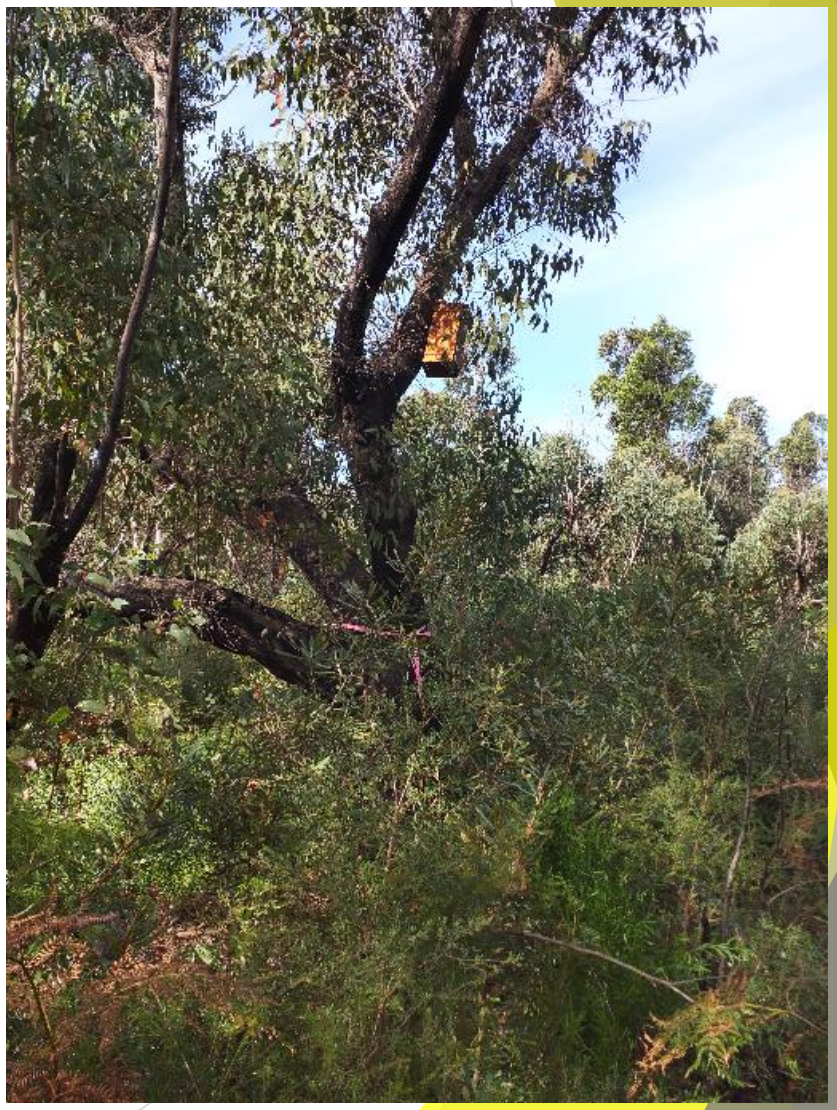
Processing Plant	Sectors Processed
Years 1 & 8	1, 1A, 10A, 10B, 10C
Year 2	2, 3
Years 2 & 3	3A, 3B, 4
Year 3	4A, 4B, 5
Years 3 & 4	5A, 5B, 6
Year 4	6A, 6B, 7
Years 5 & 6	7A, 7B, 7C, 8
Years 6 & 7	8A, 8B, 9A, 9B

Key activities completed during this period



Key Activities Completed During this Period

- Have currently installed 184 nest boxes within the offset area, this is 109 nest boxes in advance of the 75 hollows removed during clearing activities to date.



Key Activities Completed During this Period

- Continued progressive extraction of sand.
- Main focus of operations has been to ensure sufficient operational area to safely and efficient screen, stockpile, extract sand and load trucks.
- Some sand is screened to remove rocks and roots, other sand is loaded directly to trucks.
- Currently selling white, amber (concrete), landscape and fill sand from the quarry.
- Haulage since the last meeting (also see later slides):
  - Averaged approximately 25% of monthly haulage allowance.
  - Busiest day occurred in November at 69% of daily haulage allowance.
  - Busiest month was February 2021 at 36.6% of monthly haulage allowance.
- Weighbridge system is working well in helping regulating maximum haulage rates – system will not give driver a ticket unless under haulage rate.

Monitoring - Trucks August 2020

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
3-Aug	12	116	10.3%
4-Aug	11	116	9.5%
5-Aug	7	116	6.0%
6-Aug	10	116	8.6%
7-Aug	8	116	6.9%
10-Aug	1	116	0.9%
11-Aug	9	116	7.8%
12-Aug	6	116	5.2%
13-Aug	34	116	29.3%
14-Aug	16	116	13.8%
17-Aug	20	116	17.2%
18-Aug	25	116	21.6%
19-Aug	18	116	15.5%
20-Aug	22	116	19.0%
21-Aug	5	116	4.3%
24-Aug	42	116	36.2%
25-Aug	41	116	35.3%
26-Aug	21	116	18.1%
27-Aug	8	116	6.9%
28-Aug	5	116	4.3%
31-Aug	7	116	6.0%
Total trucks this month	**328**		
Approved maximum for month*		**2886**	**11.4%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks September 2020

Monthly Summary of Traffic Movements			
(as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Sep	34	116	29.3%
2-Sep	13	116	11.2%
3-Sep	17	116	14.7%
4-Sep	4	116	3.4%
7-Sep	11	116	9.5%
8-Sep	11	116	9.5%
9-Sep	8	116	6.9%
10-Sep	6	116	5.2%
11-Sep	16	116	13.8%
14-Sep	22	116	19.0%
15-Sep	41	116	35.3%
16-Sep	35	116	30.2%
17-Sep	22	116	19.0%
18-Sep	18	116	15.5%
21-Sep	8	116	6.9%
22-Sep	13	116	11.2%
23-Sep	14	116	12.1%
24-Sep	5	116	4.3%
25-Sep	17	116	14.7%
28-Sep	45	116	38.8%
29-Sep	22	116	19.0%
30-Sep	10	116	8.6%
Total trucks this month	**392**		
Approved maximum for month*		**2912**	**13.5%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks October 2020

Monthly Summary of Traffic Movements			
(as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Oct	10	116	8.6%
2-Oct	12	116	10.3%
6-Oct	8	116	6.9%
7-Oct	26	116	22.4%
8-Oct	44	116	37.9%
9-Oct	20	116	17.2%
12-Oct	21	116	18.1%
13-Oct	34	116	29.3%
14-Oct	39	116	33.6%
15-Oct	36	116	31.0%
16-Oct	33	116	28.4%
19-Oct	37	116	31.9%
20-Oct	29	116	25.0%
21-Oct	27	116	23.3%
22-Oct	23	116	19.8%
23-Oct	36	116	31.0%
24-Oct	8	90	8.9%
26-Oct	7	116	6.0%
27-Oct	14	116	12.1%
28-Oct	16	116	13.8%
29-Oct	13	116	11.2%
30-Oct	25	116	21.6%
Total trucks this month	**518**		
Approved maximum for month*		**2886**	**17.9%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks November 2020

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
2-Nov	19	116	16.4%
3-Nov	13	116	11.2%
4-Nov	25	116	21.6%
5-Nov	13	116	11.2%
6-Nov	28	116	24.1%
9-Nov	23	116	19.8%
10-Nov	38	116	32.8%
11-Nov	43	116	37.1%
12-Nov	51	116	44.0%
13-Nov	77	116	66.4%
14-Nov	3	90	3.3%
16-Nov	59	116	50.9%
17-Nov	80	116	69.0%
18-Nov	44	116	37.9%
19-Nov	64	116	55.2%
20-Nov	65	116	56.0%
23-Nov	37	116	31.9%
24-Nov	44	116	37.9%
25-Nov	68	116	58.6%
26-Nov	43	116	37.1%
27-Nov	55	116	47.4%
28-Nov	3	90	3.3%
30-Nov	57	116	49.1%
Total trucks this month	**952**		
Approved maximum for month*		**2796**	**34.0%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks December 2020

Monthly Summary of Traffic Movements			
(as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Dec	55	116	47.4%
2-Dec	75	116	64.7%
3-Dec	55	116	47.4%
4-Dec	59	116	50.9%
5-Dec	3	90	3.3%
7-Dec	51	116	44.0%
8-Dec	62	116	53.4%
9-Dec	48	116	41.4%
10-Dec	58	116	50.0%
11-Dec	57	116	49.1%
12-Dec	4	90	4.4%
14-Dec	56	116	48.3%
15-Dec	62	116	53.4%
16-Dec	35	116	30.2%
17-Dec	36	116	31.0%
18-Dec	42	116	36.2%
21-Dec	28	116	24.1%
22-Dec	36	116	31.0%
23-Dec	17	116	14.7%
24-Dec	4	116	3.4%
Total trucks this month	**843**		
Approved maximum for month*		**2706**	**31.2%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks January 2021

Monthly Summary of Traffic Movements			
(as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
4-Jan	6	116	5.2%
5-Jan	6	116	5.2%
6-Jan	12	116	10.3%
7-Jan	26	116	22.4%
8-Jan	23	116	19.8%
11-Jan	47	116	40.5%
12-Jan	24	116	20.7%
13-Jan	22	116	19.0%
14-Jan	34	116	29.3%
15-Jan	36	116	31.0%
16-Jan	12	90	13.3%
18-Jan	69	116	59.5%
19-Jan	72	116	62.1%
20-Jan	59	116	50.9%
21-Jan	55	116	47.4%
22-Jan	44	116	37.9%
23-Jan	5	90	5.6%
25-Jan	16	116	13.8%
27-Jan	35	116	30.2%
28-Jan	21	116	18.1%
29-Jan	22	116	19.0%
30-Jan	3	90	3.3%
Total trucks this month	**649**		
Approved maximum for month*		**2886**	**22.5%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks February 2021

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	**Total**	**Approved Maximum***	**Percentage of Approved Movements**
1-Feb	35	116	30.2%
2-Feb	21	116	18.1%
3-Feb	22	116	19.0%
4-Feb	26	116	22.4%
5-Feb	26	116	22.4%
6-Feb	4	90	4.4%
8-Feb	40	116	34.5%
9-Feb	43	116	37.1%
10-Feb	46	116	39.7%
11-Feb	38	116	32.8%
12-Feb	48	116	41.4%
13-Feb	12	90	13.3%
15-Feb	75	116	64.7%
16-Feb	74	116	63.8%
17-Feb	50	116	43.1%
18-Feb	25	116	21.6%
19-Feb	35	116	30.2%
20-Feb	1	90	1.1%
22-Feb	78	116	67.2%
23-Feb	77	116	66.4%
24-Feb	63	116	54.3%
25-Feb	86	116	74.1%
26-Feb	49	116	42.2%
27-Feb	7	90	7.8%
Total trucks this month	**981**		
Approved maximum for month*		**2680**	**36.6%**

** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

Monitoring - Trucks March 2021

Monthly Summary of Traffic Movements (as per Condition 26 of Consent SSD_6125)			
Date	Total	Approved Maximum*	Percentage of Approved Movements
1-Mar	34	116	29.3%
2-Mar	34	116	29.3%
3-Mar	34	116	29.3%
4-Mar	33	116	28.4%
5-Mar	45	116	38.8%
6-Mar	6	90	6.7%
8-Mar	41	116	35.3%
9-Mar	40	116	34.5%
10-Mar	34	116	29.3%
11-Mar	42	116	36.2%
12-Mar	42	116	36.2%
13-Mar	7	90	7.8%
15-Mar	35	116	30.2%
16-Mar	28	116	24.1%
17-Mar	31	116	26.7%
18-Mar	16	116	13.8%
19-Mar	11	116	9.5%
22-Mar	3	116	2.6%
24-Mar	17	116	14.7%
25-Mar	29	116	25.0%
26-Mar	37	116	31.9%
27-Mar	12	90	13.3%
29-Mar	34	116	29.3%
30-Mar	32	116	27.6%
31-Mar	63	116	54.3%
Total trucks this month	**740**		
Approved maximum for month*		**3028**	**24.4%**

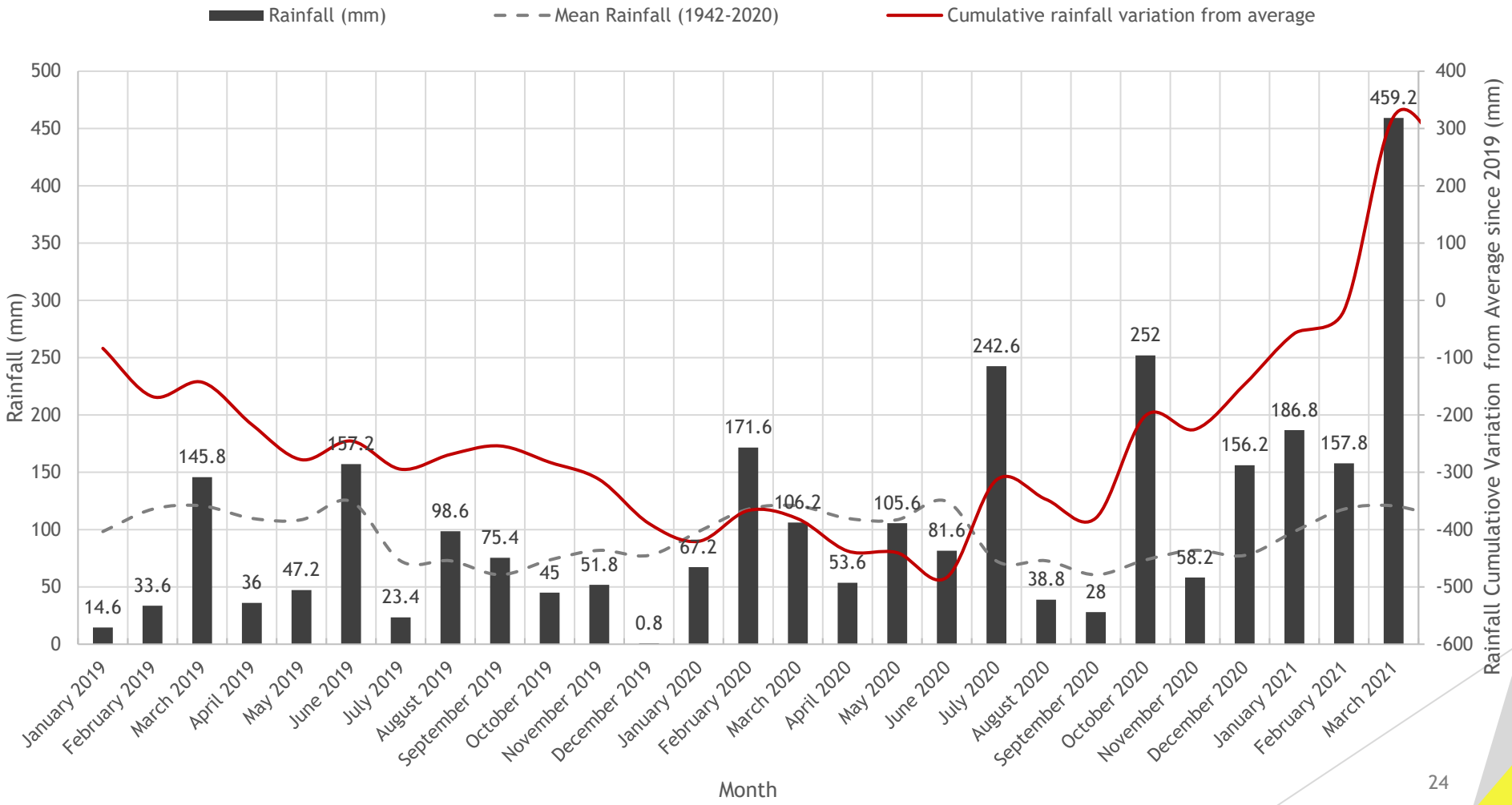
** Maximum approved haulage as per Condition 23 of Consent SSD_6125:*
- 6 trucks per hour from 6am to 7am Monday to Friday.
- 10 trucks per hour from 7am to 6pm Monday to Friday.
- 10 trucks per hour from 7am to 4pm on Saturday.
- No haulage on Public Holidays.

The weighbridge and ticketing system is routinely calibrated and managed by an accredited external business to ensure the sale and transport of sand from the quarry is consistent with approved haulage limits and operational times.

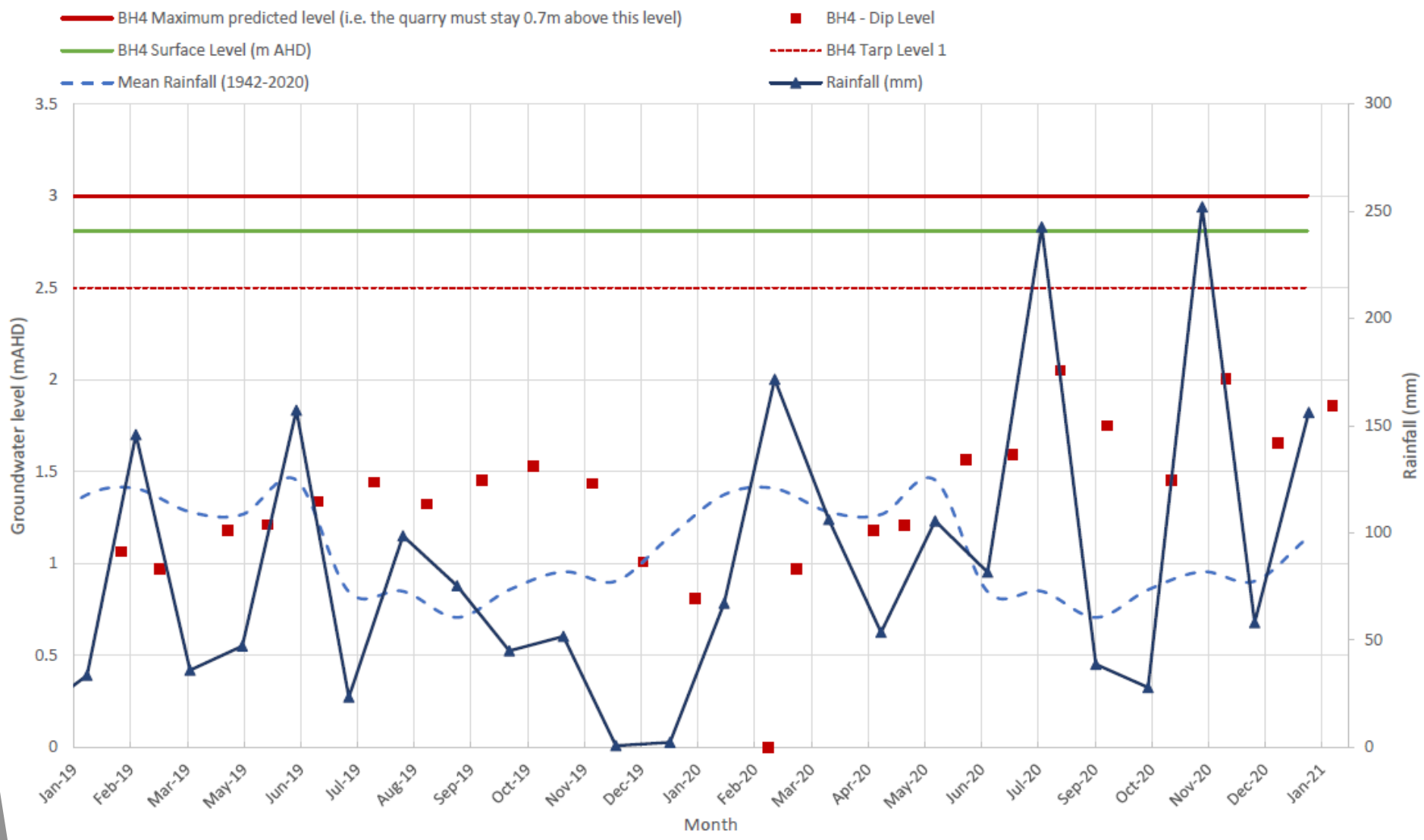
Environmental Monitoring - Water

- Continuous logging of groundwater depth data at several wells across site.
- Groundwater and surface water sampled on monthly basis, results available on the website https://www.newcastlesand.com.au/monitoring-results/.
- Recent rainfall has returned the rainfall deficit starting in 2019.
  - 2019 rainfall was reached 389mm behind average at end of December 2019
  - 2020 rainfall reached a peak deficit of 483mm in June 2020, 146mm behind at the end of December 2020.
  - By end of March 2021, rainfall was 321mm ahead of average since January 2019.
- Changing groundwater levels on account of rainfall has created more variation in water quality than in baseline data collected during 2019.
- Kleinfelder concluded in their annual review for 2020 that there is no identifiable trend in the data as a result of the quarry and that variation is most likely due to rainfall.
- PFAS has had isolated spikes in SW1 (near road) and more consistently at SW4 (channel at eastern edge of site), levels remain below drinking water criteria and appear to vary in response to rainfall.

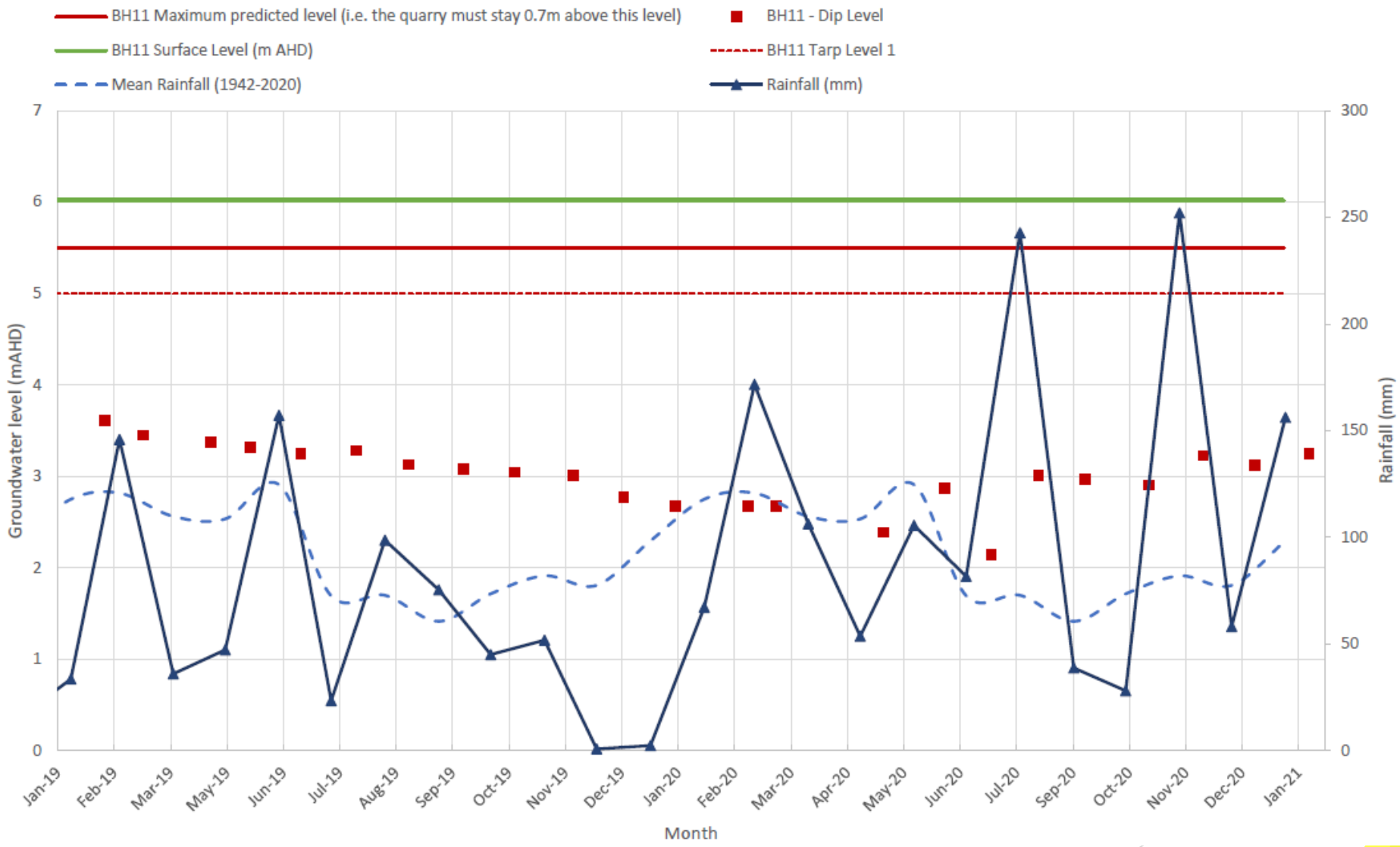
Environmental Monitoring - Water



Environmental Monitoring – Water Levels



Environmental Monitoring – Water Levels



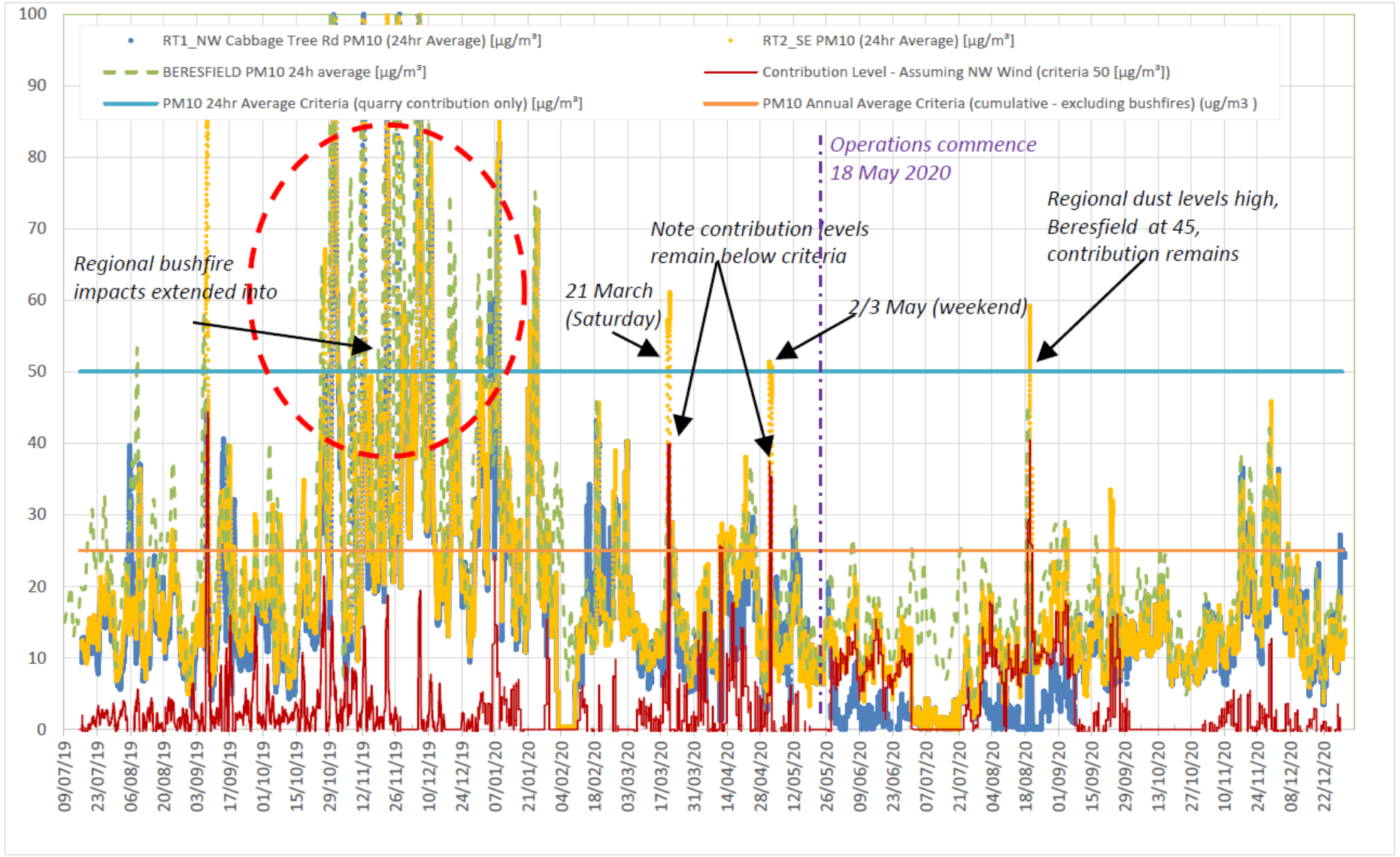
Environmental Monitoring - Air

- Network includes two Beta Attenuation Monitors (BAMs) that measure real-time particulate matter smaller than 10 micron (PM10).
  - These record average value every 15 minutes continuously.
- Two High Volume Air Sampler (HVAS) one measuring PM10 and one measuring total suspended particulates (TSP).
  - These run for 24 hours every six days.
- Quarry must implement all reasonable and feasible avoidance and mitigation measures so particulate emissions from quarry do not cause exceedance of:
  - PM10 annual average 25 $\mu g/m^3$ cumulative.
  - Quarry PM10 contribution over 24 hour average 50 $\mu g/m^3$.

Environmental Monitoring - Air

- PM10 levels measured with HVAS at 350 Cabbage Tree Road for 2020 reached 16.3 µg/m^3 against 25 µg/m^3 criteria.
- PM10 measured with BAM at 393 Cabbage Tree Road for 2020 reached 15µg/m^3 against 25 µg/m^3 criteria.
- PM10 measured with BAM at 453 Cabbage Tree Road for 2020 reached 12.2µg/m^3 against 25 µg/m^3 criteria.
- TSP levels measured with HVAS at 393 Cabbage Tree Road for 2020 reached 42.0 µg/m^3 against 90 µg/m^3 criteria.
- Outside of bushfire effects that ended at start of 2020, the highest dust levels in 2020 were on weekends in March and May, and in August as would be expected due to regional dust levels increasing, current high rainfall keeping dust levels low.
- Long term issues recently resolved with monitors, identified a leaky switch/junction box (reason for intermittent errors). Monitors recently calibrated by TES.
- Air quality model in assessment used an assumed annual average background of 19.4µg/m^3.
- Data summarised online at: https://www.newcastlesand.com.au/air-quality/

Environmental Monitoring – Air (BAM) - 2020



The site from September 2020 to March 2021

Surplus topsoil stockpiled during construction regenerating well

The site from September 2020 to March 2021

Frog fence installed around Sector 3 and 4

The site from September 2020 to March 2021

Extraction occurring within Sector 1A / 2 – this shows the process of pushing off coffee rock to access amber sand for concrete – the wash plant will minimise this type of rehandling

The site from September 2020 to March 2021

Hydromulch being applied to the batter on the entry road

The site from September 2020 to March 2021

Hydromulch and jute matting applied to the batter adjacent to the office

The site from September 2020 to March 2021

Truck loading area looking through Sector 1 to Sector 2

Wild Dog Footprints and Camera Records

Wild dog footprints have been observed onsite along with recorded images from monitoring cameras – trapping / control program to be investigated

Questions?

More Information

- www.newcastlesand.com.au
- Quarry Manager – Shane Burton - 0402 648 079

APPENDIX 4. NEWSLETTERS

NEWCASTLE SAND

27 March 2020

Dear Residents,

Williamtown Sand Syndicate (WSS) wishes to advise adjoining residents of a recently approved modification to the Cabbage Tree Road Sand Quarry.

The modification approval can be found on the Departments of Planning's website Ref No SSD-6125 Modification 1 - Glass Sand Trial.

https://www.planningportal.nsw.gov.au/major-projects/project/27086

The modification allows for 5,000 tons of sand to be dispatched from the site between the hours of 9am and 2pm Monday to Friday under strict traffic control. With all vehicles entering the site via a left turn in and existing the site with a left turn out.

Please accept this communication as providing in excess of the minimum 48 hours notice stipulated in the consent. The sand trial which is scheduled to commence Tuesday 31st March 2020 at 9am and will be completed over a maximum of 5 days total within 3 weeks of the commencement date.

Should you require any clarification regarding this modification please contact me 0429 877 704.

Regards,

Darren Williams
General Manager

398 Cabbage Tree Rd, Williamtown NSW 2318
PO Box 186, Waratah NSW 2298

E: info@newcastlesand.com.au
P: 0422 901 271
W: www.newcastlesand.com.au

The Trustee for Newcastle Sand Unit Trust
T/A Newcastle Sand
ABN: 40 957 455 785

Cabbage Tree Road Sand Quarry

Welcome to **Edition 8** of the Cabbage Tree Road Sand Quarry Newsletter. The purpose of this newsletter is to provide the community with an update on how the project is progressing and inform the Community of upcoming events.

As you are aware, we are entering the final stages of the intersection construction and wish to advise of changes to traffic conditions and unavoidable noise generating activities.

We appreciate the tolerance of most adjoining residents during the construction phase of the intersection and can assure you we have tried to complete the intersection in the minimal amount of time with minimum impact to residents.

ACTIVITIES SHEDULED FOR MONDAY 26TH APRIL 2020

The following activities will be undertaken from 7am on Monday 26th April;

1. The existing concrete barriers for the length of the project along Cabbage Tree Road will be removed. Traffic along Cabbage Tree Road will be reduced to single lane flow controlled by stop/go in accordance ROAD OCCUPANCY LICENCE NO:1388130 issued by Transport NSW for the duration of this activity.

2. The concrete barriers will be replaced with temporary traffic delineator posts.

3. Following completion of the removal of the barriers and the installation of the delineator post, traffic will return to two way flow and traffic control will cease.

ACTIVITIES SHEDULED FOR TUESDAY 27TH APRIL 2020

The following activities will be undertaken from 7am on Tuesday 27th April;

1. From 7am traffic along Cabbage Tree Road will be reduced to single lane flow controlled by stop/go in accordance ROAD OCCUPANCY LICENCE NO:1388130 issued by Transport NSW for the duration of this activity.
2. Temporary delineation posts removed for the scheduled activity.
3. Saw cutting of existing pavement is anticipated to be completed within 1- 2 hours and requires the use of a concrete saw to cut the existing pavement for the full length of the job to create a clean interface for the new works to join the existing Cabbage Tree Rd pavement.
4. Pavement Milling / profiling will immediately follow the saw cutting activity and will involve profiling a 1.5m width of the existing Cabbage Tree Rd pavement between the saw cut and the new pavement. Pavement millings will be collected and removed from site by truck.
5. Noise monitoring will take place during these activities, however we remind resident's these activities fall under EPA's Interim Construction Noise Guideline and not Condition 3 of Schedule 3 of the Consent, that specifically excludes noise associated with the intersection construction.

Noise Impact Assessment Criteria

3. The Applicant must ensure that the noise generated by the development does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Receiver	Day $L_{Aeq\ (15\ minute)}$	Shoulder $L_{Aeq\ (15\ minute)}$	Shoulder $L_{Amax\ (1\ minute)}$
Any residence on privately owned land	43	39	45

In this condition, 'the development' excludes road construction activities associated with the intersection of the quarry access road and Cabbage Tree Road and vegetation clearing operations within the Southern Resource Area (see condition 4 below).

Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the *NPI*. Appendix 5 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.

The criteria in Table 2 do not apply if the Applicant has an agreement with relevant landowner/s to exceed the noise criteria, and the Applicant has advised the Department in writing of the terms of this agreement.

6. Following the completion of the milling activities the delineator posts will be reinstated and traffic will return to two way flow and traffic control.

ACTIVITIES SHEDULED FOR WEDNESDAY 28TH APRIL 2020

1. From 7am traffic along Cabbage Tree Road will be reduced to single lane flow controlled by stop/go in accordance ROAD OCCUPANCY LICENCE NO:1388130 issued by Transport NSW for the duration of this activity.
2. Asphalt Placement – the final wearing course asphalt will be placed in a similar nature to what occurred on Thursday 23/04/2020. This will include materials being delivered to site, paving machine to place material and a roller compacting and finishing the asphalt along with other associated minor plant and equipment.
3. Following the completion of the asphalt placement and finishing the delineator posts will be reinstated and traffic will return to two way flow and traffic control.

ACTIVITIES SHEDULED FOR THRUSDAY 29TH APRIL 2020

4. From 7am traffic along Cabbage Tree Road will be reduced to single lane flow controlled by stop/go in accordance ROAD OCCUPANCY LICENCE NO:1388130 issued by Transport NSW for the duration of this activity.
5. Temporary delineation posts will be removed as required and line marking activities will occur.
6. Following the completion of the milling activities the delineator posts will be reinstated and traffic will return to two way flow and traffic control.

Changes to the above schedule may occur in the event of unfavourable weather or any other unforeseeable delay, irrespective of this all work will take place within the approved construction time controls.

ACCESSING THE SITE AND YOUR SAFETY

WSS would like to remind the community that the property on which the quarrying is occurring is both a construction site and operating quarry. For your safety, no unauthorised access is permitted on the land. If you would like to access the site, please contact the quarry manager, who will, where possible, assist with your request.

CONTACT US

If you have any comments or would like more information, or have any questions or feedback relating to the Cabbage Tree Road Project, please contact:

Paul Bourne
Quarry Manager
M 0402 648 079
E paul@newcastlesand.com.au

ABOUT WILLIAMTOWN SAND

Williamtown Sand Syndicate Pty Ltd is a Newcastle based privately funded investment business utilising local employees, contractors, consultants, resources and suppliers of services to undertake this project.

Cabbage Tree Road Sand Quarry

Welcome to **Edition 9** of the Cabbage Tree Road Sand Quarry Newsletter. The purpose of this newsletter is to provide the community with an update on how the project is progressing and inform the Community of upcoming events.

We are pleased to advise construction activities relating to the intersection and initial works are now complete and Newcastle Sand has been granted Practical Completion from Transport NSW and dedicated for the intersection works. With all other approvals and management plans approved and in place the quarry has now progressed from construction to operational phase.

We once again thank the adjoining residents for their tolerance during the final weeks of the construction and we trust they too are happy to see construction activities cease and traffic conditions returned to normal.

OPERATING HOURS

As a reminder the approved operating hours for the quarry are as presented below, extracted from Schedule 3 of the Consent;

Table 1: Operating Hours

Activity	*Permissible Hours*
Quarrying operations	• 7 am to 5 pm Monday to Friday • 7 am to 4 pm Saturday • At no time on Sundays or public holidays
Loading and dispatch of laden trucks	• 6 am to 6 pm Monday to Friday • 7 am to 4 pm Saturday • At no time on Sundays or public holidays
Maintenance	• May be conducted at any time, provided that these activities are not audible at any privately-owned residence

At present we are not trading on Saturday's, however maintenance, training or minor works may occur on Saturdays as required in accordance with the consent so there may be some activity onsite. Trading on Saturday's will be subject to market demand.

SECURITY

The quarry site is under 24 hour 7 day per week monitored surveillance which will remain in place. We are happy to report we have no incidents to date.

Residents may also witness mobile security patrols being undertake randomly on weekday mornings between 5am and 6am by BSMS Security. This is in accordance with Condition 24 Traffic Management Plan, item (d);

(d) describe measures to ensure that trucks do not park on the verge of Cabbage Tree Road prior to the opening time of the quarry, including the use of security guards at least twice per week for at least six months from the commencement of trucking operations;

We are please to report no incidents or anomalies have occurred since patrols commenced.

ACCESSING THE SITE AND YOUR SAFETY

WSS would like to remind the community that the property on which the quarrying is occurring is both a construction site and operating quarry. For your safety, no unauthorised access is permitted on the land. If you would like to access the site, please contact the quarry manager, who will, where possible, assist with your request.

ENIRONMENTAL MONITORING

WSS is currently undertaking environmental reporting in accordance with the Consent and the EPL with results and reporting being published periodically on the web site.

CONTACT US

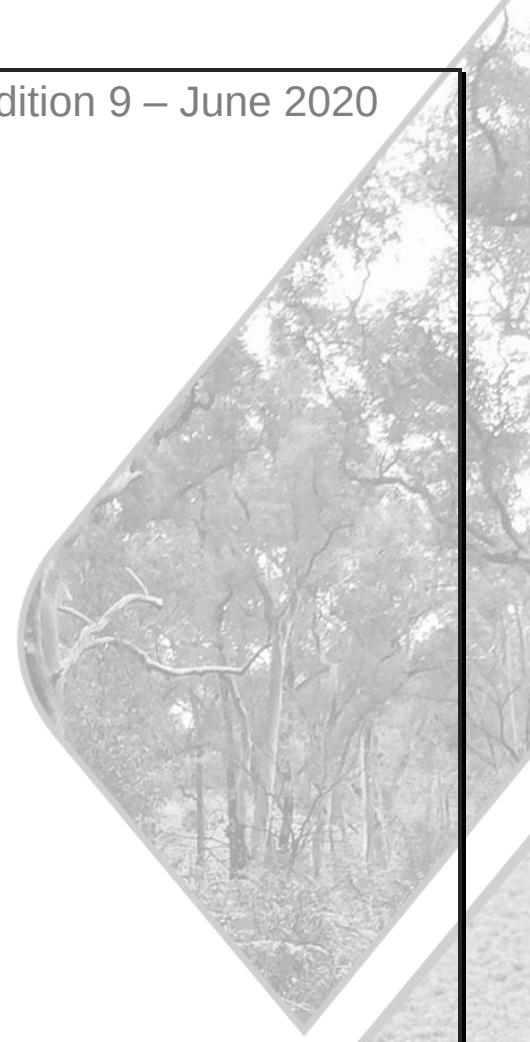
If you have any comments or would like more information, or have any questions or feedback relating to the Cabbage Tree Road Project, please contact:

Paul Bourne
Quarry Manager

M 0402 648 079
E paul@newcastlesand.com.au

ABOUT WILLIAMTOWN SAND

Williamtown Sand Syndicate Pty Ltd is a Newcastle based privately funded investment business utilising local employees, contractors, consultants, resources and suppliers of services to undertake this project.



Cabbage Tree Road Sand Quarry

Welcome to **Edition 9** of the Cabbage Tree Road Sand Quarry Newsletter. The purpose of this newsletter is to provide the community with an update on how the project is progressing and inform the Community of upcoming events.

We are pleased to advise construction activities relating to the intersection and initial works are now complete and Newcastle Sand has been granted Practical Completion from Transport NSW and dedicated for the intersection works. With all other approvals and management plans approved and in place the quarry has now progressed from construction to operational phase.

We once again thank the adjoining residents for their tolerance during the final weeks of the construction and we trust they too are happy to see construction activities cease and traffic conditions returned to normal.

OPERATING HOURS

As a reminder the approved operating hours for the quarry are as presented below, extracted from Schedule 3 of the Consent;

Table 1: Operating Hours

Activity	*Permissible Hours*
Quarrying operations	• 7 am to 5 pm Monday to Friday • 7 am to 4 pm Saturday • At no time on Sundays or public holidays
Loading and dispatch of laden trucks	• 6 am to 6 pm Monday to Friday • 7 am to 4 pm Saturday • At no time on Sundays or public holidays
Maintenance	• May be conducted at any time, provided that these activities are not audible at any privately-owned residence

At present we are not trading on Saturday's, however maintenance, training or minor works may occur on Saturdays as required in accordance with the consent so there may be some activity onsite. Trading on Saturday's will be subject to market demand.

SECURITY

The quarry site is under 24 hour 7 day per week monitored surveillance which will remain in place. We are happy to report we have no incidents to date.

Residents may also witness mobile security patrols being undertake randomly on weekday mornings between 5am and 6am by BSMS Security. This is in accordance with Condition 24 Traffic Management Plan, item (d);

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We are please to report no incidents or anomalies have occurred since patrols commenced.

ACCESSING THE SITE AND YOUR SAFETY

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ENIRONMENTAL MONITORING

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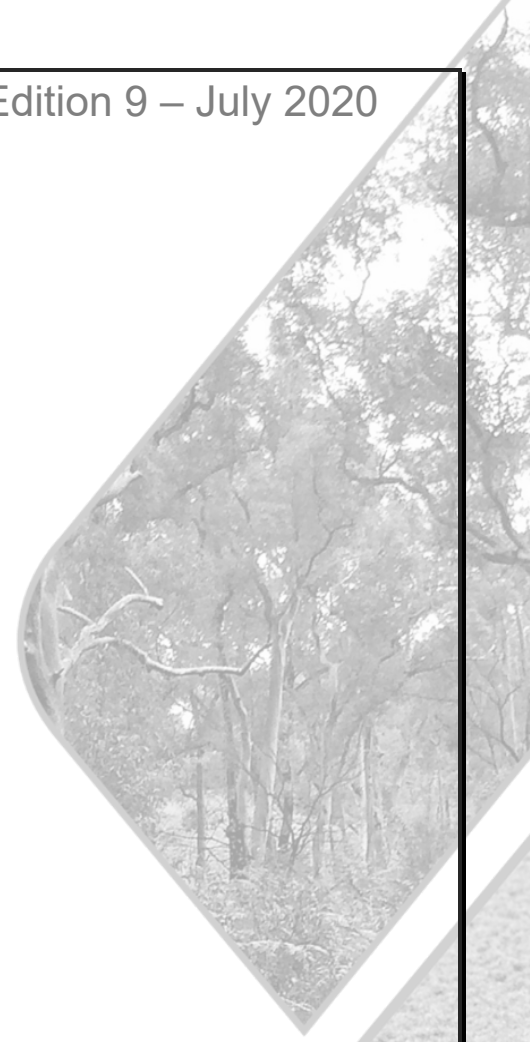

Cabbage Tree Road Sand Quarry

Welcome to **Edition 10** of the Cabbage Tree Road Sand Quarry Newsletter. The purpose of this newsletter is to provide the community with an update on how the project is progressing and inform the Community of upcoming events. Its business as usual since our last newsletter with the exception of the continued Covid-19 cautions.

OPERATING HOURS

As a reminder the approved operating hours for the quarry are as presented below, extracted from Schedule 3 of the Consent;

Table 1: Operating Hours

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NOMINATIONS CALLED FOR NEW MEMBERS OF THE COMMUNITY CONSULTATIVE COMMITTEE

The Chairman on the Consultative Community Committee Mr John Turner has requested that nominations be called to add further members to join the Cabbage Tree Road Sand Quarry Consultative Community Committee. This is a formal process and is described in the attached advertisement which will be publish in the Port Stephens Examiner on Thursday 22nd October 2020. If you are interested to become a part of the committee, please refer to the advertisement and feel free to email Mr John Turner to discuss the role or request further information. His contact details are provided in the advertisement attached.

Nominations are open for appointment of additional community members to the Cabbage Tree Road Sand Quarry Community Consultative Committee

Want to contribute to your community?

Many State specific projects in NSW have Community Consultative Committees
These committees provide a forum for open dialogue between the proponent and representatives of the local community.
The committee presently exists but is to add further members to the committee from the local community to join the Cabbage Tree Road Sand Quarry Community Consultative Committee.
The sand quarry has planning approval for the extraction of sand for commercial purposes from the quarry located on Cabbage Tree Road near Williamtown.
The role of the committee member is voluntary.
Selection criteria: You must reside in the Council area of Port Stephens and from the wider community around the sand quarry. You must demonstrate involvement in local groups and or activities. You must have a knowledge and awareness of the project and related issues of concern to the local community and be able to represent and communicate the interests of the affected community. You will also have to adhere to the committee's code of conduct.
You will be expected to contribute constructively at meetings which at present are held four times a year and communicate information about the Cabbage Tree Road Sand Quarry between the committee and the broader community.
If you would like to apply, download a copy of the relevant nomination form at **www.planning.nsw.gov.au>communityconsultativecommittees.**
Contact John Turner the Independent Chair of the Cabbage Tree Road Sand Quarry Community Consultative Committee at **harcourt2317@gmail.com** for more information.
Applications must be lodged by 19th November 2020 and sent to the independent chair of the community consultative committee at **harcourt2317@gmail.com**

SECURITY

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APPENDIX 5. WATER MONITORING REPORT

APPENDIX 6. GROUNDWATER LEVELS

APPENDIX 7. AMPHIBIAN SURVEY

APPENDIX 8. FAUNA MONITORING

APPENDIX 9. BORTOLO RADIATION SURVEY

APPENDIX 10. ECOLOGICAL INSPECTION LETTERS

APPENDIX 11. NOISE MONITORING REPORTS

NEWCASTLE SAND

APPENDIX 12. PFAS EXPOSURE PATHWAYS REVIEW

NEWCASTLE SAND

APPENDIX 13. TRUCK MONITORING RECORDS