



EPBC-ACT CONTROLLED ACTION
EPBC 2013/6965
NATIVE VEGETATION MANAGEMENT PLAN
COMPLIANCE REPORT FOR THE
KANMANTOO COPPER MINE EXPANSION
2017/ 2018



Hillgrove Resources – 11th December 2018

Cover Picture – Mine Rd SEB-Offset Area: (141 Mine Rd); Mid-row areas between previously seeded strips during topsoil pre-stripping and subsoil direct seeding with local provenance native grasses and broadleaved species. Note the grey rows with light-green tree guards, which were pre-stripped and direct-seeded in 2015. Completion of this patch will create a continuous sward of native species as the basis of new *Eucalyptus odorata* and *Acacia pycnantha* grassy open-woodland associations on an area of land where commercial cropping and grazing has been conducted for more than 100 years.

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1.0 Definitions

Abbreviation	Definition
141 Mine Rd	Hillgrove-owned property & designated SEB-Offset area, 141 Mine Rd Kanmantoo SA 5252
<i>Acacia pycnantha</i> (<i>A. pycnantha</i>)	Open woodland community dominated by <i>Acacia pycnantha</i>
ADEE	Australian Department of the Environment and Energy
Botanic Gardens	South Australian Seed Conservation Centre, Botanic Gardens of Adelaide
BushRAT	Bushland Rapid Assessment Technique/ DEWNR SA
CD	Compact Disk
CEO	Hillgrove's Chief Executive Officer, Mr Steven McClare
DEM	Department for Energy and Mining SA
DEWNR	Department of Environment, Water and Natural Resources, SA
DSD	Department of State Development, South Australia
DPC	Department of Premier and Cabinet, South Australia
EBS Ecology	Fauna and Flora Consultancy division of the EBS Group, Adelaide SA
EBS Restoration	Ecological restoration division of the EBS Group, Adelaide SA
EM	Hillgrove's Environment Manager (Ms Catherine Davis)
EPBC 2013/6965	Approval granted to disturb vegetation under provisions of the EPBC Act
EPBC Act	Ecosystem and Biodiversity Conservation Act (1999)
<i>Eucalyptus odorata</i> (<i>E. odorata</i>)	Critically endangered grassy woodland community dominated by <i>Eucalyptus odorata</i>
Hillgrove	Hillgrove Resources Ltd/ Hillgrove Copper Pty Ltd
KCM	Kanmantoo Copper Mine
LFA	Landscape Function Analysis/ Ludwig & Tongway (1997)
<i>Lomandra effusa</i> (<i>L. effusa</i>)	Critically endangered open grassland vegetation community dominated by <i>Lomandra effusa</i>
LOM-Extension	Life of Mine Extension
ML	Mining Lease 6345
Mulawa	Hillgrove-owned property & designated SEB-Offset area, Mine Rd Kanmantoo SA 5252
NRM Act	Natural Resources Management Act 2004 (SA)
NVMP	Native Vegetation Management Plan
PEPR	Program for Environmental Protection and Rehabilitation
SA	South Australia
SEB x:1	A native vegetation condition rating for SEB-Offset purposes
SEB-Offset	Significant Environmental Benefit - Offset. New vegetation areas established to offset clearance.
SMA	Seed Multiplication Area/ 5ha seed multiplication plot
SPA	Seed Production Area/ 1ha intensive seed farm

1.1 Executive Summary

This compliance report describes our progress against the approval conditions listed in EPBC 2013/6965 during the 2017-2018 reporting period from 01Sep17 to 31Aug18. Please refer to our 2014/2015, 2015/2016 and 2016/2017 EPBC compliance reports for details relating to approval conditions discharged in previous reporting periods. This report will address progress during this reporting period only and will not refer in detail to conditions discharged at the commencement of EPBC 2013/6965 in 2014/2015. Previous compliance reports can be accessed via the following link;

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to...

- **'2015 EPBC Act Compliance Report'**
- **'2016 EPBC Act Compliance Report'** or
- **'2017 EPBC Act Compliance Report'** ... click to download...

Hillgrove Resources have worked towards complying with both the spirit and intent of the approval granted by EPBC 2013/6965.

During the 2017/2018 reporting period, Hillgrove completed topsoil pre-stripping and direct seeding the remaining 10.15ha of the Mine Rd areas commenced in 2015. This brings the total area of SEB-offset commenced at Mine Rd to 20.3ha, including the rehabilitation and direct seeding of a gully-erosion channel running through the Mine Rd site and direct seeded the headlands associated with the topsoil pre-strip rows. Topsoil pre-stripping and direct seeding was also commenced on new land areas totalling 13.35ha at 'Lot 25' and 'Ferguson's'. Topsoil pre-stripping and direct seeding was completed on approximately half of the available land area or 6.7ha of these new blocks in April 2018. The total area of SEB-offset commenced at the end of this reporting period is approximately 27ha. We also planted 14,690 Hyco seedlings to provide additional canopy and mid-story species at Mine Rd and other areas within the ML. A further 152 *Diuris behrii* orchids were also planted at various locations with the Mine Rd SEB-offsets and within the ML.

Seed production programs and wild-seed seed collection programs continued. Initial results indicate that adequate seed supplies will be available for direct-seeding programs *within the ML only in 2019*. Approximately 635kg of seed was in store at the end of September 2018, with approximately 23-bales of additional grass seed mix harvested November 2018. Poor winter rainfall is likely to impact the overall volume of seed which will be harvested in 2018/ 2019 and external seed supplies will be either unavailable or in very short supply this year. Grass seed may become available from the new Mine Rd/ Ferguson's/ Lot 25 SEB-Offset areas in 2019; however, this will be determined by seasonal constraints.

The 'Landscape-scale topsoil pre-strip' technique has been refined by Hillgrove and has proven to be ideally suited for the conversion of farming land to high-quality native vegetation. Hillgrove will seek approval to move our SEB-offset establishment onto equivalent areas of cropping land owned by Hillgrove, under a revised NVMP to be submitted for approval in 2019. Our SEB-offset establishment program during 2019 will be constrained by seed availability and the relatively large area of hydroseeding to be completed within the ML during 2019. Our revised NVMP will address this and will present a revised SEB-offset program for consideration. We will have sufficient land available for a 1:1 exchange of land assigned for the creation of SEB-offset areas within Hillgrove-owned properties from the 'old NVMP to a new NVMP'. This land is adjacent to the ML and is well suited to the topsoil pre-strip method of SEB-offset establishment.

1.2 Background

The Kanmantoo Copper Mine (ML6345) is located approximately 45km SE of Adelaide, near the townships of Kanmantoo and Callington. The 440 ha mining lease (ML) is on the eastern side of the Mt Lofty ranges, within a 425mm rainfall zone. The Kanmantoo Copper Mine (KCM) is operated by Hillgrove Copper Pty Ltd. The current mining operation is the third cycle of mining on-site since the 1850's. The ML contains a range of remnant native vegetation, including stands of *Eucalyptus odorata* open woodland and *Lomandra effusa* open grassland, both of which are listed as critically endangered under the EPBC Act (1999). The ML's vegetation has been significantly altered by more than 150-years of agriculture and mining; however, remnant stands of native vegetation can be found within the ML, varying in condition from SEB-Offset classes of 2:1 to 8:1 in some areas. Clearance of 1.8ha of *E. odorata* woodland and 3.4ha of *L. effusa* grassland was required to allow extension of mining activities until 2019 under the *Life of Mine Extension proposal*, ('the LOM Extension').

The LOM Extension was approved under a revised Program for Environmental Protection and Rehabilitation (PEPR), regulated by the South Australian Department for Energy and Mining, or DEM (formerly Department of Premier & Cabinet SA' or DPC and prior to that, Department of State Development (DSD), henceforth the 'Regulator'). Both clearances were deemed 'controlled actions' under the EPBC Act, requiring approval by the Australian Department of the Environment and Energy (ADEE) before the LOM Extension PEPR could be approved by the Regulator. An NVMP was written to encompass the controlled actions associated with the LOM Extension. The NVMP was subsequently approved by the ADEE and permission to proceed with both controlled actions was granted by the ADEE under the conditions outlined in the approval document for this action Ref: EPBC 2013/6965 dated 6th May 2014. Both controlled actions subsequently commenced on 11Sep14, with due notice given to the ADEE and the Regulator.

This document is an annual compliance report demonstrating that the controlled actions have been carried out within the 13 conditions attached to EPBC 2013/6965 and that progress has been made against the delivery of SEB-offsets required by EPBC 2013/6965. This year's report has been delayed slightly, but it has been published as close as possible to 'within *3-months of every 12-month anniversary of the commencement of the action*' as required by the approval granted on 06May14.

2.0 Conditions associated with Controlled Action EPBC 2013/6965

Our compliance with the conditions associated with Controlled Action EPBC 2013/6965 has been reported in previous compliance reports. Please see our previous compliance reports for the table listing the conditions applied to Controlled Action EPBC 2013/6965 and Hillgrove's compliance with each condition.

3.0 Details of compliance with EPBC 2013/6965 conditions

Details of Hillgrove's compliance with each condition associated with EPBC 2013/6965 are described in our 2014/2015, 2015/2016 and 2016/2017 compliance reports. This compliance report will focus on progress against each condition achieved within the 2017/2018 reporting period only as noted under the following .

3.1 Eucalyptus odorata clearance areas

In accordance with the approved NVMP, no more than 1.8ha of *Peppermint Box (Eucalyptus odorata) Grassy Woodland* of South Australia has been cleared within ML 6345 between the commencement date of 11Sep14 and the 1st anniversary of commencement on 11Sep15.

3.2 Lomandra effusa clearance areas

In accordance with the approved NVMP, no more than 3.4ha of 8:1 *Iron grass Natural Temperate Grassland* of South Australia and 1.01ha of 6:1 and 4:1 *Iron grass Natural Temperate Grassland* of South Australia has been cleared within ML 6345 between the commencement date of 11Sep14 and the 1st anniversary of commencement on 11Sep15.

3.3 Native Vegetation Management Plan Submission

A Native Vegetation Management Plan (NVMP) was written to address the disturbance of vegetation communities and provision of SEB-Offsets associated with the controlled actions approved by EPBC 2013/6965. Hillgrove's NVMP for controlled action EPBC 2013/6965 was approved on the 6th of May 2013

The NVMP was approved and has been posted on the internet at the following internet address:

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation'. Navigate to 'PEPR Appendices Vol 3' and click to download...Open the downloaded document...

The NVMP is located under 'Appendix 9b Native Vegetation Management Plan 2014' and extends from page 147 to 213.

The approved NVMP will continue to be available via the Hillgrove web page for the life of the Action.

3.4 Security of SEB-Offset areas

SEB-offsets approved under our NVMP for this action are illustrated in Figure 1, below.

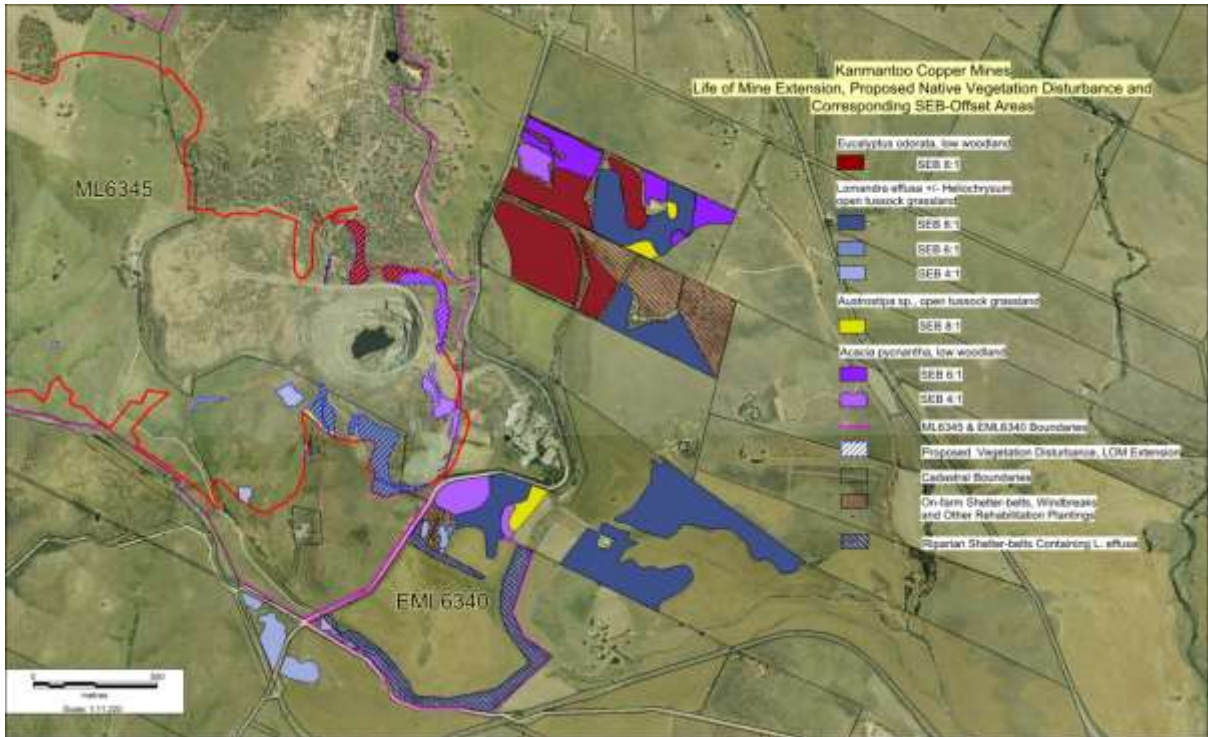


Figure 1: Approved disturbance areas and approved SEB-Offsets associated with action EPBC 2013/6965

All SEB-Offsets are located directly adjacent to the Kanmantoo Copper Mine on Hillgrove-owned properties. Hillgrove has quarantined the SEB-Offset areas from future development and has designated them as 'SEB-Offset blocks' to the exclusion of all other activities. Details of the land titles associated with each land parcel and the SEB-Offsets assigned to each patch are described below and in the NVMP on p30, 'Table 3', and in Figure 2, below.

Property Name	Parcel ID : Title ID & (Owner)	Allocated Offset Patches (ref NVMP)	Offset Types
141 Mine Rd	F160800 A61 : CT5548/435 (Hillgrove)	38, 39, 40, 41, 42, 43, 44, 45, 46, 47	E. odorata (8:1), L. effusa (8:1), Austrostipa (8:1), A. pycnantha (6:1 & 4:1)
Mulawa	F1636 A1 : CT5516/79 (Hillgrove)	48, 49, 50	E. odorata (8:1), L. effusa (8:1)
Ferguson	D80644 A21 : CT5863/768 (Hillgrove)	51, 55	L. effusa (8:1)
Lot 25	D60948 A25 : CT5892/419 (Hillgrove)	52, 53, 54, 56, 57, 58, 62	L. effusa (8:1, 6:1 & 4:1), Austrostipa (8:1)
Back-Callington Rd/ Éclair Mine Rd (Carmen's East)	D4767 A4 : CT5552/582 (Hillgrove) and D30934 Q1 : CT5366/650 (Hillgrove)	59, 60, 61	L. effusa (4:1)

Figure 2: Hillgrove-owned properties and their assigned SEB-Offsets

Hillgrove intends to establish the designated SEB-Offset areas as conservation areas protected under Heritage Agreements (or similar), as stated in the NVMP on p31.

Preliminary negotiations are underway to establish heritage agreements or similar instruments for the SEB-Offset areas detailed in NVMP's 'Table 3' and illustrated in Figure 2 (above). The NVMP specifies that Heritage Agreements (or similar) will be established for offsets by Year 4 (2018), however, operational constraints have delayed this and we will endeavour to establish Heritage Agreements as soon as possible.

As of the 11th of September 2014 onwards, conventional farming operations have been modified or progressively withdrawn from the SEB-Offset areas highlighted above. Note the Google Earth image in Figure 3 (below), dated 22Aug18, illustrating that SEB-Offset work has commenced on '141 Mine Rd' and 'Mulawa' and the Google Earth image in Figure 7 (below) dated 22Aug18, illustrating that SEB-Offset works have commenced on the patches labelled Ferguson's/Lot 25 and Lot 25 .

Documentary evidence of compliance with EPBC 2013/6965 Condition 4,'Securing the lands identified as SEB-Offset areas' was provided in the 2014/2015 and 2015/2016 compliance reports.

3.5 Written evidence of compliance: SEB-Offset area establishment

2016/ 2017 Reporting Period

The Google Earth image in Figure 3, below, illustrates the completion of topsoil pre-stripping and direct seeding in the Mine Rd SEB-Offset areas designated in the NVMP as patches 38, 39, 40,41,48 and 49 on 141 Mine Rd and Mulawa. The combined areas within both blocks (including headlands and a rehabilitated gully erosion feature) total approximately 20.3ha.

Note the red-brown strips within the yellow highlighted blocks in Figure 5, which demonstrate that topsoil has been pre-stripped and direct-seeded between the adjacent 2015 direct-seeded rows. An erosion gully, previously running through 141 Mine Rd was rehabilitated, formed into a broad gently-sloping grassed waterway and direct-seeded with native plant species as a component of the topsoil pre-stripping operation in April/May 2018. 'Before' & 'after' photographs of this process are provided in Figures 5A to 5F, (below).

Both 141 Mine Rd and Mulawa have been extensively maintained since 2015, with mowing, selective brushcutting, selective weed spraying, hand weeding, tube-stock planting and slashing for fire risk reduction being among the many activities undertaken.

The Google Earth image in Figure 7, illustrates that SEB-Offset works have now commenced on the patches labelled Ferguson's/Lot 25 and Lot 25. The total area of new SEB-offsets commenced on Ferguson's/ Lot 25 in 2018 was approximately 6.68ha or approximately half of the available area of 13.35ha.

Details of work completed during this reporting period is summarised by the 2018 EBS Progress report, which can be accessed and viewed via the following link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to the following document;

'2018 EBS Annual Report.pdf'

Click to download...



Figure 3: Google Earth Image, 22Aug18, SEB-Offset establishment, 141 Mine Rd and Mulawa.



Figure 4: 141 Mine Rd; Deep-ripping subsoil following topsoil pre-stripping, between the rows which were pre-stripped and direct-seeded in 2015. Ripped areas (visible as the red-brown stripes in Figure 3 (above)), were cultivated and direct seeded with a diverse mixture of locally grown and collected native plant species in April/May 2018.



Figure 5A: North-South erosion gully before rehabilitation, 141 Mine Rd, May 2018.



Figure 5B: North-South erosion gully after rehabilitation, 141 Mine Rd., November 2018. Note the 3 to 4m deep gully is now a broad, gently sloping grassed waterway. The green areas indicate the emergence of native grass species, including *Rytidosperma* spp. and *Austrostipa* spp.



Figure 5C: East-West erosion gully during rehabilitation, 141 Mine Rd., May 2018



Figure 5D: East-West erosion gully after rehabilitation, 141 Mine Rd., November 2018. Note the 3 to 4m deep gully is now a broad, gently sloping grassed waterway. The green areas indicate the emergence of native grass species, including *Rytidosperma* spp. and *Austrostipa* spp.



Figure 5E: December 2003 Google Earth image highlighting the erosion gully running through 141 Mine Rd. (mid-picture), “before rehabilitation”.



Figure 5F: August 2018 Google Earth image of the erosion gully running through 141 Mine Rd., “after rehabilitation”.



Figure 6: Native grass emergence in topsoil pre-stripped and direct seeded rows, 141 Mine Rd., November 2018. This area was direct seeded in May 2018.



Figure 7: GE Image 22Aug18, SEB Offset Commencement on Ferguson's & Lot 25

3.6 Notification of commencement

As reported previously, notification of commencement of the action covered by EPBC 2013/6965 was provided to the ADEE on 11th September 2014. Please see previous compliance reports for details...

3.7 Record keeping: Implementation of the Offset and NVMP

Hillgrove maintains a range of records associated with delivery of the outcomes required by our NVMP and the conditions associated with EPBC 2013/6965. A range of preparatory activities and studies have been undertaken by Hillgrove as previously reported in the 2014/2015, 2015/2016 and 2016/2017 EPBC compliance reports. Details of activities undertaken, studies completed and records of progress under the NVMP are documented in this compliance report and the reports posted on Hillgrove's Web Page.

Documentary evidence of progress on actions specified by the NVMP for Year 1 to year 4 (11Sep14 to 11Sep18) is as follows:

3.7.1 Item 1; 'Removal of grazing/cropping pressure – summer 2014 to spring 2018'

A map highlighting land management limitations for the 2017/18 reporting period was provided to our share farmers in autumn 2018 (see Figure 8, below). Instructions to our share farmers were discussed before the commencement of cropping activities in 2018 and were similar to the instructions issued in 2016/2017. The areas labelled 'Ferguson's/ Lot 25 and 'Lot 25' in Figure 7 (above), were excluded from cropping and grazing activities in preparation for the commencement of topsoil pre-stripping and direct seeding in autumn 2018. Instructions to our sharefarmers will be amended in future years as the area of cropping land used to progressively establish SEB-offsets is expanded.

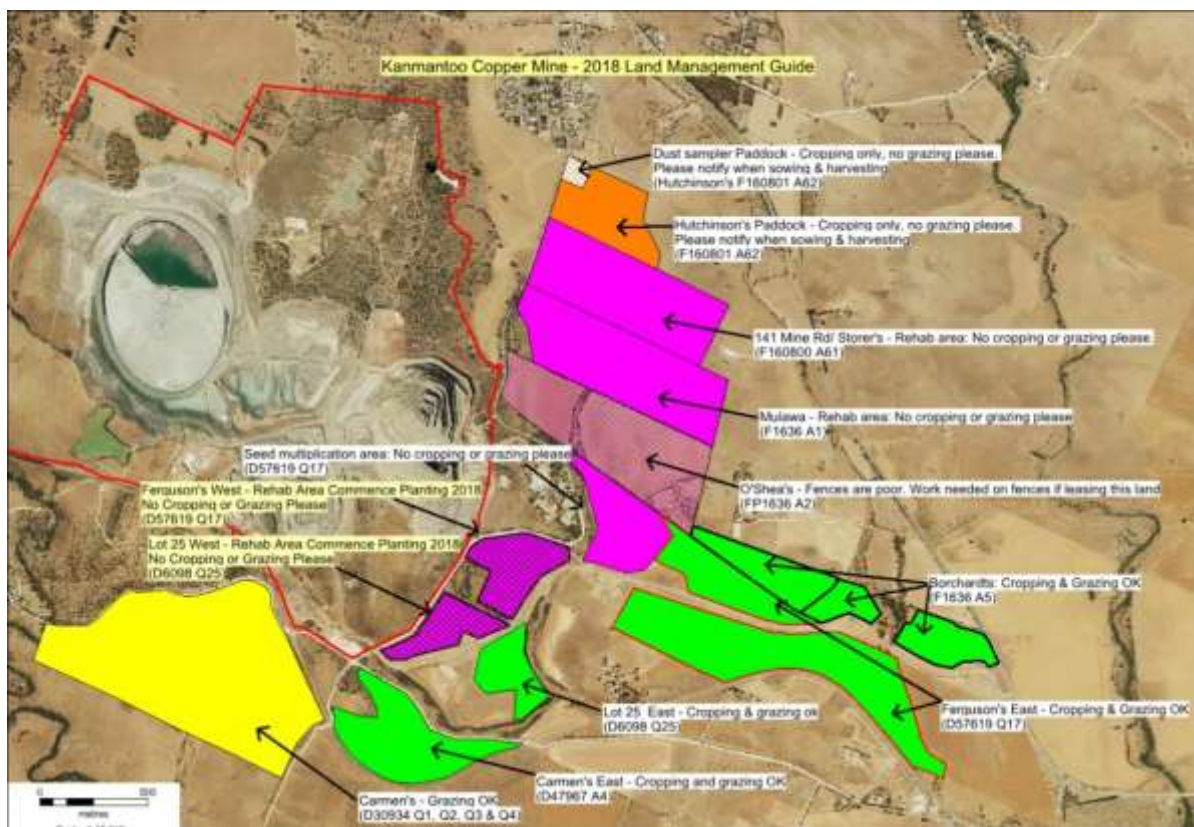


Figure 8: Hillgrove's Land management instructions to our share-farmer, autumn 2018.

3.7.2 Item 2: Schedule offset programs

A program of progressive SEB-Offset commencements associated with our initial ML conditions and EPBC 2013/6965, coincides with the scheduled completion of mine landforms in accordance with the Mine Plan and the projected availability of local-provenance native seed for hydroseeding and direct seeding.

The following map illustrates the projected total area of mine landform rehabilitation and SEB-offset commencements proposed between 2015 and 2019. These areas are collectively associated with our initial ML approval and the NVMP approved by EPBC 2013/6965. Please note that the schedule presented in Figure 9 (below) has changed due to operational constraints and will not be achieved by 2019.



Figure 9: Projected cumulative area of Mine rehabilitation and SEB-Offset program commencements, 2015 to 2019.

Figure 10 (below), illustrates the areas within the ML and outside the ML where rehabilitation and delivery of SEB-offsets have been commenced by the end of this reporting period (September 2018). The pink highlighted areas in Figure 11 (below) indicate mine landforms which will be available for rehabilitation in autumn 2019. The pink areas contain approximately 48 'planar' hectares, not including terrain variations. These areas are within the ML and will be hydroseeded with a seed mix containing approximately 25 native plant species, to promote the establishment of a *Eucalyptus odorata* open woodland community over the rehabilitated areas. With terrain variations adding approximately 7.2ha to the total area proposed for rehabilitation on the ML in 2019 (approximately 55.2ha), our seed reserves will be depleted and further SEB-offset commencement outside of the ML will need to be deferred until 2020.

Please note: It is becoming increasingly apparent that the planned schedule of SEB-offset commencements to be delivered by our NVMP by 2019 have become unachievable and a revision of our NVMP for EPBC 2013/6965 will be necessary. Regulators will be formally notified of this change in 2019 and a request to vary our NVMP will be submitted for consideration to the ADEE and SA DEM in 2019.



Figure 10: Mine rehabilitation and SEB-Offset program: Summary of Areas Commenced by September 2018.



Figure 11: Proposed Mine rehabilitation commencement, autumn 2019

Summary of Progress on delivery of SEB Offsets approved by EPBC 2013/6965

2017/ 2018 Reporting Period

Commercial conditions for the Kanmantoo Copper Mine progressively improved during the 2017/2018 reporting period. Expansion of the Main Pit was completed and the Mine is now reliably accessing significant quantities of copper ore. This has enabled the mill to operate at optimal throughput and has provided scope to accumulate large reserves of low-grade ore to be processed after the conclusion of mining operations. Improved cash-flow and commercial conditions, coupled with adequate native seed reserves, provided the necessary in-house budget for a modest SEB-offset commencement program during autumn 2018.

Progress during this reporting period was highlighted by the completion of topsoil pre-stripping, direct seeding and erosion gully rehabilitation encompassing NVMP patches 38, 39, 40, 41, 48 and 49 of the 141 Mine Rd and Mulawa plantings (see photos in Figures 13 to 17, below). Approximately 8ha of topsoil pre-stripping and direct-seeding was completed on the Mine Rd blocks, in addition to direct seeding of headlands and the rehabilitated erosion gully running through 141 Mine Rd (see below). The total area of SEB-offset now commenced at Mine Rd is approximately 20.3ha at the end of this reporting period.

This reporting period also saw the commencement of topsoil pre-stripping and direct seeding on Ferguson's and Lot 25 patches, totalling approximately 13.35ha. Approximately half of the available area, or 6.68ha, was prepared and direct seeded in April 2018 (please see photographs in Figures 18 to 21, below). Seed germination was good and establishment was acceptable, given the low rainfall we received this year. Weed competition was higher than expected; however, this was controlled through a combination of mowing to reduce seed set from annual grass weeds and selective weed spraying to control broad-leaved weeds. We will monitor weed emergence in autumn 2019 to determine if further weed control is required.

An intensive weed control and land management program on the Mine Rd patches also reduced weed competition and weed seed-set through spot-brushcutting, spot-spraying, hand weeding and selective boom spraying. Careful mowing of the newly-sown strips also reduced seed set and competition by remnant grassy weeds. Tractor-slashing and selective spraying of the direct-seeded headlands and rehabilitated erosion channel also reduced weed competition and assisted native grass establishment.

Tube stock planting continued on the Mine Rd strips and a range of other sites during this reporting period, with a total of 14,690 seedlings and 152 *Diuris behrii* tube stock planted overall during winter 2018. We trialled the introduction of 'plant plug' seedlings from 'HIKO' trays, with predominantly canopy and mid-story native species planted directly into 3-year old direct-seeded areas. HIKO seedlings are significantly less expensive to purchase and plant than conventional tube stock and closely resemble the emergence and resilience of seedlings emerging from direct-seeded areas. We also planted seedlings into rocky areas between direct-seeded patches to provide linkages between SEB-offsets as they develop. Seedlings were also planted to supplement rehabilitated areas within the ML. We'll monitor the success of the 2018 plantings and will use this technique in future if warranted.

Progress towards ensuring seed reserve capacity for future SEB-offset establishment programs continued during this reporting period. Spring/summer 2017 provided significant quantities mixed *Rytidosperma* and *Austrostipa* seed from maturing native grass swards at Mine Rd, in addition to seed harvested from our SPA and SMA. Seed from these areas was collected using hand-propelled 'grass grabbers' and a large ATV-mounted grass grabber. Seed from diverse range of local species was also collected by our wild-seed collection program from the ML and near-mine region.

Poor rainfall during 2018 has limited the growth of native seed by our SPA, SMA and the developing SEB-offset areas (see graph of cumulative rainfall in Figure 23, below). This is expected to constrain the area of new SEB-offsets which can be commenced in 2019. The following table illustrates work conducted within all aspects of our SEB-offset program by EBS-Restoration and Hillgrove staff during the 2017/2018 reporting period. Approximately 668 person-days of input was required to execute the 2017/2018 SEB-offset program (note table in Figure 12, below)...

Hillgrove Resources - Kamantoo Copper Mine													Total/ Task 2017/18
EBS Work Flow Summary - EPBC Compliance Reporting Period September 2017 to August 2018													
Task Description	EBS Labour input / Task x Month (Days)												
	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	
Preparation of progress reports	3.85											2.00	5.85
Program management	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	12.00
Seed storage and management	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	4.00	1.00	15.00
Seed cleaning and processing			2.00	11.00	17.00	4.87	16.00	11.00	4.00				65.87
Seed collection			44.50	12.00	12.00		4.00						72.50
Hand seeding/ SEB areas									3.00	42.00	1.50		46.50
Tractor slashing/ SEB areas - weed seed management	12.00	13.00	4.50	5.00		10.00	2.00	3.00	4.00				53.50
Tractor boom spraying							3.00			2.00	2.00	5.00	11.00
Tractor/ Seed bed prep/ Seed incorporation									1.00	8.00			9.00
Tubestock planting	16.00										11.00	19.00	103.00
SEB maintenance - Mine Rd	1.00	3.00			1.00	3.33	1.00	5.00	10.00	2.00	3.00	3.00	32.33
SEB maintenance - SMA	1.00	4.00	2.00		1.00	3.81	1.00	2.00	12.00		5.00		31.81
SEB Maintenance - Smelter Rd								4.00					4.00
SEB maintenance - Carmen's & McFarlane Hill		1.00							15.50	36.00	11.50	12.00	76.00
Site maintenance/ general	4.00	4.00	5.00	2.00									15.00
Water SEB tube stock			4.00		6.00		6.00	8.00					24.00
Annual Fauna monitoring & reporting		19.46											19.46
													0.00
Monthly EBS Labour Total (Days)	39.85	46.46	64.00	32.00	39.00	24.00	34.00	50.50	72.00	78.50	47.50	67.00	594.81
Labour input by other Contractors/ Off-Site SEB Offset Establishment (days)													
Eichler's Earthmover's (topsoil pre-strip etc.)									40.50	13.13			71.63
Total Labour Hours (all)	39.85	46.46	64.00	32.00	39.00	24.00	34.00	50.50	112.50	111.63	47.50	67.00	668.43

Figure 12: Table summarising the 2017/2018 SEB-offset work program by EBS & Eichler's

Detail of progress by EBS during this reporting period is summarised by the EBS annual Report. This report can be accessed from the Hillgrove web page via the following link;

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to the following document;

'2018 EBS Annual Report.pdf'

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Pictorial record of SEB-Offset establishment on assigned SEB-Offset areas

The following photographs document the progress of SEB-offset establishment on the Mine Rd offset areas since commencement in 2015 and document the commencement of new SEB-offset areas at Ferguson's and Lot 25 in 2018.

SEB-Offset establishment on assigned SEB-Offset areas... 141 Mine Rd



Figure 13: 141 Mine Rd, SW Corner; April 2015, following crop residue removal by grazing and prior to preparation for direct seeding



Figure 13A: 141 Mine Rd, SW Corner; November 2018. Note the emergence of canopy and mid-story species from the strips which were direct-seeded in 2015 and the completion of topsoil pre-strip/ direct seeding on weedy pasture inter-rows

Mine RD Blocks, (Continued): – ‘Mulawa’ NE Corner of the ‘main block’



Figure 14: ‘Mulawa’, April 2015. Photograph was taken following removal of cropping residues by grazing and prior to preparation for direct seeding.



Figure 14A: ‘Mulawa’ NW Corner, November 2018. Photograph was taken following 3-years of managing the initial rows, which were topsoil pre-stripped and direct seeded in 2015 and completion of the remaining topsoil pre-stripping and direct-seeding rows in May 2018.

Mine RD Blocks, (Continued): – ‘Mulawa’ SW Corner of the ‘main block’



Figure15: Mulawa SW Corner, main paddock: October 2016, growth of direct seeded strips.



Figure 15A: Mulawa SW Corner, Main Paddock, November 2018

Mine RD Blocks, (Continued): – ‘141 Mine Rd’ Central



Figure 16: 141 Mine Rd Central; Native grass establishment, November 2015



Figure 16A: 141 Mine Rd Central; Canopy and mid-story establishment, November 2018

Mine RD Blocks, (Continued): – ‘Mulawa’ NW Corner of the ‘main block’



Figure 17: Mulawa, NW Corner; November 2015, Grass establishment following direct seeding



Figure 17A: Mulawa, NW Corner; November 2018, note growth of canopy and mid-story species and completion of topsoil pre-stripping and direct seeding on adjacent rows.

Commencement of new SEB-offset provision at Ferguson's and Lot 25 during April 2018



Figure 18: Ferguson's, lower block looking SW – November 2018



Figure 19: Ferguson's, upper block looking NE – November 2018



Figure 20: Ferguson's/Lot 25 - November 2018 (note green seedlings indicating strong native grass establishment in the foreground)



Figure 21: Lot 25 – November 2018

3.7.3 Item 3; Survey of revegetation plots

As reported previously, vegetation surveys and fauna surveys were conducted on the SEB-Offset patches after commencement of the action covered by EPBC 2013/6965. See previous compliance reports for details...

2017/2018 Reporting Period

EBS conducted a fauna survey of the ML and Mine Rd SEB-offset areas during November 2017. This report can be downloaded by visiting the following link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension. Navigate down the page to 'Extension Documentation', then Navigate to the following document;

2017 Kanmantoo Mine Fauna Survey.pdf

The 2017 fauna survey Executive Summary is as follows...

Kanmantoo Mine Fauna Monitoring November 2017

EXECUTIVE SUMMARY

A total of 1042 bird observations of 52 bird species were recorded across both the ML bird roaming and SEB transects. The most abundant species present during the 2017 survey were: Black-faced Woodswallow (*Artamus cinereus*) (260 individuals); State vulnerable Yellow-tailed Black Cockatoo (*Calyptorhynchus funereus*) (65 individuals), Adelaide Rosella (*Platycercus elegans adalaidae*) (65 individuals), Australian Raven (*Corvus coronoides*) (65 individuals) and Australian Magpie (*Gymnorhina tibicen*) (65 individuals). In comparison, a total of 530 observations of 42 bird species were recorded during the 2016 spring survey.

Five bird species of conservation significance were recorded within the during the 2017 spring survey, three of these species were observed within both the ML and SEB areas, one species was observed only in the ML, and another single species was observed only in the SEB area. The bird species of conservation significance observed during the 2017 spring survey were:

- State vulnerable Yellow-tailed Black Cockatoo (*Calyptorhynchus funereus*) (65 individuals);
- State rare White-winged Chough (*Corcorax melanorhamphos*) (45 individuals);
- Nationally listed marine Rainbow Bee-eater (*Merops ornatus*) (4 individuals);
- State rare Elegant Parrot (*Neophema elegans*) (28 individuals), and
- State vulnerable Diamond Firetail (*Stagonopleura guttata*) (4 individuals).

Bird diversity of the conservation rated species in 2017 was similar to recent years however 2017 recorded the highest abundance, which can largely be attributed to the 65 individual Yellow-tailed Black Cockatoos being recorded.

Six mammal species and a total of 76 observations were recorded during the 2017 spring survey. The State rare Common Brushtail Possum (*Trichosurus vulpecula*) was targeted during spotlighting within the SEB areas (09/10/17) with no observations recorded, and on the Mining Lease (10/10/17) with 30 observations recorded. The number of possums continues to fluctuate across years, with a two-fold increase in numbers in 2017 compared to the previous year. Common Brushtail Possums have not been observed in the SEB area since the monitoring program began in 2011.

EBS conducted a landscape function analysis survey of the ML and Mine Rd SEB-offset areas during September 2017. This report can be downloaded by visiting the following link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension. Navigate down the page to 'Extension Documentation', then Navigate to the following document;

'2017 Kanmantoo Mine LFA Survey.pdf'

An extract from the 2017 LFA survey Executive Summary relating to the establishment of SEB-offsets on the Mine Rd patches is as follows...("scraped area", refers to topsoil pre-stripped and direct-seeded rows at Mine Rd)...

Four additional monitoring sites were established within another scraped area east of Mine Road in 2017, including one *Acacia* (KANACA RT 02) and three Peppermint Box Woodland transects (KANODO RT 18, KANODO RT 19 and KANODO RT 20) (Figure 2). These sites have experienced proliferation of native grass swards following seeding and results indicate exceptionally high stability, infiltration and nutrient cycling function above that of analogue sites. At this early stage of rehabilitation, positive indicator results appear to exceed expectations. However, these sites lack the structural complexity anticipated once tube stock establishes over several years.

Results from the 2017 LFA survey indicate that high-quality vegetation swards are successfully being established at the Mine Rd. SEB-offset area. LFA parameters for the new vegetation areas continue to be on a trajectory towards the development a level of vegetation diversity comparable with high-quality analogue sites. The structural diversity of these sites are expected to develop in time, as vegetation matures and succession in mid-story and canopy species delivers fallen timber and other associated niches to the landscape.

3.7.4 Item 4: Install rabbit-proof fencing

2017/ 2018 Reporting Period

Fencing maintenance during this reporting period involved minor repairs identified during fence inspections. The removal of livestock from 141 Mine Rd/ Mulawa and surrounding Hillgrove-owned properties, continues to reduce fence damage and incursion by livestock. Fence damage this season was due to limbs falling from trees during storm events and Kangaroos moving to and from the Mine Rd SEB-offset areas.

3.7.5 Item 5: Source equipment and engage contractors

EBS Restoration is the principal contractor responsible for SEB-Offset establishment, weed control and feral animal control on designated SEB areas as outlined in the NVMP. EBS-Ecology is the principal contractor responsible for fauna & flora surveying.

2017/ 2018 Reporting Period

Hunter Brothers Earthmovers were initially engaged as the contractors responsible for 'topsoil pre-stripping' and land preparation process during the initial 2015 program at Mine Rd, however they were unavailable during 2018 and Eichler Earthmovers were invited to carry out works during this reporting period. Eichler's demonstrated that they had access to the equipment and expertise necessary to effectively carry out topsoil pre-stripping, land ripping, erosion gully rehabilitation and topsoil stockpile construction. Eichler's will be invited to carry out future work programs on our behalf.

All contractors have proven continuing competence within Hillgrove's programs on the ML and SEB-offset areas adjacent to the ML. They have demonstrated access to the equipment and expertise necessary to effectively deliver SEB-Offset outcomes associated with Hillgrove's offset program.

3.7.6 Item 6; Weed and feral animal control

Details of weed and feral animal control programs during 2014/2015, 2015/2016 and 2016/ 2017 reporting periods can be found in previous EPBC compliance reports...

2017/ 2018 Reporting Period

Considerable weed control work was completed in the SEB-offsets during this reporting period. Activities including brushcutting, mowing, spot-spraying and selective boom-spraying, are summarised as 'maintenance tasks in Figure 12 (above), which highlights overall monthly labour inputs by task for this reporting period.

Feral animal control was not carried out during this reporting period. The RHDV1 K5 Calicivirus for rabbit control was released in South Australia in March 2017 and initial anecdotal observations indicate that the resident rabbit population appears to have been reduced by approximately 50%. This is supported by a slight reduction in visible rabbit populations at Kanmantoo and a reduction in visible damage to native vegetation during this reporting period. Rabbit control will be recommenced in future if rabbit populations show signs of recovering

Kangaroo numbers have steadily increased over the past four years, both within the ML and in the surrounding region. This may be due to below-average rainfall throughout southern Australia restricting forage availability outside of the higher-rainfall regions of the Mt Lofty ranges. Kangaroo populations will be monitored and a culling program may be instigated if they adversely impact the establishment of SEB-offset areas. It is likely that low fodder availability and limited surface water availability will naturally cull some of the local Kangaroo population during the 2018/ 2019 reporting period, but to what extent is unknown.

An integrated feral animal control program will resume on-site during the 2018/2019 reporting period if warranted.

3.7.7 Item 7: Investigative Studies

Several investigative studies were conducted in preparation for the establishment of SEB-Offset plantings on the designated offset patches. These studies have been discussed in detail in previous compliance reports. To view the reports associated with these studies, please navigate to the Hillgrove web page via the following link;

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to the relevant document, click to download and open the downloaded document.

2017/2018 Reporting Period

No new investigative studies were commenced during this reporting period. Further investigative studies will be scheduled in future reporting periods as required.

3.7.8 Item 8: Enhancement of Native Vegetation Remnants

Vegetation condition assessment suggests there is potential to improve the overall quality of remnant vegetation areas within the ML and on adjacent Hillgrove-owned properties.

2017/2018 Reporting Period

Vegetation enhancement works during this reporting period have improved vegetation condition in a section of McFarlane Hill within the ML and in two additional areas outside the ML, either side of the intersection between Mine Rd and Back-Callington Rd, labelled as 'Carmen's East' and 'Lot 25', below. The green highlighted areas (below) will be adjacent to SEB-offsets and will provide linkages to SEB-offsets when they are established.



Figure 22: Vegetation Enhancement commenced during the 2017/ 2018 reporting period

The green highlighted areas contain *Lomandra effusa* grasslands with moderate species diversity totalling 8.29 planar-ha. These areas are degraded by a significant cover of *Scabiosa atropurpurea* (pincushion daisy), in association with a range of other broad-leaved and grassy weeds. Vegetation enhancement work included tractor-slashing and precision brushcutting to knock down the *Scabiosa* plants, followed by several rounds of selective spot-spraying to kill the plant crowns and seedlings (see Figure 22A, below). Other broad-leaved weeds, including bridal creeper, thistles and cotton bush were targeted during spot-spraying. Trial plots were also established to assess the short and long-term efficacy and selectivity of various herbicides for *Scabiosa* and broad-leaved weed control. Results obtained will guide herbicide selection during future work programs.

A series of plots were established within the highlighted areas to assess the effectiveness of direct-seeding *Lomandra effusa* seed pre-treated with Gibberellic Acid, into small plots where the

topsoil has been pre-stripped to approximately 100mm and the plots protected by rabbit netting installed after seeding (see Figure 22B, below). We will determine the viability of this technique next winter when the survival of any seedlings can be assessed.



Figure 22A: Brushcutting *Scabiosa* to improve vegetation condition – Carmen’s East



Figure 22B: *Lomandra effusa* direct-seeding trial plots – Carmen’s east

3.7.9 Item 9: Adjustment of boundaries and resurvey

On-ground surveys did not indicate that either the SEB-Offset patch boundaries or the initially mapped property boundaries required adjustment during this reporting period.

3.7.10 Item 10: Build-up seed reserves/ order seeds

As reported previously, Hillgrove has invested considerable effort into the development of our seed production, seed collection, broad-acre seed multiplication and seed storage capacity. Our programs collect, multiply and nurture local-provenance genetic material. Within seed multiplication areas, particular care is taken to support the growth of parent plants with minimal inputs to prevent possible epigenetic creep that could be fostered if we allowed seeds to be grown under 'soft' conditions, for example, through fertilising or over-irrigation to drive seed production volume at the expense of seed quality. Hillgrove has not purchased additional seed from external sources to date, with all direct seeded patches being established using locally-collected or locally grown seed.

2017/ 2018 Reporting period

This reporting period has been characterised by significantly lower rainfall than normal at Kanmantoo. The graph in Figure 23 (below) illustrates cumulative rainfall totals recorded by Hillgrove's Automatic Weather Station since 2012. The pink line highlights rainfall received during 2018. By the end of the reporting period (11Sep18), we had received only 67% of our average YTD rainfall. Low rainfall did not significantly reduce the amount of seed we harvested during spring/summer 2017, but it is likely to reduce the amount of seed we will harvest during the 2018/ 2019 reporting period.

Our seed harvests and wild seed collection program included 26 native plant species and returned approximately 520kg of seed this reporting period. Seed reserves totalled approximately 634kg at the end of this reporting period. It is expected that seed harvest and wild seed collection during the first months of the 2018/ 2019 reporting period, will provide sufficient seed to supply the proposed 2019 hydroseeding program for rehabilitation of final landforms within the ML (Figure 11, above).

It is unlikely that sufficient seed reserves will be available in 2019 to commence new SEB-offsets, in addition to the projected area of mine landform rehabilitation. Preliminary enquiries indicate that commercial native seed suppliers within southern Australia have been similarly affected by lower than average rainfall, meaning that supplementary seed supplies cannot be purchased commercially during 2018/19. Subsequently, completion of direct seeding in the new SEB-offset areas commenced during this reporting period at Ferguson's and Lot 25 will be rescheduled to 2020 when sufficient seed may be available.

Details of seed reserves are contained in the 2017/2018 EBS annual report, which can be accessed via the link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to the following document;

'2018 EBS Annual Report.pdf'

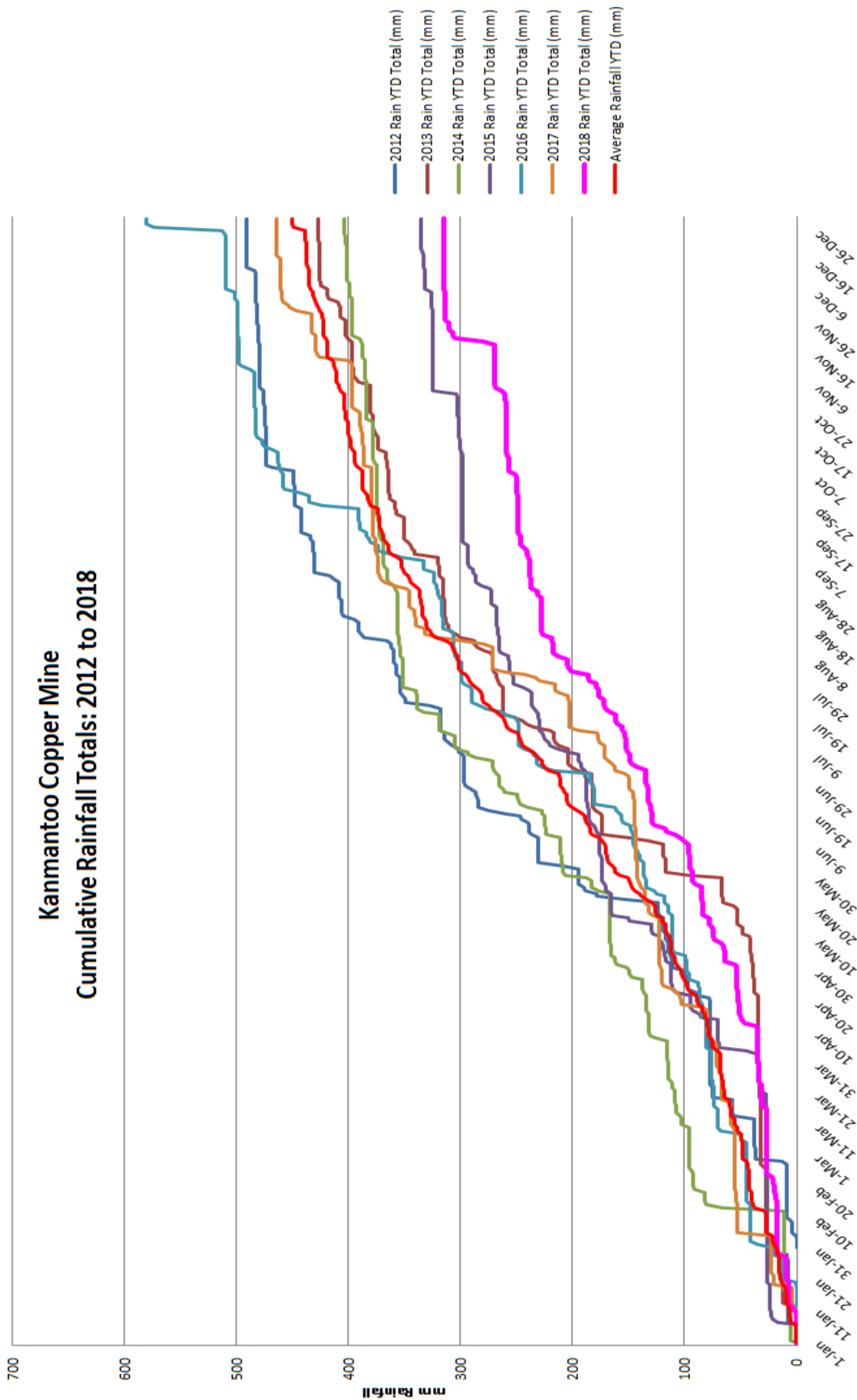


Figure 23: Cumulative rainfall totals for the Kanmantoo Copper Mine – 2012 to 2018

3.7.11 Item 11: Land preparation

During this reporting period, Eichler Earthmovers provided earthmoving services for SEB-offset establishment. They replaced the Cat 623 Scraper used by Hunter Brothers in 2015, with a land plane towed by a Case IH STX380 tractor to lift topsoil and remove it from the planting bays (see Figure 24, below). While this was an effective equipment combination, we observed higher than expected weed germination in the pre-stripped areas this reporting period. We addressed this through a combination of mowing to reduce grassy weed seed-set and selective herbicide spraying to remove broadleaved weeds. We will monitor weed emergence during autumn 2019 to determine if the land plane is suitable for continued use in future years.



Figure 24: Picking up windrowed topsoil with a Case IH/ Land Plane combination – 141 Mine Rd.

3.7.12 Item 12: Planting programs

2017/2018 Reporting Period

As mentioned previously, approximately 10.15ha of topsoil pre-stripping and direct seeding was completed on the remainder of the Mulawa/ 141 Mine Rd blocks during April 2018 and 6.7ha of new SEB-offset area was also commenced on Ferguson's and Lot 25. Collectively, this brings the total area of SEB-offsets 'commenced' to approximately 27ha.

Commercial and seasonal constraints in previous years have caused the proposed planting program to deviate from that originally approved in our NVMP for EPBC 2013/6965. A proposal to vary our NVMP will be submitted for consideration in 2019.

3.7.13 Item 13: Assess results and adjust methods

Initial results from topsoil pre-strip trials for SEB-Offset establishment within the NW corner of the ML, Smelter Rd and Mine Rd have proven very promising with strong stands of native vegetation established during the first 6-years of establishment. Figures 25 to 25D (below), illustrates the sequence of native vegetation establishment with minimal weed competition on the 'Smelter Rd' SEB-Offset trail area within the ML.

Preliminary observations from the nearby Mine Rd SEB-Offset patches indicate they are trending towards the promising result we have observed on the Smelter Rd trial area. *Initial observations indicate that an adjustment to planting methodology is not warranted at this stage.*



Figure 25: Rehabilitation of Smelter Rd just prior to direct seeding, April 2012. Smelter Rd provides an analogue site for the Mine Rd plantings. It provides a benchmark to track the development of direct-seeded vegetation using the topsoil pre-strip technique.



Figure 25A: Establishment of native vegetation in the third year following topsoil pre-strip (Smelter Rd, Kanmantoo Copper Mine), October 2015. Note *A. pycnantha* beginning to emerge above grasses.



Figure 25B: Smelter Rd rehabilitation, Year 4 – October 2016, *A. pycnantha* and *Atriplex* spp. emerging from a well-established *Rytidosperma* (Wallaby Grass)/ *Stipa* sward. This patch will mature to form a grassy-woodland vegetation association dominated by an *A. pycnantha*, *E. odorata* and *A. verticillata* overstorey.



Figure 25C: Smelter Rd rehabilitation, Year 5 – July 2017, *A. pycnantha*, *A. verticillata* and *Atriplex* spp. emerging from a maturing *Rytidosperma* (Wallaby Grass)/ *Austrotipa* sward. This patch is developing into an *A. pycnantha* open woodland community.



Figure 25D: Smelter Rd rehabilitation, Year 6 – December 2018, *A. pycnantha*, *A. verticillata* and *Atriplex* spp. emerging from a maturing *Rytidosperma* (Wallaby Grass)/ *Austrostipa* sward. This photograph was taken 5-months later than the photograph in 2017 and in a very dry season, so the density of herbaceous species appears to have reduced due to reduced winter growth and grazing by kangaroos this season. The mid-story and canopy species continue to mature and this area is progressing well towards forming an *A. pycnantha* open woodland community.

3.7.14 Item 14: Replanting program

Initial results have been promising. Replanting was not warranted at this stage of the SEB-Offset establishment program. Establishment within the new Mine Rd, Ferguson's and Lot 25 plots will be assessed during late spring 2019. Replanting will only be considered if establishment is poor or weed competition is excessive.

3.7.15 Item 15: Establish heritage (or other) agreement

All areas allocated for SEB-Offset establishment are on Hillgrove-owned land. Both Hillgrove's CEO and our Environment Manager have undertaken to allow the establishment of Heritage Agreements (or similar instruments) over the SEB-Offset patches, with the Heritage Agreements (or similar) to be lodged against the Land Titles for each property.

Though Heritage Agreements (or similar) are not currently established for the Mine Rd patches, it is Hillgrove's intention to proceed with establishment in the foreseeable future.

3.7.16 Item 16: Inspect and maintain fences

The removal of livestock from the Mine Rd patches and adjacent Hillgrove-owned land has significantly reduced livestock pressure on the ageing fences surrounding 141 Mine Rd, Mulawa,

Ferguson's and Lot 25. Fence inspections were carried out during autumn/ winter 2018. The majority of fence repairs related to damage caused by falling trees during winter.

3.8 EPBC Act - Compliance report for EPBC 2013/6965

This report is intended to satisfy Hillgrove's obligation to prove compliance with the conditions associated with EPBC 2013/6965. We believe that we have adequately addressed the NVMP and we are making good progress in all areas.

The initial report for 2014/ 2016 was published on the Hillgrove Resources web page. The report can be viewed via the link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to '*2015 EPBC Act Compliance Report*' and click to download... Open the downloaded document.

The 2015/ 2016 Compliance Report has also been posted on Hillgrove's web page and can be accessed via the link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to '*2016 EPBC Act Compliance Report*' and click to download... Open the downloaded document.

The 2016/2017 Compliance Report has also been posted on Hillgrove's web page and can be accessed via the link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to '*2017 EPBC Act Compliance Report*' and click to download... Open the downloaded document.

The 2017/2018 Compliance Report has also been posted on Hillgrove's web page and can be accessed via the link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to '*2018 EPBC Act Compliance Report 11Dec18*' and click to download... Open the downloaded document.

3.9 Participation in audit (if required)

Hillgrove will actively assist with an audit of our compliance with EPBC 2013/6965 if requested to do so.

2016/2017 Reporting Period

Hillgrove participated in a site inspection by the ADE and DEM (DSD) staff on 18May17. A report of this inspection was returned to Hillgrove on 29Aug17. A copy of the inspection report and accompanying cover letter can be accessed via the following links;

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation', then Navigate to the following documents;

'EPBC 2013/6965 site inspection close out.pdf'

and...

'Mining Inspection Report_Kanmantoo Copper Mine_May 2017'

Click to download... Open the downloaded document...

During the site inspection, the reporting officer found that there were no non-compliances with approval conditions, but commented that some areas had not yet commenced management actions.

Hillgrove acknowledges these comments and intends to re-commence management actions as approved in autumn 2018.

2017/2018 Reporting Period

Hillgrove received no further requests for audits or inspections from Regulators during the 2017/2018 reporting period.

3.10 Approval for non-approved activities

No non-approved activities have been undertaken or are planned to be undertaken at the time of writing this report.

3.11 Revision of NVMP (if required by the Minister)

Mine activities have proceeded in accordance with approvals. A formal request for revision of the NVMP has not been received from The Minister at the time of writing this report.

Due to SEB-offset and mine rehabilitation program deferrals as a result of difficult operating conditions for Hillgrove between 2015 and 2017, we will voluntarily seek to revise the current NVMP in 2019.

The 'topsoil pre-strip method' of SEB-offset establishment has proven to be so successful, that a revision of the land areas currently allocated for SEB-offset establishment will be requested in an amended NVMP. This would see a 1 for 1 exchange of Hillgrove-owned land currently under cropping, for the areas currently allocated to SEB-offsets under this approval. This would result in no change to the total area of each category of SEB-offset delivered under this approval, but it would significantly improve the likelihood of achieving a high-quality outcome for the SEB-offset program overall. If these changes are approved, Hillgrove would seek to operate under a revised NVMP for EPBC 2013/6965 before the end of 2019.

3.12 5-year sunset date for commencement

Work commenced according to approvals on the 11th of September 2014. Subsequently, the 5-year sunset date for commencement will not apply to this approval.

3.13 Publication of NVMP

The NVMP was published on Hillgrove's Web Page and can be accessed via the following link...

http://www.hillgroveresources.com.au/article/Community/Mine_Life_Extension

Navigate down the page to 'Extension Documentation'

Navigate to 'PEPR Appendices Vol 3' and click to download...Open the downloaded document...

The NVMP is located under 'Appendix 9b Native Vegetation Management Plan 2014' and extends from page 147 to 213. The approved NVMP will continue to be available via the Hillgrove web page for the life of the Action.

4.0 Conclusions

Hillgrove Resources continue to actively work towards complying with both the spirit and intent of the approval granted by EPBC 2013/6965.

Vegetation disturbance associated with EPBC 2013/6965 was commenced on 11Sep14 and continued to the approved limit of disturbance during the initial reporting period (11Sep14 to 11Sep15). Vegetation disturbance has not subsequently extended beyond the limit described by the approved NVMP.

Hillgrove have addressed all of the elements outlined by our NVMP. Progress has been made on the establishment of SEB-Offset areas, with approximately 27ha of plantings commenced by the end of the 2017/2018 reporting period.

Seed production programs and wild-seed seed collection programs are continuing. Adequate seed supplies were available for the 2018 SEB-offset plantings and the Mine landform hydroseeding program. The 2019 Mine landform hydroseeding program is proposed to cover between 48 and 55ha of rehabilitated mine landforms. This is likely to deplete our seed reserves, requiring deferral of further SEB-offset commencement until 2020.

Observations continue to suggest that the topsoil pre-strip technique is well suited to the conversion of farming land to native vegetation with minimal follow-on weed competition. Management programs during 2017/2018 further consolidated the initial plantings and provided an excellent basis for the resumption of topsoil pre-strip and direct seeding in 2018.

Hillgrove will continue to work actively towards establishment of our assigned SEB-Offsets and look forward to requesting a revision to our NVMP in 2019. We hope to report further progress against our revised NVMP in the 2018/ 2019 Compliance Report.