

EPBC 2013/7025 - Kemmis 2 Offset Implementation Monitoring Report



EPBC 2013/7025: Kemmis 2 - Offset Implementation Monitoring Report

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ACN 128 110 976
ABN 87 128 110 976

Registered address
Level 1, 811 Gympie Rd
Chermside QLD 4032

Postal address
PO Box 1069
Hervey Bay QLD 4655

Telephone 07 4194 5009
info@earthtrade.com.au
earthtrade.com.au

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Project Manager	Alan Key 07 4194 5009 PO Box 1069 Hervey Bay QLD 4655
Prepared by	David Sasse Alan Key
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1 EXECUTIVE SUMMARY

The South Walker Creek Coal Mine (**SWC Mine**), owned by BHP Billiton Mitsui Coal Pty Ltd (**BMC**), is located in the Bowen Basin region of Queensland, approximately 125km south-west of Mackay (refer **Figure 1**). As part of the approval of two key projects, being Kemmis II (**K2**) and Mulgrave Resource Access (**MRA**), offset obligations relating to impacts to Matters of National Environmental Significance (**MNES**) were imposed by the Department of Environment (**DoE**) via the two Environmental Approvals dated 16 January 2015 (EPBC 2013/7025 for K2 and EPBC 2014/7272 for MRA). The approval for K2 was subsequently amended in the “Variation to Conditions Attached to Approval – Kemmis 2, South Walker Creek Coal Mine (EPBC 2013/7025)” dated 26 August 2015. The varied approval acknowledges that the K2 project will be undertaken in two stages. The K2 approval requires that the proponent offset the loss of 13.2ha of the Threatened Ecological Community (**TEC**) *Acacia harpophylla* (Brigalow) dominant and co-dominant ecological community, and the loss of 31.7ha of the TEC Natural Grasslands of the Queensland Central Highlands and the Northern Fitzroy Basin. The approval for the MRA project requires that the proponent offset the loss of 59ha of the brigalow TEC, which includes habitat for the Ornamental Snake (*Denisonia maculata*) which is a listed threatened species under the *Environmental Protection and Biodiversity Conservation Act 1999* (**EPBC Act**).

The offsets to satisfy the obligation for the K2 project as per the approval are located on Dabin Holdings, a rural property owned by BMC. Dabin Holdings is a heavily vegetated property that lies approximately 45km north of Moranbah and 68km west of Nebo within the Isaac Regional Council area in Central Queensland (see **Figure 1**). As part of the approval conditions, BMC was required to develop and implement a monitoring program and a process to review and report on the progress of the offset management plan. These monitoring and reporting requirements are detailed in the *Biodiversity Offset Management Plan for Kemmis II Project and Mulgrave Resource Access Project* (BMC, August 2015) and the *Offset Area Management Plan for Kemmis II Project and Mulgrave Resource Access Project* (BMC, August 2015) (**OAMP**).

The offset to satisfy the obligation for impacts to the brigalow TEC for the MRA project as per the approval is also located on Dabin Holdings. The offset to satisfy the obligation for the impact to the habitat for ornamental snake for the MRA project is located on a separate property, being a third party owned property called Zamia Creek, situated on the Dawson Highway approximately 70km west of Moura and 10km east of Bauhinia within the Central Highlands Regional Council area in Central Queensland (see **Figure 1**). As part of the approval conditions, BMC was required to develop and implement a monitoring program and a process to review and report on the progress of the offset management plan. These monitoring and reporting requirements are detailed in the *Biodiversity Offset Management Plan for Kemmis II Project and Mulgrave Resource Access Project* (BMC, August 2015) and the *Offset Area Management Plan for Mulgrave Expansion Project- Zamia Creek (North Section)* (Earthtrade, June 2015) (**OAMP**).

This document forms the photopoint report, as per the reporting schedule detailed in the OAMP for the Kemmis II Project and Mulgrave Resource Access Project, and reports on the progress against the management outcomes and actions described in that OAMP. The photopoint report for the offsets located on Zamia Creek is provided in a separate document.

2 PROJECT, APPROVAL AND OFFSET DETAILS

The details of the project, approval, and details of the offsets located on Dabin Holdings are shown below in **Table 1A**. The details of the EPBC approval conditions are shown in **Table 1B**.



Table 1A: Project and offset details – Dabin Holdings offsets

Item	Details
Project Names	Kemmis 2, South Walker Creek Coal Mine, Bowen Basin, Qld (K2) South Walker Creek Mulgrave Pit Extension, near Nebo, Queensland (MRA)
Project Location	Approximately 125km south-west of Mackay, Qld
EPBC Approval number	K2 - 2013/7025 MRA – 2014/7272
Approved Actions	K2: <i>“To develop a new open cut mining pit within the boundaries of Mine Lease 4750 located approximately 25km west-south-west of Nebo, Queensland in the Bowen Basin”</i> MRA: <i>“To continue mining at the existing South Walker Creek Mine through a further development of the existing Mulgrave open cut pit, 25km west-south-west of Nebo, Queensland in the Bowen Basin”</i>
Approval Holder	BHP Billiton Mitsui Coal Pty Ltd
Approval Holder ABN	34 009 713 875
Offset Location - address	Dabin Holdings 8595 Suttor Developmental Road, Burton, Qld, 4742
Lot/Plan	Lot 2 SP214117
Offset area (ha)	K2 Brigalow - Stage 1: 3.2ha Stage 2: 13.8ha = 17ha K2 Grasslands – 65ha MRA Brigalow – 125ha
Landholder Name	BHP Billiton Mitsui Coal Pty Ltd
Landholder Phone	07 3227 5600
Landholder Postal address	GPO Box 1389, Brisbane, Qld, 4001

Table 1B: EPBC approval conditions related to Dabin Holdings offsets

Conditions - Biodiversity Offsets	Comments
6. The approval holder must provide environmental offsets for authorised unavoidable impacts to Brigalow (Acacia harpophylla dominant and co-dominant), Ornamental Snake (Denisonia maculata), Squatter Pigeon (Southern) (Geophaps scripta scripta) and South-eastern Long-eared Bat (Nyctophilus corbeni). 7. The approval holder must ensure that environmental offsets comply with the principles of the EPBC Act Environmental Offsets Policy. The approval holder must prepare and submit an Offset Management Plan, for the written approval of the Minister. The Offset Management Plan must include: a. a detailed baseline description of offset areas, including surveys undertaken, condition of existing EPBC Act listed threatened species and communities and their habitat; b. how the offset areas provide connectivity with other habitats and biodiversity corridors; c. performance and completion criteria for evaluating the management of the offset area, and criteria for triggering remedial action (if necessary); d. a description of the management measures that will be implemented for the protection of EPBC Act listed threatened species and communities listed at condition 6 and their habitat, including a discussion of how measures proposed are consistent with the measures in relevant conservation advice and threat abatement plans; e. a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria; and f. a timeline for when actions identified in the Offset Management Plan will be implemented for the offset area and the proposed legal mechanism for securing the offset. The approval holder must not commence the action until the Offset Management Plan has been approved by the Minister in writing. The approved Offset Management Plan must be implemented. 8. The approval holder must register and legally secure, in accordance with Queensland legislation, offsets for authorised unavoidable impacts within two (2) years of the commencement of the action.	Achieved with the following documents: 1. Wonbindi Coal: Offset Delivery Plan, dated 26 March 2015; 2. Zamia Creek Offset Area Management Plan, executed 29 July 2015 3. VDEC Offer executed 29 July 2015 4. Approval – Baralaba North Coal Mine Continued Operations, Baralaba, Queensland (EPBC 2013/7036) dated 20th December 2014

2.1 Offset Area Description

2.1.1 Dabin Holdings

Dabin Holdings is located north west of Nebo, and the offset areas are located in the eastern section of the holding (see **Figure 2**). The region's climate is sub-tropical with a sub-humid climate that has hot wet seasons and cool dry seasons with a high degree of variability. Mean annual rainfall at Dabin Holdings is around 600 mm and is received mostly between November and April. About a quarter of this is received in the remaining months (*Royal Geographical Society of Queensland, 2009*).

The predominant land use on the offset site is low-intensity cattle grazing. Historically the grazing of cattle has dominated land use within the region. The offset area on Dabin Holdings is a heavily vegetated area, being 100% remnant vegetation. The offset area comprises of areas mapped as either regional ecosystem (**RE**) 11.9.5 or 11.3.1. Vegetation is part of a large vegetation corridor to the north and west. All of the vegetation is over 15 years of age with the majority of the area containing vegetation in excess of 25 years and the vegetation is in good condition.

2.2 Management Objectives for the Offset Area

2.2.1 Dabin Holdings

The OAMP for the offset areas on Dabin Holdings describes the specific management objectives for the offset area, and are shown below:

The management objective of the environmental offsets for MRA and K2 is:

To conserve and enhance the environmental values of the threatened ecological communities over the long term, by working to increase the extent of both remnant and regrowth vegetation and improving its condition and management.

The management area objective is estimated to be achieved within 20 years, but ecological benefit is expected to occur within 5-10 years. It is recognised that the timeframes are subject to natural environmental and climatic conditions while unexpected events and other potential risks are also identified in Section 7.0; Risks and Risk Management of the OAMP.

The management objective will be considered to have been delivered if the Specific Management Outcomes have been achieved.

The schedule of specific management actions to meet the outcomes for the offsets are detailed in the OAMP, and are shown below in **Table 2A** (Dabin Holdings brigalow offset area), and **Table 2B** (Dabin Holdings grasslands offset area). The last column in each table reports on the progress of each management action to date.

Figure 1: Locality Map



Figure 2: Dabin Holdings – Offset Area

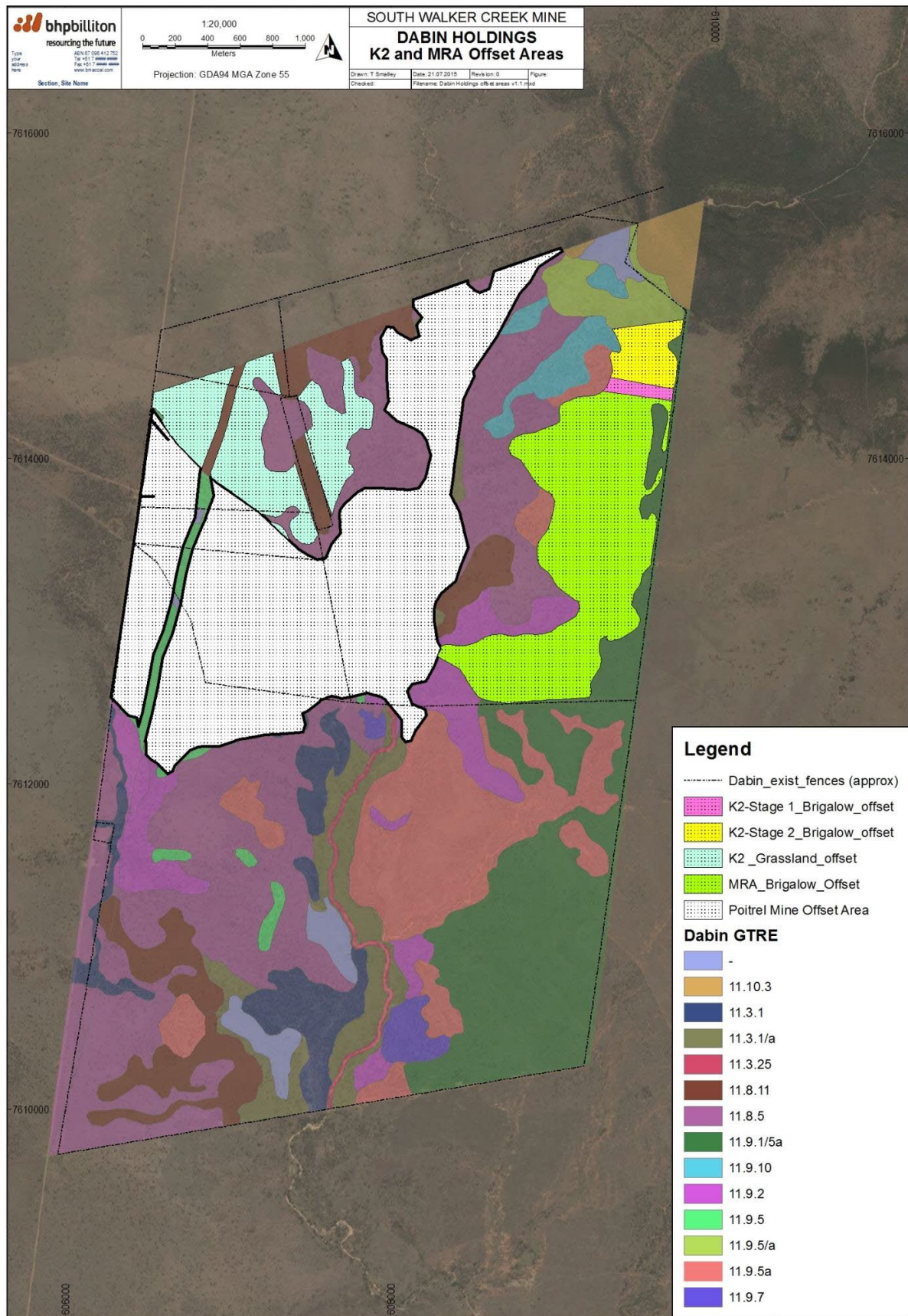


Table 2A: Schedule of Management Actions for the Offset Area (Brigalow) on Dabin Holdings

Management Activity	Performance Objectives	Where, when and how the activity will be carried out	Who will be carrying out the activity	Monitoring method	Reporting	Progress Report
Limiting disturbance	The extent and condition of Brigalow TEC will be maintained or increased between each successive BioCondition assessment.	Disturbance to vegetation within the offset is not permitted, except for maintenance of vegetation for: existing roads, firebreaks, easements and fencing. New firebreaks or fencing if required should be installed outside of the perimeter of the Brigalow community. Thinning of Brigalow to manage dense Brigalow regrowth (to promote rapid recovery of stunted Brigalow stands) may occur where canopy is >70%, stem count is >10,000 / ha, and recommended by a qualified ecologist. Ground disturbance (i.e ploughing) is not permitted. Removal of groundcover and organic litter is not permitted. Vehicle and machinery movement through the offset area is to be minimised. Deliberate introduction of non-endemic species is not permitted. The use of fertilisers on the property at locations where it could move into the offset area is to be avoided.	Landowner / Land manager	All activities will be monitored through - routine inspections by the landholder and/or agistee. - Landowner to develop a basic checklist for observations or actions relevant to managing the offset, including - weather conditions, - grazing intensity and stock rotation - pasture management activities such as seeding or fertilising, - pest and weed occurrence/ intensity and management activities, - erosion issues and any control works - incidents of fire and description - general property management activities such as fencing	Biocondition reporting to be undertaken every years. A detailed report will be submitted to the administering Government department at an interval not exceeding 5 years. The detailed report will compile and make an assessment of:	No disturbance to vegetation was apparent at the time of the site visit to conduct photopoint monitoring (26th April 2017). No activities that could disturb the vegetation has been recorded in the landholder records. Vehicle movements around the offset area have been restricted to those related to routine inspections and firebreak maintenance. Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A1) at each of the biocondition locations.
Grazing management	An improvement in the site condition and species stocking rate scores between each successive BioCondition assessment. Natural regeneration of Brigalow species will be recorded at each Biocondition Assessment.	The Landowner may graze stock in the Brigalow area in the following manner: - to occur primarily for the purpose of minimising the fuel load and risk of hot fire burn. - stock are to be carried at similar stocking densities to that historically carried on the property, however the duration of grazing within the Brigalow areas is to be reduced commensurate with fuel load present, such that grazing may be more intense if the Brigalow stem count exceeds 10,000/ha. - grazing intensity should be reduced during the wet season. - cattle should not be moved into the Brigalow area if they have come from a grazing area known to contain weed species that are seeding, until the fodder has passed through their systems. - stock will be excluded from the Brigalow offset area during periods of drought. The grazing regime is to be carried out for the life of the Offset Area Management Plan. The presence and abundance of native herbivores will be noted by the land manager and if abundance is deemed to be excessive then the landowner will encourage those species to move to other non-offset areas via noise, human activity or other nuisances.	Landowner / Land manager	• quarterly checklist data • bi-annual photopoint data • Biocondition results The summary report will undertake recalculation of the Offset Area score (as per EPBC calculator) to determine condition trajectory and ascertain if the Offset Area has achieved the outcome.	• quarterly checklist data • bi-annual photopoint data • Biocondition results The summary report will undertake recalculation of the Offset Area score (as per EPBC calculator) to determine condition trajectory and ascertain if the Offset Area has achieved the outcome.	This offset area overlays part of one paddock, being "Top Skull Paddock". Recent cattle movements are: January 2015 – May 2015: paddock empty 5th May 2015 – 390 No 4 steers put in to this and adjacent open "Bottom Skull" paddock. 5th October 2015 – two further adjacent paddocks ("Mailbox" and "Bottom Wards") opened up as well to this same mob. All 390 head were removed from the four paddocks on 4th April 2016. The paddock has been empty of stock since 4th April 2016, and was empty at the time of the site visit to conduct photopoint monitoring (26th April 2017). The offset area has been conservatively grazed, resulting in good levels of groundcover at the time of the site visit to conduct photopoint monitoring (13th May 2016). Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A) at each of the biocondition locations.

Management Activity	Performance Objectives	Where, when and how the activity will be carried out	Who will be carrying out the activity	Monitoring method	Reporting	Progress Report
Weed Management	Keep weed cover at or below baseline levels as determined by BioCondition surveys.	An initial weed spraying program will occur within the first 6 months of offset establishment. This will specifically target any small populations of Buffel grass or Parthenium that may be present. Thereafter the Landowner will undertake regular assessments for weed development. Should any weeds become established then additional weed control will be undertaken as early as practicable considering climatic conditions. The presence of foreign perennial weeds will be kept below 5% ground cover. Cattle should not be moved into the Brigalow area if they have come from a grazing area known to contain weed species that are seeding, until the fodder has passed through their systems.	Landowner / Land manager	- checklist to be completed quarterly by land manager. - ongoing interactions between BMC & the landholder including landholder records and anecdotal discussions. - Biannual photopoint monitoring for first 2 years, then annually for next 5 years, then biennially for remaining duration of offset. 5 yearly Biocondition monitoring		Regular assessments of the presence of weeds in the offset area have been made by the land manager (lessee) since the commencement of the lease with the landowner. Overall weed cover has remained well below 10% of the offset area over this time. Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A1) at each of the biocondition locations. It is noted that the summer of 2015/16 was hot and dry, with below average rainfall over the period of the wet season (refer to the landholder records shown at Appendix B). Accordingly, in discussions between the landowner and land manager during November 2015, it was agreed that weed treatment programs for this and other offset areas on the property would be deferred.
Pest animal management	Occurrence of pest animals is at or below levels estimated at commencement through baseline assessments.	Wild pigs pose the greatest risk to the improvement of the Brigalow offset area. Should the presence of pigs be noticed during the quarterly checklist, a pig eradication program shall be implemented within the Offset Area in accordance with the <i>Land Protection (Pest and Stock Route Management) Act 2002</i> . A similar program could be implemented if other pest animals become a noticeable problem. Where possible, native pest animals should be encouraged to move outside of the offset area through disturbance and nuisance activities such as noise and human presence. Anecdotal evidence (eg photos, written records) of pest animal presence and abundance should be collected.	Landowner / Land manager			The presence of wild pigs has not been noted since the commencement of the offset term, and no signs of their presence seen during the site visit of 26th April 2017. Kangaroos and wallabies were seen in low numbers at the time of the site visit of 26th April 2017.
Fire management	Maintenance of appropriate controls to enhance biodiversity and reduce fuel loads. The occurrence of any fire in the offset area will be recorded. Biocondition assessments will make a determination of impact resulting from any fire. Allow the accumulation of fallen timber/debris and the establishment of natural undergrowth. Biocondition Assessments will be used to measure this.	Fire management is a key item in the threat abatement plan. To the extent practicable, fire is to be excluded from the Brigalow TEC Offset Area, except for ecological burns. A low intensity fire may be permitted at intervals greater than 7 years for ecological purposes if recommended by a qualified ecologist. Within 12 months from the date of this Offset Area Management Plan coming into effect a member of the Rural Fire Service Brigade (RFSB) inspect the offset area to assess the suitability of the current and proposed firebreaks. Any recommendation for improvement will be implemented within 6 months from receipt of those recommendations, provided they do not contradict this OAMP. Stock may be grazed in the Offset Area to assist in fuel reduction.				Firebreaks around this and other offset areas on the property are largely co-located with access tracks and boundary and internal fencing lines. The land manager (lessee) has undertaken firebreak maintenance since April 2016. This maintenance involves the slashing of the firebreak areas, in preference to the use of a grader or dozer blade, as these methods are more likely to result in surface erosion. Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A1) at each of the biocondition locations

Table 2B: Schedule of Management Actions for the Offset Area (Grasslands) on Dabin Holdings

Management Activity	Performance Objectives	Where, when and how the activity will be carried out	Who will be carrying out the activity	Monitoring method	Reporting	Progress Report
Grazing management	An increase in the density and abundance of indicator species in the Grassland TEC between each successive BioCondition assessment. An improvement in the site condition and species stocking rate scores between each successive BioCondition assessment. The presence of at least 4 indicator native grasses, and an average of 10,800 tussocks per ha.	The Landowner may graze stock in the grassland offset area in the following manner: • focus on maintaining a good cover of perennial grasses and legumes and encourage regrowth of TEC indicator species. • Maintain a minimum of 50% ground cover at the end of the dry season. • grazing should be avoided during peak flowering and seed set period (Oct – Dec inclusive). • cattle should not be moved into the Grassland area if they have come from a grazing area known to contain weed species that are seeding, until the fodder has passed through their systems. • Stock will be excluded from the Grassland offset area during periods of drought. Existing fencing will be maintained to enable stock management in the grassland offset area. Any new water points are to be located outside the offset area where possible. Relocation of existing water points will be investigated if these are considered to have an impact upon community recovery. The grazing regime is to be carried out for the life of the Offset Area Management Plan.	Landowner / Land manager	All activities will be monitored through • routine inspections by the landholder and/or agistee. • Landowner to develop a basic checklist for observations or actions relevant to managing the offset, including • weather conditions, • grazing intensity and stock rotation • pasture management activities such as seeding or fertilising, • pest and weed occurrence/intensity and management activities, • erosion issues and any control works • incidents of fire and description • general property management activities such as fencing • checklist to be completed quarterly by land manager.	Biocondition reporting to be undertaken every years. A detailed report will be submitted to the administering Government department at an interval not exceeding 5 years. The detailed report will compile and make an assessment of: • quarterly checklist data • bi-annual photopoint data • Biocondition results The summary report will undertake recalculation of the Offset Area score (as per EPBC calculator) to determine condition trajectory and ascertain if the Offset Area has achieved the outcome.	This offset area overlays part of two separate paddocks, being the “Top Skull Paddock” and the “Mailbox Paddock”. Recent cattle movements are: 5th May 2015 – 390 No 4 steers put in to “Top Skull” and adjacent open “Bottom Skull” paddock. 5th October 2015 – the “Mailbox” paddock and adjacent Bottom Wards paddock were opened up as well to this same mob. All 390 head were removed from the four paddocks on 4th April 2016. 24th October 2016 – 249 steers in to “Bottom Skull”. These steers were in the paddock at the time of the site visit on 26th April 2017. The offset area has been conservatively grazed, resulting in good levels of groundcover at the time of the site visit to conduct photopoint monitoring (26th April 2017). Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A2) at each of the biocondition locations.
Weed Management	The known and mapped Buffel grass infestation will be reduced or eradicated within 5 years of commencement. No new weed infestations will develop during the course of the offset. The presence of foreign perennial weeds to below 5%.	An initial weed spraying program will occur within the first 6 months of offset establishment with a secondary follow up to occur prior to any regrowth allowed to set seed. Thereafter the Landowner will undertake regular assessments for weed infestations as part of the routine quarterly checklist. If the presence of foreign perennial weeds exceeds 5% ground cover, then: • Subsequent herbicide spraying programs will be performed at intervals suited to regrowth of Buffel grass and seasonal timing and conditions pending the findings of the regular inspections. Should the Buffel grass persist, additional targeted herbicide spraying will occur as soon as reasonably practicable until such point as the natural grassland species are able to outcompete the Buffel grass. If it becomes apparent that a large seed bank is present then the land manager may choose to plough the soil (only in the areas of Buffel grass) to promote germination so that herbicides are more effective longer term. Grazing in accordance with the regime described above will encourage selective consumption of Buffel grass above other grass species. As such grazing should also be used as a tool to manage weeds.	Landowner / Land manager	All activities will be monitored through • routine inspections by the landholder and/or agistee. • Landowner to develop a basic checklist for observations or actions relevant to managing the offset, including • weather conditions, • grazing intensity and stock rotation • pasture management activities such as seeding or fertilising, • pest and weed occurrence/intensity and management activities, • erosion issues and any control works • incidents of fire and description • general property management activities such as fencing • checklist to be completed quarterly by land manager.	Biocondition reporting to be undertaken every years. A detailed report will be submitted to the administering Government department at an interval not exceeding 5 years. The detailed report will compile and make an assessment of: • quarterly checklist data • bi-annual photopoint data • Biocondition results The summary report will undertake recalculation of the Offset Area score (as per EPBC calculator) to determine condition trajectory and ascertain if the Offset Area has achieved the outcome.	Regular assessments of the presence of weeds in the offset area have been made by the land manager (lessee) since the commencement of the lease with the landowner. Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A2) at each of the biocondition locations. It is noted that the summer of 2015/16 was hot and dry, with below average rainfall over the period of the wet season (refer to the landholder records shown at Appendix B). Accordingly, in discussions between the landowner and land manager during November 2015, it was agreed that weed treatment programs for this and other offset areas on the property would be planned to be deferred.

Management Activity	Performance Objectives	Where, when and how the activity will be carried out	Who will be carrying out the activity	Monitoring method	Reporting	Progress Report
		Cattle should not be moved into the Grassland area if they have come from a grazing area known to contain weed species that are seeding, until the fodder has passed through their systems. The land manager will be responsible for removing any new weed species that may occur within 6 months of first being recorded.		- ongoing interactions between BMC & the landholder including landholder records and anecdotal discussions. - Biannual (May and November) photopoint monitoring for first 2 years, then annually (November) for next 5 years, then biennially (November) for remaining duration of offset. 5 yearly Biocondition monitoring		
Pest animal management	Occurrence of pest animals is at or below levels estimated through baseline biodiversity assessments.	Native herbivores may pose a risk to the improvement of the Grassland offset area should they reach plague proportions. Control of pest animals within the Offset Area shall be undertaken in accordance with the <i>Land Protection (Pest and Stock Route Management) Act 2002</i>. When required, pest animals should be encouraged to move outside of the offset area through disturbance and nuisance activities such as noise and human presence. Anecdotal evidence (e.g. photos, written records) of pest animal presence and abundance should be collected.	Landowner / Land manager			Kangaroos and wallabies were not seen in the grassland offset area at the time of the site visit of 26th April 2017.
Limiting disturbance	The extent and condition of Natural Grassland TEC will be maintained or increased between each successive BioCondition assessment. The presence of at least 4 indicator native grasses, and an average of 10,800 tussocks per ha.	Disturbance of the vegetation and soil in the offset area is to be limited to that necessary to encourage improvement in condition and extent for the duration of the offset. This will be achieved by: - No further ground disturbance or clearing of the vegetation (i.e. ploughing) except : - for maintenance of existing fire breaks and fencing - in areas of Buffel grass infestation where turning of the soil may assist in weed management by speeding up seed germination to then be eradicated. - for maintenance for existing roads and easements - Avoidance of pasture improvement activities - Minimisation of vehicle and machinery movement through the community - New firebreaks and fences may be installed provided that the new construction does not reduce the extent of the Grassland offset. - No deliberate introduction of non-endemic species - No use of fertiliser at locations where it could move into the offset area	Landowner / Land manager			No disturbance to vegetation was apparent at the time of the site visit to conduct photopoint monitoring (26th April 2017). No activities that could disturb the vegetation has been recorded in the landholder records. Vehicle movements in and around the offset area have been restricted to those related to routine inspections and firebreak maintenance. Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A2) at each of the biocondition locations.

Management Activity	Performance Objectives	Where, when and how the activity will be carried out	Who will be carrying out the activity	Monitoring method	Reporting	Progress Report
Fire management	Maintenance of appropriate controls to enhance biodiversity and reduce fuel loads. The occurrence of any fire in the offset area will be recorded. Biocondition assessments will make a determination of impact resulting from any fire.	To the extent practicable, fire is to be excluded from the Grassland TEC Offset Area, except for ecological burns. A low intensity fire may be permitted at intervals recommended by a qualified ecologist. Within 12 months from the date of this Offset Area Management Plan coming into effect a member of the Rural Fire Service Brigade (RFSB) inspect the offset area to assess the suitability of the current and proposed firebreaks. Any recommendation for improvement will be implemented within 6 months from receipt of those recommendations, provided they do not contradict this OAMP. Stock may be grazed in the Offset Area to assist in fuel reduction.				Firebreaks around this and other offset areas on the property are largely co-located with access tracks and boundary and internal fencing lines. The land manager (lessee) has undertaken firebreak maintenance since April 2016. This maintenance involves the slashing of the firebreak areas, in preference to the use of a grader or dozer blade, as these methods are more likely to result in surface erosion. Photo point monitoring was conducted on 26th April 2017 (refer to Appendix A2) at each of the biocondition locations.

3 PHOTO MONITORING – APRIL 2017

The latest series of photo monitoring was undertaken at Dabin Holdings on 26th April 2017. Photos were taken at each of the biocondition locations within each of the offset areas, as shown at **Figure 3** (Dabin Holdings). Photos were taken in a north, east, south and west direction (see **Appendices A1-A2**).

3.1 General Observations – Dabin Holdings

A number of general observations were made during the site visit on 26th April 2017. Firstly, much of the district is very dry, after a drier and hotter wet season than average (see the rainfall records at **Appendix B**). However, the conservative level of grazing across the property has ensured that there is still a good level of ground cover present.

The general level of weed presence is also good, with some higher levels of weed presence at the occasional pressure point such as gateways and off-stream watering points, where livestock traffic is more concentrated. Across the entire grassland offset area, the weed cover was estimated to be less than 5%.

No areas of significant erosion were seen during the inspection. The maintenance of firebreaks is done via slashing rather than scraping with a grader or blade, which has prevented any erosion in these areas. The light stocking rate of livestock that has been employed across the property has also assisted in this regard.

Fencing around and within the property is well maintained throughout in a stockproof condition. It is noted that a section of the northern boundary fence of the eastern portion of Dabin Holdings appears to be sited north of the actual cadastral boundary. It is understood that this is currently a matter being discussed between the owner of Dabin Holdings and the neighbouring property owner.

3.2 Non-compliances – Dabin Holdings

No non-compliances with the schedule of management actions relating to the offset areas were identified at the time of the site visit in May 2016.

3.3 Risks and Threats – Dabin Holdings

3.3.1 Existing risks and threats

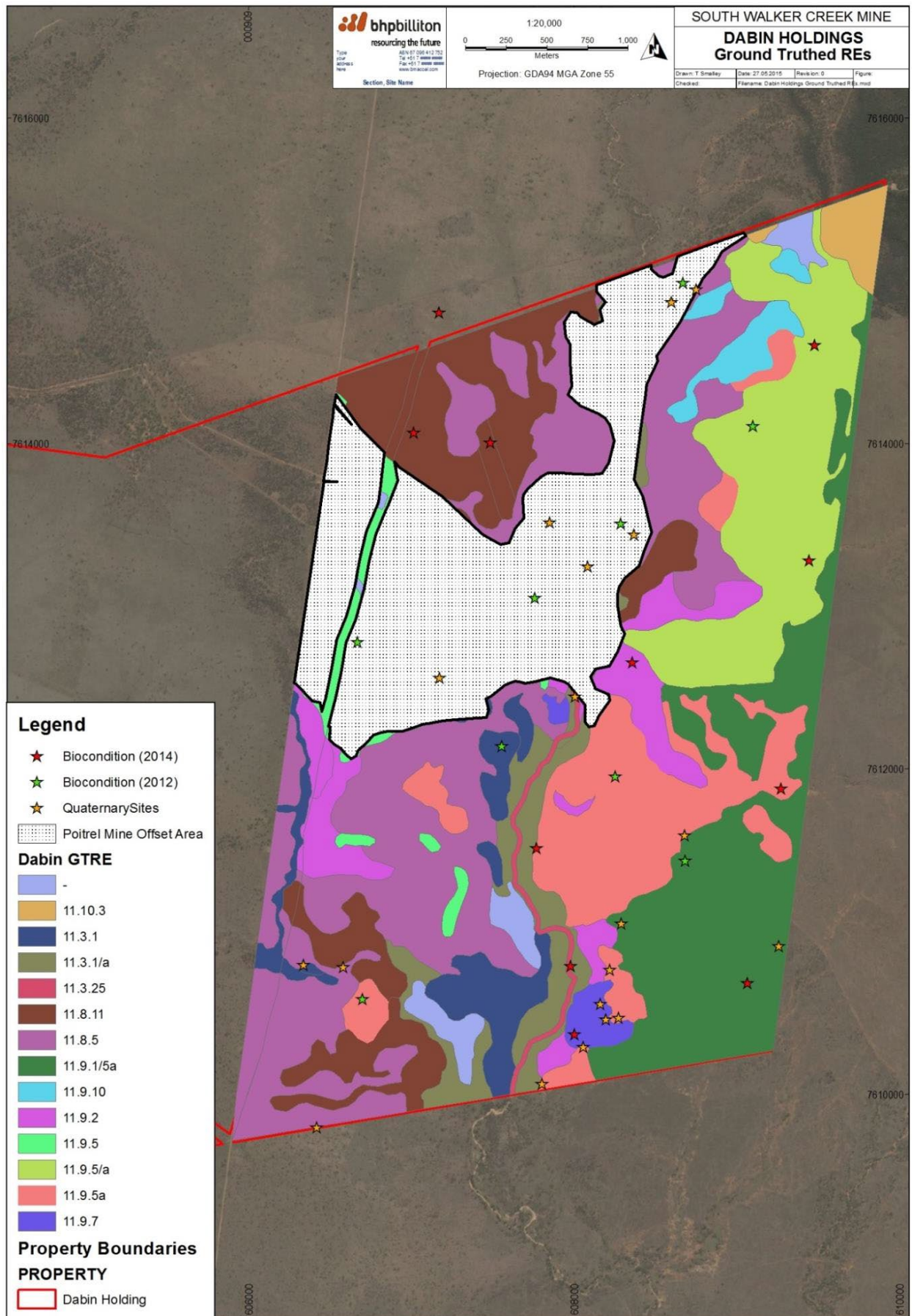
None of the threats and potential risks identified in the OAMP have impacted on the offset area beyond the stated criteria.

3.3.2 New risks and threats

No new risks or threats to the offset areas were identified at the time of the site visit in May 2016.



Figure 3: Biocondition locations – Dabin Holdings



APPENDIX A1: BIOCONDITION SITES PHOTOS – DABIN HOLDINGS – BRIGALOW OFFSET

Project	SWC Kemmis II	North			East
Code	QR061				
Site	Dabin Holdings L2 SP214117	South			West
Site Number	H3 Waypoint 124				
Location (easting)	609478				
Location (northing)	7614603				
Date	26 April 2017				

Project	SWC MRA
Code	QR061
Site	Dabin Holdings L2 SP214117
Site Number	H4 Waypoint 125
Location (easting)	609443
Location (northing)	7613282
Date	26 April 2017



Project	SWC MRA
Code	QR061
Site	Dabin Holdings L2 SP214117
Site Number	DHBC5 Waypoint 126
Location (easting)	609098
Location (northing)	7614105
Date	26 April 2017



APPENDIX A2: BIOCONDITION SITES PHOTOS – DABIN HOLDINGS – GRASSLANDS OFFSET

Project	SWC Kemmis II
Code	QR061
Site	Dabin Holdings L2 SP214117
Site Number	H6 Waypoint 128
Location (easting)	607485
Location (northing)	7614005
Date	26 April 2017



Project	SWC Kemmis II
Code	QR061
Site	Dabin Holdings L2 SP214117
Site Number	H7 Waypoint 127
Location (easting)	607013
Location (northing)	7614064
Date	26 April 2017



APPENDIX B: LANDHOLDER RECORDS – DABIN HOLDINGS

Livestock Movements

1 LIVESTOCK MOVEMENT IN/OUT OF DECLARED AREA

enabled 30/04/17
643 pm

Property Name	DABIN			Land Manager	DAVID WRIGHT	
Paddock Name	BOTTOM SKULL TOP SKULL			Year	2016	
Date	Number of head in	Number of head out	Total head in offset area	Breakdown by Type (cattle, steers, dry cows, cows with calves)		Comments/notes
18/1/16	0	0	0	N/A.		EMPTY SINCE 4/4/16
B.S. 30/1/17	249	0	249	STEERS IN 24/10/16		
T.S. 30/1/17	0	0	0			

Rainfall Records

Paddock Name	Bottom Skull Top Skull		Year		
Property Name	al n)	Season Total	Comments/no	Land Manager	Recorded by:
July		Winter			
August			NO RAIN SINCE LAST REPORT DATED 8/8/16 118 mm SINCE 19/8/16		
September	NIL				
October	15mm	Spring			
November	25mm				
December					
January	78	Summer			
February					
March					
April		Autumn			
May					
June					
Annual Total:					

Groundcover observations

Paddock Name		Bottom skull Top skull				Year	2016	
Property Name		Observation numbers - % cover					Land Manager	Recorded by:
		1	2	3	4	5	Average	Comments/notes
T.S. B.S.	DABIN						70%	
	DABIN						90%	30/1/17
	DABIN						75%	30/1/17

Pest animal records

[illegible]

Weed treatment records

[illegible]

Fire records

[illegible]

Vegetation clearing records

[illegible]