

Department of Infrastructure, Local Government and Planning

AMENDED REGIONAL INTERESTS DEVELOPMENT APPROVAL

RPI16/002/RIO TINTO - KESTREL EXTENSION #4 Coal Project

Given under Sections 53 and 55 of the *Regional Planning Interests Act 2014* (RPI Act) on 29 August 2016.

Description of the land

Location:

The following lots impacted by ML70481:

- Part of Lot 11 on SP178401
- Part of Lot 2 on RP615380 (Subsurface Lot)
- Part of Lot 26 on RP615396 (Subsurface Lot)
- Part of Lot 32 on RP615386 (Subsurface Lot)
- Part of Lot 24 on SP220221 (Volumetric Lot)
- Part of Lot 23 on SP220221
- Part of Lot 10 on TT71
- Lot 8 on TT424

ML70481 also includes part of the Crinum Creek watercourse, Gordon Road, unnamed road reserves and a temporarily closed road reserve within the area identified in the map in Attachment 1.

Local Government Area:

Central Highlands Regional Council

Holders	Address
Queensland Coal Pty Ltd	c/- Rio Tinto Coal Australia
Mitsui Kestrel Coal Investment Pty Ltd	123 Albert Street Brisbane QLD 4000

Approved activities

This amended regional interests development approval (RIDA) authorises impacts on the strategic cropping area (SCA) by the approved activity. The maximum extents of impacts on strategic cropping land (SCL) within the SCA as a result of the **resource activities** carried out under the Environmental Authority EPML00693413 must be confined as set out in Table 1 below.

Table 1: Approved activities

Area of regional interest	Location	Resource activity	Area of disturbance
Lots impacted by ML70481: Part of Lot 11 on SP178401; Part of Lot 2 on RP615380; Part of Lot 26 on RP615396; Part of Lot 32 on RP615386; Part of Lot 24 on SP220221; Part of Lot 23 on SP220221; Part of Lot 10 on TT71; Area Lot 8 on TT424 ML70481 also includes part of the Crinum Creek watercourse, Gordon Road, unnamed road reserves and a temporarily closed road reserve within the area identified in the map in Attachment 1.	Permanent Impacts Total area of disturbance Disturbances associated with establishing and remediating mine surface infrastructure which must be confined within the longwall mining footprint. Coal extraction and resultant impacts associated with longwall mine subsidence and remediation, confined to the underground mining footprint on ML70481.	949.0ha 71.0ha 949.0ha	
	Resource activities on ML 70481 carried out under the Environmental Authority EPML00693413: Areas impacted by mining activities that comply with the Strategic Cropping Land Standard conditions code for resource activities. (Attachment 2)	As required	

General Advice

This approval does not relieve the applicant of the obligation to obtain all approvals and licenses from all relevant authorities required under any Act.

Terms in this document that are highlighted in bold and italics are defined in the glossary in Schedule 1.

Other terms are to be defined in preferential order by: any relevant Queensland legislation, The Macquarie Dictionary, and any other widely-recognised English language dictionary published in Australia since 2010.

Regional interests conditions

A person who is the holder of, or is acting under this amended RIDA must not contravene a condition of this approval.

Condition number	Condition	Timing
1.	Carry out the approved activity and disturbance of land generally in accordance with:	At all times
	a) The activities identified in Table 1: Approved activities.	
	b) The approved drawings, Attachment 1 - SCL Protection Decision Plan SCLRD2012/000090, date 17 December 2015.	
2.	The maximum area of impact on SCA that may occur as a result of this development approval is to be no greater than 949.0ha.	At all times
3.	Mitigation measures must be in place for the 949.0ha of approved permanently impacted strategic cropping land.	Prior to commencing
	Mitigation measures are to be either:	activities that
	a) Payment to the mitigation fund as follows:	will result in
	 (i) a mitigation payment for 316ha within 12 months of commencing any of the approved activities listed in Table 1; and 	permanent impact on the land.
	(ii) a mitigation payment for 316ha prior to 12 months of the anniversary date of the payment in condition 3(a)(i); and	1.10 13.10
	(iii) a mitigation payment for 317ha prior to 12 months of the anniversary date of the payment in condition 3(a)(ii); or	
	b) a <i>mitigation deed</i> .	
	Note:	
	The mitigation value is determined by multiplying each hectare of the area of identified permanently impact land by the prescribed mitigation value, where:	
	 a) a permanent impact is where the land cannot be restored to its pre-activity condition because of carrying out the activity; 	
	 the number of hectares is rounded up to the nearest whole hectare; and 	
	c) the mitigation value for land in the Central Highlands Isaac sub- zone in the Western Cropping zone is described in section 16 (1)(a)(ii), Part 6 of the Regional Planning Interests Regulation 2014.	

4. Limitation of impacts on the SCA At all times a) The holder of the subject mining tenement must: (i) observe the respective constraints and areas of confinement on resource activities, and apply the corresponding post-disturbance treatments as specified in Table 2; and (ii) not apply **sewage**, **mine-affected water** or other wastewater to the strategic cropping area or allow the storage of sewage, mine-affected water or other wastewater on the strategic cropping area within the subject mining tenement; and (iii) progressively rehabilitate any disturbed the strategic cropping area, with the necessary rehabilitation works being completed promptly following disturbance. b) Notwithstanding the limitations in condition 5.a), on the strategic cropping area within the subject mining tenement, the holder can undertake any resource activity that is fully compliant with the Strategic Cropping Land standard conditions code for resource activities (Attachment 2).

Table 2: Constraints and post-disturbance treatments applicable to Areas of Confinement.

Area of confinement	Constraints	Post- disturbance treatment	
Underground Mining Footprint as delineated on the attached SCL Protection Decision Plan SCLRD2012/000090	Impacts that are a consequence of subsidence must be confined to this area, and the total area of strategic cropping area impacted must not exceed 949.0ha.	Promptly rehabilitate all land affected by subsidence once that subsidence has occurred, with the rehabilitation to be to the best possible class of agricultural land;	
	All mine surface infrastructure is to be confined to this area, and the total area of disturbance associated with mine surface infrastructure must not exceed 71.0ha.	Following the cessation of mining activities, promptly rehabilitate all land previously covered by the mine surface infrastructure, with the rehabilitation to be to the best possible class of agricultural land;	
Soil Conservation P	lan		

5.

	 a) Prior to the commencement of resource activities the holder must submit to and have endorsed by the Chief Executive a Soil Conservation Plan (SCP) that: (i) is to be applied to all land¹ within the subject mining tenement; and (ii) has been prepared by a suitably qualified person; and (iii) meets the requirements in Schedule 2: Requirements for a Soil Conservation Plan. 	
	b) Within 12 months of underground mining activities commencing on the land impacted by the <i>subject mining tenement</i> , the <i>holder</i> must review and if necessary revise the SCP. A revised SCP must be resubmitted for the endorsement of the <i>Chief Executive</i> , in accordance with the reporting requirements in Schedule 3: <i>Requirements for reporting</i> . Subsequently, the SCP must be reviewed on an annual basis, and if necessary, revised and resubmitted for endorsement by the <i>Chief Executive</i> .	
	 c) The <i>holder</i> must comply with the most recent SCP endorsed by the <i>Chief Executive</i>. d) The <i>holder</i> may at any time submit a revised SCP to 	
	d) The holder may at any time submit a revised SCP to the Chief Executive for endorsement.	
	e) The holder of the subject mining lease must meet the reporting requirements detailed in Schedule 3: Requirements for Reporting.	
6.	Subsidence-related ponding and scouring Without degrading non-impacted strategic cropping area, the holder of the subject mining tenement must: a) identify and monitor subsidence-related ponding or impediments to cropping caused by soil wetness that is a consequence of mining-related subsidence, as well as investigate any landholder's complaint regarding ponding and/or aggravated soil wetness; and b) relieve any ponding or soil wetness identified in complying with Item 6. a) (above); and c) ensure that changes in surface water and soil hydrology	At all times

as a result of subsidence do not materially increase deep drainage, cause an abnormal rise in shallow

¹ In a hydrological and soil conservation sense the *strategic cropping area* on the *subject mining tenement* cannot be considered in isolation of adjoining areas within the tenement that is not the *strategic cropping area* which the SCP must also consider. Likewise the SCP needs to consider and not materially affect the locations and flow rates or runoff entering and leaving the *subject mining tenement*.

	watertables or an increased risk of soil salinisation; and d) rectify and stabilise any scouring or streambank erosion resulting from subsidence-related changes in flows in:	
	(i) any first (1 st) or higher order watercourse shown on Plan SCLRD2012/000090; or	
	(ii) any man-made waterway on, entering or leaving the land impacted by the subject mining tenement.	
7.	The applicant is responsible for ensuring that a full copy of the regional interests development approval is held by any person(s) contracted to undertake the approved activity, throughout the construction and operation period.	At all times

Schedule 1: Glossary

'A' horizon or horizons

The surface layer or upper layers of the soil where organic matter accumulation will generally have resulted in darker colouration, compared to deeper layers in the soil profile, and in which the major proportion of biological activity in a soil is concentrated.

Best possible [in reference to the rehabilitation of land] class of agricultural land

When rehabilitating the *strategic cropping area*, all reasonable and practicable measures must be applied to return that land to a *class of agricultural land* that is at least equivalent to that prior to the subject development taking place.

Chief Executive

The chief executive of the department administering the RPI Act.

Class of agricultural land

Agricultural land class and subclass are as defined in Table 7 (page 42) of the *Guidelines for Agricultural Land Evaluation in Queensland* (DNRM & DSITIA, 2013) or a future edition of that publication.

Contaminant

As defined in s11 of the *Environmental Protection Act 1994*, or else anything that is not present naturally, and the anthropic introduction or release of which deleteriously alters the environmental value of soil, water or air, or represents an unintended threat to biota.

Contaminate

The introduction or release of a *contaminant*.

Cropping Land

The land identified as 'cropping land' in the attached Plan SCLRD2012/000090.

Deep drainage

Soil water that migrates to a depth beyond the root zone of the plants growing in that soil, and is thus unavailable for plant uptake.

Degrading/Degradation [of soil or land]

Anything, including but not limited to *soil erosion*, compaction, subsidence, waterlogging, salinisation, sodification, acidification, or contamination, which causes a deleterious change in those attributes of a soil related to the *Criteria for land* in Schedule 3 of the Regional Planning Interests Regulation 2014. N.B. the change does not need to result in the land becoming non-compliant with the thresholds for the *Criteria for land* to be considered dograded.

considered degraded

Disturbed/Disturbance [of land or soil]

Includes but is not limited to the following:

- compacting, removing, covering, exposing or stockpiling of earth;
- removal or destruction of vegetation or *topsoil* or both to an extent where the land has been made susceptible to erosion;
- subsidence of land;
- submersion of areas resulting from the capture or holding of water or other liquids in storages, dams, tanks, impoundments, etc., or any ponding associated with the subsidence of land;
- earthworks associated with the construction, maintenance or removal of any *mine surface infrastructure*; or
- releasing of *contaminants* into the soil or land.

Environmental Authority

As defined in Schedule 4 of the *Environmental Protection Act* 1994.

Erodibility [of soil]

For the purposes of satisfying these conditions, the erodibility of a soil is to be assessed by determining the applicable value (for Australian conditions) of 'K' factor² in the Revised Universal Soil Loss Equation (RUSLE), or any other means agreed to by the *Chief Executive*.

Footprint

The surface of the land permanently or temporarily modified or affected by an authorised **resource activity**, including subsidence, **mine surface infrastructure** and activities associated with the construction, maintenance or removal of that infrastructure.

Hazardous mine wastes

Storing of hazardous mine wastes, including, for example, tailings, overburden, waste rock and reject mined material.

Holder [of a mining tenement]

As defined in Schedule 2 of *Mineral Resources Act 1989*, and is the person (including officer, employee, contractor or agent) in whose name a permit, claim, licence or lease is recorded.

Impact

An influence or effect, either direct or indirect, resulting from a change, whether adverse or beneficial, in the previous condition or state of the environment.

References:

Loch RJ and Rosewell CJ (1992). Laboratory methods for measurement of soil erodibility (K factors) for the Universal Soil Loss Equation. Australian Journal of Soil Research, 30, 233-248.

Lu H, Prosser IP, Moran CJ, Gallant JC, Priestley G and Stevenson JG (2003). Predicting sheetwash and rill erosion over the Australian continent. Australian Journal of Soil Research, 41, 1037-1062.

Wischmeier WH and Smith DD (1978). Predicting rainfall erosion losses - a guide to conservation planning. Agriculture Handbook No. 537. United States Department of Agriculture, Washington DC.

² The soil erodibility 'K' Factor of the RUSLE is defined as the rate of soil loss per erosion index (El30) unit, for a specified soil as measured on the unit plot. It intends to represent the long-term susceptibility of different soil to erosion due to inherent soil properties. The unit of the 'K' Factor is t/ha/h per ha/MJ/mm.

The original basis of the calculation was the soil erodibility nomograph of Wischmeier and Smith (1978), which estimates K from surface soil structure, organic carbon content and particle size distribution, and profile permeability. Wischmeier and Smith's M parameter (the particle size parameter) should be replaced by the method of Lu et al (2003) which accounts for the use of fully dispersed particle size data. The resultant K value is then adjusted using the wet sediment density adjustment equation of Loch and Rosewell (1992).

Incident

An event or occurrence involving the *degradation* of soil or land, that the *Chief Executive* would reasonably consider a serious or material *impact* on the affected soil or land (N.B. the *impact* may be an indirect one, and not necessarily take place on the *strategic cropping area*).

Mine surface infrastructure

Surface structures intended for or to support underground mining activities, including ventilation shafts, mine portals, drifts, and adits.

Mine-affected water

Means the following types of water:

- mine and pit water, tailings dam water, processing plant water and workshop water;
- water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2008 if it had not formed part of the mining activity;
- run-off which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding run-off discharging through release points associated with soil conservation structures that have been installed in accordance with the standards and requirements of the Soil Conservation Plan or an approved Erosion and Sedimentation Control Plan, provided that this water has not been mixed with mine and pit water, tailings dam water, processing plant water and workshop water;
- groundwater which has been in contact with any areas disturbed by mining activities, or generated through the mine's dewatering activities; and
- a mix of mine-affected water—as defined under any of the preceding dot points in this definition—and any other water.

Mining tenement

As defined in Schedule 2 of the *Mineral Resources Act 1989*, and includes:

- · a prospecting permit;
- · a mining claim;
- an exploration permit:
- a mineral development licence; or
- a mining lease.

Mitigation deed

As defined in Section 64, Part 4 of the RPI Act.

Monitor [in reference to a management plan or managed activity]

The collection of information and data on parameters that characterise the nature or condition of something of relevance or potential relevance to a management plan or activity.

Permanent Impact

A **resource activity** has a permanent impact on strategic cropping land if, because of carrying out the activity, the land cannot be restored to its pre-activity condition.

Pollution [as a direct or indirect consequence of soil erosion]

The intentional or unintentional release of a material that alters the environmental value of soil, water or air (e.g. an increase in surface water turbidity or an increase in sediment loads as a consequence of soil erosion). Pre-disturbance A point in time preceding disturbance by a resource activity

and reasonably close to its occurrence.

Promptly [in reference to

restoration or

rehabilitation of land]

Without unnecessary delay, or as soon as possible.

So as to minimise the amount of time land is out of production or not in a suitably stable form, restoration or rehabilitation must commence as soon as it safe and practical to do so after the causative *disturbance* has ceased, and once there are no further physical or biological impediments to the successful restoration or rehabilitation of the subject area of land.

Restoration or rehabilitation work is (1) to be progressive, and (2) must be completed within 50 years of the granting of the

Environmental Authority for the subject mine.

Rehabilitate [the strategic

cropping area]

The return of disturbed **strategic cropping area** to a stable, productive and self-sustaining condition that supports the **best possible class of agricultural land.**

Resource Activity/ies Resource activity as defined under the RPI Act

Run-off water Water which accumulates on the soil surface as a result of

rainfall or other natural inflows and flows over the soil surface

from higher to lower land.

SCL Protection Decision As defined in s91 of the Strategic Cropping Land Act 2011 (now

repealed).

Criteria for land As detailed in Schedule 3 of the RPI Act.

Serious non-compliance Non-compliance with a management plan that would also

represent non-compliance or probable non-compliance with a condition imposed by a *regional interests development*

approval (RIDA).

Sewage Domestic and/or commercial wastewater that contains, or may

contain, faecal, urinary or other human waste, or a wastewater defined as sewage under the Plumbing and Drainage Act 2002.

Shallow watertables The piezometric surface of the groundwater in an aquifer that

has the potential to intercept, or interact by way of capillary action, with the root zone of crops growing on the **strategic**

cropping area on or downslope of the subject land.

Soil conservation

measures

Works, land management practices, undertakings, acts, proposals and prohibitions designed, built or proposed to be carried out for the purpose of controlling **soil erosion**, soil conservation, capture of sediment, or controlling or directing the

flow of run-off water.

Soil conservation works Structures intended for soil conservation and sediment control.

Soil erosion The natural or accelerated removal or deposition of soil which

may be detrimental to agricultural, pastoral, or forestry activities,

or public or private structures, works or infrastructure.

Soil horizon As defined in National Committee on Soil and Terrain (NCST)

(2009) Australian soil and land survey field handbook, third

edition. CSIRO Publishing.

Soil salinisation An abnormal increase in the concentration of dissolved ions in

the soil – whether or not that increase poses an immediate

phytotoxic risk to plants growing in that soil.

Strategic cropping area As defined in Section 10(1) of the RPI Act.

All land, including the strategic cropping area, within the

Subject land subject mining tenement.

Subject mining lease ML70481 as depicted in the registered survey plan.

Subject miningThat part of MDL182, MDL345 or MDL176 that is presentlytenementsubject to the application for ML70481, and any mining lease or

tenement subsequently granted over any land within the boundaries of ML70481 as depicted in the registered survey

plan of ML70481.

Subsoil Soil material from below the 'A' horizon or horizons of a soil

profile but above bedrock, weathered rock, a hard pan or

continuous gravel layer.

Suitably qualified A person who has professional qualifications, training, skills or

person experienc

experience relevant to the nominated subject matter and who can give a competent assessment, advice and analysis of pertinent data and information using protocols, standards, guidelines, methods and literature that are acceptable to the

Chief Executive.

Summary details [as

pertains to Reporting

conditions]

The provision of sufficient information to identify the nature of any consultations, complaints or similar interactions, but not sufficient to identify the persons involved in those interactions or

making any complaints.

Topsoil Soil from the 'A' horizon or horizons of a soil profile.

Wastewater An aqueous waste, including contaminated stormwater, as

defined under Environmental Protection (Water) Policy 2009.

Schedule 2: Requirements for Soil Conservation Plan (SCP)

- 1. The objectives of the SCP are to be:
 - a) ensure erosive soil loss from land within and downslope of the subject mining lease is less than or consistent with existing levels;
 - b) minimise to the greatest practicable extent the *disturbance* of soils or land within the *subject mining lease*;
 - c) no disturbance of soils or land outside of the subject mining lease;
 - d) no **pollution** of surface water as a result of **disturbance** or changes in hydrology of land on the **subject mining lease**; and
 - e) to limit the extents and duration of any disruption or obstruction of farming operations to only that necessary to satisfy the above objectives.

The SCP must:

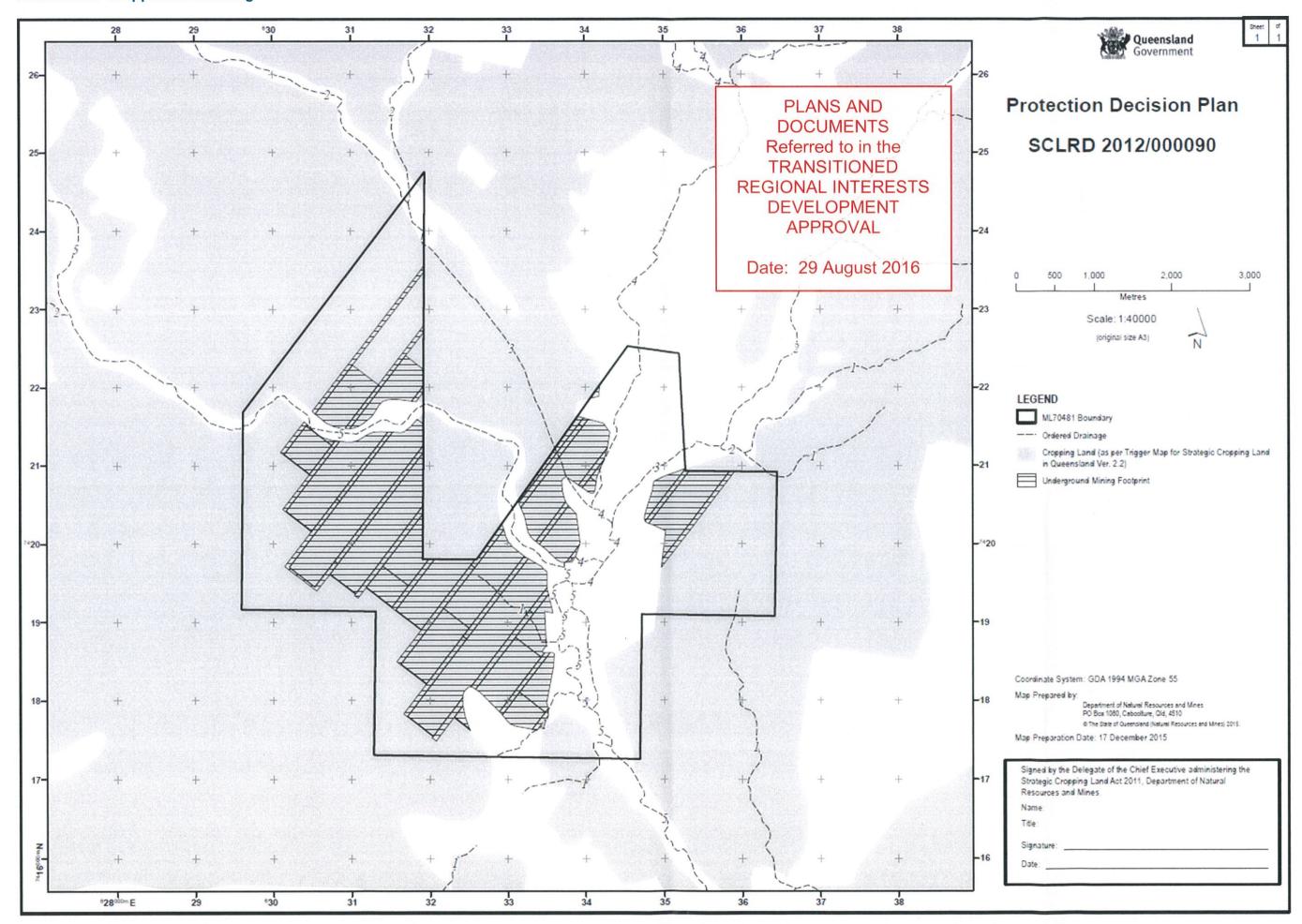
- a) be developed in consultation—as it relates to potential impacts to cropping operations—with the owners or occupiers of land within the subject mining lease;
- b) establish the baseline conditions of soils and of the land within the *subject mining lease*, including, but not limited to, ascertaining:
 - (i) the predicted erodibility of the soils;
 - (ii) the *pre-disturbance* severity and extents of *soil erosion* and associated land *degradation*;
 - (iii) the location and the design capacity of all 'pre-disturbance' soil conservation works; and
 - (iv) the likely *pre-disturbance* rates of *soil erosion* across all significant soil and land units within the *subject mining lease*.
- identify and document all activities on the subject mining lease (resource activities or otherwise) that could increase or affect soil erosion and sedimentation:
- d) the hydrological design of any new soil conservation works that are to be developed, modified or rebuilt must be consistent with the recommended design methods, equations and algorithms in the publication — Carey BW, Stone B, Norman PL, Shilton P (2015), 'Soil conservation guidelines for Queensland', DSITI, Brisbane, or alternatives identified as being applicable to Queensland conditions in the 4th edition of the publication 'Australian Rainfall and Runoff' (Engineers Australia) or a future edition of that publication.
- e) describe in detail the location and design of suitable and effective **soil** conservation measures and soil conservation works.
- f) detail how the integrity and functional efficiency of all soil conservation measures and soil conservation works will be effectively monitored, their performance assessed, and where they are found not to provide the necessary level of control, how any required changes to those measures or works will be implemented;
- g) describe how all **soil conservation works** will be maintained over the life of the proposed mine;
- h) describe the procedures to be implemented to:
 - (i) respond to any complaints made regarding matters that are the subject of the SCP;

- (ii) resolve any disputes with property owners, landholders or other persons affected by the SCP;
- (iii) deal with any impacts not predicted in the SCP;
- (iv) respond to any non-compliance with the SCP; and
- (v) respond to any emergencies related to matters that are the subject of the SCP;
- i) describe the role, responsibility and accountability of those persons who will be ultimately responsible for the administration of the SCP; and
- j) demonstrate how the objectives of the SCP listed in Schedule 2 Item 1 (above) are addressed by the SCP.

Schedule 3: Requirements for Reporting

- 1. The *holder* of the *subject mining lease* must:
 - a) within 12 weeks following the anniversary date for the issuing of the subject mining lease, finalise an Annual Report pertaining to the year preceding the anniversary date. All annual reports must be available for inspection and copies provided as requested by the Chief Executive or effected property owners. Each Annual Report must include as a minimum the following:
 - (i) details, including the timing, of all relevant **resource activities** undertaken in the preceding year and proposed in the current year;
 - (ii) the locational and design details of all soil conservation works—both new and remedial—undertaken in the preceding year;
 - (iii) details of any changes in practices or expected outcomes regarding the SCP;
 - (iv) copies of all *monitoring* data and relevant reports;
 - (v) summary details of all complaints received regarding soil conservation and subsidence-related matters; as well as the resolution of those complaints;
 - (vi) an interpretation of all *monitoring* data and relevant reports relating to Schedule 3 Item 1.a).iv;
 - (vii) details of all measures proposed to address any underperformance or noncompliance with the SCP for the subject mining lease, which are relevant to the reporting period, and manage any significant, unpredicted impacts not addressed by the SCP; and
 - b) within 10 business days of becoming aware of an *incident*, or the receipt of *monitoring* results demonstrating *serious non-compliance* with the SCP, provide written advice of the *incident* or serious non-compliance to the *Chief Executive*, with that advice to include the following:
 - (i) details of the nature of the *incident* or *serious non-compliance*;
 - (ii) the results and interpretation of any samples taken and analysed;
 - (iii) the outcome of actions taken to rectify the *incident* or *serious non-compliance*, and the associated *impacts*; and
 - (iv) details of the actions proposed to prevent a recurrence of the *incident* or serious non-compliance;
 - c) record and maintain a Complaints Register, detailing of all complaints received regarding soil conservation and subsidence-related matters including:
 - (i) name and any contact details of the complainant;
 - (ii) time and date of complaint;
 - (iii) the nature and details of the complaint; and
 - (iv) any investigations undertaken and/or conclusions formed regarding the complaint; and
 - (v) actions taken to resolve the complaint and any measures implemented to avoid a reoccurrence.

Attachment 1: Approved Drawing



Attachment 2: Strategic Cropping Land Standard conditions code for resource activities				