



March
2021

Annual Review and Compliance
Report for
Maroota Sand Quarry
DA 267-11-99
Year Ending 31st December 2020



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Maroota Sand Quarry

Annual Review and Compliance Report 2019

Name of operation	Roberts Rd, Maroota Sand Quarry
Name of operator	Hodgson Quarries and Plant Pty Ltd
Development consent / project approval #	DA 267-11-99
Name of holder of development consent / project approval	Dr L. S. Martin
Mining lease #	N/A
Name of holder of mining lease	N/A
Water licence #	See Section 4.3
Name of holder of water licence	See Section 4.3
MOP/RMP start date	Not yet required
MOP/RMP end date	Not yet required
Annual Review start date	01/01/2020
Annual Review end date	31/12/2020

I, Lisa Thomson, certify that, to the best of my knowledge, this audit report is a true and accurate record of the compliance status of Roberts Rd, Maroota Sand Quarry for the period 1/1/2020 to 31/12/2020 and that I am authorised to make this statement on behalf of Hodgson Quarries and Plant Pty Ltd.

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	Lisa Thomson
Title of authorised reporting officer	Environmental Consultant
Signature of authorised reporting officer	

Revision Table

Date	Version	Author	Reviewed	Approved
25/3/21	F0	LT	SK/SR	

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1 Executive Summary

This Annual Review and Conditions Compliance Report has been prepared on behalf of Hodgson Quarries and Plant Pty Ltd (the Operator). The Roberts Rd Maroota Sand Quarry, located on Roberts Road near Old Northern Road, Maroota, NSW has been extracting sand and gravels in accordance with Development Approval conditions 267-11-99, Environment Protection Licence 6535 and Water Access Licence 24163 since the 1990s.

Production levels were lowest in the past five years. The bushfire crisis that extended from October 2019 to January 2020 impacted the air quality of the site. Higher rainfall for the remainder of the year saw air quality return to acceptable levels.

Surface water dams and groundwater were monitored quarterly for quality and continuously for depth. The surface water dams and quarry operations are both perched more than 2m above the groundwater levels, which have risen in accordance with the increased rainfall.

Noise monitoring during the year showed compliance with requirements in both early morning and daytime production times.

Native remnant vegetation on the site has been regenerating from the soil seed bank as a result of favourable growing conditions. Forbs and ferns, which were not well represented in previous monitoring periods are now present and native grasses are making a strong comeback. Plantings on the perimeter bundwalls have had mixed success: the northern perimeter buffer has been restored and revegetated, however sections of the southern perimeter require further attention.

There were four DA conditions with non-compliances and two EPL conditions. All have been actioned during the report period. The site Water Management Plan has been updated and the National Resources Access Regulator has been contacted regarding consultation on the report (this addresses two conditions). The DPIE was contacted regarding how the Conservation Bond may be paid, no response has yet been received. The condition regarding all conditions be complied with is also non-compliant.

Roll-bunds were placed around drums stored in the workshop, as recommended during the Independent Environment Audit undertaken during 2020. The EPA Annual Return was submitted to the portal late due to lack of internet access.

Operations are expecting no major changes until the approval of Modification 4, currently before the DPIE.

2 Statement of Compliance

Table 1. Statement of Compliance

Were all conditions of the relevant approvals(s) complied with?	
Development Consent # 267-11-99 as modified	No, see Table 2 and <i>Appendix A</i>
Environmental Protection License 6535	No, see Table 2 and <i>Appendix A</i>
NSW Office of Water Licenses	Yes

Table 2. Summary of Non-Compliances

Reference	Condition Description (Summary)	Compliance status comments	Action
DA S2 C2b	The Applicant shall: (b) comply with the conditions of this consent	Not all conditions compliant	
DA S2 C42	The Applicant shall prepare a Water Management Plan.....updated on an annual basis	WMP has been reviewed annually but not updated in consultation with DPIE and DPI-Water. Specifically the reason for not requiring the Process Dam engineering is not explained within the WMP	An updated Water Management Plan has been prepared and consultation with NRAR is underway
DA S2 C45	The Applicant must ensure that the Process Water Dam is designed and constructed in a manner that satisfies the design and construction criteria for the Process Water Dam as developed under the Surface Water Management Plan	Process Dam construction no longer required. Explanation to be included in the updated WMP	An updated Water Management Plan has been prepared and consultation with NRAR is underway
DA S2 C61	The Applicant shall lodge a Conservation Bond with the Department	DPIE yet to inform Applicant how this can occur	A letter was posted to the DPIE on 23 rd October 2020 requesting instructions on how to lodge the conservation bond (<i>Appendix L</i>). No response has been received.
EPL 6535 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.	Drums of oil stored within the workshop were noted to have no spill protection during the IEA 2020.	Roll bunds in place, see Section 2.1.3 .
EPL 6535 R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period...	Annual Return submitted to Portal 8 days late due to lack of internet access	Next EPA Annual due 11/05/2021.

2.1 ACTIONS TO ADDRESS NON-COMPLIANCES

2.1.1 Water Management Plan Updates

An updated Water Management Plan has been prepared and consultation with the Water Department is underway. The draft will be submitted to DPIE along with this Annual Report.

2.1.2 Conservation Bond

As suggested in the Independent Environmental Audit, a letter was posted to the DPIE on 23rd October 2020 requesting instructions on how to lodge the conservation bond (*Appendix L*). No response has been received.

2.1.3 Drum Storage in Workshop

As suggested in the Independent Environmental Audit, roll bunds were installed around drums stored in the workshop.

Photoplate 1. Roll Bunds Installed in Workshop



2.2 INDEPENDENT ENVIRONMENTAL AUDIT 2020

In accordance with consent condition 70, an Independent Environmental Audit was undertaken during 2020. The final report was submitted and received at the DPIE on 31/08/2020 along with a response and action plan. Non-compliances from the Audit are included in [Table 2](#) above. Additional comments are included in [Table 3](#) below.

Table 3. IEA 2020 Findings, Recommendations, Actions

Type	Date	Issue	Action
Correspondence	19/5/2020	Auditors approved by DPIE	None required
Adequacy Review	22/9/2020	Audit undertaken late	Not possible to undertake site visit during Pandemic. Next IEA due prior to 18/03/2023.
Adequacy Review	22/9/2020	Reviewer failed to notice audit declaration was included in the application for approval for both auditors.	Co-signed declaration forwarded via email 24/09/2020

Type	Date	Issue	Action
Finding re S2 C36 Air Quality Criteria & S2 C68 Incident Reporting	Several	PM10 exceedances reported to EPA and DPIE but no response received.	All future correspondence and follow-up with departments will be stored for future reference. DPIE communications will be via Portal.
Finding re S2 C36 Air Quality Monitoring	21/07/2020 ongoing	Location of D2 dust gauge impeded by trees, not compatible with AS3580.10.1	Location of gauge is reviewed every month, suitable location not yet found. Restrictions reported on every Lab Report and Annual Report.
Finding re S2 C54 Flora and Fauna	Ongoing	Planted vegetation on cnr Roberts Rd and Old Northern Rd removed by energy company not yet replaced.	Low shrubs were planted in October and November 2020

2.3 ACTIONS REQUIRED FROM PREVIOUS REPORTS

The 2019 Annual Review and Conditions Compliance Report was submitted to DPIE on 27th March 2020 through the Major Projects Portal, and emailed direct to NRAR. Acknowledgement was received from DPIE on 27th March 2020 and NRAR downloaded the report in June 2020. No formal correspondence of the acceptance of the report nor any actions required has been received to date.

3 Introduction

3.1 PROJECT SITE

This Annual Review and Conditions Compliance Report has been prepared by VGT Environmental Compliance Solutions Pty Ltd (VGT) on behalf of Hodgson Quarries and Plant Pty Ltd (the Operator). The Roberts Rd Maroota Sand Quarry is located on Roberts Road near Old Northern Road, Maroota, NSW. Maroota is approximately 50 kilometres north-west of Sydney (see [Figure One](#)). The Operator extracts sand and gravels from the site according to Development Approval conditions 267-11-99.

3.2 BACKGROUND

The Maroota area is known for the production of sand from a paleochannel system and represents a valuable resource to the building industry. The sand is obtained from two main sources, the Maroota Sand which overlies the weathered profiles of the Hawkesbury Sandstone. Clay beds deposited by the meandering of the paleochannels are common throughout the Maroota Sand formation.

The Roberts Rd site has been operational since the 1990's and construction of a water supply dam commenced in or around the 1970's. Consent was granted for extraction and processing of sand, clay and pebble material in 2000 and the continued construction of the dam which is located on the northern boundary of the site. The client took over operations on the site in 2004.

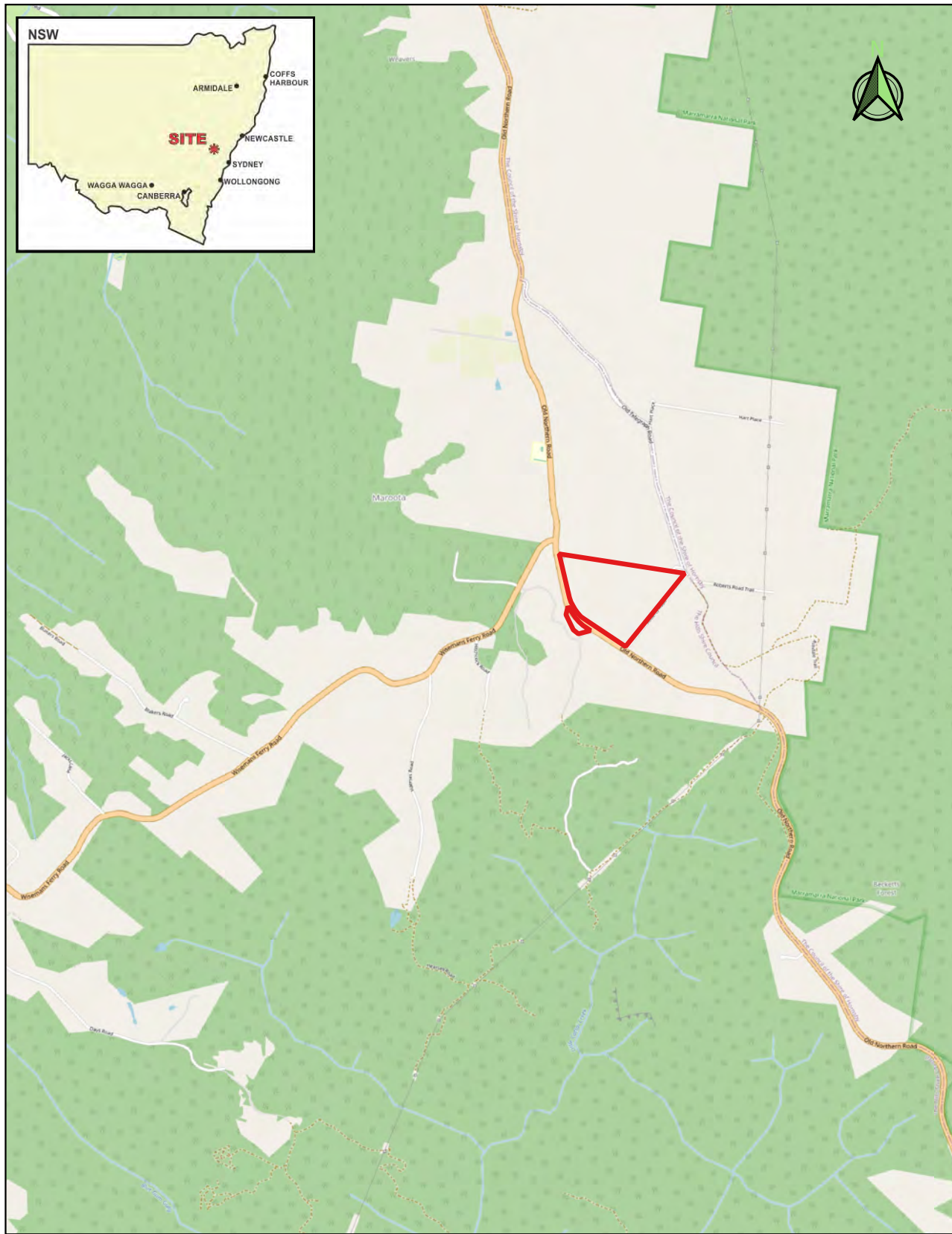
This Annual Review and Conditions Compliance Report covers the period 1st January 2020 to 31st December 2020 and has been conducted against the Modification 2 approved on 18/3/2016 and associated documents.

3.3 QUARRY CONTACTS

	Production Manager	Environmental Officer
	Martin Hodgson	Stuart Reed
	Hodgson Quarry and Plant Pty Ltd	Hodgson Quarry and Plant Pty Ltd
Address	PO Box 1778, Gosford NSW 2250	PO Box 1778, Gosford NSW 2250
Mobile	0408 251 393	0418 277 871
Phone	(02) 4372 1649	(02) 4372 1649
Email	hodgsonquarries@gmail.com	hodgsonquarries@gmail.com

Plan of:	Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Site Location	Location:	Maroota Quarry, Roberts Road, Maroota, NSW	Source:	Google Maps & nearmap - Image Date 18/03/2020	Plan By:	SK/JD
Figure:	ONE	Council:	Hills Shire Council	Survey:	Not Applicable	Project Manager:	LT
Version/Date:	V0 22/03/2021	Tenure:	Not Applicable	Projection:	GDA2020/MGA Zone 56 EPSG:7856	Office:	Thornton
Our Ref:	10418_HMA_ARC21_Q001_V0_F1	Client:	Hodgson Quarries & Plant Pty Ltd	Contour Interval:	Not Applicable		

This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.



0 0.5 1 1.5 km



0 250 500 750 m

Legend

Property Boundary

4 Approvals

This section details the approvals and licenses held for the site, as well as relevant legislative requirements that the owner, operator and site workers should be aware of. This chapter will be reviewed annually to ensure information remains up to date with legislative and policy changes.

4.1 DEPARTMENT OF PLANNING, INDUSTRY AND ENVIRONMENT

Development approval (DA267-11-99), with conditions of consent was first issued by the then Department of Urban Affairs and Planning on the 31st of May 2000. The first modification to S98/00772 was issued on the 29th of November 2000 (Mod 1). In view of the imminent expiry of the consent in May 2015, a further Modification to Consent (Mod 3) was submitted to the DPE to extend the life of the quarry to permit continued operations whilst Mod 2 was under consideration by the DPE. This was approved on the 18th of August 2015 with an expiry of the 31st of May 2016.

A Modification to Consent (Mod 2) to both regularise the existing extraction operation and to extend the life of the approved extraction was submitted to the Department of Planning and Environment (DPE) in May 2015. The DPE made requests for further information and an amended Modification to Consent document addressing those issued was submitted in September 2015 and approved on 18th March 2016. The consolidated consent is given in *Appendix B*.

4.1.1 Development Application Changes

There have been no consent changes during 2020.

A proposal to import up to 320,000 tonnes per annum of VENM and/or ENM and increase the allowable truck movements to 140 per day is at the Assessment stage.

4.1.2 Report Requirements

This Review is required under condition 6 (Conditions Compliance Report) and 66 (Annual Review) of the consolidated consent. Permission to consolidate the two reviews required under Mod 2 was obtained from the Department of Planning and Environment on 30/6/16.

Table 4. Review Requirements

Consent Condition No	Condition Text	Where addressed in this report
6	The Applicant will submit a Conditions Compliance Report to the Secretary prior to the commencement of extraction in areas that are not currently subject to extraction. Subsequent reports will be submitted annually for the first three years of extraction in areas not currently subject to extraction. Further reports shall be submitted as required by the Secretary.	This report and <i>Appendix A</i>
6 (a)	To enable ready comparison with the EIS's predictions, diagrams and tables, the Conditions Compliance Reports shall include, but not be limited to, the following matters:(a) a compliance audit of the performance of the project against conditions of Consent and statutory approvals	<i>Appendix A</i>
6 (b)	(b) a review of the effectiveness of the environmental management of the development	Section 6
6 (c)	(c) the results of environmental monitoring required under this Consent or other approvals, including interpretations and discussion by a suitably qualified person;	Section 6
6 (d)	(d) a listing of any variations obtained to approvals applicable to the DA since the last report;	Section 4.1.1

Consent Condition No	Condition Text	Where addressed in this report
6 (e)	(e) a record of all complaints and the actions taken to mitigate all such complaints;	Section 5.2
6 (f)	(f) a report detailing the rehabilitation measures undertaken since the last report; and	Section 6.9
6 (g)	(g) environmental management targets and strategies for stages of the development yet to be completed.	Section 7
66	By the end of March each year (or as otherwise agreed by the Secretary), the Applicant shall review the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:	Submitted March 2021
66 (a)	(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;	Sections 5 , Section 6.9
66 (b)	(b) include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: <ul style="list-style-type: none"> • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the EIS, Modification 1 and Modification 2; 	Section 6
66 (c)	(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;	Section 2 , <i>Appendix A</i>
66 (d)	(d) identify any trends in the monitoring data over the life of the development;	Section 6
66 (e)	(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and	Section 6
66 (f)	(f) describe what measures will be implemented over the next year to improve the environmental performance of the development.	Section 6

4.2 ENVIRONMENTAL PROTECTION AUTHORITY (EPA)

Environmental Protection License 6535 (see *Appendix C*) has been issued under the *Protection of the Environmental Operations Act* for Crushing, Grinding or Separating Works and Dredging Works. It is renewed annually on the 12th of March and requires monitoring for noise impacts (see Section [5.7.2](#) for results). There have been no changes during the report period.

4.3 WATER NSW, NSW DEPARTMENT OF PLANNING, INDUSTRY & ENVIRONMENT - WATER (DPIE-W) AND NATIONAL RESOURCES ACCESS REGULATOR (NRAR)

The site holds a number of licenses issued under the *Water Management Act 2000*, for the operation of groundwater bores and dams. Location of these bores and dams can be found on [Figure Three](#). A summary table of those relevant to the development consent and their current status can be found in [Table 5](#). Water licenses and their conditions have been included in *Appendix D*. Compliance with these conditions is included in *Appendix A*.

Table 5. Relevant Water Licences Summary

Identification	Licence when Registered	Water Access Licence Number (WAL)	Water Approval No./ Reference Number	Purpose	Allocation	Expiry	Bore Status	Comments
PT84PB1	10BL159748 (converted to WAL)	WAL 24163	10WA114817 10AL114816	Extraction	45.0 ML per year	14/06/2025	Converted to WAL	Can extract at a rate of 3L/sec.
	10SL045324 (converted to WAL)	WAL 26163	10CA104888 10AL104887	Irrigation	264.0 ML per year	16/02/2026	Converted to WAL	2 pumps and 2 Bywash Dams. Allocation to be transferred
PT84MW1	10BL158808	NR	NR	Monitoring	-	perpetuity	In use for water sampling	Installed 20/10/1998. Located near nursery.
PT84MW5	10BL158808	NR	NR	Monitoring	-	perpetuity	Not in use	Collapsed. Replaced by MW8
PT84MW6	10BL605696	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed January 2015. To replace PT84MW4
MW7	10BL605799	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016
MW8	10BL605799	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016
MW9	10BL605799	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016
MW10	10BL605798	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016
MW11	10BL605797	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016
MW12	10BL605799	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016
MW13	10BL605799	NR	NR	Monitoring		perpetuity	In use for water sampling	Installed December 2016

NR = Not required: used for monitoring only

5 Operations Description

The site has approval to extract sand and gravels at the rate of 50 laden trucks per day and a maximum of 10 laden trucks movements per hour.

Extraction of the sand is contingent upon a water supply dam in order to wash the clay from the material won. The material is loaded onto a belt feeder which introduces the sand into a mixing tank. An electric pump at the water storage dam and pumps water to the mixing tank via a pipeline. The sand slurry is drawn out of the mixing tank by a slurry pump and pumped to the processing plant. The processing plant washes and screens material, using water primarily from the existing water supply dam adjacent to the northern boundary (Process Dam 1). After washing and screening, material is stockpiled adjacent to the plant area prior to transportation off-site by truck. Trucks are loaded using a front-end-loader. Washing and screening forms a residual clay/silt slurry which is piped to designated drying areas in a previously extracted cell where it will be spread in thin layers to dry. Liberated water is drained to the water dam for re-use in the processing plant.

5.1 OPERATIONS 2020 CALENDAR YEAR

The site layout is illustrated in [Figure Four](#). The operation restricts activities to between the hours in [Table 6](#).

Table 6. Operational Hours

Days of the week	Activity	Hours
Monday to Friday	Construction	7.00am to 6.00pm
Monday to Friday	Extraction and processing of material	7.00am to 6.00pm
Saturdays	Extraction and processing of material	7.00am to 1.00pm
Monday to Friday	Vehicle loading	6.00am to 6.00pm
Saturdays.	Vehicle loading	6.00am to 1.00pm
Sundays & Public Holidays	No works permitted	

These hours were not exceeded during the report period, although it is site practice to open the gates at 5:30am to prevent trucks from parking on Roberts Rd. There was no extraordinary maintenance works or atypical operations during the report period.

Approximately 57,000 tonnes of material was sold during the report period, which was much lower than 2019. While there is no limit on material extracted in the consent, there is a limit on the amount of material that can be transported. At no time during the report period did the number of laden trucks exceed 50 per day or 10 per hour. The weighbridge is not capable of logging movements per hour. The maximum laden trucks per day was 21 in April 2020, which equates to an average of 1.8 movements per hour. Each truck takes 6-8 minutes to load, therefore no more than 10 laden movements per hour is possible.

Section 94A contributions are paid monthly.

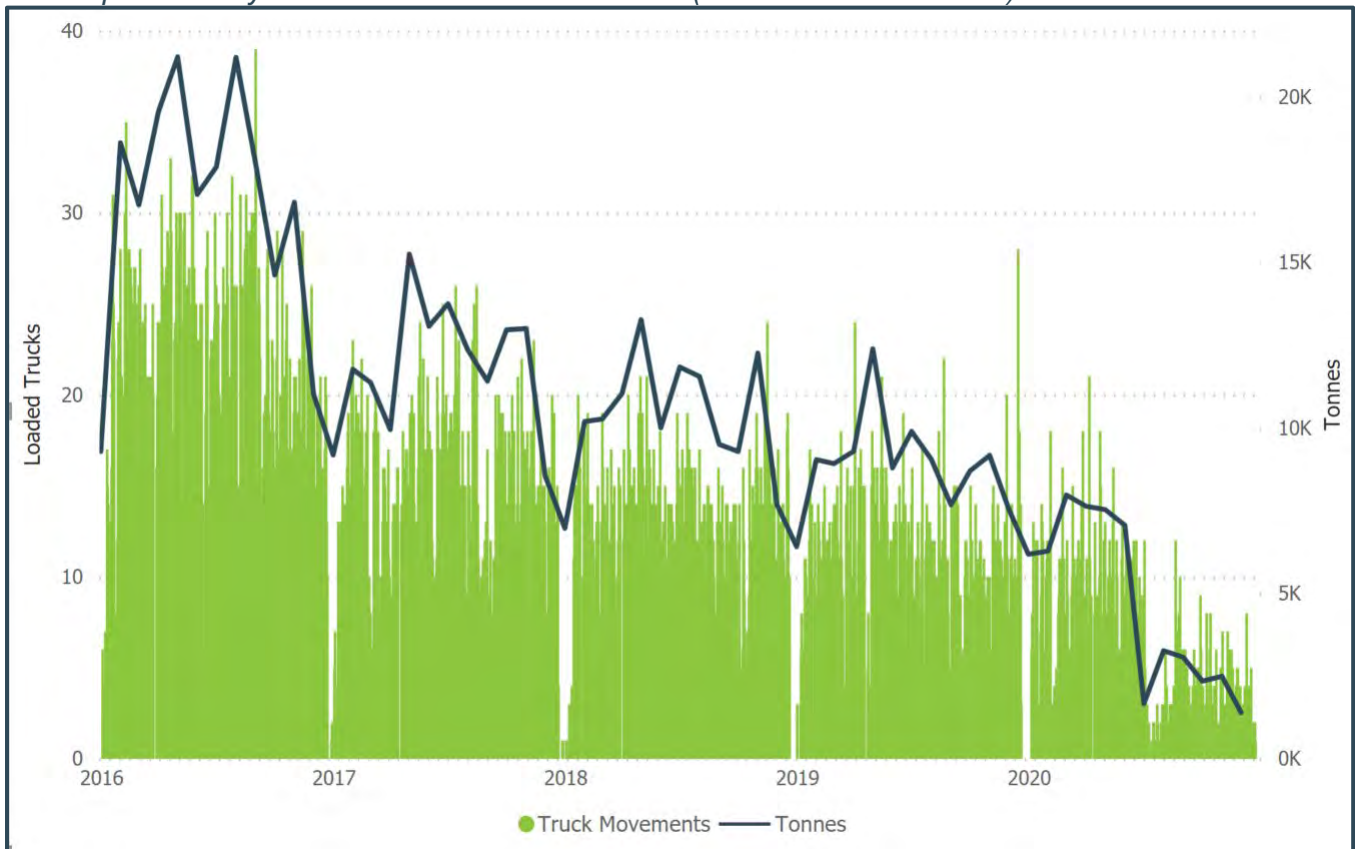
Table 7. Monthly Production 2020

Month	Truck Movements per Month	Max Trucks per Day this Month	Limit Trucks per Day	Tonnes per Month
January	172	14	50	6,183
February	169	18	50	6,276
March	219	18	50	7,969
April	210	21	50	7,632
May	211	16	50	7,531
June	195	12	50	7,057
July	47	12	50	1,662
August	98	12	50	3,270
September	99	9	50	3,069
October	80	8	50	2,348
November	90	7	50	2,495
December	48	8	50	1,402
Total	1638	21	50	56,894

Table 8. Annual Production Last 5 Years

Cal Year	Tonnes per Year	Tonnes average per Month	Truck Movements per Year	Truck Movements average per Month
2016	202,024	16,835	5651	471
2017	142,633	11,886	3937	328
2018	123,858	10,321	3361	280
2019	106,907	8,909	2916	243
2020	56,894	4,741	1638	137

Graph 1. Daily Production Trends Last 5 Years (Limit 50 Loaded Trucks)




Plan of: Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Sequence of Extraction
 Figure: TWO
 Version/Date: V0 22/03/2021
 Our Ref: 10418_HMA_ARC21_Q002_V0_F2

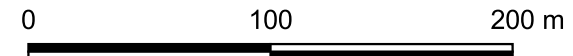
Location: Maroota Quarry, Roberts Road, Maroota, NSW
 Council: Hills Shire Council
 Tenure: Not Applicable
 Client: Hodgson Quarries & Plant Pty Ltd

Source: nearmap - Image Date 18/03/2020 Zone MGA 56
 Survey: Not Applicable
 Projection: GDA2020/MGA Zone 56 EPSG:7856
 Contour Interval: Not Applicable

Plan By: SK/JD
 Project Manager: LT



This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.



Legend

- Property Boundary
- Groundwater Monitoring Location
- Surface Water Monitoring Location
- Years 1-2 (2015-2017)**
- Phase 1
- Phase 3
- Phase 5
- Phase 2
- Phase 4
- Phase 6


Note: Phases and Years are indicative only, and are dependent on market demand and product mixing requirements.

Plan of: Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Environmental Monitoring Locations
 Figure: THREE
 Version/Date: V0 22/03/2021
 Our Ref: 10418_HMA_ARC21_Q003_V0_F3

Location: Maroota Quarry, Roberts Road, Maroota, NSW
 Council: Hills Shire Council
 Tenure: Not Applicable
 Client: Hodgson Quarries & Plant Pty Ltd

Source: nearmap - Image Date 18/03/2020 Zone MGA 56
 Survey: Not Applicable
 Projection: GDA2020/MGA Zone 56 EPSG:7856
 Contour Interval: Not Applicable

Plan By: SK/JD
 Project Manager: LT



This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.



Note:

Dam No.	Dam Catchment	Dam Area (m ²)	Estimated Average Depth (m)	Estimated Volume (m ³)
1	Processing Dam	-	Ranging from 0.1-3m*	1,240*
2	Holding Dam	12,200	1	12,200
3	Northern Nursery Dam	7,500	2	15,000
4	Southern Nursery Dam	14,500	2	29,000
Total Volume Held				57,440

* Volume calculated from 12D software to RL 187.2 from modelled contours.
 All dams will be incorporated into the final landform.

Legend

- Property Boundary
- Monitoring Borehole Location
- Dust & HVAS Location
- Attended Noise Monitoring Location
- Road Noise Monitoring Location
- Surface Water Monitoring Location
- Dust Gauge Location
- Weather Station Location
- Sprinkler

Plan of: Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Site Layout

Figure: FOUR

Version/Date: V0 22/03/2021

Our Ref: 10418_HMA_ARC21_Q004_V0_F4

Location: Maroota Quarry, Roberts Road, Maroota, NSW

Council: Hills Shire Council

Tenure: Not Applicable

Client: Hodgson Quarries & Plant Pty Ltd

Source: nearmap - Image Date 18/03/2020 Zone MGA 56 & Singleton Survey Services March 2021 (Client)


Survey: Not Applicable

Projection: GDA2020/MGA Zone 56 EPSG:7856

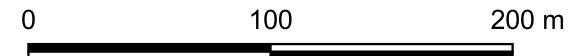
Contour Interval: Not Applicable

Plan By: SK/JD

Project Manager: LT



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- Legend**
- Property Boundary
 - ▲ Singleton Survey Services Pty Ltd 3/03/2021

5.2 COMPLAINTS AND COMMUNITY CONSULTATION

The client advertises a community complaints and enquiries phone number in the white pages, on their website (www.vgt.com.au/hodgsons), and in prominent signage on the front gate. All monitoring results, approved management plans and compliance reports, as well as relevant consent and approval documents are also available on the website. The complaints procedure is outlined in the Operational Environmental Management Plan. All complaints are recorded and actioned within 24 hours where possible. There have been no complaints received by the client during the reporting period. The complaints register and form is included in *Appendix E*.

Regular, informal consultation is undertaken verbally with neighbours.

5.3 PROPOSED OPERATIONS 2021 CALENDAR YEAR


Operations are proposed to remain similar in 2021. The active cells are proposed to be phases 3 and 4 as illustrated on *Figure Two*.

Plan of: Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Domains at 2020
 Figure: FIVE
 Version/Date: V0 22/03/2021
 Our Ref: 10418_HMA_ARC21_Q005_V0_F5

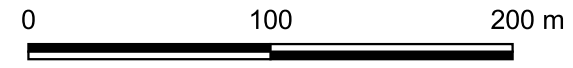
Location: Maroota Quarry, Roberts Road, Maroota, NSW
 Council: Hills Shire Council
 Tenure: Not Applicable
 Client: Hodgson Quarries & Plant Pty Ltd

Source: nearmap - Image Date 18/03/2020 Zone MGA 56
 Survey: Not Applicable
 Projection: GDA2020/MGA Zone 56 EPSG:7856
 Contour Interval: Not Applicable

Plan By: SK/JD
 Project Manager: LT



This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.




Legend					
Property Boundary	Domain Type	Access Tracks & Haul Roads (Unsealed) (0.6 Ha)	Infrastructure Area (Sealed) (2.3 Ha)	Overburden Placement/ Machine Storage (1.1 Ha)	
2018 Vegetation	Exposed and Active (2.7 Ha)	Areas Not Actively Creating Dust	Water Management Area (4.3 Ha)	Land Being Prepared for Rehabilitation (1.8 Ha)	
	Active Extraction Area (2.1 Ha)	Stripped Ahead of Mining (Accessed < Once per Month) (2.8 Ha)	Bundwalls (Including Topsoil) (2.5 Ha)		

Plan of: Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Domains at 2021
 Figure: SIX
 Version/Date: V0 22/03/2021
 Our Ref: 10418_HMA_ARC21_Q006_V0_F6

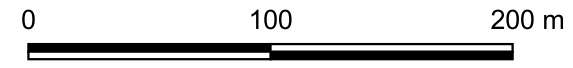
Location: Maroota Quarry, Roberts Road, Maroota, NSW
 Council: Hills Shire Council
 Tenure: Not Applicable
 Client: Hodgson Quarries & Plant Pty Ltd

Source: nearmap - Image Date 18/03/2020 Zone MGA 56
 Survey: Not Applicable
 Projection: GDA2020/MGA Zone 56 EPSG:7856
 Contour Interval: Not Applicable

Plan By: SK/JD
 Project Manager: LT



This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.



Legend		Domain Type		Exposed and Active (2.7 Ha)		Areas Not Actively Creating Dust		Infrastructure Area (Sealed) (2.3 Ha)		Overburden Placement/ Machine Storage (1.1 Ha)	
	Property Boundary		Access Tracks & Haul Roads (Unsealed) (0.6 Ha)		Active Extraction Area (2.1 Ha)		Stripped Ahead of Mining (Accessed < Once per Month) (2.8 Ha)		Land Being Prepared for Rehabilitation (1.8 Ha)		
	2018 Vegetation		Water Management Area (4.3 Ha)		Bundwalls (Including Topsoil) (2.5 Ha)						

6 Environmental Management

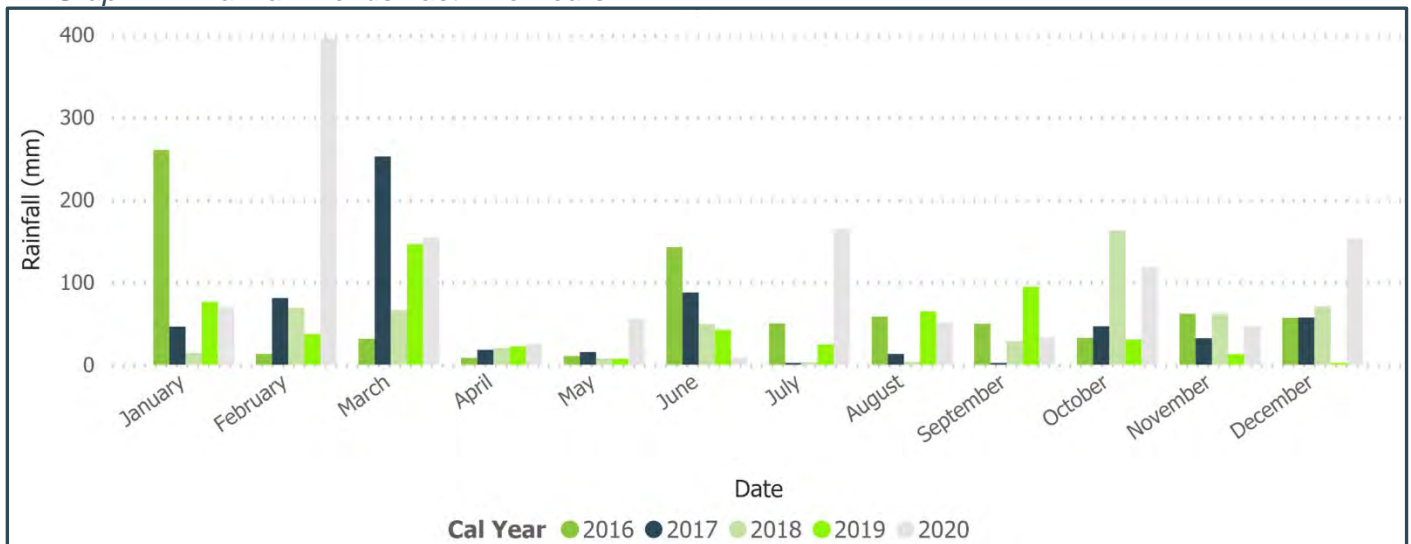
6.1 CLIMATE SUMMARY

Weather data is collected on site and downloaded monthly. The site weather station was repaired and upgraded in May 2020. Climate data is presented from the BOM station at Richmond RAAF Base and rainfall from the Roberts Rd site. This data is used to inform the water balance and assist in interpreting dust and groundwater impacts.

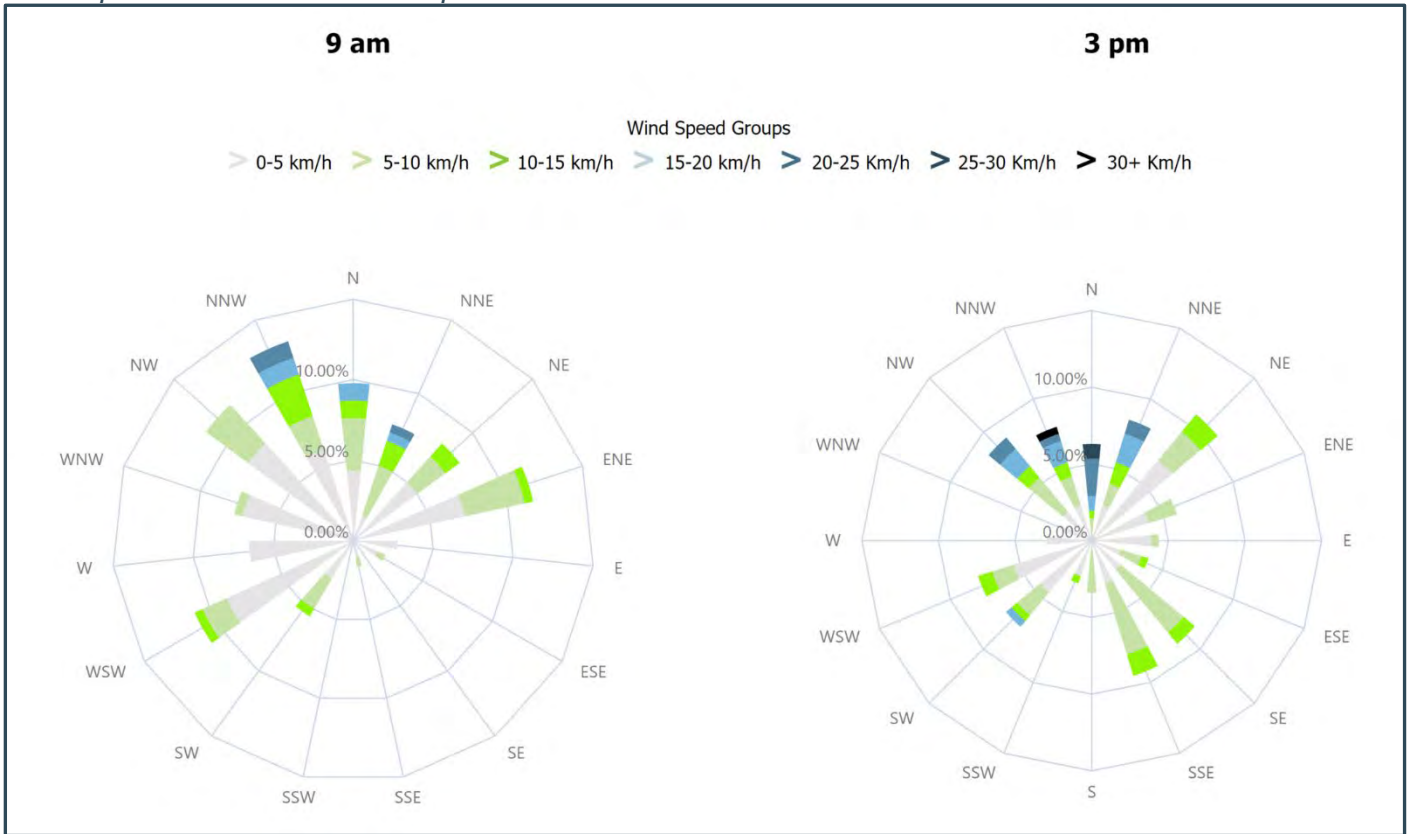
Table 9. Rainfall Summary Last Five Years

Cal Year	January	February	March	April	May	June	July	August	September	October	November	December
2016	260.4	13.2	31.4	8.2	10.4	142.6	50.0	58.4	49.6	32.6	61.8	57.0
2017	46.2	80.8	252.6	18.0	15.4	87.6	0.8	13.2	1.6	46.6	32.2	57.2
2018	14.4	69.0	66.2	20.2	7.6	49.2	3.0	3.8	28.6	163.0	61.6	70.4
2019	76.2	37.2	146.2	22.2	7.4	42.2	24.6	64.8	94.6	30.6	13.0	0.4
2020	70.8	396.0	154.0	25.4	55.6	8.6	164.6	51.8	33.2	118.4	46.4	152.8
Total	468.0	596.2	650.4	94.0	96.4	330.2	243.0	192.0	207.6	391.2	215.0	337.8

Graph 2. Rainfall Trends Last Five Years



Graph 3. Wind Roses for Report Period



6.2 AIR QUALITY

6.2.1 Requirements and Predictions

The consent and Air Quality Management Plan specifies the following Air Quality Criteria:

Table 10. Air Quality Criteria

Parameter	Averaging Period	Consent Limit ^a	NEPM Advisory ^b	Prediction ^c Max at Residences
Total Suspended Particulates (TSP) µg/m³	Annual	90		57
PM₁₀ µg/m³	24 hours	50	50	49
PM₁₀ µg/m³	Annual	30	25	15
PM_{2.5} µg/m³	24 hours		25	Not predicted
PM_{2.5} µg/m³	Annual		8	Not predicted
Insoluble Solids g/m²/month	Annual	4		1.7

Note ^a: Limits specified by Condition 28.

Note ^b: The National Environment Protection Measures (National Environment Protection Council, February 2016) are advisory standards intended to be used by each state and territory against which to measure performance.

Note ^c: The Air Quality Impact Assessment prepared for the Environmental Assessment for Mod 2 (Nexus Environmental Planning Pty Ltd, September 2015) predicted these impacts at the boundary.

The EPL specifies no limits on air quality.

6.2.2 Monitoring Results Compliance and Trends

All air quality monitoring results are given in *Appendix G* and are summarised below.

Table 11. Dust Deposition Gauge Results: D1 Office

Date	Insoluble Solids	Rolling Annual Average Insol Solids	Limit-Annual Insol Solids	Ash	Combustible Matter
10/1/2020	3.2	1.7	4	2.5	0.7
7/2/2020	8.7	2.3	4	7.6	1.1
6/3/2020	0.8	2.2	4	0.7	0.1
3/4/2020	0.5	2.1	4	0.4	0.1
6/5/2020	0.9	2.2	4	0.7	0.2
9/6/2020	0.8	2.2	4	0.5	0.3
7/7/2020	0.3	2.1	4	0.2	0.1
6/8/2020	0.2	2.1	4	0.2	0.0
4/9/2020	1.1	2.1	4	0.9	0.2
8/10/2020	0.7	2.1	4	0.6	0.1
9/11/2020	0.8	2.0	4	0.5	0.3
7/12/2020	1.7	1.9	4	1.3	0.4

Graph 4. Dust Deposition Trends: D1

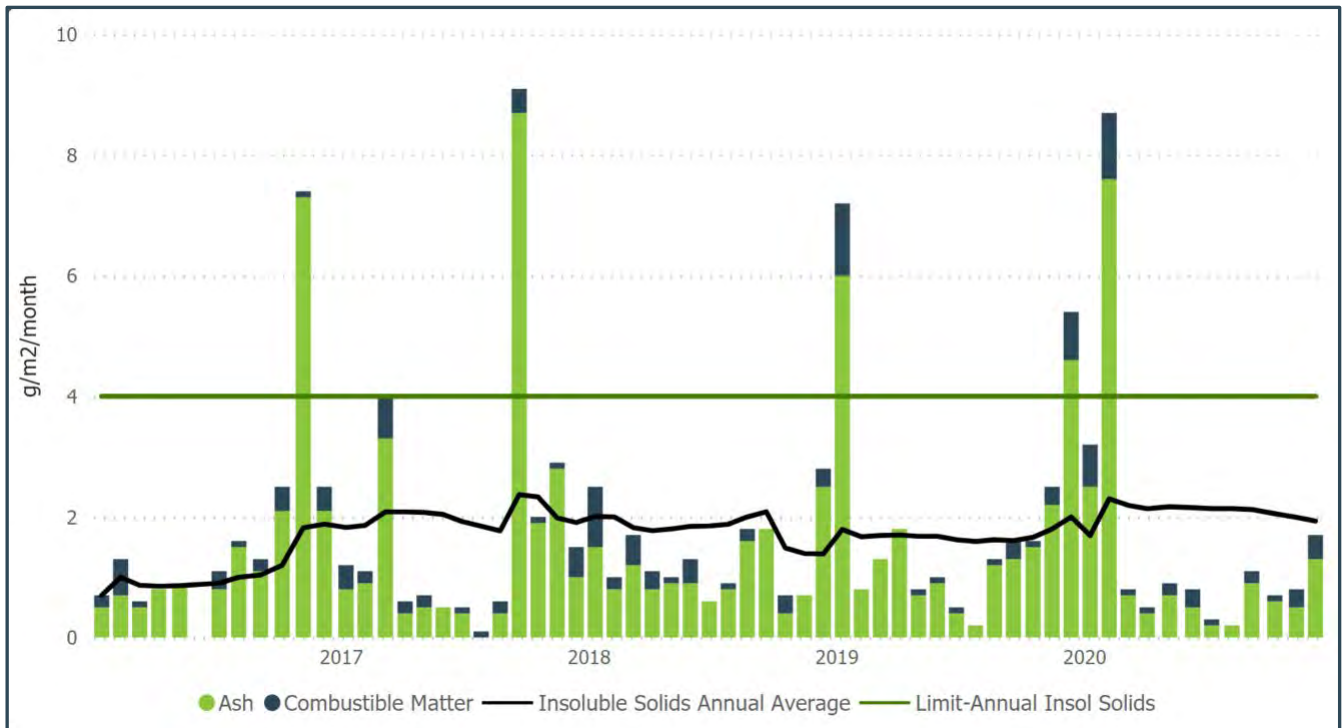


Table 12. Dust Deposition Gauge Results: D2 North East Corner

Deposited Matter g/m ² /month					
Date	Insoluble Solids	Rolling Annual Average Insol Solids	Limit-Annual Insol Solids	Ash	Combustible Matter
10/1/2020	4.2	2.7	4	3.2	1.0
7/2/2020	6.2	3.0	4	5.3	0.9
6/3/2020	0.5	2.8	4	0.4	0.1
3/4/2020	1.1	2.7	4	0.6	0.5
6/5/2020	1.1	2.7	4	0.6	0.5
9/6/2020	0.6	2.6	4	0.4	0.2
7/7/2020	0.3	2.5	4	0.2	0.1
6/8/2020	0.6	2.5	4	0.5	0.1
4/9/2020	0.9	2.5	4	0.4	0.5
8/10/2020	1.3	2.5	4	0.8	0.5
9/11/2020	0.6	2.3	4	0.6	0.0
7/12/2020	1.4	1.8	4	1.2	0.2

Trees encroach on the collection zone of the gauge. These trees are within the protection zone required by the flora management plan and cannot be removed. Trimming of branches is undertaken where possible. The site of this gauge does not meet AS3580.10.1, however an alternative location near the sensitive receptor is not available.

Graph 5. Dust Deposition Trends: D2

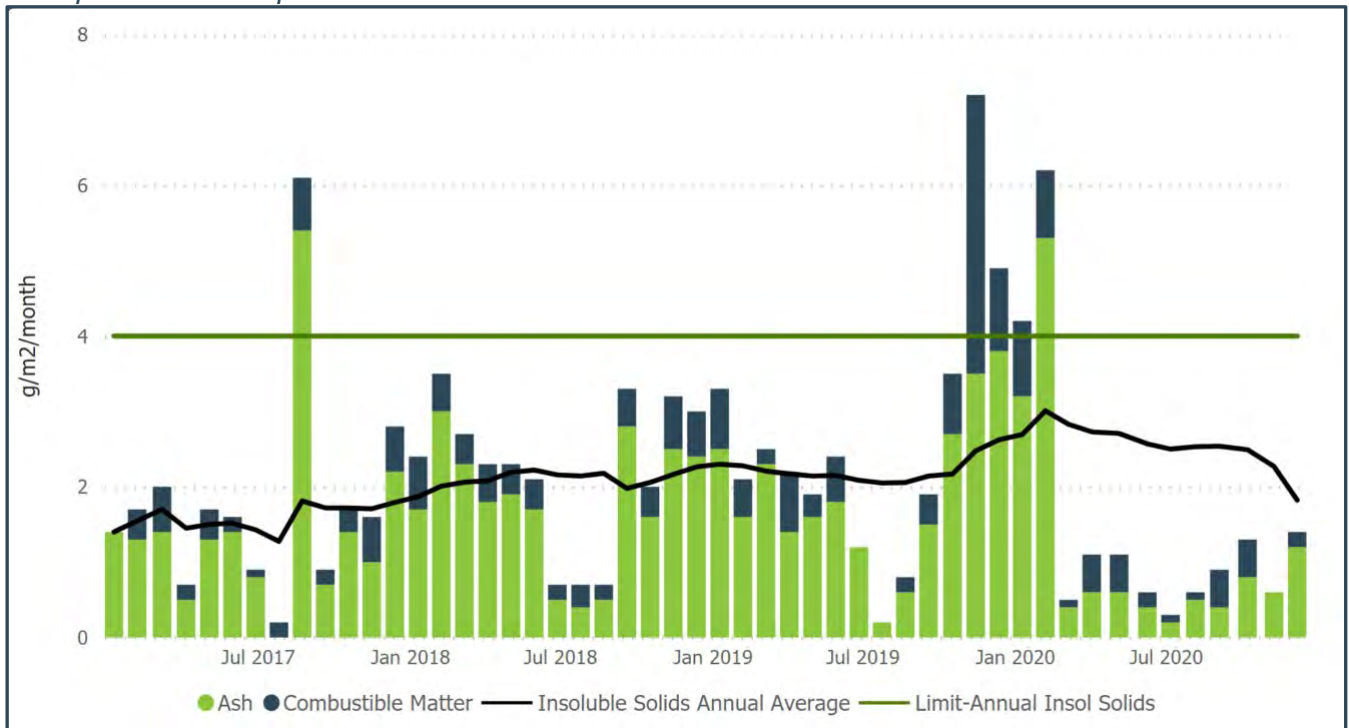


Table 13. Dust Deposition Gauge Results: D3 North Bundwall

Deposited Matter g/m ² /month					
Date	Insoluble Solids	Rolling Annual Average Insol Solids	Limit-Annual Insol Solids	Ash	Combustible Matter
10/1/2020	3.2	2.4	4	2.8	0.4
7/2/2020	6.4	2.6	4	5.6	0.8
6/3/2020	1.4	2.5	4	1.3	0.1
3/4/2020	0.6	2.2	4	0.5	0.1
6/5/2020	1.0	2.3	4	0.7	0.3
9/6/2020	0.8	2.2	4	0.5	0.3
7/7/2020	0.2	2.2	4	0.1	0.1
6/8/2020	0.4	2.2	4	0.3	0.1
4/9/2020	0.4	2.1	4	0.3	0.1
8/10/2020	2.1	2.1	4	1.2	0.9
9/11/2020	0.8	1.9	4	0.6	0.2
7/12/2020	1.5	1.8	4	1.2	0.3

Graph 6. Dust Deposition Trends: D3

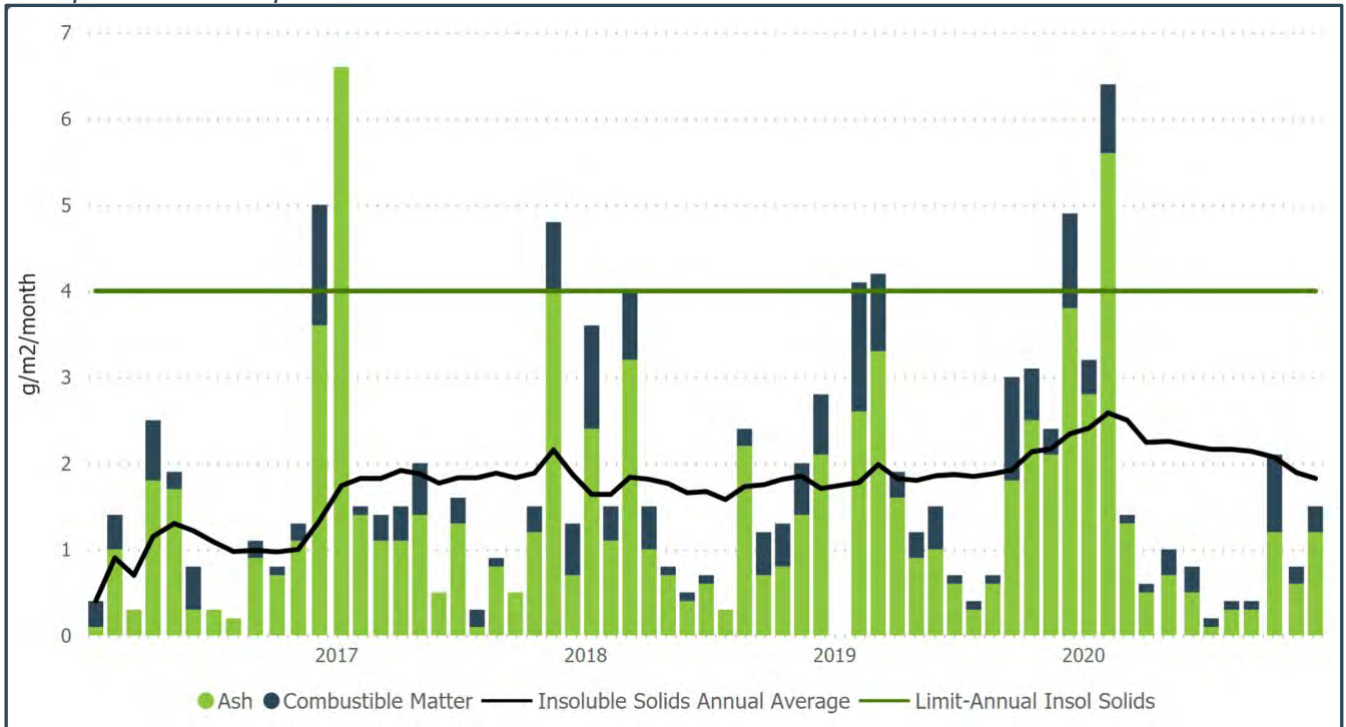


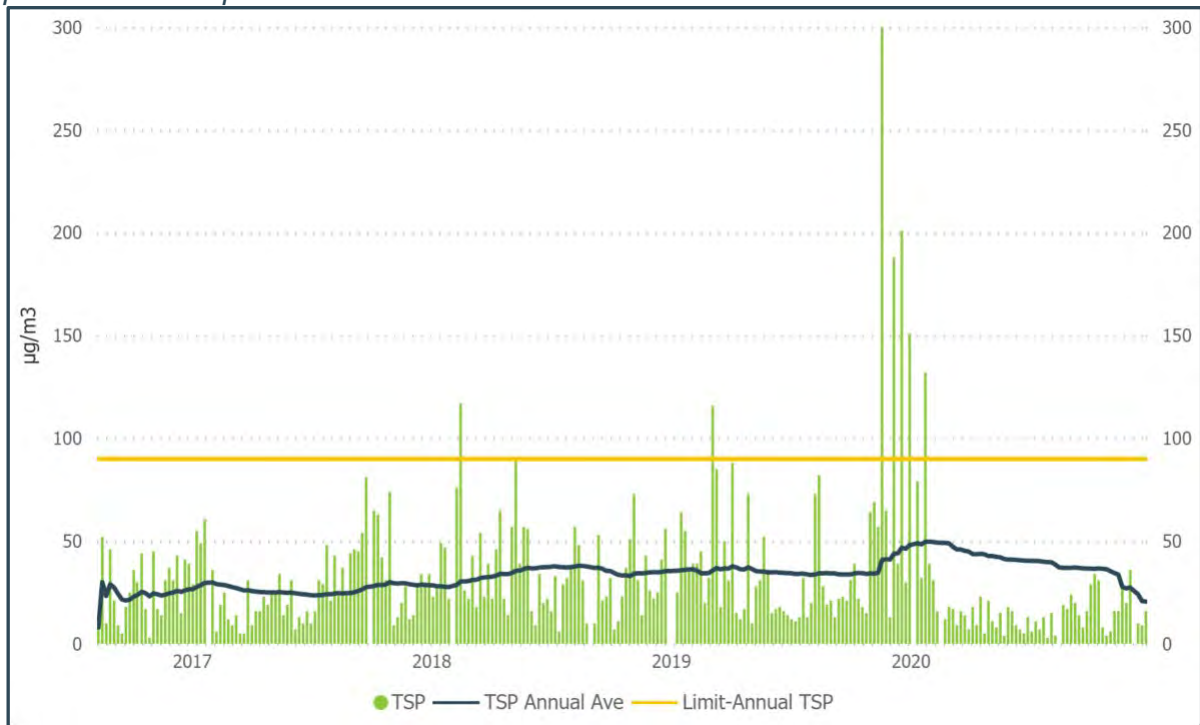
Table 14. Particulate Matter Annual Averages

Annual Averages	TSP $\mu\text{g}/\text{m}^3$	PM10 $\mu\text{g}/\text{m}^3$	PM2.5 $\mu\text{g}/\text{m}^3$
2020	21	11	7.8
Compliant with DA	Yes	Yes	Yes (no limit)
Criteria	90	30	N/A
NEPM Advisory Level	90	25	8
Prediction	57	15	N/A
2019	48	32	26
2018	36	19	14
2017	29	15	12

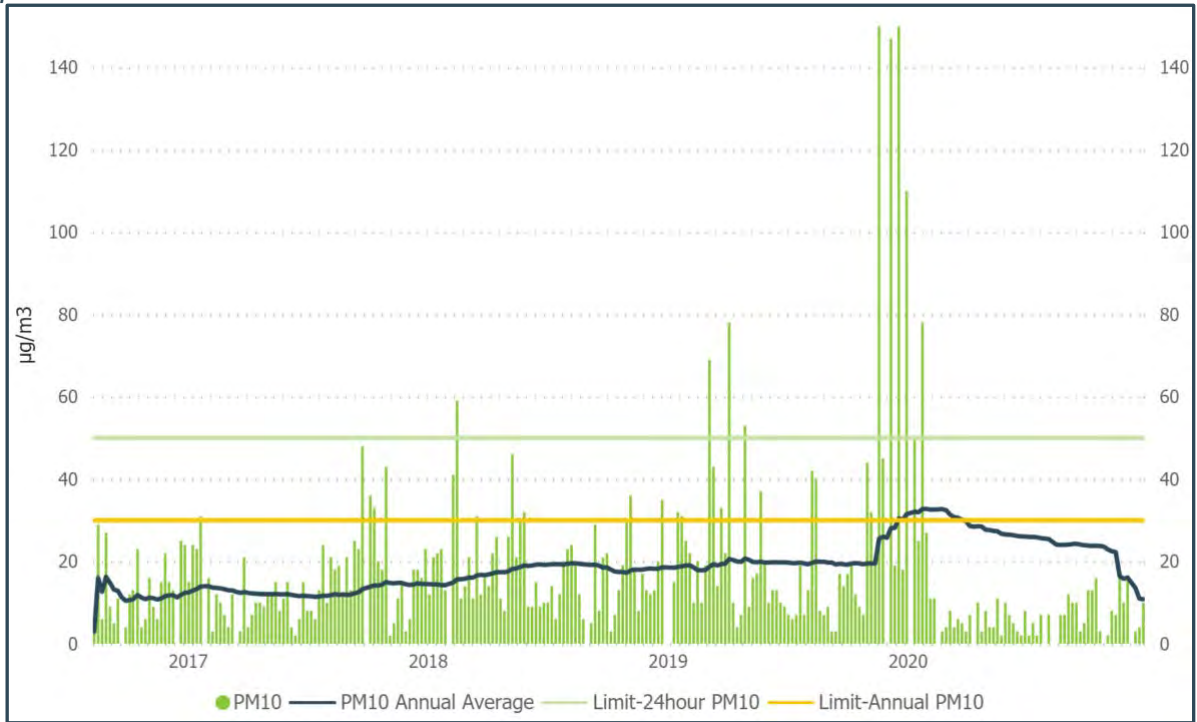
Table 15. High 24 Hour Particulate Matter Results

Date	PM10 $\mu\text{g}/\text{m}^3$	Criteria	Comments
12/1/2020	50	50	Affected by bushfires
24/1/2020	78	50	Affected by bushfires

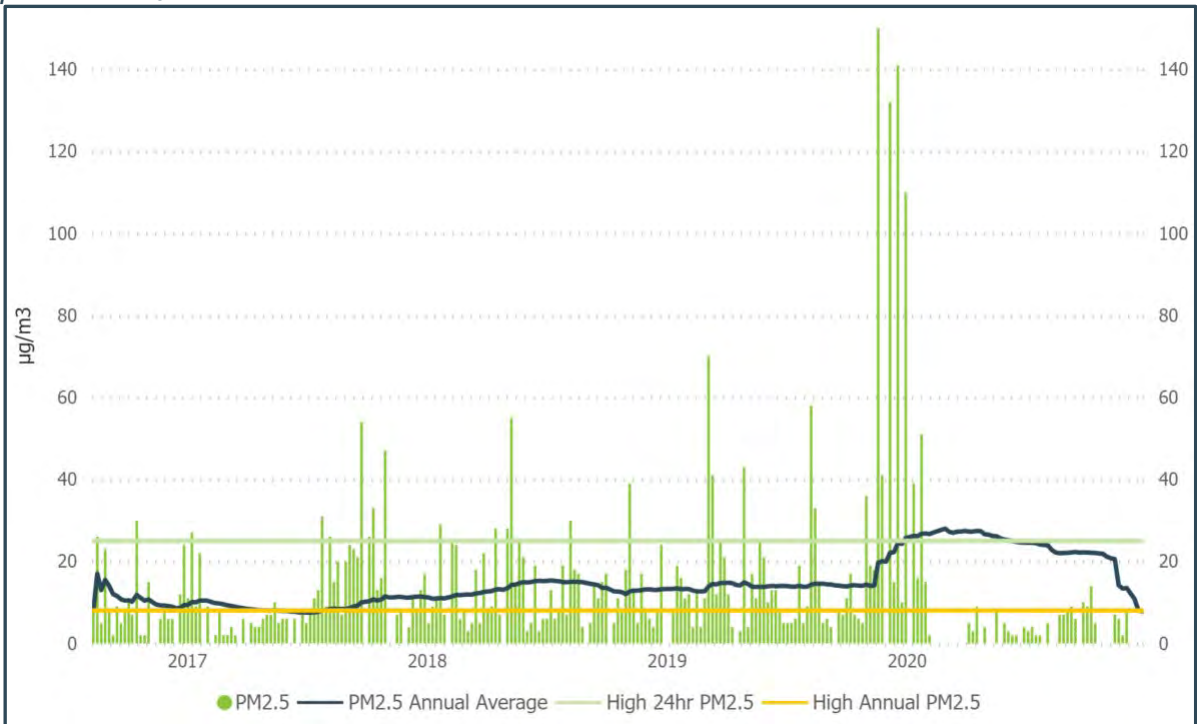
Graph 7. Total Suspended Particulate Trends



Graph 8. PM_{10} Trends



Graph 9. $PM_{2.5}$ Trends



6.2.3 Interpretation and Effectiveness of Controls

6.2.3.1 Interpretation of Monitoring Results

Dust deposition (Insoluble Solids) and Total Suspended Particulates (TSP) Annual Averages for 2020 were compliant with DA criteria. Particulate Matter less than 10 µm in diameter (PM₁₀) exceeded the 24 hour criteria on two days in January 2020 during the extended bushfire crisis. These do not represent a non-compliance as they were not due to site activities, and the incidents were reported to both EPA and DPIE with no further actions required.

Particulate Matter less than 2.5 µm in diameter (PM_{2.5}) for the 2020 report period was below the NEPM annual average recommendation, despite two elevated results in January from the bushfires.

All air quality monitoring results show a marked decrease from previous report periods due to the increased rainfall across the state from February onwards.

6.2.3.2 Potential Sources of Dust

Sources of dust from the site activities are:

- Dozers ripping sandstone,
- Loading and unloading of raw material using dump trucks,
- Loading the hopper,
- Screening,
- Loading processed material into trucks,
- Traffic on unsealed haul road, and
- Wind erosion from extraction and processing areas.

Background sources of dust include:

- Wind erosion from surrounding farmland and quarries,
- Mowing and ploughing activities on adjacent farmland,
- Earth-moving activities on nearby quarries,
- Traffic, particularly diesel-powered trucks on Old Northern Rd, and
- Bushfire, burning off, and domestic wood-fired heating.

6.2.3.3 Effectiveness of Air Quality Management Controls

Table 16. Effectiveness of Air Quality Management Controls

Control	Interpretation	Effective?
Increase use of water-cart in dry weather	Dust results do not increase with truck movements, nor on high wind days. Examination of wind direction during monitoring shows sources are off site.	Yes
Delaying non-essential earth-moving activities during periods of high wind	Dust results do not increase with truck movements, nor on high wind days. Examination of wind direction during monitoring shows sources are off site.	Yes
Reducing truck speeds	Dust results do not increase with truck movements	Yes
No more than 3 hectares exposed and active at any one time	Dust results do not increase on high wind days. Examination of wind direction during monitoring shows sources are off site.	Yes

Control	Interpretation	Effective?
Damping down	Dust results do not increase with truck movements, nor on high wind days. Examination of wind direction during monitoring shows sources are off site.	Yes
Installation of a mobile sprinkler in 2019	Sprinklers are installed. Dust results do not increase on high wind days. Examination of wind direction during monitoring shows sources are off site.	Yes
Trucks covered when entering and leaving the site	Dust results do not increase with truck movements	Yes

6.2.4 Measures Proposed for Improvement

Air quality management controls have been effective for the 2020 calendar year and will be maintained during 2021. A sprinkler distributes water to disturbed areas that the water cart has difficulty accessing. Dust will continue to be monitored using high volume air samplers and dust deposition gauges.

Relocation of the monitors adjacent to the office was investigated last report period, however lack of power and security makes the relocation not feasible.

A review of the Air Quality Management Plan was undertaken after the IEA and no changes were required. A review will be undertaken on approval of the consent modification.

6.3 SURFACE WATER, SEDIMENT AND EROSION

The Water Management Plan (version July 2018) was submitted to the (then) DoI Water and DPE to comply with the conditions of consent (Mod 2) and was approved by DPE on 22nd August 2018. An update was undertaken in December 2020 and is undergoing consultation with Water NSW and NRAR, prior to submission to DPIE.

The water depth monitoring shows that all surface water bodies are above the level of the groundwater in both Maroota Sands and Hawkesbury Sandstone aquifers.

There was no water discharged from the site during the report period.

The surface level is monitored in the Process Dam using an automated logger that is downloaded monthly. Rainfall is monitored using the onsite weather station, and evaporation is collected from the local BOM data.

6.3.1 Requirements and Predictions

6.3.1.1 Water Testing

There are no quality parameters for water testing within the consent conditions or the EPL. Requirements regarding surface water monitoring in the Mod 2 consent condition 42 (b) are given below:

[The Surface Water Management Plan includes] a program to monitor:

- o *the effectiveness of the water management system;*
- o *site discharge water quality; and*
- o *surface water level and quality in the Process Water Dam, including the quantification of rainfall inflow, groundwater inflow and evaporation;*

6.3.1.2 WMP Monitoring and Maintenance

Table 17. Monitoring and Maintenance from the WMP 2018

Parameter	Source	Compliance	Comments
Topsoil stripping to be visually monitored to check moisture content of soil and depth of stripping.	WMP 2018-Section 11	Yes	
Stockpiles to be visually assessed at time of forming to check they do not exceed three metres high.	WMP 2018-Section 11	Yes	
Visual check of stability and operation of all banks, ponds, channels and spillways to be undertaken monthly. Effecting any necessary repairs.	WMP 2018-Section 11	Yes	
Removal of spilled sand or other materials from hazard areas, including lands closer than five metres from areas of likely concentrated or high velocity flows, especially waterways and access roads.	WMP 2018-Section 11	Yes	
Removal of trapped sediment whenever less than design capacity remains for the sediment basins.	WMP 2018-Section 11	Yes	Sediment dams meet required storm event capacity
Ensuring rehabilitated lands have effectively reduced the erosion hazard and initiate upgrading or repair as appropriate	WMP 2018-Section 11	Yes	Not yet applicable
Constructing additional erosion and/or sediment control works as might become necessary to ensure the desired water control is achieved.	WMP 2018-Section 11	Yes	Not yet applicable
Automatic data loggers to monitor the dam levels to assist in the water balance modelling.	WMP 2018-Section 11	Yes	Loggers installed in all surface dams
All on-site dams to be sampled and water quality tested on a quarterly basis to determine if there is a relationship to the groundwater and to ascertain the water quality. This will continue for a two year period. Following this period the monitoring frequency will be reviewed.	WMP 2018-Section 11	Yes	See Section 6.3.4
Water quality will be compared to the ANZECC Irrigation Water criteria	WMP 2018-Section 11	Yes	This criteria is not suitable as a performance criteria due to the naturally low pH in the groundwater

6.3.2 Monitoring Results Compliance and Trends

6.3.2.1 Water Quality Results

Surface water quality was tested quarterly during 2020 with the aim of assessing the relationship between surface water and groundwater. There are no approved limits against which to compare these levels. The pH is naturally low in the groundwater, and since the surface water has such low buffering capacity, the water from the bore water used in the processing plant (PB1) has a high influence on the pH of the Process Dam and Dam 2. Dams 3 and 4 show little similarity to the groundwater, with pH closer to neutral. Dams 3 and 4 are influenced by surface inflows.

Table 18. Surface Water Quality Results Dam 1 - Process

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
Dam 1 - Process	10/1/2020	4.0	479	299	100	6	1.0	6.2	45	5.9
Dam 1 - Process	3/4/2020	4.4	126	79	26	3	0.6	2.0	12	2.8
Dam 1 - Process	23/7/2020	4.4	199	124	44	24	0.8	4.3	24	2.6
Dam 1 - Process	15/10/2020	4.2	226	141	49	29	0.9	4.2	25	2.5

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
Dam 1 - Process	2017	4.5	134	90	25	4	0.0	2.0	16	2.0
Dam 1 - Process	2018	4.6	179	112	43	3	0.7	2.6	22	3.2
Dam 1 - Process	2019	4.5	151	94	33	3	0.1	2.1	16	2.8
Dam 1 - Process	2020	4.3	258	161	55	16	0.8	4.2	27	3.5

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
Dam 1 - Process	2017	4.5	134	90	25	4	0.0	2.0	16	2.0
Dam 1 - Process	2018	4.4	100	63	23	2	0.6	1.1	11	2.0
Dam 1 - Process	2019	4.4	127	79	26	2	0.0	1.6	11	1.8
Dam 1 - Process	2020	4.0	126	79	26	3	0.6	2.0	12	2.5

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
Dam 1 - Process	2017	4.5	134	90	25	4	0.0	2.0	16	2.0
Dam 1 - Process	2018	4.9	229	143	57	4	0.8	3.7	29	4.3
Dam 1 - Process	2019	4.6	167	104	41	3	0.5	3.2	19	4.3
Dam 1 - Process	2020	4.4	479	299	100	29	1.0	6.2	45	5.9

Table 19. Surface Water Quality Results Dam 2 – Tailings

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
Dam 2 - Tailings	10/1/2020	4.0	523	327	100	8	1.2	5.8	46	6.3
Dam 2 - Tailings	3/4/2020	4.5	112	70	23	3	0.6	2.0	11	2.3
Dam 2 - Tailings	23/7/2020	4.4	214	134	47	28	0.8	4.6	25	2.8
Dam 2 - Tailings	15/10/2020	4.2	351	219	79	47	1.6	6.7	39	4.6

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
Dam 2 - Tailings	2017	4.5	139	75	25	4	0.0	2.0	17	3.0
Dam 2 - Tailings	2018	4.5	208	130	43	5	0.7	2.6	22	3.2
Dam 2 - Tailings	2019	4.5	155	97	33	2	0.0	2.0	17	2.9
Dam 2 - Tailings	2020	4.3	300	188	62	22	1.1	4.8	30	4.0

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
Dam 2 - Tailings	2017	4.5	139	75	25	4	0.0	2.0	17	3.0
Dam 2 - Tailings	2018	4.3	112	70	24	2	0.5	1.2	12	2.1
Dam 2 - Tailings	2019	4.4	119	74	27	0	0.0	1.3	11	1.6
Dam 2 - Tailings	2020	4.0	112	70	23	3	0.6	2.0	11	2.3

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
Dam 2 - Tailings	2017	4.5	139	75	25	4	0.0	2.0	17	3.0
Dam 2 - Tailings	2018	4.7	254	159	57	8	0.9	3.7	30	4.1
Dam 2 - Tailings	2019	4.5	169	106	41	3	0.0	3.1	19	4.3
Dam 2 - Tailings	2020	4.5	523	327	100	47	1.6	6.7	46	6.3

Table 20. Surface Water Quality Results Dam 3 – Nursery

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
Dam 3 - Nursery	10/1/2020	7.8	237	148	35	12	5.4	4.9	18	5.6
Dam 3 - Nursery	3/4/2020	6.9	170	106	23	5	5.6	4.5	12	8.1
Dam 3 - Nursery	23/7/2020	7.0	167	104	23	18	5.3	4.2	15	6.5
Dam 3 - Nursery	15/10/2020	9.1	168	105	21	23	5.5	4.4	12	5.0

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
Dam 3 - Nursery	2017	6.6	133	77	20	9	3.0	3.0	13	4.0
Dam 3 - Nursery	2018	7.3	189	118	34	17	4.7	4.8	17	5.5
Dam 3 - Nursery	2019	7.5	188	117	32	14	4.5	4.2	16	5.1
Dam 3 - Nursery	2020	7.7	186	116	26	15	5.5	4.5	14	6.3

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
Dam 3 - Nursery	2017	6.6	133	77	20	9	3.0	3.0	13	4.0
Dam 3 - Nursery	2018	7.0	165	103	32	11	4.2	4.1	16	5.1
Dam 3 - Nursery	2019	6.9	156	97	28	13	4.0	3.5	15	4.2
Dam 3 - Nursery	2020	6.9	167	104	21	5	5.3	4.2	12	5.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
Dam 3 - Nursery	2017	6.6	133	77	20	9	3.0	3.0	13	4.0
Dam 3 - Nursery	2018	7.8	223	139	36	21	5.3	5.3	17	6.0
Dam 3 - Nursery	2019	7.8	214	134	35	16	5.2	4.6	17	5.9
Dam 3 - Nursery	2020	9.1	237	148	35	23	5.6	4.9	18	8.1

Table 21. Surface Water Quality Results Dam 4 - Farm

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
Dam 4 - Farm	10/1/2020	9.4	192	120	30	5	2.8	3.8	17	3.5
Dam 4 - Farm	3/4/2020	7.6	117	73	17	3	2.0	2.6	10	3.6
Dam 4 - Farm	23/7/2020	7.0	113	70	20	4	1.6	2.7	13	2.6
Dam 4 - Farm	15/10/2020	6.8	121	76	21	4	1.6	2.7	11	1.7

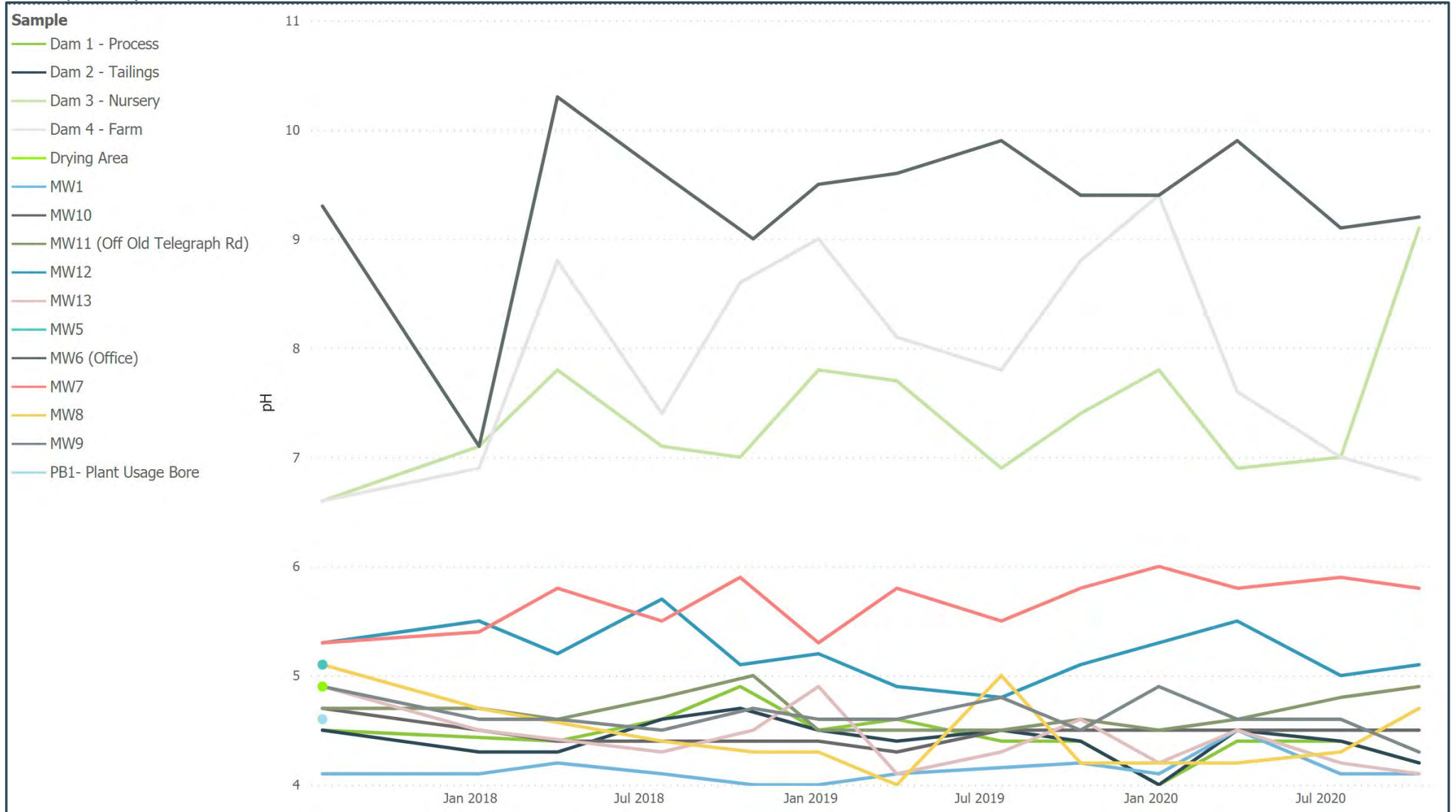
Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
Dam 4 - Farm	2017	6.6	116	63	20	3	2.0	3.0	13	2.0
Dam 4 - Farm	2018	7.9	158	99	29	8	2.3	3.8	16	2.7
Dam 4 - Farm	2019	8.4	138	86	26	7	2.6	3.4	14	3.0
Dam 4 - Farm	2020	7.7	136	85	22	4	2.0	3.0	13	2.9

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
Dam 4 - Farm	2017	6.6	116	63	20	3	2.0	3.0	13	2.0
Dam 4 - Farm	2018	6.9	138	86	26	7	1.9	2.9	14	2.4
Dam 4 - Farm	2019	7.8	117	73	18	3	1.8	2.7	11	2.1
Dam 4 - Farm	2020	6.8	113	70	17	3	1.6	2.6	10	1.7

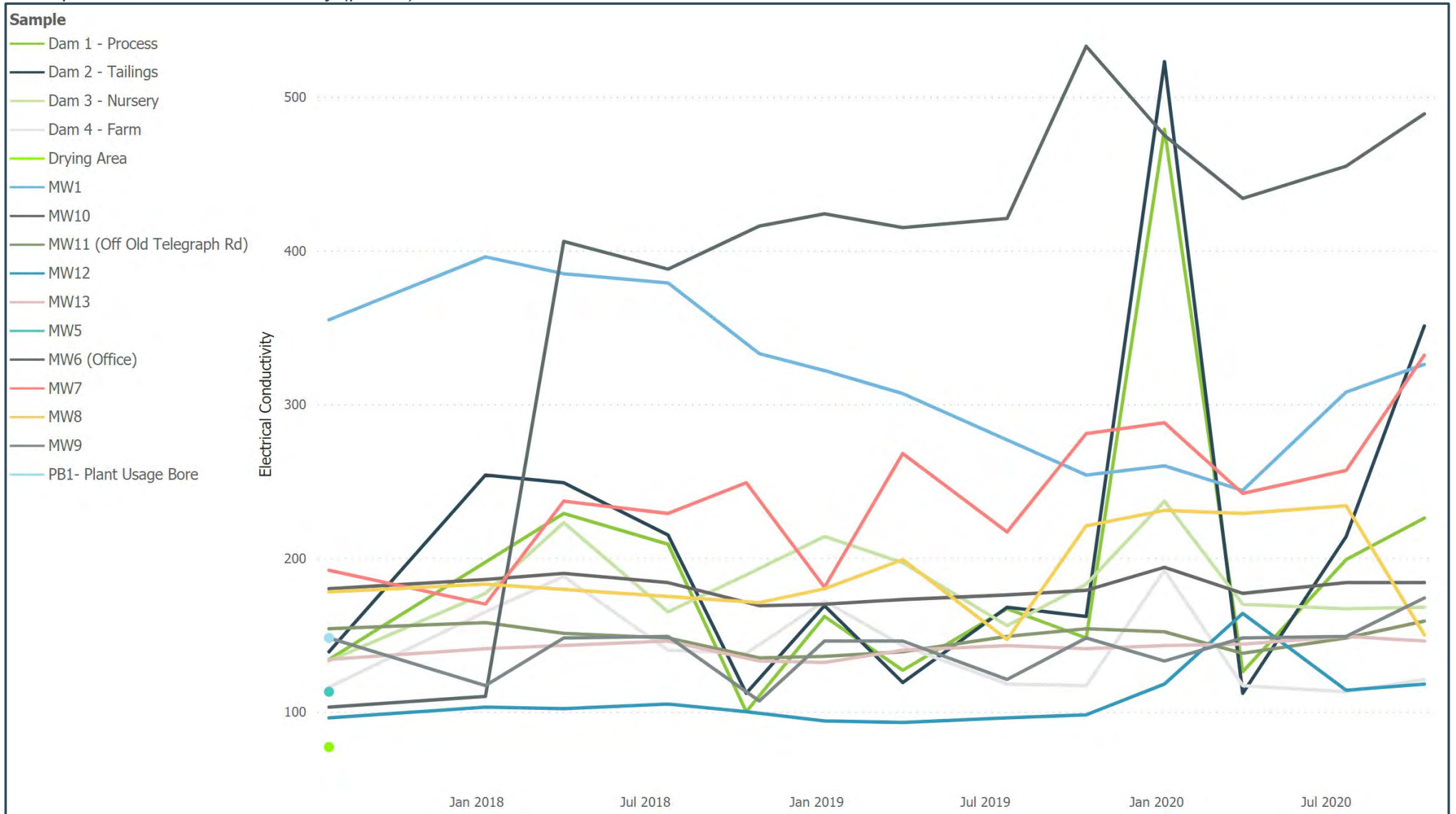
Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
Dam 4 - Farm	2017	6.6	116	63	20	3	2.0	3.0	13	2.0
Dam 4 - Farm	2018	8.8	188	117	32	8	2.8	4.4	18	3.0
Dam 4 - Farm	2019	9.0	172	107	29	13	4.0	4.3	17	4.2
Dam 4 - Farm	2020	9.4	192	120	30	5	2.8	3.8	17	3.6

6.3.2.2 Water Quality Trends

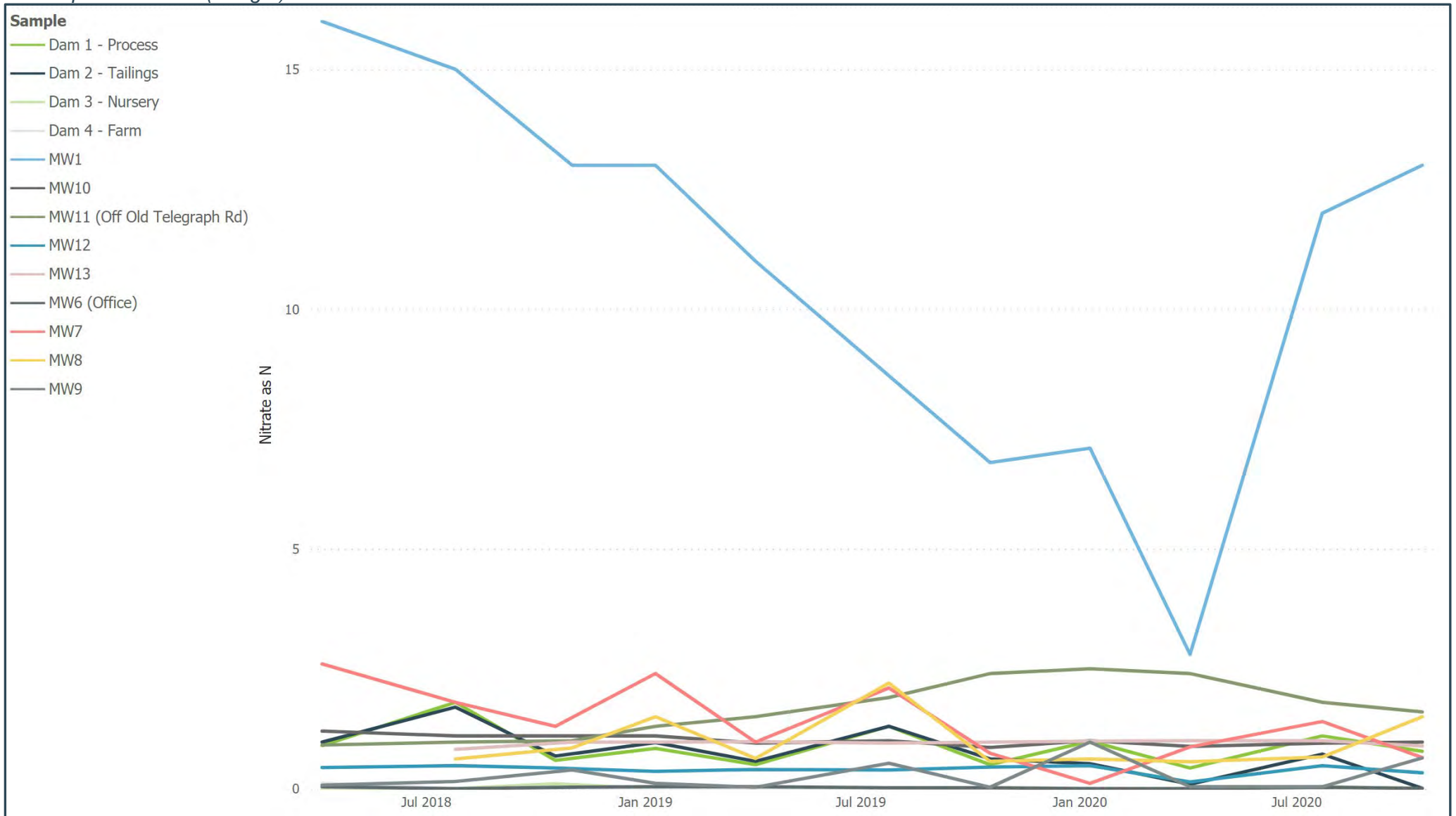
Graph 10. pH Trends



Graph 11. Electrical Conductivity ($\mu\text{S}/\text{cm}$) Trends



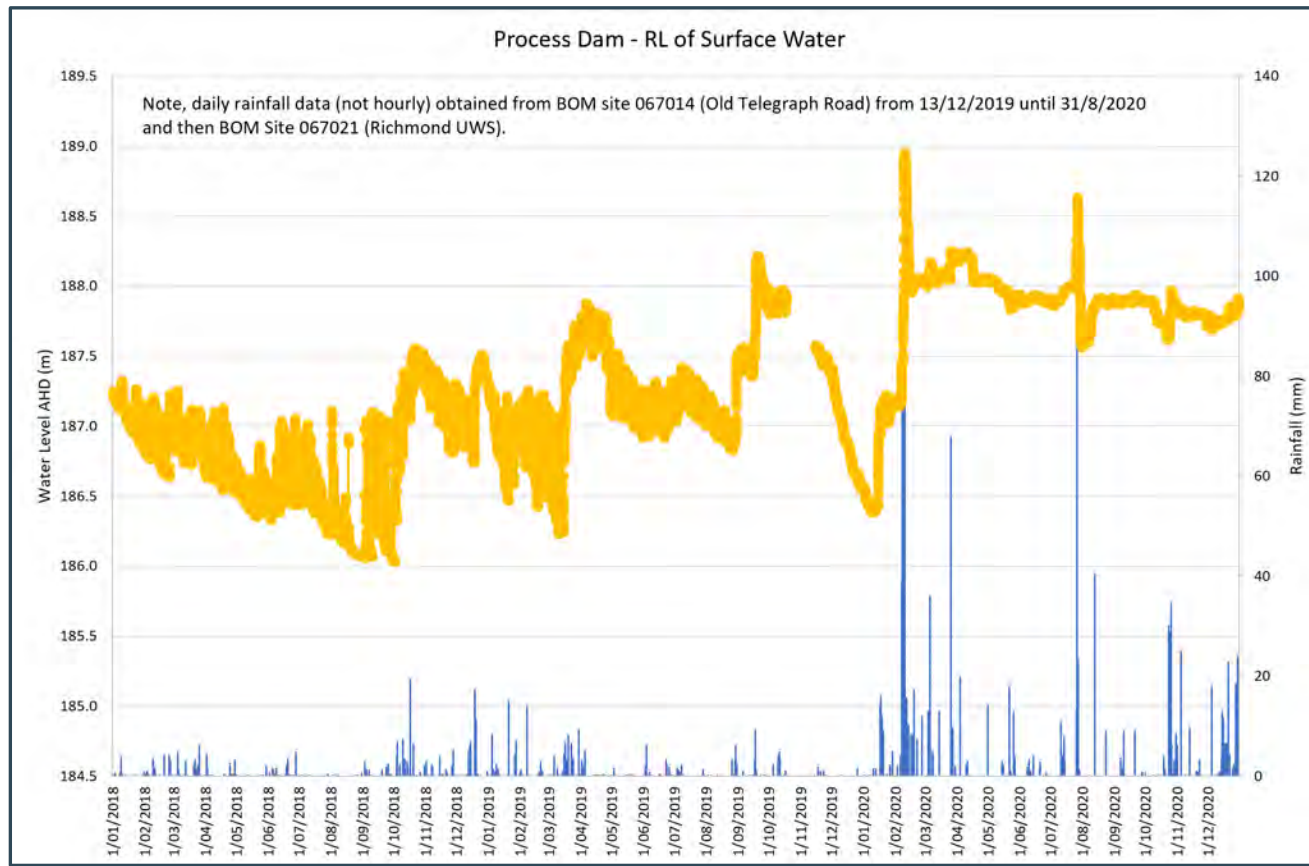
Graph 12. Nitrate (N mg/L) Trends



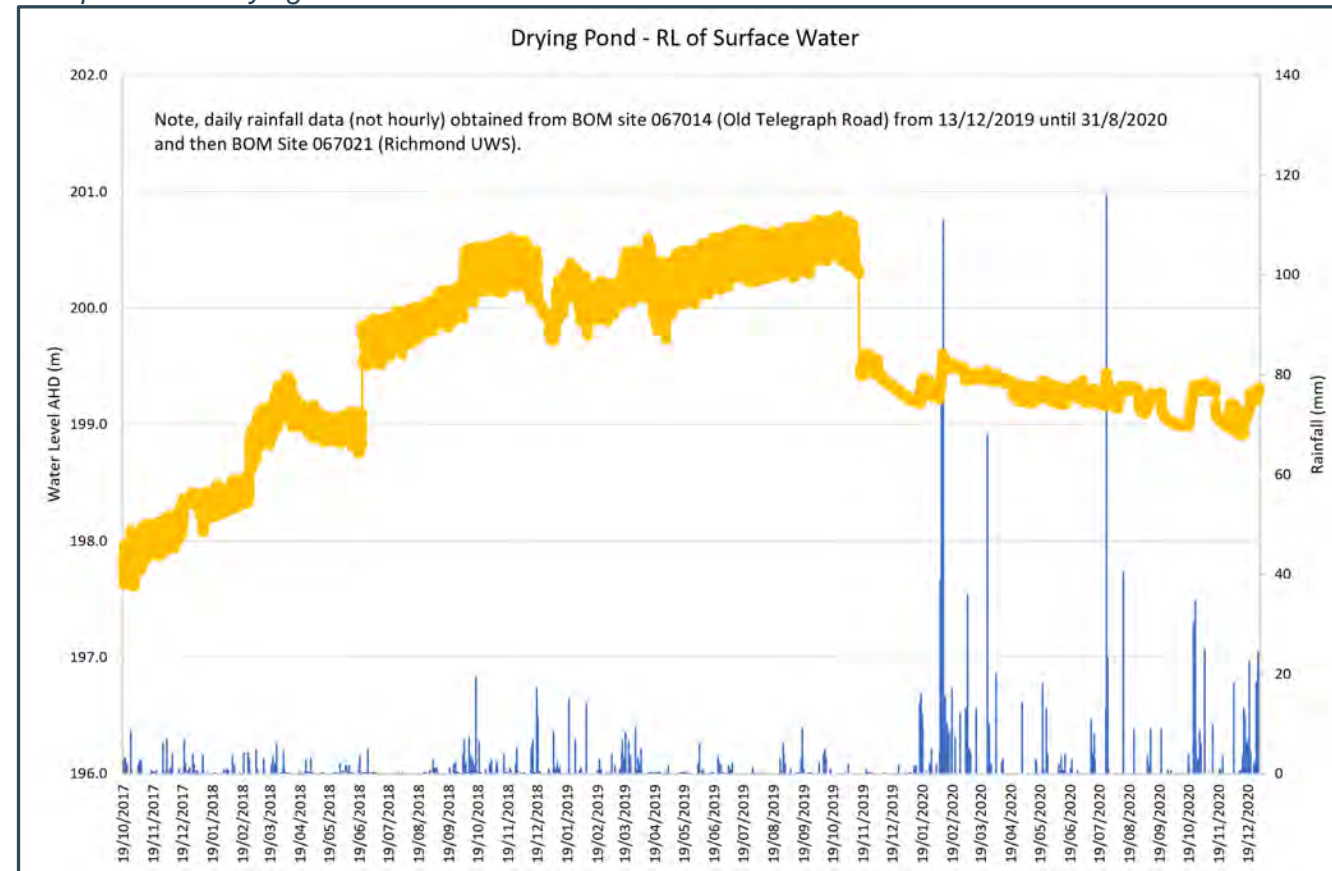
6.3.2.3 Water Depth

The extraction of sand on the site relies on an adequate supply of water for washing and screening of material. After processing, residual clay/silt is delivered to the designated drying areas and liberated water is drained into a holding dam (currently Drying Dam 2) to settle sediment entrained in the process. Water from the holding dam is then released back into the process dam (Dam 1) for re-use. Release from Dam 2 to Dam 1 is through a riser pipe that can be manually adjusted to maximise the water draining to Dam 1. During processing Dam 2 fills with sediment as well as water resulting in the upward displacement of water in the dam. The overall effect is that whilst a nominal small volume is held at all times in Dam 2, virtually all processing water makes its way back to Dam 1 overnight.

Graph 13. Process Dam Water Level



Graph 14. Drying Dam 2



6.3.3 Interpretation and Effectiveness of Controls

The primary consideration in assessing the effectiveness of the surface water controls is that the downstream environment is not adversely affected by discharged waters. In this regard the controls are effective as the site has more than sufficient capacity to contain surface water for the design storm event and no uncontrolled discharges have occurred.

The sediment and erosion controls are considered effective in terms of preventing sediment from leaving the site. Within the excavation there is evidence of erosion however all eroded soils and sediment are contained within the pit. Untouched areas are covered with pasture or tree stands and are not prone to erosion.

The water depth monitoring shows that all surface water bodies are above the level of the groundwater in both Maroota Sands and Hawkesbury Sandstone aquifers.

6.3.4 Measures Proposed for Improvement

The following measures will be instigated during the next reporting period.

- Erosion on internal walls will be regularly monitored, as recommended in the IEA 2020.
- The Water Management Plan will be updated in consultation with NRAR and DPIE.

6.4 GROUNDWATER

A Groundwater Study, Groundwater Management Plan (GWMP) and Groundwater Monitoring Program was submitted to the then DPE and DoI-W to comply with the current conditions of consent (Mod 2), and approved by the DPE in August 2018.

6.4.1 Requirements and Predictions

Groundwater level monitoring is required under the Mod 2 consent conditions 42-44. It is not possible to measure depth within PT84PB1 due to the attached infrastructure; the pumping records are supplied in *Appendix H*. PT84PB2 is owned and operated by the landowner; the quarry operators have no use or access.

Table 22. Groundwater Level Monitoring

Parameter	Criteria	Units	Source
Groundwater Level	Monitored continuously	Metres AHD	Consent Mod 2 condition 43
Depth of Extraction	Extraction does not take place below a level 2 metres above the wet weather high groundwater level of the regional aquifer, as measured and mapped on the site	Contours in metres AHD	Consent Mod 2 condition 17

6.4.2 Monitoring Results Compliance and Trends

Groundwater level monitoring results from the continuous automatic data loggers are corrected for barometric pressure and calibrated to manual measurements undertaken each month. Groundwater levels are currently monitored in eight boreholes located on the site. MW1 logger was installed prior to 2015; the remaining loggers were installed in 2017. Following anomalous readings from the MW5 logger during 2017, the bore was investigated and discovered to have collapsed. The logger was relocated to a functioning bore and MW5 abandoned and replaced by nearby MW8.

Loggers in MW1 and MW12 were reinstated in November 2018 following repairs undertaken between May/June 2018 and October 2018. During this time manual readings continued. MW13 stopped functioning in February 2020 and has yet to be replaced or repaired.

There are no performance criteria for groundwater quality parameters within the consent conditions or the EPL. Quality is monitored quarterly to assist with predicting any interactions between surface and ground waters. The groundwater quality results and trends are shown below.

Graph 15. Groundwater Depth Trends

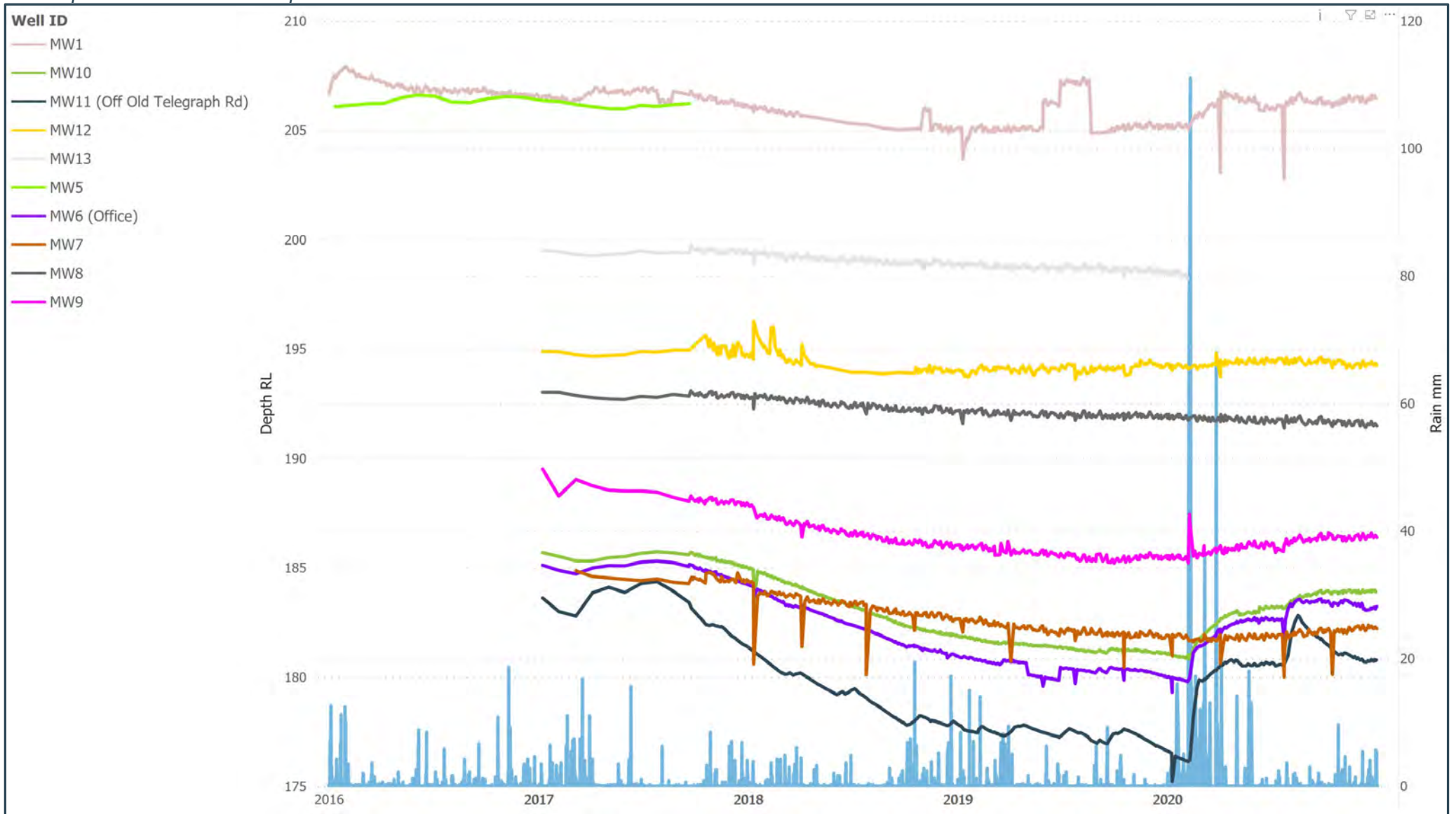


Table 23. Groundwater Quality Results – MW1

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW1	10/1/2020	4.1	260	162	47	9	3.5	9.8	18	4.7
MW1	3/4/2020	4.5	244	152	47	11	4.4	7.9	20	2.3
MW1	23/7/2020	4.1	308	192	41	64	3.8	12.0	20	2.9
MW1	15/10/2020	4.1	326	204	45	48	4.5	13.0	18	3.3

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW1	2017	4.1	355	247	47	4	5.0	14.0	25	4.0
MW1	2018	4.1	373	233	61	25	5.6	16.3	19	3.6
MW1	2019	4.1	294	184	47	6	3.4	11.7	17	3.8
MW1	2020	4.2	285	178	45	33	4.1	10.7	19	3.3

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW1	2017	4.1	355	247	47	4	5.0	14.0	25	4.0
MW1	2018	4.0	333	208	57	5	4.5	14.0	16	3.4
MW1	2019	4.0	254	159	41	4	2.9	10.0	15	3.4
MW1	2020	4.1	244	152	41	9	3.5	7.9	18	2.3

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW1	2017	4.1	355	247	47	4	5.0	14.0	25	4.0
MW1	2018	4.2	396	247	63	61	7.0	18.0	24	3.9
MW1	2019	4.2	322	201	51	8	3.6	13.0	19	4.5
MW1	2020	4.5	326	204	47	64	4.5	13.0	20	4.7

Table 24. Groundwater Quality Results – MW6

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW6 (Office)	10/1/2020	9.4	475	297	99	5	1.1	0.7	69	1.0
MW6 (Office)	3/4/2020	9.9	434	271	99	4	0.0	0.0	81	1.0
MW6 (Office)	23/7/2020	9.1	455	284	92	6	1.1	0.0	84	1.3
MW6 (Office)	15/10/2020	9.2	489	306	89	2	1.2	0.0	72	1.4

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW6 (Office)	2017	9.3	103	55	18	0	2.0	1.0	12	5.0
MW6 (Office)	2018	9.0	330	206	66	10	0.8	0.3	78	1.2
MW6 (Office)	2019	9.6	448	280	83	3	0.5	0.0	82	1.1
MW6 (Office)	2020	9.4	463	290	95	4	0.9	0.2	77	1.2

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW6 (Office)	2017	9.3	103	55	18	0	2.0	1.0	12	5.0
MW6 (Office)	2018	7.1	110	69	49	2	0.0	0.0	71	1.2
MW6 (Office)	2019	9.4	415	259	75	1	0.0	0.0	59	0.9
MW6 (Office)	2020	9.1	434	271	89	2	0.0	0.0	69	1.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW6 (Office)	2017	9.3	103	55	18	0	2.0	1.0	12	5.0
MW6 (Office)	2018	10.3	416	260	84	21	1.6	0.8	84	1.3
MW6 (Office)	2019	9.9	533	333	88	5	0.7	0.0	110	1.2
MW6 (Office)	2020	9.9	489	306	99	6	1.2	0.7	84	1.4

Table 25. Groundwater Quality Results – MW7

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW7	10/1/2020	6.0	288	180	32	18	0.0	0.0	48	0.6
MW7	3/4/2020	5.8	242	151	30	20	0.0	0.0	43	0.0
MW7	23/7/2020	5.9	257	161	34	19	0.0	0.0	48	0.0
MW7	15/10/2020	5.8	332	207	77	17	1.8	0.0	65	0.9

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW7	2017	5.3	192	215	29	9	0.0	0.0	59	0.0
MW7	2018	5.7	221	138	31	21	0.0	0.0	47	0.0
MW7	2019	5.6	237	148	33	21	0.0	0.0	46	0.2
MW7	2020	5.9	280	175	43	19	0.5	0.0	51	0.4

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW7	2017	5.3	192	215	29	9	0.0	0.0	59	0.0
MW7	2018	5.4	170	106	30	18	0.0	0.0	40	0.0
MW7	2019	5.3	181	113	28	17	0.0	0.0	27	0.0
MW7	2020	5.8	242	151	30	17	0.0	0.0	43	0.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW7	2017	5.3	192	215	29	9	0.0	0.0	59	0.0
MW7	2018	5.9	249	156	34	23	0.0	0.0	52	0.0
MW7	2019	5.8	281	176	45	24	0.0	0.0	62	0.6
MW7	2020	6.0	332	207	77	20	1.8	0.0	65	0.9

Table 26. Groundwater Quality Results – MW8

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW8	10/1/2020	4.2	231	144	52	83	1.7	3.2	22	0.0
MW8	3/4/2020	4.2	229	143	55	1	0.9	3.7	22	0.0
MW8	23/7/2020	4.3	234	146	50	2	1.3	3.6	26	0.0
MW8	15/10/2020	4.7	150	94	36	2	0.6	1.9	23	0.0

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW8	2017	5.1	178	116	37	2	4.0	3.0	26	0.0
MW8	2018	4.5	176	110	48	4	0.4	2.9	18	0.0
MW8	2019	4.4	187	117	39	2	1.0	2.0	23	0.0
MW8	2020	4.4	211	132	48	22	1.1	3.1	23	0.0

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW8	2017	5.1	178	116	37	2	4.0	3.0	26	0.0
MW8	2018	4.3	171	107	46	2	0.0	2.2	17	0.0
MW8	2019	4.0	147	92	25	1	0.7	0.5	17	0.0
MW8	2020	4.2	150	94	36	1	0.6	1.9	22	0.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW8	2017	5.1	178	116	37	2	4.0	3.0	26	0.0
MW8	2018	4.7	183	114	49	5	0.8	3.5	19	0.0
MW8	2019	5.0	221	138	47	3	1.1	3.1	27	0.0
MW8	2020	4.7	234	146	55	83	1.7	3.7	26	0.0

Table 27. Groundwater Quality Results – MW9

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW9	10/1/2020	4.9	133	83	23	3	1.7	1.5	14	0.0
MW9	3/4/2020	4.6	148	93	34	2	1.2	2.2	17	0.7
MW9	23/7/2020	4.6	149	93	30	9	1.0	2.3	19	0.6
MW9	15/10/2020	4.3	174	109	36	4	1.9	1.8	21	0.8

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW9	2017	4.9	148	96	24	2	3.0	2.0	16	0.8
MW9	2018	4.6	130	81	31	5	1.9	1.5	17	0.0
MW9	2019	4.6	140	88	30	3	0.7	2.0	17	0.3
MW9	2020	4.6	151	95	31	5	1.5	2.0	18	0.5

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW9	2017	4.9	148	96	24	2	3.0	2.0	16	0.8
MW9	2018	4.5	107	67	29	2	1.0	0.8	14	0.0
MW9	2019	4.5	121	76	23	2	0.0	0.8	15	0.0
MW9	2020	4.3	133	83	23	2	1.0	1.5	14	0.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW9	2017	4.9	148	96	24	2	3.0	2.0	16	0.8
MW9	2018	4.7	149	93	32	8	3.1	1.9	20	0.0
MW9	2019	4.8	148	92	35	5	1.3	3.3	20	0.5
MW9	2020	4.9	174	109	36	9	1.9	2.3	21	0.8

Table 28. Groundwater Quality Results – MW10

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW10	10/1/2020	4.5	194	121	40	0	0.7	3.9	18	0.7
MW10	3/4/2020	4.5	177	111	41	0	0.0	4.6	19	0.7
MW10	23/7/2020	4.5	184	115	48	11	0.0	4.4	21	0.8
MW10	15/10/2020	4.5	184	115	38	1	1.0	4.5	17	0.9

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW10	2017	4.7	180	108	39	0	0.6	4.0	27	0.6
MW10	2018	4.4	182	114	46	1	0.3	2.6	21	0.4
MW10	2019	4.4	175	109	40	0	0.2	3.9	18	0.6
MW10	2020	4.5	185	116	42	3	0.4	4.4	19	0.8

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW10	2017	4.7	180	108	39	0	0.6	4.0	27	0.6
MW10	2018	4.4	169	106	43	0	0.0	0.0	16	0.0
MW10	2019	4.3	170	106	38	0	0.0	3.0	17	0.5
MW10	2020	4.5	177	111	38	0	0.0	3.9	17	0.7

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW10	2017	4.7	180	108	39	0	0.6	4.0	27	0.6
MW10	2018	4.5	190	119	49	3	0.8	4.2	24	0.6
MW10	2019	4.5	179	112	44	0	0.6	4.4	18	0.8
MW10	2020	4.5	194	121	48	11	1.0	4.6	21	0.9

Table 29. Groundwater Quality Results – MW11

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW11 (Off Old Telegraph Rd)	10/1/2020	4.5	152	95	29	1	0.5	3.1	16	1.3
MW11 (Off Old Telegraph Rd)	3/4/2020	4.6	138	86	29	1	0.6	3.2	16	1.5
MW11 (Off Old Telegraph Rd)	23/7/2020	4.8	148	93	27	7	0.6	2.9	18	1.5
MW11 (Off Old Telegraph Rd)	15/10/2020	4.9	159	100	28	6	1.9	3.3	14	2.4

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW11 (Off Old Telegraph Rd)	2017	4.7	154	90	32	0	0.0	2.0	19	1.0
MW11 (Off Old Telegraph Rd)	2018	4.8	148	93	37	1	1.0	2.8	16	1.5
MW11 (Off Old Telegraph Rd)	2019	4.5	145	90	31	0	0.0	2.8	16	1.3
MW11 (Off Old Telegraph Rd)	2020	4.7	149	94	28	4	0.9	3.1	16	1.7

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW11 (Off Old Telegraph Rd)	2017	4.7	154	90	32	0	0.0	2.0	19	1.0
MW11 (Off Old Telegraph Rd)	2018	4.6	135	85	36	0	0.0	2.3	14	1.5
MW11 (Off Old Telegraph Rd)	2019	4.5	136	85	28	0	0.0	1.9	15	1.1
MW11 (Off Old Telegraph Rd)	2020	4.5	138	86	27	1	0.5	2.9	14	1.3

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW11 (Off Old Telegraph Rd)	2017	4.7	154	90	32	0	0.0	2.0	19	1.0
MW11 (Off Old Telegraph Rd)	2018	5.0	158	99	39	2	3.0	3.1	19	1.6
MW11 (Off Old Telegraph Rd)	2019	4.6	154	96	33	1	0.0	3.3	16	1.4
MW11 (Off Old Telegraph Rd)	2020	4.9	159	100	29	7	1.9	3.3	18	2.4

Table 30. Groundwater Quality Results – MW12

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW12	10/1/2020	5.3	118	74	15	9	1.3	0.7	14	0.0
MW12	3/4/2020	5.5	164	102	18	23	8.7	2.6	11	6.2
MW12	23/7/2020	5.0	114	71	16	9	1.3	1.0	15	0.0
MW12	15/10/2020	5.1	118	74	16	8	1.6	1.1	13	0.0

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW12	2017	5.3	96	72	13	7	2.0	0.9	12	0.0
MW12	2018	5.4	103	64	16	11	1.0	0.2	16	0.0
MW12	2019	5.0	95	60	36	13	1.2	0.5	12	0.0
MW12	2020	5.2	129	80	16	12	3.2	1.4	13	1.6

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW12	2017	5.3	96	72	13	7	2.0	0.9	12	0.0
MW12	2018	5.1	100	63	14	9	0.0	0.0	13	0.0
MW12	2019	4.8	93	58	13	8	0.6	0.0	11	0.0
MW12	2020	5.0	114	71	15	8	1.3	0.7	11	0.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW12	2017	5.3	96	72	13	7	2.0	0.9	12	0.0
MW12	2018	5.7	105	66	18	13	1.5	0.6	20	0.0
MW12	2019	5.2	98	61	100	24	1.8	0.7	13	0.0
MW12	2020	5.5	164	102	18	23	8.7	2.6	15	6.2

Table 31. Groundwater Quality Results – MW13

Sample	Date	pH	Electrical Conductivity	Total Dissolved Solids	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium
MW13	10/1/2020	4.2	143	90	31	1	0.8	1.9	16	0.0
MW13	3/4/2020	4.5	144	90	30	2	1.1	1.9	15	0.0
MW13	23/7/2020	4.2	149	93	28	13	0.0	1.9	18	0.0
MW13	15/10/2020	4.1	146	91	27	9	0.0	1.9	14	0.0

Sample	Cal Year	Average of pH	Average of Electrical Conductivity	Average of Total Dissolved Solids	Average of Chloride	Average of Sulphate	Average of Calcium	Average of Magnesium	Average of Sodium	Average of Potassium
MW13	2017	4.9	134	92	27	1	2.0	2.0	16	0.0
MW13	2018	4.4	140	87	32	4	0.8	0.8	19	0.3
MW13	2019	4.5	139	87	30	2	1.3	1.8	15	0.2
MW13	2020	4.3	146	91	29	6	0.5	1.9	16	0.0

Sample	Cal Year	Min of pH	Min of Electrical Conductivity	Min of Total Dissolved Solids	Min of Chloride	Min of Sulphate	Min of Calcium	Min of Magnesium	Min of Sodium	Min of Potassium
MW13	2017	4.9	134	92	27	1	2.0	2.0	16	0.0
MW13	2018	4.3	133	83	28	3	0.0	0.0	14	0.0
MW13	2019	4.1	132	82	28	1	0.7	1.4	13	0.0
MW13	2020	4.1	143	90	27	1	0.0	1.9	14	0.0

Sample	Cal Year	Max of pH	Max of Electrical Conductivity	Max of Total Dissolved Solids	Max of Chloride	Max of Sulphate	Max of Calcium	Max of Magnesium	Max of Sodium	Max of Potassium
MW13	2017	4.9	134	92	27	1	2.0	2.0	16	0.0
MW13	2018	4.5	146	91	36	4	1.6	1.6	23	0.6
MW13	2019	4.9	143	89	32	2	2.3	2.0	16	0.8
MW13	2020	4.5	149	93	31	13	1.1	1.9	18	0.0

6.4.3 Wet Weather High Groundwater Level

As the limit on the depth of extraction is defined to be 2m above the Wet Weather High Groundwater level, groundwater monitoring is essential to determine this limit. Consent Mod 2 defines the Wet Weather high groundwater level as ‘the rolling average of all recorded groundwater level measurements at any monitoring location on the site, as the first recorded following any rainfall event of at least 50mm over any 24hour period, and as contour mapped using this data’. Rainfall data is also required to assist in the determining of the limit of extraction. The site received greater than 50mm on seven 24 hour periods during 2020, four of which occurred simultaneously.

Table 32. Groundwater Depth Changes with Rainfall Event

Well ID	Aquifer	Max of Depth RL after latest >50mm/day rainfall event (2020)	#Average Peak water level after >50mm/day rainfall event (2018)	Wet Weather High Groundwater RL (2020)	#Wet Weather High Groundwater RL (2018)	Lowest Level in Quarry at nearest location
MW12	Hawkesbury Sandstone	194.5	194.7	196.5	196.7	
MW7	Hawkesbury Sandstone	182.0	184.3	184.0	186.3	
MW9	Hawkesbury Sandstone	186.3	188.3	188.3	190.3	
MW10	Maroota Sands	183.3	185.2	185.3	187.2	188.0
MW11	Maroota Sands	180.7	183.1	182.7	185.1	
MW6	Maroota Sands	182.7	184.8	184.7	186.8	193.5
MW1	Maroota Sands (perched)	206.3	206.9	208.3	208.9	
MW13	Maroota Sands (perched)	198.3	199.2	200.3	201.2	188.7
MW8	Maroota Sands (perched)	191.9	192.7	193.9	194.7	

Data from Groundwater Study Report (Dundon Consulting, April 2018)

The above table illustrates that all current groundwater levels are below that modelled in 2018 for the Groundwater Study, and that the quarry floor is above the Wet Weather High Groundwater Level.

6.4.4 Interpretation and Effectiveness of Controls

Groundwater Levels have risen across the site during 2020 in response to higher rainfall. The largest rise was in February, and levels have been slowly rising since then. The Maroota Sands channel has risen to levels approximately equal, but not yet higher than those used in 2018 for the original groundwater modelling. The Hawkesbury Sandstone regional aquifer has also remained at approximately similar levels, except in the MW12 bore, which has risen approximately 2m. The quarry is not extracting in that area and water levels may be influenced by surface water run-off. These are illustrated on *Figure Seven*.

6.4.5 Measures Proposed for Improvement

Specific monitoring improvements to be investigated are as follows.

- Continue groundwater and surface water level monitoring and report in accordance with the approved Groundwater Monitoring Program and Groundwater Management Plan.
- Undertake water quality monitoring and reporting in accordance with the approved Groundwater Monitoring Program and Water Management Plan.

Plan of: Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Wet Weather High Groundwater Level Maroota Sands (2020)

Figure: SEVEN

Version/Date: V0 23/03/2021

Our Ref: 10418_HMA_ARC21_Q007_V0_F7

Location: Maroota Quarry, Roberts Road, Maroota, NSW

Council: Hills Shire Council

Tenure: Not Applicable

Client: Hodgson Quarries & Plant Pty Ltd

Source: nearmap - Image Date 18/03/2020 Zone MGA 56

Survey: Not Applicable

Projection: GDA2020/MGA Zone 56 EPSG:7856

Contour Interval: Not Applicable

Plan By: SK/JD

Project Manager: LT


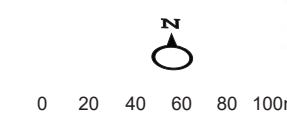
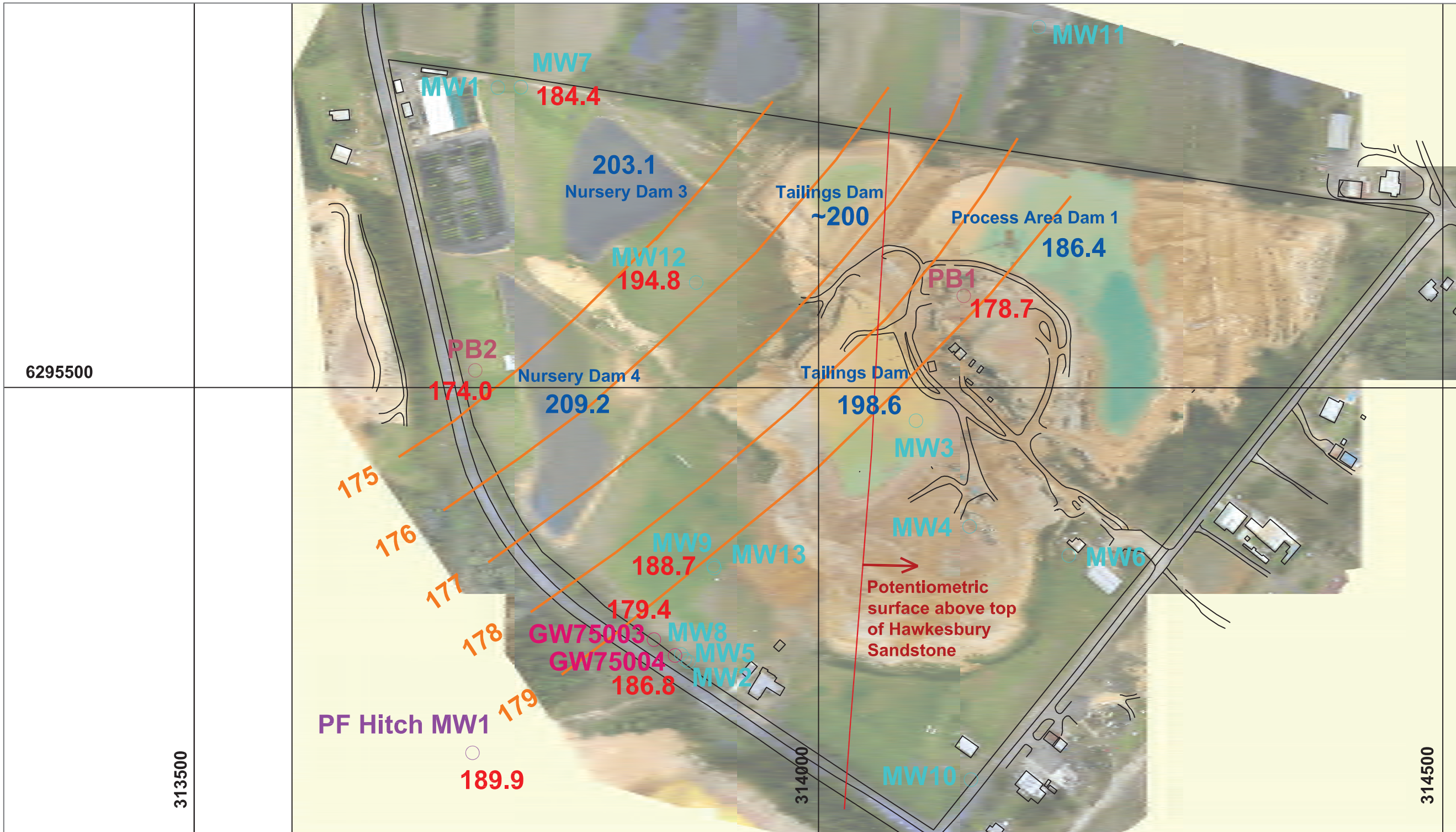
This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.



- Legend**
- Property Boundary
 - Edge of Saturated Maroota Sands
 - Contours of Wet Weather High GW Level
 - ▲ Spot Heights - Singleton Survey Services Pty Ltd 3/3/21
 - Groundwater Monitoring Well Location

Plan of:	Annual Review & Compliance Report 2021 for Roberts Road Maroota Sand Quarry - Wet Weather High Groundwater Level Hawkesbury Sandstone (Feb 2018)	Location:	Maroota Quarry, Roberts Road, Maroota, NSW	Source:	Dundon Consulting Pty Ltd Figure 16 Dwg No. 06-0318-021d 08/03/2018	Our Ref:	10418_HMA_ARC2021_C007_V0_F7.cdr
Figure:	SEVEN	Council:	Hills Shire Council	Survey:	Dundon Consulting Pty Ltd 08/03/2018	Plan By:	LT/JD
Sheet:	2 of 2	Tenures:	N/A	Projection:	MGA	Project Manager:	LT
Version/Date:	V0 24/03/2021	Client:	Hodgson Quarries & Plant Pty Ltd	Contour Interval:	1m	Office:	Thornton

This figure may be based on third party data which has not been verified by vgt and may not be to scale. Unless expressly agreed otherwise, this figure is intended as a guide only and vgt does not warrant its accuracy.

LEGEND:

- Hodgson monitoring bore
- Hodgson production bore
- 174.0 Hawkesbury Sandstone water level
- Contours of wet weather high GW level
- Potentiometric surface above top of HS

DATE:	8 March 2018	SCALE:	
PROJECT NO:	06-0318	AUTHOR:	PD
DRAWING NO:	06-0318-021d	REVISION:	D
Dundon Consulting Pty Ltd			

Hodgson Quarry and Plant Pty Ltd

ROBERTS ROAD MAROOTA SAND QUARRY
Wet Weather High Groundwater Level
Hawkesbury Sandstone (February 2018)

Figure 16

6.5 SITE WATER BALANCE

A Surface Water Management Plan including the Site Water Balance was submitted to the then DoI-W and DPE to comply with the current conditions of consent (Mod 2) and was approved by the DPE in August 2018.

6.5.1 Requirements and Predictions

Condition 42 (a) of the Mod 2 consent states:

[The Surface Water Management Plan includes]:

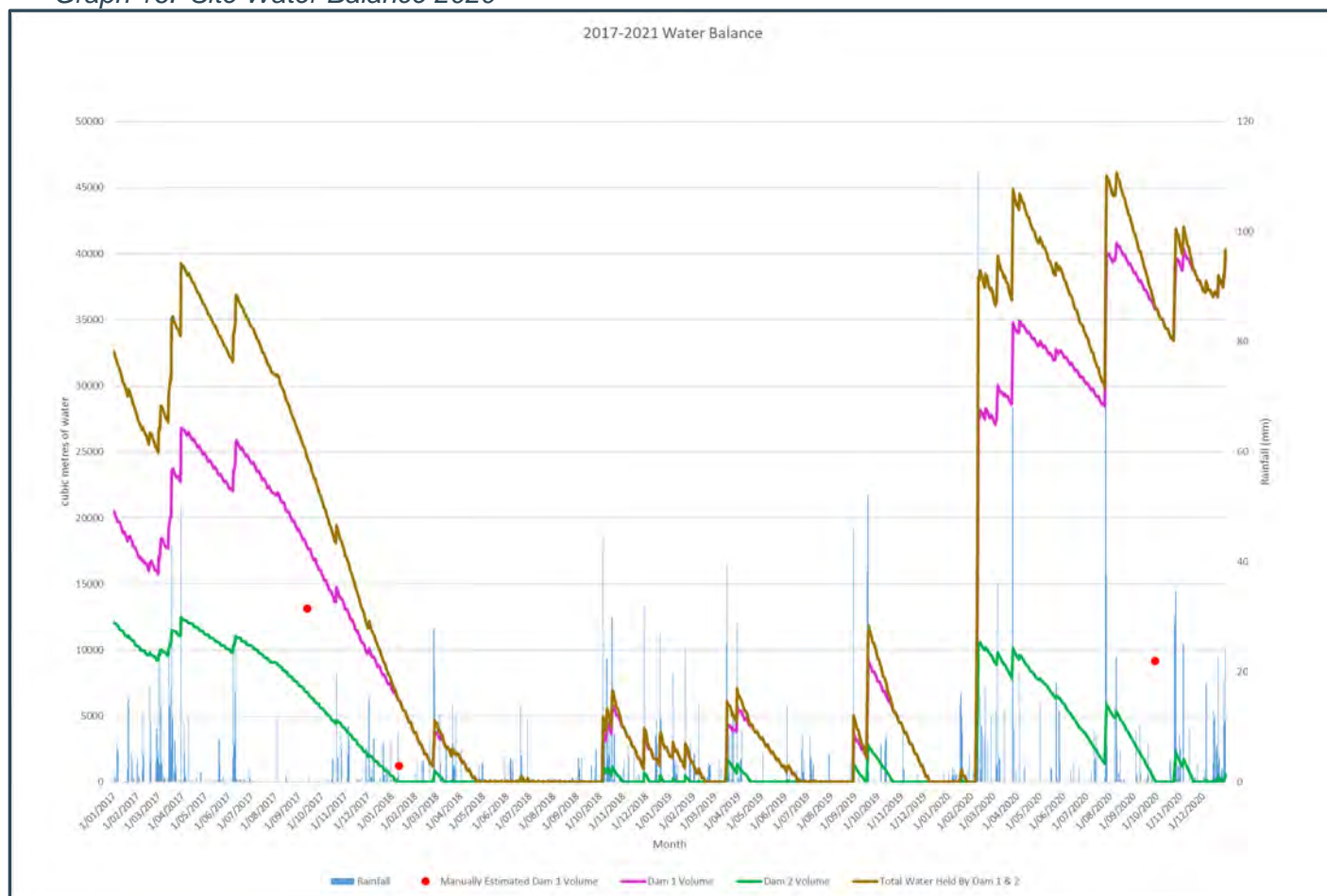
Site Water Balance that:

- *includes details of:*
- *sources and security of water supply, including contingency planning;*
- *water use on site;*
- *water management on site, including groundwater inflows to the quarry voids and site discharges; and*
- *audit and reporting procedures, including comparisons of the site water balance each calendar year; and*
- *describes the measures that would be implemented to minimise clean water use on site and maximise recycling opportunities.*

6.5.2 Monitoring Results Compliance and Trends

Monitoring of water depths is discussed in Sections [6.3](#) and [6.4](#). The Site Water Balance for 2020 is shown below.

Graph 16. Site Water Balance 2020



6.5.3 Interpretation and Effectiveness of Controls

The water balance has focused on the currently disturbed catchments and Dams 1 and 2. Dams 3 and 4 are not controlled by the operator and usage/pumping rates are unknown. At present they play no part in the site operations and therefore are not included in the water balance. Rainfall from data obtained onsite and from the BOM observations over 2020 was used to correlate site observations and measured dam water levels.

A level logger was installed in Dam 1 in late September 2017 and data obtained during 2020 has been applied to the model. At the time the logger was installed, the RL of the water in Dam 1 was recorded. Measurements were taken over the area of the dam to determine the depth of water to the base of the silt. The dam was found to be only up to 0.5m deep over the vast majority of its extent with the exception of a deeper void (up to 3m deep) around the pump intake. This data was used to project an approximate contour model of the base of the dam. From the model, the volume of the water within the dam has been estimated at various depths (RLs). These volumes have then been correlated with the monthly average depth recorded by the logger and plotted against the volume of water held predicted by the water balance to assess its reliability.

No dissipation from the dams has been accounted for in the amended assumptions.

From the plot of the predicted water balance, based on actual rainfall data, pumping rates and truck tonnages, it can be seen that the high rainfall replenished supplies of water in the dam. The added rainfall, coupled with lower production meant that there were no plant stoppages due to lack of water this report period.

6.5.4 Measures Proposed for Improvement

The following measures will be instigated during the next reporting period.

- The Site Water Balance will be updated again for the 2021 Annual Review.

6.6 PROCESS WATER DAM

A Surface Water Management Plan including the Process Water Dam was submitted to the DPE and DoPI-W to comply with the current conditions of consent (Mod 2) and was approved in August 2018.

6.6.1 Requirements and Predictions

6.6.1.1 Consent Conditions

The following conditions are from the Mod 2 consent:

38. *The Applicant shall not extract:*

(a) *below a depth of 182 m AHD in the footprint of the Process Water Dam, if not already extracted as at the date of Modification 2*

42 (b) *[The Surface Water Management Plan includes]*

- *a detailed description of design and construction criteria for the Process Water Dam based on a feasibility study of:*
 - *capacity to construct multiple cells within the overall dam footprint (ie a two stage or three stage dam);*
 - *whether the dam floor and walls are able to be effectively lined with compacted clay (especially for multiple cells);*
 - *whether effective hydraulic separation can be achieved between such cells;*
 - *rehabilitating such cells to create a single dam within the final landform; and*
 - *the appropriateness of diverting runoff received from off-site around the dam;*

45. The Applicant must ensure that the Process Water Dam is designed and constructed in a manner that satisfies the design and construction criteria for the Process Water Dam as developed under the Surface Water Management Plan (see condition 42(b) above).

6.6.1.2 2015 EA Requirements and Predictions

The Environmental Assessment, September 2015 section 2.2.1 discusses construction of a dam in three stages down to a depth of 178m RL or firm base.

6.6.2 Monitoring Results Compliance and Trends

The deepest point of the dam remains approximately 185 m AHD in the vicinity of the pump. The remainder of the top of the sediment remains at approximately 187 m AHD. This is compliant with all relevant criteria.

6.6.3 Interpretation and Effectiveness of Controls

The current Process Water Dam has proved effective in preventing uncontrolled discharge off-site. It is also providing sufficient supply of suitable water to the processing plant, with supplementation from the processing bore required.

As discussed in the Surface Water Management Plan and Rehabilitation and Landscape Plan, the three-stage construction of the dam to a depth of 178m AHD or firm base is no longer relevant, and the current monitoring shows that the base of the Process Dam is 2 m above the Wet Weather High Groundwater Level, therefore no changes will be made to the Process Dam.

6.6.4 Measures Proposed for Improvement

The Process Dam will continue to be monitored in accordance with the Surface Water Management Plan.

6.7 NOISE AND ROAD NOISE

6.7.1 Requirements and Predictions

The consents specifies the following Noise Impact Criteria:

Condition 47: For typical operations, noise from the premises must not exceed:

- an LAeq, 15 min noise emission criterion of 43 dB(A) (7am to 6pm) Monday to Saturday;
- an LAeq, 15 min noise emission criterion of 40 dB(A) (6am to 7am) Monday to Saturday; and
- an LA1, 1 minute noise emission criterion of 50 dB(A) (6am to 7am) Monday to Saturday.

Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (as may be updated or replaced from time-to-time).

Condition 47: The excavator to be used is to be fitted with acoustic mufflers to achieve a noise level of approximately 76dB(A) when measured at 7 metres.

Condition 48: The Applicant shall ensure that traffic noise from the development does not exceed (L Aeq(1 hr)) 55 dB(A) between 7 am and 10 pm and 50 dB(A) between 10 pm and 7 am at any affected residence under adverse weather conditions. Where ambient Leq levels already exceed these criteria, the Applicant shall ensure that traffic noise from the development does not result in an increase of more than 2 dB(A).

Note: Adverse weather conditions means in the presence of winds up to 3 metres per second and/or temperature inversions of up to 4 degrees Centigrade per 100 metres.

The Noise Management Plan 2016 reflect the same requirements as the consent.

The EPL specifies the following noise related limits:

Table 33. Noise-related Conditions

Condition	Description
L2.1	Noise from the premises must not exceed the sound pressure level expressed as LA10 (15 minute) of 45dB(A), except as expressly provided by this licence
L2.2	Noise from the premises is to be measured or computed at any point within one metre of any residential boundary, or at any point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition L2.1

The Noise Impact Assessment prepared for the Environmental Assessment for Mod 2 (Nexus Environmental Planning Pty Ltd, September 2015) made the following commitments.

Table 34. Predicted Noise Impacts, 2015 LAeq, 15min (dBA)

Scenario	All Locations
Typical Operations	43

6.7.2 Monitoring Results Compliance and Interpretation

Results of operational and road noise monitoring undertaken in November 2020 are given in *Appendix I*. The report states:

Attended monitoring has identified that operational and road noise emissions generated by the quarry comply with relevant statutory noise limits. Furthermore, project related noise emissions are generally masked by extraneous non-quarry sources.

Further details and interpretation of results are given in the attached report.

6.7.3 Trends and Effectiveness of Controls

Table 35 shows past and 2020 attended noise monitoring results during quarry operations. Noise measured at the nominated residences during quarry operations in the reporting period were compliant with criteria. All reports are given in Appendix I.

Table 35. Operator-Attended Noise Survey Results

Location	LA10	LAeq	LA90	Criteria LAeq	Comment
Attended Monitoring Results - 5 May 2016					
A	51	50	40	43	Compliance achieved, contribution of 39dBA
B	67	62	42	43	Compliance achieved, contribution of 41dBA
C	48	46	40	43	Compliance achieved, quarry inaudible
Attended Monitoring Results – 27 April 2017					
A	52	50	40	43	Compliance achieved, quarry inaudible
B	49	49	37	43	Compliance achieved, quarry inaudible
C	56	53	48	43	Compliance achieved, quarry inaudible
Attended Monitoring Results – 23 May 2018					
A	43	43	38	43	Compliance achieved, quarry contribution 37dBA
B	46	47	38	43	Compliance achieved, quarry contribution 37dBA
C	45	43	35	43	Compliance achieved, quarry inaudible
Attended Monitoring Results – 6 June 2019					
A	47	45	41	43	Compliance achieved, 40dBA
B	46	44	41	43	Compliance achieved, 41dBA
C	47	45	40	43	Compliance achieved, quarry inaudible
Attended Monitoring Results – 10/11/2020					
A	50	46	35	43	Compliance achieved, 34dBA
B	50	57	34	43	Compliance achieved, 31dBA
C	51	52	41	43	Compliance achieved, <35 dBA

Sound Power Levels were not tested on the site plant and equipment this year. Sound Power levels of existing machinery are given in *Table 36*.

Table 36. Sound Power of Equipment

Plant	Overall Sound Power (dBA)	Criteria in Sound Power dBA	Comment
PC350 Komatsu Excavator	101	101 *	Compliance achieved.
L180G Volvo Loader	103	N/A	
Sand Plant, conveyors, log wash and stacker	100	N/A	
PC400 Komatsu Excavator – commissioning test only	105	101 *	This excavator was under repair for the majority of the year. Once re-commissioned, the Sound Power level will be re-checked.
Total Fleet Sound Power	109	113 #	Compliance with expected modelling achieved.

* Condition 47a states: ‘The excavator to be used is to be fitted with acoustic mufflers to achieve a noise level of approximately 76dBA when measured at 7m.’ (This equates to a sound power level of 101dBA.)

‘Typical Scenario and Plant Numbers’ assessed in the Mod 2 Acoustic Assessment.

6.7.3.1 Effectiveness of Noise Management Controls

Table 37. Effectiveness of Noise Management Controls

Control	Interpretation	Effective?
Perimeter Bunds	Noise measured at residences complies with requirements and predictions	Yes
Temporary bunds when extracting in close proximity to residences	Temporary bunds are in place around the current extraction area. Noise measured at residences complies with requirements and predictions. Noise measured at residences lower than previous monitoring.	Yes
Training and awareness for employees and truck drivers	Noise measured at residences complies with requirements and predictions. Road noise attributed to the site complies with requirements and predictions.	Yes
Mufflers on excavators	Sound power levels were measured on two excavators; one did not comply, however off-site noise remains inaudible.	Yes
New equipment purchased checked by qualified noise consultant for compliance prior to commissioning	Total fleet sound power levels remain less than modelled	Yes

6.7.4 Measures Proposed for Improvement

As seen from the previous section, the current controls and mitigation measures in place are effective. Any new equipment purchased after the annual noise monitoring event will be tested during the next round.

Should atypical works be undertaken, extraction outside of temporary bunds (surface extraction), or a dozer ripping sandstone during initial topsoil and overburden extraction, a suitably qualified noise consultant will be commissioned to undertake attended noise monitoring during this time.

6.8 FLORA AND FAUNA

6.8.1 Requirements and Predictions

The consent specifies the following requirements with regard to flora and fauna management:

Table 38. Flora and Fauna Management Conditions

Condition number	Condition Summary	Details of compliance status	Compliant
55	The Applicant shall prepare a Flora and Fauna Management Plan as part of the EMP. The Plan shall be prepared in consultation with National Parks and Wildlife Service and Council, (further detail in consent)	Flora and Fauna Management Plan has been prepared and updated in 2016. OEH (NPWS) was consulted but declined to make comments. Council comments have been included in report	Yes
56	The Applicant shall maintain the revegetated areas for the duration of the Consent. Maintenance may include: (details in consent)	Limited rehabilitation has been undertaken on the site due to the cell staging that has been required. All bundwalls are vegetated and stable.	Yes

Objectives and targets from the Flora and Fauna Management Plan:

Table 39. Flora and Fauna Management Objectives and Targets

Objective / Target	Compliance Status
To protect known threatened flora species on the site and ensure correct procedures are applied in the event of other threatened flora or fauna species being located on the site.	Known species identified, baseline monitoring undertaken in Jan 2018. Monitoring was undertaken in July 2019.
Inspections of site flora and fauna to show minimal impacts from operations.	Trends over time will be required to determine impacts.
Consider the post extraction land use in the management and maintenance of conserved and rehabilitated vegetation.	Conserved vegetation managed in accordance with Landscape and Rehabilitation Plan

6.8.2 Monitoring Results Compliance and Trends

Monitoring of the remnant vegetation was undertaken in Spring 2020, in accordance with the Flora and Fauna Management Plan. A full report is supplied in the Biodiversity Report in *Appendix J*.

A program of planting was undertaken in October – November 2020 with the aim of improving the vegetation buffer on the perimeter of the site. Low shrubs including bottlebrush species were planted on the Old Northern Rd perimeter bund where pruning by utilities companies has caused severe damage in the past. The success of the shrubs has been limited. Weeds have been sprayed approximately once per month using a 10L hand-operated pump sprayer.

There has been no evidence of feral animals on the site.

6.8.3 Interpretation and Effectiveness of Controls

The Annual Biodiversity Monitoring Report produced by South East Environmental noted that:

- “The site does appear to be recovering from the dry weather conditions which persisted from mid 2017 and into early 2020. Evidence of some die back, particularly of large shrubs is still apparent although juvenile growth is reasonably prolific. Forbs and ferns which were not well represented in the previous monitoring period are now present. Native grasses are making a strong comeback in the native vegetation areas, particularly along Roberts Road. It is expected with the return to average weather conditions the ground stratum will demonstrate the biggest increase in density and diversity over time.”
- “It would appear that some natural native regeneration from the soil seed bank is occurring throughout much of the remnant native vegetation areas. Fencing to exclude livestock has occurred which has most likely assisted in the ability for natural regeneration to occur undisturbed. Fencing has also taken place in planted areas along the northern property boundary where planting success is high.”

6.8.4 Measures Proposed for Improvement

The Biodiversity report recommended regular sweeps for Fireweed throughout the year. A monthly weed control plan was given in Appendix D of the Biodiversity Report which is reproduced below.

Table 40. Recommended Weed Control

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
African Lovegrass	Herbicide	Herbicide	Slashing	Slashing	Slashing				Herbicide	Herbicide	Herbicide	Herbicide
Blackberry	Herbicide	Herbicide	Herbicide						Herbicide	Herbicide	Herbicide	Herbicide
Cobblers Pegs	Hand removal	Hand removal	Hand removal	Hand removal					Herbicide	Herbicide	Herbicide	Hand removal
Crofton Weed	Slashing	Herbicide	Herbicide	Herbicide	Herbicide				Slashing	Slashing	Slashing	Slashing
Fireweed	Hand removal	Hand removal	Hand removal	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Hand removal	Hand removal	Hand removal
Lantana	Herbicide	Herbicide	Herbicide	Herbicide	Herbicide				Herbicide	Herbicide	Herbicide	Herbicide
Paspalum	Slashing	Slashing	Slashing	Herbicide	Herbicide	Herbicide			Slashing	Slashing	Slashing	Slashing
Rhodes Grass	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing
Whiskey Grass	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Herbicide	Herbicide	Herbicide	Hand removal

Herbicide – Foliar spray with an appropriate product as per the instructions on the label. Foliar spray should be carried out during active growing season.
 Slashing - Slashing within agricultural land areas only. Slashing is only effective if the targeted species has not yet reached flowering maturity.
 Hand removal – Necessary when targeted species have reached flowering maturity. Entire plant can be removed or flowering heads may be cut. Removed material should be immediately bagged to prevent spread of seed and appropriately disposed of.
 Herbicide* – Treatment via either cut and paint or drill and inject methods.

This table should be considered a guide for appropriate treatment during different months of the year. It does not indicate a specified work schedule.

6.9 REHABILITATION

The revised Landscape and Rehabilitation Management Plan (LRMP) was submitted to the DPE in March 2018 and approved in August 2018.

6.9.1 Requirements and Predictions

Performance indicators and completion criteria are listed in the LRMP. None of these criteria have yet been achieved.

6.9.2 Monitoring Results Compliance and Trends

Table 41. Rehabilitation Status

Mine Area Type	2016 Ha	2017 Ha	2018 Ha	2019 Ha	2020 Ha	2021#
Exposed and Active	3.9	3.1	3.1	2.7	2.9	2.9
Active extraction area	2.5	2.4	2.2	2.1	2.2	2.2
Access tracks and haul roads (unsealed)	1.4	0.7	0.9	0.6	0.8	0.8
Areas not Actively Creating Dust						
Stripped ahead of mining (accessed < once per month)	0.6	2.4	2.5	2.8	3.0	3.0
Water Management	4.0	3.8	4.3	4.3	4.3	4.3
Overburden Emplacements / Machinery Storage	1.5	1.8	1.1	1.1	1.1	1.1
Land Being Prepared for Rehabilitation	1.9	1.9	1.8	1.8	1.8	1.8
Topsoil Stockpiles / Bunds / Land under active Rehabilitation (ie vegetated)	0.7	1.7	2.4	2.5	2.4	2.4
Total Active Disturbance	12.6	14.6	15.2	15.2	15.5	15.5
Infrastructure area (sealed)	1.5	1.5	2.3	2.3	2.3	2.3
Total Mine Footprint	14.1	16.2	17.5	17.1	17.9	17.9

* Hectares estimated from Google Earth and Nearthmaps

Predicted

Note that these areas have been interpolated from Nearthmap and Google Earth air photography using 12D modelling software, and are not an accurate survey. A Statement of Accuracy can be supplied on request. The areas are illustrated on the attached [Figure Five](#) and [Figure Six](#).

6.9.3 Interpretation and Effectiveness of Controls

The perimeter bundwalls have been revegetated with grass and shrub species and are stable and not prone to erosion. The perimeter bund walls are providing effective visual screening from the site operations despite the absence of mature trees. The general compliance of the dust and noise monitoring results indicates that this control measure is effective. Internal bunds and topsoil stockpiles are generally well covered with pasture species.

Progressive rehabilitation in the extraction cells has not occurred on the site to date due to the lack of finished faces. Although this results in erosion on the internal faces of the extraction area, sediment is captured within the pit void and does not impact on surrounding land or waterways.

The 10m buffer on the northern boundary has been reinstated and the bund wall vegetated with native species.

The remaining areas on the site, outside the extraction footprint are well vegetated with pasture species and are stable and protected from erosion impacts.

6.9.4 Measures Proposed for Improvement

During the next report period the following activities will be undertaken towards development of the final landform:

- Monitor and maintain perimeter vegetation.
- Temporarily fence off in-active area to minimise dust generation in unused areas.
- Revegetation activities will continue on perimeter bunds.
- Further attempts to liaise with the DPIE regarding the submission of the Conservation Bond will be undertaken.

7 Management Targets and Strategies for Future Stages

The targets and strategies for future stages have been outlined in the Environmental Management Plan and each individual sub-plan. They are summarised in the table below.

Table 42. Future Targets

Aspect	Target	Criteria
Air Quality	To receive no reasonably preventable complaints from members of the public or statutory authorities regarding air quality emissions from the site, and for monitoring to show that air quality criteria are being met	Air quality criteria outlined in 6.2.1
Water	To ensure there is no reasonably preventable impact on surface water external to the site or regional groundwater	Water quality criteria outlined in Sections 6.3 , 6.4 , and 6.6
Sediment and Erosion	To control erosion on the site to as to reasonable prevent impacts off site	Sediment and erosion criteria are outlined in 6.3
Noise	To receive no reasonably preventable complaints from members of the public or statutory authorities regarding noise or road noise impacts from the site, and for monitoring to show that noise criteria are being met	Noise and road noise criteria are outlined in 6.7.1
Flora and Fauna	Inspections of site flora and fauna to show minimal impacts from operations. Consider the post extraction land use in the management and maintenance of conserved and rehabilitated vegetation.	Performance and completion criteria are detailed in the FFMP 2016
Rehabilitation	To ensure that temporary and permanent rehabilitation activities are undertaken in accordance with the Rehabilitation Plan	Performance and completion criteria are detailed in the LRMP 2018.

8 Opportunities for Improvement

8.1 2020 INDEPENDENT AUDIT

Table 43. Independent Audit Actions

Opportunity	Actions	Date Achieved
Regular inspection and maintenance of screen plantings	Inspection to be added to quarterly environmental management checklist	3 months after new plantings installed
Regular inspection and maintenance of areas of erosion	Inspection to be added to quarterly environmental management checklist	31st October 2020.
Provision of additional spill kits in operational areas in the event of a hydrocarbon spill or leak	Additional spill kits will be purchased and placed in relevant mobile plant. Their use and location will be discussed at a regular toolbox meeting.	31st December 2020.
Further onsite segregation of wastes to allow for better recycling opportunities	Recycling opportunities will be added to the regular toolbox meetings.	Ongoing

8.2 ACTIONS AND IMPROVEMENTS PLANNED FOR 2020

Table 44. Summary of Proposed Improvements

Aspect	Improvement
Air Quality	A mobile sprinkler is used to water disturbed areas that the water cart has difficulty accessing. Dust will continue to be monitored using high volume air samplers and dust deposition gauges. Relocation of HVAS monitored will be investigated.
Water	Updated Water Management Plan to be submitted following consultation and implemented.
Noise	Undertake attended operational and road traffic noise monitoring, including compliance with conditions 47 (a) and (b). Any newly purchased equipment to tested for Sound Power compliance.
Flora and Fauna	Biodiversity monitoring will be undertaken during the calendar year. Weed control will be undertaken as recommended in Section 6.8.4 . Additional plantings will be undertaken on perimeter bunds.
Rehabilitation	Monitor and maintain perimeter vegetation. Temporarily fence off in-active area to minimise dust generation in unused areas.
Administrative	Environmental Management Strategy and sub-plans to be reviewed and revised following submission of this ARCR and following granting of Modification 4.

References

- Dundon Consulting. (April 2018). *Roberts Rd Maroota Sand Quarry Groundwater Study Report*.
- Dundon Consulting. (July 2018). *Roberts Rd Maroota Sand Quarry Groundwater Management Plan*.
- Dundon Consulting. (July 2018). *Roberts Rd Maroota Sand Quarry Groundwater Monitoring Program*.
- Holmes Air Sciences. (October 1999). *Air Quality Impact Assessment, Proposed Sand Extraction Operations, Roberts Rd Maroota, NSW*.
- National Environment Protection Council. (February 2016). *National Environment Protection (Ambient Air) Measure*.
- Nexus Environmental Planning Pty Ltd. (May 2015). *Environmental Assessment Section 75W Mod 3*.
- Nexus Environmental Planning Pty Ltd. (November 1999). *Environmental Impact Statement*.
- Nexus Environmental Planning Pty Ltd. (September 2015). *Environmental Assessment Section 75W Mod 2*.
- NSW Department of Planning and Environment. (March 2016). *DA 267-11-99*.
- NSW EPA. (2015). *Environment Protection Licence 6535*.
- Wilkinson Murray Pty Ltd. (June 2015). *Air Quality Impact Assessment*.

Appendix A: Compliance Review

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Summary	Number of Conditions Non-compliant		
Non Compliant	Four: Sched 2 Conds 2(b), 42, 45, 61	Not all conditions of consent complied with. Air quality criteria exceeded during bushfires. Water Management Plan not updated annually. Conservation bond unpaid	Section 2
General			
<i>Obligation to Prevent and Minimise Harm to the Environment</i>			
1	There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, the decommissioning of the development.	Compliant	
<i>Adherence to Terms of DA and EIS</i>			
2 (a)	The Applicant shall:(a) carry out the development generally in accordance with the EIS, Modification 1, Modification 3 and Modification 2; and		
2 (b)	(b) comply with the conditions of this consent		Section 2
<i>Compliance</i>			
3	The Applicant shall comply with all reasonable requirements of the Secretary in respect of the implementation of the Conditions of this Consent, within such time as the Secretary agrees. The Secretary may order the Applicant to cease work until non-compliance has been addressed to the Secretary's satisfaction.	None required this report period	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
4	The Applicant shall ensure that all contractors and sub-contractors are aware of, and comply with, the Conditions of this Consent.	All contractors and sub-contractors are inducted to site and Induction Checklist completed	Appendix K
5	The Applicant shall comply with all relevant conditions prescribed in Part 7 of the Environmental Planning and Assessment Regulation 1994, as required by Section 80A (11) of the Act.	Buildings unchanged	Not required
6	The Applicant will submit a Conditions Compliance Report to the Secretary prior to the commencement of extraction in areas that are not currently subject to extraction. Subsequent reports will be submitted annually for the first three years of extraction in areas not currently subject to extraction. Further reports shall be submitted as required by the Secretary.	Compliance Report 2019 version F0 submitted 27/03/2020, no outstanding actions, no approval received to date.	Appendix L
6 (a)	To enable ready comparison with the EIS's predictions, diagrams and tables, the Conditions Compliance Reports shall include, but not be limited to, the following matters:(a) a compliance audit of the performance of the project against conditions of Consent and statutory approvals		Appendix A
6 (b)	(b) a review of the effectiveness of the environmental management of the development		Section 6
6 (c)	(c) the results of environmental monitoring required under this Consent or other approvals, including interpretations and discussion by a suitably qualified person;		Section 6
6 (d)	(d) a listing of any variations obtained to approvals applicable to the DA since the last report;	No variations since 2016 CCR	Section 4
6 (e)	(e) a record of all complaints and the actions taken to mitigate all such complaints;	No complaints were received	Section 6.9

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
6 (f)	(f) a report detailing the rehabilitation measures undertaken since the last report; and		Section 6.9
6 (g)	(g) environmental management targets and strategies for stages of the development yet to be completed.		Section 7
7	The Secretary may, after considering a Conditions Compliance Report, notify the Applicant of any reasonable requirements for compliance with this Consent. The Applicant shall comply with those requirements within such time as the Secretary may direct. Note: The Applicant is obliged to ensure that all statutory requirements, including all relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions and Directions of the Councils and relevant government agencies are met and approvals obtained.	No further action required	Section 2.3
Commencement and Duration			
8 a)	No extraction shall commence in areas that are not currently subject to extraction, until the Applicant has: (a) constructed the bund walls at the corner of Roberts Road and Old Northern Road;	The relevant bundwalls have been completed.	Figures
8 b)	(b) submitted the Conditions Compliance Report required under Condition 6; and	Compliance Report 2019 version F0 submitted 27/03/2020	Appendix A, Appendix L
8 c)	(c) obtained all licences necessary for the commencement of extraction.	EPA licence current Bore licences current	Section 4
9	The duration of extraction under this Consent is until 31 May 2025. The Applicant shall ensure that rehabilitation of all disturbed areas is completed within six months of completion of extraction.	Extraction not yet completed	Not required

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Complaints Procedures			
10 a)	Prior to commencement of construction, the Applicant shall: (a) publicise a telephone number on which complaints about the subject development can be registered during the hours of operation in Condition 16; and	Complaints phone number is advertised in the white pages and signage at the front gate.	Section 5.2
10 b)	(b) publicise a postal address where written complaints may be lodged. The telephone number and postal address shall be displayed on the property where it can be read from a public road, for the duration of the development.	Address is publicised in White Pages, website and signage at the front gate.	Section 5.2
11	The Applicant shall record details of all complaints received and actions taken in response to complaints in an up-to-date log book. The log book shall be made available for inspection upon request by the Secretary, the EPA or the Council; and a summary of complaints received shall be included in the Conditions Compliance Reports under Condition 6.	Complaints log book available on site. No complaints received this report period.	Section 5.2
12 a)	The Applicant shall ensure that an initial response to complaints is provided to the complainant within 24 hours of receipt. The Applicant shall then: (a) investigate the concerns raised by the complainant and undertake all reasonable attempts to determine the cause of concern; and	No complaints received.	Not required
12 b)	(b) if adverse impacts are identified, undertake all practicable measures to modify the activity which may be causing the impacts.	No complaints received.	Not required
13	If the Applicant's response does not address the complaint to the satisfaction of the complainant within six weeks, the Applicant shall inform the Secretary and take any action as directed by the Secretary. This may include a requirement to carry out independent investigations of noise and/or dust at the cost of the Applicant, in accordance with Condition 14.	Not applicable as yet	Not required

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
14 a)	<p>If the Secretary is satisfied that an independent investigation is required, the Applicant shall:</p> <p>(a) appoint a qualified independent person or team to plan and implement an investigation to qualify the impact and determine the sources of the impact; and</p>	Not applicable as yet	Not required
14 b)	<p>(b) bear the cost of the independent investigation and make available plans, programs and other information necessary for the independent person to form an appreciation of the past, present and future works and their effects on dust and/or noise emissions. This investigation is to be carried out in accordance with a documented Plan. The Plan shall be designed and implemented to measure and/or compute (with appropriate calibration by measurement) the relevant noise and/or dust levels at the complainant's property, that are emitted by the development; and specify a monitoring period and reporting schedule.</p> <p>The independent person or team, the Plan and the timing of its implementation, shall be approved by the Secretary. The independent person or team shall report to the Secretary and the Applicant.</p> <p>Further independent investigations shall cease if the Secretary is satisfied that the relevant levels are not being exceeded and are unlikely to be exceeded in the future.</p>	Not applicable as yet	Not required
Dispute Resolution			
15	<p>In the event that the Applicant, Council, the PCA, or a government authority other than the Department, cannot agree on the specification or requirements applicable under this Consent, the matter shall be referred by either party to the Secretary or, if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.</p>	Not applicable as yet	Not required

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Hours of Operation			
16	<p>Unless prior written approval of the EPA is obtained, the hours of operation are:</p> <ul style="list-style-type: none"> • construction: 7.00am to 6.00pm Monday to Friday • extraction and processing of material: 7.00am to 6.00pm, Monday to Friday and 7.00am to 1.00pm on Saturdays • vehicle loading: 6.00am to 6.00pm, Monday to Friday and 6.00am to 1.00pm on Saturdays. <p>No works shall be undertaken on Sundays or Public Holidays. These restrictions do not apply to routine maintenance work, such as the repair of machinery, provided the work does not result in exceedance of the noise limits in Condition 47.</p>	Hours included in induction	Section 5.1
Depth of Extraction			
17	<p>The Applicant shall ensure that extraction does not take place below a level 2 metres above the wet weather high groundwater level of the regional aquifer, as measured and mapped on the site (see Conditions 39(d) and 44).</p>	Extraction has not progressed deeper than Wet Weather High Groundwater level	Section 6.4, Figure Two, Figure Seven
Environmental Management Plan			

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
18	<p>The Applicant shall prepare a Construction Environmental Management Plan (EMP) to the satisfaction of the Secretary prior to commencement of construction. The Construction EMP shall contain appropriate measures which demonstrate how the environmental objectives for the project will be achieved, including objectives stated in this Consent; and contain a monitoring, reporting and response program.</p> <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p>	<p>Construction Environmental Management Plan updated July 2016. Approved 9/12/16</p>	
19	<p>The Applicant shall prepare an Operational Environmental Management Plan (EMP) in consultation with the relevant authorities and to the satisfaction of the Secretary, prior to the commencement of extraction under this Consent. The EMP shall incorporate and integrate environmental management for the existing extraction areas, as well as the areas approved under this Consent.</p>	<p>Operational Environmental Management Plan was updated as required by Condition 67 (d) and submitted to Secretary in July 2016. Response received October 2016; draft 2 submitted November 2016. Approval received 9/12/16</p>	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
20	<p>The Operational EMP shall include, but not be limited to:</p> <ul style="list-style-type: none"> (a) environmental objectives for the site; (b) the Air Quality Management Plan (Condition 29); (c) the Water Management Plan (Condition 42); (d) the Noise Management Plan (Condition 46); (e) the Road Noise Management Plan (Condition 48); (f) the Flora and Fauna Management Plan (Condition 55); and (g) the Rehabilitation Plan (Condition 58). 	<p>Operational Environmental Management Plan was updated as required by Condition 67 (d) and submitted to Secretary in July 2016. Response received October 2016; draft 2 submitted November 2016. Approval received 9/12/16</p>	
21	<p>The Applicant shall make copies of both EMPs available to Council, EPA and DPI-Water within 14 days of approval by the Secretary. The Applicant shall also make a current copy of the EMPs available for inspection by the public or these agencies, for the duration of the Consent.</p>	<p>2016 OEMP approved 9/12/16, sent to all other agencies on 16/12/16. Available at www.vgt.com.au/hodgsons</p>	
22	<p>The Applicant shall, in consultation with the Secretary, the EPA and the DPI-Water, update the Operational EMP from time to time in order to ensure continuing compliance with the Conditions of this Consent and all relevant approvals and licenses. The EMR shall be responsible for determining if any significant changes to the Operational EMP should be referred to the Secretary for approval. The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p>	<p>The OEMP was updated in 2016. Input was sought from DPE, DPI-Water, OEH, EPA, and Council. The second draft approved by the Secretary on 9/12/16.</p>	
23	Deleted		
24	Deleted		
25	Deleted		
26	Deleted		

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Waste			
27	The Applicant 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 a licence under the Protection of the Environment Operations Act 1997. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the Protection of the Environment Operations Act 1997.1	No waste has been received by the premises. Waste is managed on site through the use of bins (removed by contractor) and waste oil is removed from the site as required.	Not required
Air Quality			
Air Quality Criteria			
28	The Applicant shall take all practical steps to manage the development so that the ambient air quality goals for total suspended particles (TSP) of 90 µg/m ³ (annual average), particulate matter (PM10) of 50 µg/m ³ (24 hours average) and 30 µg/m ³ (annual average) and the dust deposition goal of 4gm/m ² (annual average) are not exceeded as a result of the development, when measured at any monitoring location specified in the Air Quality Management Plan.	24 hour PM10 exceeded 50 µg/m ³ on two occasions during the reporting period due to the bushfires in Jan 2020. This was not due to the development operations, therefore not a non-compliance	Section 6.2
Air Quality Management			
29	The Applicant shall prepare an Air Quality Management Plan as part of the EMP. The Air Quality Management Plan shall:	Air Quality Management Plan was submitted as part of the 2016 OEMP	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
29 a)	(a) identify existing and potential sources of dust deposition, TSP and fine particulates (PM10 and PM2.5) and specify appropriate monitoring intervals and locations. The purpose of the monitoring is to evaluate, assess and report on these emissions and the ambient impacts with the objective of understanding the development's contribution to levels of dust deposition, TSP and fine particulates in ambient air around the site;	Section 5.2	Section 6.2
29 (b)	(b) provide a monitoring plan having regard to local meteorology and the relevant Australian Standards, identifying the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements;	AQMP 2016	Section 6.2
29 c)	(c) provide details of dust suppression measures for all sources of dust from the development, including a planting and watering regime to ensure that no more than 3 hectares of the site are exposed and active at any one time. The use of a polymer in the water to minimise dust impacts shall be investigated as part of this Plan	Section 4 of AQMP. Unused areas of the site are fenced off to prevent dust impacts.	Section 6.9
29 d)	(d) provide details of actions to ameliorate impacts if they exceed the relevant criteria; and	Section 5 of AQMP 2016	Section 6.2
29 e)	(e) provide the design of the reactive management system intended to reduce the day-to-day impacts of dust and fine particulates due to the development. The Applicant shall implement the approved management plan as approved from time to time by the Secretary	Section 4 of AQMP 16.	
29	The Applicant shall implement the approved management plan as approved from time to time by the Secretary	Plan has been implemented	
30	Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises	Plan has been implemented	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
31	The Applicant shall cease offending work at such times when the operations are resulting in visible dust emissions blowing in a direction so as to cross onto public roads or lands not owned by the Applicant.	Work ceases when visible dust crossing public roads or lands not owned by the applicant.	Not applicable this report period
32	The Applicant shall install, operate and maintain a sprinkler system to adequately water all cleared areas and stockpiles so as to minimise dust emissions to acceptable levels.	Mobile sprinkler installed over stockpiles and used over disturbed areas if/when visible dust is generated.	Section 6.2
33	The Applicant shall ensure that all vehicular movements on unsealed areas are restricted to specific routes and that all vehicles within the subject site keep to a speed limit of 30 km/h.	Speed limit on site is 20km/hr. Truck drivers also informed in induction	Appendix K
34	The Applicant shall ensure that trucks are covered when entering and leaving the premises carrying loads of potentially dust generating material.	Trucks are covered when entering and leaving premises	Appendix K
Air Quality Monitoring			
35	All monitoring equipment is to be installed and operational prior to commencement of construction.	Dust and HVAS monitoring equipment is installed and operating	Section 6.2
36 (a)	Operation of dust deposition gauges and monitoring must be carried out in accordance with; (a) Australian Standard 3580.10. 01 (1991) Particulates – Deposited Matter – Gravimetric Method. Approved method AM-19 referred to in Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales, December 1999.	Most updated AS for monitoring Particulates = AS3580.10.1 2016. Scope of Accreditation of laboratory proves testing to this standard	Section 6.2

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
36 (b)	(b) Australian Standard 2724.3 (1984) Particulate Matter – Determination of Total Suspended Particulates (TSP) - High Volume Sampler Gravimetric Method. Approved method AM 15 referred to in Approved Methods for the sampling and Analysis of Air Pollutants in New South Wales, December 1999.	Most updated AS for monitoring TSP = AS3580.9.3 2015. NATA accredited method based on this standard	Section 6.2
36 (c)	(c) Australian Standard 3580.9.6 (1990) for Suspended Particulate Matter – PM10 High Volume Sampler with Size Selective Inlet-Gravimetric Method. Approved method AM-18 referred to in Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales, December 1999.	Most updated AS for monitoring PM10 = AS3580.9.6 2015. NATA accredited method based on this standard	Section 6.2
37	A meteorological station measuring wind speed and direction must be installed and operated by the Applicant at a site determined in consultation with the EPA.	Approval obtained from NSW EPA for location of weather station and air monitoring locations	AQMP
Soil and Water			
Limits on Extraction			
38(a)	The Applicant shall not extract: (a) below a depth of 182 m AHD in the footprint of the Process Water Dam, if not already extracted as at the date of Modification 2; and	Survey of Process Water Dam shows max depth at 186m AHD	Figure 2
38(b)	(b) below a depth of 186.1 m AHD in all other areas of the site; unless in accordance with Condition 17, and following written notification to the Secretary and DPI-Water.	Recent surveys show the site to be compliant	Figure 2, Figure 7

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Groundwater Study and Remediation Works			
39(a)	Within six weeks of the date of approval of Modification 2, the Applicant shall commission a comprehensive groundwater study of the site. This study must: (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary and DPI-Water;	Peter Dundon engaged 30/3/16, approved by DPI-W 10/5/16, approved by DPE 5/4/16.	
39(b)	(b) consult with DPI-Water		GW Study
39(c)	(c) examine all existing records of groundwater levels at the site;		GW Study
39(d)	(d) develop an interim contour map of the wet weather high groundwater level of the regional aquifer, based on all available records (see also Condition 44); and	Contour map included in GW Study approved Aug 2018	GW Study
39(e)	(e) provide advice and recommendations on the Groundwater Monitoring Program as set out in Condition 43.	Groundwater Monitoring Program approved Aug 2018	GW Study, Monitoring Program
40	Unless otherwise agreed by the Secretary, the Applicant shall submit a report of the study to the Secretary and DPI-Water within six months of commissioning the study. The report must be accompanied by a Groundwater Management Improvement Program, based on the study's findings and recommendations which includes a program of proposed timeframes for implementation. Should the Applicant propose not to implement any of the report's recommendations, it must provide detailed justification to this effect. The Groundwater Management Improvement Program must be prepared and implemented to the satisfaction of the Secretary. Progress against the Program shall be reported through Annual Reviews and considered as part of the Independent Environmental Audit.	Comments on Groundwater Study, Water Management Plan and Groundwater Monitoring Program approved Aug 2018	GW Study

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
41	<p>Within six months of the submission of the Groundwater Study and accompanying documents (see Conditions 39 and 40), the Applicant must infill any area of the site identified as being below the wet weather high groundwater level to at least that level as mapped (see Condition 39(d)).</p> <p>Within six months of any update of the groundwater level contour map, the Applicant must infill any area of the site identified as being below the wet weather high groundwater level to at least that level as mapped (see Condition 44).</p>	No areas below the groundwater level yet identified.	Not required
Water Management Plan			
42	<p>The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with DPI-Water by suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval by 31 December 2016. The plan must be updated on an annual basis in consultation with DPI-Water for three years from the date of approval of Modification 2 and thereafter as agreed with by the Secretary.</p>	Water Management Plan approved Aug 2018. Update is underway but not yet approved	Section 6.3 to 6.6

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DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
42(a)	<p>In addition to the standard requirements for management plans (see Condition 65), this plan must include a:</p> <p>(a) Site Water Balance that:</p> <ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> o sources and security of water supply, including contingency planning; o water use on site; o water management on site, including groundwater inflows to the quarry voids and site discharges; and o audit and reporting procedures, including comparisons of the site water balance each calendar year; and o describes the measures that would be implemented to minimise clean water use on site and maximise recycling opportunities; 	Water Management Plan approved Aug 2018	Section 6.5
42(b)	<p>(b) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • a detailed description of the surface water management system on site, including the: <ul style="list-style-type: none"> o clean water diversion systems; o erosion and sediment controls; o effluent irrigation system; o water transfers from the extraction areas; o water storages; and o discharge points; 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> • design objectives and performance criteria for proposed: <ul style="list-style-type: none"> o erosion and sediment control structures; o water storages, including quarry voids; o site discharges; and o control of water pollution from rehabilitated areas of the site; 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> • performance criteria, including trigger levels for investigating any potentially adverse impacts for surface water quality; 	Water Management Plan approved Aug 2018	WMP

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DA Conditions

Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
42(b)	<ul style="list-style-type: none"> a program to monitor: <ul style="list-style-type: none"> o the effectiveness of the water management system; o site discharge water quality; and o surface water level and quality in the Process Water Dam, including the quantification of rainfall inflow, groundwater inflow and evaporation; 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> long term water quality management objectives and the measures to achieve these objectives; 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> a plan that ensures surface stormwater runoff from the disturbed areas is directed to the sedimentation dam(s); 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> a plan that ensures tailgate drainage does not discharge into or onto any adjoining public or Crown road, any other persons land, any Crown land, any river, creek or watercourse, any groundwater aquifer, any native vegetation as described under the Native Vegetation Conservation Act 1997 and any wetlands of environmental significance; 	Water Management Plan approved Aug 2018	WMP
42(b)	<ul style="list-style-type: none"> a detailed description of design and construction criteria for the Process Water Dam based on a feasibility study of: <ul style="list-style-type: none"> o capacity to construct multiple cells within the overall dam footprint (ie a two stage or three stage dam); o whether the dam floor and walls are able to be effectively lined with compacted clay (especially for multiple cells); o whether effective hydraulic separation can be achieved between such cells; 	Process Dam construction no longer required. WMP to be updated with explanation	Section 6.6
42(b)	<ul style="list-style-type: none"> a strategy for the decommissioning of water management structures, including storage, sedimentation and leachate dams once extraction is complete; and 	Water Management Plan approved Aug 2018	WMP

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DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
42(b)	<ul style="list-style-type: none"> • audit and reporting procedures, including comparisons of the monitoring results each calendar year and quarterly reporting of surface water monitoring results; 	Water Management Plan approved Aug 2018	WMP, Sections 6.3, 6.4
42(c)	<p>Groundwater Management Plan that takes into account the Web-based Reporting Guideline (DPE 2015) and Groundwater Monitoring and Modelling Plans – Information for Prospective Mining and Petroleum Exploration Activities (DPI 2014), and includes:</p> <ul style="list-style-type: none"> • detailed baseline data on groundwater yield and quality in groundwater bores on privately-owned land, that could be affected by the project; 	Water Management Plan approved Aug 2018	GW Management Plan
42(c)	<ul style="list-style-type: none"> • a program to undertake surveyed probe testing of all extracted areas where clay fines have been deposited to: <ul style="list-style-type: none"> o accurately determine the depth of extraction and depth of clay fines; o identify any ongoing intersection or other interaction between clay fines and the regional groundwater aquifer; o identify any geotechnical characteristics of the emplaced clay fines which may pose risks to workplace safety or implementation of the process water dam design or the final landform; and o identify measures which can be successfully used in rehabilitating these areas; 	Process Dam investigation undertaken in Sept 2017. Water Management Plan approved Aug 2018	GW Management Plan
42(c)	<ul style="list-style-type: none"> • a program to monitor potential groundwater quality impacts to the regional aquifer from receiving off-site runoff water in the Process Water Dam; 	Water Management Plan approved Aug 2018, monitoring program undertaken since Jan 2018	GW Management Plan

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DA Conditions

Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
42(c)	<ul style="list-style-type: none"> groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts, in accordance with the NSW Aquifer Interference Policy; 	Water Management Plan approved Aug 2018, monitoring program undertaken since Jan 2018	GW Management Plan
42(c)	<ul style="list-style-type: none"> a program to monitor: <ul style="list-style-type: none"> o the impacts of the project on: <ul style="list-style-type: none"> - groundwater inflows to water storages; - any groundwater bores on privately-owned land that could be affected by the project; and o seepage from water storages or backfilled voids on site; 	Water Management Plan approved Aug 2018, monitoring program undertaken since Jan 2018	GW Management Plan
42(c)	<ul style="list-style-type: none"> a plan to respond to any exceedances of the groundwater assessment criteria; 	Water Management Plan approved Aug 2018	GW Management Plan
42(c)	<ul style="list-style-type: none"> emergency contingency plans for implementation in the event that the groundwater is encountered during excavation; and 	Water Management Plan approved Aug 2018	GW Management Plan
42(c)	<ul style="list-style-type: none"> audit and reporting procedures, including comparisons of the monitoring results each calendar year and quarterly reporting of groundwater monitoring results, The Applicant shall implement the approved management plan as approved from time to time by the Secretary. 	Water Management Plan approved Aug 2018	GW Management Plan
Groundwater Monitoring			
43	The Applicant shall prepare a Groundwater Monitoring Program for the development to the satisfaction of the Secretary. This program must:	GW Monitoring Program approved Aug 2018	GW Monitoring Program
43(a)	(a) be prepared in consultation with DPI-Water and be submitted to the Secretary for approval within four months of the date of approval of Modification 2;	First submitted 23rd August 2016. Approved Aug 2018	

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DA Conditions

Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
43(b)	(b) include proposed construction of a network of at least five active monitoring bores around the south-eastern, southern, western and north-western boundaries of the extraction area (but outside of the overall extraction footprint) in proximity to extraction Phases 1 to 6 as identified in Modification 2, to collect continuous groundwater level monitoring data from the regional aquifer;	Groundwater level monitored continuously at 9 locations	Section 6.4, Figure 3
43(c)	(c) include proposed construction to deepen (or replace) PT84MW1 in order that a bore in that general location monitors the regional aquifer; and	MW7	Figure 3
43(d)	(d) include proposed construction of active monitoring bores within the largest components of at least the two forthcoming extraction Phases (on a rolling basis), each to collect at least 2 years of continuous baseline groundwater monitoring data prior to extraction commencing with that Phase.	MW9, MW13, MW12	Figure 3
44	The results of the Groundwater Monitoring Program shall be reported the Department and DPI-Water, using contour plans depicting the surface topography, updated contour maps of the wet weather high groundwater level of the regional aquifer and proposed depth of extraction for each extraction Phase. Reporting is to occur on a six monthly basis for the duration of extractive operations, and throughout rehabilitation of the site, unless otherwise agreed with the Secretary. The Applicant shall implement the Groundwater Monitoring Program as approved from time to time by the Secretary.	GW Monitoring Program approved Aug 2018.	Section 6.4
<i>Process Water Dam Design and Construction</i>			
45	The Applicant must ensure that the Process Water Dam is designed and constructed in a manner that satisfies the design and construction criteria for the Process Water Dam as developed under the Surface Water Management Plan (see condition 42(b) above).	Process Dam construction no longer required. WMP to be updated to include explanation	Section 6.6

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DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Noise			
Noise Management Plan			
46	The Applicant shall prepare a Noise Management Plan as part of the EMP	A Noise Management Plan has been prepared as part of the OEMP and updated in 2016.	NMP
46 (a)	The Noise Management Plan shall: (a) identify existing and potential noise sources and their relative contribution to noise impacts from the development;	Approved 9/12/16	NMP
46 (b)	(b) specify appropriate intervals for noise monitoring to evaluate, assess and report noise emission levels due to construction and normal operations of the development under prevailing weather conditions;	Approved 9/12/16	NMP
46 (c)	(c) outline the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements, the design of any noise modelling or other studies, including the means for determining the noise levels emitted by the development;	NMP 2016 approved 9/12/16	NMP
46 (d)	(d) specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they occur;	Approved 9/12/16	NMP
46 (e)	(e) provide details of noise amelioration measures, including measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms) and reactive management responses for particular noise sources; and	Approved 9/12/16	NMP

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DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
46 (f)	(f) contingency measures to be implemented should noise complaints be received.	Approved 9/12/16	NMP
46 (g)	(g) provision for the notification of adjoining property owners of the commencement and duration of works adjoining the boundary;	Approved 9/12/16	NMP
46 (h)	(h) construction of temporary noise shielding to residences affected by short-term noise impacts, including the bund recommended under Modification 2, and include an assessment of the effectiveness of this measure in reducing noise levels; and	Noise monitoring shows compliance with required noise criteria.	Section 6.7
46(i)	(i) include a noise reduction strategy for typical operations to ensure the noise levels from these operations do not exceed the noise criteria specified in Condition 47. The Applicant shall implement the approved management plan as approved from time to time by the Secretary.	Noise monitoring shows compliance with required noise criteria.	NMP
47	For typical operations, noise from the premises must not exceed: <ul style="list-style-type: none"> • an LAeq,15 min noise emission criterion of 43 dB(A) (7am to 6pm) Monday to Saturday; • an LAeq,15 min noise emission criterion of 40 dB(A) (6am to 7am) Monday to Saturday; and • an LA1,1 minute noise emission criterion of 50 dB(A) (6am to 7am) Monday to Saturday.Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy (as may be updated or replaced from time-to-time). However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.”	Noise monitoring shows compliance with required noise criteria.	Section 6.7, Appendix I

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Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
47(a)	The excavator to be used is to be fitted with acoustic mufflers to achieve a noise level of approximately 76dB(A) when measured at 7 metres.	No new equipment this report period	Section 6.7, Appendix I
47(b)	47(b)The on-site generator is to be fitted with an acoustic enclosure to ensure that noise levels less than 44dB(A) at 30m are achieved.	Noise monitoring undertaken November 2020 shows compliance with required noise criteria.	Section 6.7, Appendix I
47(c)	A noise compliance investigation is to undertaken within one month of the installation of the equipment to demonstrate compliance with the noise level limits stated in Conditions 47(a) and 47(b). The results of the compliance investigation are to be provided for the approval of the Secretary within 14 days of the completion of the investigations.	No new equipment this report period	Section 6.7
47(d)	The Applicant must ensure works associated with atypical operations, as described in Modification 2, only occur: (a) for a maximum of 24 days in a year, and only between 8 am to 5 pm on those days, Monday to Saturday; (b) after an investigation of options for avoiding multiple atypical operations at any one time so as to limit noise levels at affected receptors, and the outcomes of this investigation are detailed in the Noise Management Plan; and (c) at least 24 hours after notifying potentially affected receptors, with such notification to include information on the duration and extent of works, the likely noise to be experienced, and a contact telephone number.	No atypical works this report period	Not required

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Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Traffic and Transport			
Road Noise Management Plan			
48	<p>The Applicant shall ensure that traffic noise from the development does not exceed (L Aeq(1 hr)) 55 dB(A) between 7 am and 10 pm and 50 dB(A) between 10 pm and 7 am at any affected residence under adverse weather conditions. Where ambient Leq levels already exceed these criteria, the Applicant shall ensure that traffic noise from the development does not result in an increase of more than 2 dB(A).</p> <p>Note: Adverse weather conditions means in the presence of winds up to 3 metres per second and/or temperature inversions of up to 4 degrees Centigrade per 100 metres.</p>	Noise monitoring undertaken November 2020 shows compliance with required noise criteria.	Section 6.7, Appendix I
49	<p>The Applicant shall prepare a Road Noise Management Plan as part of the EMP. The Plan shall document measures to be taken to meet the criteria, including a monitoring, reporting and response program; and methods for educating drivers in the reduction of road noise impacts.</p> <p>The Applicant shall implement the approved management plan as approved from time to time by the Secretary.</p>	Road Noise Management Plan has been prepared and approved in 2016.	NMP
50	<p>The Applicant shall ensure that truck movements associated with the development do not exceed 100 movements per day (50 laden truck movements) or 20 (10 laden truck movements) movements per hour, during construction or operation.</p>	Maximum laden trucks per day was 21, which equates to an average of 1.8 per hour.	Section 5.1

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Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
51	<p>The Applicant shall pay to Council a contribution under Section 94A of the Act at the rate of \$0.65 per tonne of all extracted/ processed material transported from the subject site.</p> <p>The following conditions apply to the payment of this contribution:</p> <p>(A) The contribution will be calculated and paid monthly from the date of this Consent;</p> <p>(b) The contribution will be indexed and adjusted annually as from the date of Consent, in accordance with the Consumer Price Index. This adjustment will be applicable to each financial year for the duration of this Consent and shall take effect from and including July each year, commencing 1 July 2000;</p> <p>(c) On or before the fourteenth day of each month for the duration of the Consent, the Applicant shall deliver to Council weighbridge records showing the true quantities of extracted/processed material transported from the property during the immediately proceeding month and the Council will then, as soon as it can conveniently do so, issue an invoice to the Applicant, to be paid within fourteen days;</p> <p>(d) The Council has the right to inspect and have the original records relating to any extraction/processing material, including numbers and types of laden trucks, trailers and load quantities transported from the property audited, at any time when Council makes a written request to do so;</p> <p>(e) The Council will pay all the said contribution payments into a specially identified account for payment towards the rehabilitation, restoration, repair and/or maintenance of Old Northern and Wisemans Ferry Roads within the Baulkham Hills Shire boundary.</p>	Records indicate Section 94 contributions are paid.	

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DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Flora and Fauna			
52	Deleted		
53	The Applicant shall not clear the strip of remnant vegetation along the southern fence line (Old Northern Road) and the vegetation to the north of the site entrance (Roberts Road) containing Blue Mountains Mahogany (<i>Eucalyptus notabilis</i>). This area shall be fenced off to prevent vehicles entering the area.	The areas have been maintained. The vegetation to the north of the site entrance is fenced off using electric fence and there is evidence that the access road is rehabilitating	Section 6.8
54	In construction of the bund walls at the corner of Roberts Road and Old Northern Road, the Applicant shall minimise disturbance to existing native vegetation.	Bundwalls have been constructed with minimal disturbance.	
Flora and Fauna Management Plan			
55	The Applicant shall prepare a Flora and Fauna Management Plan as part of the EMP. The Plan shall be prepared in consultation with National Parks and Wildlife Service and Council, and shall:	Flora and Fauna Management Plan has been prepared and updated in 2016. OEH (NPWS) was consulted but declined to make comments. Council comments have been included in report. Report approved 9/12/16	FFMP

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Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
55 a)	(a) describe the characteristics and location of species, populations and communities that the proposal may impact upon;	Flora and Fauna Management Plan has been prepared and updated in 2016. Report approved 9/12/16	FFMP
55 b)	(b) consider the feasibility and practicality of salvaging trees removed for the development for relocation to conserved or rehabilitated areas, for the purposes of reconstructing habitat for ground fauna	Flora and Fauna Management Plan has been prepared and updated in 2016. Report approved 9/12/16	FFMP
55 c)	(c) contain a program for the active management and maintenance of all conserved and rehabilitated vegetation (as detailed in the EIS and required under this Consent) including consideration of: <ul style="list-style-type: none"> • post-extraction land use objectives for the site;• utilisation of local endemic species or species naturally occurring in the Maroota area; • planting around the conservation area to further buffer this area and enhance its long term viability as a bushland ecosystem; • connection of existing areas and future areas of revegetation to form a network of wildlife corridors throughout site and to adjoining lands to facilitate species recruitment through natural immigration; • provision of rocks of varying sizes to provide refuge and basking sites for herpetofauna; • fencing of revegetated areas to prohibit grazing by stock; and • provision of artificial nest boxes for a range of arboreal fauna. 	Flora and Fauna Management Plan has been prepared and updated in 2016. Report approved 9/12/16	FFMP

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Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
55 d)	(d) mitigation measures to be implemented should operations compromise the significant flora and fauna communities identified in the EIS;	Flora and Fauna Management Plan has been prepared and updated in 2016. Report approved 9/12/16	FFMP
55 e)	(e) an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristical structure and diversity, resilience and robustness to disturbance, and fauna species diversity. The information obtained from the monitoring shall be used to guide future revegetation and management efforts; and	Flora and Fauna Management Plan has been prepared and updated in 2016. Report approved 9/12/16	FFMP
55 f)	(f) include detailed performance and completion criteria for evaluating the performance of the flora and fauna management measures and rehabilitation of the site, including triggers for any necessary remedial action.	Flora and Fauna Management Plan has been prepared and updated in 2016. Report approved 9/12/16	FFMP
56	<p>The Applicant shall maintain the revegetated areas for the duration of the Consent. Maintenance may include:</p> <ul style="list-style-type: none"> • replanting failed or unsatisfactory areas • repairing erosion problems • fire management – fire suppression or fire encouragement • pest and weed control • control of feral animal populations • maintain and repair fencing • fertiliser application • watering plants in drier areas, especially in the establishment phase • application of lime or gypsum to control pH and improve soil structure. 	Monitoring of the remnant vegetation was undertaken in November 2020	Sections 6.8 and 6.9

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Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Heritage			
57	If, during the development, the Applicant becomes aware of any heritage or archaeological material, all work likely to affect the material shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, the Heritage Office, and the Local Aboriginal Land Councils. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.	No heritage or archaeological sites have been located	Not required
Landscape and Rehabilitation			
Rehabilitation Objectives			
58	The Applicant shall rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must comply with the objectives in Table 1:	Rehabilitation Plan approved August 2018	Section 6.9
Table 1	Site (as a whole) <ul style="list-style-type: none"> • Safe, stable and non-polluting • Final landform integrated with surrounding natural landforms as far as is reasonable and feasible, and minimising visual impacts when viewed from surrounding land 	Rehabilitation Plan approved August 2018	Section 6.9
Table 1	Surface Infrastructure <ul style="list-style-type: none"> • Decommissioned and removed, unless the Secretary agrees otherwise 	Rehabilitation Plan approved August 2018	Section 6.9
Table 1	Quarry Benches <ul style="list-style-type: none"> • Landscaped and vegetated using native tree and understorey species 	Rehabilitation Plan approved August 2018	Section 6.9
Table 1	Quarry Pit Floor <ul style="list-style-type: none"> • Landscaped and revegetated using improved pasture species, native trees and understorey species 	Rehabilitation Plan approved August 2018	Section 6.9

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Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Table 1	Final Void <ul style="list-style-type: none"> Minimise the height and slope of batters Minimise the drainage catchment 	Rehabilitation Plan approved August 2018	Section 6.9
Table 1	Community <ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects of quarry closure 	Rehabilitation Plan approved August 2018	Section 6.9
<i>Progressive Rehabilitation</i>			
59	The Applicant shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation. Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.	Dust monitoring indicates compliance with required levels. High readings during the reporting period were caused by bushfire smoke.	Section 6.2 and 6.9
<i>Landscape and Rehabilitation Management Plan</i>			
60(a)	The Applicant shall prepare a Landscape and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary for approval by 30 June 2017, unless otherwise agreed by the Secretary;	Rehabilitation Plan approved August 2018	
60(b)	(b) provide details of the conceptual final landform and associated land uses for the site;	Rehabilitation Plan approved August 2018	LRMP
60(c)	(c) describe the short, medium and long-term measures that would be implemented to ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;	Rehabilitation Plan approved August 2018	LRMP

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Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
60(d)	(d) include a detailed description of the measures that would be implemented over the next 3 years (to be updated for each 3 year period following the 3 years covered by the initial approval of the plan) including the procedures to be implemented for: <ul style="list-style-type: none"> • maximising the salvage of environmental resources within the approved disturbance area for beneficial reuse; • protecting vegetation and fauna habitat outside the approved disturbance area on-site; • minimising the impacts on native fauna; • landscaping the site to minimise visual and lighting impacts; • reviewing improved pasture species and application rates; • controlling weeds and feral pests; • controlling erosion; • controlling access; and • bushfire management; 	Rehabilitation Plan approved August 2018	LRMP
60(e)	(e) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;	Rehabilitation Plan approved August 2018	Sections 6.8 and 6.9
60(f)	(f) include a mass balance calculation to ensure that appropriate volumes of material are available to implement the final landform as described in this plan;	Rehabilitation Plan approved August 2018	LRMP
60(g)	(g) provide for the construction and maintenance of the process water dam in accordance with the approved design and construction criteria (see Condition 42(b));	Rehabilitation Plan approved August 2018	LRMP

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Compliant			
Non Compliant			
Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
60(h)	(h) identify the potential risks to the successful rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate these risks; and	Rehabilitation Plan approved August 2018	LRMP
60(i)	(i) include details of who would be responsible for monitoring, reviewing, and implementing the plan. The Applicant shall implement the management plan as approved from time to time by the Secretary	Rehabilitation Plan approved August 2018	LRMP
61	By 31 December 2017, the Applicant shall lodge a Conservation and Rehabilitation Bond with the Department to ensure that the management of biodiversity and the rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the Flora and Fauna Management Plan and Landscape and Rehabilitation Plan. The sum of the bond shall be determined by:	Rehabilitation Plan containing calculation approved Aug 2018. DPIE yet to inform operator how bond to be paid.	Appendix L
61(a)	(a) calculating the cost of rehabilitating the site taking into account the likely surface disturbance over the following 3 years of quarrying operations; and	Rehabilitation Plan containing calculation approved Aug 2018. DPE yet to inform operator how bond to be paid.	Not required
61(b)	(b) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary. Note: If the rehabilitation of the site is completed to the satisfaction of the Secretary, then the Secretary will release the bond. If the rehabilitation of the site is not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.	The NSW Department of Primary Industries, Division of Resources and Energy Rehabilitation Cost Estimate Tool was used by VGT to calculate the expected costs.	Not required

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Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
62	Within 3 months of each Independent Environmental Audit (see Condition 70), the Applicant shall review, and if necessary revise, the sum of the Conservation and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:	Written request for Bond review sent	Appendix L
62(a)	(a) effects of inflation;		
62(b)	(b) likely cost of rehabilitating the site (taking into account the likely surface disturbance over the next 3 years of the development); and		
62(c)	(c) performance of the implementation of the rehabilitation of the site to date.		
Environmental Management			
<i>Environmental Management Strategy</i>			
63	The Applicant shall prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must: (a) be submitted to the Secretary for approval by 30 June 2016;	Revised Strategy submitted 25/11/2016, approved 9/12/16	EMS
63 (b)	(b) provide the strategic framework for environmental management of the development;	Revised Strategy submitted 25/11/2016, approved 9/12/16	EMS
63 (c)	(c) identify the statutory approvals that apply to the development;	Revised Strategy submitted 25/11/2016, approved 9/12/16	EMS
63 (d)	(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;	Revised Strategy submitted 25/11/2016, approved 9/12/16	EMS

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
63 (e)	(e) describe the procedures that would be implemented to: <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the development; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the development; • respond to any non-compliance; • respond to emergencies; and 	Revised Strategy submitted 25/11/2016, approved 9/12/16	EMS
63 (f)	(f) include: <ul style="list-style-type: none"> • copies of any strategies, plans and programs approved under the conditions of this consent; and • a clear plan depicting all the monitoring required to be carried out in relation to the development. 	Revised Strategy submitted 25/11/2016, approved 9/12/16	EMS

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
<i>Adaptive Management</i>			
64	<p>The Applicant shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in this Consent. Any exceedance of these criteria and/or performance measures constitutes a breach of this Consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <p>(a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</p> <p>(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>	<p>Exceedances of PM10 24 hour criteria were caused by bushfire smoke during extreme conditions. Investigation revealed no actions required.</p>	Section 6.2
<i>Management Plan Requirements</i>			
65 (a)	<p>The Applicant shall ensure that the management plans required under this Consent are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p>	<p>Revised plans submitted 25/11/16, approved 6/12/16</p>	EMP

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
65 (b)	(b) a description of: <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; 	Revised plans submitted 25/11/16, approved 6/12/16	EMP
65 (c)	(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;	Revised plans submitted 25/11/16, approved 6/12/16	EMP
65 (d)	(d) a program to monitor and report on the: <ul style="list-style-type: none"> • impacts and environmental performance of the development; • effectiveness of any management measures (see c above); 	Revised plans submitted 25/11/16, approved 6/12/16	EMP
65 (e)	(e) a contingency plan to manage any unpredicted impacts and their consequences;	Revised plans submitted 25/11/16, approved 6/12/16	EMP
65 (f)	(f) a program to investigate and implement ways to improve the environmental performance of the development over time;	Revised plans submitted 25/11/16, approved 6/12/16	EMP
65 (g)	(g) a protocol for managing and reporting any: <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; and	Revised plans submitted 25/11/16, approved 6/12/16	EMP
65 (h)	(h) a protocol for periodic review of the plan.	Revised plans submitted 25/11/16, approved 6/12/16	EMP

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Annual Review			
66	By the end of March each year (or as otherwise agreed by the Secretary), the Applicant shall review the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:		
66 (a)	(a) describe the development (including any rehabilitation) that was carried out in the past calendar year, and the development that is proposed to be carried out over the current calendar year;		Section 5
66 (b)	(b) include a comprehensive review of the monitoring results and complaints records of the development over the past year, which includes a comparison of these results against the: <ul style="list-style-type: none"> • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • relevant predictions in the EIS, Modification 1 and Modification 2; 		Section 6
66 (c)	(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;		Section 2, 5 and Appendix A
66 (d)	(d) identify any trends in the monitoring data over the life of the development;		Section 6
66 (e)	(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and		Section 6
66 (f)	(f) describe what measures will be implemented over the next year to improve the environmental performance of the development.		Sections 6, 7, and 8

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
<i>Revision of Strategies, Plans and Programs</i>			
67	<p>Within 3 months of the submission of:</p> <ul style="list-style-type: none"> (a) an annual review under Condition 66 above; (b) an incident report under Condition 68 below; (c) an audit report under Condition 70 below; or (d) any modification to the conditions of this Consent (unless the conditions require otherwise), <p>the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this Consent to the satisfaction of the Secretary. Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval.</p> <p>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.</p>		Due 3 months from approval of this report
Reporting			
<i>Incident Reporting</i>			
68	<p>The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	PM10 exceedances were reported to the EPA and DPIE during the reporting period. No response was received.	Appendix L

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
Regular Reporting			
69	The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this Consent.	www.vgt.com.au/hodgsons	Section 5.2
Independent Environmental Audit			
70	Every 3 years from the date of this consent and at the completion of works under this consent, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:	Independent Environmental Audit was conducted in 2020 by RPS AUSTRALIA EAST PTY LTD	Section 8
70 (a)	(a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary; Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.	RPS approved 19/5/2020	IEA
70 (b)	(b) include consultation with the relevant agencies;		IEA
70 (c)	(c) assess the environmental performance of the development and assess whether it is complying with the requirements in this Consent and any relevant EPL (including any assessment, plan or program required under these approvals);		IEA
70 (d)	(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and		IEA
70 (e)	(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.		IEA

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

DA Conditions

Compliant

Non Compliant

Condition No and Compliance	Condition Text	Details of compliance status	Where addressed in Annual Review or other document
71	Within 6 weeks of the completion of this audit, unless the Secretary agrees otherwise, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.		IEA
Access to Information			
72	<p>By 30 June 2016 the Applicant shall:</p> <p>(a) make copies of the following publicly available on its website:</p> <ul style="list-style-type: none"> • the documents identified in Condition 2(a) above; • current statutory approvals for the development; • approved strategies, plans and programs required under the conditions of this Consent; • a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this Consent, or any approved plans and programs; • a complaints register, which is to be updated monthly; • the annual reviews of the development (for the last 5 years, if applicable); • any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit; • any other matter required by the Secretary; and <p>(b) keep this information up-to-date, to the satisfaction of the Secretary.</p>	<p>www.vgt.com.au/hodgsons</p>	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant

Non Compliant

Compliance Summary Number of Conditions Non-compliant		Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
Administrative Conditions		
A1.1	Crushing Grinding or Separating not to exceed 100000-500000T processed p/a. Extractive Activities no to exceed 100000-500000T extracted, processed or stored.	Crushing grinding or separating does not exceed this limit.
A2.1	Licence applies to the following premises: HB Maroota Pty Ltd, Cnr Roberts & Old Northern Roads, Maroota, NSW 2756, Lot 1 DP 228308, Lot 2 DP 228308, Lot 2 DP 313327	Compliant
A3.1	Licence applies to all other activities carried on at the premises, including agricultural produce industries and aircraft (helicopter) facilities	Compliant
A4.1	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.	Compliant
Discharges to Air and Water and Applications to Land		
P1.1	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 (no table included)	N/A

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant

Non Compliant

Compliance Summary Number of Conditions Non-compliant		Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
Limit Conditions		
L1.1	(Pollution of Water) 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	No waters have been polluted
L2.1	Noise from the premises must not exceed the sound pressure level expressed as LA10 (15 minute) of 45 dB(A), except as expressly provided by this licence	Noise monitoring indicates compliance
L2.2	Noise from the premises is to be measured or computed at any point within one metre of any residential boundary, or at any point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition L2.1	Noise monitoring indicates compliance
Operating Conditions		
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.	Compliant
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.	Drums of oils stored in the workshop were banded with rolls in October 2020
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Dust monitoring results illustrate compliance
O3.2	All loaded trucks entering or leaving the premises must have their loads covered.	Trucks are covered when entering and leaving premises
O4.1	The licensee must prevent any tracking of mud on to public roads by vehicles leaving the premises.	Haul road is sealed from road to weighbridge. Water used to clean off road area as required.
Monitoring and Recording Conditions		
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.	All required monitoring has been recorded and retained.

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant

Non Compliant

Compliance Summary Number of Conditions Non-compliant		Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
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.	All required monitoring has been recorded and retained.
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.	"Samples" not required by this licence. Date, time, location and technician undertaking noise monitoring has been included in the noise monitoring report.
M2.1	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.	No complaints have been made. Log book is maintained on site and reported on website
M2.2	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.	Complaints register
M2.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	Complaints Register
M2.4	The record must be produced to any authorised officer of the EPA who asks to see them.	No complaints have been made. Log book is maintained on site and reported on website
M3.1	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.	Complaints phone number is advertised in the white pages and signage at the front gate.
M3.2	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.	Complaints phone number is advertised in the white pages, website and signage at the front gate.

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant
Non Compliant

Compliance Summary	Number of Conditions Non-compliant	Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
M3.3	The preceding two conditions do not apply until 3 months after: the date of the issue of this licence	N/A

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant

Non Compliant

Compliance Summary Number of Conditions Non-compliant		Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
Reporting Conditions		
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. 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	Completed annually. Reporting period ends 11 March
R1.2	An Annual Return must be prepared in respect of each reporting period, except as provided below	Completed annually. Reporting period ends 11 March
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.	N/A
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.	N/A
R1.5	The Annual Return for the reporting period must be supplied to the EPA 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').	Due 11th May. Lodged 19th May due to lack of internet access.
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	Digital copies retained
R1.7	Within the Annual Return, the Statement 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.	Completed annually. Reporting period ends 11 March
Notification of Environmental Harm		

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant

Non Compliant

Compliance Summary Number of Conditions Non-compliant		Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555	PIRMP
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.	PIRMP
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.	N/A
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	N/A
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.	N/A
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.	N/A
General Conditions		
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	Printed copy is in the site office
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	Printed copy is in the site office

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

EPL Licence no. 6535

Compliant
Non Compliant

Compliance Summary	Number of Conditions Non-compliant	Details of compliance status
Non Compliant	Two: O2.1, R1.5	Drums not banded. Annual report submitted 8 days late.
Condition	Condition Text	Details of compliance status
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Printed copy is in the site office

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Monitoring Bore Licences

Compliant

Non Compliant

Bore Name	Licence Number	Date Commenced	Valid to	Purpose	Cond #	Condition Text	Details of compliance status
Compliance Summary					Number of Conditions Non-compliant		
Non Compliant					Nil		
PT84MW1	10BL158808	12/11/1998	Perpetuity	Monitoring Bore		All works licences have the same conditions	Compliant
PT84MW5	10BL158808	12/11/1998	Perpetuity	Monitoring Bore			
PT84MW6	10BL605696	13/01/2015	Perpetuity	Monitoring Bore			
PT84MW7	10BL605799	29/08/2016	Perpetuity	Monitoring Bore			
PT84MW8	10BL605795	29/08/2016	Perpetuity	Monitoring Bore			
PT84MW9	10BL605799	29/08/2016	Perpetuity	Monitoring Bore			
PT84MW10	10BL605798	29/08/2016	Perpetuity	Monitoring Bore			
PT84MW11	10BL605797	29/08/2016	Perpetuity	Monitoring Bore			
PT84MW12	10BL605799	29/08/2016	Perpetuity	Monitoring Bore			
PT84MW13	10BL605799	29/08/2016	Perpetuity	Monitoring Bore			

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Monitoring Bore Licences

Compliant

Non Compliant

Bore Name	Licence Number	Date Commenced	Valid to	Purpose	Cond #	Condition Text	Details of compliance status
					1	The licence shall lapse if the work is not commenced and completed within three years of the date of the issue of the licence	Latest works commenced December 2016
					2	The licensee shall within two months of completion or after the issue of the licence if the work is existing, furnish to NSW Office of Water:-	Mar-17
					a	Details of the work set out in the attached for "A" (must be completed by the driller)	Forms received from driller and sent NOW March 2017
					b	A plan accurately showing the location of the work, in relation to portion and property boundaries	Sent to NOW March 2017
					c	A one litre sample for all licences other than those for stock, domestic, test bores and farming purposes	Test bore, therefore not required
					d	Details of any water analysis and/or pumping tests	N/A
					3	The licensee shall allow NSW Office of Water or any person authorised by it, full and free access to the works, either during or after construction, for the purpose of carrying out inspection or test of the works and its fittings and shall carry out any work or alterations deemed necessary by the department for the protection and proper maintenance of the works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.	Access available
					4	If during the construction of the work, saline or polluted water is encountered above the producing aquifer, such water shall be sealed off.	Not encountered
					5a	The licensee shall notify NSW Office of Water if a flowing supply of water	Not flowing
					5b	If a flowing supply of water is obtained from the work, the licensee shall only distribute water from the bore head by a system of pipe lines and shall not distribute it in drains, natural or artificial channels or depressions.	Not flowing
					6	If a work is abandoned at any time the licensee shall notify NSW Office of Water that the work has been abandoned and seal the aquifer.	In use
					7	The licensee shall not allow any tailwater / drainage to discharge into or onto:- any adjoining property; any other persons land; any Crown land; any river, creek or watercourse; any native vegetation as described under the Native Vegetation Conservation Act; any Wetlands of environmental significance	Compliant
					8	Works used for the purpose of conveying, distributing or storing water taken by means of the licensed work shall not be constructed or installed so as to obstruct the reasonable passage of flood waters flowing into or from a river.	No conveying, distributing or storing water applicable

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Monitoring Bore Licences

Compliant

Non Compliant

Bore Name	Licence Number	Date Commenced	Valid to	Purpose	Cond #	Condition Text	Details of compliance status
					9	If the bore authorised by this license is lined with steel or plastic casing the inside diameter of that casing shall not exceed 2200mm	Casing 65mm plastic
					10	Water shall not be pumped from the bore authorised by this license for any purpose other than groundwater investigation	Compliant
					11	Subject to condition (12) the licensee shall within two months of the date of completion of the bore authorised by the license: Backfill it with clay or cement to groundlevel, after withdrawing any casing (lining) or render it ineffective by any other means acceptable to the department	See condition 12
					12	Condition (11) shall have no force or effect if: at the relevant time there is with NSW Office of Water an application in respect of which the Department has not made a decision to convert the groundwater investigation bore into a production bore; or the licensee has completed the bore for the purpose of measuring water levels or water quality by the addition of casing with a diameter not exceeding 220mm.	Test bore, casing 65mm

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Work Approval 10WA114817 Water Access Licence WAL 24163 for PT84PB1: Plant Usage Bore

Compliant

Non Compliant

Work Approval 10WA114817 and Water Access Licence WAL 24163 Ref 10AL114816 Conditions

Number	Text	Compliance Status
Compliance Summary	Number of Conditions Non-compliant	
Non Compliant	Nil	
Information		
Source	Maroota Tertiary Sands Groundwater Source	
Tenure Type	Continuing	
Share	45.00 ML	Take for 2020 = 7.8ML
Take of water		
MW092900001	From 1 July 2018, if the water supply work nominated on this access licence is located at or less than 40 m from the top of the high bank of a river then: A. water must not be taken in this groundwater source when flows are in the Very Low Flow Class for an unregulated river access licence in that river. B. This restriction will only apply when the system that confirms when water can be taken is available on DPI Water website. C. DPI Water will inform the licence holder in writing of the applicable restrictions and how to access the information on its website when this system becomes operative.	Not located within 40m of a river
MW060400001	Water allocations remaining in the account for this access licence must not be carried over from one water year to the next water year.	
MW060500001	Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken.	
MW060300001	The total volume of water taken under this access licence in any water year must not exceed a volume equal to: A. the sum of water in the account from the available water determination for the current year, plus B. the net amount of water assigned to or from the account under a water allocation assignment, plus C. any water recredited by the Minister to the account.	
Monitoring and recording		
MW233800001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	
MW233600001	The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Work Approval 10WA114817 Water Access Licence WAL 24163 for PT84PB1: Plant Usage Bore

Compliant

Non Compliant

Work Approval 10WA114817 and Water Access Licence WAL 24163 Ref 10AL114816 Conditions

Number	Text	Compliance Status
MW233700001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	
MW060600001	The volume of water taken in the water year must be recorded in the logbook at the end of each water year. The maximum volume of water permitted to be taken in that water year must also be recorded in the logbook.	
MW233900001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by DPI Water.	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Work Approval 10WA114817 Water Access Licence WAL 24163 for PT84PB1: Plant Usage Bore

Compliant

Non Compliant

Work Approval 10WA114817 and Water Access Licence WAL 24163 Ref 10AL114816 Conditions

Number	Text	Compliance Status
Reporting		
MW005100002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	
Take of Water		
MW065500001	Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.	
Water management works		
MW009700001	If contaminated water is found above the production aquifer during the construction of the water supply work authorised by this approval, the licensed driller must: A. notify DPI Water in writing within 48 hours of becoming aware of the contaminated water, and B. adhere to the Minimum Construction Requirements for Water Bores in Australia (2012), as amended or replaced from time to time.	No contamination found
MW048700001	The water supply work authorised by this approval must be constructed within three (3) years from the date this approval is granted.	Constructed 6/7/1999
MW004400001	When a water supply work authorised by this approval is to be abandoned or replaced, the approval holder must contact DPI Water in writing to verify whether the work must be decommissioned.	In use
Monitoring and recording		
MW048100001	A logbook must be kept and maintained at the authorised work site or on the property for each water supply work authorised by this approval, unless the work is metered and fitted with a data logger.	Logbook kept
MW048200001	Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.	Logbook kept
Reporting		
MW005100001	Once the approval holder becomes aware of a breach of any condition on this approval, the approval holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	N/A

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Work Approval 10WA114817 Water Access Licence WAL 24163 for PT84PB1: Plant Usage Bore

Compliant

Non Compliant

Work Approval 10WA114817 and Water Access Licence WAL 24163 Ref 10AL114816 Conditions

Number	Text	Compliance Status
MK048500001	Within sixty (60) days of completing construction of the water supply work authorised by this approval, the approval holder must provide a completed Form A for that work to DPI Water.	Constructed 6/7/1999
Take of water		
DK031600128	The approval holder must not take water from the approved work at a rate that exceeds 3.0 L/second (180L/min).	Compliant
Water management works		
DK136300001	The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.	No obstruction to floodwaters, rivers or natural lake
DK120200001	The approval holder must allow DPI Water or any person authorised by it, full and free access to the approved works, either during or after construction, for the purpose of carrying out inspection or test of the approved works and its fittings and must carry out any work or alterations deemed necessary by the department for the protection or proper maintenance of the approved works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of subsurface water.	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Water Access Licence WAL 26163 for PT84PB2: Land Owners Bore, not used for quarry operations

Compliant

Non Compliant

Number	Text	Compliance Status
Compliance Summary	Number of Conditions Non-compliant	
Non Compliant	Nil	
Information		
Source	Maroota Tertiary Sands Groundwater Source	
Tenure Type	Continuing	
Share	264.00 ML	
Take of water		
MW092900001	From 1 July 2018, if the water supply work nominated on this access licence is located at or less than 40 m from the top of the high bank of a river then: A. water must not be taken in this groundwater source when flows are in the Very Low Flow Class for an unregulated river access licence in that river. B. This restriction will only apply when the system that confirms when water can be taken is available on DPI Water website. C. DPI Water will inform the licence holder in writing of the applicable restrictions and how to access the information on its website when this system becomes operative.	Not located within 40m of a river
MW060400001	Water allocations remaining in the account for this access licence must not be carried over from one water year to the next water year.	
MW060500001	Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken.	
MW060300001	The total volume of water taken under this access licence in any water year must not exceed a volume equal to: A. the sum of water in the account from the available water determination for the current year, plus B. the net amount of water assigned to or from the account under a water allocation assignment, plus C. any water recredited by the Minister to the account.	
Monitoring and recording		
MW233800001	The completed logbook must be retained for five (5) years from the last date recorded in the logbook.	
MW233600001	The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Water Access Licence WAL 26163 for PT84PB2: Land Owners Bore, not used for quarry operations

Compliant

Non Compliant

Number	Text	Compliance Status
MW233700001	The following information must be recorded in the logbook for each period of time that water is taken: A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and B. the access licence number under which the water is taken, and C. the approval number under which the water is taken, and D. the volume of water taken for domestic consumption and/or stock watering.	
MW060600001	The volume of water taken in the water year must be recorded in the logbook at the end of each water year. The maximum volume of water permitted to be taken in that water year must also be recorded in the logbook.	
MW233900001	A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by DPI Water.	

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Water Access Licence WAL 26163 for PT84PB2: Land Owners Bore, not used for quarry operations

Compliant

Non Compliant

Number	Text	Compliance Status
Reporting		
MW005100002	Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	
Take of Water		
MW065500001	Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.	
Water management works		
MW009700001	If contaminated water is found above the production aquifer during the construction of the water supply work authorised by this approval, the licensed driller must: A. notify DPI Water in writing within 48 hours of becoming aware of the contaminated water, and B. adhere to the Minimum Construction Requirements for Water Bores in Australia (2012), as amended or replaced from time to time.	No contamination found
MW048700001	The water supply work authorised by this approval must be constructed within three (3) years from the date this approval is granted.	Constructed 6/7/1999
MW004400001	When a water supply work authorised by this approval is to be abandoned or replaced, the approval holder must contact DPI Water in writing to verify whether the work must be decommissioned.	In use
Monitoring and recording		
MW048100001	A logbook must be kept and maintained at the authorised work site or on the property for each water supply work authorised by this approval, unless the work is metered and fitted with a data logger.	Logbook kept - site owner, not quarry
MW048200001	Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.	Logbook kept - site owner, not quarry
Reporting		
MW005100001	Once the approval holder becomes aware of a breach of any condition on this approval, the approval holder must notify the Minister as soon as practicable. The Minister must be notified by: A. email: water.enquiries@dpi.nsw.gov.au, or B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.	N/A
MK048500001	Within sixty (60) days of completing construction of the water supply work authorised by this approval, the approval holder must provide a completed Form A for that work to DPI Water.	Constructed 6/7/1999
Take of water		

Hodgsons Roberts Rd Sand Quarry Condition Compliance Summary January to December 2020

Water Access Licence WAL 26163 for PT84PB2: Land Owners Bore, not used for quarry operations

Compliant

Non Compliant

Number	Text	Compliance Status
DK031600128	The approval holder must not take water from the approved work at a rate that exceeds 3.0 L/second (180L/min).	Compliant
Water management works		
DK136300001	The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.	No obstruction to floodwaters, rivers or natural lake
DK120200001	The approval holder must allow DPI Water or any person authorised by it, full and free access to the approved works, either during or after construction, for the purpose of carrying out inspection or test of the approved works and its fittings and must carry out any work or alterations deemed necessary by the department for the protection or proper maintenance of the approved works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of subsurface water.	

Appendix B

Consolidated Development Consent Conditions

Schedule 2**Conditions of Development Consent****DEFINITIONS**

The Act	<i>Environmental Planning and Assessment Act 1979</i> , as amended
Approval from EPA	means approved in writing by the EPA or as specified as a condition of a licence
BCA	Building Code of Australia
Conditions of this consent	The conditions set out in this Schedule
Construction	Construction of the bund wall
Council	The Hills Shire Council
DA	Development Application
DCP 500	Baulkham Hills Shire Council Development Control Plan No. 500 – Extractive Industry
Department	Department of Planning and Environment
DPI-Water	Department of Primary Industries - Water
EIS	Development application DA 267-11-99 and supporting documentation including the Environmental Impact Statement prepared by Nexus Environmental Planning Pty Ltd, dated November 1999, including the attached landscaping plan; the fax from Holmes Air Sciences dated 21 December 1999; the letter from Nexus Environmental Planning Pty Ltd dated 21 December 1999 and attachments; the letter from Woodward-Clyde dated 21 December 1999; the letter from Woodward-Clyde dated 16 December 1999; the letter from Dick Benbow and Associates Pty Ltd dated 5 January 2000 and attachments; the letter from Dick Benbow and Associates Pty Ltd dated 27 January 2000; and the two faxes from Dick Benbow and Associates Pty Ltd dated 17 February 2000 and attachments, except as modified by the report of Dick Benbow and Associates (Report No 10065 Issue 1) dated 26 June 2000
EMP	Environmental Management Plan
EPA	Environment Protection Authority
GTA	General Term of Approval
L _{A10} (15 minute)	is the sound pressure level that is exceeded for 10% of the time when measured over a 15 minute period
m AHD	metres Australian Height Datum
Modification 1	Modification application 07-00M1 to DA 267-11-99 and supporting SEE titled Amendment to Method of Extraction and Related Acoustic Bund Wall, dated 17 July 2000 and prepared by Nexus Environmental Planning Pty Ltd
Modification 2	Modification application DA 267-11-99 Mod 2 and supporting documentation titled: <i>Environmental Assessment Section 75W Modification (2): DA 267-11-99, Hodgson Quarries and Plant Pty Ltd: Roberts Road: Maroota</i> (Volumes 1 and 2), dated 23 September 2015 and prepared by Nexus Environmental Planning Pty Ltd; Response to Submissions 75W Modification (2): DA 267-11-99, Hodgson Quarries and Plant Pty Ltd: Roberts Road: Maroota, dated 3 December 2015 and prepared by Nexus Environmental Planning Pty Ltd; and email correspondence from Nexus Environmental Planning Pty Ltd to the Department, dated 12 February 2016, 16 February 2016 and 24 February
Modification 3	Modification application DA 267-11-99 Mod 3 and supporting documentation titled Environmental Assessment Section 75W Modification (3): DA 267-11-99, Hodgson Quarry Products Pty Ltd: Roberts Road: Maroota, dated 17 May 2015 and prepared by Nexus Environmental

NPWS	Planning Pty Ltd
PCA	National Parks and Wildlife Service
Process Water Dam	Principal Certifying Authority
Secretary	The process water dam located in the north-eastern corner of the site
Subject Site	Secretary of the Department, or nominee
	Lots 1 and 2 DP 228308, Lot 2 DP 312327, Roberts Road, Maroota, in the Baulkham Hills Local Government Area
Wet weather high groundwater level	The rolling average of all recorded groundwater level measurements at any monitoring location on the site, as first recorded following any rainfall event of at least 50 mm over any 24-hour period, and as contour mapped using this data

INTEGRATED DEVELOPMENT

Integrated development is development (not being complying development) that, in order for it to be carried out, requires development consent and one or more of the approvals set out in the Act. The subject proposal is integrated development, as it requires development consent and the approval of the Environment Protection Authority under the *Protection of the Environment Operations Act 1997* and, the approval of the Department of Land and Water Conservation under Parts 2 and 5 of the *Water Act 1912*. The general terms of approval of both the EPA and the [DPI-Water](#) therefore form part of this Consent.

GENERAL

Obligation to Prevent and Minimise Harm to the Environment

1. There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, the decommissioning of the development.

Adherence to Terms of DA and EIS

2. The Applicant shall:
 - (a) carry out the development generally in accordance with the EIS, Modification 1, Modification 3 and Modification 2; and
 - (b) comply with the conditions of this consent.

If there is any inconsistency between the documents in Condition 2(a), the most recent documents shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over documents in Condition 2(a) to the extent of any inconsistency.

Compliance

3. The Applicant shall comply with all reasonable requirements of the [Secretary](#) in respect of the implementation of the Conditions of this Consent, within such time as the [Secretary](#) agrees. The [Secretary](#) may order the Applicant to cease work until non-compliance has been addressed to the [Secretary's](#) satisfaction.
4. The Applicant shall ensure that all contractors and sub-contractors are aware of, and comply with, the Conditions of this Consent.
5. The Applicant shall comply with all relevant conditions prescribed in Part 7 of the *Environmental Planning and Assessment Regulation 1994*, as required by Section 80A (11) of the Act.
6. The Applicant will submit a Conditions Compliance Report to the [Secretary](#) prior to the commencement of extraction in areas that are not currently subject to extraction. Subsequent reports will be submitted annually for the first three years of extraction in areas not currently subject to extraction. Further reports shall be submitted as required by the [Secretary](#).

To enable ready comparison with the EIS's predictions, diagrams and tables, the Conditions Compliance Reports shall include, but not be limited to, the following matters:

- (a) a compliance audit of the performance of the project against conditions of Consent and statutory approvals;
- (b) a review of the effectiveness of the environmental management of the development;
- (c) the results of environmental monitoring required under this Consent or other approvals, including interpretations and discussion by a suitably qualified person;
- (d) a listing of any variations obtained to approvals applicable to the DA since the last report;

- (e) a record of all complaints and the actions taken to mitigate all such complaints;
 - (f) a report detailing the rehabilitation measures undertaken since the last report; and
 - (g) environmental management targets and strategies for stages of the development yet to be completed.
7. The **Secretary** may, after considering a Conditions Compliance Report, notify the Applicant of any reasonable requirements for compliance with this Consent. The Applicant shall comply with those requirements within such time as the **Secretary** may direct.

Note: The Applicant is obliged to ensure that all statutory requirements, including all relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions and Directions of the Councils and relevant government agencies are met and approvals obtained.

Commencement and duration

8. No extraction shall commence in areas that are not currently subject to extraction, until the Applicant has:
- (a) **constructed the bund walls at the corner of Roberts Road and Old Northern Road;**
 - (b) submitted the Conditions Compliance Report required under Condition 6; and
 - (c) obtained all licences necessary for the commencement of extraction.
9. The duration of extraction under this Consent is **until 31 May 2025**. The Applicant shall ensure that rehabilitation of all disturbed areas is completed within six months of completion of extraction.

Complaints Procedures

10. Prior to commencement of construction, the Applicant shall:
- (a) publicise a telephone number on which complaints about the subject development can be registered during the hours of operation in Condition 16; and
 - (b) publicise a postal address where written complaints may be lodged.
- The telephone number and postal address shall be displayed on the property where it can be read from a public road, for the duration of the development.
11. The Applicant shall record details of all complaints received and actions taken in response to complaints in an up-to-date log book. The log book shall be made available for inspection upon request by the **Secretary**, the EPA or the Council; and a summary of complaints received shall be included in the Conditions Compliance Reports under Condition 6.
12. The Applicant shall ensure that an initial response to complaints is provided to the complainant within 24 hours of receipt. The Applicant shall then:
- (a) investigate the concerns raised by the complainant and undertake all reasonable attempts to determine the cause of concern; and
 - (b) if adverse impacts are identified, undertake all practicable measures to modify the activity which may be causing the impacts.
13. If the Applicant's response does not address the complaint to the satisfaction of the complainant within six weeks, the Applicant shall inform the **Secretary** and take any action as directed by the **Secretary**. This may include a requirement to carry out independent investigations of noise and/or dust at the cost of the Applicant, in accordance with Condition 14.
14. If the **Secretary** is satisfied that an independent investigation is required, the Applicant shall:
- (a) appoint a qualified independent person or team to plan and implement an investigation to qualify the impact and determine the sources of the impact; and

- (b) bear the cost of the independent investigation and make available plans, programs and other information necessary for the independent person to form an appreciation of the past, present and future works and their effects on dust and/or noise emissions.

This investigation is to be carried out in accordance with a documented Plan. The Plan shall be designed and implemented to measure and/or compute (with appropriate calibration by measurement) the relevant noise and/or dust levels at the complainant's property, that are emitted by the development; and specify a monitoring period and reporting schedule.

The independent person or team, the Plan and the timing of its implementation, shall be approved by the [Secretary](#). The independent person or team shall report to the [Secretary](#) and the Applicant.

Further independent investigations shall cease if the [Secretary](#) is satisfied that the relevant levels are not being exceeded and are unlikely to be exceeded in the future.

Dispute Resolution

15. In the event that the Applicant, Council, the PCA, or a government authority other than the Department, cannot agree on the specification or requirements applicable under this Consent, the matter shall be referred by either party to the [Secretary](#) or, if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.

HOURS OF OPERATION

16. Unless prior written approval of the EPA is obtained, the hours of operation are:
- construction: 7.00am to 6.00pm Monday to Friday
 - extraction and processing of material: 7.00am to 6.00pm, Monday to Friday and 7.00am to 1.00pm on Saturdays
 - vehicle loading: 6.00am to 6.00pm, Monday to Friday and 6.00am to 1.00pm on Saturdays.
- No works shall be undertaken on Sundays or Public Holidays.

These restrictions do not apply to routine maintenance work, such as the repair of machinery, provided the work does not result in exceedance of the noise limits in Condition 47.

DEPTH OF EXTRACTION

17. The Applicant shall ensure that extraction does not take place below a level 2 metres above the wet weather high groundwater level of the regional aquifer, as measured and mapped on the site (see Conditions 39(d) and 44).

ENVIRONMENTAL MANAGEMENT PLAN

18. The Applicant shall prepare a Construction Environmental Management Plan (EMP) to the satisfaction of the [Secretary](#) prior to commencement of construction. The Construction EMP shall contain appropriate measures which demonstrate how the environmental objectives for the project will be achieved, including objectives stated in this Consent; and contain a monitoring, reporting and response program.

The Applicant shall implement the approved management plan as approved from time to time by the [Secretary](#).

19. The Applicant shall prepare an Operational Environmental Management Plan (EMP) in consultation with the relevant authorities and to the satisfaction of the [Secretary](#), prior to the commencement of extraction under this Consent. The EMP shall incorporate and integrate environmental management for the existing extraction areas, as well as the areas approved under this Consent.

20. The Operational EMP shall include, but not be limited to:
- (a) environmental objectives for the site;
 - (b) the Air Quality Management Plan (Condition 29);
 - (c) the [Water Management Plan \(Condition 42\)](#);
 - (d) the Noise Management Plan (Condition 46);
 - (e) the Road Noise Management Plan (Condition 48);
 - (f) the Flora and Fauna Management Plan (Condition 55); and
 - (g) the Rehabilitation Plan (Condition 58).
21. The Applicant shall make copies of both EMPs available to Council, EPA and [DPI-Water](#) within 14 days of approval by the [Secretary](#). The Applicant shall also make a current copy of the EMPs available for inspection by the public or these agencies, for the duration of the Consent.
22. The Applicant shall, in consultation with the [Secretary](#), the EPA and the [DPI-Water](#), update the Operational EMP from time to time in order to ensure continuing compliance with the Conditions of this Consent and all relevant approvals and licenses. The EMR shall be responsible for determining if any significant changes to the Operational EMP should be referred to the [Secretary](#) for approval.

[The Applicant shall implement the approved management plan as approved from time to time by the Secretary.](#)

23. *Deleted.*
24. *Deleted.*
25. *Deleted.*
26. *Deleted.*

WASTE

27. The Applicant 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 a licence under the *Protection of the Environment Operations Act 1997*. This condition only applies to the storage, treatment, processing, reprocessing or disposal of waste at the premises if it requires an environment protection licence under the *Protection of the Environment Operations Act 1997*.¹

AIR QUALITY

Air Quality Criteria

28. The Applicant shall take all practical steps to manage the development so that the ambient air quality goals for total suspended particles (TSP) of [90 µg/m³ \(annual average\)](#), [particulate matter \(PM10\) of 50 µg/m³ \(24 hours average\)](#) and [30 µg/m³ \(annual average\)](#) and the dust deposition goal of 4gm/m² (annual average) are not exceeded as a result of the development, when measured at any monitoring location specified in the Air Quality Management Plan.

Air Quality Management

29. The Applicant shall prepare an Air Quality Management Plan as part of the EMP. The Air Quality Management Plan shall:

¹ Environment Protection Authority General Term of Approval
New South Wales

- (a) identify existing and potential sources of dust deposition, TSP and fine particulates (PM10 and PM2.5) and specify appropriate monitoring intervals and locations. The purpose of the monitoring is to evaluate, assess and report on these emissions and the ambient impacts with the objective of understanding the development's contribution to levels of dust deposition, TSP and fine particulates in ambient air around the site;
- (b) provide a monitoring plan having regard to local meteorology and the relevant Australian Standards, identifying the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements;
- (c) provide details of dust suppression measures for all sources of dust from the development, including a planting and watering regime to ensure that no more than 3 hectares of the site are exposed and active at any one time. The use of a polymer in the water to minimise dust impacts shall be investigated as part of this Plan;
- (d) provide details of actions to ameliorate impacts if they exceed the relevant criteria; and
- (e) provide the design of the reactive management system intended to reduce the day-to-day impacts of dust and fine particulates due to the development.

The Applicant shall implement the approved management plan as approved from time to time by the Secretary.

- 30. Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.²
- 31. The Applicant shall cease offending work at such times when the operations are resulting in visible dust emissions blowing in a direction so as to cross onto public roads or lands not owned by the Applicant.
- 32. The Applicant shall install, operate and maintain a sprinkler system to adequately water all cleared areas and stockpiles so as to minimise dust emissions to acceptable levels.
- 33. The Applicant shall ensure that all vehicular movements on unsealed areas are restricted to specific routes and that all vehicles within the subject site keep to a speed limit of 30 km/h.
- 34. The Applicant shall ensure that trucks are covered when entering and leaving the premises carrying loads of potentially dust generating material.

Air Quality Monitoring

- 35. All monitoring equipment is to be installed and operational prior to commencement of construction.
- 36. Operation of dust deposition gauges and monitoring must be carried out in accordance with;
 - (a) Australian Standard 3580.10. 01 (1991) Particulates – Deposited Matter – Gravimetric Method. Approved method AM-19 referred to in *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*, December 1999.
 - (b) Australian Standard 2724.3 (1984) Particulate Matter – Determination of Total Suspended Particulates (TSP) - High Volume Sampler Gravimetric Method. Approved method AM 15 referred to in *Approved Methods for the sampling and Analysis of Air Pollutants in New South Wales*, December 1999.
 - (c) Australian Standard 3580.9.6 (1990) for Suspended Particulate Matter – PM10 High Volume Sampler with Size Selective Inlet-Gravimetric Method. Approved method AM-18 referred to in *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*, December 1999.³

² Environment Protection Authority General Term of Approval

³ Environment Protection Authority General Term of Approval

37. A meteorological station measuring wind speed and direction must be installed and operated by the Applicant at a site determined in consultation with the EPA.⁴

SOIL AND WATER

Note: The Applicant is required to obtain the necessary water licences for the development under the Water Act 1912 and/or Water Management Act 2000.

Limits on Extraction

38. The Applicant shall not extract:
- (a) below a depth of 182 m AHD in the footprint of the Process Water Dam, if not already extracted as at the date of Modification 2; and
 - (b) below a depth of 186.1 m AHD in all other areas of the site; unless in accordance with Condition 17, and following written notification to the Secretary and DPI-Water.

Groundwater Study and Remediation Works

39. Within six weeks of the date of approval of Modification 2, the Applicant shall commission a comprehensive groundwater study of the site. This study must:
- (a) be prepared by suitably qualified and experienced person/s whose appointment has been endorsed by the Secretary and DPI-Water;
 - (b) consult with DPI-Water;
 - (c) examine all existing records of groundwater levels at the site;
 - (d) develop an interim contour map of the wet weather high groundwater level of the regional aquifer, based on all available records (see also Condition 44); and
 - (e) provide advice and recommendations on the Groundwater Monitoring Program as set out in Condition 43.
40. Unless otherwise agreed by the Secretary, the Applicant shall submit a report of the study to the Secretary and DPI-Water within six months of commissioning the study. The report must be accompanied by a Groundwater Management Improvement Program, based on the study's findings and recommendations which includes a program of proposed timeframes for implementation. Should the Applicant propose not to implement any of the report's recommendations, it must provide detailed justification to this effect.

The Groundwater Management Improvement Program must be prepared and implemented to the satisfaction of the Secretary. Progress against the Program shall be reported through Annual Reviews and considered as part of the Independent Environmental Audit.

41. Within six months of the submission of the Groundwater Study and accompanying documents (see Conditions 39 and 40), the Applicant must infill any area of the site identified as being below the wet weather high groundwater level to at least that level as mapped (see Condition 39(d)).

Within six months of any update of the groundwater level contour map, the Applicant must infill any area of the site identified as being below the wet weather high groundwater level to at least that level as mapped (see Condition 44).

Water Management Plan

42. The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with DPI-Water by suitably qualified and

⁴ Environment Protection Authority General Term of Approval

experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval by 31 December 2016. The plan must be updated on an annual basis in consultation with DPI-Water for three years from the date of approval of Modification 2 and thereafter as agreed with by the Secretary.

In addition to the standard requirements for management plans (see Condition 65), this plan must include a:

- (a) Site Water Balance that:
- includes details of:
 - sources and security of water supply, including contingency planning;
 - water use on site;
 - water management on site, including groundwater inflows to the quarry voids and site discharges; and
 - audit and reporting procedures, including comparisons of the site water balance each calendar year; and
 - describes the measures that would be implemented to minimise clean water use on site and maximise recycling opportunities;
- (b) Surface Water Management Plan, that includes:
- a detailed description of the surface water management system on site, including the:
 - clean water diversion systems;
 - erosion and sediment controls;
 - effluent irrigation system;
 - water transfers from the extraction areas;
 - water storages; and
 - discharge points;
 - design objectives and performance criteria for proposed:
 - erosion and sediment control structures;
 - water storages, including quarry voids;
 - site discharges; and
 - control of water pollution from rehabilitated areas of the site;
 - performance criteria, including trigger levels for investigating any potentially adverse impacts for surface water quality;
 - a program to monitor:
 - the effectiveness of the water management system;
 - site discharge water quality; and
 - surface water level and quality in the Process Water Dam, including the quantification of rainfall inflow, groundwater inflow and evaporation;
 - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project;
 - long term water quality management objectives and the measures to achieve these objectives;
 - a plan that ensures surface stormwater runoff from the disturbed areas is directed to the sedimentation dam(s);
 - a plan that ensures tailgate drainage does not discharge into or onto any adjoining public or Crown road, any other persons land, any Crown land, any river, creek or watercourse, any groundwater aquifer, any native vegetation as described under the *Native Vegetation Conservation Act 1997* and any wetlands of environmental significance;
 - a detailed description of design and construction criteria for the Process Water Dam based on a feasibility study of:
 - capacity to construct multiple cells within the overall dam footprint (ie a two stage or three stage dam);
 - whether the dam floor and walls are able to be effectively lined with compacted clay (especially for multiple cells);
 - whether effective hydraulic separation can be achieved between such cells;

- rehabilitating such cells to create a single dam within the final landform; and
 - the appropriateness of diverting runoff received from off-site around the dam;
 - a strategy for the decommissioning of water management structures, including storage, sedimentation and leachate dams once extraction is complete; and
 - audit and reporting procedures, including comparisons of the monitoring results each calendar year and quarterly reporting of surface water monitoring results;
- (c) Groundwater Management Plan that takes into account the *Web-based Reporting Guideline* (DPE 2015) and *Groundwater Monitoring and Modelling Plans – Information for Prospective Mining and Petroleum Exploration Activities* (DPI 2014), and includes:
- detailed baseline data on groundwater yield and quality in groundwater bores on privately-owned land, that could be affected by the project;
 - a program to undertake surveyed probe testing of all extracted areas where clay fines have been deposited to:
 - accurately determine the depth of extraction and depth of clay fines;
 - identify any ongoing intersection or other interaction between clay fines and the regional groundwater aquifer;
 - identify any geotechnical characteristics of the emplaced clay fines which may pose risks to workplace safety or implementation of the process water dam design or the final landform; and
 - identify measures which can be successfully used in rehabilitating these areas;
 - a program to monitor potential groundwater quality impacts to the regional aquifer from receiving off-site runoff water in the Process Water Dam;
 - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts, in accordance with the *NSW Aquifer Interference Policy*;
 - a program to monitor:
 - the impacts of the project on:
 - groundwater inflows to water storages;
 - any groundwater bores on privately-owned land that could be affected by the project; and
 - seepage from water storages or backfilled voids on site;
 - a plan to respond to any exceedances of the groundwater assessment criteria;
 - emergency contingency plans for implementation in the event that the groundwater is encountered during excavation; and
 - audit and reporting procedures, including comparisons of the monitoring results each calendar year and quarterly reporting of groundwater monitoring results,

The Applicant shall implement the approved management plan as approved from time to time by the Secretary.

Groundwater Monitoring

43. The Applicant shall prepare a Groundwater Monitoring Program for the development to the satisfaction of the Secretary. This program must:
- (a) be prepared in consultation with DPI-Water and be submitted to the Secretary for approval within four months of the date of approval of Modification 2;
 - (b) include proposed construction of a network of at least five active monitoring bores around the south-eastern, southern, western and north-western boundaries of the extraction area (but outside of the overall extraction footprint) in proximity to extraction Phases 1 to 6 as identified in Modification 2, to collect continuous groundwater level monitoring data from the regional aquifer;
 - (c) include proposed construction to deepen (or replace) PT84MW1 in order that a bore in that general location monitors the regional aquifer; and
 - (d) include proposed construction of active monitoring bores within the largest components of at least the two forthcoming extraction Phases (on a rolling basis), each to collect at least 2 years of continuous baseline groundwater monitoring data prior to extraction commencing with that Phase.

44. The results of the Groundwater Monitoring Program shall be reported the Department and DPI-Water, using contour plans depicting the surface topography, updated contour maps of the wet weather high groundwater level of the regional aquifer and proposed depth of extraction for each extraction Phase. Reporting is to occur on a six monthly basis for the duration of extractive operations, and throughout rehabilitation of the site, unless otherwise agreed with the Secretary.

The Applicant shall implement the Groundwater Monitoring Program as approved from time to time by the Secretary.

Process Water Dam Design and Construction

45. The Applicant must ensure that the Process Water Dam is designed and constructed in a manner that satisfies the design and construction criteria for the Process Water Dam as developed under the Surface Water Management Plan (see condition 42(b) above).

NOISE

Noise Management Plan

46. The Applicant shall prepare a Noise Management Plan as part of the EMP.

The Noise Management Plan shall:

- (a) identify existing and potential noise sources and their relative contribution to noise impacts from the development;
- (b) specify appropriate intervals for noise monitoring to evaluate, assess and report noise emission levels due to construction and normal operations of the development under prevailing weather conditions;
- (c) outline the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements, the design of any noise modelling or other studies, including the means for determining the noise levels emitted by the development;
- (d) specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they occur;
- (e) provide details of noise amelioration measures, including measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms) and reactive management responses for particular noise sources; and
- (f) contingency measures to be implemented should noise complaints be received.
- (g) provision for the notification of adjoining property owners of the commencement and duration of works adjoining the boundary;
- (h) construction of temporary noise shielding to residences affected by short-term noise impacts, including the bund recommended under Modification 2, and include an assessment of the effectiveness of this measure in reducing noise levels; and
- (i) include a noise reduction strategy for typical operations to ensure the noise levels from these operations do not exceed the noise criteria specified in Condition 47.

The Applicant shall implement the approved management plan as approved from time to time by the Secretary.

47. For typical operations, noise from the premises must not exceed:
- an $L_{Aeq,15 \text{ min}}$ noise emission criterion of 43 dB(A) (7am to 6pm) Monday to Saturday;
 - an $L_{Aeq,15 \text{ min}}$ noise emission criterion of 40 dB(A) (6am to 7am) Monday to Saturday; and
 - an $L_{A1,1 \text{ minute}}$ noise emission criterion of 50 dB(A) (6am to 7am) Monday to Saturday.

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be updated or replaced from time-to-time).

However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.”

- 47(a) The excavator to be used is to be fitted with acoustic mufflers to achieve a noise level of approximately 76dB(A) when measured at 7 metres.
- 47(b) The on-site generator is to be fitted with an acoustic enclosure to ensure that noise levels less than 44dB(A) at 30m are achieved.
- 47(c) A noise compliance investigation is to undertaken within one month of the installation of the equipment to demonstrate compliance with the noise level limits stated in Conditions 47(a) and 47(b). The results of the compliance investigation are to be provided for the approval of the Secretary within 14 days of the completion of the investigations.
- 47(d) The Applicant must ensure works associated with atypical operations, as described in Modification 2, only occur:
 - (a) for a maximum of 24 days in a year, and only between 8 am to 5 pm on those days, Monday to Saturday;
 - (b) after an investigation of options for avoiding multiple atypical operations at any one time so as to limit noise levels at affected receptors, and the outcomes of this investigation are detailed in the Noise Management Plan; and
 - (c) at least 24 hours after notifying potentially affected receptors, with such notification to include information on the duration and extent of works, the likely noise to be experienced, and a contact telephone number.

TRAFFIC AND TRANSPORT

Road Noise Management Plan

48. The Applicant shall ensure that traffic noise from the development does not exceed (L Aeq(1 hr)) 55 dB(A) between 7 am and 10 pm and 50 dB(A) between 10 pm and 7 am at any affected residence under adverse weather conditions. Where ambient Leq levels already exceed these criteria, the Applicant shall ensure that traffic noise from the development does not result in an increase of more than 2 dB(A).

Note: Adverse weather conditions means in the presence of winds up to 3 metres per second and/or temperature inversions of up to 4 degrees Centigrade per 100 metres.

49. The Applicant shall prepare a Road Noise Management Plan as part of the EMP. The Plan shall document measures to be taken to meet the criteria, including a monitoring, reporting and response program; and methods for educating drivers in the reduction of road noise impacts.

The Applicant shall implement the approved management plan as approved from time to time by the Secretary.

Truck movements

50. The Applicant shall ensure that truck movements associated with the development do not exceed 100 movements per day (50 laden truck movements) or 20 (10 laden truck movements) movements per hour, during construction or operation.

Section 94A Contributions

51. The Applicant shall pay to Council a contribution under Section 94A of the Act at the rate of \$0.65 per tonne of all extracted/ processed material transported from the subject site.

The following conditions apply to the payment of this contribution:

- (A) The contribution will be calculated and paid monthly from the date of this Consent;
- (b) The contribution will be indexed and adjusted annually as from the date of Consent, in accordance with the Consumer Price Index. This adjustment will be applicable to each financial year for the duration of this Consent and shall take effect from and including July each year, commencing 1 July 2000;
- (c) On or before the fourteenth day of each month for the duration of the Consent, the Applicant shall deliver to Council weighbridge records showing the true quantities of extracted/processed material transported from the property during the immediately preceding month and the Council will then, as soon as it can conveniently do so, issue an invoice to the Applicant, to be paid within fourteen days;
- (d) The Council has the right to inspect and have the original records relating to any extraction/processing material, including numbers and types of laden trucks, trailers and load quantities transported from the property audited, at any time when Council makes a written request to do so;
- (e) The Council will pay all the said contribution payments into a specially identified account for payment towards the rehabilitation, restoration, repair and/or maintenance of Old Northern and Wisemans Ferry Roads within the Baulkham Hills Shire boundary.

Note: This condition has been imposed in accordance with Council's Contributions Plan No. 6 – Extractive Industries. A copy of this plan may be inspected at the Customer Service Centre, Council's Administration Complex, corner of Carrington and Showground Roads, Castle Hill, between the hours of 8:30 am and 4:30 pm weekdays.

FLORA AND FAUNA

52. *Deleted.*

53. The Applicant shall not clear the strip of remnant vegetation along the southern fence line (Old Northern Road) and the vegetation to the north of the site entrance (Roberts Road) containing Blue Mountains Mahogany (*Eucalyptus notabilis*). This area shall be fenced off to prevent vehicles entering the area.

54. **In construction of the bund walls at the corner of Roberts Road and Old Northern Road, the Applicant shall minimise disturbance to existing native vegetation.**

Flora and Fauna Management Plan

55. The Applicant shall prepare a Flora and Fauna Management Plan as part of the EMP. The Plan shall be prepared in consultation with National Parks and Wildlife Service and Council, and shall:
- (a) describe the characteristics and location of species, populations and communities that the proposal may impact upon;
 - (b) consider the feasibility and practicality of salvaging trees removed for the development for relocation to conserved or rehabilitated areas, for the purposes of reconstructing habitat for ground fauna
 - (c) contain a program for the active management and maintenance of all conserved and rehabilitated vegetation (as detailed in the EIS and required under this Consent) including consideration of:
 - post-extraction land use objectives for the site;

- utilisation of local endemic species or species naturally occurring in the Maroota area;
 - planting around the conservation area to further buffer this area and enhance its long term viability as a bushland ecosystem;
 - connection of existing areas and future areas of revegetation to form a network of wildlife corridors throughout site and to adjoining lands to facilitate species recruitment through natural immigration;
 - provision of rocks of varying sizes to provide refuge and basking sites for herpetofauna;
 - fencing of revegetated areas to prohibit grazing by stock; and
 - provision of artificial nest boxes for a range of arboreal fauna.
- (d) mitigation measures to be implemented should operations compromise the significant flora and fauna communities identified in the EIS;
- (e) an ongoing monitoring program of the existing and proposed revegetated areas to assess their floristical structure and diversity, resilience and robustness to disturbance, and fauna species diversity. The information obtained from the monitoring shall be used to guide future revegetation and management efforts; and
- (f) include detailed performance and completion criteria for evaluating the performance of the flora and fauna management measures and rehabilitation of the site, including triggers for any necessary remedial action.
56. The Applicant shall maintain the revegetated areas for the duration of the Consent. Maintenance may include:
- replanting failed or unsatisfactory areas
 - repairing erosion problems
 - fire management – fire suppression or fire encouragement
 - pest and weed control
 - control of feral animal populations
 - maintain and repair fencing
 - fertiliser application
 - watering plants in drier areas, especially in the establishment phase
 - application of lime or gypsum to control pH and improve soil structure.

HERITAGE

57. If, during the development, the Applicant becomes aware of any heritage or archaeological material, all work likely to affect the material shall cease immediately and the relevant authorities consulted about an appropriate course of action prior to recommencement of work. The relevant authorities may include NPWS, the Heritage Office, and the Local Aboriginal Land Councils. Any necessary permits or consents shall be obtained and complied with prior to recommencement of work.

LANDSCAPE AND REHABILITATION

Rehabilitation Objectives

58. The Applicant shall rehabilitate the site to the satisfaction of the Secretary. This rehabilitation must comply with the objectives in Table 1:

Table 1: Rehabilitation Objectives

<i>Feature</i>	<i>Objective</i>
Site (as a whole)	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Final landform integrated with surrounding natural landforms as far as is reasonable and feasible, and minimising visual impacts when viewed from surrounding land
Surface Infrastructure	<ul style="list-style-type: none"> • Decommissioned and removed, unless the Secretary agrees otherwise

Quarry Benches	<ul style="list-style-type: none"> Landscaped and vegetated using native tree and understorey species
Quarry Pit Floor	<ul style="list-style-type: none"> Landscaped and revegetated using improved pasture species, native trees and understorey species
Final Void	<ul style="list-style-type: none"> Minimise the height and slope of batters Minimise the drainage catchment
Community	<ul style="list-style-type: none"> Ensure public safety Minimise the adverse socio-economic effects of quarry closure

Progressive Rehabilitation

59. The Applicant shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim stabilisation measures must be implemented where reasonable and feasible to control dust emissions in disturbed areas that are not active and which are not ready for final rehabilitation.

Note: It is accepted that parts of the site that are progressively rehabilitated may be subject to further disturbance in future.

Landscape and Rehabilitation Management Plan

60. The Applicant shall prepare a Landscape and Rehabilitation Management Plan for the development to the satisfaction of the Secretary. This plan must:
- be submitted to the Secretary for approval by 30 June 2017, unless otherwise agreed by the Secretary;
 - provide details of the conceptual final landform and associated land uses for the site;
 - describe the short, medium and long-term measures that would be implemented to ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent;
 - include a detailed description of the measures that would be implemented over the next 3 years (to be updated for each 3 year period following the 3 years covered by the initial approval of the plan) including the procedures to be implemented for:
 - maximising the salvage of environmental resources within the approved disturbance area for beneficial reuse;
 - protecting vegetation and fauna habitat outside the approved disturbance area on-site;
 - minimising the impacts on native fauna;
 - landscaping the site to minimise visual and lighting impacts;
 - reviewing improved pasture species and application rates;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - bushfire management;
 - include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;
 - include a mass balance calculation to ensure that appropriate volumes of material are available to implement the final landform as described in this plan;
 - provide for the construction and maintenance of the process water dam in accordance with the approved design and construction criteria (see Condition 42(b));
 - identify the potential risks to the successful rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate these risks; and
 - include details of who would be responsible for monitoring, reviewing, and implementing the plan.

The Applicant shall implement the management plan as approved from time to time by the Secretary

Conservation and Rehabilitation Bond

61. By 31 December 2017, the Applicant shall lodge a Conservation and Rehabilitation Bond with the Department to ensure that the management of biodiversity and the rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the Flora and Fauna Management Plan and Landscape and Rehabilitation Plan. The sum of the bond shall be determined by:
- (a) calculating the cost of rehabilitating the site taking into account the likely surface disturbance over the following 3 years of quarrying operations; and
 - (b) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.
- Note: If the rehabilitation of the site is completed to the satisfaction of the Secretary, then the Secretary will release the bond. If the rehabilitation of the site is not completed to the satisfaction of the Secretary, then the Secretary will call in all or part of the bond, and arrange for the completion of the relevant works.*
62. Within 3 months of each Independent Environmental Audit (see Condition 70), the Applicant shall review, and if necessary revise, the sum of the Conservation and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:
- (a) effects of inflation;
 - (b) likely cost of rehabilitating the site (taking into account the likely surface disturbance over the next 3 years of the development); and
 - (c) performance of the implementation of the rehabilitation of the site to date.

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

63. The Applicant shall prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:
- (a) be submitted to the Secretary for approval by 30 June 2016;
 - (b) provide the strategic framework for environmental management of the development;
 - (c) identify the statutory approvals that apply to the development;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;
 - (e) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the development;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the development;
 - respond to any non-compliance;
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this consent; and
 - a clear plan depicting all the monitoring required to be carried out in relation to the development.

The Environmental Management Strategy is to include a copy of the sequence of extraction as updated under Modification 2, with all dam areas on the site clearly labelled and described.

The Applicant shall implement the approved strategy as approved from time to time by the Secretary.

Adaptive Management

64. The Applicant shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in this Consent. Any exceedance of these criteria and/or performance measures constitutes a breach of this Consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:

- (a) take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.

Management Plan Requirements

65. The Applicant shall ensure that the management plans required under this Consent are prepared in accordance with any relevant guidelines, and include:

- (a) detailed baseline data;
- (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria;
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;
- (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
- (d) a program to monitor and report on the:
 - impacts and environmental performance of the development;
 - effectiveness of any management measures (see c above);
- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the development over time;
- (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Annual Review

66. By the end of March each year (or as otherwise agreed by the Secretary), the Applicant shall review the environmental performance of the development for the previous calendar year to the satisfaction of the Secretary. This review must:

- (a) describe the development (including any rehabilitation) that was carried out in the past 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 past year, which includes a comparison of these results against the:

- relevant statutory requirements, limits or performance measures/criteria;
 - monitoring results of previous years; and
 - relevant predictions in the EIS, Modification 1 and Modification 2;
- (c) identify any non-compliance over the last 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 next year to improve the environmental performance of the development.

Revision of Strategies, Plans and Programs

67. Within 3 months of the submission of:
- (a) an annual review under Condition 66 above;
 - (b) an incident report under Condition 68 below;
 - (c) an audit report under Condition 70 below; or
 - (d) any modification to the conditions of this Consent (unless the conditions require otherwise), the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this Consent to the satisfaction of the Secretary.

Where this review leads to revisions in any such document, then within 4 weeks of the review, unless the Secretary agrees otherwise, the revised document must be submitted to the Secretary for approval.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.

REPORTING

Incident Reporting

68. The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

69. The Applicant shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this Consent.

INDEPENDENT ENVIRONMENTAL AUDIT

70. Every 3 years from the date of this consent and at the completion of works under this consent, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
- (a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;
 - (b) include consultation with the relevant agencies;
 - (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this Consent and any relevant EPL (including any assessment, plan or program required under these approvals);

- (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and
- (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.

71. Within 6 weeks of the completion of this audit, unless the Secretary agrees otherwise, the Applicant shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

72. By 30 June 2016 the Applicant shall:
- (a) make copies of the following publicly available on its website:
 - the documents identified in Condition 2(a) above;
 - current statutory approvals for the development;
 - approved strategies, plans and programs required under the conditions of this Consent;
 - a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this Consent, or any approved plans and programs;
 - a complaints register, which is to be updated monthly;
 - the annual reviews of the development (for the last 5 years, if applicable);
 - any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;
 - any other matter required by the Secretary; and
 - (b) keep this information up-to-date, to the satisfaction of the Secretary.'

Appendix C

Environmental Protection Licence 6535

Environment Protection Licence

Licence - 6535

Licence Details

Number:	6535
Anniversary Date:	12-March

Licensee

HB MARROOTA PTY LTD

PO BOX 1778

GOSFORD NSW 2250

Premises

HB MARROOTA PTY LTD

CNR ROBERTS & OLD NORTHERN ROADS

MARROOTA NSW 2756

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 annually extracted or processed

Region

Metropolitan West - Sydney

4 Parramatta Square, 12 Darcy Street

PARRAMATTA NSW 2150

Phone: (02) 9995 5000

Fax: (02) 9995 6900

Locked Bag 5022

PARRAMATTA NSW 2124



Environment Protection Licence

Licence - 6535

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Environment Protection Licence

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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 - 6535

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:

HB MARROOTA PTY LTD
PO BOX 1778
GOSFORD NSW 2250

subject to the conditions which follow.

Environment Protection Licence

Licence - 6535

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 annually extracted or processed

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
HB MAROOKA PTY LTD
CNR ROBERTS & OLD NORTHERN ROADS
MAROOKA
NSW 2756
LOT 1 DP 228308, LOT 2 DP 228308, LOT 2 DP 312327

A2.2 The premises location is shown on the map below.

Environment Protection Licence

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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 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.

3 Limit Conditions

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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 Noise limits

L2.1 Noise from the premises must not exceed the sound pressure level expressed as LA10 (15 minute) of 45 dB(A), except as expressly provided by this licence.

L2.2 Noise from the premises is to be measured or computed at any point within one metre of any residential boundary, or at any point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition L2.1.

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 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O3.2 All loaded trucks entering or leaving the premises must have their loads covered.

O4 Other operating conditions

O4.1 The licensee must prevent any tracking of mud on to public roads by vehicles leaving the premises.

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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.

M2 Recording of pollution complaints

- M2.1 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.
- M2.2 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.
- M2.3 The record of a complaint must be kept for at least 4 years after the complaint was made.
- M2.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M3 Telephone complaints line

- M3.1 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.
- M3.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a

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complaints line so that the impacted community knows how to make a complaint.

M3.3 The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.

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 notification that the Annual Return is due.

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

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.

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

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b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

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.

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

R2 Notification of environmental harm

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

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.

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.

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

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EPA within the time specified in the request.

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.

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

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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 <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
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 <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
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 Environment 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 months. 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 <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

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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 Nigel Sargent

Environment Protection Authority

(By Delegation)

Date of this edition: 14-June-2000

Environment Protection Licence

Licence - 6535



End Notes

- 1 Licence varied by change to Common Name field, issued on 15-Oct-2001, which came into effect on 15-Oct-2001.
- 2 Licence transferred through application 140865, approved on 29-Oct-2001, which came into effect on 24-Sep-2001.
- 3 Licence varied by notice 1012523, issued on 21-May-2002, which came into effect on 15-Jun-2002.
- 4 Licence varied by correction to EPA Sub Region data record, issued on 20-Sep-2002, which came into effect on 20-Sep-2002.
- 5 Licence transferred through application 141899, approved on 23-Apr-2003, which came into effect on 21-Apr-2003.
- 6 Licence varied by notice 1034428, issued on 13-Dec-2004, which came into effect on 07-Jan-2005.
- 7 Licence varied by notice 1081877, issued on 10-Mar-2008, which came into effect on 10-Mar-2008.
- 8 Licence varied by Change to schedule 1, issued on 07-May-2008, which came into effect on 07-May-2008.
- 9 Condition A1.3 Not applicable varied by notice issued on <issue date> which came into effect on <effective date>
- 10 Licence varied by notice 1111632, issued on 01-Apr-2010, which came into effect on 01-Apr-2010.
- 11 Licence varied by notice 1527501 issued on 09-Mar-2015
- 12 Licence varied by notice 1529566 issued on 03-Jun-2015
- 13 Licence varied by notice 1603067 issued on 26-Nov-2020

Appendix D

Water Licence

Conditions

Monitoring Bore Licences

NSW Office of Water

sydney South Coast Region
Po Box 3720
10 Valentine Avenue
Parramatta NSW 2124
Phone: (02)82817777

BORE LICENSE CERTIFICATE UNDER SECTION 115 OF THE WATER ACT, 1912

10BL158808



Maroota Super Fund Pty Ltd
P O Box 1778
Gosford NSW 2250

LICENSE NUMBER
10BL158808
DATE LICENSE VALID FROM
12-Nov-1998
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 47661556763 GST NIL

LOCATION OF WORKS		
Portion(s) or Lot/Section/DP	PARISH	COUNTY
1//228308	Maroota	Cumberland
PT84MW1 & PT84MW5		

TYPE OF WORKS	PURPOSE(S) FOR WHICH WATER MAY BE USED
Bore	Monitoring Bore

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

COPY

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 10BL158808 ISSUED UNDER PART V OF THE WATER ACT, 1912 ON 12-Nov-1998

- (1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.
- (2) THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENCE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-
- (A) DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).
- (B) A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.
- (C) A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.
- (D) DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.
- (3) THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.
- (4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-
- (A) INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.
- (B) CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.
- ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.
- (5) (A) THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.
- (B) IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.
- (6) IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-
- (A) BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR
- (B) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.

(7) THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:-

- ANY ADJOINING PUBLIC OR CROWN ROAD;
- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

(11) SUBJECT TO CONDITION (12) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE,

- (1) BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR:-
- (2) RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.

(12) CONDITION (11) SHALL HAVE NO FORCE OR EFFECT IF:-

(1) AT THE RELEVANT TIME THERE IS WITH NSW OFFICE OF WATER, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR

(2) THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.

End Of Conditions

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

- [Water access licence \(WAL\) issued under the *Water Management Act 2000*](#)
- [Approval issued under the *Water Management Act 2000*](#)

Find out if a *Water Act 1912* licence has been converted

Water licence conversion status

Water Licence Number

Notes:

Water Act 1912 licences and authorities are being converted to water access licences and approvals under the *Water Management Act 2000* as water sharing plans commence (see [licence conversion](#)).

If a *Water Act 1912* licence has been converted, the search results will display the water access licences and approvals that have been created. Water access licences are registered in the [Water Access Licence Register](#) administered by Land and Property Information. Those water access licences that do not display a WAL number in the search results are still to have their licence details confirmed and completed.

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to the NSW Office of Water. See [legal searches for water related interests](#).

[«Previous](#) [Search](#)

[Print](#) [Export](#)

Search Results

The licence 10BL158808 has not been converted and is not subject to a water sharing plan.

Disclaimer: The NSW Office of Water does not warrant the data is current nor does it warrant that the data or the data capturing processes are free from corruption or error.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

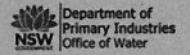
More information: Should you require further information or technical assistance, please submit your request to water.enquiries@dpi.nsw.gov.au or contact 1800 353 104.

NSW Office of Water

Sydney South Coast Region
Po Box 3720
10 Valentine Avenue
Parramatta NSW 2124
Phone: (02) 82817777

BORE LICENSE CERTIFICATE
UNDER SECTION 115 OF THE WATER ACT, 1912

10BL605696



Maroota Super Fund Pty Ltd
P O Box 1778
Gosford NSW 2250

LICENSE NUMBER
10BL605696
DATE LICENSE VALID FROM
13-Jan-2015
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 47661556763 GST NIL

LOCATION OF WORKS

<u>Portion(s) or Lot/Section/DP</u>	<u>PARISH</u>	<u>COUNTY</u>
1//228308	Maroota	Cumberland

<u>TYPE OF WORKS</u>	<u>PURPOSE(S) FOR WHICH WATER MAY BE USED</u>
Bore	Monitoring Bore

PT84MW6

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

ORIGINAL

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 10BL605696 ISSUED UNDER PART V OF THE WATER ACT, 1912 ON 13-Jan-2015

(1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.

(2) THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-

(A) DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).

(B) A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.

(C) A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.

(D) DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.

(3) THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.

(4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-

(A) INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.

(B) CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.

ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.

(5) (A) THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.

(B) IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.

(6) IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-

(A) BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR

(B) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.

(7) THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:-

- ANY ADJOINING PUBLIC OR CROWN ROAD;
- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

(11) SUBJECT TO CONDITION (12) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE,

(1) BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR:-

(2) RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.

(12) CONDITION (11) SHALL HAVE NO FORCE OR EFFECT IF:-

(1) AT THE RELEVANT TIME THERE IS WITH NSW OFFICE OF WATER, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR

(2) THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.

End Of Conditions

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

- [Water access licence \(WAL\) issued under the *Water Management Act 2000*](#)
- [Approval issued under the *Water Management Act 2000*](#)

Find out if a *Water Act 1912* licence has been converted

Water licence conversion status

Water Licence Number

10 ▼

BL ▼

605696

Notes:

Water Act 1912 licences and authorities are being converted to water access licences and approvals under the *Water Management Act 2000* as water sharing plans commence (see [licence conversion](#)).

If a *Water Act 1912* licence has been converted, the search results will display the water access licences and approvals that have been created. Water access licences are registered in the [Water Access Licence Register](#) administered by Land and Property Information. Those water access licences that do not display a WAL number in the search results are still to have their licence details confirmed and completed.

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to the NSW Office of Water. See [legal searches for water related interests](#).

« Previous Search

Print Export

Search Results

The licence 10BL605696 has not been converted and is not subject to a water sharing plan.

Disclaimer: The NSW Office of Water does not warrant the data is current nor does it warrant that the data or the data capturing processes are free from corruption or error.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@dpi.nsw.gov.au or contact 1800 353 104.

NSW Office of Water

Sydney South Coast Region
Locked Bag 5123
Level 11, 10 Valentine Avenue
Parramatta NSW 2124
Phone: (18) 00353104

BORE LICENSE CERTIFICATE
UNDER SECTION 115 OF THE WATER ACT, 1912

10BL605795



Maroota Super Fund Pty Ltd
P O Box 1778
Gosford NSW 2250

LICENSE NUMBER
10BL605795
DATE LICENSE VALID FROM
29-Aug-2016
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 72189919072 GST NIL

LOCATION OF WORKS

Portion(s) or Lot/Section/DP
1//228308

PARISH
Maroota

COUNTY
Cumberland

MW 8, 9, 13

TYPE OF WORKS

PURPOSE(S) FOR WHICH WATER MAY BE USED

Bore

Monitoring Bore

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

ORIGINAL

NSW Office of Water**CONDITIONS STATEMENT REFERRED TO ON
10BL605795
ISSUED UNDER PART V OF THE WATER ACT, 1912
ON 29-Aug-2016**

- (1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.
- (2) THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-
- (A) DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).
- (B) A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.
- (C) A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.
- (D) DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.
- (3) THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.
- (4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-
- (A) INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.
- (B) CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.
- ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.
- (5) (A) THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.
- (B) IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.
- (6) IF A WORK IS ABANDONED AT ANY TIME THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER THAT THE WORK HAS BEEN ABANDONED AND SEAL OFF THE AQUIFER BY:-
- (A) BACKFILLING THE WORK TO GROUND LEVEL WITH CLAY OR CEMENT AFTER WITHDRAWING THE CASING (LINING); OR
- (B) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.

(7) THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:-

- ANY ADJOINING PUBLIC OR CROWN ROAD;
- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

(11) SUBJECT TO CONDITION (12) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE,

(1) BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR:-

(2) RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.

(12) CONDITION (11) SHALL HAVE NO FORCE OR EFFECT IF:-

(1) AT THE RELEVANT TIME THERE IS WITH NSW OFFICE OF WATER, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR

(2) THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.

End Of Conditions

NSW Office of Water

Sydney South Coast Region
Locked Bag 5123
Level 11, 10 Valentine Avenue
Parramatta NSW 2124
Phone: (18) 00353104

BORE LICENSE CERTIFICATE
UNDER SECTION 115 OF THE WATER ACT, 1912

10BL605797



Hitchcock, Noelene Joyce
100 Old Telegraph Road
Maroota NSW 2756

LICENSE NUMBER
10BL605797
DATE LICENSE VALID FROM
29-Aug-2016
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 72189919072 GST NIL

LOCATION OF WORKS

<u>Portion(s) or Lot/Section/DP</u>	<u>PARISH</u>	<u>COUNTY</u>
B//356946	Maroota	Cumberland

MW11

<u>TYPE OF WORKS</u>	<u>PURPOSE(S) FOR WHICH WATER MAY BE USED</u>
Bore	Monitoring Bore

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

ORIGINAL

NSW Office of Water**CONDITIONS STATEMENT REFERRED TO ON
10BL605797
ISSUED UNDER PART V OF THE WATER ACT, 1912
ON 29-Aug-2016**

- (1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.
- (2) THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-
- (A) DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).
- (B) A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.
- (C) A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.
- (D) DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.
- (3) THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.
- (4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-
- (A) INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.
- (B) CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.
- ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.
- (5) (A) THE LICENSEE SHALL NOTIFY NSW OFFICE OF WATER IF A FLOWING SUPPLY OF WATER IS OBTAINED. THE BORE SHALL THEN BE LINED WITH CASING AND CEMENTED AND A SUITABLE CLOSING GEAR SHALL BE ATTACHED TO THE BOREHEAD AS SPECIFIED BY NSW OFFICE OF WATER.
- (B) IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.
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- (B) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.

(7) THE LICENSEE SHALL NOT ALLOW ANY TAILWATER/DRAINAGE TO DISCHARGE INTO OR ONTO:-

- ANY ADJOINING PUBLIC OR CROWN ROAD;
- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

(11) SUBJECT TO CONDITION (12) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE,

(1) BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR:-

(2) RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.

(12) CONDITION (11) SHALL HAVE NO FORCE OR EFFECT IF:-

(1) AT THE RELEVANT TIME THERE IS WITH NSW OFFICE OF WATER, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR

(2) THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.

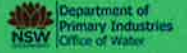
End Of Conditions

NSW Office of Water

Sydney South Coast Region
Locked Bag 5123
Level 11, 10 Valentine Avenue
Parramatta NSW 2124
Phone: (18) 00353104

BORE LICENSE CERTIFICATE
UNDER SECTION 115 OF THE WATER ACT, 1912

10BL605798



Martin, Glin
16 Bay Rd
Arcadia NSW 2159

LICENSE NUMBER
10BL605798
DATE LICENSE VALID FROM
29-Aug-2016
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 72189919072 GST NIL

Portion(s) or Lot/Section/DP	LOCATION OF WORKS	
	PARISH	COUNTY
2//312327	Maroota	Cumberland
MW10		

TYPE OF WORKS	PURPOSE(S) FOR WHICH WATER MAY BE USED
Bore	Monitoring Bore

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

ORIGINAL

NSW Office of Water

CONDITIONS STATEMENT REFERRED TO ON 10BL605798 ISSUED UNDER PART V OF THE WATER ACT, 1912 ON 29-Aug-2016

(1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.

(2) THE LICENSEE SHALL WITHIN TWO MONTHS OF COMPLETION OR AFTER THE ISSUE OF THE LICENSE IF THE WORK IS EXISTING, FURNISH TO NSW OFFICE OF WATER:-

(A) DETAILS OF THE WORK SET OUT IN THE ATTACHED FORM "A" (MUST BE COMPLETED BY A DRILLER).

(B) A PLAN SHOWING ACCURATELY THE LOCATION OF THE WORK, IN RELATION TO PORTION AND PROPERTY BOUNDARIES.

(C) A ONE LITRE WATER SAMPLE FOR ALL LICENCES OTHER THAN THOSE FOR STOCK, DOMESTIC, TEST BORES AND FARMING PURPOSES.

(D) DETAILS OF ANY WATER ANALYSIS AND/OR PUMPING TESTS.

(3) THE LICENSEE SHALL ALLOW NSW OFFICE OF WATER OR ANY PERSON AUTHORISED BY IT, FULL AND FREE ACCESS TO THE WORKS, EITHER DURING OR AFTER CONSTRUCTION, FOR THE PURPOSE OF CARRYING OUT INSPECTION OR TEST OF THE WORKS AND ITS FITTINGS AND SHALL CARRY OUT ANY WORK OR ALTERATIONS DEEMED NECESSARY BY THE DEPARTMENT FOR THE PROTECTION AND PROPER MAINTENANCE OF THE WORKS, OR THE CONTROL OF THE WATER EXTRACTED AND FOR THE PROTECTION OF THE QUALITY AND THE PREVENTION FROM POLLUTION OR CONTAMINATION OF SUB-SURFACE WATER.

(4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-

(A) INSERTING THE APPROPRIATE LENGTH(S) OF CASING TO A DEPTH SUFFICIENT TO EXCLUDE THE SALINE OR POLLUTED WATER FROM THE WORK.

(B) CEMENTING BETWEEN THE CASING(S) AND THE WALLS OF THE BORE HOLE FROM THE BOTTOM OF THE CASING TO GROUND LEVEL.

ANY DEPARTURE FROM THESE PROCEDURES MUST BE APPROVED BY THE DEPARTMENT BEFORE UNDERTAKING THE WORK.

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(B) IF A FLOWING SUPPLY OF WATER IS OBTAINED FROM THE WORK, THE LICENSEE SHALL ONLY DISTRIBUTE WATER FROM THE BORE HEAD BY A SYSTEM OF PIPE LINES AND SHALL NOT DISTRIBUTE IT IN DRAINS, NATURAL OR ARTIFICIAL CHANNELS OR DEPRESSIONS.

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(B) SUCH METHODS AS AGREED TO OR DIRECTED BY NSW OFFICE OF WATER.

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- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
- ANY NATIVE VEGETATION AS DESCRIBED UNDER THE NATIVE VEGETATION CONSERVATION ACT 1997;
- ANY WETLANDS OF ENVIRONMENTAL SIGNIFICANCE.

(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

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End Of Conditions

NSW Office of Water

Sydney South Coast Region
Locked Bag 5123
Level 11, 10 Valentine Avenue
Parramatta NSW 2124
Phone: (18) 00353104

BORE LICENSE CERTIFICATE
UNDER SECTION 115 OF THE WATER ACT, 1912

10BL605799



Martin, Leonard Stanley
16 Bay St
Arcadia NSW 2159

LICENSE NUMBER
10BL605799
DATE LICENSE VALID FROM
29-Aug-2016
DATE LICENSE VALID TO
PERPETUITY
FEE
\$0.00

ABN 72189919072 GST NIL

Portion(s) or Lot/Section/DP	LOCATION OF WORKS	
	PARISH	COUNTY
2//228308	Maroota	Cumberland
MW7, 12		

TYPE OF WORKS	PURPOSE(S) FOR WHICH WATER MAY BE USED
Bore	Monitoring Bore

CONDITIONS APPLYING TO THIS LICENSE ARE

As shown on the attached Condition Statement

ORIGINAL

NSW Office of Water**CONDITIONS STATEMENT REFERRED TO ON
10BL605799
ISSUED UNDER PART V OF THE WATER ACT, 1912
ON 29-Aug-2016**

- (1) THE LICENCE SHALL LAPSE IF THE WORK IS NOT COMMENCED AND COMPLETED WITHIN THREE YEARS OF THE DATE OF THE ISSUE OF THE LICENCE.
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- (4) IF DURING THE CONSTRUCTION OF THE WORK, SALINE OR POLLUTED WATER IS ENCOUNTERED ABOVE THE PRODUCING AQUIFER, SUCH WATER SHALL BE SEALED OFF BY:-
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- ANY OTHER PERSONS LAND;
- ANY CROWN LAND;
- ANY RIVER, CREEK OR WATERCOURSE;
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(8) WORKS USED FOR THE PURPOSE OF CONVEYING, DISTRIBUTING OR STORING WATER TAKEN BY MEANS OF THE LICENSED WORK SHALL NOT BE CONSTRUCTED OR INSTALLED SO AS TO OBSTRUCT THE REASONABLE PASSAGE OF FLOOD WATERS FLOWING INTO OR FROM A RIVER.

(9) IF THE BORE AUTHORISED BY THIS LICENSE IS LINED WITH STEEL OR PLASTIC CASING THE INSIDE DIAMETER OF THAT CASING SHALL NOT EXCEED 220 MM.

(10) WATER SHALL NOT BE PUMPED FROM THE BORE AUTHORISED BY THIS LICENSE FOR ANY PURPOSE OTHER THAN GROUNDWATER INVESTIGATION.

(11) SUBJECT TO CONDITION (12) THE LICENSEE SHALL WITHIN TWO MONTHS OF THE DATE OF COMPLETION OF THE BORE AUTHORISED BY THE LICENSE,

(1) BACKFILL IT WITH CLAY OR CEMENT TO GROUND LEVEL, AFTER WITHDRAWING ANY CASING(LINING), OR:-

(2) RENDER IT INEFFECTIVE BY ANY OTHER MEANS ACCEPTABLE TO THE DEPARTMENT.

(12) CONDITION (11) SHALL HAVE NO FORCE OR EFFECT IF:-

(1) AT THE RELEVANT TIME THERE IS WITH NSW OFFICE OF WATER, AN APPLICATION IN RESPECT OF WHICH THE DEPARTMENT HAS NOT MADE A DECISION TO CONVERT THE GROUNDWATER INVESTIGATION BORE INTO A PRODUCTION BORE; OR

(2) THE LICENSEE HAS COMPLETED THE BORE FOR THE PURPOSE OF MEASURING WATER LEVELS OR WATER QUALITY BY THE ADDITION OF CASING WITH A DIAMETER NOT EXCEEDING 220MM.

End Of Conditions

Pumping Bore Licence

BOX 1W
(A1845103)

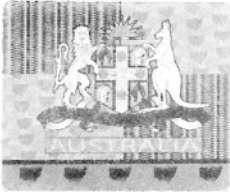
COPY



NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000



WAL TITLE REFERENCE WAL24163	
EDITION 1	DATE OF ISSUE 1/9/2014
CERTIFICATE AUTHENTICATION CODE MP27-QV-7HVV	



This certificate is issued under s87B of the Water Management Act, 2000.

WARNING NOTE: INFORMATION ON THIS REGISTER IS NOT GUARANTEED

TENURE TYPE: CONTINUING

PT84PB1

HOLDER(S)

LEONARD STANLEY MARTIN

(DW AG357440)

ENCUMBRANCES

1. TERM TRANSFER: NIL

ACCESS LICENCE DETAILS

CATEGORY: AQUIFER

SHARE COMPONENT:

SHARE - 45 UNITS

WATER SOURCE - MAROOTA TERTIARY SANDS GROUNDWATER SOURCE

WATER SHARING PLAN - GREATER METROPOLITAN REGION GROUNDWATER SOURCES

EXTRACTION COMPONENT:

TIMES/RATES/CIRCUMSTANCES - SUBJECT TO THE CONDITIONS OF THE WATER

ACCESS LICENCE

EXTRACTION FROM - AQUIFER

EXTRACTION ZONE - WHOLE WATER SOURCE

NOMINATED WORKS:

WORK APPROVAL NUMBER(S) - 10WA114817

INTERSTATE TAGGING ZONE - NIL

CONDITIONS

LICENCE CONDITIONS FORM A PART OF THIS LICENCE AND AFFECT THE SHARE AND EXTRACTION COMPONENTS. CONDITION STATEMENTS ARE AVAILABLE FROM THE NSW OFFICE OF WATER (NOW).

NOTES

A WATER LICENCE INFORMATION SHEET IS AVAILABLE FROM THE NSW OFFICE OF WATER (NOW) AND SHOULD BE REFERRED TO IN INTERPRETING THIS LICENCE. NOW WEBSITE WWW.WATER.NSW.GOV.AU, PHONE 1800 353 104, EMAIL INFORMATION@WATER.NSW.GOV.AU NOW REFERENCE NUMBER: 10AL114816 PREVIOUS WATER ACT LICENCE NUMBER(S): 10PT901430, 10BL159748.

**** END OF CERTIFICATE ****

ANY ATTEMPT TO ALTER THIS CERTIFICATE COULD RESULT IN HEAVY FINES OR IMPRISONMENT (S.141 REAL PROPERTY ACT).

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the *Water Act 1912* or *Water Management Act 2000*.

Select the type of licence or approval and enter the licence or approval number:

- **Water access licence (WAL):** a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- **1912 water licence:** a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- **Approval:** an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

- [Water access licence \(WAL\) issued under the *Water Management Act 2000*](#)
- [Approval issued under the *Water Management Act 2000*](#)

Find out if a *Water Act 1912* licence has been converted

Water licence conversion status

Water Licence Number

10 ▼

BL ▼

159748

Notes:

Water Act 1912 licences and authorities are being converted to water access licences and approvals under the *Water Management Act 2000* as water sharing plans commence (see [licence conversion](#)).

If a *Water Act 1912* licence has been converted, the search results will display the water access licences and approvals that have been created. Water access licences are registered in the [Water Access Licence Register](#) administered by Land and Property Information. Those water access licences that do not display a WAL number in the search results are still to have their licence details confirmed and completed.

Due to privacy laws very little information on *Water Act 1912* licence and authorities can be made freely available. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to the NSW Office of Water. See [legal searches for water related interests](#).

« Previous Search

Print Export

Search Results

Access licenses created for '10BL159748'

WAL No.	Water Source	Status			
24163	Maroota Tertiary Sands Groundwater Source	Current			
Category [Subcategory]	Status	Water Source	Tenure Type	Management Zone	Share Components (units or ML)
Aquifer	Current	Maroota Tertiary Sands Groundwater Source	Continuing		45.00

Extraction Times or Rates

Subject to conditions water may be taken at any time or rate

Nominated Work Approval(s)

10WA114817

- Conditions

Plan Conditions

Water sharing plan

Greater Metropolitan Region Groundwater Sources

Take of water

- MW0929-00001 From 1 July 2018, if the water supply work nominated on this access licence is located at or less than 40 m from the top of the high bank of a river then:
 A. water must not be taken in this groundwater source when flows are in the Very Low Flow Class for an unregulated river access licence in that river.
 B. This restriction will only apply when the system that confirms when water can be taken is available on DPI Water website.
 C. DPI Water will inform the licence holder in writing of the applicable restrictions and how to access the information on its website when this system becomes operative.
- MW0604-00001 Water allocations remaining in the account for this access licence must not be carried over from one water year to the next water year.
- MW0605-00001 Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken.
- MW0603-00001 The total volume of water taken under this access licence in any water year must not exceed a volume equal to:
 A. the sum of water in the account from the available water determination for the current year, plus
 B. the net amount of water assigned to or from the account under a water allocation assignment, plus
 C. any water re-credited by the Minister to the account.
- #### Monitoring and recording
- MW2338-00001 The completed logbook must be retained for five (5) years from the last date recorded in the logbook.
- MW2336-00001 The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.

- MW2337-00001 The following information must be recorded in the logbook for each period of time that water is taken:
 A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and
 B. the access licence number under which the water is taken, and
 C. the approval number under which the water is taken, and
 D. the volume of water taken for domestic consumption and/or stock watering.
- MW0606-00001 The volume of water taken in the water year must be recorded in the logbook at the end of each water year. The maximum volume of water permitted to be taken in that water year must also be recorded in the logbook.
- MW2339-00001 A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by DPI Water.
- Reporting**
- MW0051-00002 Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by:
 A. email: water.enquiries@dpi.nsw.gov.au,
 or
 B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.

Other Conditions

NIL

Approvals created for '10BL159748'

Approval No.	Water Source	Status
10WA114817	Maroota Tertiary Sands Groundwater Source	Current

Kind of Approval	Issue Date	Expiry Date	Approval Number	Status	Water Source
Water Supply Works	01-JUL-2011	14-JUN-2025	10WA114817	Current	Maroota Tertiary Sands Groundwater Source

Work Type	Description	No of Works	Location (Lot/DP)
Extraction Works Gw	Bore	1	Lot 1, DP 228308

Water Access Licences nominating these works

Reference Number	WAL Number
10AL114816	24163

- Conditions**Plan Conditions**

Water sharing plan	Greater Metropolitan Region Groundwater Sources
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Take of water

MW0655-00001 Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.

Water management works

MW0097-00001 If contaminated water is found above the production aquifer during the construction of the water supply work authorised by this approval, the licensed driller must:

- A. notify DPI Water in writing within 48 hours of becoming aware of the contaminated water, and
- B. adhere to the Minimum Construction Requirements for Water Bores in Australia (2012), as amended or replaced from time to time.

MW0487-00001 The water supply work authorised by this approval must be constructed within three (3) years from the date this approval is granted.

MW0044-00001 When a water supply work authorised by this approval is to be abandoned or replaced, the approval holder must contact DPI Water in writing to verify whether the work must be decommissioned.

The work is to be decommissioned, unless the approval holder receives notice from the Minister not to do so.

When decommissioning the work the approval holder must:

- A. comply with the minimum requirements for decommissioning bores prescribed in the Minimum Construction Requirements for Water Bores in Australia (2012), as amended or replaced from time to time, and
- B. notify DPI Water in writing within sixty (60) days of decommissioning that the work has been decommissioned.

Monitoring and recording

MW0481-00001 A logbook must be kept and maintained at the authorised work site or on the property for each water supply work authorised by this approval, unless the work is metered and fitted with a data logger.

MW0482-00001 Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.

Reporting

MW0051-00001 Once the approval holder becomes aware of a breach of any condition on this approval, the approval holder must notify the Minister as soon as practicable. The Minister must be notified by:

- A. email: water.enquiries@dpi.nsw.gov.au,
- or
- B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.

MK0485-00001 Within sixty (60) days of completing construction of the water supply work authorised by this approval, the approval holder must provide a completed Form A for that work to DPI Water.

Other Conditions**Take of water**

DK0316-00128 The approval holder must not take water from the approved work at a rate that exceeds 3.0 L/second.

Water management works

DK1363-00001	The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.
DK1202-00001	The approval holder must allow DPI Water or any person authorised by it, full and free access to the approved works, either during or after construction, for the purpose of carrying out inspection or test of the approved works and its fittings and must carry out any work or alterations deemed necessary by the department for the protection or proper maintenance of the approved works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.

Land to which the converted entitlement previously related.

Lot/DP	Description
Lot 1, DP 228308	Work Location
Lot 1, DP 228308	Land Benefited
Lot 2, DP 228308	Land Benefited
Lot 2, DP 312327	Land Benefited

Disclaimer: The NSW Office of Water does not warrant the data is current nor does it warrant that the data or the data capturing processes are free from corruption or error.

Privacy: The information provided is limited to meet the requirements of section 57 of the *Privacy and Personal Information Act 1998*.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@dpi.nsw.gov.au or contact 1800 353 104.

Dam Licences

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the Water Act 1912 or Water Management Act 2000.

Select the type of licence or approval and enter the licence or approval number:

- Water access licence (WAL): a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- 1912 water licence: a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- Approval: an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

Water access licence (WAL) issued under the Water Management Act 2000

Water Access Licence (WAL) Number

WAL

26163

A WAL number starts with the letters 'WAL' followed by several numbers

Can't find your WAL number? Do you have a reference number? A reference number starts with a two digit number, followed by 'AL' and then several numbers. Use the following tool to find your WAL by entering your reference number. [Enter the reference number to find the WAL number.](#)

Notes:

The search results will list the conditions imposed on the water access licence. Any approved water supply work/s nominated on the water access licence are identified by the approval number/s for the work/s.

The information about a water access licence provided in the search results is a summary and may not always be up to date. If you require full and up to date details about a particular water access licence (including current holders, share and extraction component details, encumbrances and notations) you should search the [Water Access Licence Register](#) administered by Land and Property Information.

- Water Act 1912 Licences and Authorities**
- Approval issued under the Water Management Act 2000**

Find out if a Water Act 1912 licence has been converted

- Water licence conversion status**

« Previous Search

Print Export

Search Results

Category [Subcategory]	Status	Water Source	Tenure Type	Management Zone	Share Components (units or ML)
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Unregulated River	Current	Hawkesbury And Lower Nepean Rivers Water Source	Continuing	Lower Hawkesbury River Management Zone	264.00
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Extraction Times or Rates

Subject to conditions water may be taken at any time or rate

Nominated Work Approval(s)

10CA104888

- Conditions

Plan Conditions

Water sharing plan
Greater Metropolitan Region Unregulated River Water Sources

Take of water

- MW0112-00001 The maximum water allocation that may be carried over in the account for this access licence from one water year to the next water year is:
A. a volume equal to 100 % of the share component of the licence, or
B. 1 ML/unit share of the share component of the licence.
- MW0036-00002 The volume of water taken in any three (3) consecutive water years from 1 July 2012 must be recorded in the logbook at the end of those three water years. The maximum volume of water permitted to be taken in those years must also be recorded in the logbook.
- MW0605-00001 Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken.
- MW0670-00001 Water must only be taken if there is visible flow in the water source at the location where water is to be taken.

This restriction does not apply if water is to be taken:
A. from an off-river pool, an in-river pool, a runoff harvesting dam or an in-river dam pool, or
B. from the following Weirs: Maldon, Douglas Park, Menangle, Camden, Sharpes, Cobbity, Mount Hunter Rivulet, Brownlow Hill, Theresa Park and Wallacia.
- MW0013-00002 A. Water must not be taken from the Lower Hawkesbury River Management Zone of Hawkesbury and Lower Nepean Rivers Water Source when flows are in the Very Low Flow Class.
B. This restriction will only apply when the system that confirms when water can be taken is available on the relevant licensor website.
C. the relevant licensor will inform the licence holder in writing of the applicable restrictions and how to access the information on its website when this system becomes operative.

This restriction does not apply if water is to be taken from a runoff harvesting dam or an in-river dam pool.
- MW0004-00002 From 1 July 2012, the total volume of water taken in any three (3) consecutive water years under this access licence must not exceed a volume which is equal to the lesser of either:
A. the sum of:
i. water in the account from the available water determinations in those 3 consecutive water years, plus
ii. water in the account carried over from the water year prior to those 3 consecutive water years, plus
iii. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus
iv. any water re-credited by the Minister to the account in those 3 consecutive water years,

or

- B. the sum of:
- i. the share component of this licence at the beginning of the first year in those 3 consecutive water years, plus
 - ii. the share component of this licence at the beginning of the second year in those 3 consecutive water years, plus
 - iii. the share component of this licence at the beginning of the third year in those 3 consecutive water years, plus
 - iv. any net amount of water assigned to or from this account under a water allocation assignment in those 3 consecutive water years, plus
 - v. any water re-credited by the Minister to the account in those 3 consecutive water years.

Monitoring and recording

MW2338-00001

The completed logbook must be retained for five (5) years from the last date recorded in the logbook.

MW2337-00001

The following information must be recorded in the logbook for each period of time that water is taken:

- A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and
- B. the access licence number under which the water is taken, and
- C. the approval number under which the water is taken, and
- D. the volume of water taken for domestic consumption and/or stock watering.

MW2339-00001

A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by the relevant licensor.

Reporting

MW0051-00002

Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by:

- A. email: water.enquiries@dpi.nsw.gov.au,
- or
- B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.

Other Conditions

NIL

Disclaimer: The NSW Office of Water does not warrant the data is current nor does it warrant that the data or the data capturing processes are free from corruption or error.

Privacy: The information provided is limited to meet the requirements of section 57 of the Privacy and Personal Information Act 1998.

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More information: Should you require further information or technical assistance, please submit your request to water.enquiries@dpi.nsw.gov.au or contact 1800 353 104.



Approval details

Approval number	10CA104888
Status	CURRENT*
Approval kind	Water Supply Works Water Use
Water sharing plan	GREATER METROPOLITAN REGION UNREGULATED RIVER WATER SOURCES
Date of effect	01/Jul/2011
Expiry date	16/Feb/2026
Approval holder(s)	Schedule 1
Water supply works	Schedule 2
Water use	Schedule 3
Conditions	Schedule 4

Contact for service of documents

Name	Martin, Leonard Stanley
Address	16 Bay Rd ARCADIA NSW 2159

* Note: An approval has effect for such period as is specified in the approval, or if the period is extended under section 105, that extended period. If an application for extension of an approval is lodged before the approval expires, the term of the expiring approval is extended until either the date of the final decision on the application, or a date fixed by the Minister for the approval, whichever is the later date. An approval which has expired can be the subject of an application to extend it but it needs to be accompanied by a statutory declaration of the reasons for the delay in making the application. If the Minister accepts these reasons the term of the approval is taken to have been extended, and the application may be dealt with, as if the application had been made before the approval expired.

It is an offence under the Water Management Act 2000 to breach a term or condition of the approval or to construct and use works to which the approval does not relate. It is also an offence to use works the subject of an approval if the approval has expired, been surrendered or cancelled.

Schedule 1 - Approval holders

The holders of this approval are:

Approval holder(s)	ACN (if applicable)
--------------------	---------------------

Leonard Stanley Martin

Maroota Super Fund Pty Ltd

Important notice - change of landholder or contact

Please advise the Office in the event of any of the following, as soon as practicable:

- If there is a change in the ownership or occupation of the land benefited by this approval (see Schedule 2). Under the Water Management Act 2000, an approval is typically held by the owner or lawful occupier of the benefited land. Consequently, a change in occupation may cause a change in your legal obligations as an approval holder.*
- If there is a change to the contact person. You will be required to lodge a written statement signed by all the holders.*
- If there is a change to the mailing address for the nominated contact person. This should be done by the contact person in writing.

** An updated Statement of Approval will be issued free of charge*

Schedule 2 - Water supply works

Part A: Authorised water supply works

Subject to the conditions of this approval, in relation to each numbered work in the table, the holders of this approval are authorised to construct and use a water supply work of the type shown at the location specified:

Work 1

Specified work	BYWASH DAM x 2	
Specified location	2//228308	Whole Lot
Management zone (if applicable)	LOWER HAWKESBURY RIVER MANAGEMENT ZONE	
Water source	HAWKESBURY AND LOWER NEPEAN RIVERS WATER SOURCE	
Water sharing plan	GREATER METROPOLITAN REGION UNREGULATED RIVER WATER SOURCES	

Work 2

Specified work	65MM CENTRIFUGAL PUMP x 2	
Specified location	2//228308	Whole Lot
Management zone (if applicable)	LOWER HAWKESBURY RIVER MANAGEMENT ZONE	
Water source	HAWKESBURY AND LOWER NEPEAN RIVERS WATER SOURCE	
Water sharing plan	GREATER METROPOLITAN REGION UNREGULATED RIVER WATER SOURCES	

Schedule 3 - Water Use

Subject to the conditions of this approval, the holder(s) of this approval is authorised to use water for the following purpose(s) and location(s):

Purpose 1

Specified purpose

IRRIGATION

Specified location

1//228308
2//228308

Schedule 4 - Conditions

The approval is subject to the following conditions:

Plan conditions

Water sharing plan

Greater Metropolitan Region Unregulated River Water Sources

Take of water

MW0655-00001

Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.

Water management works

MW0491-00001

When a water supply work authorised by this approval is to be abandoned or replaced, the approval holder must contact DPI Water in writing to verify whether the work must be decommissioned.

The work is to be decommissioned, unless the approval holder receives notice from the Minister not to do so.

Within sixty (60) days of decommissioning, the approval holder must notify DPI Water in writing that the work has been decommissioned.

Monitoring and recording

MW0481-00001

A logbook must be kept and maintained at the authorised work site or on the property for each water supply work authorised by this approval, unless the work is metered and fitted with a data logger.

MW2338-00001

The completed logbook must be retained for five (5) years from the last date recorded in the logbook.

MW0482-00001

Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.

Reporting

MW0051-00001

Once the approval holder becomes aware of a breach of any condition on this approval, the approval holder must notify the Minister as soon as practicable. The Minister must be notified by:

A. email: water.enquiries@dpi.nsw.gov.au,
or

B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.

Other conditions

Water management works

- DS2349-00001** The approval holder must make all reasonable efforts not to allow any used water to discharge, by any means including surface or subsurface drains or pipes, into or onto:
- any adjoining public or crown road;
 - any other person's land;
 - any Crown land;
 - any river, creek or watercourse or aquifer.
- DK0888-00001** Any water supply work authorised by this approval used for the purpose of conveying, diverting or storing water must be constructed or installed to allow free passage of floodwaters flowing into or from a river or lake.
- DK0871-00001** The water supply work authorised by this approval must be constructed and maintained in a way that will:
- A. ensure the work's safe construction and operation, and
 - B. prevent the possibility of damage being caused by the work, or resulting from the work, to any public or private interest.
- DK0878-00001** A. The construction, installation or use of the water supply work authorised by this approval must not cause or increase erosion to the channel or bank of the watercourse.
B. If erosion is observed, the area must be stabilised with grass cover, stone pitching or any other material that will prevent any further occurrence of erosion.
- DK1217-00001** The location of the dam(s) as shown on a plan retained in the office of DPI Water shall not be altered.
- DK0261-00571** When a flow is entering the storage of the dam, the pipe must be operated so as to maintain a flow in the watercourse downstream of the said dam equivalent to the flow entering the storage of the dam for the time being or the capacity of the said pipe, whichever is the lesser.
- DK0243-00224** When a flow is entering the storage of the dam the pipe shall be so operated as to maintain a flow in the watercourse downstream of the said dam equivalent to the flow entering the storage of the dam for the time being or the capacity of the said pipe, which ever is the lesser.

Additional conditions

- NS17761** The level of the crest of the bywash of the upstream dam on the Unnamed Watercourse shall be fixed at not higher than 6.90 m above the level of a bench mark established on a concrete weir below the upstream dam of the watercourse near the work and particulars of which are retained in the office of DPI Water.

NS17762

A pipe with a diameter of not less than 50 mm, fitted with a stop valve or other control device, shall be constructed through the dam to the satisfaction of DPI Water. The level of the invert of the said pipe shall be fixed at not higher than 0.05 m above the level of the established benchmark or, alternatively the licensee shall provide a 50 mm diameter pipe siphon or other approved device, for passing flows through the storage of the dam.

NS17763

The level of the crest of the bywash of the downstream dam on the unnamed watercourse shall be fixed at not higher than 0.88 m below the level of a bench mark established on the bank of the watercourse near the work and particulars of which are retained in the office of DPI Water.

NS17764

(a) a concrete rock weir shall be constructed on the unnamed watercourse upstream of the dam to the satisfaction of DPI Water. The level of the crest of the said weir shall be fixed at no lower than the level of the established benchmark.

(b) the holder of the license shall install a bypass channel or pipeline with a diameter of not less than 150 mm to the satisfaction of DPI Water in respect of location, type and construction, so as to pass flows from the weir above into the unnamed watercourse downstream from the dam.

(c) the holder of the license shall install through the weir two 150 mm diameter pipes to the satisfaction of DPI Water. One of the said pipes shall discharge into the diversion channel or pipeline and the other shall discharge into the course of the unnamed watercourse upstream of the dam.

Glossary

cease to take - Cease to take conditions means any condition on this approval, or on the access licence under which water is proposed to be taken, that prohibits the taking of water in a particular circumstance.

logbook - A logbook is a document, electronic or hard copy, that records specific required information.

metered water supply work - A metered water supply work is a water supply work fitted with a data logger and a water meter that complies with Australian Standard AS 4747: Meters for non-urban water supply.

water meter - A water meter is a device that measures the volume of water that is extracted over a known period of time. Examples of a water meter may include a mechanical meter, electromagnetic meter, channel meter with mobile phone, or an authorised meter equivalent.

General Notes

All conditions on an approval require compliance. An appeal to the Land and Environment Court against a decision to impose certain conditions on an approval can be made within 28 days after the date the decision is made. Conditions identified with the first letter "D" are those that can be appealed during the appeal period.

The words in this approval have the same meaning as in the *Water Management Act 2000*



Note: The words in this approval have the same meaning as in the WMA

END OF STATEMENT

Nursery Bore Licence

BOX 1W
(A1845103)

NEW SOUTH WALES

CERTIFICATE OF TITLE

WATER MANAGEMENT ACT, 2000



WAL TITLE REFERENCE WAL24157	
EDITION 1	DATE OF ISSUE 1/9/2014
CERTIFICATE AUTHENTICATION CODE 24DC-MV-FR4X	



This certificate is issued under s87B of the Water Management Act, 2000.

WARNING NOTE: INFORMATION ON THIS REGISTER IS NOT GUARANTEED

TENURE TYPE: CONTINUING

HOLDER(S)

LEONARD STANLEY MARTIN

(DW AG357440)

ENCUMBRANCES

1. TERM TRANSFER: NIL

ACCESS LICENCE DETAILS

CATEGORY: AQUIFER

SHARE COMPONENT:

SHARE - 6 UNITS

WATER SOURCE - MAROOTA TERTIARY SANDS GROUNDWATER SOURCE

WATER SHARING PLAN - GREATER METROPOLITAN REGION GROUNDWATER SOURCES

EXTRACTION COMPONENT:

TIMES/RATES/CIRCUMSTANCES - SUBJECT TO THE CONDITIONS OF THE WATER

ACCESS LICENCE

EXTRACTION FROM - AQUIFER

EXTRACTION ZONE - WHOLE WATER SOURCE

NOMINATED WORKS:

WORK APPROVAL NUMBER(S) - 10CA114819

INTERSTATE TAGGING ZONE - NIL

CONDITIONS

LICENCE CONDITIONS FORM A PART OF THIS LICENCE AND AFFECT THE SHARE AND EXTRACTION COMPONENTS. CONDITION STATEMENTS ARE AVAILABLE FROM THE NSW OFFICE OF WATER (NOW).

NOTES

A WATER LICENCE INFORMATION SHEET IS AVAILABLE FROM THE NSW OFFICE OF WATER (NOW) AND SHOULD BE REFERRED TO IN INTERPRETING THIS LICENCE. NOW WEBSITE WWW.WATER.NSW.GOV.AU, PHONE 1800 353 104, EMAIL INFORMATION@WATER.NSW.GOV.AU NOW REFERENCE NUMBER: 10AL114818 PREVIOUS WATER ACT LICENCE NUMBER(S): 10PT901431, 10BL157595.

**** END OF CERTIFICATE ****

ANY ATTEMPT TO ALTER THIS CERTIFICATE COULD RESULT IN HEAVY FINES OR IMPRISONMENT (S.141 REAL PROPERTY ACT).

Information about a water licence or approval

Use this tool to search for information about water licences and approvals issued under the Water Act 1912 or Water Management Act 2000.

Select the type of licence or approval and enter the licence or approval number:

- Water access licence (WAL): a WAL number starts with the letters 'WAL' followed by several numbers; a WAL also has a reference number that starts with a two digit number, followed by 'AL' and then several numbers.
- 1912 water licence: a water licence number starts with a two digit number, followed by a two letter code and then several numbers. Note: a PT reference number cannot be entered.
- Approval: an approval number starts with a two digit number, followed by a two letter code (WA, UA, CA or FW) and then several numbers.

Search for information about either a:

- [Water access licence \(WAL\) issued under the Water Management Act 2000](#)
- [Approval issued under the Water Management Act 2000](#)

Find out if a Water Act 1912 licence has been converted

[Water licence conversion status](#)

Water Licence Number

Notes:

Water Act 1912 licences and authorities are being converted to water access licences and approvals under the Water Management Act 2000 as water sharing plans commence (see [licence conversion](#)).

If a Water Act 1912 licence has been converted, the search results will display the water access licences and approvals that have been created. Water access licences are registered in the [Water Access Licence Register](#) administered by Land and Property Information. Those water access licences that do not display a WAL number in the search results are still to have their licence details confirmed and completed.

Due to privacy laws very little information on Water Act 1912 licence and authorities can be made freely available. Full information for a particular licence or authority can be obtained if required for conveyancing by applying to the NSW Office of Water. See [legal searches for water related interests](#).

[« Previous](#) [Search](#)

[Print](#) [Export](#)

Search Results

Access licenses created for '10BL157595'

WAL No.	Water Source	Status			
24157	Maroota Tertiary Sands Groundwater Source	Current			
Category [Subcategory]	Status	Water Source	Tenure Type	Management Zone	Share Components (units or ML)
Aquifer	Current	Maroota Tertiary Sands Groundwater Source	Continuing		6.00

Extraction Times or Rates

Subject to conditions water may be taken at any time or rate

Nominated Work Approval(s)

10CA114819

- Conditions

Plan Conditions

Water sharing plan Greater Metropolitan Region Groundwater Sources

Take of water

MW0929-00001 From 1 July 2018, if the water supply work nominated on this access licence is located at or less than 40 m from the top of the high bank of a river then:

- A. water must not be taken in this groundwater source when flows are in the Very Low Flow Class for an unregulated river access licence in that river.
- B. This restriction will only apply when the system that confirms when water can be taken is available on DPI Water website.
- C. DPI Water will inform the licence holder in writing of the applicable restrictions and how to access the information on its website when this system becomes operative.

MW0604-00001 Water allocations remaining in the account for this access licence must not be carried over from one water year to the next water year.

MW0605-00001 Water must be taken in compliance with the conditions of the approval for the nominated work on this access licence through which water is to be taken.

MW0603-00001 The total volume of water taken under this access licence in any water year must not exceed a volume equal to:

- A. the sum of water in the account from the available water determination for the current year, plus
- B. the net amount of water assigned to or from the account under a water allocation assignment, plus
- C. any water re-credited by the Minister to the account.

Monitoring and recording

MW2338-00001 The completed logbook must be retained for five (5) years from the last date recorded in the logbook.

MW2336-00001 The purpose or purposes for which water is taken, as well as details of the type of crop, area cropped, and dates of planting and harvesting, must be recorded in the logbook each time water is taken.

- MW0606-00001 The volume of water taken in the water year must be recorded in the logbook at the end of each water year. The maximum volume of water permitted to be taken in that water year must also be recorded in the logbook.
- MW2337-00001 The following information must be recorded in the logbook for each period of time that water is taken:
 A. date, volume of water, start and end time when water was taken as well as the pump capacity per unit of time, and
 B. the access licence number under which the water is taken, and
 C. the approval number under which the water is taken, and
 D. the volume of water taken for domestic consumption and/or stock watering.
- MW2339-00001 A logbook must be kept, unless the work is metered and fitted with a data logger. The logbook must be produced for inspection when requested by DPI Water.
- Reporting
- MW0051-00002 Once the licence holder becomes aware of a breach of any condition on this access licence, the licence holder must notify the Minister as soon as practicable. The Minister must be notified by:
 A. email: water.enquiries@dpi.nsw.gov.au,
 or
 B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.

Other Conditions

NIL

Approvals created for '10BL157595'

Approval No.	Water Source	Status
10CA114819	Maroota Tertiary Sands Groundwater Source	Current

Kind of Approval	Issue Date	Expiry Date	Approval Number	Status	Water Source
Water Supply Works And Water Use	01-JUL-2011	14-JUN-2025	10CA114819	Current	Maroota Tertiary Sands Groundwater Source

Work Type	Description	No of Works	Location (Lot/ DP)
Extraction Works Gw	Bore	1	Lot 2, DP 228308

Use Purpose(s)	Location(s)
Industrial	Lot 2, DP 228308
Irrigation	Lot 2, DP 228308

Water Access Licences nominating these works

Reference Number	WAL Number
10AL114818	24157

- Conditions

Plan Conditions

Water sharing plan

Greater Metropolitan Region Groundwater Sources

Take of water

MW0655-00001 Any water supply work authorised by this approval must take water in compliance with the conditions of the access licence under which water is being taken.

Water management works

MW0097-00001 If contaminated water is found above the production aquifer during the construction of the water supply work authorised by this approval, the licensed driller must:

- A. notify DPI Water in writing within 48 hours of becoming aware of the contaminated water, and
- B. adhere to the Minimum Construction Requirements for Water Bores in Australia (2012), as amended or replaced from time to time.

MW0487-00001 The water supply work authorised by this approval must be constructed within three (3) years from the date this approval is granted.

MW0044-00001 When a water supply work authorised by this approval is to be abandoned or replaced, the approval holder must contact DPI Water in writing to verify whether the work must be decommissioned.

The work is to be decommissioned, unless the approval holder receives notice from the Minister not to do so.

When decommissioning the work the approval holder must:

- A. comply with the minimum requirements for decommissioning bores prescribed in the Minimum Construction Requirements for Water Bores in Australia (2012), as amended or replaced from time to time, and
- B. notify DPI Water in writing within sixty (60) days of decommissioning that the work has been decommissioned.

Monitoring and recording

MW0481-00001 A logbook must be kept and maintained at the authorised work site or on the property for each water supply work authorised by this approval, unless the work is metered and fitted with a data logger.

MW0482-00001 Where a water meter is installed on a water supply work authorised by this approval, the meter reading must be recorded in the logbook before taking water. This reading must be recorded every time water is to be taken.

Reporting

MW0051-00001 Once the approval holder becomes aware of a breach of any condition on this approval, the approval holder must notify the Minister as soon as practicable. The Minister must be notified by:

A. email: water.enquiries@dpi.nsw.gov.au,
or

B. telephone: 1800 353 104. Any notification by telephone must also be confirmed in writing within seven (7) business days of the telephone call.

MK0485-00001 Within sixty (60) days of completing construction of the water supply work authorised by this approval, the approval holder must provide a completed Form A for that work to DPI Water.

Other Conditions

Water management works

DK1363-00001	The approval holder must not construct or install works used for the purpose of conveying, distributing or storing water from the works authorised by this approval, that obstruct the reasonable passage of floodwaters flowing in, to, or from a river or lake.
DK1202-00001	The approval holder must allow DPI Water or any person authorised by it, full and free access to the approved works, either during or after construction, for the purpose of carrying out inspection or test of the approved works and its fittings and must carry out any work or alterations deemed necessary by the department for the protection or proper maintenance of the approved works, or the control of the water extracted and for the protection of the quality and the prevention from pollution or contamination of sub-surface water.

Land to which the converted entitlement previously related.

Lot/ DP	Description
Lot 2, DP 228308	Work Location
Lot 2, DP 228308	Land Benefited

Disclaimer: The NSW Office of Water does not warrant the data is current nor does it warrant that the data or the data capturing processes are free from corruption or error.

Privacy: The information provided is limited to meet the requirements of section 57 of the Privacy and Personal Information Act 1998.

Exporting and printing: Search results show a maximum of 50 rows per page. Search results can only be printed page by page.

More information: Should you require further information or technical assistance, please submit your request to water.enquiries@dpi.nsw.gov.au or contact 1800 353 104.

Appendix E

Complaints Register

Hodgsons Quarries Complaints Register

Date published:

3/03/2021

Date Received	Site Complaint Regarding	Pollution Complaint Category					
		Air	Water	Noise	Waste	Traffic	Other
Jan-11	Nil received						
Feb-11	Nil received						
Mar-11	Nil received						
Apr-11	Nil received						
May-11	Nil received						
Jun-11	Nil received						
Jul-11	Nil received						
Aug-11	Nil received						
Sep-11	Nil received						
Oct-11	Nil received						
Nov-11	Nil received						
Dec-11	Nil received						
Jan-12	Nil received						
Feb-12	Nil received						
Mar-12	Nil received						
Apr-12	Nil received						
May-12	Nil received						
Jun-12	Nil received						
Jul-12	Nil received						
Aug-12	Nil received						
Sep-12	Nil received						
Oct-12	Nil received						
Nov-12	Nil received						
Dec-12	Nil received						
Jan-13	Nil received						
Feb-13	Nil received						
Mar-13	Nil received						
Apr-13	Nil received						
May-13	Nil received						
Jun-13	Nil received						
Jul-13	Nil received						
Aug-13	Nil received						
Sep-13	Nil received						
Oct-13	Nil received						
Nov-13	Nil received						
Dec-13	Nil received						
Jan-14	Nil received						
Feb-14	Nil received						
Mar-14	Nil received						
Apr-14	Nil received						
May-14	Nil received						
Jun-14	Nil received						
Jul-14	Nil received						
Aug-14	Nil received						
Sep-14	Nil received						
Oct-14	Nil received						
Nov-14	Nil received						
Dec-14	Nil received						

Hodgsons Quarries Complaints Register

Date published:

3/03/2021

Date Received	Site Complaint Regarding	Pollution Complaint Category					
		Air	Water	Noise	Waste	Traffic	Other
Jan-15	Nil received						
Feb-15	Nil received						
Mar-15	Nil received						
Apr-15	Nil received						
May-15	Nil received						
Jun-15	Nil received						
Jul-15	Nil received						
Aug-15	Nil received						
Sep-15	Nil received						
Oct-15	Nil received						
Nov-15	Nil received						
Dec-15	Nil received						
Jan-16	Nil received						
Feb-16	Nil received						
Mar-16	Nil received						
Apr-16	Nil received						
May-16	Nil received						
Jun-16	Nil received						
Jul-16	Nil received						
Aug-16	Nil received						
Sep-16	Nil received						
Oct-16	Nil received						
Nov-16	Nil received						
Dec-16	Nil received						
Jan-17	Nil received						
Feb-17	Nil received						
Mar-17	Nil received						
Apr-17	Nil received						
May-17	Nil received						
Jun-17	Nil received						
Jul-17	Nil received						
Aug-17	Nil received						
Sep-17	Nil received						
Oct-17	Nil received						
Nov-17	Nil received						
Dec-17	Nil received						
Jan-18	Nil received						
Feb-18	Nil received						
Mar-18	Nil received						
Apr-18	Nil received						
May-18	Nil received						
Jun-18	Nil received						
Jul-18	Nil received						
Aug-18	Nil received						
Sep-18	Nil received						
Oct-18	Nil received						
Nov-18	Nil received						
Dec-18	Nil received						

Hodgsons Quarries Complaints Register

Date published:

3/03/2021

Date Received	Site Complaint Regarding	Pollution Complaint Category					
		Air	Water	Noise	Waste	Traffic	Other
Jan-19	Nil received						
Feb-19	Nil received						
Mar-19	Nil received						
Apr-19	Nil received						
May-19	Nil received						
Jun-19	Nil received						
Jul-19	Nil received						
Aug-19	Nil received						
Sep-19	Nil received						
Oct-19	Nil received						
Nov-19	Nil received						
Dec-19	Nil received						
Jan-20	Nil received						
Feb-20	Nil received						
Mar-20	Nil received						
Apr-20	Nil received						
May-20	Nil received						
Jun-20	Nil received						
Jul-20	Nil received						
Aug-20	Nil received						
Sep-20	Nil received						
Oct-20	Nil received						
Nov-20	Nil received						
Dec-20	Nil received						
Jan-21	Nil received						
Feb-21	Nil received						

Complaints Details Sheet

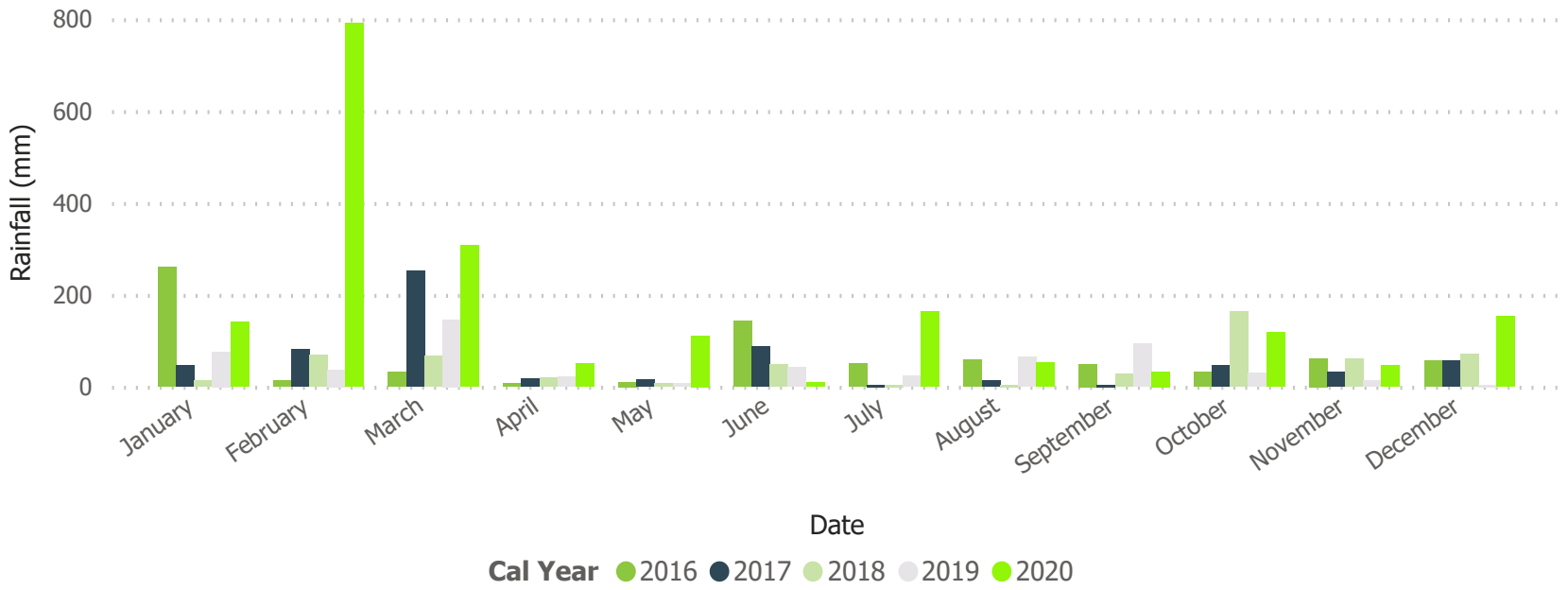
To be completed for each complaint and maintained for at least 4 years

Date and Time of Complaint	
Method Received	<i>eg in person, telephone, email, in writing</i>
Personal details of complainant	<i>or state "Not Provided"</i>
Name	
Phone Number	
Address	
Category of Complaint	Air / dust
	Water
	Noise
	Waste
	Traffic
	Other: description
Nature of Complaint	
Person Responding to complaint	
Date of Response	
Action taken	<i>Including reason for no action</i>
Follow up required?	<i>eg, changes to induction, management plans, notification to authorities</i>

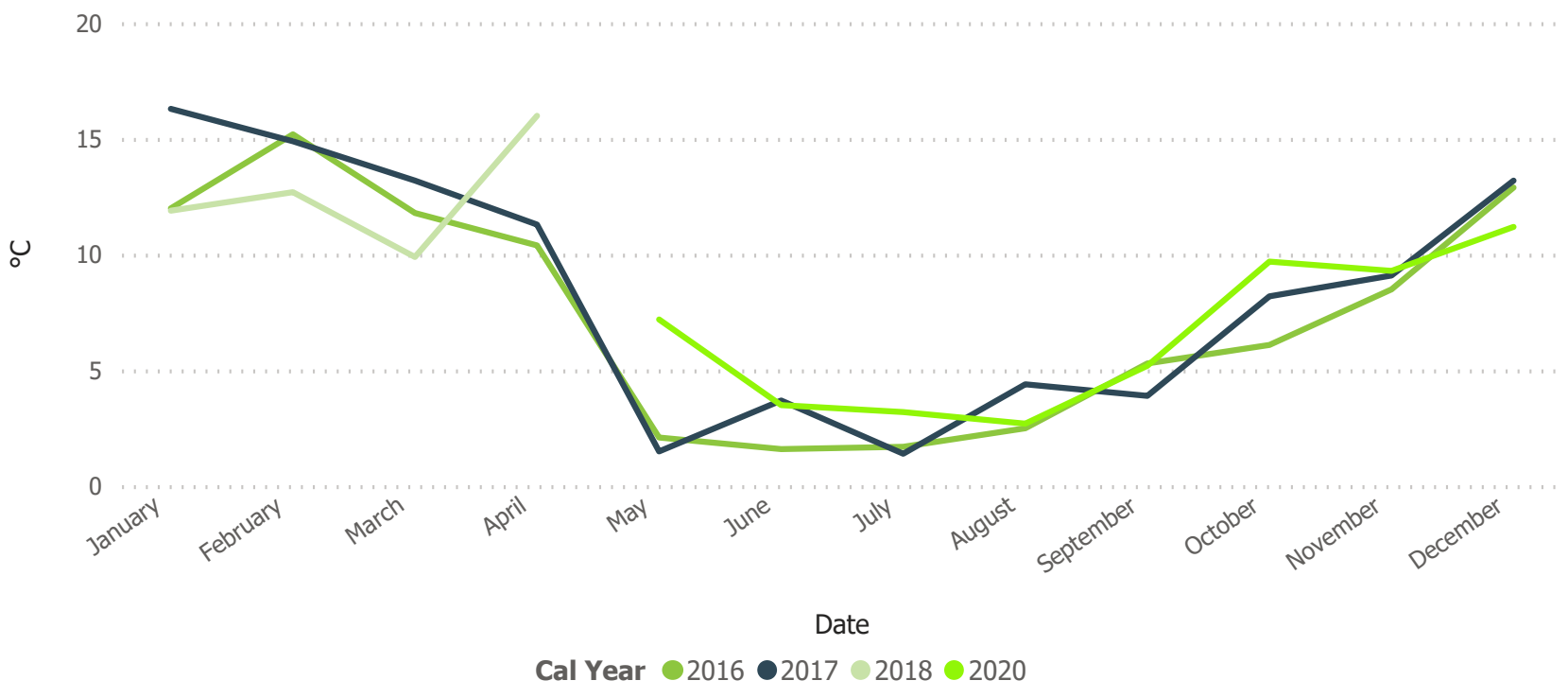
Appendix F Weather Data Summaries

Weather Trends

Precipitation



Minimum Temperature



Maximum Temperature



Weather Tables

Precipitation

Cal Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2016	260.4	13.2	31.4	8.2	10.4	142.6	50.0	58.4	49.6	32.6	61.8	57.0	775.6
2017	46.2	80.8	252.6	18.0	15.4	87.6	0.8	13.2	1.6	46.6	32.2	57.2	652.2
2018	14.4	69.0	66.2	20.2	7.6	49.2	3.0	3.8	28.6	163.0	61.6	70.4	557.0
2019	76.2	37.2	146.2	22.2	7.4	42.2	24.6	64.8	94.6	30.6	13.0	0.4	559.4
2020	141.6	792.0	308.0	50.8	111.2	8.6	164.6	51.8	33.2	118.4	46.4	152.8	1,979.4
Total	538.8	992.2	804.4	119.4	152.0	330.2	243.0	192.0	207.6	391.2	215.0	337.8	4,523.6

<

>

Weather Station - Minimum Temperature

Cal Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2016	12.0	15.2	11.8	10.4	2.1	1.6	1.7	2.5	5.3	6.1	8.5	12.9	1.6
2017	16.3	14.9	13.2	11.3	1.5	3.7	1.4	4.4	3.9	8.2	9.1	13.2	1.4
2018	11.9	12.7	9.9	16.0									9.9
2020					7.2	3.5	3.2	2.7	5.2	9.7	9.3	11.2	2.7
Total	11.9	12.7	9.9	10.4	1.5	1.6	1.4	2.5	3.9	6.1	8.5	11.2	1.4

Richmond BoM - Minimum Temperature

Cal Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2019	17.6	12.7	10.7	5.2	-0.7	-0.5	-2.5	-3.3	1.6	6.2	7.3	10.6	-3.3
2020	16.1	13.0	11.4	5.2	1.1								1.1
Total	16.1	12.7	10.7	5.2	-0.7	-0.5	-2.5	-3.3	1.6	6.2	7.3	10.6	-3.3

Weather Station - Maximum Temperature

Cal Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2016	39.2	39.9	34.1	33.7	26.8	20.3	23.8	23.2	23.8	31.0	35.3	38.9	39.9
2017	42.1	44.8	33.6	24.4	23.7	19.4	21.1	24.6	34.3	33.3	30.6	40.2	44.8
2018	43.7	37.4	38.1	33.8									43.7
2020					21.0	21.2	21.6	24.3	29.6	32.7	39.4	37.1	39.4
Total	43.7	44.8	38.1	33.8	26.8	21.2	23.8	24.6	34.3	33.3	39.4	40.2	44.8

Richmond BoM - Minimum Temperature

Cal Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
2019	41.4	39.5	38.1	33.8	26.8	23.8	24.6	26.2	32.2	35.9	38.7	45.0	45.0
2020	47.4	46.8	38.7	29.6	27.4								47.4
Total	47.4	46.8	38.7	33.8	27.4	23.8	24.6	26.2	32.2	35.9	38.7	45.0	47.4

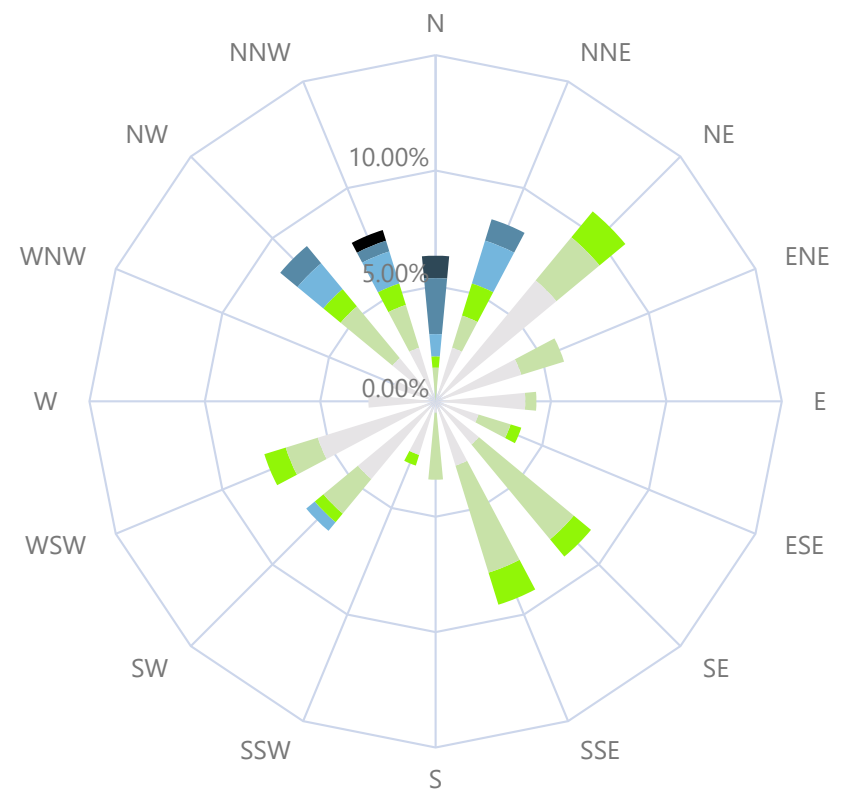
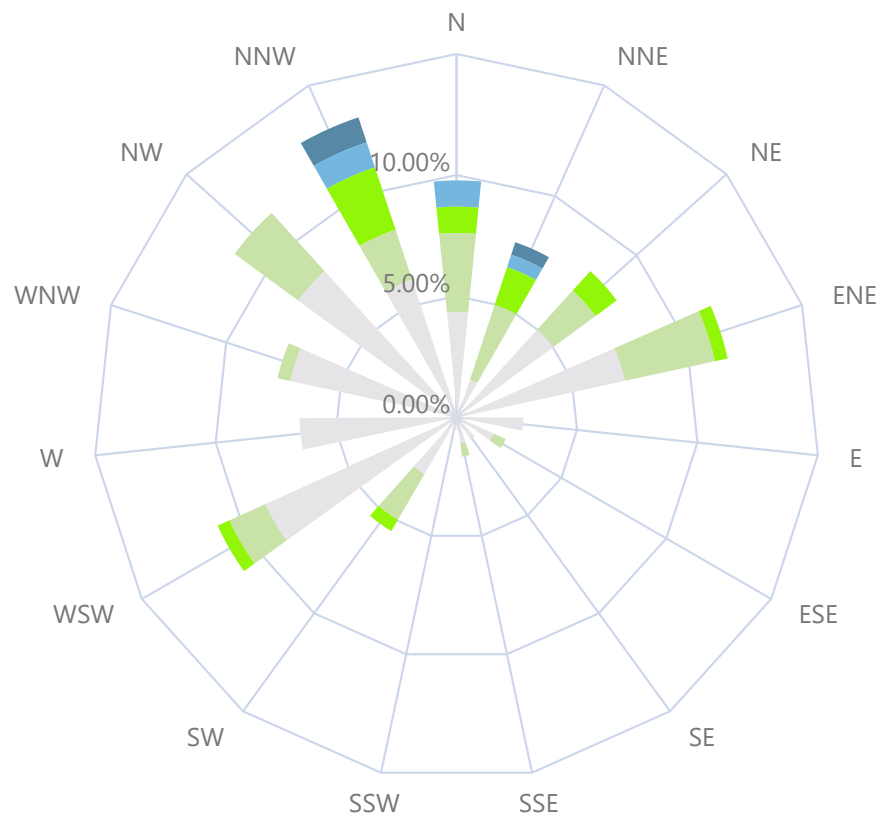
Wind Rose for Calendar Year 2020

9 am

3 pm

Wind Speed Groups

➤ 0-5 km/h
 ➤ 5-10 km/h
 ➤ 10-15 km/h
 ➤ 15-20 km/h
 ➤ 20-25 Km/h
 ➤ 25-30 Km/h
 ➤ 30+ Km/h



Appendix G

Air Monitoring Results

Depositional Dusts This Report Period

D1 Gate

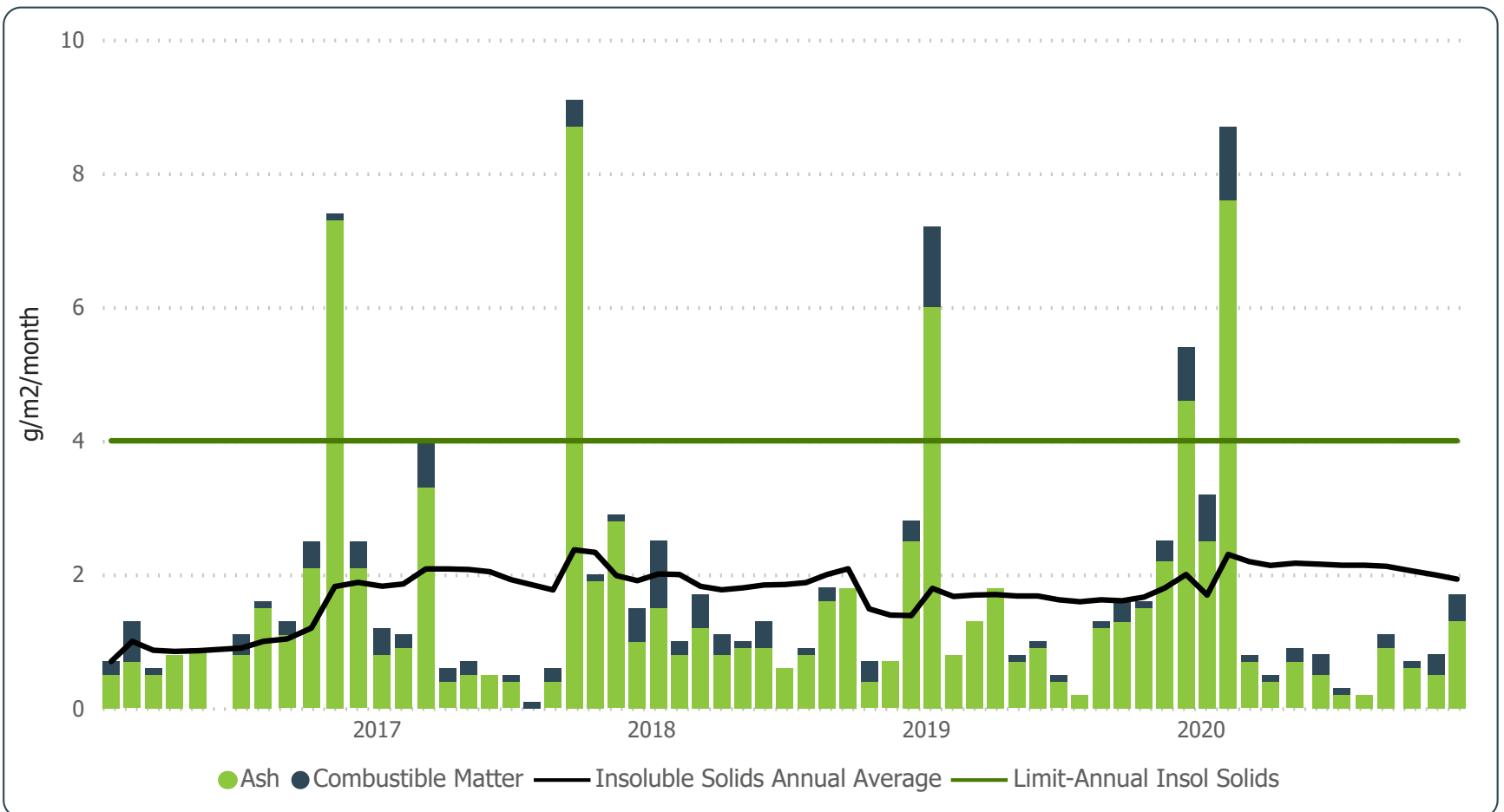


Deposited Matter g/m2/month

Date	Insoluble Solids	Rolling Annual Average Insol Solids	Limit-Annual Insol Solids	Ash	Combustible Matter
10/1/2020	3.2	1.7	4	2.5	0.7
7/2/2020	8.7	2.3	4	7.6	1.1
6/3/2020	0.8	2.2	4	0.7	0.1
3/4/2020	0.5	2.1	4	0.4	0.1
6/5/2020	0.9	2.2	4	0.7	0.2
9/6/2020	0.8	2.2	4	0.5	0.3
7/7/2020	0.3	2.1	4	0.2	0.1
6/8/2020	0.2	2.1	4	0.2	0.0
4/9/2020	1.1	2.1	4	0.9	0.2
8/10/2020	0.7	2.1	4	0.6	0.1
9/11/2020	0.8	2.0	4	0.5	0.3
7/12/2020	1.7	1.9	4	1.3	0.4

Sampling Comments for High Results

Date & Time On	Date & Time Sampled	Sampling Comments
10/01/2020 11:24:00 AM	7/02/2020 11:58:00 AM	Minor insects, algae, minor ash and sand.



Depositional Dusts This Report Period

D2 North East Corner

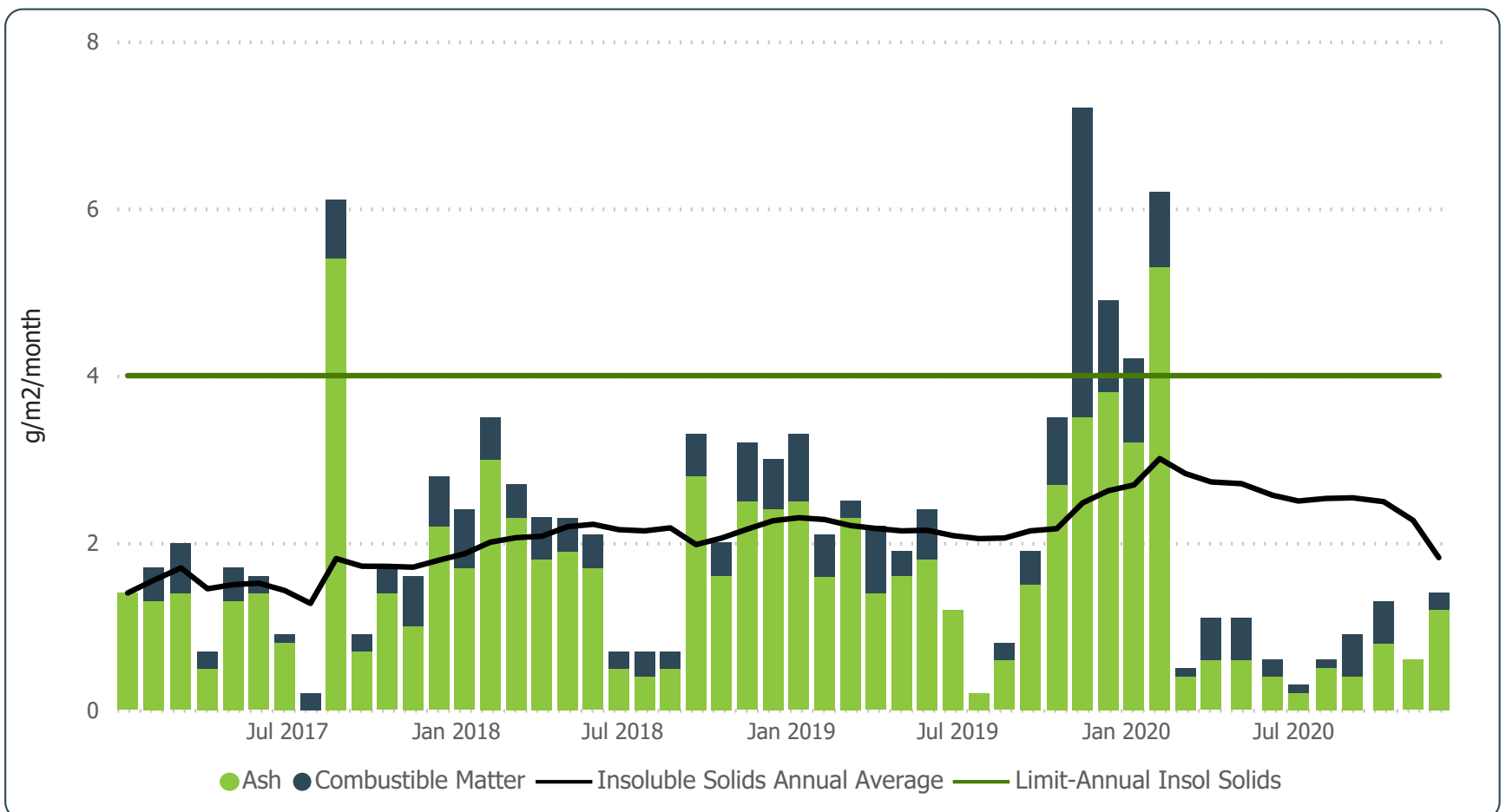


Deposited Matter g/m2/month

Date	Insoluble Solids	Rolling Annual Average Insol Solids	Limit-Annual Insol Solids	Ash	Combustible Matter
10/1/2020	4.2	2.7	4	3.2	1.0
7/2/2020	6.2	3.0	4	5.3	0.9
6/3/2020	0.5	2.8	4	0.4	0.1
3/4/2020	1.1	2.7	4	0.6	0.5
6/5/2020	1.1	2.7	4	0.6	0.5
9/6/2020	0.6	2.6	4	0.4	0.2
7/7/2020	0.3	2.5	4	0.2	0.1
6/8/2020	0.6	2.5	4	0.5	0.1
4/9/2020	0.9	2.5	4	0.4	0.5
8/10/2020	1.3	2.5	4	0.8	0.5
9/11/2020	0.6	2.3	4	0.6	0.0
7/12/2020	1.4	1.8	4	1.2	0.2

Sampling Comments for High Results

Date & Time On	Date & Time Sampled	Sampling Comments
13/12/2019 2:04:00 PM	10/01/2020 3:29:00 PM	Ash
10/01/2020 3:29:00 PM	7/02/2020 2:16:00 PM	Minor ash



Depositional Dusts This Report Period

D3A Bundwall

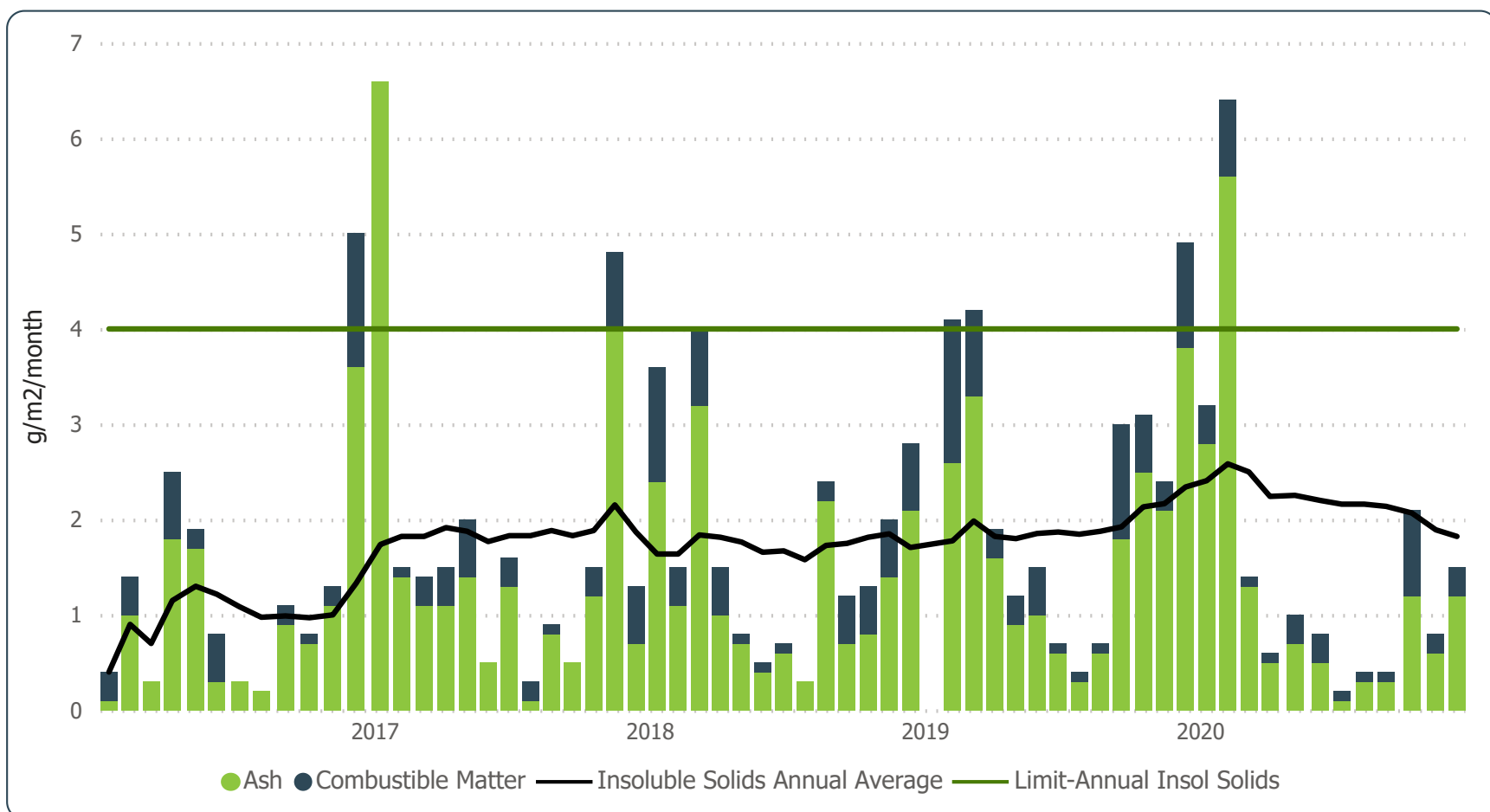


Deposited Matter g/m2/month

Date	Insoluble Solids	Rolling Annual Average Insol Solids	Limit-Annual Insol Solids	Ash	Combustible Matter
10/1/2020	3.2	2.4	4	2.8	0.4
7/2/2020	6.4	2.6	4	5.6	0.8
6/3/2020	1.4	2.5	4	1.3	0.1
3/4/2020	0.6	2.2	4	0.5	0.1
6/5/2020	1.0	2.3	4	0.7	0.3
9/6/2020	0.8	2.2	4	0.5	0.3
7/7/2020	0.2	2.2	4	0.1	0.1
6/8/2020	0.4	2.2	4	0.3	0.1
4/9/2020	0.4	2.1	4	0.3	0.1
8/10/2020	2.1	2.1	4	1.2	0.9
9/11/2020	0.8	1.9	4	0.6	0.2
7/12/2020	1.5	1.8	4	1.2	0.3

Sampling Comments for High Results

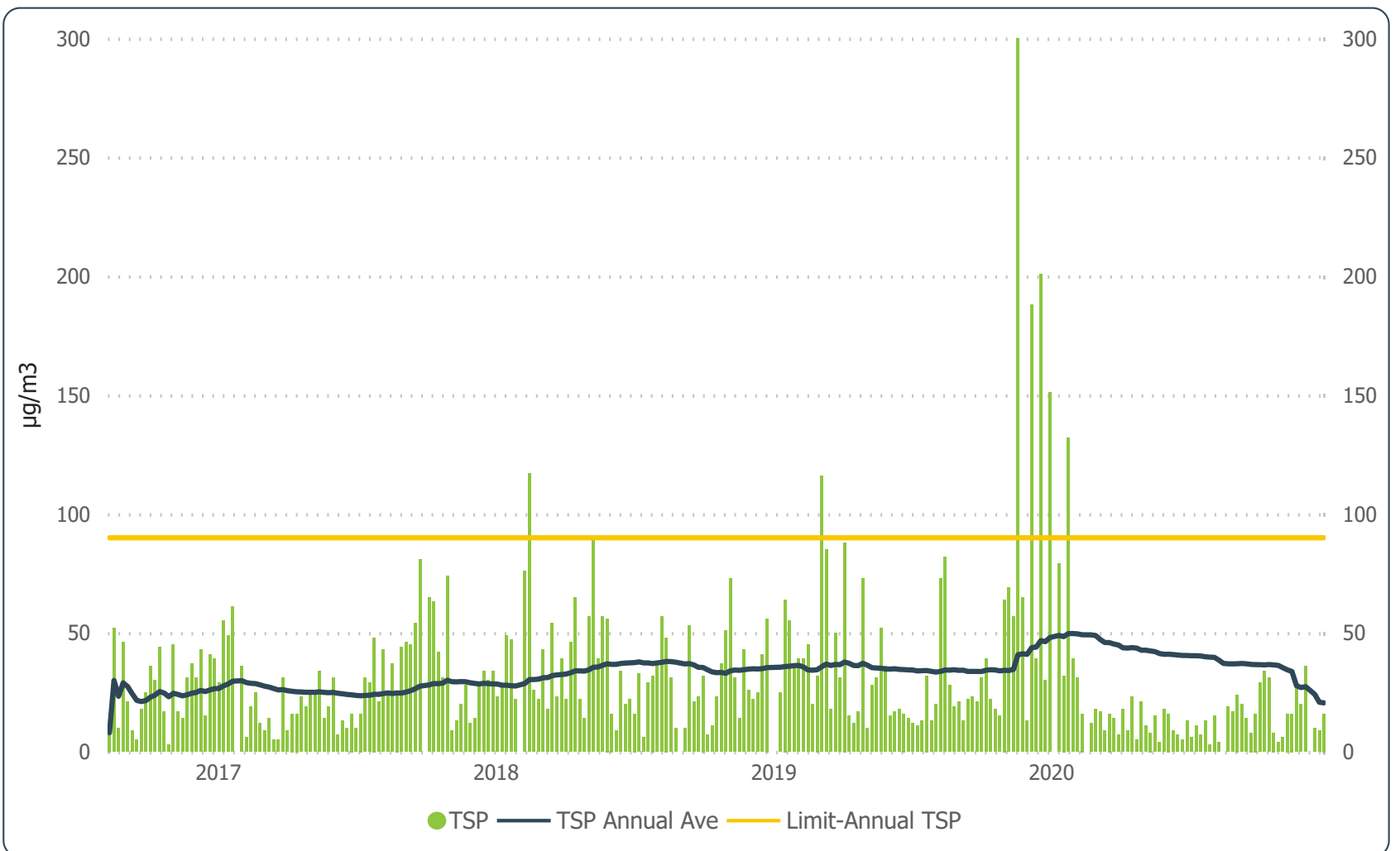
Date & Time On	Date & Time Sampled	Sampling Comments
10/01/2020 1:15:00 PM	7/02/2020 1:07:00 PM	Ash



Total Suspended Particulates (TSP) Results This Report Period

Annual Average Exceedances (>90 $\mu\text{g}/\text{m}^3$)

Date	TSP	TSP Annual Ave
▲		



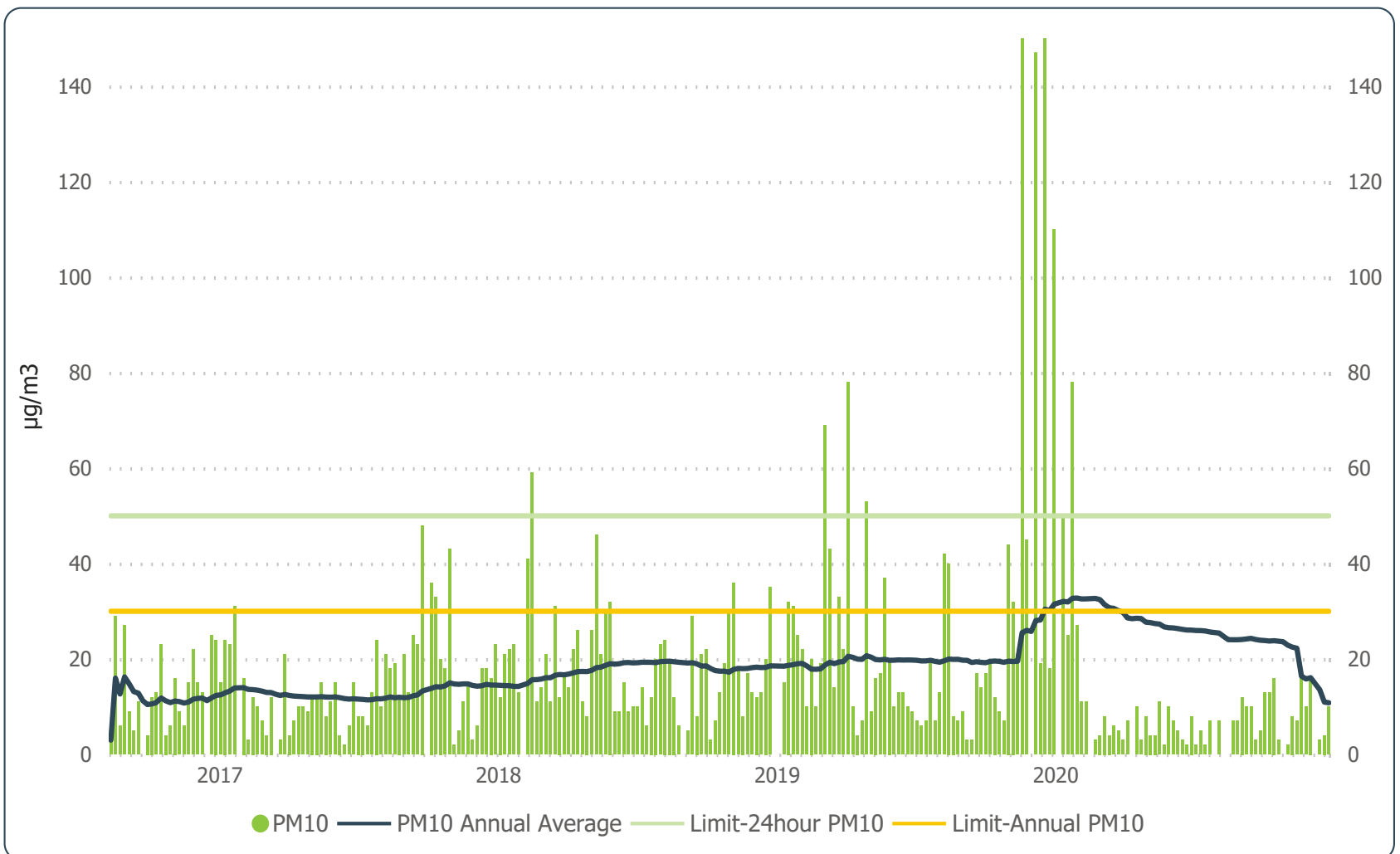
PM10 High Volume Air Sampler Results This Report Period

24 hour exceedances (>50 µg/m3)

Date	PM10	Sampling Comments
12/1/2020	50	Smoke affected
24/1/2020	78	Very smokey from bushfires

Annual Average Exceedances (>30 µg/m3)

Date	PM10	PM10 Annual Average
12/1/2020	50	32
18/1/2020	25	32
24/1/2020	78	33
30/1/2020	27	33
5/2/2020	11	33
11/2/2020	11	33
23/2/2020	3	33
29/2/2020	4	32
6/3/2020	8	31
12/3/2020	4	31
18/3/2020	6	31
24/3/2020	5	30



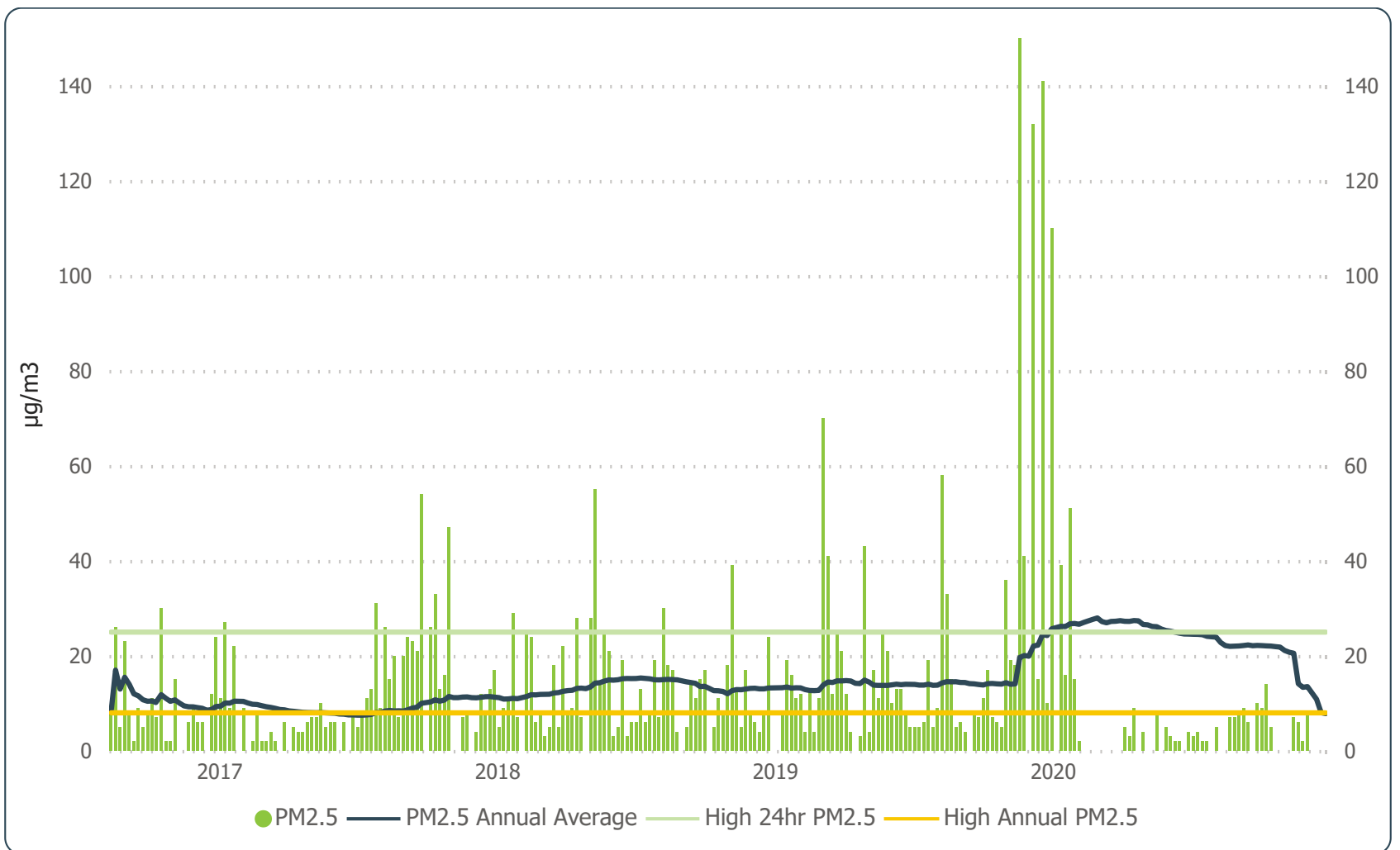
PM2.5 High Volume Air Sampler Results This Report Period

Results > 25µg/m3

Date	PM2.5
12/1/2020	39
24/1/2020	51

High Annual Averages (>8 µg/m3)

Date	PM2.5	PM2.5 Annual Average
3/8/2020	5	24
9/8/2020	0	23
15/8/2020	0	22
21/8/2020	7	22
27/8/2020	7	22
2/9/2020	8	22
8/9/2020	9	22
14/9/2020	6	22
20/9/2020	0	22
26/9/2020	10	22
2/10/2020	9	22
8/10/2020	14	22
14/10/2020	5	22
20/10/2020	0	22
26/10/2020	0	22
1/11/2020	0	21
7/11/2020	0	21
13/11/2020	7	21
19/11/2020	6	14
25/11/2020	2	13
1/12/2020	8	14
13/12/2020	0	11
19/12/2020	0	8



Appendix H

Pumping Records

Date	Start	Finish	Hours	Litres @ 120/min
6/01/2020	8.5	16	7.50	54000
7/01/2020	9	16	7	50400
8/01/2020	8.5	16	7.5	54000
9/01/2020	9	16	7	50400
10/01/2020	8	10	2	14400
11/01/2020	7	12	5	36000
12/01/2020			0	0
13/01/2020	8	16	8	57600
14/01/2020	8	12	4	28800
15/01/2020	8	16	8	57600
16/01/2020	7	16	9	64800
17/01/2020	9	16	7	50400
18/01/2020	8	12	4	28800
19/01/2020			0	0
20/01/2020	13	16	3	21600
21/01/2020	8	16	8	57600
22/01/2020	8	13	5	36000
23/01/2020	7.5	14	6.5	46800
24/01/2020	7	16	9	64800
25/01/2020	7	12	5	36000
26/01/2020			0	0
27/01/2020			0	0
28/01/2020	9	16	7	50400
29/01/2020	9	16	7	50400
30/01/2020	7	12	5	36000
31/01/2020	8	16	8	57600
1/02/2020			0	0
2/02/2020			0	0
3/02/2020	8	16	8	57600
4/02/2020	8	12	4	28800
5/02/2020	8	15	7	50400
6/02/2020			0	0
7/02/2020			0	0
8/02/2020			0	0
9/02/2020			0	0
10/02/2020	8	15	7	50400
11/02/2020	7.5	16	8.5	61200
12/02/2020			0	0
13/02/2020			0	0
14/02/2020			0	0
15/02/2020			0	0
16/02/2020			0	0
17/02/2020	7	13	6	43200
18/02/2020	12	16	4	28800
19/02/2020	8.5	16	7.5	54000
20/02/2020	10.5	16	5.5	39600
21/02/2020	8	16	8	57600
22/02/2020	7	12	5	36000
23/02/2020			0	0

Date	Start	Finish	Hours	Litres @ 120/min
24/02/2020	7	12	5	36000
25/02/2020	7	3.5	-3.5	-25200
26/02/2020	8.5	16	7.5	54000
27/02/2020	9	16	7	50400
28/02/2020	7	16	9	64800
29/02/2020			0	0
1/03/2020			0	0
2/03/2020			0	0
3/03/2020	7	14	7	50400
4/03/2020	7	12	5	36000
5/03/2020	7	12	5	36000
6/03/2020	8	13	5	36000
7/03/2020			0	0
8/03/2020			0	0
9/03/2020			0	0
10/03/2020	13	16	3	21600
11/03/2020	8.5	16	7.5	54000
12/03/2020	7.5	16	8.5	61200
13/03/2020	11	16	5	36000
14/03/2020			0	0
15/03/2020			0	0
16/03/2020			0	0
17/03/2020	14	16	2	14400
18/03/2020	7.5	12	4.5	32400
19/03/2020	10.5	16	5.5	39600
20/03/2020			0	0
21/03/2020			0	0
22/03/2020			0	0
23/03/2020	7.5	16	8.5	61200
24/03/2020	7.5	16	8.5	61200
25/03/2020			0	0
26/03/2020	7	12	5	36000
27/03/2020	7	12	5	36000
28/03/2020			0	0
29/03/2020			0	0
30/03/2020			0	0
31/03/2020	12	16	4	28800
1/04/2020			0	0
2/04/2020	10.5	16	5.5	39600
3/04/2020	13	16	3	21600
4/04/2020	7.5	12	4.5	32400
5/04/2020			0	0
6/04/2020	8	16	8	57600
7/04/2020	7	16	9	64800
8/04/2020	7	16	9	64800
9/04/2020			0	0
10/04/2020			0	0
11/04/2020			0	0
12/04/2020			0	0

Date	Start	Finish	Hours	Litres @ 120/min
13/04/2020			0	0
14/04/2020	7	16	9	64800
15/04/2020	8	16	8	57600
16/04/2020			0	0
17/04/2020			0	0
18/04/2020			0	0
19/04/2020			0	0
20/04/2020	8	16	8	57600
21/04/2020	7.5	15.5	8	57600
22/04/2020	7	16	9	64800
23/04/2020	8	12	4	28800
24/04/2020	11	16	5	36000
25/04/2020			0	0
26/04/2020			0	0
27/04/2020	8.5	15.5	7	50400
28/04/2020	7	16	9	64800
29/04/2020	7.5	16	8.5	61200
30/04/2020	8	15	7	50400
1/05/2020	8	16	8	57600
2/05/2020	7	12	5	36000
3/05/2020			0	0
4/05/2020	8	16	8	57600
5/05/2020	13	16	3	21600
6/05/2020	8	15	7	50400
7/05/2020	7.5	16	8.5	61200
8/05/2020	7.5	16	8.5	61200
9/05/2020	7	12	5	36000
10/05/2020			0	0
11/05/2020	8	15	7	50400
12/05/2020	8	15	7	50400
13/05/2020			0	0
14/05/2020			0	0
15/05/2020			0	0
16/05/2020	7	12	5	36000
17/05/2020			0	0
18/05/2020	7.5	16	8.5	61200
19/05/2020	7	12	5	36000
20/05/2020	8	16	8	57600
21/05/2020			0	0
22/05/2020			0	0
23/05/2020			0	0
24/05/2020			0	0
25/05/2020	8	15	7	50400
26/05/2020	8	15	7	50400
27/05/2020			0	0
28/05/2020			0	0
29/05/2020			0	0
30/05/2020	7	12	5	36000
31/05/2020			0	0

Date	Start	Finish	Hours	Litres @ 120/min	
1/06/2020		8	16	8	57600
2/06/2020		8	16	8	57600
3/06/2020				0	0
4/06/2020				0	0
5/06/2020				0	0
6/06/2020				0	0
7/06/2020				0	0
8/06/2020				0	0
9/06/2020	7.5		16	8.5	61200
10/06/2020	7.5		16	8.5	61200
11/06/2020				0	0
12/06/2020				0	0
13/06/2020				0	0
14/06/2020				0	0
15/06/2020	8		16	8	57600
16/06/2020	8		16	8	57600
17/06/2020	11		16	5	36000
18/06/2020				0	0
19/06/2020				0	0
20/06/2020				0	0
21/06/2020				0	0
22/06/2020				0	0
23/06/2020	7.5		16	8.5	61200
24/06/2020	8		15	7	50400
25/06/2020				0	0
26/06/2020	7.5		16	8.5	61200
27/06/2020	7		15.5	8.5	61200
28/06/2020				0	0
29/06/2020	8		16	8	57600
30/06/2020	8		16	8	57600
1/07/2020				0	0
2/07/2020				0	0
3/07/2020	8		16	8	57600
4/07/2020				0	0
5/07/2020				0	0
6/07/2020				0	0
7/07/2020	8		14.5	6.5	46800
8/07/2020				0	0
9/07/2020				0	0
10/07/2020				0	0
11/07/2020				0	0
12/07/2020				0	0
13/07/2020	7.5		16	8.5	61200
14/07/2020	7.5		16	8.5	61200
15/07/2020				0	0
16/07/2020				0	0
17/07/2020				0	0
18/07/2020				0	0
19/07/2020				0	0

Date	Start	Finish	Hours	Litres @ 120/min
20/07/2020	7.5	16	8.5	61200
21/07/2020	9	16	7	50400
22/07/2020			0	0
23/07/2020			0	0
24/07/2020	8	16	8	57600
25/07/2020	7	12	5	36000
26/07/2020			0	0
27/07/2020	8	16	8	57600
28/07/2020	8	16	8	57600
29/07/2020			0	0
30/07/2020			0	0
31/07/2020			0	0
1/08/2020			0	0
2/08/2020			0	0
3/08/2020			0	0
4/08/2020	8	16	8	57600
5/08/2020	9	16	7	50400
6/08/2020			0	0
7/08/2020			0	0
8/08/2020			0	0
9/08/2020			0	0
10/08/2020	10	16	6	43200
11/08/2020	8.5	16	7.5	54000
12/08/2020			0	0
13/08/2020			0	0
14/08/2020			0	0
15/08/2020			0	0
16/08/2020			0	0
17/08/2020	8.5	15.5	7	50400
18/08/2020	8.5	16	7.5	54000
19/08/2020	9	16	7	50400
20/08/2020			0	0
21/08/2020			0	0
22/08/2020			0	0
23/08/2020			0	0
24/08/2020	10	16	6	43200
25/08/2020	8.5	16	7.5	54000
26/08/2020			0	0
27/08/2020			0	0
28/08/2020			0	0
29/08/2020			0	0
30/08/2020			0	0
31/08/2020	8.5	15.5	7	50400
1/09/2020	9	16	7	50400
2/09/2020			0	0
3/09/2020			0	0
4/09/2020			0	0
5/09/2020			0	0
6/09/2020			0	0

Date	Start	Finish	Hours	Litres @ 120/min
7/09/2020			0	0
8/09/2020	7	16	9	64800
9/09/2020	8	16	8	57600
10/09/2020			0	0
11/09/2020			0	0
12/09/2020			0	0
13/09/2020			0	0
14/09/2020	8	16	8	57600
15/09/2020	8	15.5	7.5	54000
16/09/2020			0	0
17/09/2020			0	0
18/09/2020			0	0
19/09/2020			0	0
20/09/2020			0	0
21/09/2020	7	12	5	36000
22/09/2020	8	16	8	57600
23/09/2020	10.5	16	5.5	39600
24/09/2020			0	0
25/09/2020			0	0
26/09/2020			0	0
27/09/2020			0	0
28/09/2020	9	16	7	50400
29/09/2020	8	14	6	43200
30/09/2020			0	0
1/10/2020			0	0
2/10/2020			0	0
3/10/2020			0	0
4/10/2020			0	0
5/10/2020			0	0
6/10/2020	8	16	8	57600
7/10/2020	8	15.5	7.5	54000
8/10/2020	7	16	9	64800
9/10/2020			0	0
10/10/2020			0	0
11/10/2020			0	0
12/10/2020			0	0
13/10/2020	8	16	8	57600
14/10/2020	8	16	8	57600
15/10/2020			0	0
16/10/2020	12	16	4	28800
17/10/2020			0	0
18/10/2020			0	0
19/10/2020			0	0
20/10/2020	7	15	8	57600
21/10/2020	7	15	8	57600
22/10/2020	7	13.5	6.5	46800
23/10/2020	7	16	9	64800
24/10/2020			0	0
25/10/2020			0	0

Date	Start	Finish	Hours	Litres @ 120/min
26/10/2020			0	0
27/10/2020			0	0
28/10/2020			0	0
29/10/2020			0	0
30/10/2020			0	0
31/10/2020			0	0
1/11/2020			0	0
2/11/2020	13	16	3	21600
3/11/2020	13	16	3	21600
4/11/2020			0	0
5/11/2020	7	14.5	7.5	54000
6/11/2020	10.75	14.5	3.75	27000
7/11/2020	7	14.5	7.5	54000
8/11/2020			0	0
9/11/2020			0	0
10/11/2020			0	0
11/11/2020			0	0
12/11/2020			0	0
13/11/2020			0	0
14/11/2020			0	0
15/11/2020			0	0
16/11/2020			0	0
17/11/2020			0	0
18/11/2020			0	0
19/11/2020			0	0
20/11/2020			0	0
21/11/2020			0	0
22/11/2020			0	0
23/11/2020			0	0
24/11/2020			0	0
25/11/2020			0	0
26/11/2020			0	0
27/11/2020	7	14.5	7.5	54000
28/11/2020			0	0
29/11/2020			0	0
30/11/2020	7	14.5	7.5	54000
1/12/2020	7	14.5	7.5	54000
2/12/2020	13	16	3	21600
3/12/2020	8	14.5	6.5	46800
4/12/2020	8	14	6	43200
5/12/2020			0	0
6/12/2020			0	0
7/12/2020	8	15	7	50400
8/12/2020			0	0
9/12/2020	9	14.5	5.5	39600
10/12/2020	9	14.5	5.5	39600
11/12/2020			0	0
12/12/2020			0	0
13/12/2020			0	0

Date	Start	Finish	Hours	Litres @ 120/min
14/12/2020			0	0
15/12/2020			0	0
16/12/2020	10	15	5	36000
17/12/2020	8	14.5	6.5	46800
18/12/2020			0	0
19/12/2020			0	0
20/12/2020			0	0
21/12/2020	8	14.5	6.5	46800
22/12/2020	8	14.5	6.5	46800
23/12/2020	8	14.5	6.5	46800

Appendix I Noise Monitoring Results

Noise Monitoring Assessment

Hodgson Quarries and Plant Pty Ltd

Prepared for: VGT Environmental Compliance Solutions
Pty Limited
December 2020
MAC160257RP5V1



Document Information

Noise Monitoring Assessment

Hodgson Quarries and Plant Pty Ltd

Prepared for: VGT Environmental Compliance Solutions Pty Limited

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Document ID	Status	Date	Prepared By	Signed	Reviewed By	Signed
MAC160257RP5V1	Final	1 December 2020	Kristian Allen		Oliver Muller	

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APPENDIX A – GLOSSARY OF TERMS

APPENDIX B – REGULATORY NOISE LIMITS

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1 Introduction

Muller Acoustic Consulting Pty Ltd (MAC) has been commissioned by VGT Environmental Compliance Solutions Pty Limited to complete a Noise Monitoring Assessment (NMA) for Hodgson Quarries and Plant Pty Ltd ('the quarry'). The NMA has been completed to quantify operational noise emissions and off-site truck noise as per Condition 47 and 48 of their Project Approval (Department of Planning and Environment (DPE)) and Environment Protection License (EPL) (ref:6535) from NSW Environment Protection Authority (EPA).

The assessment has been conducted in accordance with the following documents:

- NSW Environment Protection Authority (EPA), 2017, Noise Policy for Industry (NPI);
- NSW Department of Environment, Climate Change and Water (DECCW), 2011, NSW Road Noise Policy (RNP);
- Australian Standard AS 1055:2018 (AS 1055) – Acoustics – Description and Measurement of Environmental Noise;
- NSW Environment Protection Authority (EPA), 2015, Environment Protection Licence EPL 6535 (EPL); and
- Development Application (DA No.267-11-99), 2000, Department of Planning and Environment (DPE).

A glossary of terms, definitions and abbreviations used in this report is provided in **Appendix A**.

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2 Noise Criteria

2.1 Operational Noise Criteria

The project has operational noise criteria prescribed by both the DPE and EPA (see **Appendix B**). Notwithstanding, for consistency with the Acoustic Assessment prepared for Modification 2 of the quarry, this assessment has adopted criteria as per the Development Application summarised below:

Condition 47. For typical operations, noise from the premises must not exceed:

- *an LAeq, 15 min noise emission criterion of 43dBA (7am to 6pm) Monday to Saturday;*
- *an LAeq, 15 min noise emission criterion of 40dBA (6am to 7am) Monday to Saturday; and*
- *an LA1, 1 min noise emission criterion of 50dBA (6am to 7am) Monday to Saturday.*

Noise generated by the development is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy.

However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.

2.2 Road Noise Criteria

Condition 48 of the DA specifies noise criteria for off-site road trucks from the quarry. These criteria are consistent with those outlined in the RNP (DECCW, 2011) for local roads.

Condition 48.

The Applicant shall ensure that traffic noise from the development does not exceed (LAeq(1 hr)) 55dBA between 7am and 10pm and 50dBA between 10pm and 7am at any affected residence under adverse weather conditions. Where ambient LAeq levels already exceed these criteria, the Applicant shall ensure that traffic noise from the development does not result in an increase of more than 2dBA.

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3 Methodology

Attended noise surveys for this assessment were conducted in general accordance with the procedures described in Australian Standard AS 1055:2018, “Acoustics - Description and Measurement of Environmental Noise” and the EPL.

The acoustic instrumentation used carries current NATA calibration and complies with AS/NZS IEC 61672.1-2019-Electroacoustics - Sound level meters - Specifications. Calibration of all instrumentation was checked prior to and following measurements. Drift in calibration did not exceed ± 0.5 dBA. All equipment carried appropriate and current NATA (or manufacturer) calibration certificates.

3.1 Operational Noise Measurement Methodology

The locality surrounding the quarry is primarily rural/residential. Three representative receivers were selected for this assessment being Location A (north east), Location B (south east) and Location C (north west) (see **Figure 1**). The measurements were carried out using a Svantek Type 1, 971 noise analyser on Tuesday 10 November 2020.

The monitoring consisted of six 15-minute monitoring intervals between 6am to 8:30am. Where possible throughout each survey the operator quantified the contribution of any significant noise sources. It is noted that quarry operations commence at 6am, with quarrying operations after 7am. The programme of the measurements and list of quarry activities is presented in **Table 1**.

Table 1 Noise Monitoring Programme			
Number of 15 minute Measurements	Measurement Period	Assessment Period	Quarry Activities
3	6am to 7am	Night/Morning Shoulder	Toolbox Talks, Loading/Transportation, No Processing
3	7am to 8:30am	Day	Full Quarry Operations, including processing

3.2 Road Noise Assessment Methodology

Road noise monitoring was conducted at 4405 Old Northern Road, Maroota NSW using a Type 1 Svantek, 971 noise analyser on Tuesday 10 November 2020. The monitoring was conducted between 6am to 8:30am as per Condition 48 of the DA, with the monitoring position situated at a 15m offset from Old Northern Road.

This location was selected as it had a clear line of site to Old Northern Road and could also be used to visually identify project related trucks entering and leaving site via Roberts Road. Noise levels obtained at the monitoring location are considered representative for receivers situated 15m from the road alignment, which is considered a representative worst case.



KEY




-  ROBERTS ROAD MAROOTA SAND QUARRY
-  ATTENDED NOISE MONITORING LOCATIONS
-  ROAD NOISE MONITORING LOCATION

FIGURE 1 - LOCALITY PLAN

MAC160257



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4 Results

4.1 Operational Noise Results

The monitoring and assessment results are presented in individual tables for each monitoring location. The results of the 15-minute attended noise measurements for Tuesday 10 November 2020 for Location A are summarised in **Table 2**.

Table 2 Operator-Attended Noise Survey Results – Location A						
Time (hrs)	Primary Noise Descriptor (dBA re 20 µPa)				Meteorology	Description and SPL, dBA
	L _{Amax}	L _{A10}	L _{Aeq}	L _{A90}		
06:00 (Morning Shoulder)	80	52	54	38	WS: <0.1m/s WD: NW Rain: Nil	Distant Traffic 33-60 Local Traffic 40-80 Birds 30-62 Quarry Inaudible
Quarry Site L _{Aeq} (15min) Contribution						<30
Criteria L _{Aeq} (15min)						40
Compliant						✓
07:22 (Day)	66	50	46	35	WS: 0.1m/s WD: W Rain: Nil	Distant Traffic 31-51 Local Traffic 35-66 Birds 30-58 Dogs 35-47 Quarry Loader <30-37 Quarry Reverse Alarms <35
Quarry Site L _{Aeq} (15min) Contribution						34
Criteria L _{Aeq} (15min)						43
Compliant						✓

The results of the 15-minute attended noise measurements for Tuesday 10 November 2020 for Location B are summarised in **Table 3**.

Table 3 Operator-Attended Noise Survey Results – Location B							
Time (hrs)	Primary Noise Descriptor (dBA re 20 µPa)				Meteorology	Description and SPL, dBA	
	L _{Amax}	L _{A10}	L _{Aeq}	L _{A90}			
06:19 (Morning Shoulder)	79	51	55	37	WS: <0.1m/s WD: NW Rain: Nil	Distant Traffic 35-56	
						Local Traffic 31-79	
						Birds 31-54	
						Residential noise 35-44	
						Offsite Industrial Noise 38-42	
						Quarry Inaudible	
						Quarry Site L _{Aeq} (15min) Contribution	<30
Criteria L _{Aeq} (15min)	40						
Compliant						✓	
07:41 (Day)	81	50	57	34	WS: 0.1m/s WD: W Rain: Nil	Distant Traffic 28-58	
						Local Traffic 35-81	
						Birds 30-53	
						Offsite Industrial Noise 35-42	
						Quarry Loader <32-38	
						Quarry Site L _{Aeq} (15min) Contribution	31
						Criteria L _{Aeq} (15min)	43
Compliant						✓	

The results of the 15-minute attended noise measurements for Tuesday 10 November 2020 for Location C are summarised in **Table 4**.

Table 4 Operator-Attended Noise Survey Results – Location C						
Time (hrs)	Primary Noise Descriptor (dBA re 20 µPa)				Meteorology	Description and SPL, dBA
	L _{Amax}	L _{A10}	L _{Aeq}	L _{A90}		
06:41 (Morning Shoulder)	59	50	47	39	WS: <0.1m/s WD: NW Rain: Nil	Traffic 35-59 Birds 32-53 Agricultural Noise 36-45 Quarry Inaudible
Quarry Site L _{Aeq} (15min) Contribution						<30
Criteria L _{Aeq} (15min)						40
Compliant						✓
08:01 (Day)	75	51	52	41	WS: 0.1m/s WD: W Rain: Nil	Traffic 35-75 Offsite Industrial Noise 40-54 Birds 35-67 Agricultural Noise 35-53 Quarry Inaudible
Quarry Site L _{Aeq} (15min) Contribution						<35
Criteria L _{Aeq} (15min)						43
Compliant						✓

4.2 Road Noise Results

The results of the road noise attended measurements for Tuesday 10 November 2020 are summarised in **Table 5**.

It was evident from attended noise monitoring that overall LAeq(1hr) noise levels were dominated by vehicles not associated with the quarry. Therefore, road traffic noise calculations were undertaken to quantify project road noise contributions at the measurement position. The calculations were completed using the equations A-13 of the United States (US) Environmental Protection Agency's Report 550/9-74-004, March, 1974 road traffic calculation method. This method is an internationally accepted theoretical traffic noise prediction model. Results of the traffic noise calculations identify that quarry vehicles satisfy the relevant day and night road noise criteria.

Table 5 Road Noise Survey Results

Period	Number of Quarry Trucks (passbys)	Overall Measured	Calculated LAeq(1hr)	
		LAeq(1hr)	Project Truck	Criteria, dBA
		(dBA re 20 µPa)	Contribution	LAeq(1hr)
		dBA	dBA	
6am to 7am	0	66	0	50
7am to 8am	6	67	40	55

5 Discussion

5.1 Operational Noise Discussion

5.1.1 Discussion of Results – Location A, Tuesday 10 November 2020

Attended measurement results for monitoring conducted at Location A on Tuesday 10 November 2020 identified that quarry noise was inaudible during morning shoulder measurements and just audible for day measurements, with non-quarry sources dominating measured noise levels. Generally, quarry noise sources included loader movements and reverse alarms and non-quarry noise sources included local and distant traffic, birds and dogs barking.

Hence, estimated quarry noise contributions were below the relevant EPL noise limit for all measurements at Location A.

5.1.2 Discussion of Results – Location B, Tuesday 10 November 2020

Attended measurement results for monitoring conducted at Location B on Tuesday 10 November 2020 identified that quarry noise was inaudible during morning shoulder measurements and just audible for day measurements, with non-quarry sources dominating measured noise levels. Generally, quarry noise sources included loader movements and non-quarry noise sources included local and distant traffic, birds, people and offsite industrial noise.

Hence, estimated quarry noise contributions were below the relevant EPL noise limit for all measurements at Location B.

5.1.3 Discussion of Results – Location C, Tuesday 10 November 2020

Attended measurement results for monitoring conducted at Location C on Tuesday 10 November 2020 identified that quarry noise was inaudible during morning shoulder and day measurements, with non-quarry sources dominating measured noise levels. Generally, non-quarry noise sources included traffic, birds agricultural and offsite industrial noise.

Hence, estimated quarry noise contributions were below the relevant EPL noise limit for all measurements at Location C.

5.2 Road Noise Discussion

Road noise emission from quarry vehicles, satisfied relevant noise criteria as specified by Condition 48 of the DA for receivers situated at a 15m offset to the roadway. Furthermore, ambient road traffic not associated with the project dominated measured noise levels throughout measurements.

6 Conclusion

Muller Acoustic Consulting Pty Ltd (MAC) has completed a Noise Monitoring Assessment on behalf of Hodgson Quarries and Plant Pty Ltd. The assessment was completed to quantify site noise emissions against relevant noise criteria pertaining to quarry operations and off-site truck movements.

Attended monitoring has identified that operational and road noise emissions generated by the quarry comply with relevant statutory noise limits. Furthermore, project related noise emissions are generally masked by extraneous non-quarry sources.

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Appendix A – Glossary of Terms

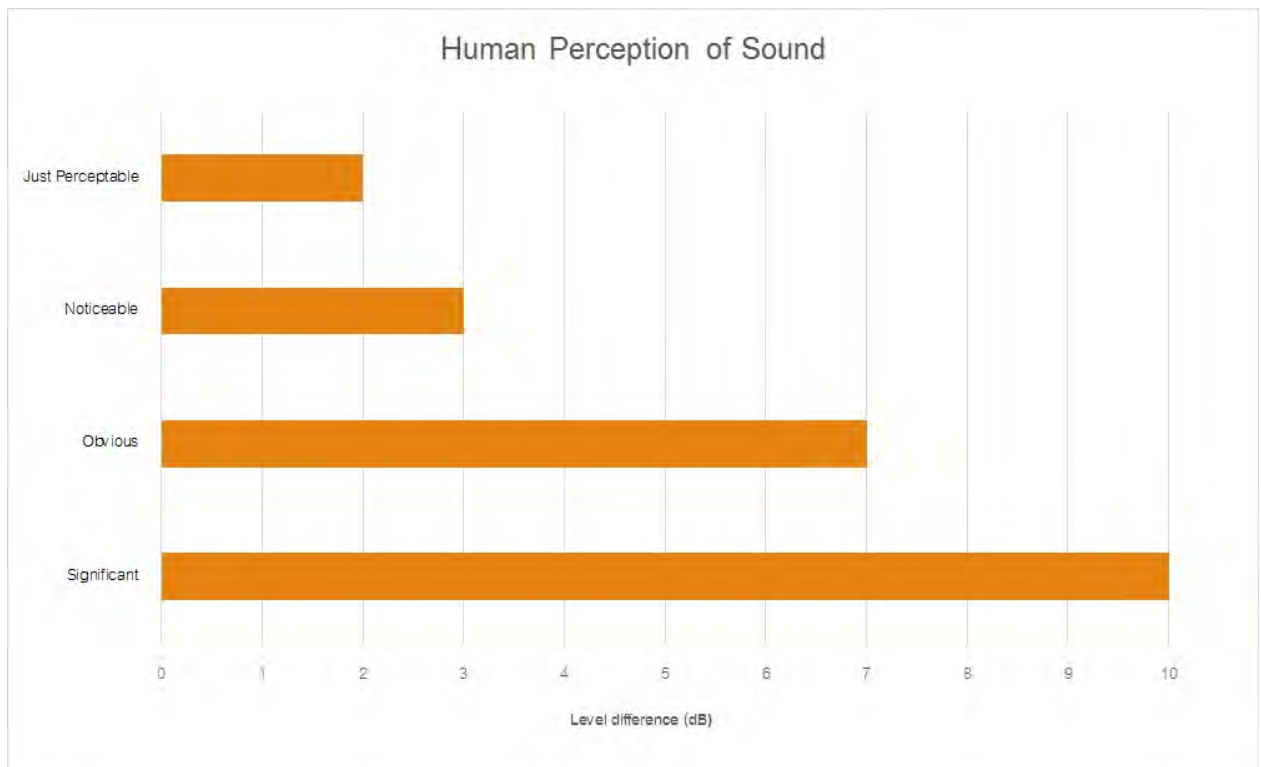
Table A1 provides a number of technical terms have been used in this report.

Table A1 Glossary of Terms	
Term	Description
1/3 Octave	Single octave bands divided into three parts
Octave	A division of the frequency range into bands, the upper frequency limit of each band being twice the lower frequency limit.
ABL	Assessment Background Level (ABL) is defined in the NPI as a single figure background level for each assessment period (day, evening and night). It is the tenth percentile of the measured LA90 statistical noise levels.
Adverse Weather	Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter).
Ambient Noise	The noise associated with a given environment. Typically a composite of sounds from many sources located both near and far where no particular sound is dominant.
A Weighting	A standard weighting of the audible frequencies designed to reflect the response of the human ear to noise.
dBA	Noise is measured in units called decibels (dB). There are several scales for describing noise, the most common being the 'A-weighted' scale. This attempts to closely approximate the frequency response of the human ear.
dB(Z), dB(L)	Decibels Linear or decibels Z-weighted.
Hertz (Hz)	The measure of frequency of sound wave oscillations per second - 1 oscillation per second equals 1 hertz.
LA10	A noise level which is exceeded 10 % of the time. It is approximately equivalent to the average of maximum noise levels.
LA90	Commonly referred to as the background noise, this is the level exceeded 90 % of the time.
LAeq	The summation of noise over a selected period of time. It is the energy average noise from a source, and is the equivalent continuous sound pressure level over a given period.
LAm _{ax}	The maximum root mean squared (rms) sound pressure level received at the microphone during a measuring interval.
RBL	The Rating Background Level (RBL) is an overall single figure background level representing each assessment period over the whole monitoring period. The RBL is used to determine the intrusiveness criteria for noise assessment purposes and is the median of the ABL's.
Sound power level (LW)	This is a measure of the total power radiated by a source. The sound power of a source is a fundamental location of the source and is independent of the surrounding environment. Or a measure of the energy emitted from a source as sound and is given by : $= 10 \cdot \log_{10} (W/W_0)$ Where : W is the sound power in watts and W ₀ is the sound reference power at 10-12 watts.

Table A2 provides a list of common noise sources and their typical sound level.

Table A2 Common Noise Sources and Their Typical Sound Pressure Levels (SPL), dBA	
Source	Typical Sound Level
Threshold of pain	140
Jet engine	130
Hydraulic hammer	120
Chainsaw	110
Industrial workshop	100
Lawn-mower (operator position)	90
Heavy traffic (footpath)	80
Elevated speech	70
Typical conversation	60
Ambient suburban environment	40
Ambient rural environment	30
Bedroom (night with windows closed)	20
Threshold of hearing	0

Figure A1 – Human Perception of Sound



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Appendix B – Regulatory Noise Limits

Environment Protection Licence



Licence - 6535

Licence Details

Number:	6535
Anniversary Date:	12-March

Licensee

HB MAROOKA PTY LTD

PO BOX 1778

GOSFORD NSW 2250

Premises

HB MAROOKA PTY LTD

CNR ROBERTS & OLD NORTHERN ROADS

MAROOKA NSW 2756

Scheduled Activity

Crushing, Grinding or Separating

Extractive Activities

Fee Based Activity

	<u>Scale</u>
Crushing, grinding or separating	> 100000-500000 T processed
Land-based extractive activity	> 100000-500000 T extracted, processed or stored

Region

Metropolitan - Sydney Industry

Level 13, 10 Valentine Ave

PARRAMATTA NSW 2150

Phone: (02) 9995 5000

Fax: (02) 9995 6900

PO Box 668 PARRAMATTA

NSW 2124

Environment Protection Licence



Licence - 6535

P1 Location of monitoring/discharge points and areas

P1.1 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.

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 Noise limits

L2.1 Noise from the premises must not exceed the sound pressure level expressed as LA10 (15 minute) of 45 dB(A), except as expressly provided by this licence.

L2.2 Noise from the premises is to be measured or computed at any point within one metre of any residential boundary, or at any point within 30 metres of the dwelling where the dwelling is more than 30 metres from the boundary, to determine compliance with the noise level limits in Condition L2.1.

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 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

DETERMINATION OF A DEVELOPMENT APPLICATION UNDER SECTION 80(1) OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

I, the Minister for Urban Affairs and Planning, under Section 80(1) of the Environmental Planning and Assessment Act, 1979 (the Act), determine the Development Application referred to in Schedule 1 by granting consent to the Application, subject to the conditions set out in Schedule 2.

The reason for the imposition of conditions is to minimise any adverse environmental effects of the development, consistent with the objectives of the Act.

Andrew Refshauge MP
Minister for Urban Affairs and Planning

Sydney 2000 File No. S98/00772

SCHEDULE 1

Application made by: Dr L. S. Martin ("the Applicant").

To: The Minister for Urban Affairs and Planning ("the Minister").

In respect of: Lots 1 and 2 DP 228308, Lot 2 DP 312327, Roberts Road, Maroota, in the Baulkham Hills Local Government Area.

For the following: Extraction and on-site processing of sand, clay and pebble; construction of a bund wall.

Development Application: DA No. 267-11-99 lodged with the Department of Urban Affairs and Planning on 22 November 1999, accompanied by a Environmental Impact Statement prepared by Nexus Environmental Planning Pty Ltd. and dated November 1999.

Determination: 1) To ascertain the date upon which the consent becomes effective, refer to Section 83 of the Act.
2) To ascertain the date upon which the consent is liable to lapse, refer to Section 95 of the Act.
3) Section 97 of the Act confers on an applicant who is dissatisfied with the determination of a consent authority a right of appeal to the Land and Environment Court exercisable within 12 months after receipt of notice.

This instrument includes changes made by DA 267-11-99 Mod 1 in 29 November 2000 (marked red).

This instrument includes changes made by DA 267-11-99 Mod 3 in 18 August 2015 (marked blue).

This instrument includes changes made by DA 267-11-99 Mod 2 in 18 March 2016 (marked green).

44. The results of the Groundwater Monitoring Program shall be reported the Department and DPI-Water, using contour plans depicting the surface topography, updated contour maps of the wet weather high groundwater level of the regional aquifer and proposed depth of extraction for each extraction Phase. Reporting is to occur on a six monthly basis for the duration of extractive operations, and throughout rehabilitation of the site, unless otherwise agreed with the Secretary.

The Applicant shall implement the Groundwater Monitoring Program as approved from time to time by the Secretary.

Process Water Dam Design and Construction

45. The Applicant must ensure that the Process Water Dam is designed and constructed in a manner that satisfies the design and construction criteria for the Process Water Dam as developed under the Surface Water Management Plan (see condition 42(b) above).

NOISE

Noise Management Plan

46. The Applicant shall prepare a Noise Management Plan as part of the EMP.

The Noise Management Plan shall:

- (a) identify existing and potential noise sources and their relative contribution to noise impacts from the development;
- (b) specify appropriate intervals for noise monitoring to evaluate, assess and report noise emission levels due to construction and normal operations of the development under prevailing weather conditions;
- (c) outline the methodologies to be used, including justification for monitoring intervals, weather conditions, seasonal variations, selecting locations, periods and times of measurements, the design of any noise modelling or other studies, including the means for determining the noise levels emitted by the development;
- (d) specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they occur;
- (e) provide details of noise amelioration measures, including measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms) and reactive management responses for particular noise sources; and
- (f) contingency measures to be implemented should noise complaints be received.
- (g) provision for the notification of adjoining property owners of the commencement and duration of works adjoining the boundary;
- (h) construction of temporary noise shielding to residences affected by short-term noise impacts, including the bund recommended under Modification 2, and include an assessment of the effectiveness of this measure in reducing noise levels; and
- (i) include a noise reduction strategy for typical operations to ensure the noise levels from these operations do not exceed the noise criteria specified in Condition 47.

The Applicant shall implement the approved management plan as approved from time to time by the Secretary.

47. For typical operations, noise from the premises must not exceed:
- an $L_{Aeq,15 \text{ min}}$ noise emission criterion of 43 dB(A) (7am to 6pm) Monday to Saturday;
 - an $L_{Aeq,15 \text{ min}}$ noise emission criterion of 40 dB(A) (6am to 7am) Monday to Saturday; and
 - an $L_{A1,1 \text{ minute}}$ noise emission criterion of 50 dB(A) (6am to 7am) Monday to Saturday.

Noise generated by the development is to be measured in accordance with the relevant requirements of the *NSW Industrial Noise Policy* (as may be updated or replaced from time-to-time).

However, these criteria do not apply if the Applicant has an agreement with the owner/s of the relevant residence or land to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement."

- 47(a) The excavator to be used is to be fitted with acoustic mufflers to achieve a noise level of approximately 76dB(A) when measured at 7 metres.
- 47(b) The on-site generator is to be fitted with an acoustic enclosure to ensure that noise levels less than 44dB(A) at 30m are achieved.
- 47(c) A noise compliance investigation is to undertaken within one month of the installation of the equipment to demonstrate compliance with the noise level limits stated in Conditions 47(a) and 47(b). The results of the compliance investigation are to be provided for the approval of the Secretary within 14 days of the completion of the investigations.
- 47(d) The Applicant must ensure works associated with atypical operations, as described in Modification 2, only occur:
- (a) for a maximum of 24 days in a year, and only between 8 am to 5 pm on those days, Monday to Saturday;
 - (b) after an investigation of options for avoiding multiple atypical operations at any one time so as to limit noise levels at affected receptors, and the outcomes of this investigation are detailed in the Noise Management Plan; and
 - (c) at least 24 hours after notifying potentially affected receptors, with such notification to include information on the duration and extent of works, the likely noise to be experienced, and a contact telephone number.

TRAFFIC AND TRANSPORT

Road Noise Management Plan

48. The Applicant shall ensure that traffic noise from the development does not exceed (L Aeq(1 hr)) 55 dB(A) between 7 am and 10 pm and 50 dB(A) between 10 pm and 7 am at any affected residence under adverse weather conditions. Where ambient Leq levels already exceed these criteria, the Applicant shall ensure that traffic noise from the development does not result in an increase of more than 2 dB(A).

Note: Adverse weather conditions means in the presence of winds up to 3 metres per second and/or temperature inversions of up to 4 degrees Centigrade per 100 metres.

49. The Applicant shall prepare a Road Noise Management Plan as part of the EMP. The Plan shall document measures to be taken to meet the criteria, including a monitoring, reporting and response program; and methods for educating drivers in the reduction of road noise impacts.

The Applicant shall implement the approved management plan as approved from time to time by the Secretary.

Truck movements

50. The Applicant shall ensure that truck movements associated with the development do not exceed 100 movements per day (50 laden truck movements) or 20 (10 laden truck movements) movements per hour, during construction or operation.

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PO Box 262, Newcastle NSW 2300
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www.mulleracoustic.com



Appendix J Flora Monitoring Results

**ANNUAL
BIODIVERSITY
MONITORING
REPORT
2020**

Prepared for Hodgson Quarries and Plant Pty Ltd

November 2020 V.1



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Annual Biodiversity Monitoring Report 2020

**Hodgson Quarries and Plant Pty Ltd
Roberts Road Maroota NSW**

This assessment has been prepared by

South East Environmental

November 2020 V.1

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Abbreviations

Abbreviation	Description
BC Act	<i>Biodiversity Conservation Act 2016</i>
DPIE	Department of Planning, Industry and Environment
EEC	Endangered Ecological Community
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
HTW	High Threat Weed
KPI	Key Performance Indicators
KTP	Key Threatening Processes
LEP	Local Environmental Plan
NSW OEES	New South Wales Office of Environment, Energy and Science
OEMP	Operational Environmental Management Plan
ONR	Old Northern Road
PCT	Plant Community Type
SEPP	State Environmental Planning Policy
THSC	The Hills Shire Council
VIS	Vegetation Information System
WoNS	Weeds of National Significance

1 INTRODUCTION

This Annual Biodiversity Monitoring Report presents the findings of the annual monitoring of the biodiversity value within the Hodgson Quarries operation at Roberts Road Maroota.

1.1 BACKGROUND

Hodgson Quarries and Plant Pty Ltd operates a sand extraction and processing operation on a 28 hectare site including Lot 1 and 2 of DP228308 and Lot 2 of DP312327 Roberts Road Maroota. The quarry operates in compliance to Development Consent File No. S98/00772 issued by the Minister for Urban Affairs and Planning in 2000.

Several modifications have been made to the Development Consent, the most recent being approved in 2016. The most recent approval triggered a review of the Operational Environmental Management Plan (OEMP) which included the update of a Flora and Fauna Management Plan. A requirement of the Flora and Fauna Management Plan, as addressed in Schedule 2 Condition 55 of the consent, is to develop an ongoing monitoring program for existing vegetated areas to assess their floristic structure, diversity, resilience, robustness to disturbance and fauna species diversity.

1.2 OBJECTIVES

The objectives of this Annual Biodiversity Monitoring Report is to describe the current condition of the vegetation found throughout the site and to advise Hodgson Quarries on the appropriate management measures that should be implemented to meet the expectations of the Flora and Fauna Management Plan (2016) prepared by VGT Pty Ltd.

This report will:

- identify native flora and fauna species, populations and ecological communities known to or likely to occur within the site;
- describe the native vegetation and habitats within the site;
- describe the current condition of the threatened flora and its habitat found within the site;
- determine the legislative and conservation significance of species, populations and ecological communities known or likely to occur within the site with reference to the Commonwealth *EPBC Act 1999* and the *NSW BC Act 2016*;
- recommend appropriate biodiversity and environmental management measures that should be implemented to reach criteria for monitoring success set by the Flora and Fauna Management Plan for the Sand Quarry, Roberts Road Maroota, NSW (2016);
- provide an independent monitoring report for inclusion as part of the external reporting for the quarry Annual Review.

2 METHODOLOGY

2.1 SITE HISTORY

2.1.1 Agricultural use

Much of the undisturbed area on the Roberts Road quarry site is agricultural land which currently supports beef cattle. Approximately 9 hectares is currently in use for this purpose, with approximately 0.5 hectares currently under active rehabilitation within the agricultural land area as will be discussed further in this report.

The remaining vegetation within the agricultural land area has had ongoing disturbance over many years which has including timber removal, livestock grazing and fruit orchards. As a result, exotic weed species are prolific and at times dominate the landscape. Farm dams have been dug which once provided irrigation to the fruit orchards and now provide water to livestock and Sunrise Plant Nursery which is located in the north/west corner of the property. They also provide a water source for native and exotic species that occur in the immediate area.

2.1.2 Remnant native vegetation

An area immediately north of the entrance gate along Roberts Road contains remnant native vegetation which has been excluded from the sand extraction operational area. Although this area shows signs of past disturbance, it remains relatively intact and appears to be supporting a reasonable diversity of native flora and fauna given its small size of approximately 1 hectare.

The remnant native vegetation consists of a Sandstone Gully Forest type which was most likely once a moist open forest at the head of the catchment for Coopers Creek which extends further to the north. This vegetation type would have supported several species of canopy tree which were likely to have been harvested for fence post timber in the early European settlement era. Remaining canopy species are most likely regrowth from a clearing event in the early 1900's and provide ample protection for the lower stratum. Fencing to exclude livestock has improved the ability for native species, particularly the ground cover stratum, to flourish.

2.1.3 Threatened flora habitat

An area in the north eastern corner of the site contains a threatened flora species which has previously been identified and monitored. The area where this species has been located has had severe disturbance in the past from clearing, grazing and most recently the sand quarry operations.

The area immediately surrounding the threatened species consists of pushed up crushed sandstone material which has resulted in an extremely compacted ground surface. Native shrubs from the soil seed bank and surrounding areas are becoming established despite the harsh growing conditions. It is expected that over time without intervention this area will establish as an extension of the remnant native vegetation adjacent although the plant community type may remain different indefinitely due to the change in surface geology.

2.2 FIELD SURVEY

Botanical surveys of the study area were conducted during November 2020. The survey consisted of a random meander throughout the areas of the property not in current use by quarry operations.

A targeted threatened flora survey was undertaken to locate *Acacia bynoeana* onsite. All flora species recorded are listed in Appendix A of this report.

Opportunistic sightings were also undertaken for indirect evidence of native fauna, including scratches, scats, nests, hollows in use, camps, roosts, den sites etc. Opportunistic sightings of all fauna species were recorded throughout the survey period.

No previous records of threatened fauna have been located onsite therefore no targeted threatened fauna survey was undertaken for this report.

2.3 CRITERIA TO MONITOR SUCCESS

VGT Pty Ltd 2016 have outlined the Key Performance Indicators (KPI) to measure success of the biodiversity and rehabilitation effort of the flora and fauna management within the Roberts Road quarry site. The following tables depict the performance and completion criteria for the site.

Table 1. Performance and completion criteria for Roberts Road quarry (taken from VGT Pty Ltd 2016)

<i>Performance Criteria being monitored</i>	
<i>Native Vegetation monitoring</i>	Demonstrated use of native plant species naturally occurring in the Maroota area used in all progressive revegetated and rehabilitated areas.
	Low mortality of plants used in progressive revegetation with 75% becoming established 3 years after planting.
	Installation of high durability fencing, with low maintenance requirements and suitable for excluding cattle and other livestock, to be installed prior to the completion of revegetation work areas.
	Fencing surrounding revegetated and rehabilitated areas are maintained in working condition.
	Installation of fencing along the southern fence line and to the north of the site entrance completed during dewatering of the fines ponds and prior to the construction of the new access track.
	Vegetation is retained.
	Low evidence of native vegetation disturbance surrounding the bund walls at the corner of Old Northern Road and Roberts Road.
<i>Fauna Monitoring</i>	Weeds, pests and feral animals are to be controlled.
	Weeds, pests and feral animals are to be controlled.
	Connectivity between current and future rehabilitated areas are established adjacent to existing and future areas of vegetation. Patches are not to be separated by more than 10 metres.
	Evidence of varying sized rocks between 20mm and greater than 200mm spread over rehabilitated areas.
	Evidence of logs and other fallen timber spread over rehabilitated areas.
	Ground dwelling fauna species of similar diversity to adjacent areas of similar habitat.
	On completion of the rehabilitation, a suitably qualified ecologist has determined the requirement on whether nest boxes are required. If nest boxed required to be installed a nest box management plan has been prepared.

2.4 SURVEY LIMITATIONS

The survey was conducted within a short timeframe during spring. Therefore some plant species may not have been identified due to the survey being performed when not in flower, or when dormant. It is noted that some flora species are seasonal, and may not have been visible at the time of the surveys.

The survey limitations have been addressed through:

- consideration of flora and fauna species known to occur in the locality (including number of records from BioNet);
- consideration of habitat suitability present within the study areas and connectivity to other areas of habitat in the local landscape;
- consideration of past and current weather conditions;
- A conservative approach in assuming the presence of a species that could potentially be present in the study areas.

Where the study area contains potential habitat for threatened fauna species known to occur in the locality, and where survey areas support a likelihood of occurrence, it has been assumed on a conservative approach that such species may occur in the study area.

3 RESULTS

Results from the field surveys conducted over November 2020 have been separated into three distinct areas to enable quantification of condition for each specific location and its monitoring objectives.

3.1 REMNANT NATIVE VEGETATION

The remnant native vegetation is a disturbed patch of native dominant species located in the north eastern corner of the property. The condition of the remnant area can be further divided into two separate areas as determined by disturbance level and the current soil profile available for flora species.

3.1.1 Immediately north of Roberts Road site entry gate

The remnant native vegetation within this area has a mature canopy of Eucalyptus and Angophora species. Lower strata are present including midstorey canopy, shrubs and ground cover. The exclusion of livestock grazing within this area has resulted in an increase of native ground cover species which over time will contribute to a much richer biodiversity value.

Biodiversity functional attributes such as size class of canopy species, litter cover, fallen timber and natural regeneration of species occurring is present within the area. Such attributes are likely to increase over time providing disturbance remains excluded within the area.



Figure 1. Remnant vegetation located immediately north of Roberts Road site entry gate.

3.1.2 North eastern corner

The remnant vegetation within the area of the far north eastern corner of the site has undergone past disturbance which has left the canopy broken. Eucalyptus and Angophora species are recovering throughout much of the area however the mature specimens are spaced apart providing little in canopy protection to the stratum below. The shrub stratum in this area is dominant and in some areas almost impenetrable. In other areas the shrub stratum is sparse and bare ground occurs.

Leaf litter is abundant throughout most of this area however fallen timber and size class of canopy species is limited.



Figure 2. Remnant vegetation located in the north eastern corner of the site.

3.2 AGRICULTURAL LAND

3.2.1 Roberts Road Boundary

Exotic grasses dominate the agricultural land along Roberts Road. Some native species are present, particularly along the large bund wall which provides protection from the hot westerly sun, including Three-awned Speargrass *Aristida vagans*, Slender Rat's Tail Grass *Sporobolus creber* and Weeping Grass *Microlaena stipoides*. Agricultural weeds occur within the area although they are not considered to be dominant within the landscape. One Weed of National Significance (WoNS) was identified, Fireweed *Senecio madagascariensis*.

The native species which have been planted on a bund wall bordering Roberts Road and Old Northern Road are growing well thanks to the return of regular rainfall. Many of these species have reached reproductive maturity and have had a strong flowering season this year.



Figure 3. Bund wall adjacent to Roberts Road.

3.2.2 Old Northern Road Boundary

This area of agricultural land is dominated by exotic grass species suitable for livestock grazing. Some agricultural weed species occur although they do not dominate the landscape. A WoNS species, Fireweed *Senecio madagascariensis*, was observed in low density within this area. The Common Eastern Toadlet *Crinia signifera* was heard calling from the large dam adjacent to Old Northern Road along the western boundary.



Figure 4. Agricultural land with grassed bund wall adjacent to Old Northern Road

3.2.3 North western corner

A plant nursery is established in the far north western corner of the site. The nursery makes use of water in the farm dams located on site. The agricultural land directly to the east of the nursery site is dominated by exotic grass species suitable for livestock grazing. One WoNS was identified to occur in this location, Fireweed *Senecio madagascariensis*.



Figure 5. Agricultural land along Old Northern Road in the west/south west of the site

3.3 PLANTED NATIVE VEGETATION

3.3.1 North of Roberts Road entrance gate

Bottlebrush *Callistemon* species have been planted along the eastern boundary of the property adjacent to the existing native vegetation. These shrubs are well established and provide a screen to Roberts Road. The shrubs provide habitat for small birds and food resources for a range of mammals, birds and invertebrate.



Figure 6. Bund wall immediately north of Roberts Road site entrance

3.3.2 Old Northern Road

The southeastern corner and southern boundary of the site has small bund walls with planted native trees and shrubs. The trees along Old Northern Road have required pruning due to their close proximity to electrical power lines. As a result some of the trees have perished. The remaining plants appear to have flourished with the return of rainfall in recent months. The bund walls have good coverage of native vegetation with reproduction maturity demonstrated by most species during this monitoring period.



Figure 7. Planted native vegetation along Old Northern Road

3.3.3 Northern Boundary

A variety of Bottlebrush *Callistemon* species have been planted in two locations along the northern boundary of the property. Exclusion fencing has been undertaken and success to date appears to be high. There were two WoNS species present along the fence line of the neighboring property, *Lantana camara* and Blackberry *Rubus fruticosus sp. aggregate*.



Figure 8. Planted native vegetation along northern property boundary

3.4 THREATENED FLORA

A single threatened flora species was previously identified within the property boundary. During the site survey in November 2020 two *Acacia bynoeana* individuals were located and identified onsite within the verge of the remnant native vegetation area and the sand quarry operational area. Both plants were approximately 20mm high, 300mm in diameter with multi-stems which were all healthy and had ample foliage. There were some flowers still present on each plant with maturing seed pods indicating the plant has reached reproductive maturity. These plants appear to be new recruits. The plant identified last year could not be located suggesting it may have perished in the ongoing dry conditions from 2017-2020. The two new plants located are within a similar area to the previously identified individual where livestock have been excluded from the area by electric fencing.

NSW OEEES plant profile describe the habitat for the *Acacia bynoeana* as:

- Occurs in heath or dry sclerophyll forest on sandy soils;
- Seems to prefer open, sometimes slightly disturbed sites such as trail margins, edges of roadside spoil mounds and in recently burnt patches; and
- Associated overstorey species include Red Bloodwood, Scribbly Gum, Parramatta Red Gum, Saw Banksia and Narrow-leaved Apple.

The location in which these plants occurs is a spoil mound pushed up from the silt pond adjacent. There is no canopy nearby which can be associated with the habitat.

No other threatened flora species were identified onsite.



Figure 9. *Acacia bynoeana* identified and located onsite



Figure 10. *Acacia bynoeana* identified and located onsite

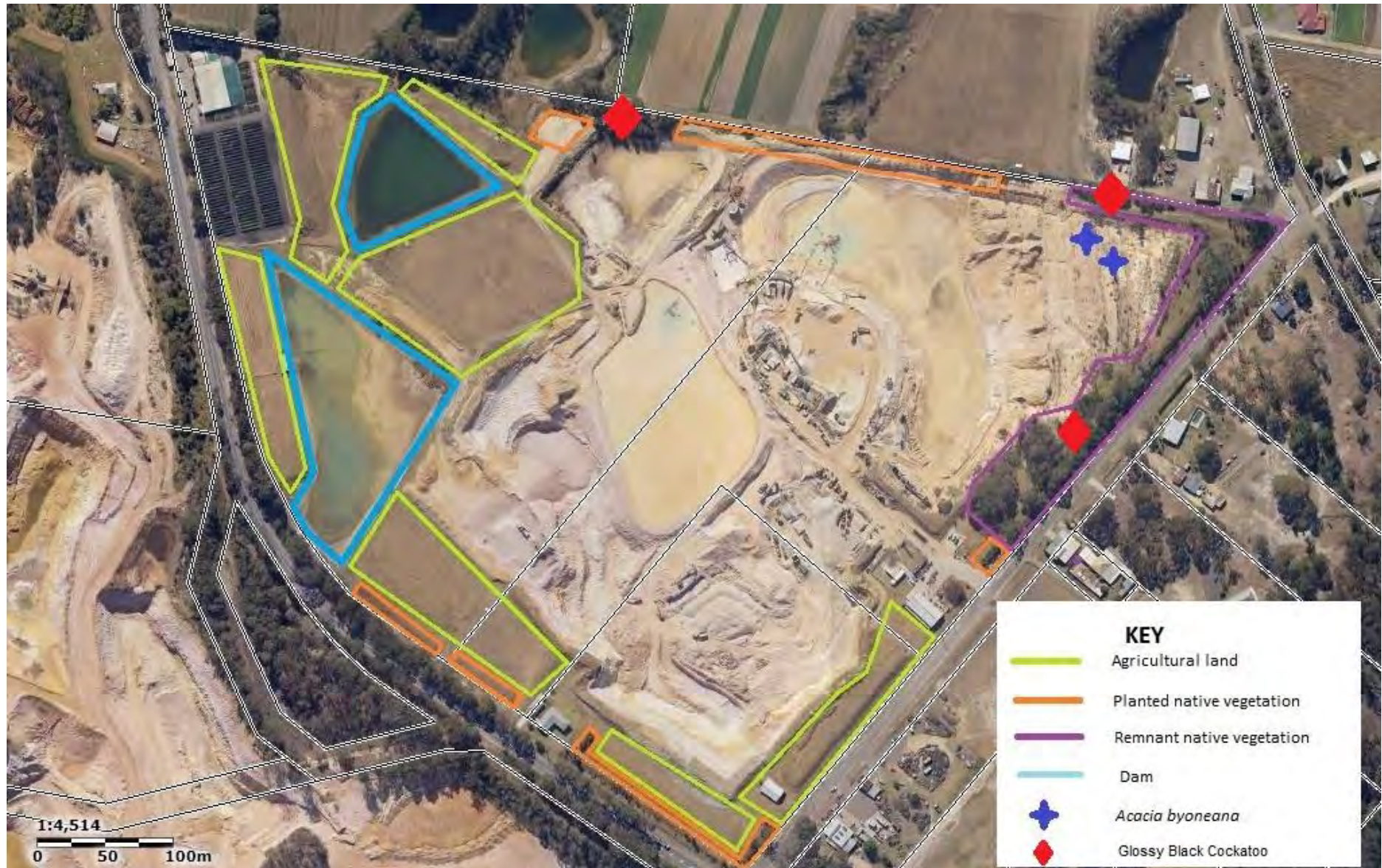


Figure 10. Location of vegetation zones within the Hodgson Quarries Roberts Road site

3.5 NATIVE FAUNA

There was no dedicated native fauna survey undertaken for this report. No threatened fauna species have been previously identified within the property and limited resources would suggest there is a low possibility of threatened fauna species residing within the property boundary.

During the botanical survey in November 2020 opportunistic sightings of native fauna were recorded. In total sixteen native species were recorded onsite. One threatened fauna species was identified onsite being the Glossy Black Cockatoo. These birds, six in total, were observed feeding in the *Allocasuarina littoralis* located on the northern boundary and within the remnant native vegetation. A complete list of fauna observed during the monitoring period can be found in Appendix C.

Overall the condition of habitat for native fauna species within the property is considered to be low in its current state. The remnant native vegetation areas currently have the most habitat value to support a range of native fauna species however this area is small and not likely to be large enough to support any viable population. Connectivity to native vegetation in all directions is broken due to road easements or surrounding agricultural land use.



Figure 11. Glossy Black Cockatoo within the *Allocasuarina littoralis* on the northern boundary

4 DISCUSSION AND RECOMMENDATIONS

This is the third Annual Biodiversity Monitoring Report produced for Hodgson Quarries Roberts Road Maroota. Rehabilitation work is in the early stages and will increase with both intensity and measurable criteria in the years that follow, particularly as the quarry operations come to an end.

The site does appear to be recovering from the dry weather conditions which persisted from mid 2017 and into early 2020. Evidence of some die back, particularly of large shrubs is still apparent although juvenile growth is reasonably prolific. Forbs and ferns which were not well represented in the previous monitoring period are now present. Native grasses are making a strong comeback in the native vegetation areas, particularly along Roberts Road. It is expected with the return to average weather conditions the ground stratum will demonstrate the biggest increase in density and diversity over time.

It would appear that some natural native regeneration from the soil seed bank is occurring throughout much of the remnant native vegetation areas. Fencing to exclude livestock has occurred which has most likely assisted in the ability for natural regeneration to occur undisturbed. Fencing has also taken place in planted areas along the northern property boundary where planting success is high.

Weeds are present throughout the property with WoNS occurring in low density within the agricultural areas and in higher density within the planted native vegetation along the northern boundary. High Threat Weeds (HTW), as determined by the DPIE BAM Calculator, are also present although most of these weeds can be found within the agricultural land area. It is highly recommended these weeds are managed to maintain control of their growth and spread. Regular sweeps for Fireweed is recommended throughout the year to minimise the further spread and density of this weed throughout the property. Recommended weed control methods suitable for use throughout the year is supplied in Appendix D.

There is an intention to undertake some infill native planting over time on the bund wall along the southern end of Roberts Road and the eastern bund wall facing Old Northern Road. Due to overhead powerlines in the immediate area, low growing native shrub species suitable for planting in these locations is highly recommended.

Overall the rehabilitation and biodiversity of the site is within the expectations of the life of the quarry. Regular weed management would benefit the site, particularly the WoNS.

5 LIMITATIONS AND ASSUMPTIONS

This study was limited by the timing and frequency of the survey. There may be flora and/or fauna species present at the site that were not recorded due to their seasonal, territorial or cryptic nature.

It can never be proven that threatened species have not, do not or will not use the site as habitat. The conclusions drawn in this report are a result of testing, observation and experience.

This report describes the habitat and vegetation of the site at the time of the field survey. Vegetation and habitat will change over time and therefore the findings of this report are only relevant for the current proposal and for the duration of the application.

6 QUALIFICATIONS AND EXPERIENCE OF THE AUTHOR AND FIELD ECOLOGIST

The Author and Field Ecologist, Melissa Mass, has formal qualifications including a Bachelor of Applied Science (B. App. Sc.), majoring in Ecology, and a Certificate 3 in Horticulture. Her current Scientific Licence number issued from the NSW OEH is SL101441 with expiry date 31st Oct 2021. Furthermore an Animal Research Authority issued by the NSW Animal Care and Ethics Committee is current to undertake general survey work throughout NSW with expiry date 23rd Mar 2021. Melissa is an accredited Biodiversity Assessor conforming to the requirements as imposed by DPIE with Accreditation number being BAAS18053.

Melissa has been working as an Ecologist for 12 years. Her work has included targeted threatened species assessment and management, reviews of environmental factors, bush regeneration, environmental impact assessments, and environmental survey and monitoring.

Melissa has a strong focus on threatened species ecology and has actively contributed to the Long-nosed Potoroo National Recovery Plan.

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8 APPENDIX

Appendix A – Native Flora identified and recorded as present onsite November 2020

Scientific Name	Common Name	Status
<i>Acacia bynoeana</i>	Bynoe's Wattle	BC Act – Endangered EPBC Act – Vulnerable
<i>Acacia linifolia</i>	White Wattle	
<i>Acacia myrtifolia</i>	Red-stemmed Wattle	
<i>Acacia parramattensis</i>	Parramatta Wattle	
<i>Acacia suaveolens</i>	Sweet Wattle	
<i>Acacia ulicifolia</i>	Prickly Moses	
<i>Allocasuarina littoralis</i>	Black She-oak	
<i>Allocasuarina paludosa</i>	Swamp She-oak	
<i>Allocasuarina torulosa</i>	Forest Oak	
<i>Amyema congener</i>	Variable Mistletoe	
<i>Angophora bakeri</i>	Narrow Leaved Apple	
<i>Angophora costata</i>	Smooth Barked Apple	
<i>Anisopogon avenaceus</i>	Oat Speargrass	
<i>Aristida vagans</i>	Three-awn Speargrass	
<i>Aristida warburgii</i>	Fine leafed wire grass	
<i>Blechnum cartilagineum</i>	Gristle Fern	
<i>Bossiaea heterophylla</i>	Variable Bossiaea	
<i>Breynia oblongifolia</i>	Coffee Bush	
<i>Callistemon citrinus</i>	Crimson Bottlebrush	
<i>Cassytha pubescens</i>	Devils Twine	
<i>Cheilanthes sieberi</i>	Mulga Fern	
<i>Clematis aristata</i>	Old Mans Beard	
<i>Cyathea australis</i>	Rough Tree Fern	
<i>Daviesia ulicifolia</i>	Gorse Bitter Pea	
<i>Dianella caerulea</i>	Blue Flax-lily	
<i>Dichelachne micrantha</i>	Shorthair Plumegrass	
<i>Dodonaea triquetra</i>	Large Leaf Hop Bush	
<i>Drosera auriculata</i>	Sundew	
<i>Echinopogon ovatus</i>	Forest Hedgehog Grass	
<i>Einadia hastata</i>	Berry Saltbush	
<i>Entolasia marginata</i>	Bordered Panic	
<i>Eucalyptus acmenoides</i>	White Mahogany	
<i>Eucalyptus eugeniodides</i>	Thin Leaved Stringybark	
<i>Eucalyptus haemastoma</i>	Scribbly Gum	
<i>Eucalyptus notabilis</i>	Mountain Mahogany	
<i>Eucalyptus tereticornis</i>	Forest Red Gum	
<i>Eucalyptus umbra</i>	Broad-leaved White Mahogany	
<i>Euchiton sphaericus</i>	Star Cudweed	
<i>Geranium homeanum</i>	Cranesbill	
<i>Gleichenia dicarpa</i>	Pouched Coral Fern	
<i>Glycine clandestina</i>	Twining Glycine	
<i>Grevillea buxifolia</i>	Grey Spider Flower	

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<i>Grevillea speciosa</i>	Red Spider Flower	
<i>Hakea sericea</i>	Needlebush	
<i>Hardenbergia violacea</i>	False Sarsaparilla	
<i>Juncus usitatus</i>	Common Rush	
<i>Kunzea ambigua</i>	Tick Bush	
<i>Leptospermum polygalifolium</i>	Tantoon	
<i>Lindsaea microphylla</i>	Lacy Wedge Fern	
<i>Lomandra longifolia</i>	Spiny head Mat-rush	
<i>Lomandra multiflora</i>	Many-flowered Mat-rush	
<i>Microlaena stipoides</i>	Weeping grass	
<i>Notelaea longifolia</i>	Large Mock Olive	
<i>Oxalis perennans</i>	Native Sorrel	
<i>Ozothamnus diosmifolius</i>	Rice Flower	
<i>Parsonsia straminea</i>	Common Silkpod	
<i>Persoonia lanceolate</i>	Lance Leaf Geebung	
<i>Petrophile pulchella</i>	Conesticks	
<i>Phyllota phyllicoides</i>	Heath Phyllota	
<i>Pittosporum undulatum</i>	Sweet pittosporum	
<i>Pratia purpurascens</i>	White Root	
<i>Pteridium esculentum</i>	Bracken Fern	
<i>Senecio linearifolius</i>	Fireweed Groundsel	
<i>Sporobolus creber</i>	Slender Rat's Tail Grass	
<i>Syncarpia glomulifera</i>	Turpentine	
<i>Themeda triandra</i>	Kangaroo Grass	
<i>Viola hederacea</i>	Ivy Leaved Violet	
<i>Xanthorrhoea media</i>	Grass Tree	

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Appendix B – Exotic flora identified and recorded as present onsite November 2020

Scientific Name	Common Name	Status
<i>Agapanthus spp.</i>	Agapantha	
<i>Ageratina adenophora</i>	Crofton Weed	High Threat Weed (HTW)
<i>Anagallis arvensis</i>	Red Pimpernel	
<i>Andropogon virginicus</i>	Whisky Grass	HTW
<i>Bidens pilosa</i>	Cobblers pegs	HTW
<i>Briza minor</i>	Shivery Grass	
<i>Chloris gayana</i>	Rhodes Grass	HTW
<i>Cirsium vulgare</i>	Spear Thistle	
<i>Conyza bonariensis</i>	Flax-leaf fleabane	
<i>Cynodon dactylon</i>	Couch Grass	
<i>Eragrostis curvula</i>	African Lovegrass	HTW
<i>Gnaphalium coarctatum</i>	Cudweed	
<i>Hypochaeris radicata</i>	Catsear	
<i>Lantana camara</i>	Lantana	WoNS, HTW
<i>Oxalis corniculata</i>	Creeping Woodsorrel	
<i>Paspalum dilatatum</i>	Paspalum	HTW
<i>Paspalum urvillei</i>	Vasey's Grass	
<i>Pennisetum clandestinum</i>	Kikuyu Grass	
<i>Phytolacca octandra</i>	Inkweed	
<i>Plantago lanceolata</i>	Lambs Tongues	
<i>Rubus fruticosus sp. agg.</i>	Blackberry	WoNS, HTW
<i>Senecio madagascariensis</i>	Fireweed	WoNS, HTW
<i>Setaria parviflora</i>	Slender Pigeon Grass	
<i>Sida rhombifolia</i>	Paddy's Lucerne	
<i>Solanum mauritianum</i>	Wild Tobacco Bush	
<i>Solanum nigrum</i>	Black Nightshade	
<i>Solanum sisymbriifolium</i>	Sticky Nightshade	
<i>Sonchus oleraceus</i>	Common Sow Thistle	
<i>Trifolium repens</i>	White Clover	
<i>Verbena bonariensis</i>	Purpletop	
<i>Vicia sativa</i>	Common Vetch	

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Appendix C – Fauna identified and recorded as present onsite July 2019

Scientific Name	Common Name	Observation Type
Bird		
<i>Anthochaera chrysoptera</i>	Little Wattlebird	Observed
<i>Colluricincla harmonica</i>	Grey Shrike-thrush	Observed
<i>Calyptorhynchus lathamii</i>	Glossy Black Cockatoo	Observed
<i>Cracticus tibicen</i>	Australian Magpie	Observed
<i>Dacelo novaeguineae</i>	Laughing Kookaburra	Observed
<i>Eopsaltria australis</i>	Eastern Yellow Robin	Observed
<i>Malurus cyaneus</i>	Superb Fairy Wren	Observed
* <i>Manorina melanocephala</i>	Noisy Minor	Observed
<i>Sericornis frontalis</i>	White-browed scrubwren	Observed
<i>Vanellus miles</i>	Masked Lapwing	Observed
Mammal		
* <i>Oryctolagus cuniculus</i>	European Rabbit	Scat and digs
<i>Trichosurus vulpecula</i>	Brush-tailed Possum	Scat
* <i>Vulpes vulpes</i>	European Red Fox	Scat
<i>Wallabia bicolor</i>	Swamp Wallaby	Scat
Reptile		
<i>Chelodina longicollis</i>	Snake-necked Turtle	Observed
<i>Ctenotus taeniolatus</i>	Copper-tailed Skink	Observed
<i>Lampropholis guichenoti</i>	Common Skink	Observed
Amphibian		
<i>Crinia signifera</i>	Common Eastern Toadlet	Heard call

*Pest species

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Appendix D – Recommended weed control for each month of the year (WoNS and HTW only)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
African Lovegrass	Herbicide	Herbicide	Slashing	Slashing	Slashing				Herbicide	Herbicide	Herbicide	Herbicide
Blackberry	Herbicide	Herbicide	Herbicide						Herbicide	Herbicide	Herbicide	Herbicide
Cobblers Pegs	Hand removal	Hand removal	Hand removal	Hand removal					Herbicide	Herbicide	Herbicide	Hand removal
Crofton Weed	Slashing	Herbicide	Herbicide	Herbicide	Herbicide				Slashing	Slashing	Slashing	Slashing
Fireweed	Hand removal	Hand removal	Hand removal	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Hand removal	Hand removal	Hand removal
Lantana	Herbicide	Herbicide	Herbicide	Herbicide	Herbicide				Herbicide	Herbicide	Herbicide	Herbicide
Paspalum	Slashing	Slashing	Slashing	Herbicide	Herbicide	Herbicide			Slashing	Slashing	Slashing	Slashing
Rhodes Grass	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing	Slashing
Whiskey Grass	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Hand removal	Herbicide	Herbicide	Herbicide	Hand removal

Herbicide – Foliar spray with an appropriate product as per the instructions on the label. Foliar spray should be carried out during active growing season.

Slashing - Slashing within agricultural land areas only. Slashing is only effective if the targeted species has not yet reached flowering maturity.

Hand removal – Necessary when targeted species have reached flowering maturity. Entire plant can be removed or flowering heads may be cut. Removed material should be immediately bagged to prevent spread of seed and appropriately disposed of.

Herbicide* – Treatment via either cut and paint or drill and inject methods.

This table should be considered a guide for appropriate treatment during different months of the year. It does not indicate a specified work schedule.

Appendix K

Induction Checklist

Hodgson Quarries & Plant Pty Ltd

S.M.S Index

1. Work Health & Safety Policies
2. Responsibilities and Accountabilities
3. Emergency Response Procedure
4. Consultation and Communication
5. Fitness for Work
6. Work Environment
7. Risk Assessment / Management
8. Hazard Reporting
9. Workplace Inspections
10. Safe Work Procedures (SWP)
11. Job Safety Analysis
12. Training and Development
13. Accident / Incident Reporting
14. Contractor Management
15. Document Control
16. Principle Hazard Management Plans
17. Health Control Plan / Health Monitoring Form
18. Environmental Policy
19. Environmental Induction Checklist
20. Vehicle Maintenance Records
21. Principle Hazard Management Plan & Airbourne Contaminants

I _____ of _____ acknowledge the SMS of Hodgson Quarries & Plant Pty Ltd and will work within those perimeters at all times

_____ Dated _____

Hodgson Quarries & Plant Pty Ltd

Workplace Environmental Check List

Date: _____ Inspected by: _____

Please circle the appropriate to indicate compliance or noncompliance.

Workshop Bulk Oils

Are all drums sealed and in good condition	Yes	No
Are all drums clear of residue oil	Yes	No
Are all floor surfaces clear of oil spills or residue	Yes	No
Are disused drums drained and stored safely	Yes	No
Is the area cleared of rubbish / oily rags	Yes	No
Is there oil sorb available for spills	Yes	No
Are all transfer hoses and pumps in good working order	Yes	No
Are all drums clearly marked or labelled	Yes	No

Comments: _____

Chemical Storage Bay

Is the storage bay in good order with no leaks or damage	Yes	No
Are all the drums sealed and in good condition	Yes	No
Are all drums clear of chemical residue	Yes	No
Are all drums clearly marked or labelled	Yes	No

Comments: _____

Waste Oil Bay

Inspected and clear of any leaks	Yes	No
Is the area clear of any spills or oil residue	Yes	No
Are storage containers (IBC's) in good condition and free of leaks	Yes	No
Are waste containers stored in an appropriate manner	Yes	No
Are suitable containers available for collecting waste oil	Yes	No
Is the area clear of oily rags or other rubbish	Yes	No

Comments: _____

Hodgson Quarries & Plant Pty Ltd

Container Oil Storage

Are all drums sealed and in good condition	Yes	No
Are all drums clear of oil residue	Yes	No
Are all floor surfaces clear of oil spills or residue	Yes	No
Are the bund drums in good order and clear of oil residue	Yes	No
Are all drums stored in the bund drums	Yes	No
Is the oil clear of rubbish / oily rags	Yes	No
Is there oil sorb available for oil spills	Yes	No
Are all transfer hoses and pumps in good working order	Yes	No
Are all drums clearly marked or labelled	Yes	No

Comments: _____

Diesel Storage Area

Tanks inspected and clear of any leaks	Yes	No
Bund area inspected and clear of any leaks or damage	Yes	No
Are there any evidence of leaks or spills in the area	Yes	No
Is the bowser hose and pump in good order	Yes	No

Comments: _____

General Site Inspection

Are there any visible oil or grease stains on site	Yes	No
Are there any oil, chemical, grease drums or cartridges littering site	Yes	No
Are there any oily or greasy rags littering site	Yes	No
Are all oil, chemical, grease drums or cartridges stowed correctly	Yes	No
Are machine leaks been captured by waste oil drums	Yes	No
Is there any significant erosion that needs attention / repair	Yes	No

Comments: _____

Hodgson Quarries & Plant Pty Ltd

Consultation and Communication

1.0 Purpose

The purpose of this document is to ensure good communication on health and safety throughout the workplace.

2.0 SCOPE

To ensure all employees have the opportunity to have input into health and safety matters through the use of toolbox meetings.

3.0 DEFINITIONS

Consultation seek information or advice from another person taking into account their feelings, interests and expertise

Communication process of passing on information in a variety of ways so that the receiver understands the same message as the transmitter intended to give.

Information	Who's to Receive	When	How	Sent By
Safety Alerts	All	As Received	Notice boards, internal mail	Manager
Safety statistics	Committee, All	Monthly	Notice board, reports	Manager
Current incidents	All	As occurs	Tool box meetings	Manager, Team Leader
Updates to legislation	Supervisors, Committee	As occurs	Committee meetings, reports	Manager
Health and Safety information	All	At least monthly	Notice boards, toolbox meetings	All to contribute
Changes to Safety Management System	All	As occurs	Toolbox meetings, notice boards MSMP manual	Manager, Team Leader

Hodgson Quarries & Plant Pty Ltd
CONSULTATION AND COMMUNICATION

Author: Stuart Reed

Approved by: Martin Hodgson

DATE OF ISSUE: 10/11/17

ISSUE NUMBER: 3.0

PAGE NUMBER: 1 of 2

Hodgson Quarries & Plant Pty Ltd

Toolbox Meeting Minutes

Participants:	Date:	Time:	
	Supervisor:		
	Issues Discussed:		
	Key Points Arising:		
Points Requiring Follow Up:	Who:	When:	

Hodgson Quarries & Plant Pty Ltd

Covid 19 Declaration / Induction Form

Hodgson Quarries & Plant Pty Ltd is taking a highly precautionary approach to manage the spread of Covid 19, which is in line with the latest national and local health advice.

As part of the approach, we are restricting visitors to our site where the purpose of the visit is not considered essential for the ongoing operation of the quarry.

If your visit is considered essential we asked you to confirm the following before you can enter the quarry.

- That you have not travelled overseas or interstate in the last 14 days.
- That you are not showing signs and symptoms of Covid 19, (fever, flu like symptoms, such as coughing, sore throat or headaches, or having difficulty breathing.
- That you have not to the best your knowledge travelled to a hot spot.
- That you have not had close or casual contact with a person who has been confirmed with Covid 19 and,
- That you will follow Hodgson Quarries Principle Hazard Management Plan (Covid 19) and the subsequently Risk Assessment (Covid 19).

We ask you to read and understand these documents before entering site.
I have read and fully understand my obligation whilst on site.

I _____ of _____
Name Company

Signature Date Mobile Number

Hodgson Quarries & Plant Pty Ltd	
COVID 19 DECLARATION / INDUCTION FORM	
Author: Stuart Reed	
Approved by: Martin Hodgson	
DATE OF ISSUE: 14/08/20	ISSUE NUMBER: 1.0
PAGE NUMBER: 1 of 1	

Appendix L

Correspondence

From: no-reply@majorprojects.planning.nsw.gov.au
To: [Submissions](#)
Cc: [Submissions](#)
Subject: Roberts Road Quarry - Post Approval Document Received - (DA267-11-99-PA-1)
Date: Friday, 27 March 2020 3:38:00 PM
Attachments: [..datacontent\ImaqerteImagesNew DPIE Logo1561956956365.png](#)

Dear Lisa ,

Thank-you, your post approval document in relation to the Roberts Road Quarry has been received by the Department. Details of this document are below.

Date Lodged

27/03/2020

Document Name

Annual Review & Compliance Report 2019

Description of Document

Please find attached the Annual Review and Compliance Report for 2019 for Roberts Rd Maroota Sand Quarry DA267-11-99. This report has been sent via a the Major Projects Portal in compliance of condition numbers 6 and 66. If you have any issues regarding this report please contact Lisa Thomson (02 4028 6412, lisa@vgt.com.au).

Applicable Conditions

Schedule	Condition
2	6
2	66

To sign in to your account click [here](#) or visit the [Major Projects Website](#).

Please do not reply to this email.

Kind regards

Department of Planning, Industry and Environment



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From: [Submissions](#)
To: [Hala Fua](#); [Submissions](#)
Cc: [hodgsonquarries](#)
Subject: RE: Roberts Road Quarry - Independent Environmental Audit
Date: Thursday, 24 September 2020 1:49:00 PM
Attachments: [image006.png](#)
[Roberts Road Quarry - Post Approval Document Received - \(DA267-11-99-PA-4\).msg](#)
[Request for auditor approval 2020.pdf](#)

Dear Hala Fula,

The Auditor Declaration was included with the request for approval of the audit team uploaded to the portal on 15th May 2020.

It is included again now for convenience.

Apologies for the delay in beginning the audit – there were issues finding an available auditor due to the Covid-19 pandemic. Apologies for not including this fact in the approval request.

Regards,
Lisa Thomson
BAppSc, CChem

Phone: (02) 4028 6412 | Mobile: 0427 334471
www.vgt.com.au



From: Hala Fua <Hala.Fua@planning.nsw.gov.au>
Sent: Tuesday, 22 September 2020 12:39 PM
To: Submissions <Submissions@vgt.com.au>
Cc: hodgsonquarries <hodgsonquarries@gmail.com>
Subject: RE: Roberts Road Quarry - Independent Environmental Audit

Dear relevant person,

I refer to Independent Environmental Audit (IEA) dated 5 August 2020 prepared by RPS Australia East Pty Ltd (reference 147039-2) in accordance with Condition 70 to Schedule 2 of Development Consent no. DA 267-11-99 as modified (Consent), which authorises the extraction and on-site processing of sand, clay and pebble at the Roberts Road Maroota Sand Quarry situated at 28 Roberts Road, Maroota NSW.

Condition 70 relevantly states:

Every 3 years from the date of this consent and at the completion of works under this consent, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This audit must:
(a) be conducted by a suitably qualified, experienced and independent team of experts whose

- appointment has been endorsed by the Secretary;*
- (b) include consultation with the relevant agencies;*
- (c) assess the environmental performance of the development and assess whether it is complying with the requirements in this Consent and any relevant EPL (including any assessment, plan or program required under these approvals);*
- (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals; and*
- (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.*

My adequacy review of the IEA against the reporting requirement of Condition 70 is now complete, and it revealed that the audit was carried out late. Condition 70 requires an IEA every 3 years. This IEA audited the period between 18 March 2016 and 4 June 2020 inclusive. The Department considers that 18 March 2020 likely represents the expiry date of the statutory 3 year audit period, and given the reporting timeframe ended on 4 June 2020, this IEA is about 10 weeks late. Therefore, please ensure all future IEA's are carried out within the statutory timeframe of 3 years. Should a similar non-compliance occur in future, you are warned that the Department may take enforcement action in accordance with our Compliance Policy. Other than that, the IEA generally satisfies the reporting requirements of Condition 70.

My adequacy review of the IEA against the Independent Audit Post Approval Requirements (Department 2018) (PAR 18) is also complete, and it revealed that an independent audit declaration for auditor Mr. Shaun Smith was not provided as per Section 3.1.2 & 4.4 of PAR 18. The IEA states that Mr. Smith undertook the background document review, site inspection, audit report preparation, and project coordination. In this regard, it is appropriate that Mr. Smith provided a declaration. I note that while the Department recommended consideration of PAR 18 in the preparation of this IEA in our letter dated 3 August 2020 signed by Compliance Officer Mr. Alfarid Hussain, I take this opportunity to highly recommend that all auditors involved in the IEA sign independent audit declaration forms, and append these to future IEA's.

In relation to the non-compliances identified in the IEA, the Department shall commence a detailed review of these shortly. You shall receive separate correspondence regarding this investigation either seeking further information or clarification, or advising the outcome of the Department's investigation into the non-compliances.

If you'd like to discuss this email further, please call me.

Regards,

Hala Fua

Senior Compliance Officer

Planning & Assessment | Department of Planning, Industry and Environment

T (02) 8837 6328 | **E** hala.fua@planning.nsw.gov.au

Locked Bag 5022 | PARRAMATTA NSW 2124

www.dpie.nsw.gov.au



From: no-reply@majorprojects.planning.nsw.gov.au <no-reply@majorprojects.planning.nsw.gov.au>

Sent: Monday, 7 September 2020 10:14 AM

To: submissions@vgt.com.au

Cc: Hala Fua <Hala.Fua@planning.nsw.gov.au>

Subject: Roberts Road Quarry - Independent Environmental Audit - Service Level Agreement

The Department has now commenced its detailed assessment of the Independent Environmental Audit for the Roberts Road Quarry.

The Department has classified this document as 'Regular'.

The Department may ask for additional information to complete its assessment.

If you have any enquiries, please contact Hala Fua on 8837 6328 /at Hala.Fua@planning.nsw.gov.au.

To sign in to your account click [here](#) or visit the [Major Projects Website](#).

Please do not reply to this email.

Kind regards

Department of Planning, Industry and Environment



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23rd October 2020

Secretary

Department of Planning, Infrastructure and Environment

Locked Bag 5022

Parramatta NSW 2124

To whom it may concern,

RE: Conservation and Rehabilitation Bond for DA 267-11-99, Sched 2 Condition 61.

Hodgson Quarries and Plant Pty Ltd are required to lodge a Conservation and Rehabilitation Bond with the department in accordance with Schedule 2 Condition 61 of development approval number 267-11-99 for the Roberts Rd Maroota Sand Quarry. The Landscape and Rehabilitation management plan contains a security calculation based on that required by the NSW Department of Regional NSW, Mining and Geosciences division, and was approved by Mr Howard Reed on 22nd August 2018. There have been several attempts to contact the department regarding the form in which this security is to be paid with no response to date.

The purpose of this letter is to formally request instructions regarding the form and procedure for providing the bond to the department. Please send written instructions to Hodgson Quarries and Plant Pty Ltd, PO Box 1778 Gosford, NSW 2250.

Signed on behalf of Hodgson Quarries and Plant Pty Ltd



Lisa Thomson

Senior Environmental Consultant

VGT Environmental Compliance Solutions Pty Ltd

From: [NRAR Service Desk Mailbox](#)
To: [Lisa Thomson](#)
Subject: Fw: FIN0450763 - NRAR - ** PARENT TICKET ** Consultation re: Water Management
Date: Thursday, 25 March 2021 1:35:09 PM

Dear Lisa,

Thank you for your email. Please note that documents for SSD - Post Approval and compliance matters are to be lodged through the Major Projects Planning Portal. Please resubmit your post approval documents to the portal which can be accessed here. <https://www.planningportal.nsw.gov.au/major-projects>

Further information can be obtained here on how to set up a profile and then refer something to NRAR as a post approval matter.

<https://www.planningportal.nsw.gov.au/major-projects/help/how-guides>

How to Guides | Major Projects - Department of Planning and Environment

This guide provides guidance for agency and council users including instructions on how to register, navigate the Dashboard, add users, respond to requests for advice and more.

www.planningportal.nsw.gov.au

Kind Regards,

Deb

Reg Coord - Service Support Team

Natural Resources Access Regulator | Lands & Water Division | Department of Planning, Industry & Environment

Locked Bag 5022, Parramatta NSW 2124

T: 1800 633 362

E: nrar.servicedesk@dpie.nsw.gov.au

W: www.industry.nsw.gov.au/nrar

To contact the NRAR Hotline and make a suspicious activity report call: 1800 633 362



[Read the NRAR Progress Report 2019-20](#)

The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically

From: CS Connect Service Centre <cspconnect@service-now.com>

Sent: Monday, 22 March 2021 4:32 PM

To: NRAR Service Desk Mailbox <nrar.servicedesk@dpie.nsw.gov.au>

Subject: FIN0450763 - NRAR - ** PARENT TICKET ** Consultation re: Water Management

Cloned ticket - FIN0449676

Name - Lisa Thomson

Phone - 0427 334 471

Email - lisa@vgt.com.au

Location - Hodgson Quarries Roberts Road Maroota Sand Quarry - Hodgson Quarry Products Pty Ltd

22.03.2021

** Please note the customer will need to be contacted regarding the file mentioned in the below email as it is too large for us to obtain. **

reply from: Lisa@vgt.com.au

Hi Tash,

Thanks so much for your assistance on the phone today.

I have attached the updated Water Management Plan for DA 269-11-99 Roberts Rd Maroota Sand Quarry for consultation in accordance with consent condition:

42. The Applicant shall prepare a Water Management Plan for the development to the satisfaction of the Secretary. This plan must be prepared in consultation with DPI-Water by suitably qualified and experienced person/s whose appointment has been approved by the Secretary, and be submitted to the Secretary for approval by 31 December 2016. The plan must be updated on an annual basis in consultation with DPI-Water for three years from the date of approval of Modification 2 and thereafter as agreed with by the Secretary.

Regards,

Lisa Thomson

BAppSc, CChem

Phone: (02) 4028 6412 | Mobile: 0427 334471

www.vgt.com.au

Hi Lisa,

Thank you for contacting the Natural Resources Access Regulator (NRAR) today.

As discussed if you could reply to this email with any supporting documentation you would like to include in your enquiry I will be able to forward this to the NRAR Team.

If you have any further questions or should require further assistance, please do not hesitate to contact me on 1800 633 362 or NRAR at

nrar.enquiries@nrar.nsw.gov.au<<mailto:nrar.enquiries@nrar.nsw.gov.au>>

Kind regards,

Tash.

Have you spoken to another agency/department regarding your enquiry?

No.

Are you representing an organisation or yourself?

VGT - Environmental consultant working for Hodgson Quarries.

Is your enquiry related to a specific license or approval? If so, what is the number?

DA 267-11-99

How can I help with your enquiry?

Lisa's calling as she needs consultation on a water management plan for state significant development.

Existing plan from 2017 requirements amendments and Lisa would like advise if this is something NRAR can assist with.

Department of Planning consent that the water department is consulted with in relation to DA 267-11-99

FIN0449676

19.03.2021

Name - Lisa Thomson

Phone - (02) 4028 6412 | Mobile: 0427 334471

Email - Lisa@vgt.com.au

Location - Maroota NSW

Have you spoken to another agency/department regarding your enquiry?

Are you representing an organisation or yourself?

VGT- Environmental Compliance Solutions and Laboratories.

Is your enquiry related to a specific license or approval? If so, what is the number?

(DA267-11-99) SSD

How can I help with your enquiry?

I wish to submit an updated Water Management Plan for a State Significant Development in Maroota NSW (DA267-11-99) for consultation. Please advise the best way to achieve this outcome – the pdf report is 35MB inclusive of plans and figures.

Do you require information to assist you in lodging an application?

YES

Is there anything further you would like to advise?

NO

RE: Consultation regarding a Water Management Plan

received from: Lisa@vgt.com.au

To Whom it may concern,

I wish to submit an updated Water Management Plan for a State Significant Development in Maroota NSW (DA267-11-99) for consultation. Please advise the best way to achieve this outcome – the pdf report is 35MB inclusive of plans and figures.

Regards,

Lisa Thomson

BAppSc, CChem

Phone: (02) 4028 6412 | Mobile: 0427 334471

www.vgt.com.au



Beyond Compliance

VGT Environmental Compliance Solutions Pty Ltd
ABN 26 621 943 888

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PO Box 2335, Greenhills NSW 2323

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