APPENDIX B

Tailings storage facilities management plan

Cobbora Holding Company Pty Limited

COBBORA COAL MINE

TAILINGS STORAGE FACILITIES MANAGEMENT PLAN

Rev 0

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APPROVALS

Approval / Signatures			
Action	**Inititals**	**Role**	**Signature**
Prepared by:	G. O.	Area Project Engineer	G.J. O'Brien
Reviewed by:	D. N.	Mine Manager	D A Nelmes.
Approved by:	E H.	Project Director	[signature]

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1. INTRODUCTION

This document details how the tailings, which are fine particles that generally contain a high proportion of non-coal material, including clays and other minerals, will be stored in sites called emplacements for the life of the Cobbora coal mine. It also describes how the tailings emplacement areas will be rehabilitated.

2. PROJECT BACKGROUND

Cobbora Holding Company Pty Limited (CHC) will design, construct and operate a series of tailings emplacements collectively known as Tailing Storage Facilities (TSF) over the life of the project to store fine-grained slurry waste from the coal handling and preparation plant (CHPP). Each emplacement will have a design life incorporating a final decommissioning and rehabilitation phase. The overriding strategy will be to use a combination of multiple in-pit and out-of-pit storage emplacements to manage rise rates and hence settled densities. Rehabilitation will be an ongoing process throughout the life of the mine.

3. OBJECTIVES AND REGULATORY COMPLIANCE

3.1 Objective and Regulatory Bodies

The TSF Management Plan's objectives are to describe the development of tailings emplacement areas and their eventual rehabilitation to a final landform.

The design, construction, operation and rehabilitation of the tailings emplacements are regulated by the NSW Trade and Investment, Division of Resources and Energy (DRE) and the NSW Dams Safety Committee (DSC). They are the primary authorities that endorse the dam design. The NSW Environment Protection Authority (EPA) will also be a stakeholder in the performance of the emplacements and their impact on the environment.

The requirements of these regulatory authorities are outlined below.

3.2 NSW Trade and Investment, Division of Resources and Energy

The establishment of tailings emplacements on coal leases are governed under Section 100 of the Coal Mine Health and Safety Act, 2002. The construction and use of the emplacement is covered in Section 102 of the Act, which requires that the emplacements shall be:

- Constructed in accordance with sound engineering practice
- Compatible with the environment
- Kept secure.

An emplacement is considered to be 'secure' for the purposes of the Act if it is not unstable, it is not on fire and no noxious water is escaping from it. As a general rule, where an emplacement uses a dam to retain the tailings, DRE relies on the DSC to provide the lead regulatory role in determining whether it is stable or not.

TSF's will need to be approved by DRE as part of the Project as a whole and any future modifications to the project will also need to be approved.

3.3 NSW Dams Safety Committee

The DSC regulates tailings emplacements if they include a dam as a means of retaining the tailings. A "prescribed" dam is one that is listed in the Appendix to the NSW Dams Safety Act 1978, and subject to continuing oversight by the DSC. The DSC takes an initial interest in a prescribed dam project when a final decision is made by the owner to proceed to construct a dam following approvals by planning and regulatory authorities.

3.4 NSW Environment Protection Authority

The EPA will issue the Scheduled Development Works Environment Protection Licence prior to scheduled development works proceeding (i.e. construction works) and the Scheduled Activity Environment Protection Licence prior to scheduled activities proceeding (ie mining related activities generally). These licences will regulate discharges to the environment, including surface water and groundwater.

4. SCOPE

CHC has performance requirements for the tailings storage facilities to meet regulatory and business objectives. These requirements consider any known restrictions or needs of the affected stakeholders. The general requirements are listed below:

1. Comply with the DSC regulatory requirements
2. Be secure, as defined by DRE
3. Meet environmental standards
4. Provide tailings storage of approximately 70 million m^3 (based on 55 % solids by volume) over the life of mine
5. Maintain seepage rates at acceptable levels
6. Design that balances constructability, economic and environmental considerations
7. Maximise the volume of collected decant and seepage water returned to the mine water system.

5. TAILINGS MANAGEMENT

Tailings from the CHPP will be pumped through a pipeline to Out-of-Pit TSF East and West and in later years to the six in-pit emplacements. Refer to Appendix A - Tailings Emplacement – Sketch.

For each of these emplacements, the following will be applied:

(i) Deposition will be cycled between multiple tailings storage emplacements as much as possible

(ii) Allow early access to the tailings beach for capping and closure towards the end of each life. A 2 - 3 m deep crust will be established by transferring part of the deposition to the next TSF when the storage freeboard is in this range and allow the current emplacement drying time

(iii) The remaining freeboard will be filled at a rise rate of 1 - 2 m per year by routinely cycling deposition so that each deposited layer of tailings is fully exposed to the effects of evaporative beach drying. This is to make the upper few metres denser to create the desired crust strength.

Tailings will be mainly deposited from the back of the out-of-pit emplacements with the decant pond forming at the embankment wall. For the in-pit emplacements the reverse will apply, beaching at the embankment with decant at the back. The appointed CHPP tailings coordinator will relocate the discharge point as necessary to optimise the tailings beach.

The decant pond water level will be minimised using a floating pontoon pump.

Return water (decant water) will be returned to the CHPP via the mine water system.

The recovery of water from the TSF is a priority of the mine operation. Ground conditioning of floor and embankment areas within the Out-of-Pit TSFs will be undertaken to limit seepage rates, and maximise water available for decant. Conditioning would typically take the form of a clay liner. Seepage will be managed using seepage channels and ponds downstream of the embankment.

In-Pit TSFs will be formed by mining plant using material from existing access ramps. The walls will comprise emplaced mine waste of varying permeability and the embankments will utilise bulk width to enable minimum design criteria to be complied with. The storages will be generally underlain by a low permeability rock base. The high permeability walls will act as a preferred lateral pathway for seepage, which will be captured downslope by construction of collection drains and a sump in the pit floor rock base. Captured seepage will be transferred to the mine water system for dust suppression and re-use in the CHPP.

6. PROJECTED VOLUMES

Of the total reject volumes (nominally 40% of run of mine coal), it is assumed (based on experience with coal tailings in similar formations) that 25 % of the reject will be fine waste (tailings) or approximately 10 % of run of mine (ROM) coal, by dry mass.

Note: tailings generation at 10 % of ROM is considered conservative for the Cobbora mine as analysis of Large Diameter core data (QCC Resources bulk washing assessment) indicates tailings will be an average of 5 % of ROM coal.

The tailings pumped from the CHPP will be approximately 35 % solids (by weight) and within two days the tailings will consolidate to around 55 % solids. The density of 0.55 tonnes (t) per cubic metre (m^3) solids has been adopted for the initial sizing purposes even though the top 2 – 3 m of each emplacement is targeted to reach a density 0.9 t/m^3.

A conservative generation rate for tailings of 25 % of reject (at 60 % yield) and average storage density of 0.55 t/m^3 of solids was used for the projected volumes. The expected tailings placement rate is summarised below in Table 6.1.

Table 6.1 Tailings placement volume

Year	Tailings placement (Mm^3)							
	1	2	3 to 4	5 to 8	9 to 12	13 to 16	17 to 20	21
Tailings production	1.49	1.84	6.01	14.5	14.5	14.5	14.6	1.82
Cumulative tailings production	1.49	3.33	9.34	23.9	38.4	53	67.5	69.3
Note: *Tailings volume based on 55 % solids (by volume) following consolidation and a settled bulk density of 1.2 t/m^3*								

7. LIFE OF MINE EMPLACEMENT

7.1 Projected Emplacement Plan

The life of the mine plan will be developed to allow the TSF's to be filled progressively to the level required for capping. The plan provides sufficient storage capacity to allow each emplacement to reduce its filling rate to 1 - 2 m/year as the maximum capacity is approached, by bringing the next emplacement online concurrently, as shown below in Table 7.1.

There will be 14 million cubic metres (Mm^3) of out-of-pit storage and 53 Mm^3 of in-pit storage for a total 67 Mm^3. The shortfall to estimated projected volumes of 70 Mm^3 will be accounted for by reaching tailings densities approaching 0.9 t/m^3 for the top 2 – 3 m of each dam and the expectation that tailings volumes will actually be closer to 5 % ROM than the conservatively allowed 10 %. This assumption will be monitored through the life of the mine.

Table 7.1 Projected emplacement plan

Year	Up to	Tailings Emplacement Areas							
		Out-of-Pit		In-pit Storage					
		East	West	1	2	3	4	5	6
1	2015								
2	2016								
3	2017								
4	2018								
5	2019								
6	2020								
7	2021								
8	2022								
9	2023								
10	2024								
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24	2038								
25	2039								
26	2040								
27	2041								
28	2042								
29	2043								
30	2044								
31	2045								
32	2046								
Deposition									
Reduced filling rate for approx. 1–2 m/year rise									
Drying years before capping based on eight years									
Rehabilitation period									

7.2 Out-of-pit Storage

Two Out-of-Pit tailings emplacements will be constructed in the development phase and filled concurrently for the first eight years of production at the predicted coal production rate and settled tailings density. Out-of-Pit West will be adjacent to the footprint of mining area B Out-of-Pit emplacement and Out-of-Pit East will be further east of this emplacement.

As both the storages have relatively small surface areas, a greater average dry density can be achieved by spreading the deposition between the storages. This effectively provides thinner layers so the tailings are more able to dry through evaporation.

Initially the Out-of-Pit East embankment would be constructed to RL 425 m. It would provide 1.1 Mm^3 storage, with an embankment volume of about 0.25 Mm^3. The Out-of-Pit West embankment would be constructed to RL 430 m, which would also provide a storage capacity of 1.1 Mm^3, with an embankment volume around 0.2 Mm^3. This combination will provide 18 months of production capacity. Appendix A – Tailings Emplacement - Sketch illustrates the location of the start-up storage embankments.

The Out-of-Pit East and Out-of-Pit West embankments would then be raised downstream to provide additional capacity as required.

Raising the embankments to RL 440 m and RL 445 m respectively would provide a total capacity in the combined storages of 14 Mm^3 or about four more years at full production. The layout of the proposed full height embankments is presented in Appendix A – Tailings Emplacement - Sketch.

The storages have been modelled using down valley discharge, with a single discharge point. The beach has been modelled with a 0.3% slope.

The upper 2 m of tailings in Out-of-Pit East and Out-of-Pit West will be placed at a lower rate by starting deposition into the In-Pit 1 emplacement.

7.3 In-pit Storage

Six in-pit tailings emplacements will be progressively built when the Out-of-Pit emplacements are nearing capacity, as shown in Appendix A – Tailings Emplacement - Sketch.

These emplacements will be created in the voids left by the redundant mine access ramps and will constructed as part of the mining operation.

Allowing multiple emplacements to be operated simultaneously increases the flexibility in the deposition rates of tailings and maximises ability to dewater the material. A typical example is shown see Figure 7.1.

Figure 7.1 Example of in-pit tailings dam emplacement

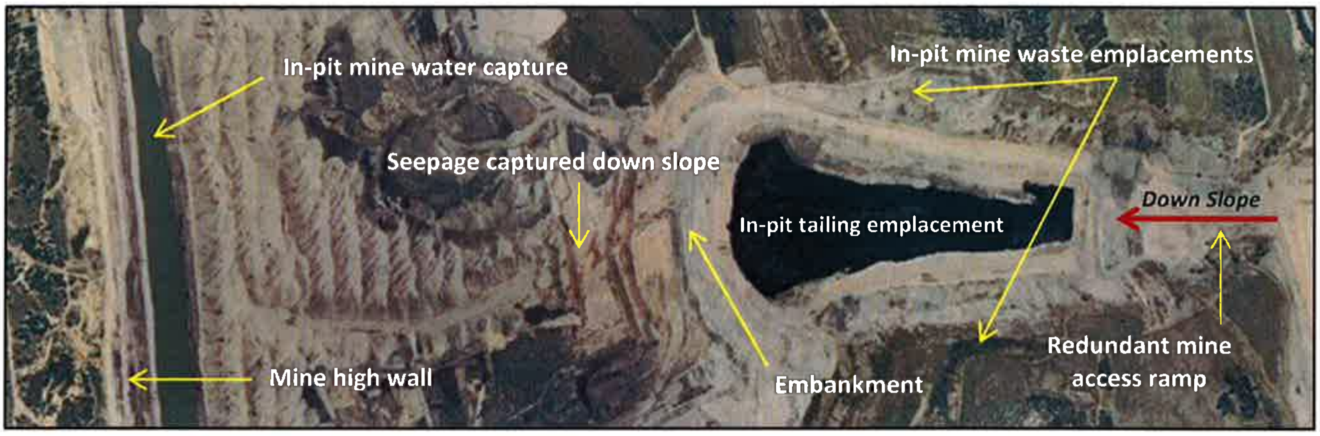

Table 7.2 Estimated emplacement capacities

In-pit tailings emplacement	Capacity (Mm^3)
1	9.3
2	8.8
3	13.5
4	8.2
5	8.5
6	4.9
Total	**53.2**

8. DESIGN

8.1 Basis

The storage strategy for the life of the mine is to utilise out-of-pit tailings storage until sufficient capacity can be gained within the mined pits to store tailings.

The design for the TSF takes into consideration the following:

1. Environmental limitations
2. Geotechnical and chemical properties of the tailings
3. Production rates and delivery conditions of the tailings, including the likely changes to the delivery schedule
4. Design cycle life and the storage capacities of Out-of-Pit East, Out-of-Pit West, In-Pit 1, In-Pit 2, In-Pit 3, In-Pit 4, In-Pit 5 and In-Pit 6
5. Availability and physical properties of construction materials
6. Geology, hydrogeology, groundwater quality and strength of the existing foundation and the mine waste that will form the bundments and foundation of embankments
7. Geometry and topography of the emplacement site
8. Local hydrological and climatic conditions, including average rainfall and evaporation, and extreme storm data
9. Rainfall run-off conditions, both of the tailings and the surrounding spoil material
10. Rehabilitation to achieve the final landform.

8.2 Tailings Dam Embankments

Out-of-Pit embankments will need to be built to retain water. High clay content mine waste material will be used to build a low permeability zone within the embankments.

Out-of-Pit embankment will generally be built as follows:

- Strip top soil and excavate under the entire embankment footprint, typically between 0.3 m and 1 m deep (the top soil will be stockpiled and used in rehabilitation)
- Excavate a trench beneath the low permeability zone to form a key between the wall and natural material. This is estimated to be about 2 – 3 m deep
- Incorporate a low permeability zone 3 – 5 m wide (wall cross-sectional) on the upstream face, depending upon the permeability of the available borrow material
- Construct the rest of the embankment from rock fill, which may be zoned according to particle size depending upon the available material
- Construct a crest 10 – 20 m wide
- Construct embankments with batters of 2:1 to 2.5:1 (H:V) upstream and downstream slopes, depending upon the height of the embankment and the available material
- Construct seepage interception drains on the down slope side of the embankment and a seepage collection dam.

In-pit embankments will be built as follows:

- Spoil placed by the mine fleet as part of ongoing operations in conjunction with earthworks contractors levelling and compacting each layer
- Crest typically, up to 50 m wide
- The batter slopes will be controlled to typically 2.5:1 to 3:1 (H:V))
- The upstream embankment face will be compacted to decrease the permeability of the embankment.

A sump and diversion drains will be excavated on the downstream side of the embankment to collect seepage.

8.3 Diversion Drains

Diversion drains will be built for the TSF (both in and out-of-pit) to minimise stormwater runoff entering the TSF.

8.4 TSF Storage Capacity

The diversion drains effectively limit upslope catchment area to the Out-of-Pit storages. With these upslope diversion drains the Probable Maximum Precipitation (PMP) capacity is equivalent to the Probable Maximum Flood (PMF). The storage capacity and freeboard is designed in accordance with NSW Dams Safety Committee (DSC) guideline (DSC3RF) of the 1 in 1000 year 72 hour design storm.

Out-of-Pit emplacements spillways will allow excess stormwater to spill from the storage during a storm exceeding the design storm without jeopardising the integrity of the dam wall.

Mine waste will be placed around the in-pit emplacements to limit the up-slope catchment; therefore the probable maximum precipitation freeboard for the Out-of-Pit storages will apply to the in-pit storages. Spillways will not be included in the in-pit emplacements as they will be below the surface of surrounding mine waste emplacements. Emplacements will be designed such that the design flood volume can be safely contained. Only when the storages are nearing capacity, does the flood storage volume becomes an operational consideration.

8.5 Decant Water System

The tailings decant water will be one of the main sources of water for the CHPP. Decant water will be pumped from the decant pond into the mine water system, which will then goes to the

CHPP. The pumps operate manually, and are to be operated to minimise the stored volume in the decant pond, including after rainfall.

8.6 Seepage Control

For Out-of-Pit emplacements, any seepage will be collected in drains at the toe of the downstream batter and drained to a collection dam at the base of the valley. Minor bunds will divert uncontaminated runoff around the seepage collection dam. A return water pump will be installed in the seepage collection dam to return collected water to the mine water system.

The in-pit emplacements will generally comprise a rock floor, and a perimeter of permeable emplaced mine waste. The embankments will generally be built as part of mining operations. Decant water is expected to flow freely through the embankments and surrounding mine waste and continue following along the mine floor. Over time the tailings will seal the embankment, reducing the effective permeability with hence there will be less seepage. While decant ponds may form on the tailings surface, the greatest volume of water is expected to be recovered in the collection sump down gradient of the tailings emplacement.

In the event the mining area downslope of a tailings emplacement is backfilled during active receipt of tailings, seepage capture will be facilitated by a bore recovery system. The bore will be screened within those dams previously excavated in the pit floor to receive seepage through side walls. The bore shaft will be constructed on the downslope embankment for protection during backfilling.

In-pit seepage water will be put into the mine water system and pumped to the CHPP.

8.7 Recoverable Process Water

For emplacements Out-of-Pit East and Out-of-Pit West, it is estimated the recoverable process water will be 25 – 30 % of the water contained in the tailings received. This includes an allowance for evaporative and seepage losses.

Evaporative losses will be reduced by managing the decant pond such that the volume of surface water is minimised. This will also help dry the tailings and increase the bulk density.

For in-pit emplacements, the higher expected seepage losses mean that achievable decant recovery will be less (10-15 %) than for an engineered out-of-pit storage with controlled low permeable elements.

9. INSPECTION AND MONITORING

9.1 Inspection Regime

The tailings emplacements will be prescribed by the DSC and requires a dam safety management program with inspections, monitoring and reporting. CHC will prepare a Dam Safety Management Plan that including:

- Daily inspections – visual inspections by the CHPP Manager or a qualified delegate designed to highlight any deficiencies in the dams that may lead to an emergency condition. Daily activities will be executed by the CHPP tailings coordinator.
- Weekly routine inspections – to consider the following:
  - Evidence of distress (this may include cracking, slumping, seepage, excessive erosion, settlement and sinkholes) in the crest, upstream and downstream embankment faces

- Flow, quantity and clarity of the down slope seepage collection drains
- Downstream area of embankments, for example, seepage, wet patches; if deficiencies are observed, the area will be pegged and the extent and flow rate will be noted
- Tailings discharge, deposition characteristics

- Every three years inspections – by an independent engineer in accordance with DRE requirements to inspect:
  - Embankments
  - Tailings emplacement areas
- Every five years inspections – by experienced dam engineers/specialists to confirm the safety of the dams. Deficiencies will be identified through:
  - A thorough onsite inspection
  - An evaluation of available data
  - Any applied criteria and up-to-date best practices
- Special inspections – in the event of any of the following:
  - Earthquake – any recordable earthquake where the mine site is in the affected area
  - Blasting – within 300 m of any embankments or when required by the DSC conditions.

Tailings surface levels will also be monitored, along with seepage, settlement and effects of blasting.

Under the instruction of the CHPP Tailings Coordinator the levels of the top surface of the tailings will be surveyed to assess fill rate. As the final level of each emplacement is approached, the frequency of these surveys will increase to ensure that 2.0 m of flood freeboard is achieved.

The frequency and items the dam inspection regime will address will be presented in the operations and maintenance manual for the respective emplacements.

Table 9.1 Inspections and reporting

Inspection	Frequency	By	Reported by	Reported to
Dam routine	Daily, weekly, monthly	CHPP Manager and/or CHPP tailings coordinator	CHC	CHC
Annual intermediate	Annual	Dam Engineer	CHC	DSC
Comprehensive	Every five years	Dam Engineer	CHC	DSC
Independent	Every three years	Independent party	Independent party	CHC
Special/emergency	As required	Dam Engineer	CHC	DSC and DRE
Rehabilitation monitoring	Annual	CHPP Manager	CHC	CHC
Surface waters	Annual	Environment	CHC	DP&I and EPA

9.2 Groundwater Monitoring

9.2.1 Baseline hydrogeological assessment

Baseline groundwater status and underlying material properties will be assessed prior to construction of out-of-pit emplacements. Geotechnical investigations up-gradient of the emplacements, as well as down-gradient of the downstream toe of the embankment, will be performed to confirm:

- Underlying strata
- Strata permeability
- Identification of soil and rock layers potentially confining to groundwater flow
- Evidence of historical groundwater levels above the current water table.

9.2.2 Predictive modelling of groundwater seepage

Based on the hydrogeological characteristics of underlying strata, an emplacement specific predictive groundwater model will be developed to assess the migration of leachate seepage potentially generated by tailings emplacements. The model predictions will be used to establish a groundwater monitoring bore network which allows for early identification of groundwater mounding and leachate seepage.

9.2.3 Baseline groundwater monitoring

Nested groundwater monitoring bores will be installed up-gradient of the emplacements to allow monitoring of background groundwater properties. Guided by the predictive groundwater modelling, additional nested monitoring bores will be established at selected locations down-gradient of the downstream toe of the embankments. Bores will be screened to provide the ability to sample specific groundwater bearing strata to allow for the following:

- Sampling of groundwater to establish baseline piezometric head
- Sampling to establish baseline groundwater quality. The monitoring suite will include:
  - Field parameters - pH, electrical conductivity, redox, temperature, total dissolved solids, dissolved oxygen
  - Laboratory analytes - major ions (calcium, potassium, sodium, magnesium, chloride, total alkalinity and sulfate) and dissolved metals (aluminium, arsenic, barium, beryllium, cobalt, iron, manganese, lead, nickel and zinc).

An electromagnetic survey at the down-gradient side of the embankments will also be performed to establish the baseline spatial representation of soil moisture status.

9.2.4 Ongoing groundwater monitoring

Monitoring will be performed after establishment of the emplacement facilities to determine the spatial extent and quality of leachate seepage. At this time, the monitoring bore network would be expanded to also include locations on the embankments.

Ongoing monitoring and investigations will include:

- Electromagnetic survey within 12 months of emplacement of tailings to determine spatial changes to the moisture content of underlying strata
- Monthly water level and quarterly water quality monitoring for the suite of parameters outlined above
- Annual reporting of monthly water level and quarterly water quality analyses.

The chemical signature of leachate generated from a tailings emplacement is a function of the tailings characteristics. During operation of the emplacement, the site specific characteristics of the generated leachate will be established. The improved understanding regarding leachate quality may enable rationalisation of the comprehensive chemical suite initially selected for monitoring purposes.

9.3 Response to Groundwater Impacts

Should any tested parameters exceed agreed trigger levels, regulatory authorities will be notified within one month of receipt of water quality analysis results. Further investigations will take place to establish:

- The spatial extent of contaminated seepage
- Whether environmental harm has occurred.

If it is established that environmental harm has occurred, an assessment will be undertaken to establish:

- Measures required to prevent the migration of the contaminant plume
- Measures required to remediate any contamination
- Measure to prevent recurrence of contamination, which may include:
  - Installation of a low-permeability cut-off wall
  - Installation of a high permeability interception trench and collection sump system to collect leachate from underlying strata and allow transfer of leachate to the onsite process water stream.

10. REHABILITATION

The tailings emplacement will be allowed to dry until it's suitable to be capped. After drying, it will be covered with waste rock that has been stockpiled close by for this purpose. As for the waste rock emplacements, a layer of soil or suitable top dressing will be placed at the top of the profile to facilitate revegetation.

The principal rehabilitation measures will be as follows:

- Tailings will be allowed to dry to form a stable surface that can support capping and covering layers. This is expected to take about five to eight years from the last placement
- Tailings beaches will be managed to maximise the removal of surface water to decant ponds
- Decommissioned tailings emplacements will be covered with:
  - A cap of at least 1 m low permeability material
  - A 'capillary break' (with wide interstitial spacing) at least 1.2 m thick preventing water moving upwards to the soil layer (mine waste)
  - Topsoil or suitable top dressing at least 0.3 m thick
- The final cover design will be developed in consultation with DRE
- The covered emplacements will be shaped re-vegetated and monitored in the same way as the waste rock emplacements.

11. EMERGENCY PREPAREDNESS

The primary risk specific to the rejects TSF area is an embankment failure. CHC has prepared a Dam Safety Emergency Plan (DSEP) that prescribes specific actions to be followed in the event of a dam emergency, including a tailings emplacement. The DSEP clearly identifies stakeholders and emergency personnel to notify and nominates the responsibilities of key personnel.

In the case of an emergency, the DSEP identifies two actions that require individual notification procedures, and involve different resources and personnel. These actions are the 'Emergency Action', which is initiated for a potential dam failure and a 'Significant Incident', which is for an incident that may pose immediate danger.

The Emergency Action is used to advise appropriate authorities as soon as possible. When the Mine Manager decides dam failure is imminent, the following notifications will occur:

- CHPP Manager (CHC)
- State Emergency Services
- DRE (Inspector of Coal Mines)
- Local Area Commander (Police)
- Executive Engineer NSW Dam Safety Committee
- Warrumbungle Shire Council (Directors of Operations).

Where a Significant Incident occurs but immediate dam failure is deemed unlikely, the aim is to closely monitor the condition of the TSF and apply immediate measures to return to a safe condition as soon as possible. In the case of a Significant Incident, the following notification will occur:

- The Mine Manager is to notify the CHPP Manager and DRE (Inspector of Coal Mines) with details of the incident and potential risk to the dam
- The Mine Manager will assess the situation and arrange any necessary investigations or remedial action. The Mine Manager may be directed to initiate the Emergency Action.

Full details of Emergency Actions are in the DSEP.

12. RISK ASSESSMENT

CHC will undertake risk assessments for the following stages during the life of the mine and during rehabilitation:

- Construction and operation of Out-of-Pit East
- Construction and operation of Out-of-Pit West
- Construction and operation of In-Pit 1
- Construction and operation of In-Pit 2
- Construction and operation of In-Pit 3
- Construction and operation of In-Pit 4
- Construction and operation of In-Pit 5

- Construction and operation of In-Pit 6
- Capping operation of each dam
- Rehabilitation of each dam.

This TSF Management Plan and associated operating procedures will be and updated as required to address the risks identified from the risk management process.

13. REVIEW OF MANAGEMENT PLAN

The Mine Manager or their delegate will review this management plan annually, where material changes to the CHPP operation life of mine, LOM volumes occur or where an alternative rejects disposal proposal is adopted.

14. ACCOUNTABILITIES

CHC Representative	Responsibility
Mine Manager	• Provide resources to implement this plan • Provide adequate resources to manage the tailings at CHC • Review this document
CHPP Manager	• Manage and monitor CHC emplacement area in accordance with this plan
CHPP tailings coordinator	• Execute the day to day activities of filling the tailings dam and returning decant water
Technical Services Manager	• Consider this plan during mine planning • Account for adequate tailings and reject capacity for LOM
Environment and Community Coordinator	• Help to review and implement this plan

15. REFERENCES

Cobbora Holding Company 2012, *Life of Mine Tailings Options Study*, December 2012 (112120R01)

Nathan, RJ and Weinmann, E 1999, ‘Estimation of Large to Extreme Floods’, Book VI in *Australian Rainfall and Runoff – A Guide to Flood Estimation*, The Institution of Engineers, Australia, Barton, ACT.

New South Wales Department of Primary Industries 1999, *Synoptic Plan, Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of NSW*, Sydney.

APPENDICIES

Appendix A Tailings Emplacement Sketch