

Appendix G – Bush Regeneration Report

Dixon Sand
Annual Report 2019 – 2020
Bush-it Pty Ltd



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1. Overview

The environmental works of Bush-it carried out at Dixon Sand ensures the highest level of conservation and regeneration is achieved, resulting in outstanding outcomes for Dixon Sand and the natural biodiversity of the encompassing ecological communities.

The land belonging to Dixon Sand plays host to the Ecologically Endangered Community, the Shale/Sandstone Transition Forest, and several threatened species; *Kunzea rupestris*, *Darwinia fascicularis* subsp. *oligantha*, *Melaleuca deanei*, *Acacia bynoeana* and *Tetrapanax glandulosa*. Due to the presence of these vulnerable species, it is our upmost priority to ensure the communities are protected and the areas in excellent condition remain preserved. Additionally, a variety of ecological restoration strategies has led to the continued exceptional progress in rehabilitation and restoration of focus sites.

There are two main areas where regeneration and restoration works occur at Dixon Sands; vegetation surrounding the Old Northern Road Quarry and Haereses Road Biodiversity Offset and Translocation area. This report outlines the works undertaken between the 1st of July 2019 to June 30th 2020 and recommendations for future works at Dixon Sand.

2. Old Northern Road Quarry Lots 1 & 2

The focus of works for Lots 1 & 2 of Old Northern Road Quarry is in preventing invasive species from surrounding disturbed areas from entering the areas of excellent natural condition, and to other areas of the quarry. Second to this, we have put efforts into clearing *Lantana camara* from areas that show potential for regeneration.

Lot 1

For the majority of the worked year, the focus within Lot 1 was suppressing seed dispersal of exotic species from the surrounding open field, where invasive grasses *Eragrostis curvula*, *Paspalum urvillei* and *Andropogon virginicus*, as well as annual weeds *Bidens pilosa* and *Tagetes minuta* dominate. *Ricinus communis* and *Phytolacca octandra* were also treated, often found on the highwalls surrounding Lot 1. As of May 2020, the surrounding field and the north and west borders were demolished. Quarry works from this event caused seed spread of the previously mentioned invasive species into the edges of remaining lot, and so efforts were put into mitigating further spread of invasive species.

2.1 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Preventing seed-spread from surrounding areas	<ul style="list-style-type: none">• Brush cut <i>E. curvula</i>, <i>P. urvillei</i> and <i>T. minuta</i> on field above lot.• Sprayed <i>E. curvula</i>, <i>P. urvillei</i>, <i>A. virginicus</i>, <i>B. pilosa</i> and <i>T. minuta</i> on slope of northern edge and east/west boundaries.• Sprayed and manually removed <i>R. communis</i> and <i>P. octandra</i> on high walls.• The east side of the highwall was inaccessible as it bordered a cliff edge, these areas	Ongoing maintenance of the edges successfully prevented invasive species from entering the core of Lot 1. The success from the herbicide treatment of <i>R. communis</i> on highwall is unknown as it is now an active worked zone for the mine.

	were treated with a foliar herbicide spray but were unable to be de-seeded.	
Regular sweeps of edges and core	<ul style="list-style-type: none"> • Hand weeding of exotic grasses, annuals, <i>Asparagus spp.</i> and <i>Acetosa Sagittata</i> around natives on edge of site. • Scanning through core for reoccurring <i>L. camara</i>, <i>P. octandra</i> and any other exotic species. 	The core of Lot 1 is in excellent condition in response to regular sweeps. In addition, the condition of the edges are improving. Native species such as <i>Microlaena stipoides</i> , <i>Oplismenus sp.</i> , <i>Stephania japonica</i> and <i>Trema tomentosa</i> are responding extremely well to the hand weeding of exotic competition.

2.2 Recommendations for Future Works

- Monitor recently disturbed boundary zones from quarry works of May 2020, as it is likely fast colonisers will exploit the disturbed areas.
- Continue pushing *A. virginicus* and *E. curvula* from north west area near dam
- *L. camara* works could be undertaken east of the dam where the vegetation community is in good condition apart from the presence of *L. camara*, subject to the boundary of Lot 1.



Figure 1: Field above Lot 1 before quarry works in May 2020



Figure 2: *R. communis* and *T. minuta* on high wall



Figure 3: Disturbance to north boundary of Lot 1 after quarry works of May 2020



Figure 4: Disturbance to east boundary of Lot 1 after quarry works in May 2020



Figure 5: Core of native vegetation community in Lot 1



Figure 6: Native regeneration after hand weeding exotic species on edge of Lot 1



Figure 7: Northwest edge exposed to exotic grasses from neighbouring farm



Figure 8: Dodonaea sp. outcompeting exotic grasses, acting as a barrier for the core areas

Lot 2

The core of Lot 2 is in excellent condition, however much like Lot 1, the main challenges are threats of seed dispersal from surrounding disturbed borders. The west and south of the boundary are absent of trees and shrubs, and so grasses *E. curvula* and *A. virginicus*, as well as *B. pilosa*, *P. octandra* and *Solanum mauritianum* have colonised these disturbed areas. Fortunately, a wall of *L. camara* prevents seed spread from entering the lot and has remained for this reason. The majority of effort within this lot was treating *L. camara*, focusing on removing the species from canopy trees and areas that are demonstrating high resilience to the removal of *L camara*.

2.3 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Removal of <i>L. camara</i>	<ul style="list-style-type: none">• Cut and paint and spraying of <i>L. camara</i>.• Manually remove regrowth.• Folded <i>L. camara</i> away from native trees near edge of zone.	The continued works of <i>L. camara</i> have demonstrated the native vegetation to be resilient in the absence of <i>L. camara</i> . Ground cover like <i>M. stipoides</i> and <i>Entolasia stricta</i> are taking off in cleared areas, in addition to native trees such as <i>T. tomentosa</i> . Works have been focused up the creek line.
Suppression of seed dispersal from disturbed boarders	<ul style="list-style-type: none">• Spraying, de-seeding and manual removal of invasive species on east and west boundaries of lot.	Successfully prevented invasive species from entering good quality vegetation in lot.
Regular sweeps	<ul style="list-style-type: none">• Walk through in search of any emerging <i>L. camara</i>, annuals or grasses which may have spread from other areas of mine.	The native vegetation in the core of Lot 2 has remained in excellent condition.

2.4 Recommendations for Future Works

- Continue treatment and follow up treatment of *L. camara*
- Clearing wood from *L. camara* works to let more light in and spread seed from native grasses for ground cover



Figure 9: Creek line of Lot 2 clear of *L. camara*



Figure 10: L. camara works from 2018 demonstrating regeneration



Figure 11: T. tomentosa, E. stricta, M. stipoides and S. japonica emerging from area cleared of L. camara



Figure 12: Recent *L. camara* works after cut and paint treatment



Figure 13: Edge of *L. camara* treatments where the species acts as a barrier from seed dispersal of surrounding areas



Figure 14: Other side of *L. camara* barrier

3. Old Northern Road Vegetation Corridor

The upmost priority of this area is in protecting the three threatened species within the rehabilitation area. Specimens of *D. fascicularis* subsp. *oligantha* were translocated from the original locations on Lots 1 and 2. *Acacia bynoeana* have self-propagated from the seed banks contained in the translocated material. *M. deanei* and *D. fascicularis* subsp. *oligantha* were propagated from cuttings and planted in 2017, and are responding very well to the conditions. *D. fascicularis* subsp. *oligantha* is doing especially well, colonising the rehabilitation area with ease. The rehabilitation area is demonstrating rapid regeneration and ever increasing in biodiversity, responding very well to the soil translocation. The primary species showing the most resilience are *Acacia spp.*, *Grevillea spp.*, *Bossiaea spp.* and the threatened *D. fascicularis* subsp. *Oligantha*. The soil mound to the north of the rehabilitation areas is also showing great resilience, mainly of *Acacia spp.*, *Bossiaea spp.* and *Hardenbergia spp.*

The main threat to this area is seed spread from exotic species in neighbouring areas of the quarry, especially as the Native Vegetation Corridor is so exposed. With regular monitoring however, we have kept the area free from infestations of *A. virginicus* and *Hypochaeris sp.* And ensured *P. octandra* is not present.

3.1 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Regular sweeps	<ul style="list-style-type: none">• Carefully manually removing <i>A. virginicus</i>, <i>Hypochaeris sp.</i> and any other exotic species that has managed to spread into the rehabilitation area.• Sweep through mound north of rehabilitation area for any exotic species that may spread seed into the zone.	Regular sweeps ensure we are aware of any potential threats or issues in the area. The main threat is <i>A. virginicus</i> as it is abundant in neighbouring areas to the zone. By manually removing <i>A. virginicus</i> before it seeds, we have heavily reduced the amount reoccurring. <i>P. octandra</i> was previously found occurring on the mound north of the rehabilitation area and so, we monitor that area to ensure it is not reoccurring. This area is also showing great resilience and is rapidly regenerating.

3.2 Recommendations for Future Works

- Continue regular maintenance of the area to ensure it remains in excellent condition
- Monitor regeneration of native species to ensure biodiversity of the area is upheld.



Figure 15: Native species thriving in the rehabilitation area



Figure 16: Vegetation cover in June 2019



Figure 17: Vegetation cover in June 2020



Figure 18: Threatened species *M. deanei*



Figure 19: *A. virginicus* in neighbouring area



Figure 20: Juvenile *A. virginicus* before seeds are produced



Figure 21: Border of Native vegetation corridor



Figure 22: Soil mound north of rehabilitation area showing great resilience

4. Old Northern Road Plantation

Works were conducted at the old plantation site on the western edge of the quarry as requested by the client. Here *A. virginicus* and *E. curvula* were treated with herbicide foliar spray to prevent seed dispersal into the surrounding native vegetation communities and protect the plantings from infestations.

4.1 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Suppression of invasive grasses	<ul style="list-style-type: none">• Spot spraying of <i>A. virginicus</i> and <i>E. curvula</i>	Prevented seed dispersal of <i>A. virginicus</i> and <i>E. curvula</i> into the surrounding areas in good condition and prevented the plantings from been outcompeted by the invasive grasses.
Removal of plant guards	<ul style="list-style-type: none">• Removed plastic plant guards from established plantings	Removal of plant guards allowed plantings to grow without restrictions and prevents invasive species from establishing in plant guards.



Figure 23: Area of treatment



Figure 24: *E. curvula* and *A. treated with spot spray*



Figure 25: Old plantings at western boundary of Old Northern Road Quarry

5. Haerses Road Biodiversity Offset Area

To offset the expansion of Old Northern Road Quarry as proposed in Development Approval Modification 4, a designated section of a vegetation community at Haerses Road which is in excellent condition is protected and maintained. Due to the high resilience of the vegetation within the offset area, the majority of work is in controlling the exotic species on the edges of the zone, ensuring invasive species do not encroach into the offset area. A positive outcome from works along the edges is the resilience in response to efforts in controlling exotic species. There is a large diversity in native grasses; *M. stipoides*, *Echinopogon caespitosus*, *E. stricta*, *Oplismenus spp.*, *Themeda australis* and *Aristida sp.* There are also *Acacia spp.* and *Eucalyptus spp.* emerging between the access road and the offset area.

5.1 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Suppression of seeding invasive species on edges	<ul style="list-style-type: none">Brush cut, de-seed, and spray grasses <i>E. curvula</i>, <i>A. virginicus</i>, <i>Chloris gayana</i>, <i>Setaria pumila</i> and annuals, mainly <i>B. pilosa</i> and <i>t. minuta</i> along edge of western boundary.	Prevented seed dispersal from exotic species into buffer and biodiversity offset area.
Regular maintenance of 30m buffer	<ul style="list-style-type: none">Manual removal of any exotic species on boundary encroaching into edge of buffer.Scanned entire buffer zone for annual weed species, invasive grasses, and <i>Ageratina adenophora</i> and <i>L. camara</i>.	Regular works of the border and buffer have ensured that no exotic species spread into the biodiversity offset area. The majority of works is preventing seed spread from the access road and working creek lines which act as a vector for invasive species to enter the buffer zone. Efforts have gone into edging out invasive grasses <i>C. gayana</i> , <i>E. curvula</i> and <i>S. pumila</i> from the buffer zone.

5.2 Recommendations for Future Works

- Repairs to sediment fence along western boundary to prevent spread of invasive species from mine site into biodiversity offset area.
- Continued maintenance of western boundary and buffer zone to ensure the excellent condition of the biodiversity offset area is preserved.



Figure 26: Suppression of *E. curvula* on western boundary of buffer zone



Figure 27: Haerses Road Biodiversity Offset area



Figure 28: A. virginicus encroaching on boundary of Biodiversity offset buffer zone



Figure 29: Native grasses regenerating in buffer zone of the biodiversity offset area

6. Haerses Road Quarry Translocation

Established as a work zone in 2009, the translocation area is continually increasing in biodiversity and condition. The translocation fenced area is in excellent condition, the main issues occurring within the surrounding area to the translocation zone is the presence of *A. virginicus* and *E. curvula*. Ensuring *A. adenophora* remains absent within the area and in drainage lines has also been a priority for the zone.

6.1 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Control of invasive grasses	<ul style="list-style-type: none">De-seeding and crowning out <i>A. virginicus</i> and <i>E. curvula</i> inside and outside the translocation fenced area.	By suppressing the invasive grasses from spreading seed and encroaching into the translocation area, we ensured the area remains in good condition and native species are not outcompeted.
Regular sweeps of area	<ul style="list-style-type: none">Manually removing <i>A. adenophora</i> and any other exotic species within drainage lines and throughout biodiversity offset area near translocation zone.	Regular scans of site ensure the condition of the site is monitored and no infestations occur within the translocation zone or the biodiversity offset area.

6.2 Recommendations for Future Works

- Continued suppression of *A. virginicus* and *E. curvula* and conduct regular sweeps to ensure translocation area and the biodiversity offset remain in good condition.



Figure 30: De-seeding of *A. virginicus* on edge of Haerses Road translocation



Figure 31: Northern Haerses Road translocation fence line free from *A. virginicus* and *E. curvula*



Figure 32: South west boundary of Haereses Road translocation



Figure 33: Haereses Road translocation



Figure 34: Western boundary of Haerses Road translocation

7. Haerses Road Quarry Visual Screen Buffer

Plantings established as a visual screen buffer on Haerses Road was worked for the first half of the yearly contract, as of February 2020 road works have restricted access to the site. This priority of this site was in controlling *Rubus sp.*, *A. virginicus* and *E. curvula* from impacting the plantings.

7.1 Works Undertaken

Outline of Works	Methodology	Objective Achieved
Control of <i>Rubus sp.</i>	<ul style="list-style-type: none">Scrape and paint and spraying of <i>Rubus sp.</i> along both sides of buffer plantings.	Reduced overall presence of <i>Rubus sp.</i> and prevented the species from effecting plantings.
Control of invasive grasses	<ul style="list-style-type: none">De-seeded, sprayed and crowned out <i>A. virginicus</i> and <i>E. curvula</i>.	Prevented <i>A. virginicus</i> and <i>E. curvula</i> from outcompeting plantings and prevented seed dispersal.
Regular sweeps	<ul style="list-style-type: none">Scanned area for annual weeds and woody weeds.	Prevented infestations of invasive species introduced from road or surrounding farmland.

7.2 Recommendations of Future Works

- Subject to the road works currently in progress at the site, continued works controlling *Rubus sp.* and in invasive grasses would be beneficial for the plantings.

8. Summary of Works

Zone	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
Admin	1	1	0.5	1	1.5	0	1	2	1.5	1	1	8.5	20
HR - Biodiversity Offset	0	7.5	8	34.5	15.5	0	15	36.5	22.5	4	8	12.5	164
HR - Translocation & Planting	8	0	0	0	22	0	0	11	10	0	0	0	51
HR - Visual Screen Buffer	7.5	2.5	10	3	6	0	11	0	0	0	0	0	40
ONR - Other	5	0	1	9	0	0	0	8	0	0	0	0	23
ONR - Lots 1 & 2	27	12	0	0	18	0	41.5	31	57	38.5	47	12.5	284.5
ONR - Native Vegetation Corridor	5	8	11	21	21	0	0	26	8	10	5	12.5	127.5

9. Herbicide Spray Records

Date	Operator name	Herbicide name	Wind description	Areas	Qty	Vol (L)
14/08/2019	Mark Fellows	Flupropanate	Light Air	ONR - NVC	10 g	2
26/09/2019	Mark Fellows	Starane, Fluroxypyrmethyl	Light Air	HR - Screen plantings	30 ml	10
26/09/2019	Joshua Freeman	Round-up, Glyphosate	Light Air	ONR - NVC	50 ml	5
28/11/2019	Will Pearce	Round-up, Glyphosate	Light Breeze	HR - Biodiversity Offset	100 ml	10
28/11/2019	Joshua Freeman	Round-up, Glyphosate	Light Breeze	ONR - Lot 2	130 ml	13
28/11/2019	Will Pearce	Round-up, Glyphosate	Light Breeze	ONR - Lot 2	130 ml	13
15/01/2020	Joshua Freeman	Round-up, Glyphosate	Light Breeze	HR -Visual Screen Buffer	20 ml	2
28/01/2020	Joshua Freeman	Garlon, Triclopyr	Light Breeze	HR - Visual Screen Buffer	34 ml	20
4/02/2020	Will Pearce	Round-up, Glyphosate	Light Breeze	ONR - Old Plantation	100 ml	10
4/02/2020	Joshua Freeman	Round-up, Glyphosate	Light Breeze	ONR - Lot 2	100 ml	10
4/02/2020	Will Pearce	Round-up, Glyphosate	Light Breeze	ONR - Lot 2	100 ml	10
11/02/2020	Joshua Freeman	Round-up, Glyphosate	Light Air	HR - Biodiversity Offset	260 ml	26
24/02/2020	Joshua Freeman	Round-up, Glyphosate	Light Breeze	ONR - Lot 2	150 ml	15
28/02/2020	Darius Ottignon	Round-up, Glyphosate	Light Air	ONR - Lot 2	100 ml	10
14/04/2020	Joshua Freeman	Round-up, Glyphosate	Light Breeze	ONR - Old Plantation	100 ml	10
14/04/2020	Joshua Freeman	Round-up, Glyphosate	Light Breeze	ONR - Lot 1	200 ml	20
27/04/2020	Joshua Freeman	Round-up, Glyphosate	Light Air	ONR - Lot 1	300 ml	30
27/04/2020	Joshua Freeman	Round-up, Glyphosate	Light Air	ONR - Lot 1	80 ml	8
11/05/2020	Joshua Freeman	Round-up, Glyphosate	Light Breeze	HR - Biodiversity Offset	150 ml	15

10. Weed Species Controlled

Common name	Scientific name	Control method
Bridal Creeper	<i>Asparagus asparagoides</i>	Manual treatment
Asparagus	<i>Asparagus aethiopicus</i>	Manual treatment
Turkey Rhubarb	<i>Acetosa sagittata</i>	Manual treatment, spraying
Moth vine	<i>Araujia sericifera</i>	Manual treatment
Lantana	<i>Lantana camara</i>	Cut and paint, manual treatment, spraying
Blackberry	<i>Rubus fruticosus</i>	Manual treatment, spraying
Ochna	<i>Ochna serrulata</i>	Scrape and paint
Senna	<i>Senna pendula</i>	Cut and paint, manual treatment
Wild Tobacco	<i>Solanum mauritianum</i>	Manual treatment
Crofton weed	<i>Ageratina adenophora</i>	Manual treatment, slashing, spraying
Bidens - Cobblers Peg	<i>Bidens pilosa</i>	Manual treatment, slashing, spraying
Fleabane	<i>Conyza spp.</i>	Manual treatment, spraying
Paddy's Lucerne	<i>Sida rhombifolia</i>	Cut and paint, manual treatment
Blackberry Nightshade	<i>Solanum nigrum</i>	Manual treatment
Purple Top	<i>Verbena bonariensis</i>	Manual treatment, slashing, spraying
Ehrharta	<i>Ehrharta erecta</i>	Manual treatment
Paspalum	<i>Paspalum dilatatum</i>	Manual treatment, spraying
Couch common	<i>Cynodon dactylon</i>	Manual treatment, spraying
Umbrella Sedge	<i>Cyperus eragrostis</i>	Manual treatment
Carpet Grass	<i>Axonopus affinis</i>	Manual treatment
African Lovegrass	<i>Eragrostis curvula</i>	Manual treatment, slashing, spraying
Chickweed mouse ear	<i>Cerastium spp.</i>	Manual treatment
Flatweed	<i>Hypochaeris sp</i>	Manual treatment
Fishbone fern	<i>Nephrolepis cordifolia</i>	Manual treatment
Whisky grass	<i>Andropogon virginicus</i>	Manual treatment, slashing, spraying
Summer grass	<i>Digitaria sanguinalis</i>	Manual treatment, spraying
Castor Oil	<i>Ricinus communis</i>	Cut and paint, manual treatment, spraying
Stinking Roger	<i>Tagetes spp.</i>	Manual treatment, slashing, spraying
Pigeon Grass	<i>Setaria spp.</i>	Manual treatment
Ink weed	<i>Phytolacca octandra</i>	Cut and paint, manual treatment, scrape and paint
Parramatta grass	<i>Sporobolus africanus</i>	Manual treatment
Rhodes grass	<i>Chloris gayana</i>	Manual treatment
Paspalum, large	<i>Paspalum urvillei</i>	Manual treatment, spraying
Dandelion	<i>Taraxacum spp.</i>	Manual treatment
Spear thistle	<i>Cirsium vulgare</i>	Manual treatment

Appendix H - Annual Biodiversity & Rehabilitation Management Report

ANNUAL

BIODIVERSITY

&

REHABILITATION

MANAGEMENT

REPORT

HAERSES ROAD MAROOTA

2020

Prepared for Dixon Sand Pty Ltd

September 2020 V.1



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Annual Biodiversity & Rehabilitation Management Report Haerses Road Maroota 2020

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Date

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South East Environmental

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Abbreviations

Abbreviation	Description
BAM	Biodiversity Assessment Method
BC Act	<i>Biodiversity Conservation Act 2016</i>
BCT	Biodiversity Conservation Trust
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>
HRBOA	Haeres Road Biodiversity Offset Area
HTW	High Threat Weed
KPI	Key Performance Indicators
KTP	Key Threatening Process
LEP	Local Environmental Plan
Mod 1	Modification 1
Mod 2	Modification 2
NSW OEH	New South Wales Office of Environment and Heritage
ONR	Old Northern Road
PCT	Plant Community Type
SEPP	State Environmental Planning Policy
THSC	The Hills Shire Council
VIS	Vegetation Information System
WoNS	Weed of National Significance

1 INTRODUCTION

This report presents the findings of the annual monitoring of the biodiversity value and rehabilitation effort within the Dixon Sand operation at Haerses Road Maroota. The Biodiversity Biobank offset at Porters Road Kenthurst and within the Haerses Road site is not addressed in detail within this report. A separate report is submitted to the Biodiversity Conservation Trust (BCT) throughout the reporting period addressing these areas.

1.1 BACKGROUND

Dixon Sand Pty Ltd operates a sand extraction and processing operation across 71 hectares on Lot 170 DP664766, Lot 170 DP664767, Lot A and B DP407341, Lot 176 and 177 DP752039 and Lot 216 DP752039 Haerses Road Maroota. The quarry operates in compliance to Development Consent 165-7-2005 issued by the Minister for Planning in 2006. The development consent was modified on the 22 January 2018 (Mod 1) and again on 29 January 2019 (Mod 2).

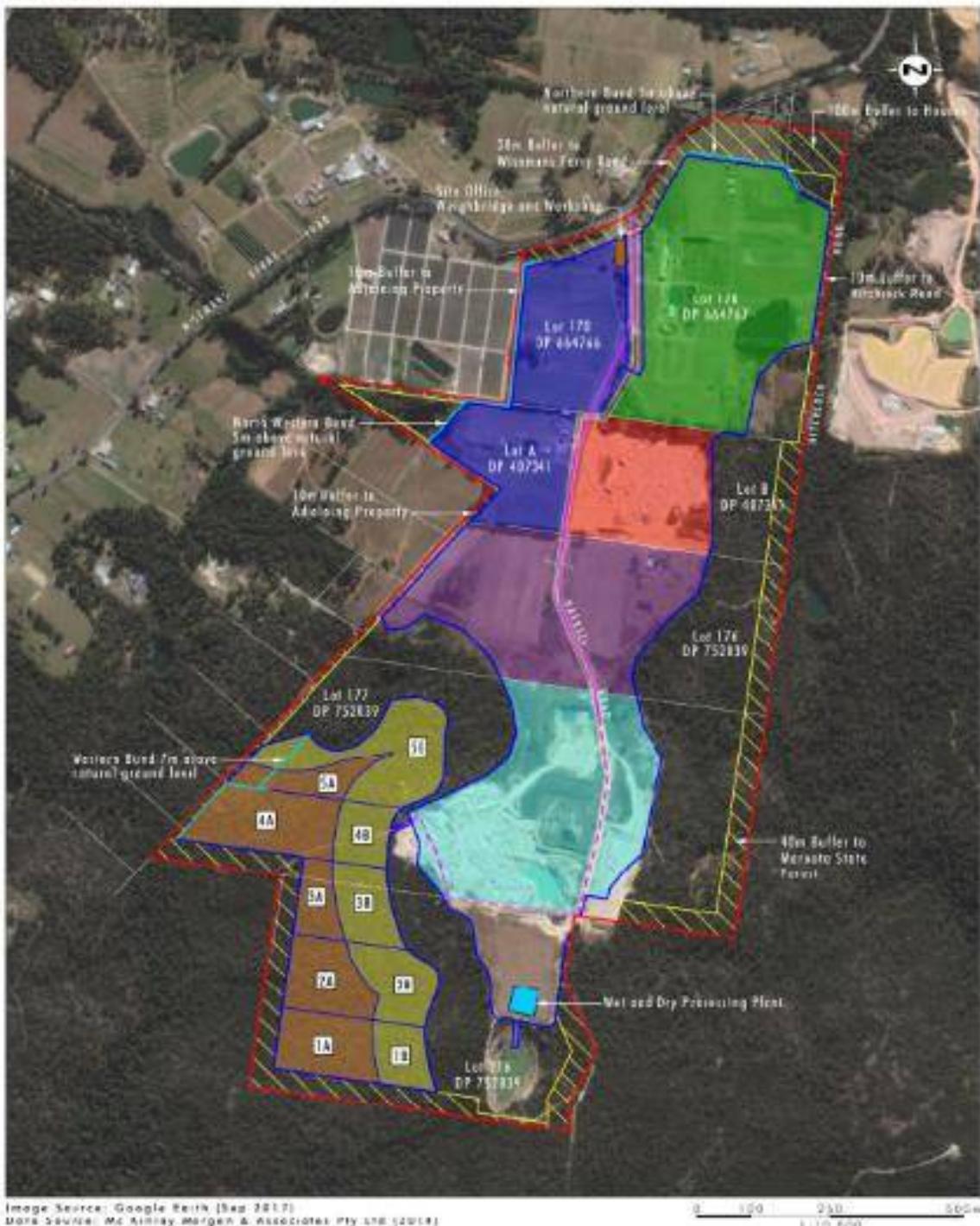
The development consent for the extraction and processing at Haerses Road permits operations to continue until 14 February 2046.

1.2 OBJECTIVES

The objectives of this Annual Biodiversity and Rehabilitation Management Report is to describe the current condition of the Haerses Road site and to advise Dixon Sand on the appropriate management measures required to be implemented in order to meet the expectations of the Haerses Road Quarry Biodiversity and Rehabilitation Management Plan (2019) prepared by Umwelt (Australia) Pty Ltd.

This report will:

- identify native flora and fauna species, populations and ecological communities known to or likely to occur within the Haerses Road site;
- describe the native vegetation and habitats within the Haerses Road site;
- describe the current condition of the threatened flora and its habitat found within the Haerses Road site;
- determine the legislative and conservation significance of species, populations and ecological communities known or likely to occur within the Haerses Road 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 Haerses Road Quarry Biodiversity and Rehabilitation Management Plan (2019);
- provide an independent monitoring report for inclusion as part of the external reporting for the quarry Annual Review.



Legend

Haerses Road Quarry Site	Extraction Area Stage 5
Approved Extraction Area	Extraction Area 4
Extraction Area Stage 1	Extraction Area 3
Extraction Area Stage 2	Extraction Area 2
Extraction Area Stage 3	Extraction Cell Number
Extraction Area Stage 4	Site Office, Weighbridge and Workshop
	Wet Processing Plant

- - - Indicative Unsealed Road Band
- - Sealed Road Band
- Acoustic Band
- - Batter Zone

FIGURE 1.2
Haerses Road Quarry

File Name: (44)-10474273_042.dwg
Last Revision: 19-10

Image 1. Haerses Road Quarry site (source Umwelt Australia 2019)

2 METHODOLOGY

2.1 SITE HISTORY

2.1.1 Extraction area stage 1

Extraction area stage 1 is Lot B of DP407341 comprising of 9.5416ha. Approximately 5.68ha have been disturbed for sand extraction while the remaining 3.86ha is remnant native vegetation. Currently 3ha are in the process of agricultural rehabilitation with work continuing into the next reporting period.

2.1.2 Extraction area stage 2

Extraction area stage 2 is within Lot 177 of DP752039, utilising approximately 14.38ha of the 39.4956ha lot. Extraction is continuing in this area however approximately 2ha of rehabilitation has begun in earnest.

2.1.3 Extraction area A and B

Extraction areas A and B extend across Lot 177 of DP752039 and Lot 216 DP752039. Current extraction is underway in Cell 1A. Although rehabilitation of these areas has not taken place within this reporting period, and is unlikely to take place in the next reporting period, the use and storage of soil with native seed bank and translocation of removed vegetation is worthy of discussion in this report to monitor success of the current process in use.

2.1.4 Wisemans Ferry Road buffer area

Assisted screen planting within the Wisemans Ferry Road buffer area took place in 2016 to supplement the existing native vegetation which was present. The buffer area is to be 30m wide extending along the boundary of Wisemans Ferry Road for the purpose of providing a visual screen to motorists. During the upgrade to the Haerses Road intersection in early 2020 the buffer area was disturbed by civil contractors. This work was deemed as essential. At the time of reporting the intersection is still under construction and therefore the buffer area remains disturbed.

2.1.5 Maroota State Forest buffer area

The Maroota State Forest buffer area extends along the southern, eastern and western boundaries of extraction area A and B as well as the southern and eastern boundary of Lot B of DP407341, Lot 176 of DP752039 and Lot 177 of DP752039. Buffer areas area fenced along the boundary of extraction area A and B. An area within the Maroota State Forest buffer area was previously disturbed and is under current active rehabilitation management to restore a Scribbly Gum, Hairpin Banksia, Dwarf Apple heathy woodland. Rehabilitation is in advanced stages with weed management continuing.

2.2 FIELD SURVEY

Vegetation survey has not been undertaken for this report as rehabilitation remains in the early stages where limited information could be obtained.

The Biobanking offset areas are subject to separate reporting for the BCT providing annual photo monitoring, information regarding active management actions and reporting any disturbance within the site. To date, passive management is taking place throughout all locations of Biobanking offset.

Baseline monitoring locations within each vegetation community will be established within the next reporting period. Monitoring locations will be undertaken in a manner consistent with the Biodiversity Assessment Method (BAM) survey as described within Appendix 4 of the Haerses Road Quarry Biodiversity and Rehabilitation Management Plan 2019.

2.3 CRITERIA TO MONITOR SUCCESS OF REHABILITATION

The Key Performance Indicators (KPI) to measure success of the biodiversity and rehabilitation effort of the Haerses Road site have been outlined by Umwelt (Australia) 2019. The following tables depict the performance and completion criteria required for both native vegetation areas and agricultural land.

Table 1. Performance and completion criteria for Haerses Road Quarry (taken from Umwelt (Australia) 2019)

<i>Rehabilitation Performance and Completion Criteria</i>	
<i>Native Vegetation</i>	Revegetation areas contain flora species assemblages characteristic and ground cover is within OEH benchmark of the target native vegetation communities
	Second generation tree seedlings are present or likely to be, based on monitoring in comparable older rehabilitation sites (i.e. evidence of fruiting of native species observed)
	More than 75 percent of trees are healthy and growing as indicated by long term monitoring
	Ground cover species are characteristic of target vegetation communities
<i>Agricultural Land</i>	The presence of weeds is within OEH benchmark of the target native vegetation communities
	Rehabilitated land is compatible with proposed agricultural land use as demonstrated by soil assessment
	Landform comprised broad gentle slopes between 2-5%
<i>Weeds and Pests</i>	Land capable of supporting suitable sterile cover crop
	Regular inspections indicate a decline in weed diversity, density and abundance and a decline in signs of feral animal activity
	The presence of weeds is within OEH benchmark of the target native vegetation communities
	There is no evidence of significant damage resulting from feral animal activity

3 RESULTS

There were no annual surveys undertaken for the Haerses Road Quarry site during the reporting period. However, rehabilitation work has begun in extraction area stage 2 with rehabilitation of agricultural land in extraction area stage 1 set to begin in earnest over the next reporting period. Further rehabilitation work will also take place within the Wisemans Ferry Road buffer area within the next reporting period.

3.1 EXTRACTION AREA STAGE 1

Extraction of sand products is still taking place within the western portion of extraction area stage 1. The eastern portion of the extraction area has been exhausted and is now ready for rehabilitation.

The eastern area of the site is currently being used to stockpile material for rehabilitation. Within the next reporting period these stockpiles will be screened to remove rock fragments larger than 150mm in diameter. The material will then be spread across the site in preparation for agricultural use.



Image 2. Extraction area stage 1 stockpile locations



Image 3. Extraction area stage 1 active rehabilitation area

3.2 EXTRACTION AREA STAGE 2

Extraction area stage 2 is still in active operation however rehabilitation of the previous sandstone extraction area has commenced.

The construction of a farm dam has taken place to fill the void and make the area beneficial for agricultural use. The expanse between the dam and native vegetation to the west has been spread with soil from extraction area A and B which contains native seed bank. It is expected this soil will produce sandstone heath vegetation over time. Threatened flora species such as *Darwinia biflora*, *Darwinia fascicularis* subsp. *Oligantha* and *Tetragonea glandulosa* may occur within the seed bank therefore the site will be regularly assessed to record any emerging individuals.



Image 4. Extraction area stage 2 dam construction site



Image 5. Extraction area stage 2 active rehabilitation area

3.3 WISEMANS FERRY ROAD BUFFER AREA

Assisted buffer planting commenced in 2016 with a variety of native species such as *Banksia*, *Melalueca*, *Hakea* and *Acacia* to complement the existing native vegetation which occurred onsite. During early 2020 the buffer area was disturbed by civil contractors for road widening and intersection upgrade. Unfortunately this has resulted in much of the existing native vegetation buffer being removed and disturbance to some of the planted buffer area.

It is expected that the Wisemans Ferry Road buffer area will be reinstated during the next reporting period.



Image 6. Western side of Haerses Road within the Wisemans Ferry Road buffer area



Image 7. Eastern side of Haerses Road within the Wisemans Ferry Road buffer area

3.4 MAROOTA STATE FOREST BUFFER AREA

There has been no further disturbance to any areas of the Maroota State Forest buffer. Disturbance did take place in 2006 of a small area in the south eastern portion of Lot 177 in DP752039. This area has been under active rehabilitation since 2015. Bush-it undertake bush regeneration work on a regular basis in this area. An annual report is provided to Dixon Sand outlining the rehabilitation work undertaken with achievements outlined in detail.

4 DISCUSSION AND RECOMMENDATIONS

The rehabilitation of the Haerses Road Quarry site has begun with work commencing in extraction area stage 1 and 2, work continuing in the Maroota State Forest buffer area and work due to recommence within the Wisemans Ferry Road buffer area within the next reporting period. Rehabilitation work is in the early stages and will increase with both intensity and measurable criteria within the next reporting period.

Over the next reporting period data will be collected which will serve as baseline information for measurable and quantifiable analysis for future reporting periods. In particular, rehabilitation success will be measured against criteria outlined within the Haerses Road Biodiversity and Rehabilitation Management Plan 2019.

The coming twelve months should see the following rehabilitation effort take place:

Extraction area stage 1

- Screening of stockpile material
- Final landform for active rehabilitation area
- Stockpile material layered to create suitable agricultural terrain
- First agricultural planting event

Extraction area stage 2

- Native vegetation growth to the west of the dam

Wisemans Ferry Road buffer area

- Assisted rehabilitation of buffer area where disturbance has taken place

Maroota State Forest buffer area

- Continued bush regeneration maintenance work in disturbed area
- Baseline monitoring locations established

Extraction area A and B

- Baseline monitoring locations established

It is not expected any new areas of rehabilitation will take place within the next reporting period as extraction across the site continues.

5 BIBLIOGRAPHY

Australian Government Com Law. 2014. *Environment Protection and Biodiversity Conservation Act 1999*. [ONLINE] Available at: <http://www.comlaw.gov.au/Details/C2014C00506> [Accessed 5th July 2020].

Australian Government Com Law. 2018. *Biosecurity Act 2015*. [ONLINE] Available at: <https://www.legislation.gov.au/Details/C2018C00363> [Accessed 6th September 2020].

Department of Lands Spatial Information Exchange. 2018. SIX Maps. [ONLINE] Available at: <http://maps.six.nsw.gov.au/> [Accessed 6th September 2020].

New South Wales Consolidated Acts. 2017. *Biodiversity Conservation Act 2016*. [ONLINE] Available at: <https://www.legislation.nsw.gov.au/~view/act/2016/63> [Accessed 6th September 2020].

NSW Office of Environment and Heritage. 2018. *NSW BioNet*. [ONLINE] Available at: <http://www.bionet.nsw.gov.au/> [Accessed 6th September 2020].

NSW Office of Environment and Heritage. 2018. *NSW BioNet Vegetation Classification*. [ONLINE] Available at: <https://www.environment.nsw.gov.au/NSWVCA20PRapp/default.aspx> [Accessed 6th September 2020].

The Hills Shire Council (2019) *The Hills Local Environmental Plan 2019*. [ONLINE] Available at <https://www.legislation.nsw.gov.au/view/html/inforce/current/epi-2019-0596> [Last accessed 6th September 2020].

Umwelt (Australia) Pty Ltd 2019. *Haereses Road Biodiversity and Rehabilitation Management Plan May 2019*. Unpublished report by Umwelt Teralba.

Appendix I – Annual Management Reports for Year 1 - Passive Management of Stewardship Sites



DIXON SAND

6 March 2020

Biodiversity Conservation Trust
Four Parramatta Square (4PSQ)
Level 7, 12 Darcy Street,
Parramatta NSW 2150

RE: BA414 Haerses Road and BA415 Porters Road – Passive Management BSA Annual Reports

Dear Whom It May Concern,

In accordance with the Biodiversity Stewardship Agreements for the two sites: BSA 414 (Haerses Road) and BSA 415 (Porters Road), the 2020 Annual Reports are due within 30 days of the reporting period which ended on 12 February 2020.

The Passive Management BSA Annual Reports for both sites are appended in Attachments A and B.

I trust that this satisfies BCT's requirement. Should you require any clarification please do not hesitate to contact me.

Yours Sincerely,

A handwritten signature in black ink, appearing to read "J. Churcher".

Hunny Churcher

Environmental Officer
E: environment@dixonsand.com.au
P: 0405 844 207

Attachment A

BSA 414 (Haerses Road) Passive Management Annual Report 2020

**Biodiversity Stewardship agreement
ID number: BSA 414
for sites established under the NSW Threatened Species
Conservation Act, 1995**

**2019
Annual Management Report
for Year 1 (2020) of passive management**

for Haerses Road Maroota



Biodiversity stewardship site annual reports (including this report) should be filed and stored in a such a way to ensure successive landholders of the site are able to access the management and audit history related to this site.

Annual report summary of passive management actions

BSA Site Reporting and Monitoring						
Audit details						
Reporting year of BSA site: 2020 Site visit (if required): BCT Contact: Jennie Powell Phone: 0282751688 Email: jennie.powell@bct.nsw.gov.au			Biodiversity Stewardship agreement ID: BSA 414 Name of landowner/site contact: David Dixon Phone: 0414330490 Property address: Haerses Road Maroota			
Management actions						
Annual reporting undertaken by landowner of the site (as per landowner's annual report)						
Management action	Item reference number	Required completion and frequency	Action completed (Yes/No)	Dates of inspection and description of actions undertaken		
1. Management of grazing for conservation	1.1 Stock must not be permitted to graze in any area of the BSA site.	Ongoing from commencement date	Yes	No stock kept or located on property. Last inspection 27/02/2020		
	1.4 If stock is observed, the landowner must take measures to remove the stock immediately.	Ongoing from commencement date	N/A			
2. Weed control	N/A until active management		N/A			
3. Management of fire for conservation	N/A until active management		N/A			

Management action	Item reference number	Required completion and frequency	Action completed (Yes/No)	Dates of inspection and description of actions undertaken
	3.3 The landowner must light no additional fires on the property except that which has been outlined as part of the fire management plan.	Ongoing from commencement date	Yes	No fire within BSA site boundary during previous 12 month period. Last inspection 27/02/2020
4. Management of human disturbance	4.1 & 4.2 Human activities that adversely affect biodiversity values must not be carried out except as permitted under the agreement.	Ongoing from commencement date	Yes	No human activities undertaken within BSA site. Fence installed where activities occur nearby to define boundary. Last inspection 27/02/2020
	4.4 The landowner must not store or dispose of any waste on the BSA site.	Ongoing from commencement date	Yes	No waste disposed of within the BSA site. Last inspection 27/02/2020
5. Retention of regrowth and remnant native vegetation	5.1 Native vegetation must not be cut down or removed.	Ongoing from commencement date	Yes	No disturbance to any native vegetation within the BSA site during the previous 12 month period. Last inspection 27/02/2020
	5.2 Native vegetation must not be burnt except in accordance with fire management plan.	Ongoing from commencement date	Yes	No fire within BSA site boundary during previous 12 month period. Last inspection 27/02/2020
6. Replanting or supplementary planting where natural regeneration will not be sufficient	N/A until active management		N/A	
	6.5 Seeds and plants used for planting must be from locally collected provenances unless there are reasons to do otherwise.	As required (from commencement date if relevant to prepare for future planting).	N/A	

Management action	Item reference number	Required completion and frequency	Action completed (Yes/No)	Dates of inspection and description of actions undertaken
7. Retention of dead timber	7.1 Dead timber (whether standing or fallen and including branches and leaf litter) must not be removed from or within the BSA site.	Ongoing from commencement date	Yes	No removal of dead timber, standing or fallen, from within the BSA site during the previous 12 month period. Last inspection 27/02/2020
8. Erosion control	N/A until active management		N/A	
9. Retention of rocks	9.1 The landowner must not remove, or cause or permit to be removed, rocks from or within the BSA site.	Ongoing from commencement date	Yes	No removal of rocks from within the BSA site during the previous 12 month period. Last inspection 27/02/2020
10. Control of feral and overabundant native herbivores	N/A until active management		N/A	
11. Vertebrate pest management – foxes	N/A until active management		N/A	
12. Nutrient control	N/A until active management		N/A	
14. Maintenance or reintroduction of natural flow regimes	14.3 Artificial structures such as dams or levee banks that impede the natural flow regimes on the BSA site must not be constructed unless approved in writing for the purpose of restoring natural flows.	Ongoing from commencement date	Yes	No changes to natural flow regimes within the BSA site has occurred within the previous 12 month period. Last inspection 27/02/2020

Details of incidents or events that have had an adverse effect on biodiversity values on biobank site	
Description of incident or event (e.g. natural events)	Action taken and/or proposed recommended actions
Ongoing drought throughout 2019	No action taken. Monitor for flora loss with view to replant if necessary when return to normal weather patterns occur.
Any other comments or observations regarding the biobank site	
<p>Photo monitoring site 1.</p> <p>Loss of some shrubs and ground cover vegetation evident due to ongoing drought conditions. Recent rain is expected to help ground cover species recover providing a return to average rainfall continues in the coming months.</p>	

Photo monitoring site 2.

Loss of some shrubs and ground cover vegetation evident due to ongoing drought conditions. Recent rain is expected to help ground cover species recover providing a return to average rainfall continues in the coming months.

**Photo monitoring site 3.**

Loss of some shrubs and ground cover vegetation evident due to ongoing drought conditions. Recent rain is expected to help ground cover species recover providing a return to average rainfall continues in the coming months.

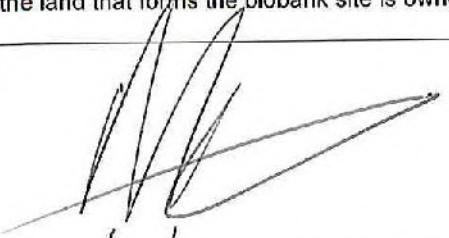


Signature and declaration

I hereby declare that the information supplied in this report is accurate and complies with the reporting requirements under clause 2 of the Annexure D to the biodiversity stewardship agreement.

Note: If the land that forms the biobank site is owned by multiple persons, each landowner must sign this annual report.

Signed

A handwritten signature consisting of several slanted, intersecting lines forming a stylized 'M' or 'W' shape.

Signed

Date

6/3/2020

Date

Attachment B

BSA 415 (Porters Road) Passive Management Annual Report 2020

**Biodiversity Stewardship agreement
ID number: BSA 415
for sites established under the NSW Threatened Species
Conservation Act, 1995**

**2019
Annual Management Report
for Year 1 (2020) of passive management**

for Porters Road Kenthurst



Biodiversity stewardship site annual reports (including this report) should be filed and stored in a such a way to ensure successive landholders of the site are able to access the management and audit history related to this site.

Annual report summary of passive management actions

BSA Site Reporting and Monitoring				
Audit details				
Management actions			Annual reporting undertaken by landowner of the site (as per landowner's annual report)	
Management action	Item reference number	Required completion and frequency	Action completed (Yes/No)	Dates of inspection and description of actions undertaken
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2. Weed control	N/A until active management		N/A	
3. Management of fire for conservation	N/A until active management		N/A	

Management action	Item reference number	Required completion and frequency	Action completed (Yes/No)	Dates of inspection and description of actions undertaken
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6. Replanting or supplementary planting where natural regeneration will not be sufficient	N/A until active management		N/A	
	6.5 Seeds and plants used for planting must be from locally collected provenances unless there are reasons to do otherwise.	As required (from commencement date if relevant to prepare for future planting).	N/A	

Management action	Item reference number	Required completion and frequency	Action completed (Yes/No)	Dates of inspection and description of actions undertaken
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8. Erosion control	N/A until active management		N/A	
9. Retention of rocks	9.1 The landowner must not remove, or cause or permit to be removed, rocks from or within the BSA site.	Ongoing from commencement date	Yes	No removal of rocks from within the BSA site during the previous 12 month period. Last inspection 27/02/2020
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11. Vertebrate pest management – foxes	N/A until active management		N/A	
12. Nutrient control	N/A until active management		N/A	
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Details of incidents or events that have had an adverse effect on biodiversity values on biobank site	
Description of incident or event (e.g. natural events)	Action taken and/or proposed recommended actions
Ongoing drought throughout 2019	No action taken. Monitor for flora loss with view to replant if necessary when return to normal weather patterns occur.
Any other comments or observations regarding the biobank site	
<p>Photo monitoring site 1.</p> <p>Loss of some shrubs and ground cover vegetation evident due to ongoing drought conditions. Recent rain is expected to help ground cover species recover providing a return to average rainfall continues in the coming months.</p>	

Photo monitoring site 1.

Loss of some shrubs and ground cover vegetation evident due to ongoing drought conditions. Recent rain is expected to help ground cover species recover providing a return to average rainfall continues in the coming months.

**Photo monitoring site 1.**

Loss of some shrubs and ground cover vegetation evident due to ongoing drought conditions. Recent rain is expected to help ground cover species recover providing a return to average rainfall continues in the coming months.



Signature and declaration

I hereby declare that the information supplied in this report is accurate and complies with the reporting requirements under clause 2 of the Annexure D to the biodiversity stewardship agreement.

Note: If the land that forms the biobank site is owned by multiple persons, each landowner must sign this annual report.

Signed

Signed

Date

6/3/2020

Date

Appendix J – S94 Contributions

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 14/08/2019

Payment Number: eft

Payment Amount: \$31,330.92

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
July 2019	00026072	31/07/2019	\$31,330.92	\$0.00	\$0.00	\$31,330.92

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 2/10/2019

Payment Number: eft

Payment Amount: \$35,499.58

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
August 2019	00026302	31/08/2019	\$35,499.58	\$0.00	\$0.00	\$35,499.58

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 9/10/2019

Payment Number: eft

Payment Amount: \$33,160.58

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
Sept 2019	00026390	30/09/2019	\$33,160.58	\$0.00	\$0.00	\$33,160.58

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 13/11/2019

Payment Number: eft

Payment Amount: \$36,758.53

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
Oct 2019	00026612	31/10/2019	\$36,758.53	\$0.00	\$0.00	\$36,758.53

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 11/12/2019

Payment Number: eft

Payment Amount: \$33,764.09

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
Nov 19	00026775	30/11/2019	\$33,764.09	\$0.00	\$0.00	\$33,764.09

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 13/01/2020

Payment Number: eft

Payment Amount: \$28,440.68

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
Dec 2019	00026852	31/12/2019	\$28,440.68	\$0.00	\$0.00	\$28,440.68

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 17/02/2020

Payment Number: eft

Payment Amount: \$20,842.21

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
January 2020	00027045	31/01/2020	\$20,842.21	\$0.00	\$0.00	\$20,842.21

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 10/03/2020

Payment Number: eft

Payment Amount: \$22,819.79

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
Feb 2020	00027211	29/02/2020	\$22,819.79	\$0.00	\$0.00	\$22,819.79

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 14/04/2020

Payment Number: eft

Payment Amount: \$32,471.41

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
	00027403	31/03/2020	\$32,471.41	\$0.00	\$0.00	\$32,471.41

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 13/05/2020

Payment Number: eft

Payment Amount: \$37,702.27

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
April 2020	00027622	30/04/2020	\$37,702.27	\$0.00	\$0.00	\$37,702.27

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 10/06/2020

Payment Number: eft

Payment Amount: \$36,001.53

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
MAY 2020	00027785	31/05/2020	\$36,001.53	\$0.00	\$0.00	\$36,001.53

Dixon Sand (Penrith) Pty Ltd

PO Box 4019
PITT TOWN NSW 2756

The Hills Shire Council
P.O. Box 7064
BAULKHAM HILLS BC 2153

REMITTANCE ADVICE

Date: 14/07/2020

Payment Number: eft

Payment Amount: \$33,674.15

Payment; The Hills Shire Council

In Payment For:

SUPPLIER INV.	PURCHASE NO.	INVOICE DATE	INVOICE AMOUNT	DISCOUNTS	PREVIOUS PAYMENTS	CURRENT PAYMENT
June 2020	00027984	30/06/2020	\$33,674.15	\$0.00	\$0.00	\$33,674.15

Appendix K – Community Engagement and CCC Meeting Minutes



Dixon Sand (Penrith) Pty Ltd

MINUTES OF THE BI-ANNUAL COMMUNITY CONSULTATIVE COMMITTEE 4610 Old Northern Road, Maroota 20th November 2019

PRESENT	NAME	ORGANISATION
	Lisa Andrews (LA)	Independent Chairperson
	Kristine McKenzie (KM)	The Hills Shire Council Representative
	Pat Schwartz (PS)	Community Representative (<i>arrived at 1pm</i>)
	Farley Roberts (FR)	Community Representative
	Lisa Aylward (LAy)	Maroota Public School Representative
	Chris Spraggon (CS)	Bush Regeneration Contractor (Bush-It)
	Robert Buckham (RB)	The Hills Shire Council Representative
	Hunny Churcher (HC)	Environmental Officer, Dixon Sand
	David Dixon (DD)	General Manager, Dixon Sand
	Mark Dixon (MD)	Dixon Sand
APOLOGIES	Melissa Mass (MM)	Dixon Sand - Ecologist
	Jemma Roberts	Community Representative (alternate)

Lunch was provided for CCC members 12.30pm-1pm.

The CCC meeting was opened at 12.55pm

WELCOME	The chair welcomed all present and thanked them for their attendance. Melissa Mass, Dixon Sand's new Ecologist was introduced and asked to provide some background to the CCC.	
DECLARATION OF INTEREST	LA declared that she is approved by the Department of Planning and Environment to chair the meeting and engaged by Dixon Sand.	No changes to previous declarations by members.
BUSINESS ARISING	Action Item 1 HC to send link to Fact Sheet once prepared and upload to website. Complete 2/9/19.	
CORRESPONDENCE (as emailed with Meeting Notice on 21/10/19)	<ul style="list-style-type: none">• 21/5/19 - Draft minutes sent to members for review.• 30/5/19 - Finalised minutes sent to members.• 11/6/19 – Advice from HC regarding the Q&A sheet for the Modification to Operations application.• 20/8/19 – Email from RW Corkery advising of their appointment by DPIE to undertake an Independent Environmental Audit of the Quarries. This email forwarded on to CCC members requesting feedback of any items they wish included in the audit by the consultant.• 23/8/19 – Email from LAylward with no comments to add for audit.• 28/8/19 - Email from KM advising that Council will be preparing a submission direct to RW Corkery.	

	<ul style="list-style-type: none"> • 2/9/19 – Email from HC attaching Haerses Road Quarry - Modification 3 - Community Flyer No. 2 • 29/9/19 – Email from HC advising that the Annual Review 2018-19 for the Old Northern Road and Haerses Road quarries has been submitted to DPIE. • 8/10/19 – Email from HC with Melissa Mass's completed declaration & code of conduct forms. • 21/10/19 – Email to CCC members with the Meeting Notice, Agenda for this meeting. 	
PROJECT REPORT, INCLUDING PRODUCTION/SALES OLD NORTHERN ROAD QUARRY, HAERSES ROAD QUARRY AND HEARSES ROAD QUARRY MODIFICATION 3 FOR HEARSES ROAD	<p>See attached presentation.</p> <p>DD provided a project update to members:</p> <ul style="list-style-type: none"> • Operations are steady with the rush to Christmas. Sales have been constant and the sandstone logs are moving quite well. • There has been a fair bit of rehabilitation at Haerses Rd with the final dam being constructed. • Intersection works for Modification 1 commenced on Monday and will get to a certain stage prior to the closure time over the Christmas break (2 weeks). Works should be completed at the end of February 2020 and were held up due to the other roadworks in the area (Nicholson's). Concerns were raised by LAY regarding the design and the inability to turn right out of this intersection, thus vehicles will turn left and drive past Dixon Sand Quarry to turn around at the Haerses Road/Wisemans Ferry Road intersection. HC commented that they may have to address this issue in the Traffic Management Plan and when inducting truck drivers to work on the sites. Further, that it is proposed that Hearses Rd will be 20kph. • The Statement of Environmental Effects (SEE) for Haerses Road Mod 3 has been lodged with DPIE. Two community flyers have been delivered and feedback received to date include truck movements and buffer zones. The noise requirements have been remodelled and brought up to the current standards. • Negotiations have occurred regarding encroachments into the buffer area (Roberts), who have agreed to the application to Council. • The adequacy test of the SEE is currently occurring and once the document is placed on exhibition by DPIE, CCC members will be informed of the advertising period. • Two complaints were received by neighbours concerning a truck speeding. Investigations have revealed that it was not a Dixon Sand (or its contractors) truck. Further investigations through the Inter-Pit Policy are occurring with the other quarries, however, it appears that it is not associated with any of these operations. • LAY asked if the sand had to be covered when being trucked. DD confirmed yes, however, the sandstone logs do not. • KM enquired which site the sandstone was being mined. DD advised, this site, Old Northern Road and Laughtondale Gully Road. 	Questions were asked and answered throughout the presentation.
ENVIRONMENTAL MONITORING RESULTS	<p>HC provided results of the environmental monitoring program:</p> <ul style="list-style-type: none"> ◦ Environmental Monitoring Locations 	Questions were asked and answered

	<ul style="list-style-type: none"> ○ TEMO- PM10 results ○ Dust deposition results ○ Noise results ○ Ground water and surface water data. <p>HC went into detail regarding the dust exceedance results, which were due to regional dust events, scheduled hazard reduction burns and bushfire events. KM enquired whether the site was closed down because of the exceedances, with HC advising no, as it was classified as an "un-natural" event</p>	throughout the presentation.
BUSH REGENERATION WORKS	<p>CS advised that one of the company's long term supervisors was leaving and there would be new management for the site. There have been lots of issues with recent bush fires. The revegetation is looking good despite the dry period, however is not showing too much growth.</p> <p>CS presented on the :</p> <ul style="list-style-type: none"> ○ Native Vegetation Corridor – Western Revegetation ○ Eastern Woodland ○ Lot 196 Embankment Rehabilitation ○ Old Northern Road Biodiversity Offset ○ Haeresa Road Offset ○ Haeresa Road Visual Screen <p>HC advised that they took more cutting for the endangered species at the Old Northern Road (Melaleuca deanei and Darwinia fascicularis ssp. oligantha) working with EcoFlora a local native nursery. KM enquired what the survival rate was; with DD responding – about 50% for the M. deanei but much higher for D. fascicularis ssp. oligantha.</p> <p>PS asked CS whether they were keeping an eye out for Crofton Weed as it follows water ways so upstream control is very important. PS also stated that the downstream environment from Hearse Rd site is weed free along Little Cattai Creek through the Maroota Forest to the Broadwater Wetland.</p> <p>CS responded that this weed likes moisture so the dry conditions have helped in suppressing it. PS explained a technique for removing the plant.</p>	Photographs were shown in the presentation depicting the rehabilitation works.
GENERAL BUSINESS	<ul style="list-style-type: none"> ○ PS enquired whether any Koalas have been sighted in the area; stating that following the 2002 bush fires the population has not come back. Discussions ensued about this subject. ○ MM advised that she has been surveying the area and has only found scats across the river – none in the local area. The University of Western Sydney is obtaining funding for survey work for vulnerable species. ○ HC advised that she is moving to Tasmania, however, will be continuing her compliance work with Dixon Sand. MM will take over field work, ecology and bush management. 	CCC members wished HC well in her move to Tasmania.
MEETING SCHEDULE FOR 2020	<p>It was agreed to continue the bi-annual meetings with the existing schedule:</p> <p style="text-align: center;">➡ Wednesday - 13th May 2020; and ➡ Wednesday - 11th November 2020.</p>	Agreed.

Meeting closed at 2.08pm with LA thanking all CCC members for their attendance and as it was the last meeting of the year, wished them a Merry Christmas and Happy New Year.

ACTION ITEM

- | | | |
|---|--|-----------|
| 1 | Advise CCC members when SEE goes on exhibition. | HC |
|---|--|-----------|



Dixon Sand (Penrith) Pty Ltd

MINUTES OF THE EXTRAORDINARY COMMUNITY CONSULTATIVE COMMITTEE 4610 Old Northern Road, Maroota 24th February 2020

PRESENT	NAME	ORGANISATION
	Lisa Andrews (LA)	Independent Chairperson
	Pat Schwartz (PS)	Community Representative
	Farley Roberts (FR)	Community Representative
	Lisa Aylward (LAy)	Maroota Public School Representative
	Hunny Churcher (HC)	Environmental Officer, Dixon Sand
	David Dixon (DD)	General Manager, Dixon Sand
	Mark Dixon (MD)	Dixon Sand
	Melissa Mass (MM)	Dixon Sand - Ecologist
APOLOGIES	Jemma Roberts	Community Representative (alternate)
	Kristine McKenzie	The Hills Shire Council Representative
	Robert Buckham	The Hills Shire Council Representative
	Daniel Giffney	The Hills Shire Council Representative
	Chris Spraggon	Bush Regeneration Contractor (Bush-It)

The CCC meeting was opened at 2.07pm

WELCOME	The chair welcomed all present to the extraordinary meeting, explaining the purpose of the meeting was to answer any questions in relation to the Haerses Road Mod 3 application that was currently on public exhibition. The advertising period closes on Wednesday 26 February 2020 and this was the opportunity to address any issues that may have arisen in the community.	
DECLARATION OF INTEREST	LA declared that she is approved by the Department of Planning and Environment to chair the meeting and engaged by Dixon Sand.	No changes to previous declarations by members.
BUSINESS ARISING	Action Item 1 HC to advise CCC members when SEE goes on exhibition. Complete 17/1/20.	
CORRESPONDENCE (as emailed with Meeting Notice on 4/2/20)	<ul style="list-style-type: none">20/11/19 – Email from Dixon Sand with Mark Dixon's declaration forms completed.1/12/19 - Draft minutes sent to members for review.11/12/19 - Finalised minutes sent to members.14/1/20 – Email from HC to CCC members with the link to the Independent Environmental Audit lodged with the Dept of Planning.17/1/20 – Email from HC advising of the exhibition period for Haerses Road Mod 3, Wednesday 29 January to Wednesday 26 February. #29/1/20 – Email to CCC proposing an extraordinary meeting on 24/2/20 during the exhibition period of Mod 3.	#Action item complete.

	<ul style="list-style-type: none"> 4/2/20 – Email to CCC members with the Meeting Notice & Agenda for this meeting. 20/2/20 – Email to CCC members with a reminder for this meeting. 	
DISCUSSIONS ON HEARSES ROAD QUARRY MODIFICATION 3 FOR HEARSES ROAD	<ul style="list-style-type: none"> HC provided a copy of the "notice of exhibition" received from DPIE. DD advised that no one from the community has contacted the company directly with any questions regarding the proposal. LAY raised concern with the bus zone and bus stop at the Maroota School, stating that the time specified should be increased to allow for the number of high school students waiting in the area for their onward buses. Discussions around this item ensued. Despite LAY's representations to RMS and the Department of Education there had been no success. PS stated that she had spoken with all the community groups that she is a member of (Cattai Hills Environmental Network, Glenorie Progress Association, Glenorie Maroota Bioregional Forum and the Eastbend Rural Communications - Living Heritage). She had spoken to people in general and received one phone call. PS informed the CCC that the main issue of concern is the truck movements and enquired whether there could be a Regional Traffic Management Plan or study that would consider the cumulative impacts that trucks from the region are causing and to ensure local road infrastructure is able to cope. Further, that the public amenity is not negatively impacted. DD advised that RMS have a criteria for the development, where certain movements trigger certain requirements. Currently the traffic movements on Old Northern Road and Wisemans Ferry Road do not trigger these requirements. Dixon Sand however, will be required to upgrade the intersection to assist in access in and out of the site. Traffic counts have been undertaken and the road capacity calculated; and the figures are still under. PS enquired whether trees were going to be removed to carry out the intersection works. DD responded by stating that this was necessary to provide the correct sight distances. MM commented that planting works have already been undertaken to replace the trees proposed to be removed for the works. PS further commented that the Eastbend committee had raised the issue of speed around the Cattai School, specifically where the speed goes from 80km to 40km during school times (from O'Brians Rd to Millers Rd or Threlkeld Dr – both sides of the school). Discussions on whether the speed should go from 80km to 60km to 40km or whether more signage should be erected, warning drivers of the upcoming school zone (40km). DD mentioned that it may be difficult to alter a main arterial road from 80km to 60km, stating it would require a robust argument with supporting technical data. Notwithstanding this, Dixon Sand is committed to safety and driver conduct. 	<p>Action: LA to write to local state member of parliament seeking assistance in expanding 40kpm school zone to 4.30pm.</p>

	<ul style="list-style-type: none"> FR reiterated the communities concerns with the volume of trucks using the roads. DD advised that the Hearses Rd quarry will be selling direct, so all types of vehicles (utes, box trailers, large trucks, etc) will be visiting the site, therefore splitting the vehicle movements between the two sites. DD further informed the CCC that whilst there are increased movements proposed, it will all depend on the demand for the product and that these figures are a maximum. Comparison was made to other developments, issued under old consents that have 24 hour approval for truck movements, so it would be difficult to record a true cumulative impact. However, he was aware that traffic counters were currently assessing activities. PS asked whether DPIE would read the CCC minutes to see that the traffic issues had been raised. LAy tabled a social media post stating their disappointment with the removal of forests and bush for mining purposes and concerns with air quality monitoring and water usage. This appeared to be a general comment on sand mining. 	<p>Action: LA will write to assessing officer (DPIE) and provide the CCC minutes.</p>
GENERAL BUSINESS	Nil.	
NEXT MEETING	 Wednesday - 13th May 2020 Commencement time - 12.30pm for 1pm	

Meeting closed at 2.57pm with LA thanking all CCC members for their attendance.

ACTION ITEM

- 1 Email extraordinary minutes to assessing officer of Mod 3.

LA



Dixon Sand (Penrith) Pty Ltd

**MINUTES OF THE BI-ANNUAL
COMMUNITY CONSULTATIVE COMMITTEE
4610 Old Northern Road, Maroota
HELD VIRTUALLY VIA EMAIL DUE TO COVID-19
13 MAY 2020**

PRESENT	NAME	ORGANISATION
	Lisa Andrews (LA)	Independent Chairperson
	Kristine McKenzie (KM)	The Hills Shire Council Representative
	Pat Schwartz (PS)	Community Representative
	Farley Roberts (FR)	Community Representative
	Lisa Aylward (LAy)	Maroota Public School Representative
	Chris Spraggon (CS)	Bush Regeneration Contractor (Bush-It)
	Hunny Churcher (HC)	Environmental Officer, Dixon Sand
	David Dixon (DD)	General Manager, Dixon Sand
	Melissa Mass (MM)	Dixon Sand - Ecologist
APOLOGIES	Jemma Roberts (JR)	Community Representative (alternate)
	Mark Dixon (MD)	Dixon Sand

**Due to the COVID-19 pandemic, this meeting was conducted remotely via email. The presentation was emailed to all CCC members on the scheduled meeting date of 13 May 2020. Members were requested to review the document and provide any questions/comments within 7 days. After this time, this information was coordinated by LA and forwarded through to the company for its response.*

The answers were incorporated into these minutes as a record of the outcome of the engagement process.

The subject presentation forms as an attachment to these minutes.

The CCC meeting was opened at 10.13am (13/5/20).

WELCOME & INTRODUCTION	LA sent the project presentation to the CCC on 13/5/20 at 10.13am, attaching the presentation and providing directions on how to participate in this virtual meeting.	
DECLARATIONS OF INTEREST	LA declared that she is approved by the Department of Planning and Environment to chair the meeting and engaged by Dixon Sand.	No changes to previous declarations by members.
BUSINESS ARISING	Action Items: 1 Email extraordinary minutes to assessing officer of Mod 3. (LA – Complete.) 2 Write to local MP regarding school zone times. (LA – Complete.) LAy thanked LA for writing to Robyn Preston MP and is looking forward to a positive response.	

	<p>PS thanked LA for actioning the items from the 24 February 2020 meeting.</p> <p>KM requested that an action item be recorded for the November 2020 meeting: LA to provide the CCC with an update on whether a response is received from Robyn Preston MP regarding the school zone.</p>	Action: LA to follow-up response from Robyn Preston MP.
CORRESPONDENCE (as emailed with Meeting Notice on 21/10/19)	<ul style="list-style-type: none"> • 28/2/20 - Draft minutes sent to members for review • 7/3/20 - Finalised minutes sent to members. • 7/3/20 – Finalised minutes sent to assessing officer of Haerses Road Quarry Mod 3 application at DPIE (Lauren Evans). • 9/4/20 – Email to members regarding proposed meeting for 13/5/20 and providing options on whether to hold virtual or postpone. Responses received from all members. • 17/4/20 – Email to HC advising that meeting will proceed with Option 1 (virtual meeting via email). • 12/5/20 – Email to Robyn Preston MP, regarding the school zone outside Maroota Public School. • 13/5/20 – Email to CCC members with the Project Presentation and directions on how to participate in this meeting 'virtually'. <p>KM provided comments on two typographical errors in the cover email sent with the CC presentation. (Noted.)</p>	
PROJECT REPORT, INCLUDING PRODUCTION/SALES OLD NORTHERN ROAD QUARRY, HAERSES ROAD QUARRY AND HEARSEES ROAD QUARRY MODIFICATION 3 FOR HEARSEES ROAD	<ul style="list-style-type: none"> • COVID-19 Update (Slide 6) • Operations & Progress (Slide 7): <ul style="list-style-type: none"> ◦ Production/Sales ◦ Old Northern Road Quarry; and ◦ Hearses Road Quarry (Slide 8) <p><i>KM requested that Dixon Sand clarify the reference to Lot ½ in relation to the cuttings removed from the Old North Road Quarry.</i></p> <p>Dixon Sand Response: Apologised – this was a typographical error. It should read 'Lot 1 & 2 Operation' on Page 7.</p> <ul style="list-style-type: none"> • Hearses Road Quarry Mod. 3 (Slide 9) • Independent Environmental Audit (Slides 10-12) <p><i>KM requested further comments in regard to the IEA (slides 10-12), if any action was required to be undertaken by Dixon Sand as identified by RW Corkery in the Audit.</i></p> <p>Dixon Sand Response: Felt that the proposed recommendations by the auditors were fair; stating that a number of the non-compliances were considered 'administrative' in nature, however, the IEA was conducted under the new DPIE IEA guidelines, which eliminated this compliance classification category and only three compliance status descriptors</p>	

	<p>can be adopted – (1) Compliant (2) Non-compliant and (3) Not triggered.</p> <p>The majority of the recommendations have been actioned through onsite operational changes, onsite rectification and an extensive review and revision of the EMS and Management Plans. The status and specific details of the proposed recommendations and actions will be included in this year's Annual Review, which will be submitted by September 2020.</p>	
ENVIRONMENTAL MONITORING RESULTS	<p>Environmental Monitoring Results (Slides 13-54):</p> <ul style="list-style-type: none"> ○ Environmental Monitoring Locations (Maps) ○ TEOM – PM10 data ○ Dust Deposition data ○ Noise Monitoring data ○ Ground water and Surface water data. 	
BUSH REGENERATION WORKS	<p>Bush Regeneration Works (Slides 55 - 76):</p> <ul style="list-style-type: none"> ○ Rehabilitation and Bush Regeneration activity report for May 2020. ○ Key Actions – treatment of weed species ○ ONR – Native Vegetation Corridor and canopy species establishment. ○ Photographs of habitat density, regeneration, diversity and species. ○ Hares Road Area – photographs and explanation of offset areas for ONR ○ Lots 1 & 2 – weed removal and regeneration. <p>PS commented that the photos of the bush regeneration sites were good and great that the bush regeneration sites are coming along so well.</p>	
GENERAL BUSINESS	<ul style="list-style-type: none"> ○ FR - the use of exhaust brakes has markedly increased in intensity since the speed restrictions for the roadworks were introduced. Nothing surprising there, except my naivety in assuming a possible improvement. ○ It was noted that "attendee" members acknowledged reading the CCC presentation and provided comments to the Chair. 	
NEXT MEETING	<p>The next CCC is scheduled for Wednesday, 11th November, 2020. All being well and in consultation with the company, members, as well as the latest government directives concerning the COVID-19 pandemic, the CCC will be held on site at 12.30pm with a light lunch, followed by the CCC commencing at 1pm.</p>	

The meeting was technically closed by the chair following responses from CCC members and the company, compiled into the draft minutes and emailed to members on 26/5/20.

ACTION ITEM

Item	Issue	Responsibility
1	Follow-up response from Robyn Preston MP regarding the school zone	LA

Appendix L – Complaints Register

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
1 – 31 July 2019	0	19 August 2019

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
1 – 31 August 2019	0	10 September 2019

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 30 September 2019	0	01 October 2019

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 30 November 2019	0	02 December 2019

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 31 October 2019	0	07 November 2019

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 31 December 2019	0	06 January 2020

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 31 January 2020	0	04 February 2020

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 29 February 2020	0	02 March 2020

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 31 March 2020	0	02 April 2020

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 30 April 2020	0	06 May 2020

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 31 May 2020	0	01 June 2020

Dixon Sand (No. 1) Pty Ltd
Haerses Road Quarry
Complaints Register - Summary

Period	Number of Complaints received	Complaint Register Published on Website
01 – 30 June 2020	0	01 July 2020

Appendix M – Waste and ENM/VENM Registers

Haerses Road
Waste Tracking Register 2019 - 2020

Date	Waste Type	Amount	Measurement	Contractor	Disposal / Recycle	Receipt No
01/07/19 - 30/06/20	Genral Solid Waste - putrescible	26	cubic metre	Council Waste Contractor	Disposal	Council Rate
01/07/19 - 30/06/20	General Solid Waste - recyclable	13	cubic metre	Council Waste Contractor	Recycle	Council Rate
Total						
	Non-Putrescible skip	0	m3			
	Council Putrescible	26	m3			
	Council Recycle	13	m3			

VENM - Sandstone	Glenorie Bakery	Moits	XN20AZ	31/10/2019	12.42 PM	1	E24255.E05.001.Rev0	30	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	7.23 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	7.28 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	7.32 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	7.46 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	7.49 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	8.07 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	8.09 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	8.14 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	8.31 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	8.35 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	8.52 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	8.54 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	8.56 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	9.16 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	9.19 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	9.35 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	9.49 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	9.56 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	10.01 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	10.03 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	10.17 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	10.29 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	10.35 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	11.01 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	11.13 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	11.15 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	11.19 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	11.23 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	11.45 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	11.58 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	12.00 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	12.04 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	12.07 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CQ63PO	2/11/2019	12.32 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN57AX	2/11/2019	12.42 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CG02WJ	2/11/2019	12.45 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN85EA	2/11/2019	12.57 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CK33KE	2/11/2019	12.50 PM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN20CH	4/11/2019	9.40 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CO17PT	4/11/2019	9.51 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CO22PT	4/11/2019	9.53 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	XN20CH	4/11/2019	10.40 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CO17PT	4/11/2019	10.46 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039
VENM - Sandstone	Glenorie Bakery	Moits	CO22PT	4/11/2019	10.53 AM	1	E24255.E05.001.Rev0	17	Lot 216 DP 752039

Total Annual Quantity (2019 Calendar year) (t)	29,496.00
Total Quantity (FY 2019 - 2020) (t)	27,546.00

Haerses Road Quarry - Material Transport Register

Material	VENM Owner	Transport Company	Registration No.	Transport Date	Tip Time	Batch No	Testing Certificate	Quantity (t)	Application
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery	No ENM / VENM imported in 2020 calendar year to-date							
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								
VENM - Sandstone	Glenorie Bakery								

Total Annual Quantity (2020 Calendar year) (t)	-
Total Quantity (FY 2020 - 2021) (t)	-

Appendix N – RFS Meeting Minutes

Meeting with Maroota Rural Fire Brigade – August 2018

Date: 21/08/2019

Time: 09:03 am– 09:30 am

Attendees:

- Hunny Churcher (HC) –Dixon Sand's Environment Officer
- Peter Kazzi (PK) – Maroota Rural Fire Brigade Captain

Agenda:

- Annual review of bushfire mitigations and risk analysis with local RFS representative.

Point of Discussion

- PK advised that:
 - Due to the dry condition and elevated fuel load, the bushfire season is likely to be brought forward this year (1st September 2019).
 - A number of Hazard Reduction burns were conducted in the Maroota area earlier this year, both by The Hills and Hornsby RFS
 - It is predicted the fire season will experience exceptionally dry and hot conditions.
 - A Permit is required from the RFS to undertake any pile burn during the bushfire season.
- HC conveyed with PK that:
 - The Bushfire Management Plans (BFMP) for both quarries have been reviewed and revised with only administrative changes made.
 - No changes to the Northern Road and Haerses Road quarry operations, therefore assets and mitigation measures remain the same.
- Both quarries remain low risk of bushfire due to quarry operations acting as a fire break, low risk of infrastructure catching fire.

Action

Action	To Action By:
PK to supply map(s) showing the areas depicting the planned and/or executed hazard reduction burns in the area (The Hills RFS District)	PK
HC will enquire with Hornsby RFS District for any maps of planned / executed hazard reduction burns in the area.	HC