

FWP0001183

RUNNING STREAM QUARRY FORWARD PROGRAM

Wednesday 16 October 2024 to Friday 15 October 2027



Contents

Summary	1
Important	
Three-year forecast – surface disturbance activities	
Project description	
Description of surface disturbance activities	
Three-year rehabilitation forecast	1
Rehabilitation maintenance and corrective actions	1
Rehabilitation schedule	1
Progressive mining and rehabilitation statistics	1
Three-yearly forecast cumulative disturbance and rehabilitation progression	1
Attachment 1 – Reporting Definitions	8
Attachment 2 – Definitions	9



Summary

DETAIL	
Mine	Running Stream Quarry
Reference	FWP0001183
Forward program commencement date	Wednesday 16 October 2024
Forward program end date	Friday 15 October 2027
Forward program revision (if applicable)	
Contact	Georgina Thompson
Mining leases	ML 1777 (1992)
Project location	CSR BUILDING PRODUCTS LIMITED
Date of submission	Thursday 29 February 2024

Important

The department may make the information in your program and any supporting information available for inspection by members of the public, including by publication on its website or by displaying the information at any of its offices. If you consider any part of your program to be confidential, please communicate this to the department via the message function on this submission within the NSW Resources Regulator Portal.

Three-year forecast – surface disturbance activities

Project description

The Running Stream Clay/Shale Mine is located on Lot 2 DP 869395, 5814 Castlereagh Highway, Running Stream NSW 2850. The site has been operating since 1976 under a previous Mining Lease which expired in 2007. The land has been owned by CSR Building Products since 2009. Mining Lease ML1777 (1992) was granted 16th October 2018 with an expiry date of 16th October 2039. When operational, the Running Stream Clay/Shale Mine supplied CSR's brickworks in Raglan, NSW. In 2006, CSR Building Products closed the Raglan Brick Plant and the Running Stream site went into care and maintenance. The reasons for this closure of the Plant were due to very slow building market and in turn poor sales of brick products. In 2023, the site was granted suspension of mining operations until 2026. The current operators, PGH Bricks & Pavers Pty Ltd envisage the recommencement of extraction of clay/shale however this is not forecasted for the next three years.

Description of surface disturbance activities

Exploration activities

No exploration activities are expected to occur during the next 3 years.

Construction activities

No construction is expected to occur during the next 3 years.

Mining schedule

Mining development method and sequencing and general mine features.

No mining is expected to occur on the site within the next 3 years.

Areas identified for emplacements, the sequencing of emplacements, construction, and management.

Overburden emplacement areas include the previously rehabilitated areas to the west of the previously active pit and the Old Quarry to the north. These areas have been well vegetated for some decades and only maintenance activities will be undertaken if necessary.

Processing infrastructure activities and the location of tailings facilities and schedule for emplacement.

No processing of residues or tailings will occur on the site.

RUNNING STREAM QUARRY FORWARD PROGRAM



Waste disposal and materials handling operations.

The main source of potential contamination, aside from sediment from the quarry, is hydrocarbons from fuels and oils used by vehicles/plant on the site. The risk of hydrocarbons entering the water system will be minimised by ensuring all contractors follow CSR's Spill and Leaks Procedure and carry suitable spill kits. Within the quarry area and water management features, regular inspections will also assist in identifying potential risks to the environment.

Key production milestones

MATERIAL	UNIT	YEAR 1	YEAR 2	YEAR 3
Stripped topsoil (if applicable)	(m³)	0	0	0
Rock/overburden	(m³)	0	0	0
Ore	(Mt)	0	0	0
Reject material ¹	(Mt)	0	0	0
Product	(Mt)	0	0	0

¹ This includes coarse rejects, tailings and any other wastes resulting from beneficiation.



Three-year rehabilitation forecast

Rehabilitation maintenance and corrective actions

No issues were identified in the previous period.

Rehabilitation schedule

Temporary rehabilitation to reduce sediment entrainment on the site will continue until mining is recommenced. The main areas of concern regarding erosion and sediment entrainment are the exposed highwall areas within the pit which are comprised of a clay material easily eroded and dispersed. Maintenance of newly grassed areas will be performed if required, including re-grassing areas of erosion repair. Site fencing/signage and general site security will be maintained or repaired where required, and weeds will be monitored and eradicated as required (particularly on new rehabilitation areas). Drainage repairs on lined drains leading to the Main Sedimentation Dam are expected to occur on site within the next 12 months. It is envisioned that the main pit will function as a "clean water catchment" throughout the suspension period. When mining recommences, the water management will be reviewed, and appropriate changes will be made to manage the dirty water generated from the design storm event.



Progressive mining and rehabilitation statistics

Three-yearly forecast cumulative disturbance and rehabilitation progression

FORECAST	UNIT	YEAR 1	YEAR 2	YEAR 3
A Total surface disturbance footprint	(ha)	3.82	3.82	3.82
B Total active disturbance	(ha)	2.54	2.54	2.54
P Total new area of land proposed for active rehabilitation	(ha)	0	0	0



Attachment 1 – Reporting Definitions

REPO	ORTING CATEGORY	DEFINITION
Α	Total disturbance footprint – surface disturbance	All areas within a mining lease that either have at some point in time or continue to pose a rehabilitation liability due to surface disturbance activities.
		The total disturbance footprint is the sum of the total active disturbance, decommissioning, landform establishment, growth medium development, ecosystem and land use establishment, ecosystem and land use development and rehabilitation completion (see definitions below).
		Underground mining operations should not include the footprint of underground mining areas/subsidence management areas in the total disturbance footprint.
В	Total active disturbance	Includes on-lease exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste rock emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped) and temporary stabilised areas (e.g. areas sown with temporary cover crops for dust mitigation and temporary rehabilitation).
С	Rehabilitation – land preparation	Includes the sum of all disturbed land within a mining lease that have commenced any, or all, of the following phases of rehabilitation – decommissioning, landform establishment and growth medium development. Refer to the glossary of terms in this document for the definition of these
		phases of rehabilitation.
D	Ecosystem and land use establishment	Includes the area which has been seeded/planted with the target vegetation species for the intended final land use. However, vegetation has not matured to a stage where it can be demonstrated that it will be sustainable for the long term and or require only a maintenance regime consistent with target reference/analogue sites.
		Typically, rehabilitation areas would be in this phase for at least two years (and usually more) before rehabilitation can be classified as being in the ecosystem and land use development phase. This phase does not apply to infrastructure areas that are being retained as part of final land use for the site.



Attachment 2 – Definitions

WORD	DEFINITION
Active	In the context of rehabilitation, land associated with mining domains is considered 'active' for the period following disturbance until the commencement of rehabilitation.
Active mining phase of rehabilitation	In the context of rehabilitation, the active mining phase of rehabilitation constitutes the rehabilitation activities undertaken during mining operations such as salvaging and managing soil resources, salvaging habitat resources, and native seed collection. This phase also includes management actions taken during operations to manage risks to rehabilitation and enhance rehabilitation outcomes such as selective handling of waste rock and management of tailings emplacements.
Analogue site	In the context of rehabilitation, an analogue site is a 'reference site' that represents an example of the defining characteristics (such as vegetation composition and structure or agricultural productivity) of the final land use. Characteristics of analogue sites can be assessed to develop the rehabilitation objectives and completion criteria for final land use domains.
Annual rehabilitation report and forward program	As described in the Mining Regulation 2016.
Annual reporting period	As defined in the Mining Regulation 2016.
Closure	A whole-of-mine-life process, which typically culminates in the relinquishment of the mining lease. It includes decommissioning and rehabilitation to achieve the approved final land use(s).
Decommissioning	The process of removing mining infrastructure and removing contaminants and hazardous materials.
Decommissioning Phase of Rehabilitation	Activities associated with the removal of mining infrastructure and removal and/or remediation of contaminants and hazardous materials. In the context of the rehabilitation management plan this phase of rehabilitation may also include studies and assessments associated with decommissioning and demolition of infrastructure or works carried out to make safe or 'fit for purpose' built infrastructure to be retained for future use(s) following lease relinquishment.



WORD	DEFINITION
Department	The Department of Regional NSW.
Disturbance	See Surface Disturbance.
Disturbance area	An area that has been disturbed and that requires rehabilitation. This may include areas such as on-licence exploration areas, stripped areas ahead of mining, infrastructure areas, water management infrastructure, sewage treatment facilities, topsoil stockpile areas, access tracks and haul roads, active mining areas, waste emplacements (active/unshaped/in or out-of-pit), tailings dams (active/unshaped/uncapped), and areas requiring rehabilitation that are temporarily stabilised (i.e. managed to minimise dust generation and/or erosion).
Domain	An area (or areas) of the land that has been disturbed by mining and has a specific operational use (mining domain) or specific final land use (final land use domain). Land within a domain typically has similar geochemical and/or geophysical characteristics and therefore requires specific rehabilitation activities to achieve the associated final land use.
Ecosystem and Land Use Development	This phase of rehabilitation consists of the activities to manage maturing rehabilitation areas on a trajectory to achieving the approved rehabilitation objectives and completion criteria. For vegetated land uses this phase may include processes to develop characteristics of functional self-sustaining ecosystems, such as nutrient recycling, vegetation flowering and reproduction, and increasing habitat complexity, and development of a productive, self-sustaining soil profile. This phase of rehabilitation may include specific vegetation management strategies and maintenance such as tree thinning, supplementary plantings and weed management.
Ecosystem and Land Use Establishment	This phase of rehabilitation consists of the processes to establish the approved final land use following construction of the final landform. For vegetated land uses this rehabilitation phase includes establishing the desired vegetation community and implementing land management activities such as weed control. This phase of rehabilitation may also include habitat augmentation such as installation of nest boxes.
Exploration	Has the same meaning as that term under the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.



WORD	DEFINITION
Final landform and rehabilitation plan	As defined in the Mining Regulation 2016.
Final land use	As defined in the Mining Regulation 2016.
Form and way	Means the form and way approved by the Secretary. Approved form and way documents are available on the Department's website.
Growth Medium Development	This phase of rehabilitation consists of activities required to establish the physical, chemical and biological components of the substrate required to establish the desired vegetation community (including short lived pioneer species.
	This phase may include spreading the prepared landform with topsoil and/or subsoil and/or soil substitutes, applying soil ameliorants to enhance the physical, chemical and biological characteristics of the growth media, and actions to minimise loss of growth media due to erosion.
Habitat	Has the same meaning as that term under the <i>Biodiversity Conservation Act 2016</i> and the <i>Fisheries Management Act 1994</i> (as relevant).
Indicator	An attribute of the biophysical environment (e.g. pH, topsoil depth, biomass) that can be used to approximate the progression of a biophysical process. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion (i.e. defined end point). It may be aligned to an established protocol and used to evaluate changes in a system.
Land	As defined in the <i>Mining Act 1992</i> .
Landform Establishment	This phase of rehabilitation consists of the processes and activities required to construct the final landform. In addition to profiling the surface of rehabilitation areas to the approved final landform profile this phase may include works to construct surface water drainage features, encapsulate problematic materials such as tailings, and prepare a substrate with the desired physical and chemical characteristics (e.g. rock raking or ameliorating sodic materials).
Large mine	As defined in the Mining Regulation 2016.
Lease holder	The holder of a mining lease.



WORD	DEFINITION	
Life of mine	The timeframe of how long a mine is approved to mine, from commencement to closure.	
Mine rehabilitation portal	Means the NSW Resources Regulator's online portal that lease holders must use (via a registered account) to: upload rehabilitation geographical information system (GIS) spatial data develop rehabilitation GIS spatial data (using online tracing functions) generate rehabilitation plans and rehabilitation statistics using the map viewer and Rehabilitation Key Performance Indicator functionalities. Data submitted to the mine rehabilitation portal is collated in a centralised geodatabase for use by the NSW Resources Regulator to regulate rehabilitation performance of lease holders.	
Mining area	As defined in the <i>Mining Act 1992</i> .	
Mining domain	A land management unit with a discrete operational function (e.g. overburden emplacement), and therefore similar geophysical characteristics, that will require specific rehabilitation treatments to achieve the final land use(s).	
Mining land	As defined in the <i>Mining Act 1992</i> .	
Native vegetation	Has the same meaning as that term under section 60B of the <i>Local Land Services Act</i> 2013.	
Overburden	Material overlying coal or a mineral deposit.	
Performance indicator	An attribute of the biophysical environment (for example pH, slope, topsoil depth, biomass) that can be used to demonstrate achievement of a rehabilitation objective. It can be measured and audited to demonstrate (and track) the progress of an aspect of rehabilitation towards a desired completion criterion, that is, a defined end point. It may be aligned to an established protocol and used to evaluate changes in a system.	



WORD	DEFINITION
Phases of rehabilitation	The stages and sequences of actions required to rehabilitate disturbed land to achieve the final land use. The phases of rehabilitation are: active mining decommissioning landform Establishment growth medium development ecosystem and land use establishment ecosystem and land use development.
Progressive rehabilitation	The progress of rehabilitation towards achieving the approved rehabilitation completion criteria. This may be described in terms of domains, phases, performance indicators and rehabilitation completion criteria.
Rehabilitation Completion	The final phase of rehabilitation when a rehabilitation area has achieved the approved rehabilitation objectives and rehabilitation completion criteria for the final land use. Rehabilitation areas may be classified as complete when the NSW Resources Regulator has determined in writing that the relevant rehabilitation obligations have been fulfilled following submission of Form ESF2 Rehabilitation completion and/or review of rehabilitation cost estimate application by the lease holder.
Rehabilitation Completion criteria	As defined in the Mining Regulation 2016.
Rehabilitation cost estimate	As defined in the Mining Regulation 2016.
Rehabilitation management plan	As defined in the Mining Regulation 2016.
Rehabilitation objectives	As defined in the Mining Regulation 2016.
Rehabilitation risk assessment	As defined in the Mining Regulation 2016.
Rehabilitation schedule	The defined timeframes for progressive rehabilitation set out in the forward program.



WORD	DEFINITION
Relevant stakeholders	Means any persons or bodies who may be affected by the mining operations, including rehabilitation, carried out on the lease land, and includes: the relevant development consent authority the local council the relevant landholder(s) community consultative committee (if required under the development consent) or equivalent consultative group affected land holder(s) government agencies relevant to the final land use affected infrastructure authorities (electricity, telecommunications, water, pipeline, road, rail authorities) local Aboriginal communities, and any other person or body determined by the Minister to be a relevant stakeholder in relation to a mining lease.
Risk	The effect of uncertainty on objectives. It is measured in terms of consequences and likelihood (AS/NZS ISO 31000:2009).
Secretary	The Secretary of the Department.
Security deposit	An amount that a mining lease holder is required to provide and maintain under a mining lease condition, to secure funding for the fulfilment of obligations under the lease (including obligations that may arise in the future).
Surface disturbance	Includes activities that disturb the surface of the mining area, including mining operations, ancillary mining activities and exploration.
Tailings	A combination of the fine-grained solid material remaining after the recoverable metals and minerals have been extracted from the mined ore, and any process water ² .
Waste	Has the same meaning as that term under the <i>Protection of the Environment Operations Act 1997</i> .

Forward Program (SMALL MINE) v2.1

² Commonwealth of Australia (DITR), 2007. *Tailings Management*.

Site Registration Date February 2024 Complete the following fields prior to calculating the Security Deposit. Running Stream Mine Name: ML1777 Lease(s): Title Holder: CSR Building Products Limited Mine Operator: PGH Bricks & Pavers Pty Ltd Term of RCE: Until end of Forward Program 18/11/2027 **Current Security:** \$98,000 Date of last Security Deposit review Joe Gauci Mine Contact: National Raw Materials Manager Position: Address: 59-67 Cecil Park Road Cecil Park NSW 2178 Phone: 417683526 Email: jgauci@csr.com.au

The following site specific information is Deposit.	requested to provide background informa	ation in the context of calculating the Security
Summary of Mine Activities		Environmental Sensitivities
Total annual production (tonnes):	0	Surrounding land use (tick all that apply):
Mine lease area (ha):	21.99	☐ Cropping
` '		☐ Pasture
Area of extraction (ha):	1.04	Forest
Area of disturbance (ha):	3.82	Undisturbed habitat
Rehabilitation in progress (ha):	1.28	☐ Urban
Rehabilitation complete (ha): Achieved ecosystem sustainability	0	Environmental Issues affecting site (tick all that
		☐ Threatened flora
Forward Program/MOP Utilised: Reference no. version and date		☐ Threatened fauna
Transferred net version and date		Cultural heritage items
Forward Program/MOP Plan Utilised:	1	□ Natural heritage features
Reference Plan no. version and date		☐ Mine subsidence
	2	Surface water pollution
Plan(s) attached	3	Ground water pollution
	<u> </u>	Hydrocarbon contamination
		☐ Methane drainage/venting
		☐ Spontaneous combustion
		Acid Mine Drainage
NOT		Within drinking water catchment
NOT Ensure rehabilitation cost estimation refle		Other (describe below)
the lease. Contingencies should be al		
incorporated els		
estimat	tion.	



Open Cut Summary Rehabilitation Cost Estimation

Note: Sections of this page	are automatically filled in from the registration page							
Mine Name:	Running Stream							
Lease(s):	ML1777							
Authorisation Owner:	CSR Building Products Limited							
Mine Operator:	PGH Bricks & Pavers Pty Ltd							
Term of RCE:	Until end of Forward Program 18/11/2027							
Current Security:	\$98,000 Date of Last S	ecurity Deposit Revi	ew: 4/03/2019					
Mine Contact:	Joe Gauci							
Position:	National Raw Materials Manager							
Address:	59-67 Cecil Park Road Cecil Park NSW 2178							
Phone:	417683526 Email: <u>igauci@cs</u>	r.com.au						
	Domain		Security Deposit					
Domain 1: Infrastructure			\$16,520					
Domain 2: Tailings & Re	ejects							
Domain 3: Overburden 8			\$1,184					
Domain 4: Active Mine 8			\$14,145					
Domain 5: Management	Activities		\$37,593					
Subtotal (Domains and	I Sundry Items)		\$69,442					
Contingency		10%	\$6,944					
Post Closure Environme	ental Monitoring	10%	\$6,944					
Project Management an	d Surveying	10%	\$6,944					
Total Security Dep	osit for the Mining Project (excl. of GS	Γ)	\$90,274					
Note: GST is not include	d in the above calculation or as part of rehabilitation se	curity deposits require	ed by the Department.					
Alterations have been	made to unit prices within this spreadsheet. (Attach a se	parate sheet providing d	etails of changes).					
☐ The proposed rehabil	itation design is generally consistent with the developmen	t consent for the project						
This Registration Form, S	Summary Report and calculation pages are to be printe	ed and attached as an a	appendix the AEMR or MOP.					
	on has been estimated using the best available information lection of the total rehabilitation liability held by this mine.	at the time.						
Company Resprese	ntative's Name		Date					

Domain 1a: Infrastructure

Total Cost for Infrastructure Domain

\$16,520

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
						N	\$0		
					Rail Infrastruct		\$0		
				Conta	minated Mater	als Subtotal	\$0		
				Vents, Shar	fts and Boreho	les Subtotal	\$0		
							\$0		
Earthworks / Structural Works (Landform Establishment)	Minor reshaping and pushing	Υ	1.3	ha	\$3,900		\$5,070		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	E	arthworks / S	tructural Wor	ks (Landfor	m Establishme	ent) Subtotal	\$5,070		
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment)	Source, cart and spread growth media - haul distance <1 km	Υ	2600	m3	\$3.26		\$8,466	< =1km	Undertaken with 623 scraper and 14 M grader.
	Direct seeding / fertiliser (pasture grass species)	Y	1.3	ha	\$1,875		\$2,438		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Single application of fertiliser (pasture)	Υ	1.3	ha	\$420.00		\$546		Assumes 250 kg / ha. These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Land Preparation and Revegetation (Gro	wth Media De	velopment ar	nd Ecosyste	m Establishme	ent) Subtotal	\$11,450		
							\$0		
			Mainte	enance of Re	ehabilitated Ar	eas Subtotal	\$0		
					Additional Ite	ms Subtotal	\$0		
	Total Cost for Infrastructure Domain							\$16,52	0

Domain 2a: Tailings & Rejects

Total Cost for Tailings & Rejects Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
				Conta	aminated Mater	als Subtotal	\$0		
							\$0		
	Earthworks / Structural Works (Landform Establishment) Subtotal								
					Mine Wa	ste Subtotal	\$0		
	Land Preparation and Revegetation (C	Growth Media Dev	velopment an	d Ecosyst	em Establishme	ent) Subtotal	\$0		
				1	Nater Managem	ent Subtotal			
			Mainter	nance of R	Rehabilitated Ar	eas Subtotal	\$0 \$0		
	Additional Items Subtotal								
	Total Cost for Tailings & Rejects Domain							\$0	

Domain 3a: Overburden & Waste

Total Cost for Overburden & Waste Domain

\$1,184

Additional Assumptions. Necord any relevant assumptions to this domain below.		
	Key Rehabilitation Area Data for Domain	Enter data below manually
	Total Landform Establishment:	
	Total Growth Media Development:	
	Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
				Conta	minated Materi	als Subtotal	\$0		
	Roads and Tracks Subtotal								
	E	arthworks / S	tructural Wor	ks (Landfor	m Establishme	ent) Subtotal	\$0		
	Mine Waste Subtotal								
	Land Preparation and Revegetation (Gro	wth Media De	velopment an	d Ecosyste	m Establishme	ent) Subtotal	\$0		
				W	later Managem	ent Subtotal	\$0		
Maintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Υ	1.28	ha	\$925		\$1,184		Rehabilitation maintenance might include re-seeding, watering, fertilising, minor re-shaping, erosion control, inspections/audits - does not include major repair works.
			Mainte	nance of Re	ehabilitated Are	eas Subtotal	\$1,184		
	Additional Items Subtotal						\$0		
	Total Cost for Overburden & Waste Domain							\$1,184	_

Domain 4a: Active Mine & Voids

Total Cost for Active Mine & Voids Domain

\$14,145

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
					Open (Cut Subtotal	\$0		
Earthworks / Structural Works (Landform Establishment)	Minor reshaping and pushing	Y	1.04	ha	\$3,900		\$4,056		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	E	arthworks / S	tructural Wor	rks (Landforr	n Establishme	ent) Subtotal	\$4,056		
Land Preparation and								<=1km	
Revegetation (Growth Media Development and Ecosystem Establishment)	Source, cart and spread growth media - haul distance <1 km	Y	1000	m3	\$3.26		\$3,256		Undertaken with 623 scraper and 14 M grader.
,	Direct seeding / fertiliser (pasture grass species)	Y	1.04	ha	\$1,875		\$1,950		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Direct seeding / fertiliser (tree or native grass species)	Y	1.04	ha	\$4,135		\$4,300		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Single application of fertiliser (pasture)	Υ	1.04	ha	\$420.00		\$437		Assumes 250 kg / ha. These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Single application of fertiliser (trees)	Υ	1.04	ha	\$140.00		\$146		These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Land Preparation and Revegetation (Gro	wth Media De	velopment ar	nd Ecosyster	n Establishme	nt) Subtotal	\$10,089		
				Wa	ater Managem	ent Subtotal	\$0		
			Mainte	enance of Re	habilitated Are	eas Subtotal	\$0		
			·	·	Additional Ite	ms Subtotal	\$0		
	Total Cost for A	ctive M	ine & V	oids Do	main			\$14,14	5

Domain 5a: Management Activities

Total Cost for Management Activities

\$37,593

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

		Applicable	a di		Default Unit	Alternative		Basis for Costs Estimation	5
Management Precinct	Activity / Description	(Y or N)	Quantity	Unit	Rate	Unit Rate	Total Cost	and Additional Relevant Information	Description / Notes:
Water Management	On-site treatment of contaminated water due to high salt (includes removal of metals etc, brine disposal and cost of mobile water treatment unit)	N		ML	\$3,600				Rate can fluctuate depending on treatment type however this is a suitable standard rate for current programs at mining operations.
	On-site treatment of contaminated water due to low pH (incudes removal of metals etc, neutralisation treatments and cost of mobile water treatment unit	N		ML	\$1,500				Rate can fluctuate depending on treatment type however this is a suitable standard rate for current programs at mining operations.
Creek Diversions				Wa	ater Managem	ent Subtotal	\$0		Assumes material is suitable for
	Repairs and/or stabilisation of new or compromised water course diversion	N		m	\$2,500				revegetating and has a reasonable chance of stabilising. Assumes maintenance has been kept
	Long term maintenance of water course diversion – Channel constructed through backfilled material	N		m	\$1,500				up and significant works are not required. Assumes maintenance has been kept
	Long term maintenance of water course diversion – Channel constructed through competent material	N		m	\$750.00				up and significant works are not required.
	Installation of rock armouring	N		m2	\$6.00				Assumes competent material is locally available - multiply costs by 2 for sourcing and transporting from offsite location.
					Creek Diversi	ons Subtotal	\$0		Toodhorn.
Maintenance of Rehabilitated Areas	Pest management on buffer lands, non-disturbed, and rehabilitated areas	Y	19.26	ha	\$150.00		\$2,889		Feral animal baiting programs if required and waste materials required to be removed.
	Land management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	Y	19.26	ha	\$400.00		\$7,704		Undisturbed areas within the lease boundary that require land management activities.
	,		Mainte	enance of Re	habilitated Ar	eas Subtotal	\$10,593		
Heritage Items	The restoration and care and maintenance of items that have heritage significance	N		allow	Use alternate rate cell				Item for the redistribution of Aboriginal artefacts, preservation of European heritage items or a combination of
				l	Heritage Ite	ems Subtotal	\$0		activities.
Sundry Items									Provisional sum to be used to refine the
	Development of an 'Unplanned' Project Closure Plan - State Significant Development with closure planning well progressed i.e. preferred cover design, closure environment modelled e.g. groundverter /subsidence / pit lakes, preliminary seal designs, etc. and only finalisation of detailed engineering deigns required	N		allow	\$100,000				closure plan with execution strategies for rehabilitation activities. Assumes outcomes of studies readily available including modelling, landform design, geochemistry, demolition, etc. Costs to finalise options by domain an finalise designs for construction. Assume a simple site e.g. single open cut, no legacy operations historic in the area, little social dependence, etc. Depending on site size, complexity, fin land use requirements and knowledge base investigations can range from ~575 kt o \$1 M. Sites with more than 1 pit to add \$50,000 to rate.
	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with at least 2c of the following aspects requiring closure planning, but no significant issues realised at this time: previous subsidence, medium or higher geochemistry risk and/or spontaneous combustion propensity, known likely contamination, tailings / rejects, final void	N		allow	\$90,000				Provisional sum to be used to refine th conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities. Estimated cost for developing closure plan including studies - basic to satisfy risks and decisions - includes risk assessment, options analysis, Closure Plan. Street with more than 1 pit to add \$50,000 to rate.
	Development of an 'Unplanned' Project Closure Plan Non State Significant Development with no EPL and/or only one of the following relevant aspects: previous subsidence, low to medium geochemistry risk and/or spontaneous combustion propensity, known limited contamination, small approved final void	Y	1	allow	\$15,000		\$15,000		Assumes sediment control is the key concern for rehabilitation e.g. small mines, exploration operations. Include risk assessment, sampling and analyses on <5 samples, one study an Closure Plan.
	Development of an 'Unplanned' Project Closure Plan - State Significant Development with only preliminary to conceptual closure planning in place	N		allow	\$300,000				Includes costs for key investigations and studies including designs e.g. geochemistry, Contamination Remediation Action Plan, subsidence risk, cover/capping and final landform, site wide surface water, etc. Provision sum to be used to refine the conceptue closure plan into a detailed closure plan with execution strategies for rehabilitation activities. Assume at least 15 types of studies required ranging from geotechnical to ecology and social, development of closure plan including address of obligations. Assume a simple site e.g. single open cut, no legacy operations historic in the area, little social dependence, etc. Depending on site size, complexity, fin land use requirements and knowledge base investigations can range to >\$3 h. Sites with more than 1 pit to add \$50,000 to rate.

1									Includes costs for key investigations
	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with at least 22 of the following aspects resulting in significant issues requiring remediation: previous subsidence, medium or higher geochemistry risk and/or spontaneous combustion propensity, known/ likely contamination, tailings / rejects, final void	N		allow	\$125,000				and studies including economic treatments and designs e.g. geochemistry. Contamination Remediation Action Plan, subsidence risk, cover/capping and final landform, site wide surface water, etc. Provisional sum to be used to refine the conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities.
	Develop a Review of Environmental Factors (REF) to facilitate rehabilitation including contamination works.	N		allow	\$27,950				Based on experience for a REF after completion of a detailed closure study (e.g. contamination investigation) costs could range from \$10,000 to \$100,000 ex GST. Note this does not apply to a Statement of Environmental Effects or Environmental Impact Statement.
	Site security during closure	N		yr.	\$75,000				Provisional sum for site security measures required during closure. This includes nightly patrols and first response in the event of an out of hours incident.
	Choose type of HAZMAT Clean-up required - cleaning and decontaminating plant and equipment,	N		allow	\$0			Select type of HAZMAT Clean-up Required	Type of HAZMAT Clean-up required - cleaning and decontaminating plant and equipment, chemical storage locations,
	chemical storage locations, oil and grease traps, tanks, vessels, and pipe work etc	ı		allow	Ų.				oil and grease traps, tanks, vessels, and pipe work etc
	Removal and disposal of radiation devices	N		each	\$31,630				Provisional sum for removal and disposal of monitoring devices on conveyors using a radiation source (i.e., Americium – 241, Plutonium – 238, Caesium - 137 etc). Source Isotope type, quantity, strength, weight, source holder type, source holder type, source holder bight, pick-up location (among others) will directly affect pricing.
	Additional fees for accessing State, Crown or other public lands for rehabilitation/remediation activities	N		allow	Use alternate rate cell				Provisional sum.
					Sundry Ite	ems Subtotal	\$15,000		
Mobilisation and Demobilisation	Mobilisation & Demobilisation for small mine or quarry - small fleet	Y	1	Item	\$12,000		\$12,000		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation for small mine or quarry - medium to large fleet	N		Item	\$35,000				May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site <150 km)	N		item	\$100,000				May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site >150 km but <500 km)	N		item	\$150,000				May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site >500 km but <1000 km)	N		item	\$300,000				May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site >1000 km)	N		item	\$500,000				May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
Additional Items	1		Mo	bilisation and		tion Subtotal	\$12,000		This item includes < <to added="" be="" by<="" td=""></to>
Auditional items	Other 1 <insert></insert>	N			This is				the operator>>
	Other 2 <insert></insert>	N			deliberately				This item includes < <to added="" be="" by="" operator="" the="">></to>
	Other 3 <insert></insert>	N			left blank				This item includes < <to added="" be="" by="" operator="" the="">></to>
					Additional Ite	ems Subtotal	\$0		
	Total Cost for	r Manag	gement	Activiti	es			\$37,593	3

Domain 1b: Infrastructure

Total Cost for Infrastructure Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable	Quantity	Unit	Default Unit	Alternative	Total Cost	Basis for Costs Estimation and Additional Relevant	Description / Notes:
Termination of Services and	Activity / Description	(Y or N)	Quantity	Onit	Rate	Unit Rate	Total Cost	Information	Description / Notes:
Demolition Works	Disconnect and terminate all services (Water, electricity, gas etc at point of attachment to site)	Υ		allow	\$35,000		\$0		For disconnection of all services, at building boundaries, physical cut at the point of attachment or distribution location. If infrastructure is not consolidated (i.e., administration, camp and workshops are in separate places), consider multiple disconnection fees.
	Disconnect and terminate services at remote areas (i.e. pump stations, remote workshops, sewage treatment plant etc.)	Y		allow	\$5,850		\$0		Used for infrastructure remote from primary connection. Can also be used for small mines / quarries that do not have dedicated supplies from supply authorities such as steel lattice power lines.
	Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations	Y		km	\$15,000		\$0		Applies to power lines on stobie, concrete or similar poles.
	Removal of power lines on tower or lattice structures (this includes disconnection, rolling up the wires and removing the structures) - does not include the removal of substations	Y		km	\$100,000		\$0		Applies to power lines on steel tower and steel lattice structures assuming 3 towers / km.
	Remove small rail, road, water course overpass - manage potential interruptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material on-site/locally	Y		Item	\$350,000		\$0		Smaller structures - minimal civil works to demolish (constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent).
	Remove medium rail, road, water course overpass - manage potential interruptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material on-site/locally	Y		Item	\$500,000		\$0		Medium structures - minimal civil works to demolish (constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent).
	Remove large / significant rail, road, water course overpass - manage potential interruptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material onsite/locally	Υ		Item	\$1,300,000		\$0		Large structures - includes significant water management e.g. watercourse diversion and civil works to demolish (constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent).
	Demolish and/or remove substations (assumes they are in a closed building). Dispose of waste material on-site/locally	Y		m2	\$100.00		\$0		Simple structure to demolish mechanically (no labour required), assumes single story building with no asbestos and segregation of contents for scrap as applicable.
	Demolish and remove switchyard. Dispose of waste material on-site/locally	Υ		m2	\$75.00		\$0		Includes demolition and removal of all switchgear and transformers etc. and segregation of contents for scrap as applicable.
	Demolish and remove demountable structures on concrete stumps. Assumes not being re-used	Y		m2	\$40.00		\$0		Crib huts, temporary offices and other 'non permanent' structures. Does not include transport to regional disposal facility or equivalent.
	Demolish and remove small buildings/tanks (admin buildings, single story accommodation etc) and disposal on-site/locally	Y		m2	\$61.00		\$0		Simple structure to demolish, assumes no greater than 2 stories high. Does not include transport to regional disposal facility or equivalent.
	Demolish and remove light industrial buildings and disposal on-site/locally	Y		m2/floor	\$90.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m) - does not include transport to regional disposal facility or equivalent. Assumes asbestos free and mechanically demolished.
	Demolish and remove industrial buildings (workshops tyre change and servicing area etc not CHPP/process plant) and disposal on-site/locally	Y		m2/floor	\$130.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Demolish and remove CHPP/process plant (include the area of each floor of the structure) and disposal on-site/locally	Y		m2/floor	\$225.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Collapse, demolish and remove washery, crushers, hoppers, mills, furnaces, agglomeration, electrowinning, floatation, sizing stations, rotary breakers, etc (include the area of each floor of the structure) and disposal on-site/locally	Y		m2/floor	\$225.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Collapse, demolish and remove stacker OR reclaimer (radial or luffing etc. with maneuverability for stockpile control) and disposal on-site/locally	Y		allow	\$750,000		\$0		Cost for removal of stacker or reclaim unit only. Does not include terminate services, remove rails and ballast etc. Does not include transport to regional disposal facility or equivalent.
	Collapse, demolish and remove bucket wheel stacker/reclaimer and disposal on-site/locally	Y		allow	\$2,000,000		\$0		Cost for just removal of the bucket wheel stacker/reclaim units. Does not include terminate services, remove rails and ballast etc. Does not include transport to regional disposal facility or equivalent.
	Remove stacker/reclaimer rails and ballast and demolish and remove concrete footings etc and disposal on-site/locally	Υ		m	\$75.00		\$0		Includes both rails, does not include the conveyor system. Does not include transport to regional disposal facility or equivalent.
	Collapse, Cut and Remove 5000T coal silo and disposal on-site/locally	Υ		allow	\$92,500		\$0		Collapse structure and remove. Does not include transport to regional disposal facility or equivalent. Collapse structure and remove. Does
	Collapse, Cut and Remove 3000 T coal silo and disposal on-site/locally	Y		allow	\$77,500		\$0		not include transport to regional disposal facility or equivalent.

Collapse, Cut and Remove 1250 T coal silo and					Collapse structure and remove. Does
disposal on-site/locally	Y	allow	\$62,500	\$0	not include transport to regional disposal facility or equivalent. Collapse structure and remove. Does
Collapse, Cut and Remove rail loading bins and disposal on-site/locally	Υ	allow	\$65,000	\$0	not include transport to regional disposal facility or equivalent.
Demolish and Remove large concrete rail loading bin - and disposal on-site/locally	Y	allow	\$460,000	\$0	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
Demolish and remove onground conveyors, transfer stations & gantries (scrap only – does not include dismantling for reuse at another site) and disposal on-site/locally	Y	m	\$185.00	\$0	Estimate for on-ground conveyor including anything up to 10 m off the ground. Does not include transport to regional disposal facility or equivalent.
Demolish and remove elevated conveyors, transfer stations & gantries (scrap only, does not include dismantling for reuse at another site) and disposal on-site/locally	Y	m	\$295.00	\$0	Estimate for elevated conveyor up to ~10 m off the ground. Does not include transport to regional disposal facility or equivalent.
Demolish and remove overhead conveyors, transfer stations & gantries (scrap only, does not include dismantling for reuse at another site) and disposal on-site/locally. This may include small scale fixed material stacking	Y	m	\$850	\$0	Estimate for overhead conveyor including conveyors that are >10 m off the ground that require a crane to remove. Does not include transport to regional disposal facility or equivalent.
infrastructure Remove and demolish conveyor from reclaim tunnel (Does not include excavation and demolition of	Y	m	\$150.00	\$0	Due to no canopy or infrastructure attached.
reclaim tunnel roof) Demolition of reclaim tunnel concrete (Assumes complete removal and dumping in mine pit void)	Y	m	\$950.00	\$0	Assumes this area will be used for another land-use that requires the structure to be dug up and re-buried somewhere else.
Demolition and removal of vent raise fans, electrical substation and winch and disposal on-site/locally	Y	allow	\$25,000	\$0	Does not include filling and capping the shaft. Does not include transport to regional disposal facility or equivalent.
Demolish and remove small tank clean (Thickener etc 3 - 9 m diameter) and disposal on-site/locally	Υ	allow	\$10,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove medium tank clean (Thickener etc 10 - 15 m diameter) and disposal on- site/locally	Υ	allow	\$30,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove large tank clean (Thickener etc 15 - 30 m diameter) and disposal on-site/locally	Y	allow	\$45,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove extra large tank clean (Thickener etc >30 m diameter) and disposal on- site/locally	Υ	allow	\$100,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove tank clean (Thickener etc) >50 m diameter and disposal on-site/locally	Y	allow	\$100,000	\$0	Estimate only - may require a detailed assessment from demolition expert due to specialised equipment required for removal. Does not include transport to regional disposal facility or equivalent.
Removal of UG tank <5000 L - including pipes, bunds etc. and disposal on-site/locally	Y	allow	\$21,000	\$0	Assume tank is clean (contents removed), does not include transport to regional disposal facility or equivalent.
Removal of UG tank 5000 L - 15000 L - including pipes, bunds etc. and disposal on-site/locally	Y	allow	\$30,000.00	\$0	Assume tank is clean (contents removed), does not include transport to regional disposal facility or equivalent.
Remove small underground pipe and disposal on- site/locally	Y	m	\$25.00	\$0	For example: 300 mm pipes - 0.5 m deep, does not include transport to regional disposal facility or equivalent.
Remove medium underground pipe and disposal on- site/locally	Υ	m	\$60.00	\$0	For example: 500 mm pipes - 1 m deep, does not include transport to regional disposal facility or equivalent.
Remove large underground pipe and disposal on- site/locally	Y	m	\$165.00	\$0	For example: 1 m pipes - 2 m deep.
Remove above ground pipe (supported) and disposal on-site/locally	Y	m	\$12.00	\$0	~300 mm pipes and assumes pipes are in close proximity to infrastructure areas. Does not include transport to regional disposal facility or equivalent.
Remove surface pipelines (unsupported) and disposal on-site/locally	Y	m	\$15	\$0	~300 mm pipes and assumes pipes are used for water transfer between pits (or similar) and remotely located. Does not include transport to regional disposal facility or equivalent.
Remove pump and pontoon from small lake or dam including pipes and electrical supply or diesel tank/s	Y	allow	\$20,000.00	\$0	Includes equipment for retrieval - boats, etc. and labour. Does not include transport to regional disposal facility or equivalent.
Remove bitumen (car park and access roads) and dispose on-site/locally	Υ	 m2	\$10.00	\$0	Scalp bitumen and stabilised material. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
Remove bitumen (airstrip) and dispose on- site/locally	Y	m2	\$20.00	\$0	Scalp bitumen and stabilised material. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
Remove concrete pads & footings (<300 mm thickness) and disposal on-site/locally	Y	m2	\$36.00	\$0	Breaking up slab and disposal or for conversion to aggregate. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.

Remove concrete pads & footings (>300 mm thickness) and disposal on-site/locally Crush concrete to make road aggregate - 75 mm	Y		m2	\$75.00		\$0		Breaking up slab and disposal or for conversion to aggregate. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc.
Crush concrete to make road aggregate - 75 mm								For off-site disposal use alternate rate option and add \$0.90 / km for transport.
	Υ		tonne	\$10.00		\$0		Does not include haulage of materials - assumes crushing plant is readily available.
Crush concrete to make road aggregate - 50 mm	Υ		tonne	\$13.00		\$0		Does not include haulage of materials - assumes crushing plant is readily available.
Crush concrete to make road aggregate - 30 mm	Υ		tonne	\$15.00		\$0		Does not include haulage of materials - assumes crushing plant is readily available.
Remove fence (cyclone/wire fence) and disposal on- site/locally	Υ		m	\$20.00		\$0		Roll up fence and remove posts.
Removal of small plastic tanks	Υ		each	\$1,000.00		\$0		Remove small poly tanks used for water storage, etc.
Demolish and remove galvanised/corrugated light weight tanks	Υ		each	\$500.00		\$0		Demolish and remove small lightweight metal tanks. No costs included for managing liquids, etc.
Demolish and remove communication towers	Υ		each	\$5,000.00		\$0		Cost includes demolition and removal of tower only; separate costs required for disconnection of services, demolition of footings, etc.
Removal of UG services (power within main gate areas, etc.)	Y		allow	\$50,000.00		\$0		Assume service disconnection at the mine boundary is at surface level. This cost covers all fees and charges
Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km	Υ		tonne	\$7.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km	Y		tonne	\$9.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (general waste) - haulage >25 km but <50 km	Y		tonne	\$12.50		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >10 km but <15 km	Y		tonne	\$32.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km	Y		tonne	\$36.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km	Υ		allow	Use alternate rate cell		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill - fees (general waste)	Y		tonne	\$193.00		\$0		Fee for waste disposal of general waste to local Council landfill; transport rates separate. Please note that this is not applicable to operations with approval for building and demolition waste disposal on site.
Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal)	Y		tonne	\$174.00		\$0		Fee for waste disposal of industrial demolition / concrete / scrap metal waste to local Council landfill; transport rates separate. Rate does not assume material is recyclable. Please note that this is not applicable to operations with approval for building and demolition waste disposal on site.
	Tern	nination of Se	ervices and D	emolition Wo	rks Subtotal	\$0		
Remove rail loop and spur, ballast etc. and disposal on-site/locally	Y		m	\$60.00		\$0		Remove all materials to allow area to be reshaped and rehabilitated - does not include transport to regional disposal facility or equivalent.
Remove train loading facilities and disposal on- site/locally	Y		m2	\$185.00		\$0		Remove rail load point infrastructure including gantries and control structures. Does not include transport to regional disposal facility or equivalent.
Reshape rail spur and load out areas. Does not include growth media and revegetation	Υ		ha	\$2,860		\$0		D10 Dozer and 16 H Grader (50% utilisation).
. y			R	ail Infrastruct	ure Subtotal	\$0		
Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple studies	Υ		Cluster	\$15,000		\$0		The preliminary investigation would include at minimum a desktop assessment of the area and site history, incidents, etc. as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) ((v)) or similar approved and recognised assessment method. A cluster may include: - Mine infrastructure (i.e., fuel / chemical store, workshop, vehicle wash-down,
	Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal on- site/locally Removal of small plastic tanks Demolish and remove galvanised/corrugated light weight tanks Demolish and remove communication towers Removal of UG services (power within main gate areas, etc.) Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km Waste disposal to Council landfill (general waste) - haulage >25 km but <50 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >10 km but <15 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (moustrial demolition / concrete / scrap metal) Waste disposal to Council landfill - fees (moustrial demolition / concrete / scrap metal)	Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal onsite/locally Removal of small plastic tanks Y Demolish and remove galvanised/corrugated light weight tanks Permoval of UG services (power within main gate areas, etc.) Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <5 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <5 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Permove rail loop and spur, ballast etc. and disposal on-site/locally Remove train loading facilities and disposal on-site/locally Reshape rail spur and load out areas. Does not include growth media and revegetation Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations	Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal onside locally Removal of small plastic tanks Y Demolish and remove galvanised/corrugated light weight tanks Demolish and remove communication towers Y Removal of UG services (power within main gate areas, etc.) Waste disposal to Council landfill (general waste) - haudage >10 km but <15 km Waste disposal to Council landfill (general waste) - haudage >25 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haudage >10 km but <15 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haudage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haudage >25 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haudage >25 km but <25 km Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general	Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal onsite/locally Removal of small plastic tanks Pemoval of uservices (power within main gate areas, etc.) Pemolish and remove communication towers Pemoval of UG services (power within main gate areas, etc.) Pemolish and remove communication towers Pemoval of UG services (power within main gate areas, etc.) Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >10 km but <15 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <25 km Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <30 km Remove trail loop and spur, ballast etc. and disposal on-site/locally Pemove trail loop and spur, ballast etc. and disposal on-site/locally Pemove trail loop and spur, ballast etc. and disposal on-site/locally Pemove trail loop and spur, ballast etc. and disposal on-site/locally Pemove trail loop and spur, ballast etc. and disposal on-site/locally Pemove trail loop and spur, ballast etc. and disposal on-site/locally	Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal origination of small plastic tanks Y each \$1,000.00 Demolish and remove galvanised/corrugated light wight tanks Demolish and remove galvanised/corrugated light wight tanks Demolish and remove galvanised/corrugated light wight tanks Demolish and remove communication towers Y each \$5,000.00 Removal of US services (power within main gate arrises, etc.) Waste disposal to Council landfill (general waste) - Y waste disposal to Council landfill (general waste) - Y waste disposal to Council landfill (general waste) - Y waste disposal to Council landfill (general waste) - Y waste disposal to Council landfill (industrial demolition) corrorer / scrap metal) - haulage > 15 who but < 25 km who till year or y	Crush concrete to make road aggregate - 30 mm Promove fence (cyclone/wire fence) and disposal on a strickally Removal of small plastic tanks Promoval of UG services (power within main gate weight tanks Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak, etc.) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Promoval of UG services (power within main gate weak) Pr	Crush concrete to make read aggregate - 30 mm	Charle concrete to make road aggregate - 30 mm

Undertake an intrusive site investigation on sites with small footprints to investigate e.g. £15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	¥	Cluster	\$44,000	\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assumes site is easily accessible and a small area e.g. –10-15 ha requires investigation and testing (lest pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
Undertake an intrusive site investigation on sites with large footprints to investigate e.g. >15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Y	Cluster	\$106,000	\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assume site has a history of contamination and/or a large area >15 ha requires investigation and testing (test pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
Develop a Remediation Action Plan on sites with small footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Υ	allow	\$35,000	\$0		Develop remediation plan for approval including designs and detailed costs. Costs may increase if detailed designs required for construction.
Develop a Remediation Action Plan on sites with large footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Y	allow	Use alternate rate cell	\$0		Assumes complex site; detailed design drawings required for cover.
Removal and disposal of contaminated water from tanks, bunded areas and sumps	Y	L	\$0.35	\$0		Cost for recent sump clean-up from resource activity - requires specialists to treat.
Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (Select Haul Distance from list)	Υ	m3	Select from List		Select Haul Distance Here	This item includes scraping and removal of the volume of carbonaceous material using dozer, grader etc. to make safe an area and enable the establishment of rehabilitation.
Load, cart and dispose of Hazardous classified contaminated material off site to a licensed landfill. Assumes cartage to a licensed landfill.	Υ	m3	\$800.00	\$0		Includes load, haul and dump fees to a licensed facility.
Load, cart and disposal of Restricted classified contaminated material off site to a licensed landfill. Add \$50/m3 for cartage from regional areas	Υ	m4	\$660.00	\$0		Includes load, haul and dump fees to a licensed facility.
Load, cart and disposal of Low Level contaminated material off site to a licensed landfill. Add \$50/m3 for cartage to regional landfill	Y	m3	\$220.00	\$0		Includes load, haul and dump fees to a licensed facility.
Onsite remediation of hydrocarbon contaminated soils manual land farming (Select Volume from List)	Υ	m3	Select from List		Select Volume Here	Spreading of contaminated soils on a prepared surface and stimulation of aerobic microbial activity within the soils through aeration and/or the addition of minerals, nutrients and moisture to promote the aerobic degradation of organic chemicals - time frame of up to 24 months.
Mobilisation of cement stabilisation plant and equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	Υ	Item	\$150,000	\$0		Required if treatment of hydrocarbon contamination is required to be fast tracked.
On-site remediation of hydrocarbon contaminated soils - using a mobile treatment unit	Y	m3	\$165.00	\$0		Additional cost as the treatment process is fast tracked.
Remove and dispose of asbestos (<750 m2)	Y	m2	\$50.00	\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
Remove and dispose of asbestos (>750 m2)	Y	m2	\$40	\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
Waste disposal to Council landfill - fees (asbestos)	Y	tonne	\$290	\$0		Landfill fees to regional landfill. Assumes ASS is treatable via
Treatment of known Acid Sulfate Soils	Y	ha	\$2,580	\$0		neutralisation and does not require capping and isolation. Assumes 1% by weight lime addition and treatment to 100 mm depth only.

	Removal and disposal of plastic liner (i.e. dam,	Υ		m2	\$1		\$0		Provisional sum for cutting using rippi
	leach pad, sump etc.) Long haulage brine/salt for disposal (Select Haul				Select from		**		tynes and on-site disposal of the liner. Costs for haulage to location for
	Distance from list)	Y		tonne	List			Select Haul Distance Here	authorised disposal.
	Brine disposal to landfill - fees only	Υ		tonne	\$288		\$0		Rate for trackable liquid levy of \$78.2 per tonne and authorised disposal to
	Long naulage water (clean or contaminated) (Select				Select from				landfill. Assumes transport in a 20,000 L tan
	Haul Distance from list)	Y		tonne	List			Select Haul Distance Here	Add disposal costs to additional item
Vents, Shafts and Boreholes		ī	1	Contan	inated Mater	ials Subtotal	\$0		Cost to grout and cap an open
vents, charts and porcholes	Option 1 - Coal bore hole Exploration boreholes – rehabilitate coal boreholes and drill pads as required	Y		depth (m)	\$44.55		\$0		exploration borehole. Assume a 20 r 20 m drill pad requires rehabilitation push cover of nearby growth media, and seed.
	Option 3 - Mineral RAB and aircore drill holes Exploration boreholes – backfill open Rotary Airblast (RAB) or aircore drill holes with cuttings	Y		allow	\$43		\$0		May include cutting of casing, installation of a casing cap, and/or manually backfilling the hole with dril cuttings. Does not include reshaping ripping the drill pad, amelioration / seeding etc.
	Option 2 - Mineral drill hole requiring grouting Exploration boreholes – grout and cap open bore holes	Y		allow	\$5,700		\$0		Includes grouting and capping 100 - m exploration boreholes to meet the requirements of Departmental Guidelines.
	Boreholes – cap and seal open bore holes with steel casing (i.e., goaf drainage etc.)	Y		allow	\$6,960		\$0		Holes deeper than 100 m - includes cutting steel collar 6 m below surface grouting and capping.
	Boreholes – cap and seal open bore holes - surface- to-in-seam gas drainage	Υ		allow	\$17,890		\$0		Surface-to-in-seam gas drainage boreholes.
	Boreholes - cap and seal open bore holes - vertical	Υ		allow	\$16,000		\$0		Vertical gas drainage boreholes.
	gas drainage Boreholes – grout (with concrete) cap and seal bore								Includes multi skin sleaves to preven
	holes (i.e. where sealing aquifers)	Y		allow	\$35,000		\$0		aquifer mixing.
	Boreholes – cap and seal service boreholes for UG	Y		allow	\$45,000		\$0		Includes large diameter boreholes us for supplying electricity (66kV),
	coal operations Option 4 - Mineral diamond drill hole								compressed air, water, solsenic etc. Bog out cuttings, remove fencing, remove rubbish, push sumps in, rehabilitate pads and tracks, cut and
	Rehabilitation of diamond drill holes and pad including sealing drill holes for mineral exploration	Y		Item	\$2,070		\$0		plug collars. Includes labour and equipment, disposal of rubbish locall on site
	Option 5 - Mineral reverse circulation drill holes Rehabilitation of reverse circulation drill holes and pad including sealing drill holes for mineral exploration	Y		Item	\$1,340		\$0		Sealing required, but not complete fil with concrete/grout
	Option 6 - Rehabilitation of drill hole collars Rehabilitation of drill hole collars (mineral exploration)	Y		each	\$415		\$0		Cut collar, remove, cap, backfill capp collar and cover with nearby organic growth material
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor	T T	1	1	s and Boreho	oles Subtotal	\$0		Assumes ~6 m road width - 16H
nouse and masks	works including deep rip and trim	Y		ha	\$1,040.00		\$0		Grader.
	Unsealed roads / access tracks / vehicle park-up areas with windrows and/or small earthen bunds –	Υ		ha	\$1,500		\$0		D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50%
	minor earthworks and deep rip and trim Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip and seed	Y		ha	\$3,700		\$0		utilisation) - no seed D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50%
	(pasture grass) Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip, ameliorate and	Y		ha	\$4,485		\$0		utilisation) - pasture grass seed D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50%
	seed (native tree/shrub/grass) Unsealed roads / haul roads / vehicle park-up areas	'		iia.	\$4,40J		30		utilisation) - native tree/shrub seed D10 Dozer @ \$400 per hour and 16
	with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	Y		ha	\$4,870		\$0		grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Υ		ha	\$7,025		\$0		D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and	Y		ha m3	\$7,025 Select from List		\$0	Select Haul Distance Here	
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally			m3	Select from	cks Subtotal	\$0 \$0	Select Haul Distance Here	grader © \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or surface using an excavator, dozer ar grader to enable the establishment or
Farthworks / Structural Works (Landform Establishment)	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally			m3	Select from List	cks Subtotal		Select Haul Distance Here Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or o surface using an excavator, dozer ar grader to enable the establishment o rehabilitation.
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-siteflocally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing	Y		m3	Select from List pads and Tra	cks Subtotal			grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or c surface using an excavator, dozer ar grader to enable the establishment or rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation).
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List	cks Subtotal	\$0		grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or surface using an excavator, dozer as grader to enable the establishment or rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation).
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation	Y		m3 R m3	Select from List Dads and Tra Select from List \$3,900	cks Subtotal	\$0		grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or surface using an excavator, dozer ar grader to enable the establishment of rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each pla. This item includes the volume of material requiring backfill using an
Earthworks / Structural Works (Landform Establishment)	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness	Y Y Y		m3 R m3 ha	Select from List Select from List Select from List \$3,900 \$1,600	cks Subtotal	\$0	Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or o surface using an excavator, dozer ar grader to enable the establishment or rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each pla. This item includes the volume of material requiring backfill using an excavator and scraper to fill the volid and enable the establishment of rehabilitation. This rate is used to rehabilitate steep solve of weathered rock, roadway cuttings, etc that cannot be cut back and stabilises, etc that cannot be cut back and stabilises.
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List) Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling /	Y Y Y Y		m3 m3 ha ha m3	Select from List Select from List Select from List \$3,900 \$1,600 Select from List	cks Subtotal	\$0 \$0 \$0	Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or o surface using an excavator, dozer ar grader to enable the establishment of rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each plus frem includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation. This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List) Shotcrete application on cuttings and steep slopes	Y Y Y Y		m3 m3 ha ha m3 m3	Select from List Select from List \$3,900 \$1,600 Select from List	cks Subtotal	\$0 \$0 \$0	Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or surface using an excavator, dozer al grader to enable the establishment of rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each ha. This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation. This rate is used to rehabilitate stee; shoes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List) Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y Y Y Y Y Y		m3 ha ha m3 ha ha ha	Select from List Select from List \$3,900 \$1,600 Select from List \$185.00	cks Subtotal	\$0 \$0 \$0 \$0	Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or o surface using an excavator, dozer ar grader to enable the establishment or rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each plus. This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation. This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, et c that cannot be cut back and stabilised. Undertaken using D10 dozer and 16 grader.
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, volds etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List) Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y Y Y Y Y Y Y Y Y	Structural Wo	m3 ha ha m3 m4 m3 m4 m2 ha ha	Select from List Select from List \$3,900 \$1,600 Select from List \$185.00 \$1,130.00 \$960.00		\$0 \$0 \$0 \$0 \$0 \$0	Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or surface using an excavator, dozer ar grader to enable the establishment or rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each plus grader for ~4 hours each plus grader for a scraper to fill the void and enable the establishment of rehabilitation. This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, et chat cannot be cut back and stabilised. Undertaken using D10 dozer and 16 grader. D10 deep ripping. Installation of on-site rock material (rap) where managing water run-off f disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If requi
(Landform Establishment) Land Preparation and Revegetation (Growth Media Development and Ecosystem	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, volds etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List) Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y Y Y Y Y Y Y Y Y	Structural Wo	m3 ha ha m3 m4 m3 m4 m2 ha ha	Select from List Select from List \$3,900 \$1,600 Select from List \$185.00 \$1,130.00 \$960.00		\$0 \$0 \$0 \$0 \$0 \$0	Select Push Length Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or o surface using an excavator, dozer ar grader to enable the establishment of rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each pla. This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation. This rate is used to rehabilitate steep stopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16 grader. D10 deep ripping. Installation of on-site rock material (rap) where managing water run-off to disturbed land and/or upon entry disturbed land and/or upon entry hard water courses - prevents erosion of gully head (assumes competent material is locally available). If require to be sourced off site, assume an additional \$20/m2.
(Landform Establishment) Land Preparation and Revegetation (Growth Media	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list) Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length Minor reshaping and pushing Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List) Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y Y Y Y Y Y Y arthworks/S	Structural Woo	m3 ha ha ha m3 m2 ha ha ha	Select from List Select from List \$3,900 \$1,600 Select from List \$185.00 \$1,130.00 \$960.00		\$0 \$0 \$0 \$0 \$0 \$0	Select Push Length Here Select Haul Distance Here	grader @ \$230 per hour (50% utilisation) - native tree/shrub seed This item includes the scraping and removal of the volume of stabilised material from the road, laydown or o surface using an excavator, dozer ar grader to enable the establishment or rehabilitation. Major bulk pushing to achieve grade nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 grader @ \$230 per hour (50% utilisation). Combination of dozer and excavator work plus grader for ~4 hours each pha. This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation. This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16 grader. D10 deep ripping. Installation of on-site rock material (i rap) where managing water run-off fid sturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If requit to be sourced off site, assume an additional \$20/m2.

,		1		•					1
	Direct seeding / fertiliser (pasture grass species)	Y		ha	\$1,875		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or
	Direct seeding / fertiliser (tree or native grass species)	Υ		ha	\$4,135		\$0		helicopter (aerial seeding). Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Hydro-seeding with straw mulching and bitumen tack with native seed	Υ		m2	\$1.90		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Native seed +\$1.00
	Hydro-seeding with straw mulching and bitumen tack with pasture seed	Y		m2	\$0.43		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Pasture seed +\$0.10
	Hydromulch - base grade or standard for flat areas that can be irrigated by water cart	Υ		m2	\$0.80		\$0		Assumes use on flat areas with a gradient of less than 4-1, and where imigation from water cart may be possible. Industry standard application rate of 2500kg/ha. Product will last short term (less than 3 months) and vegetation is required to grow ASAP for stability. This cost includes cover crop only, additional seeding required.
	Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months	Y		m2	\$1.80		\$0		Assumes use on steep areas where stabilisation is required for up to 12 months. Application rate of ~3500kg/ha. This cost includes cover crop only, additional seeding required.
	Hydromulch - high performance flexible growth medium grade	Y		m2	\$2.50		\$0		Assumes use on extreme slopes where stabilisation is required for up to 18 months. Application rate of ~4,000kg/haminimum. This cost includes cover crop only, additional seeding required.
	Single application of fertiliser (pasture)	Y		ha	\$420.00		\$0		Assumes 250 kg / ha. These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Single application of fertiliser (trees)	Y		ha	\$140.00		\$0		These rates have fluctuated over the last few years however in light of curren conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000.00		\$0		Assumes 2.5 t / ha as an average application rate.
	growth media amelioration with biosolids	Y		ha	\$1,015		\$0		Recent experience with agronomy projects.
	Construct no-climb stock fence around rehabilitated areas	Υ		m	\$22.00		\$0		Standard rate for no-climb stock fencing.
	Construct standard stock fence around rehabilitated areas	Y		m	\$13.00		\$0		Standard rate for standard stock fencing.
	Purchase and erect warning signs	Y		allow	\$250.00		\$0		Compliance with AS 1319-1994 - Safet signs for the occupational environment installed every 25 m.
	Supply from external sources virgin excavated natural material (VENM) for growth media.	Y		m3	\$80.80		\$0		D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - allon ominal rate of \$70/m3 for imported fill material.
	Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc.	Υ		m3	\$72.50		\$0		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - allov nominal rate of \$60/m3 for imported fill material.
	Clearing and grubbing of trees and vegetation	Υ		ha	\$4,730.00		\$0		Clearing and grubbing of light vegetation growth e.g. regrowth
	Topsoil stripping	Y		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load and haul to final rehabilitation location required or respreading where necessary.
	Growth media supplementation with manure	Y		ha	\$747.50		\$0		Addition of manure to improve soil quality.
	Utilise biotic soil media - organic topsoil alternative	Y		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior to hydromulching.
Water Management	Land Preparation and Revegetation (Grov	vth Media De	velopment ar	nd Ecosystem	n Establishme	ent) Subtotal	\$0		Provisional sum for earthworks and
Hatel management	Clean water dams to be retained after decommissioning – make safe and minor earthworks	Υ		allow	\$2,500		\$0		revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ ~\$200 per hour and pasture grass.
	Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks	Y		allow	\$10,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list) Removal of evaporation fans and/or other water	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of contaminated sediment requiring removal using an excavator, truck and dozer to clean out the dam. Provisional sum for removal of water
	transfer and management infrastructure	Y		allow Wa	\$25,000 iter Managem	ent Subtotal	\$0 \$0		management infrastructure.
aintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Y		ha	\$925	Justoidi	\$0		Rehabilitation maintenance might include re-seeding, watering, fertilising, minor re-shaping, erosion control, inspections/audits - does not include major repair works.
	Existing rehabilitation repair - minor	Y		ha	\$1,200		\$0		Areas requiring minor repair - rills, minor growth media replacement.
	Existing rehabilitation repair - moderate	Υ		ha	\$1,700		\$0		Areas requiring moderate repair - rills, significant growth media replacement.
									Areas requiring major repair - rills,

Existing rehabilitation repair - total failure of landform	Y		ha	\$40,000		\$0		Areas that require extensive rehabilitation repair - re-design and re-construction of landform.
		Mainte	enance of Rel	nabilitated Are	eas Subtotal	\$0		
				Additional Ite	ms Subtotal	\$0		
Total Cost fo	r Infras	tructur	e Doma	in			\$0	

Domain 2b: Tailings & Rejects

Total Cost for Tailings & Rejects Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Contaminated Materials	Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple studies may be required.	Y		Cluster	\$15,000		\$0		The preliminary investigation would include at minimum a desktop assessment of the area and site history, incidents, etc. as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. A cluster may include: - Mine infrastructure (i.e., fuel / chemical store, workshop, vehicle wash-down, sewage treatment etc.) - Processing plants (i.e., ore and product storage, mine waste storage and disposal, rail load-out etc.) - Remote pit-top facilities (i.e., vehicle refuel, sewage treatment, secondary workshop, chemical storage etc.)
	Undertake an intrusive site investigation on sites with small footprints to investigate e.g. <15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Υ		Cluster	\$44,000		\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assumes site is easily accessible and a small area e.g10-15 ha requires investigation and testing (test pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
	Undertake an intrusive site investigation on sites with large footprints to investigate e.g. >15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Y		Cluster	\$106,000		\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assume site has a history of contamination and/or a large area >15 ha requires investigation and testing (test pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
	Develop a Remediation Action Plan on sites with small footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Y		allow	\$35,000		\$0		Develop remediation plan for approval including designs and detailed costs. Costs may increase if detailed designs required for construction.
	Develop a Remediation Action Plan on sites with large footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Y		allow	Use alternate rate cell		\$0		Assumes complex site; detailed design drawings required for cover.
	Removal and disposal of contaminated water from tanks, bunded areas and sumps	Y		L	\$0.35		\$0		Cost for recent sump clean-up from resource activity - requires specialists to treat. This trem includes scraping and
	spillage or otherwise) from footprint of the process facility (leach pads) / stocknile area (ROM product) / Load, cart and dispose of Hazardous classified	Y		m3	Select from List			Select Haul Distance Here	removal of the volume of carbonaceous material using dozer, grader etc. to
	contaminated material off site to a licensed landfill. Assumes cartage to a licensed landfill.	Y		m3	\$800.00		\$0		Includes load, haul and dump fees to a licensed facility.
	Load, cart and disposal of Restricted classified contaminated material off site to a licensed landfill. Add \$50/m3 for cartage from regional areas	Y		m4	\$660.00		\$0		Includes load, haul and dump fees to a licensed facility.

	Load, cart and disposal of Low Level contaminated material off site to a licensed landfill. Add \$50/m3 for cartage to regional landfill	Υ		m3	\$220.00		\$0		Includes load, haul and dump fees to a licensed facility.
	Onsite remediation of hydrocarbon contaminated soils manual land farming (Select Volume from List)	у		m3	Select from List			Select Volume Here	Spreading of contaminated soils on a prepared surface and stimulation of aerobic microbial activity within the soils through aeration and/or the addition of minerals, nutrients and moisture to promote the aerobic degradation of organic chemicals - time frame of up to 24 months.
	Mobilisation of cement stabilisation plant and equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	Y		Item	\$150,000		\$0		Required if treatment of hydrocarbon contamination is required to be fast tracked.
	On-site remediation of hydrocarbon contaminated soils - using a mobile treatment unit	Y		m3	\$165.00		\$0		Additional cost as the treatment process is fast tracked.
	Remove and dispose of asbestos (<750 m2)	Y		m2	\$50.00		\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
	Remove and dispose of asbestos (>750 m2)	Y		m2	\$40.00		\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
·	Waste disposal to Council landfill - fees (asbestos)	Y		tonne	\$290		\$0		Landfill fees to regional landfill.
Roads and Tracks	Uncooled roads / vohicle park up gross _ minor		1	Contan	ninated Mater	ials Subtotal	\$0		Assumes ~6 m road width - 16H
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor works including deep rip and trim Unsealed roads / access tracks / vehicle park-up	Y		ha	\$1,040.00		\$0		Grader. D10 Dozer @ \$400 per hour and 16 H
	areas with windrows and/or small earthen bunds – minor earthworks and deep rip and trim Unsealed roads / vehicle park-up areas – Minor	Y		ha	\$1,500		\$0		grader @ \$230 per hour (50% utilisation) - no seed D10 Dozer @ \$400 per hour and 16 H
	earthworks, final trim and deep rip and seed (pasture grass) Unsealed roads / vehicle park-up areas – Minor	Y		ha	\$3,700		\$0		grader @ \$230 per hour (50% utilisation) - pasture grass seed D10 Dozer @ \$400 per hour and 16 H
	earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Unsealed roads / haul roads / vehicle park-up areas	Y		ha	\$4,485		\$0		grader @ \$230 per hour (50% utilisation) - native tree/shrub seed D10 Dozer @ \$400 per hour and 16 H
	with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	Y		ha	\$4,870		\$0		grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds — Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$7,025		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list)	Υ		m3	Select from List			Select Haul Distance Here	This item includes the scraping and removal of the volume of stabilised material from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rehabilitation.
Earthworks / Structural Works	<u>E</u>	arthworks / S	tructural Wor	ks (Landforn	n Establishme	ent) Subtotal	\$0	Select Push Length Here	Major bulk pushing to achieve grades
(Landform Establishment)	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List			Select Fusii Lengtii Here	nominated in the approval/permit
	Minor reshaping and pushing	Y		ha	\$3,900		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	у		m3	Select from List			Select Haul Distance Here	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0		Undertaken using D10 dozer and 16M grader.
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Y		ha	\$1,600		\$0		Combination of dozer and excavator work plus grader for ~4 hours each per ha.
	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y		m2	\$27.00		\$0		Installation of on-site rock material (rip- rap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an additional \$20/m2.
Mine Waste	E	arthworks / S	tructural Wor						
		aitiiwoiks / S		ks (Landforn	n Establishme	ent) Subtotal	\$0		
	Ideal Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with little chemical reactivity (no to low risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or low to moderate propensity for spontaneous combustion) and good physical properties (not significantly hydrophilic, shear strength does not limit equipment choice, no artificial strengthening required)			ks (Landforn	s82,000	ent) Subtotal	\$0		This includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume material with the appropriate chemical and physical properties. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness of approximately 0.5 m to 1 mand 0.15 m - 0.2 m growth media (assume at least 1 m thick cover required for carbonaceous material covers). Water quality from runoff, seepage etc. meets site-specific environment water quality values. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tallings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tallings cap spreading in additional trom tallings cap spreading in additional trom tallings cap spreading in additional trom tallings cap spreading in additional traditional traditional material to make up landform, provide buttress or other works aside from tallings cap material included in step spreading in additional traditional tra
	sealing of trafficable tailings facility with little chemical reactivity (no to low risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or low to moderate propensity for spontianeous combustion) and good physical properties (not significantly hydrophilic, shear strength does not limit equipment choice, no					ent) Subtotal			spreading, moisture conditioning and compaction of a suitable volume material with the appropriate chemical and physical properties. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness of approximately 0.5 m to 1 mand 0.15 m - 0.2 m growth media (assume at least 1 m thick cover required for carbonaceous material covers). Water quality from runoff, seepage etc. meets site-specific environment water quality rom runoft fit site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material rounded in rate, If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long spreading in additional to any long spreading in additional to any long

					_
Efficient Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (low to medium risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or low to moderate propensity for spontaneous combustion) and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y	ha	\$146,500	\$0	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities where the tailings or rejects base is at a strength that enables economically efficient construction methods with small plant. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness ranging from >1 m to 2 m thickness constructed in 1 m layers + growth media up to 0.2 m depth. This may require additional materials (such as capillary breaks, geofabric, etc.) - use alternate rate cells below, specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised/additional materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Adverse Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (medium to high risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or moderate to high propensity for spontaneous combustion) and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y	ha	\$313,000	\$0	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities of high geochemical risk, and / or low shear strength that prohibits economically efficient construction methods. This rate assumes suitable capping materials are available on site within 10 km, and an average cap thickness of approximately > 2 m + growth media up to 0.2 m depth. This may require additional materials (i.e., capillary breaks, geofabric, etc.), specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / hauf / place / crush / screen / borrow etc.). Costs for haulage of specialised materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap nearest included in rate). If additional material required works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Difficult Tailings Capping- reshaping, capping / sealing of weak or soft surfaced tailings facility with poor physical properties (significantly hydrophilic. low shear strength limits equipment choice greatly, artificial strengthening required) OR visible adverse impacts on legacy sites from chemical reactivity over lengthy exposure prior to rehabilitation	Y	ha	\$843,000	\$0	This option is typically driven by time constraints and/or when tailings properties significantly restrict adequate desiccation, resulting in a tailings shear strength that is very weak excluding access by conventional small plant. Small equipment used for rehabilitation. This excludes any additional material required to form the final landform profile in addition to this cap. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).

	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values. Long naurage son / weathered rook / sediment e.g.	Y		allow m3	Use alternate rate cell		\$0	Select Haul Distance Here	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric composite lining etc.).
	capping/covers, removal of contamination, etc.				List Mine Wa	ste Subtotal	\$0		50 km round trin e.g. waste /
Land Preparation and Revegetation (Growth Media Development and Establishment)	Source, cart and spread growth media (Select Haul Distance from List)	у		m3	Select from List			Select Haul Distance Here	If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced.
	Direct seeding / fertiliser (pasture grass species)	Υ		ha	\$1,875		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Direct seeding / fertiliser (tree or native grass species)	Y		ha	\$4,135		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Hydro-seeding with straw mulching and bitumen tack with native seed	Y		m2	\$1.90		\$0		Process to be used on flat well prepare surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges fro \$0.15 - \$0.50 depending on size and input variables. Native seed +\$1.00
	Hydro-seeding with straw mulching and bitumen tack with pasture seed	Υ		m2	\$0.43		\$0		Process to be used on flat well prepar surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges fro \$0.15 - \$0.50 depending on size and input variables. Pasture seed +\$0.10
	Hydromulch - base grade or standard for flat areas that can be irrigated by water cart	Y		m2	\$0.80		\$0		Assumes use on flat areas with a gradient of less than 4:1, and where irrigation from water cart may be possible. Industry standard application rate of 2500kg/ha. Product will last whort term (less than 3 months) and vegetation is required to grow ASAP for stability. This cost includes cover cronly, additional seeding required.
	Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months	Y		m2	\$1.80		\$0		Assumes use on steep areas where stabilisation is required for up to 12 months. Application rate of ~3500kg/h. This cost includes cover crop only, additional seeding required.
	Hydromulch - high performance flexible growth medium grade	Y		m2	\$2.50		\$0		Assumes use on extreme slopes when stabilisation is required for up to 18 months. Application rate of ~4,000kg/f minimum. This cost includes cover crop only, additional seeding required.
	Single application of fertiliser (pasture)	Y		ha	\$420.00		\$0		Assumes 250 kg / ha. These rates har fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand et this is a suitable standard rate.
	Single application of fertiliser (trees)	Υ		ha	\$140.00		\$0		These rates have fluctuated over the last few years however in light of curre conditions (lower fuel prices, reduced demand etc) this is a suitable standar rate.
	Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000.00		\$0		Assumes 2.5 t / ha as an average application rate.
	growth media amelioration with biosolids	Y		ha	\$1,015		\$0		Recent experience with agronomy projects.
	Construct no-climb stock fence around rehabilitated areas	Y		m	\$22.00		\$0		Standard rate for no-climb stock fencing.
	Construct standard stock fence around rehabilitated areas	Y		m	\$13.00		\$0		Standard rate for standard stock fencing.
	Purchase and erect warning signs	Y		allow	\$250.00		\$0		Compliance with AS 1319-1994 - Sa signs for the occupational environme installed every 25 m.
	Supply from external sources virgin excavated natural material (VENM) for growth media.	Υ		m3	\$80.80		\$0		D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - al nominal rate of \$70/m3 for imported material.
	Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc.	Υ		m3	\$72.50		\$0		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - al nominal rate of \$60/m3 for imported material.
	Clearing and grubbing of trees and vegetation	Y		ha	\$4,730.00		\$0		Clearing and grubbing of light vegetation growth e.g. regrowth
	Topsoil stripping	Y		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load a haul to final rehabilitation location required or respreading where necessary.
	Growth media supplementation with manure	Y		ha	\$747.50		\$0		Addition of manure to improve soil quality.
	Utilise biotic soil media - organic topsoil alternative	Y		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior t hydromulching.
Water Management	Land Preparation and Revegetation (Grov	vth Media De	velopment ar	d Ecosysten	n Establishme	ent) Subtotal	\$0		Dravinianal arm for any
Water Management	Clean water dams to be retained after decommissioning – make safe and minor earthworks	Υ		allow	\$2,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ ~\$200 per hour and pastu grass.
	Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks	Υ		allow	\$10,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of contaminated sediment requiring removal using an excavator, truck and dozer to clean out the dam.
Molecton and A. C. C.				Wa	ter Managem	ent Subtotal	\$0		
Maintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Υ		ha	\$925		\$0		Rehabilitation maintenance might include re-seeding, watering, fertilising minor re-shaping, erosion control, inspections/audits - does not include major repair works.
			1	ha					Areas requiring minor repair - rills,

Total Cost for Tailings & Rejects Domain						\$0		
				Additional Ite	ms Subtotal	\$0		
Maintenance of Rehabilitated Areas Subtotal						\$0		
Existing rehabilitation repair - total failure of landform	Y		ha	\$40,000		\$0		Areas that require extensive rehabilitation repair - re-design and re- construction of landform.
Existing rehabilitation repair - major	Y		ha	\$2,500		\$0		Areas requiring major repair - rills, gullies, growth media replacement, some level of additional surface water management.
Existing rehabilitation repair - moderate	Y		ha	\$1,700		\$0		Areas requiring moderate repair - rills, significant growth media replacement.

Domain 3b: Overburden & Waste

Total Cost for Overburden & Waste Domain

\$0

Key Rehabilitation Area Data for Domain	
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	and Additional Relevant Information	Description / Notes:
Contaminated Materials	Treatment of known Acid Sulfate Soils	Y		ha	\$2,580		\$0		Assumes ASS is treatable via neutralisation and does not require capping and isolation. Assumes 1% by weight lime addition and treatment to 100 mm depth only.
	Removal and disposal of plastic liner (i.e. dam, leach pad, sump etc.)	Υ		m2	\$1		\$0		Provisional sum for cutting using rippin tynes and on-site disposal of the liner.
	Long haulage brine/salt for disposal (Select Haul Distance from list)	Υ		tonne	Select from List			Select Haul Distance Here	Costs for haulage to location for authorised disposal.
	Brine disposal to landfill - fees only	Y		tonne	\$288		\$0		Rate for trackable liquid levy of \$78.20 per tonne and authorised disposal to landfill.
	Long naulage water (clean or contaminated) (Select Haul Distance from list)	Y		tonne	Select from List ninated Mater	ials Subtotal	\$0	Select Haul Distance Here	Assumes transport in a 20,000 L tanke Add disposal costs to additional items
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor	Y		ha	\$1,040.00	uio oubiotai	\$0		Assumes ~6 m road width - 16H
	works including deep rip and trim Unsealed roads / access tracks / vehicle park-up areas with windrows and/or small earthen bunds – minor earthworks and deep rip and trim	Y		ha	\$1,500		\$0		Grader. D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - no seed
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip and seed (pasture grass)	Y		ha	\$3,700		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$4,485		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	Υ		ha	\$4,870		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$7,025		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the scraping and removal of the volume of stabilised material from the road, laydown or oth surface using an excavator, dozer and grader to enable the establishment of rehabilitation.
				R	oads and Tra	cks Subtotal	\$0		
	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List			Select Push Length Here	Major bulk pushing to achieve grades nominated in the approval/permit
	Minor reshaping and pushing	Y		ha	\$3,900		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
	Shotcrete application on cuttings and steep slopes	Υ		m2	\$185.00		\$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0		Undertaken using D10 dozer and 16M grader.
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Υ		ha	\$1,600		\$0		Combination of dozer and excavator work plus grader for ~4 hours each per ha.
	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y		m2	\$27.00		\$0		Installation of on-site rock material (rigrap) where managing water run-off fro disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If require to be sourced off site, assume an additional \$20/m2.

Mine Waste

Ideal Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with little chemical reactivity (no to low risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or low to moderate propensity for spontaneous combustion) and good physical properties (not significantly hydrophilic, shear strength does not limit equipment choice, no artificial strengthening required)	٧	ha	\$82,000	\$0	This includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume material with the appropriate chemical and physical properties. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness of approximately 0.5 m to 1 mand 0.15 m - 0.2 m growth media (assume at least 1 m thick cover required for carbonaceous material covers). Water quality from runoff, seepage etc. meets site-specific environment water quality values. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Efficient Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (low to medium risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or low to moderate propensity for spontaneous combustion) and moderate physical properties (not significantly hytrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y	ha	\$146,500	\$0	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities where the tailings or rejects base is at a strength that enables economically efficient construction methods with small plant. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness ranging from >1 m to 2 m thickness constructed in 1 m layers + growth media up to 0.2 m depth. This may require additional materials (such as capillary breaks, gedfabric, etc.) - use alternate rate cells below, specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised/additional materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up il andform, provide buttress or other works aside from tailings cap use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Υ	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Adverse Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (medium to high risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) Saline Mine Drainage (SMD) and/or moderate to high propensity for spontaneous combustion) and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y	ha	\$313,000	\$0	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities of high geochemical risk, and / or low shear strength that prohibits economically efficient construction methods. This rate assumes suitable capping material/s are available on site within 10 km, and an average cap thickness of approximately >2 m + growth media up to 0.2 m depth. This may require additional materials (i.e., capillary breaks, geofabric, etc.), specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate), if additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.

ī		1	1	1				1	7
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Difficult Tailings Capping- reshaping, capping / sealing of weak or soft surfaced tailings facility with poor physical properties (significantly hydrophilic. low shear strength limits equipment choice greatly, artificial strengthening required) OR visible adverse impacts on legacy sites from chemical reactivity over lengthy exposure prior to rehabilitation	Y		ha	\$843,000		\$0		This option is typically driven by time constraints and/or when tailings properties significantly restrict adequate desiccation, resulting in a tailings shear strength that is very weak excluding access by conventional small plant. Small equipment used for rehabilitation. This excludes any additional material required to form the final landform profile in addition to this cap. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values. Long haulage soil / weathered rock / sediment e.g.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.). Capping/cover material available within
	capping/covers, removal of contamination, etc.	Y		m3	List			Select Haul Distance Here	50 km round trip e.g. waste /
Land Preparation and			1		Mine Wa	ste Subtotal	\$0	Select Haul Distance Here	If topsoil is not available on-site, then
Revegetation (Growth Media Development and Ecosystem	Source, cart and spread growth media (Select Haul Distance from List)	Y		m3	Select from List			Select Hauf Distance Here	Virgin Excavated Natural Material (VENM) may need to be externally
Establishment)	Planting mature trees (>15 cm)	Y		allow	\$15.00		\$0		sourced. 4 m centres.
	Planting tube stock (<15 cm)	Y		allow	\$6.60		\$0		4 m centres.
	Direct seeding / fertiliser (pasture grass species)	Y		ha	\$1,875		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Direct seeding / fertiliser (tree or native grass species)	Y		ha	\$4,135		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Hydro-seeding with straw mulching and bitumen tack with native seed	Υ		m2	\$1.90		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Native seed +\$1.00
	Hydro-seeding with straw mulching and bitumen tack with pasture seed	Y		m2	\$0.43		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Pasture seed +\$0.10
	Hydromulch - base grade or standard for flat areas that can be irrigated by water cart	Y		m2	\$0.80		\$0		Assumes use on flat areas with a gradient of less than 4:1, and where irrigation from water cart may be possible. Industry standard application rate of 2500kg/ha. Product will last short term (less than 3 months) and vegetation is required to grow ASAP for stability. This cost includes cover crop only, additional seeding required.
	Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months	Y		m2	\$1.80		\$0		Assumes use on steep areas where stabilisation is required for up to 12 months. Application rate of -3500kg/ha. This cost includes cover crop only, additional seeding required.
	Hydromulch - high performance flexible growth medium grade	Y		m2	\$2.50		\$0		Assumes use on extreme slopes where stabilisation is required for up to 18 months. Application rate of –4,000kg/ha minimum. This cost includes cover crop only, additional seeding required.
	Single application of fertiliser (pasture)	Y		ha	\$420.00		\$0		Assumes 250 kg / ha. These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Single application of fertiliser (trees)	Y		ha	\$140.00		\$0		These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
	Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000		\$0		Assumes 2.5 t / ha as an average application rate.
i	growth media amelioration with biosolids	Y		ha	\$1,015		\$0		Recent experience with agronomy
	910 man modia amonoration with blosolids								projects. Standard rate for no-climb stock
	Construct no-climb stock fence around rehabilitated	Υ	Ì	m	\$22.00		\$0		fencing.
	Construct no-climb stock fence around rehabilitated areas	Ţ							
	areas Construct standard stock fence around rehabilitated	Y		m	\$13.00		\$0		Standard rate for standard stock
	areas			m	\$13.00 \$250.00		\$0 \$0		

-					_				
	Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc.	Y		m3	\$72.50		\$0		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - allow nominal rate of \$60/m3 for imported fill material.
	Clearing and grubbing of trees and vegetation	Y		ha	\$4,730.00		\$0		Clearing and grubbing of light vegetation growth e.g. regrowth
	Topsoil stripping	Υ		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load and haul to final rehabilitation location required or respreading where necessary.
	Growth media supplementation with manure	Υ		ha	\$747.50		\$0		Addition of manure to improve soil quality.
	Utilise biotic soil media - organic topsoil alternative	Y		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior to hydromulching.
	Land Preparation and Revegetation (Grov	vth Media De	velopment ar	nd Ecosysten	n Establishme	ent) Subtotal	\$0		
Water Management	Clean water dams to be retained after decommissioning – make safe and minor earthworks	Y		allow	\$2,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ -\$200 per hour and pasture grass.
	Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks	Y		allow	\$10,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of contaminated sediment requiring removal using an excavator, truck and dozer to clean out the dam.
				Wa	ater Managem	nent Subtotal	\$0		
Maintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Y		ha	\$925		\$0		Rehabilitation maintenance might include re-seeding, watering, fertilising, minor re-shaping, erosion control, inspections/audits - does not include major repair works.
	Existing rehabilitation repair - minor	Y		ha	\$1,200		\$0		Areas requiring minor repair - rills, minor growth media replacement.
	Existing rehabilitation repair - moderate	Y		ha	\$1,700		\$0		Areas requiring moderate repair - rills, significant growth media replacement.
	Existing rehabilitation repair - major	Y		ha	\$2,500		\$0		Areas requiring major repair - rills, gullies, growth media replacement, some level of additional surface water management.
	Existing rehabilitation repair - total failure of landform	Y		ha	\$40,000		\$0		Areas that require extensive rehabilitation repair - re-design and re- construction of landform.
			Mainte		habilitated Ar		\$0		
					Additional Ite	ems Subtotal	\$0		
	Total Cost for O	verburd	len & W	aste Do	omain			\$0	

Domain 4b: Active Mine & Voids

Total Cost for Active Mine & Voids Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Open Cut	Active pit area – benches blasted and doze to acceptable grade	Y		Lm	\$1.93		\$0		Blasting in a 8x9 pattern of bench height 25 m with D11 push of 50-75 m.
	Drill & blast faces to make safe	Y		m3	\$0.95		\$0		Bulk Drilling say 8'9 pattern, assuming a stem height of 6 m, charge length of 19 m, explosive density of 0.9, diameter of 229 mm, explosives at 665.3 kg/hole with a powder factor of 0.37 with an approximate bench height of 25 m.
	High wall treatment – (trench and safety berm)	Y		m	\$90.00		\$0		D10 dozer, 16H Grader and revegetation with pasture grass.
Earthworks / Structural Works	•		ı	T	Open	Cut Subtotal	\$0	Select Push Length Here	
(Landform Establishment)	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List			Select Fush Length nere	Major bulk pushing to achieve grades nominated in the approval/permit
	Minor reshaping and pushing	Y		ha	\$3,900		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
	Shotcrete application on cuttings and steep slopes	Y		m2	\$185.00		\$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0		Undertaken using D10 dozer and 16M grader.
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Y		ha	\$1,600		\$0		Combination of dozer and excavator work plus grader for ~4 hours each per ha.
	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Υ		m2	\$27.00		\$0		Installation of on-site rock material (rip- rap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an additional \$20/m2.
	E	arthworks / S	tructural Wo	rks (Landforr	n Establishm	ent) Subtotal	\$0		
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment)	Source, cart and spread growth media (Select Haul Distance from List)	Y		m3	Select from List			Select Haul Distance Here	If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced.
	Planting mature trees (>15 cm) Planting tube stock (<15 cm)	Y		allow allow	\$15.00 \$6.60		\$0 \$0		4 m centres. 4 m centres.
									Includes treating, weighing, mixing with
	Direct seeding / fertiliser (pasture grass species) Direct seeding / fertiliser (tree or native grass	Y		ha	\$1,875		\$0		fertiliser + spreading by tractor or helicopter (aerial seeding). Includes treating, weighing, mixing with
	species)	Y		ha	\$4,135		\$0		fertiliser + spreading by tractor or helicopter (aerial seeding).
	Hydro-seeding with straw mulching and bitumen tack with native seed	Υ		m2	\$1.90		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Native seed +\$1.00
	Hydro-seeding with straw mulching and bitumen tack with pasture seed	Y		m2	\$0.43		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Pasture seed +\$0.10
	Hydromulch - base grade or standard for flat areas that can be irrigated by water cart	Y		m2	\$0.80		\$0		Assumes use on flat areas with a gradient of less than 4:1, and where irrigation from water cart may be possible. Industry standard application rate of 2500kg/ha. Product will last short term (less than 3 months) and vegetation is required to grow ASAP for stability. This cost includes cover crop only, additional seeding required.
	Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months	Y		m2	\$1.80		\$0		Assumes use on steep areas where stabilisation is required for up to 12 months. Application rate of ~3500kg/ha. This cost includes cover crop only, additional seeding required.
	Hydromulch - high performance flexible growth medium grade	Y		m2	\$2.50		\$0		Assumes use on extreme slopes where stabilisation is required for up to 18 months. Application rate of ~4,000kg/ha minimum. This cost includes cover crop only, additional seeding required.
	Single application of fertiliser (pasture)	Υ		ha	\$420.00		\$0		Assumes 250 kg / ha. These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc)

	Total Cost for A	ctive M	ine & Vo	oids Do	main			\$0	
					Additional Ite		\$0		
			Mainte	enance of Rel	nabilitated Ar	eas Subtotal	\$0		construction of landform.
	Existing rehabilitation repair - total failure of landform	Y		ha	\$40,000		\$0		Areas that require extensive rehabilitation repair - re-design and re-construction of landform.
	Existing rehabilitation repair - major	Υ		ha	\$2,500		\$0		Areas requiring major repair - rills, gullies, growth media replacement, some level of additional surface water management.
	Existing rehabilitation repair - moderate	Y		ha	\$1,700		\$0		Areas requiring moderate repair - rills, significant growth media replacement.
	Existing rehabilitation repair - minor	Υ		ha	\$1,200		\$0		Areas requiring minor repair - rills, minor growth media replacement.
Maintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Y		ha	\$925		\$0		Rehabilitation maintenance might include re-seeding, watering, fertilisin minor re-shaping, erosion control, inspections/audits - does not include major repair works.
				Wa	ter Managem	ent Subtotal	\$0		
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of contaminated sediment requiring removal using an excavator, truck an dozer to clean out the dam.
	Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks	Y		allow	\$10,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
Water Management	Clean water dams to be retained after decommissioning – make safe and minor earthworks	Y		allow	\$2,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ ~\$200 per hour and pastur grass.
	Land Preparation and Revegetation (Grov	vth Media De	velopment ar	nd Ecosystem	Establishme	ent) Subtotal	\$0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Utilise biotic soil media - organic topsoil alternative	Υ		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior t hydromulching.
	Growth media supplementation with manure	Υ		ha	\$747.50		\$0		Addition of manure to improve soil quality.
	Topsoil stripping	Y		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load a haul to final rehabilitation location required or respreading where necessary.
	Clearing and grubbing of trees and vegetation	Y		ha	\$4,730.00		\$0		Clearing and grubbing of light vegetation growth e.g. regrowth
	Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc.	Y		m3	\$72.50		\$0		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - all nominal rate of \$60/m3 for imported f material.
	Purchase and erect warning signs	Υ		allow	\$250.00		\$0		Compliance with AS 1319-1994 - Saf signs for the occupational environment installed every 25 m.
	Security fence around steep section of high wall	Υ		m	\$64.00		\$0		1800mm x 3 barb chain-link mesh security fence and gate standard 2.5r mesh & 32 mm post not concreted
	growth media amelioration with biosolids	Y		ha	\$1,015		\$0		Recent experience with agronomy projects.
	Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000.00		\$0		Assumes 2.5 t / ha as an average application rate.
	Single application of fertiliser (trees)	Y		ha	\$140.00		\$0		These rates have fluctuated over the last few years however in light of curr conditions (lower fuel prices, reduced demand etc) this is a suitable standar rate.

Domain 5b: Management Activities

Total Cost for Management Activities

•

Additional Assumptions: Record any relevant assumptions to this domain below:		
	Key Rehabilitation Area Data for Domain	Enter data below manually
	Total Landform Establishment:	
	Total Growth Media Development:	
	Total Ecosystem Establishment:	

		Applicable			Default Unit	Alternative		Basis for Costs Estimation	
Management Precinct	Activity / Description	(Y or N)	Quantity	Unit	Rate	Unit Rate	Total Cost	and Additional Relevant Information	Description / Notes:
Water Management	On-site treatment of contaminated water due to high salt (includes removal of metals etc, brine disposal and cost of mobile water treatment unit)	Υ		ML	\$3,600		\$0		Rate can fluctuate depending on treatment type however this is a suitable standard rate for current programs at mining operations.
	On-site treatment of contaminated water due to low pH (incudes removal of metals etc, neutralisation treatments and cost of mobile water treatment unit	Y		ML	\$1,500		\$0		Rate can fluctuate depending on treatment type however this is a suitabl standard rate for current programs at mining operations.
Creek Diversions				Wa	ater Managem	ent Subtotal	\$0		Assume a material is suitable for
Creek Diversions	Repairs and/or stabilisation of new or compromised water course diversion	Υ		m	\$2,500		\$0		Assumes material is suitable for revegetating and has a reasonable chance of stabilising. Assumes maintenance has been kept
	Long term maintenance of water course diversion – Channel constructed through backfilled material	Y		m	\$1,500		\$0		up and significant works are not required. Assumes maintenance has been kept
	Long term maintenance of water course diversion – Channel constructed through competent material	Y		m	\$750.00		\$0		up and significant works are not required.
	Installation of rock armouring	Y		m2	\$6.00		\$0		Assumes competent material is locally available - multiply costs by 2 for sourcing and transporting from offsite location.
					Creek Diversi	ons Subtotal	\$0		
Maintenance of Rehabilitated Areas	Pest management on buffer lands, non-disturbed, and rehabilitated areas	Y		ha	\$150.00		\$0		Feral animal baiting programs if required and waste materials required to be removed.
	Land management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	Y		ha	\$400.00		\$0		Undisturbed areas within the lease boundary that require land management activities.
			Mainto	enance of Re	habilitated Ar	eas Subtotal	\$0		
Heritage Items	The restoration and care and maintenance of items that have heritage significance	Υ		allow	Use alternate rate cell		\$0		Item for the redistribution of Aboriginal artefacts, preservation of European heritage items or a combination of activities.
					Heritage Ite	ems Subtotal	\$0		activities.
Sundry Items									Provisional sum to be used to refine the
	Development of an 'Unplanned' Project Closure Plan - State Significant Development with closure planning well progressed i.e. preferred cover design, closure environment modelled e.g. groundwater /subsidence / pit lakes, preliminary seal designs, etc. and only finalisation of detailed engineering deigns required	Y		allow	\$100,000		\$0		for rehabilitation activities. Assumes outcomes of studies readily available including modelling, landform design, geochemistry, demolition, etc. Costs to finalise options by domain and finalise designs for construction. Assume a simple site e.g. single open cut, no legacy operations historic in the area, little social dependence, etc. Depending on site size, complexity, finil land use requirements and knowledge base investigations can range from ~\$75k to >\$1 M. Sites with more than 1 pit to add \$50,000 to rate.
	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with at least 22 of the following aspects requiring closure planning, but no significant issues realised at this time: previous subsidence, medium or higher geochemistry risk and/or spontaneous combustion propensity, known likely contamination, tailings / rejects, final void	Y		allow	\$90,000		\$0		Provisional sum to be used to refine th conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities. Estimated cost for developing closure plan including studies - basic to satisfy risks and decisions - includes risk assessment, options analysis, Closure Plan. Sites with more than 1 pit to add \$50,000 to rate.
	Development of an 'Unplanned' Project Closure Plan Non State Significant Development with no EPL and/or only one of the following relevant aspects: previous subsidence, low to medium geochemistry fisk and/or spontaneous combustion propensity, known limited contamination, small approved final void	Y		allow	\$15,000		\$0		Assumes sediment control is the key concern for rehabilitation e.g. small mines, exploration operations. Include risk assessment, sampling and analyses on <5 samples, one study an Closure Plan.
	Development of an 'Unplanned' Project Closure Plan - State Significant Development with only preliminary to conceptual closure planning in place	Y		allow	\$300,000		\$0		Includes costs for key investigations and studies including designs e.g. geochemistry. Contamination Remediation Action Plan, subsidence risk, cover/capping and final landform, site wide surface water, etc. Provision sum to be used to refine the conceptua closure plan into a detailed closure plan with execution strategies for rehabilitation activities. Assume at least 15 types of studies required ranging from geotechnical to ecology and social, development of a closure plan including address of obligations. Assume a simple site e.g. single open cut, no legacy operations historic in the area, little social dependence, etc. Depending on site size, complexity, find land use requirements and knowledge base investigations can range to >33 N. Sites with more than 1 pit to add \$50,000 to rate.

Page 28 of 49

				ı					1 .
	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with at least 2-0 the following aspects resulting in significant issues requiring remediation: previous subsidence, medium or higher geochemistry risk and/or spontaneous combustion propensity, known/ likely contamination, tailings / rejects, final vold	Y		allow	\$125,000		\$0		Includes costs for key investigations and studies including economic treatments and designs e.g. geochemistry, Contamination Remediation Action Plan, subsidence risk, cover/capping and final landform, site wide surface water, etc. Provisional sum to be used to refine the conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities.
	Develop a Review of Environmental Factors (REF) to facilitate rehabilitation including contamination works.	Υ		allow	\$27,950		\$0		Based on experience for a REF after completion of a detailed closure study (e.g. contamination investigation) costs could range from \$10,000 to \$100,000 ex GST. Note this does not apply to a Statement of Environmental Effects or Environmental Impact Statement.
	Site security during closure	Υ		yr.	\$75,000		\$0		Provisional sum for site security measures required during closure. This includes nightly patrols and first response in the event of an out of hours incident.
	Choose type of HAZMAT Clean-up required - cleaning and decontaminating plant and equipment, chemical storage locations, oil and grease traps, tanks, vessels, and pipe work etc	Y		allow	\$0		\$0	Select type of HAZMAT Clean-up Required	Type of HAZMAT Clean-up required - cleaning and decontaminating plant and equipment, chemical storage locations, oil and grease traps, tanks, vessels, and pipe work etc
	Removal and disposal of radiation devices	Y		each	\$31,630		\$0		Provisional sum for removal and disposal of monitoring devices on conveyors using a radiation source (i.e., Americium – 241, Plutonium – 238, Caesium - 137 etc). Source Isotope type, quantity, strength, weight, source holder type, source holder type, loider weight, pick-up location (among others) will directly affect pricing.
	Additional fees for accessing State, Crown or other public lands for rehabilitation/remediation activities	Y		allow	Use alternate rate cell		\$0		Provisional sum.
Mobilisation and Demobilisation					Sundry Ite	ems Subtotal	\$0		
MODINSALION AND DEMODINSALION	Mobilisation & Demobilisation for small mine or quarry - small fleet	Y		Item	\$12,000	ems Subtotal	\$0 \$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
moulisation and Demobilisation	Mobilisation & Demobilisation for small mine or	Y		Item Item		ems Subtotal			equipment and/or suitable plant to
moulisation	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or				\$12,000	ms Subtotal	\$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to
movilisation and Demobilisation	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150	Y		Item	\$12,000 \$35,000	ems Subtotal	\$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to
movilisation and Demobilisation	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150	Y		Item item	\$12,000 \$35,000 \$100,000	ems Subtotal	\$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
movilisation and Demobilisation	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km)	Y		item item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$500,000		\$0 \$0 \$0 \$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km)	Y Y Y	Mo	item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$500,000		\$0 \$0 \$0 \$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
Additional Items	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km)	Y Y Y	Mo	item item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$500,000		\$0 \$0 \$0 \$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km)	Y Y Y Y	Mo	item item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$300,000		\$0 \$0 \$0 \$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. This item includes < <to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">></to></to>
	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Other 1 <insert></insert>	Y Y Y Y N	Mo	item item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$300,000 \$500,000 This is		\$0 \$0 \$0 \$0 \$0 \$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. This item includes < <to added="" be="" by="" operator="" the=""> This item includes <<to added="" be="" by<="" td=""></to></to>
	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km) Mobilisation & Demobilisation (Distance to site >150 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >1000 km) Other 1 <insert> Other 2 <insert> Other 3 <insert></insert></insert></insert>	Y Y Y Y N N N		item item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$300,000 \$500,000 This is deliberately left blank	tion Subtotal	\$0 \$0 \$0 \$0 \$0		equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. This term includes < <to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">></to></to></to></to></to></to></to></to></to></to></to>
	Mobilisation & Demobilisation for small mine or quarry - small fleet Mobilisation & Demobilisation for small mine or quarry - medium to large fleet Mobilisation & Demobilisation (Distance to site <150 km) Mobilisation & Demobilisation (Distance to site >150 km but <500 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >500 km but <1000 km) Mobilisation & Demobilisation (Distance to site >1000 km) Other 1 <insert></insert>	Y Y Y Y N N N		item item item item	\$12,000 \$35,000 \$100,000 \$150,000 \$300,000 \$500,000 This is deliberately left blank	tion Subtotal	\$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0	equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required. This item includes < <to added="" be="" by="" operator="" the="">> This item includes <<to added="" be="" by="" operator="" the="">> This item includes <<to <<to="" added="" be="" by="" i<="" includes="" item="" td="" this=""></to></to></to>

Domain 1c: Infrastructure

Total Cost for Infrastructure Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Termination of Services and Demolition Works	Disconnect and terminate all services (Water, electricity, gas etc at point of attachment to site)	Y		allow	\$35,000		\$0	miormatori	For disconnection of all services, at building boundaries, physical cut at the point of attachment or distribution location. If infrastructure is not consolidated (i.e., administration, camp and workshops are in separate places), consider multiple disconnection fees.
	Disconnect and terminate services at remote areas (i.e. pump stations, remote workshops, sewage treatment plant etc.)	Y		allow	\$5,850		\$0		Used for infrastructure remote from primary connection. Can also be used for small mines / quarries that do not have dedicated supplies from supply authorities such as steel lattice power lines.
	Removal of low/medium voltage powerlines including disconnection, rolling up the wires and removing the poles - does not include the removal of substations	Y		km	\$15,000		\$0		Applies to power lines on stobie, concrete or similar poles.
	Removal of power lines on tower or lattice structures (this includes disconnection, rolling up the wires and removing the structures) - does not include the removal of substations	Y		km	\$100,000		\$0		Applies to power lines on steel tower and steel lattice structures assuming 3 towers / km.
	Remove small rail, road, water course overpass - manage potential interruptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material on-site/locally	Y		Item	\$350,000		\$0		Smaller structures - minimal civil works to demolish (constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent).
	Remove medium rail, road, water course overpass - manage potential interruptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material on-site/locally	Y		Item	\$500,000		\$0		Medium structures - minimal civil works to demolish (constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent).
	Remove large / significant rail, road, water course overpass - manage potential interruptions and demolish and remove bridge supports/pylons/bridge structure etc. and dispose of waste material onsite/locally	Υ		Item	\$1,300,000		\$0		Large structures - includes significant water management e.g. watercourse diversion and civil works to demolish (constructed for the purposes of mining related works - does not include transport to regional disposal facility or equivalent).
	Demolish and/or remove substations (assumes they are in a closed building). Dispose of waste material on-site/locally	Y		m2	\$100.00		\$0		Simple structure to demolish mechanically (no labour required), assumes single story building with no asbestos and segregation of contents for scrap as applicable.
	Demolish and remove switchyard. Dispose of waste material on-site/locally	Y		m2	\$75.00		\$0		Includes demolition and removal of all switchgear and transformers etc. and segregation of contents for scrap as applicable.
	Demolish and remove demountable structures on concrete stumps. Assumes not being re-used	Y		m2	\$40.00		\$0		Crib huts, temporary offices and other 'non permanent' structures. Does not include transport to regional disposal facility or equivalent.
	Demolish and remove small buildings/tanks (admin buildings, single story accommodation etc) and disposal on-site/locally	Y		m2	\$61.00		\$0		Simple structure to demolish, assumes no greater than 2 stories high. Does not include transport to regional disposal facility or equivalent.
	Demolish and remove light industrial buildings and disposal on-site/locally	Y		m2/floor	\$90.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m) - does not include transport to regional disposal facility or equivalent. Assumes asbestos free and mechanically demolished.
	Demolish and remove industrial buildings (workshops tyre change and servicing area etc not CHPP/process plant) and disposal on-site/locally	Y		m2/floor	\$130.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Demolish and remove CHPP/process plant (include the area of each floor of the structure) and disposal on-site/locally	Y		m2/floor	\$225.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Collapse, demolish and remove washery, crushers, hoppers, mills, furnaces, agglomeration, electrowinning, floatation, sizing stations, rotary breakers, etc (include the area of each floor of the structure) and disposal on-site/locally	Y		m2/floor	\$225.00		\$0		Needs to be calculated per floor/level (Assume 1 floor/level = 3-4 m). Does not include transport to regional disposal facility or equivalent.
	Collapse, demolish and remove stacker OR reclaimer (radial or luffing etc. with maneuverability for stockpile control) and disposal on-site/locally	Υ		allow	\$750,000		\$0		Cost for removal of stacker or reclaim unit only. Does not include terminate services, remove rails and ballast etc. Does not include transport to regional disposal facility or equivalent.
	Collapse, demolish and remove bucket wheel stacker/rectaimer and disposal on-site/locally	Υ		allow	\$2,000,000		\$0		Cost for just removal of the bucket wheel stacker/reclaim units. Does not include terminate services, remove rails and ballast etc. Does not include transport to regional disposal facility or equivalent.
	Remove stacker/reclaimer rails and ballast and demolish and remove concrete footings etc and disposal on-site/locally	Υ		m	\$75.00		\$0		Includes both rails, does not include the conveyor system. Does not include transport to regional disposal facility or equivalent.
	Collapse, Cut and Remove 5000T coal silo and disposal on-site/locally	Υ		allow	\$92,500		\$0		Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.

		1				1
Collapse, Cut and Remove 3000 T coal silo and disposal on-site/locally	Y		allow	\$77,500	\$0	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
Collapse, Cut and Remove 1250 T coal silo and disposal on-site/locally	Υ		allow	\$62,500	\$0	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
Collapse, Cut and Remove rail loading bins and disposal on-site/locally	Y		allow	\$65,000	\$0	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
Demolish and Remove large concrete rail loading bin - and disposal on-site/locally	Y		allow	\$460,000	\$0	Collapse structure and remove. Does not include transport to regional disposal facility or equivalent.
Demolish and remove onground conveyors, transfer stations & gantries (scrap only – does not include dismantling for reuse at another site) and disposal on-site/locally	Y		m	\$185.00	\$0	Estimate for on-ground conveyor including anything up to 10 m off the ground. Does not include transport to regional disposal facility or equivalent.
Demolish and remove elevated conveyors, transfer stations & gantries (scrap only, does not include dismantling for reuse at another site) and disposal on-site/locally	Y		m	\$295.00	\$0	Estimate for elevated conveyor up to ~10 m off the ground. Does not include transport to regional disposal facility or equivalent.
Demolish and remove overhead conveyors, transfer stations & gantries (scrap only, does not include dismantling for reuse at another site) and disposal on-site/locally. This may include small scale fixed material stacking	Y		m	\$850	\$0	Estimate for overhead conveyor including conveyors that are >10 m off the ground that require a crane to remove. Does not include transport to regional disposal facility or equivalent.
infrastructure Remove and demolish conveyor from reclaim tunnel						Due to no canopy or infrastructure
(Does not include excavation and demolition of reclaim tunnel roof)	Y		m	\$150.00	\$0	attached. Assumes this area will be used for
Demolition of reclaim tunnel concrete (Assumes complete removal and dumping in mine pit void)	Y		m	\$950.00	\$0	another land-use that requires the structure to be dug up and re-buried somewhere else.
Demolition and removal of vent raise fans, electrical substation and winch and disposal on-site/locally	Y		allow	\$25,000	\$0	Does not include filling and capping the shaft. Does not include transport to regional disposal facility or equivalent.
Demolish and remove small tank clean (Thickener etc 3 - 9 m diameter) and disposal on-site/locally	Y		allow	\$10,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove medium tank clean (Thickener etc 10 - 15 m diameter) and disposal on- site/locally	Y		allow	\$30,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove large tank clean (Thickener etc 15 - 30 m diameter) and disposal on-site/locally	Y		allow	\$45,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove extra large tank clean (Thickener etc >30 m diameter) and disposal on- site/locally	Y		allow	\$100,000	\$0	Assume tank is clean - contents removed. If tank is full allow extra 30% for excavator and 2 men to dig out and dispose. Does not include transport to regional disposal facility or equivalent.
Demolish and remove tank clean (Thickener etc) >50 m diameter and disposal on-site/locally	Y		allow	\$100,000	\$0	Estimate only - may require a detailed assessment from demolition expert due to specialised equipment required for removal. Does not include transport to regional disposal facility or equivalent.
Removal of UG tank <5000 L - including pipes, bunds etc. and disposal on-site/locally	Y		allow	\$21,000	\$0	Assume tank is clean (contents removed), does not include transport to regional disposal facility or equivalent.
Removal of UG tank 5000 L - 15000 L - including pipes, bunds etc. and disposal on-site/locally	Y		allow	\$30,000.00	\$0	Assume tank is clean (contents removed), does not include transport to regional disposal facility or equivalent.
Remove small underground pipe and disposal on- site/locally	Y		m	\$25.00	\$0	For example: 300 mm pipes - 0.5 m deep, does not include transport to regional disposal facility or equivalent.
Remove medium underground pipe and disposal on- site/locally	Υ		m	\$60.00	\$0	For example: 500 mm pipes - 1 m deep, does not include transport to regional disposal facility or equivalent.
Remove large underground pipe and disposal on- site/locally	Y		m	\$165.00	\$0	For example: 1 m pipes - 2 m deep.
Remove above ground pipe (supported) and disposal on-site/locally	Υ		m	\$12.00	\$0	~300 mm pipes and assumes pipes are in close proximity to infrastructure areas. Does not include transport to regional disposal facility or equivalent.
Remove surface pipelines (unsupported) and disposal on-site/locally	Y		я	\$15	\$0	~300 mm pipes and assumes pipes are used for water transfer between pits (or similar) and remotely located. Does not include transport to regional disposal facility or equivalent.
Remove pump and pontoon from small lake or dam including pipes and electrical supply or diesel tank/s	Υ		allow	\$20,000.00	\$0	Includes equipment for retrieval - boats, etc. and labour. Does not include transport to regional disposal facility or equivalent.
Remove bitumen (car park and access roads) and dispose on-site/locally	Y		m2	\$10.00	\$0	Scalp bitumen and stabilised material. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
Remove bitumen (airstrip) and dispose on- site/locally	Y		m2	\$20.00	\$0	Scalp bitumen and stabilised material. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.

Remove concrete pads & footings (<300 mm thickness) and disposal on-site/locally	Y		m2	\$36.00		\$0		Breaking up slab and disposal or for conversion to aggregate. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
Remove concrete pads & footings (>300 mm thickness) and disposal on-site/locally	Y		m2	\$75.00		\$0		Breaking up slab and disposal or for conversion to aggregate. Generally haulage rates will be \$0.60 - \$1.20 / km, depending on truck fleet, loaders etc. For off-site disposal use alternate rate option and add \$0.90 / km for transport.
Crush concrete to make road aggregate - 75 mm	Y		tonne	\$10.00		\$0		Does not include haulage of materials - assumes crushing plant is readily available.
Crush concrete to make road aggregate - 50 mm	Y		tonne	\$13.00		\$0		Does not include haulage of materials - assumes crushing plant is readily available.
Crush concrete to make road aggregate - 30 mm	Y		tonne	\$15.00		\$0		Does not include haulage of materials - assumes crushing plant is readily available.
Remove fence (cyclone/wire fence) and disposal on-	Y		m	\$20.00		\$0		Roll up fence and remove posts.
								Remove small poly tanks used for water
Removal of small plastic tanks	Y		each	\$1,000.00		\$0		storage, etc. Demolish and remove small lightweight
Demolish and remove galvanised/corrugated light weight tanks	Y		each	\$500.00		\$0		metal tanks. No costs included for managing liquids, etc.
Demolish and remove communication towers	Υ		each	\$5,000.00		\$0		Cost includes demolition and removal of tower only; separate costs required for disconnection of services, demolition of footings, etc.
Removal of UG services (power within main gate areas, etc.)	Y		allow	\$50,000.00		\$0		Assume service disconnection at the mine boundary is at surface level. This cost covers all fees and charges
Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km	Y		tonne	\$7.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km	Y		tonne	\$9.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (general waste) - haulage >25 km but <50 km	Y		tonne	\$12.50		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >10 km but <15 km	Y		tonne	\$32.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km	Y		tonne	\$36.00		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km	Y		allow	Use alternate rate cell		\$0		Rate accounts for round trip haulage to Council landfill but excludes landfill fees. Input quantity against Waste disposal to Council landfill - fees for relevant waste type.
Waste disposal to Council landfill - fees (general waste)	Y		tonne	\$193.00		\$0		Fee for waste disposal of general waste to local Council landfill; transport rates separate. Please note that this is not applicable to operations with approval for building and demolition waste disposal on site.
Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal)	Υ		tonne	\$174.00		\$0		Fee for waste disposal of industrial demolition / concrete / scrap metal waste to local Council landfill; transport rates separate. Rate does not assume material is recyclable. Please note that this is not applicable to operations with approval for building and demolition waste disposal on site.
	Terr	mination of Se	ervices and D	emolition Wo	rks Subtotal	\$0		
Remove rail loop and spur, ballast etc. and disposal on-site/locally	Y		m	\$60.00		\$0		Remove all materials to allow area to be reshaped and rehabilitated - does not include transport to regional disposal facility or equivalent.
Remove train loading facilities and disposal on- site/locally	Y		m2	\$185.00		\$0		Remove rail load point infrastructure including gantries and control structures. Does not include transport to regional disposal facility or equivalent.
Reshape rail spur and load out areas. Does not include growth media and revegetation	Υ		ha	\$2,860		\$0		D10 Dozer and 16 H Grader (50% utilisation).
1		1	l R	ail Infrastruct	ure Subtotal	\$0		
Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple studies may be required.	Υ		Cluster	\$15,000		\$0		The preliminary investigation would include at minimum a desktop assessment of the area and site history, incidents, etc. as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. A cluster may include: - Mine infrastructure (i.e., fuel / chemical store, workshop, vehicle wash-down, sewage treatment etc.) - Processing plants (i.e., ore and product storage, mine waste storage and disposal, rail load-out etc.)
	hickness) and disposal on-site/locally Remove concrete pads & footings (>300 mm hickness) and disposal on-site/locally Crush concrete to make road aggregate - 75 mm Crush concrete to make road aggregate - 50 mm Crush concrete to make road aggregate - 50 mm Remove fence (cyclone/wire fence) and disposal on-site/locally Removal of small plastic tanks Demolish and remove galvanised/corrugated light weight tanks Demolish and remove communication towers Removal of UG services (power within main gate areas, etc.) Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km Waste disposal to Council landfill (general waste) - haulage >25 km but <50 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >10 km but <10	Remove concrete pads & footings (>300 mm thickness) and disposal on-site/locally Remove concrete pads & footings (>300 mm thickness) and disposal on-site/locally Crush concrete to make road aggregate - 75 mm Crush concrete to make road aggregate - 50 mm Y Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal on-site/locally Removal of small plastic tanks Demolish and remove galvanised/corrugated light weight tanks Demolish and remove communication towers Y Removal of UG services (power within main gate areas, etc.) Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (general waste) Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <20 km Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <30 km Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <30 km Waste disposal to Council landfill - fees (industrial demolition / courset / scrap metal) - haulage >25 km but <30 km Waste disposal to Council landfill - fees (industrial demolition / courset / scrap metal) - haulage >25 km but <30 km Waste disposal to Council landfill - fees (industrial demolition / courset / scrap metal) -	Remove concrete pads & footings (>300 mm thickness) and disposal on-site/locally Crush concrete to make road aggregate - 75 mm Crush concrete to make road aggregate - 50 mm Y Crush concrete to make road aggregate - 50 mm Y Crush concrete to make road aggregate - 30 mm Remove fence (cyclone/wire fence) and disposal on-site/locally Removed of small plastic tanks Y Demolish and remove galvanised/corrugated light weight tanks Demolish and remove galvanised/corrugated light weight tanks Demolish and remove communication towers Waste disposal to Council landfill (general waste) - haulage >10 km but <15 km Waste disposal to Council landfill (general waste) - haulage >15 km but <25 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >10 km but <15 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <26 km Waste disposal to Council landfill (industrial demolition / concrete / scrap metal) - haulage >15 km but <26 km Waste disposal to Council landfill industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (general waste) - y Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - haulage >25 km but <50 km Waste disposal to Council landfill - fees (industrial demolition / concrete / scrap metal) - fill fill fill fill fill fill fill fi	Remove concrete pasts & footings (>300 mm thickness) and disposal on-site-focally Crush concrete to make road aggregate - 55 mm	Remove concrete paids & flootings (>300 mm thickness) and disposal on-elterfocally Crush concrete to make road aggregate - 75 mm Y Lonne Crush concrete to make road aggregate - 90 mm Y Lonne S13,000 Crush concrete to make road aggregate - 90 mm Y Lonne S15,000 Remove frace (cyclonewire feetice) and disposal on-elterfocally Remove frace (cyclonewire feetice) and disposal on-elefocally Y each 31,000,000 P Remove frace (cyclonewire feetice) and disposal on-elefocally Y each 35,000,000 S50,000,000 S50,000,000 S60,000 Waste disposal to Council landfill (general weste) - y lonne S7,000 Waste disposal to Council landfill (general weste) - y V tonne S12,500 Waste disposal to Council landfill (general weste) - y V tonne S12,500 Waste disposal to Council landfill (general weste) - y V tonne S32,000 Waste disposal to Council landfill (general weste) - y V tonne S32,000 Waste disposal to Council landfill (inclustrial demolition / concrete / scrap metal) - haulage > 10 Waste disposal to Council landfill (inclustrial demolition / concrete / scrap metal) - haulage > 25 Waste disposal to Council landfill - fees (general weste) - y V salido disposal to Council landfill - fees (general weste) - y Remove train loading facilities and disposal on-stafocally V Remove rail loop and spur, bellast etc. and disposal on-stafocally V Remove rail loop and spur, bellast etc. and disposal on-stafocally V Cludertake a preliminary site investigation (Phase 1), This accounts for current and hador can locations are multiple cluster races on site,	Remove concrete peak 8 footings (-300 mm triconces) and disposal de-defectably Particonces) and disposal de-defectably Crush concrete to make road aggregate - 50 mm Y tonne \$10,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y tonne \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to make road aggregate - 50 mm Y cach \$15,000 Crush concrete to Crush concrete to the first tonner to	Remove concrete and & fortings (1-000 mm produces) and disposal on-stellocally	Produced and deposed on standards

						,
Undertake an intrusive site investigation on sites with small footprints to investigate e.g. \$15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Y	Cluster	\$44,000	\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assumes site is easily accessible and a small area e.g. –10:15 ha requires investigation and testing (lest pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
Undertake an intrusive site investigation on sites with large footprints to investigate e.g. >15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Y	Cluster	\$106,000	\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assume site has a history of contamination and/or a large area >15 ha requires investigation and testing (test pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
Develop a Remediation Action Plan on sites with small footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Υ	allow	\$35,000	\$0		Develop remediation plan for approval including designs and detailed costs. Costs may increase if detailed designs required for construction.
Develop a Remediation Action Plan on sites with large footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Y	allow	Use alternate rate cell	\$0		Assumes complex site; detailed design drawings required for cover.
Removal and disposal of contaminated water from tanks, bunded areas and sumps	Υ	L	\$0.35	\$0		Cost for recent sump clean-up from resource activity - requires specialists to treat.
Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (Select Haul Distance from list)	Υ	m3	Select from List		Select Haul Distance Here	This item includes scraping and removal of the volume of carbonaceous material using dozer, grader etc. to make safe an area and enable the establishment of rehabilitation.
Load, cart and dispose of Hazardous classified contaminated material off site to a licensed landfill. Assumes cartage to a licensed landfill.	Υ	m3	\$800.00	\$0		Includes load, haul and dump fees to a licensed facility.
Load, cart and disposal of Restricted classified contaminated material off site to a licensed landfill. Add \$50/m3 for cartage from regional areas	Y	m4	\$660.00	\$0		Includes load, haul and dump fees to a licensed facility.
Load, cart and disposal of Low Level contaminated material off site to a licensed landfill. Add \$50/m3 for cartage to regional landfill	Y	m3	\$220.00	\$0		Includes load, haul and dump fees to a licensed facility.
Onsite remediation of hydrocarbon contaminated soils manual land farming (Select Volume from List)	Y	m3	Select from List		Select Volume Here	Spreading of contaminated soils on a prepared surface and stimulation activation aerobic microbial activity within the soils through aeration and/or the addition of minerals, nutrients and moisture to promote the aerobic degradation of organic chemicals - time frame of up to 24 months.
Mobilisation of cement stabilisation plant and equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	Y	Item	\$150,000	\$0		Required if treatment of hydrocarbon contamination is required to be fast tracked.
On-site remediation of hydrocarbon contaminated soils - using a mobile treatment unit	Y	m3	\$165.00	\$0		Additional cost as the treatment process is fast tracked.
Remove and dispose of asbestos (<750 m2)	Y	m2	\$50.00	\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
Remove and dispose of asbestos (>750 m2)	Y	m2	\$40	\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
Waste disposal to Council landfill - fees (asbestos)	Y	tonne	\$290	\$0		Landfill fees to regional landfill.
Treatment of known Acid Sulfate Soils	Y	ha	\$2,580	\$0		Assumes ASS is treatable via neutralisation and does not require capping and isolation. Assumes 1% by weight lime addition and treatment to 100 mm depth only.
Removal and disposal of plastic liner (i.e. dam, leach pad, sump etc.)	Y	m2	\$1	\$0		Provisional sum for cutting using ripping tynes and on-site disposal of the liner.

	Long haulage brine/salt for disposal (Select Haul Distance from list)	Υ		tonne	Select from List			Select Haul Distance Here	Costs for haulage to location for authorised disposal.
	Brine disposal to landfill - fees only	Υ		tonne	\$288		\$0		Rate for trackable liquid levy of \$78.20 per tonne and authorised disposal to landfill.
	Long haulage water (clean or contaminated) (Select Haul Distance from list)	Υ		tonne	Select from List			Select Haul Distance Here	Add disposal costs to additional items
	·			Contan	ninated Mater	ials Subtotal	\$0		where warranted
Vents, Shafts and Boreholes	Option 1 - Coal bore hole Exploration boreholes – rehabilitate coal boreholes and drill pads as required	Y		depth (m)	\$44.55		\$0		Cost to grout and cap an open exploration borehole. Assume a 20 m : 20 m drill pad requires rehabilitation - push cover of nearby growth media, rip and seed.
	Option 3 - Mineral RAB and aircore drill holes Exploration boreholes – backfill open Rotary Airblast (RAB) or aircore drill holes with cuttings	Y		allow	\$43		\$0		May include cutting of casing, installation of a casing cap, and/or manually backfilling the hole with drill cuttings. Does not include reshaping / ripping the drill pad, amelioration / seeding etc.
	Option 2 - Mineral drill hole requiring grouting Exploration boreholes – grout and cap open bore holes	Υ		allow	\$5,700		\$0		Includes grouting and capping 100 - 20 m exploration boreholes to meet the requirements of Departmental Guidelines.
	Boreholes – cap and seal open bore holes with steel casing (i.e., goaf drainage etc.)	Y		allow	\$6,960		\$0		Holes deeper than 100 m - includes cutting steel collar 6 m below surface, grouting and capping.
	Boreholes – cap and seal open bore holes - surface- to-in-seam gas drainage	Y		allow	\$17,890		\$0		Surface-to-in-seam gas drainage boreholes.
	Boreholes – cap and seal open bore holes - vertical gas drainage	Y		allow	\$16,000		\$0		Vertical gas drainage boreholes.
	Boreholes – grout (with concrete) cap and seal bore holes (i.e. where sealing aquifers)	Y		allow	\$35,000		\$0		Includes multi skin sleaves to prevent aquifer mixing.
	Boreholes – cap and seal service boreholes for UG coal operations	Y		allow	\$45,000		\$0		Includes large diameter boreholes use for supplying electricity (66kV), compressed air, water, solsenic etc.
	Option 4 - Mineral diamond drill hole Rehabilitation of diamond drill holes and pad including sealing drill holes for mineral exploration	Y		Item	\$2,070		\$0		Bog out cuttings, remove fencing, remove rubbish, push sumps in, rehabilitate pads and tracks, cut and plug collars. Includes labour and equipment, disposal of rubbish locally on site
	Option 5 - Mineral reverse circulation drill holes Rehabilitation of reverse circulation drill holes and pad including sealing drill holes for mineral exploration	Υ		Item	\$1,340		\$0		Sealing required, but not complete fillir with concrete/grout
	Option 6 - Rehabilitation of drill hole collars Rehabilitation of drill hole collars (mineral exploration)	Y		each	\$415		\$0		Cut collar, remove, cap, backfill capped collar and cover with nearby organic or growth material
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor		I		s and Boreho	oles Subtotal	\$0		Assumes ~6 m road width - 16H
Roads and Tracks	works including deep rip and trim Unsealed roads / access tracks / vehicle park-up areas with windrows and/or small earthen bunds –	Y		ha ha	\$1,040.00 \$1,500		\$0 \$0		Grader. D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50%
	minor earthworks and deep rip and trim Unsealed roads / vehicle park-up areas – Minor								utilisation) - no seed D10 Dozer @ \$400 per hour and 16 H
	earthworks, final trim and deep rip and seed (pasture grass) Unsealed roads / vehicle park-up areas – Minor	Y		ha	\$3,700		\$0		grader @ \$230 per hour (50% utilisation) - pasture grass seed D10 Dozer @ \$400 per hour and 16 H
	earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass) Unsealed roads / haul roads / vehicle park-up areas	Y		ha	\$4,485		\$0		grader @ \$230 per hour (50% utilisation) - native tree/shrub seed D10 Dozer @ \$400 per hour and 16 H
	with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	Y		ha	\$4,870		\$0		grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds — Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$7,025		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list)	Υ		m3	Select from List			Select Haul Distance Here	This item includes the scraping and removal of the volume of stabilised material from the road, laydown or oth surface using an excavator, dozer and
			l.	R	oads and Tra	cks Subtotal	\$0		grader to enable the establishment of
Earthworks / Structural Works (Landform Establishment)	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Υ		m3	Select from List			Select Push Length Here	Major bulk pushing to achieve grades nominated in the approval/permit
	Minor reshaping and pushing	Υ		ha	\$3,900		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Y		ha	\$1,600		\$0	Select Haul Distance Here	Combination of dozer and excavator work plus grader for ~4 hours each pe ha. This item includes the volume of
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul	Y		m3	Select from List			Select Haul Distance Here	material requiring backfill using an excavator and scraper to fill the void and enable the establishment of
	Distance from List)								rehabilitation.
	Shotcrete application on cuttings and steep slopes	Y		m2	\$185.00		\$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		m2 ha	\$1,130.00		\$0 \$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16M grader.
	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling /								This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16M
	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0 \$0 \$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16M grader. D10 deep ripping. Installation of on-site rock material (riprap) where managing water run-off fror disturbed land and/or upon entry to water courses - prevents erosion of guily head (assumes competent
	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y	structural Wo	ha ha m2	\$1,130.00 \$960.00 \$27.00	ent) Subtotal	\$0 \$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16M grader. D10 deep ripping. Installation of on-site rock material (riprap) where managing water run-off fror disturbed land and/or upon entry to water courses - prevents erosion of guily head (assumes competent material is locally available). If required to be sourced off site, assume an additional \$20/m2.
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment)	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y	structural Wol	ha ha m2	\$1,130.00 \$960.00 \$27.00	ent) Subtotal	\$0 \$0 \$0	Select Haul Distance Here	This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc hat cannot be cut back and stabilised. Undertaken using D10 dozer and 16M grader. D10 deep ripping. Installation of on-site rock material (ripray) where managing water run-off fror disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If requires to be sourced off site, assume an
Revegetation (Growth Media	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments E Source, cart and spread growth media (Select Haul Distance from List) Planting mature trees (>15 cm)	Y Y Y Y arthworks / S Y	tructural Wol	ha ha m2 m3 allow	\$1,130.00 \$960.00 \$27.00 \$27.00 Select from List	ent) Subtotal	\$0 \$0 \$0 \$0	Select Haul Distance Here	This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised. Undertaken using D10 dozer and 16M grader. D10 deep ripping. Installation of on-site rock material (riprag) where managing water run-off frod disturbed land and/or upon entry to water courses - prevents erosion of guily head (assumes competent material is locally available). If requirer to be sourced off site, assume an additional \$20/m2. If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced. 4 m centres.
Revegetation (Growth Media Development and Ecosystem	Shotcrete application on cuttings and steep slopes Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction) Deep rip hard stand / lay down areas Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments E Source, cart and spread growth media (Select Haul Distance from List)	Y Y Y	structural Wor	ha ha m2 rks (Landforn	\$1,130.00 \$960.00 \$27.00 Select from List	ent) Subtotal	\$0 \$0 \$0	Select Haul Distance Here	This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc hat cannot be cut back and stabilised. Undertaken using D10 dozer and 16M grader. D10 deep ripping. Installation of on-site rock material (riprap) where managing water run-off fror disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If requirect to be sourced off site, assume an additional \$20/m2. If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced.

Page 12 Page 12 Page 12 Page 13 Page		Hydro-seeding with straw mulching and bitumen tack with native seed	Υ		m2	\$1.90		\$0		Process to be used on flat well prepare surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges fror \$0.15 - \$0.50 depending on size and
Section 1.1 Property of the content of this lead V			Y		m2	\$0.43		\$0		Process to be used on flat well prepare surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges fror \$0.15 - \$0.50 depending on size and
Processor of Control C		Hydromulch - base grade or standard for flat areas that can be irrigated by water cart	Y		m2	\$0.80		\$0		Assumes use on flat areas with a gradient of less than 4:1, and where irrigation from water cart may be possible. Industry standard applicatior rate of 2500kg/ha. Product will last short term (less than 3 months) and vegetation is required to grow ASAP fo stability. This cost includes cover crop
Procedure of the control of the co			Y		m2	\$1.80		\$0		stabilisation is required for up to 12 months. Application rate of ~3500kg/ha This cost includes cover crop only,
Design expectation of hardsteep (speaking) Y			Υ		m2	\$2.50		\$0		months. Application rate of ~4,000kg/h
Single egolacion or levitere (here) Py Into \$1,000.00 19 Into the year known in light of both part of bo		Single application of fertiliser (pasture)	Υ		ha	\$420.00		\$0		however in light of current conditions (lower fuel prices, reduced demand et
Boardendors (casting line) (pages meth.) From its most analysis of the common production of the control of the common production of the control of the common production of the control o		Single application of fertiliser (trees)	Y		ha	\$140.00		\$0		These rates have fluctuated over the last few years however in light of curre conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
gener mode analysissor with stockeds by the billion of the company		Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000.00		\$0		Assumes 2.5 t / ha as an average
Construct no colinal back filters around midelational very land 1923/06 160 160 160 160 160 160 160 160 160 1		growth media amelioration with biosolids	Υ		ha	\$1,015		\$0		Recent experience with agronomy
Consect panel and capacity from extended account of republished by allow \$150.00 \$ 10 \$ 10 \$ 10 \$ 10 \$ 10 \$ 10 \$ 10			Υ		m	\$22.00		\$0		Standard rate for no-climb stock
Puchase and erect rearring signs V alone 1920.00 190 Complexed with AC 1319-1945-1849 Dazyly from external sources regin encounced entrural material (VCMA) for growth media. V A B 1920.00 190 Proposed research at 32350ft. Proposed research		Construct standard stock fence around rehabilitated	Υ		m	\$13.00		\$0		Standard rate for standard stock
Supply from external sources virgin exclosed of virginity interest (VCM) for grown mode. Supply from external sources a combination of another interest (VCM) for grown mode. Supply from external sources a combination of combination of the										Compliance with AS 1319-1994 - Saf
Supply from external accuracy sign excellented relutaris manufacial (CH-MR) for grey methods. Supply from external accuracy sign excellented relutarism manufacial (CH-MR) for grey methods accurate manufacial external for the property of		Purchase and erect warning signs	Y		allow	\$250.00		\$0		installed every 25 m.
wign executed natural material (PDM) and policy for the process of			Y		m3	\$80.80		\$0		Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - all nominal rate of \$70/m3 for imported f
Cleaning and grubbing of trees and vegetation V ha \$4,730,00 So Cleaning and grubbing of light vegetation growth ag regression to expect the property agreement of the standard of the stand		virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping	Y		m3	\$72.50		\$0		Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - all nominal rate of \$60/m3 for imported fr
Topool stripping Topool strip		Clearing and grubbing of trees and vegetation	Υ		ha	\$4,730.00		\$0		Clearing and grubbing of light
Utilise biotic soil media - organic topooli alternative V m2 35.45.90 \$0 Material that can be applied as an alternative to greating topool prior in york of the commission of		Topsoil stripping	Υ		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load ar haul to final rehabilitation location required or respreading where
Utilise biotic soil media - organic topsoil alternative by page-againg (popoli prior hydromulching.)		Growth media supplementation with manure	Y		ha	\$747.50		\$0		
Water Management Clean water dams to be retained after decommissioning — make safe and minor earthworks and recognition required to rehabilitate dams laters as earthworks — Y allow \$2,500 \$ \$0 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		Utilise biotic soil media - organic topsoil alternative	Υ		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior to
Water Management Clean water dams to be retained after decommissioning — make safe and minor entimotis and batters and suitable for re-usely an alternate land-user. ■ De Dozer (or similar) ⊕ — S200 per hour and pastu grass. Large clean water dams (i.e. ≥ 2 ha) to be retained after mine obsure — make safe and minor entimotis. Remove sediments from the floor of the dam to enable it to be convened into clean water structure (Select Haul Distance Here). Remove sediments from the floor of the dam to enable it to be convened into clean water structure (Select Haul Distance Here). Removal of evaporation fars and/or other water transfer and management infrastructure. Water Management Subtotal Maintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Existing rehabilitation repair - minor Y ha \$1,200 \$0 Areas requiring minor repair - milor Y ha \$2,500 \$0 Areas requiring minor repair - milor water invalve and repair of the dam in the dam to enable it to be convened in the dam to enable it to be convened into clean water structure. Water Management Subtotal Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Areas Maintenance of areas that have been shaped and seeded and revegetation frapair - minor Y ha \$1,200 \$0 Areas requiring minor repair - milor water and a replacement. Existing rehabilitation repair - major Y ha \$4,000 The Areas requiring minor repair - rills, quilles, growth media replacement. Some level of additional structure of landorn Maintenance of Rehabilitation repair - total failure of landorn Maintenance of Rehabilitation Repair - total failure of landorn Maintenance of Rehabilitation Repair - total failure of landorn Maintenance of Rehabilitation Repair - total failure of landorn Maintenance of Rehabilitation Repair - total failure of landorn		- '	wth Media De	evelopment a	nd Ecosysten	n Establishme	ent) Subtotal	\$0		hydromulching.
Large clean water dams (i.e. \$2 ha) to be retained after mine closure — make safe and minor earthworks Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance Here) Removal of evaporation fans and/or other water transfer and management infrastructure Removal of evaporation fans and/or other water transfer and management infrastructure Removal of evaporation fans and/or other water transfer and management infrastructure Removal of evaporation fans and/or other water transfer and management infrastructure Water Management Subtotal Waintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been successful' Existing rehabilitation repair – minor Y ha \$1,200 \$0 Rehabilitation repair works. So Areas requiring minor repair – fills, minor growth media replacement. Existing rehabilitation repair – major Y ha \$1,700 \$0 Areas requiring minor repair – fills, minor growth media replacement. Existing rehabilitation repair – major Y ha \$4,000 \$0 Areas requiring moder repair – fills, minor growth media replacement. Existing rehabilitation repair – major Y ha \$4,000 \$0 Areas requiring moder repair – fills, minor growth media replacement. Existing rehabilitation repair – major Y ha \$4,000 \$0 Areas requiring moder repair – fills, minor growth media replacement. Existing rehabilitation repair – total failure of I and/orm Maintenance of Rehabilitated Areas Subtotal Ballow \$2,500 Areas that have been shaped and seeded and revegetation has been successful' Areas requiring moder repair – fills, minor growth media replacement. Areas requiring moder repair – fills, only included the placement of the plac	Water Management	Clean water dams to be retained after decommissioning – make safe and minor		·				\$0		revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ ~\$200 per hour and pastu
Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list) Removal of evaporation fans and/or other water transfer and management infrastructure Water Management Subtotal Maintenance of Rehabilitated Areas Maintenance of aceas that have been shaped and seeded and revegetation has been successful' Existing rehabilitation repair - minor Existing rehabilitation repair - moderate Existing rehabilitation repair - moderate Existing rehabilitation repair - major Y Ana Select from List Water Management Subtotal So Rehabilitation management infrastructure Y Ana Salect from List Water Management Subtotal So Rehabilitation minor removal of water management infrastructure Rehabilitation repair - minor		after mine closure - make safe and minor	Y		allow	\$10,500		\$0		revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
## Water Management infrastructure Maintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Y ha \$925 \$0 Rehabilitation maintenance might include re-seeding, watering, fertilisin minor re-shaping, erosion control, inspections/audits - does not include major repair works. Existing rehabilitation repair - minor Y ha \$1,200 \$0 Areas requiring moderate repair - rills, minor growth media replacement. Existing rehabilitation repair - major Y ha \$1,700 \$0 Areas requiring moderate repair - rills, minor growth media replacement. Existing rehabilitation repair - major Y ha \$2,500 \$0 Areas requiring major repair - rills, guilles, growth media replacement, guilles, growth media replacement, and an anagement. Existing rehabilitation repair - total failure of Y ha \$40,000 \$0 Areas trequiring major repair - rills, guilles, growth media replacement, anagement. Existing rehabilitation repair - total failure of Y ha \$40,000 \$0 Areas trequiring major repair - redesign and reconstruction of landform. Maintenance of Rehabilitated Areas Subtotal \$0 Areas trequiring major repair - redesign and reconstruction of landform.		enable it to be converted into clean water structure (Select Haul Distance from list)				List			Select Haul Distance Here	contaminated sediment requiring removal using an excavator, truck and dozer to clean out the dam.
Maintenance of Rehabilitation Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Existing rehabilitation repair - minor			Y				and C. I.			
Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Existing rehabilitation repair - minor Y ha \$1,200 \$0 Areas requiring minor repair - rills, minor growth media replacement. Existing rehabilitation repair - moderate Y ha \$1,700 \$0 Areas requiring moderate repair - rills, guilles, growth media replacement. Existing rehabilitation repair - major Y ha \$2,500 \$0 Areas requiring moderate repair - rills, guilles, growth media replacement, some level of addinal surface wate management. Existing rehabilitation repair - total failure of landform Maintenance of Rehabilitated Areas Subtotal Additional Items Subtotal	Maintenance of Rehabilitated				Wa	iter Managem	ent Subtotal	φU		
Existing rehabilitation repair - minor Y ha \$1,700 \$0 minor growth media replacement. Existing rehabilitation repair - moderate Y ha \$1,700 \$0 Areas requiring major repair - rills, gullies, growth media replacement, Areas requiring major repair - rills, gullies, growth media replacement, Some level of addinal surface water management. Existing rehabilitation repair - total failure of landform Areas that require extensive rehabilitation repair - re-design and reconstruction of landform. Maintenance of Rehabilitated Areas Subtotal Additional Items Subtotal \$0 minor growth media replacement. Areas requiring major repair - rills, gullies, growth media replacement, some level of addinal surface water management. Areas that require extensive rehabilitation repair - re-design and reconstruction of landform.	Areas	seeded and revegetation has been 'successful'								inspections/audits - does not include major repair works.
Existing rehabilitation repair - moderate Y na S1,700 S0 significant growth media replacement Areas requiring major repair - rills, guilles, growth media replacement, some level of additional surface wate management. Existing rehabilitation repair - total failure of landform Maintenance of Rehabilitated Areas Subtotal Additional Items Subtotal Areas total guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate management. Areas tequiring major repair - rills, guilles, growth media replacement some level of additional surface wate managem		Existing renabilitation repair - minor	, T		na	\$1,200		\$U		minor growth media replacement.
Existing rehabilitation repair - total failure of Iandform Maintenance of Rehabilitated Areas Subtotal Additional Items Subtotal Some lever or adortional surface wate management. Areas that require extensive rehabilitation repair - re-design and reconstruction of landform. Maintenance of Rehabilitated Areas Subtotal Additional Items Subtotal										significant growth media replacement Areas requiring major repair - rills, gullies, growth media replacement,
Landform Y ha \$40,000 \$0 rehabilitation repair - re-design and reconstruction of landform. Maintenance of Rehabilitated Areas Subtotal \$0 Additional Items Subtotal \$0		<u> </u>				,=,000		4		management.
Additional Items Subtotal \$0			Y				roos Subiniti			rehabilitation repair - re-design and re
				Mainte						
		Total Cost fo	r Infras	tructur	e Doma	in			\$0	

Domain 2c: Tailings & Rejects

Total Cost for Tailings & Rejects Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Contaminated Materials	Undertake a preliminary site investigation (Phase 1). This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple studies may be required.	Y		Cluster	\$15,000		\$0		The preliminary investigation would include at minimum a desktop assessment of the area and site history, incidents, etc. as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 1 assessment (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. A cluster may include: - Mine infrastructure (i.e., fuel / chemical store, workshop, vehicle wash-down, sewage treatment etc.) - Processing plants (i.e., ore and product storage, mine waste storage and disposal, rail load-out etc.) - Remote pit-top facilities (i.e., vehicle refuel, sewage treatment, secondary workshop, chemical storage etc.)
	Undertake an intrusive site investigation on sites with small footprints to investigate e.g. <15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Y		Cluster	\$44,000		\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assumes site is easily accessible and a small area e.g10-15 ha requires investigation and testing (test pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
	Undertake an intrusive site investigation on sites with large footprints to investigate e.g. >15 ha. This accounts for current and historical locations where areas of disturbance are clustered. If there are multiple cluster areas on site, multiple intrusive investigations should be included.	Y		Cluster	\$106,000		\$0		The intrusive investigation would include at minimum a site walkover and field sampling as per the National Environmental Protection (Site Contamination) Measure (NEPM) Phase 2 intrusive investigation (EP Act Section 389 (2) (iv)) or similar approved and recognised assessment method. Note: An intrusive investigation is not required for all contaminated areas and should be applied considering the rehabilitation program, site history, location, etc. A cluster area where it is highly anticipated that contamination has occurred (i.e., underground tanks / pipes that are known to have leaked, chemical stores with earthen bunds, around ineffective oil/water separators etc.) and further field work is required involving intrusive investigation. Assume site has a history of contamination and/or a large area >15 ha requires investigation and testing (test pits, boreholes, etc.) based on Sampling and Analysis Quality Plan. Includes SAQP, fieldwork, sampling and analysis.
	Develop a Remediation Action Plan on sites with small footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Y		allow	\$35,000		\$0		Develop remediation plan for approval including designs and detailed costs. Costs may increase if detailed designs required for construction.
	Develop a Remediation Action Plan on sites with large footprints based on outcomes of intrusive investigation including strategies to address contamination exceedances	Y		allow	Use alternate rate cell		\$0		Assumes complex site; detailed design drawings required for cover.
	Removal and disposal of contaminated water from tanks, bunded areas and sumps	Y		L	\$0.35		\$0		Cost for recent sump clean-up from resource activity - requires specialists to treat.
	Remove material (carbonaceous / metalliferous spillage or otherwise) from footprint of the process facility (leach pads) / stockpile area (ROM product) / roads and dump in a void on-site (Select Haul Distance from list)	Υ		m3	Select from List			Select Haul Distance Here	This item includes scraping and removal of the volume of carbonaceous material using dozer, grader etc. to make safe an area and enable the establishment of rehabilitation.
	Load, cart and dispose of Hazardous classified contaminated material off site to a licensed landfill. Assumes cartage to a licensed landfill.	Y		m3	\$800.00		\$0		Includes load, haul and dump fees to a licensed facility.

									_
	Load, cart and disposal of Restricted classified contaminated material off site to a licensed landfill. Add \$50/m3 for cartage from regional areas	Y		m4	\$660.00		\$0		Includes load, haul and dump fees to a licensed facility.
	Load, cart and disposal of Low Level contaminated material off site to a licensed landfill. Add \$50/m3 for cartage to regional landfill	Y		m3	\$220.00		\$0		Includes load, haul and dump fees to a licensed facility.
	Onsite remediation of hydrocarbon contaminated soils manual land farming (Select Volume from List)	у		m3	Select from List			Select Volume Here	spreading or contaminated soins on a prepared surface and stimulation of aerobic microbial activity within the soils through aeration and/or the addition of minerals, nutrients and moisture to promote the aerobic degradation of
	Mobilisation of cement stabilisation plant and equipment for hydrocarbon (i.e., PAH, long chain hydrocarbons, etc.) contaminated soil treatment	Y		Item	\$150,000		\$0		Required if treatment of hydrocarbon contamination is required to be fast tracked.
	On-site remediation of hydrocarbon contaminated soils - using a mobile treatment unit	Y		m3	\$165.00		\$0		Additional cost as the treatment process is fast tracked.
	Remove and dispose of asbestos (<750 m2)	Y		m2	\$50.00		\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
	Remove and dispose of asbestos (>750 m2)	Y		m2	\$40.00		\$0		Where an assessment/estimation has been made to confirm the volume of asbestos to be removed.
	Waste disposal to Council landfill - fees (asbestos)	Y		tonne	\$290		\$0		Landfill fees to regional landfill.
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor	ı	ı	1	ninated Mater	ials Subtotal	\$0		Assumes ~6 m road width - 16H
	works including deep rip and trim Unsealed roads / access tracks / vehicle park-up areas with windrows and/or small earthen bunds — minor earthworks and deep rip and trim	Y		ha ha	\$1,040.00 \$1,500		\$0 \$0		Grader. D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - no seed
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip and seed (pasture grass)	Y		ha	\$3,700		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$4,485		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	Υ		ha	\$4,870		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Υ		ha	\$7,025		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	removal of the volume of stabilised material from the road, laydown or other surface using an excavator, dozer and grader to enable the establishment of rebabilitation
Earthworks / Structural Works	E T	arthworks / S	tructural Wor	rks (Landforn	n Establishme	ent) Subtotal	\$0	Onland Break Loweth House	
(Landform Establishment)	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List			Select Push Length Here	Major bulk pushing to achieve grades nominated in the approval/permit
	Minor reshaping and pushing	Y		ha	\$3,900		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	у		m3	Select from List			Select Haul Distance Here	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0		Undertaken using D10 dozer and 16M grader.
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Y		ha	\$1,600		\$0		Combination of dozer and excavator work plus grader for ~4 hours each per
									ha.
	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y		m2	\$27.00		\$0		ha. Installation of on-site rock material (riprap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an additional \$20/m2.
Mine Waste	stabilising water course entry points - required for large catchments		structural Wor			ent) Subtotal	\$0 \$0		Installation of on-site rock material (rip- rap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an
Mine Waste	stabilising water course entry points - required for large catchments	arthworks / S	tructural Wor			ent) Subtotal			Installation of on-site rock material (rip- rap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an

ī			1	1		1	1		1
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Efficient Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (low to medium risk Potential Acid Forming (PAF) / Neutral Mine Drainage (SMD) and/or low to moderate propensity for spontaneous combustion) and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y		ha	\$146,500		\$0		This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap of voer facilities where the tailings or rejects base is at a strength that enables economically efficient construction methods with small plant. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness ranging from 1 m to 2 m thickness constructed in 1 m layers + growth media up to 0.2 m depth. This may require additional materials (such as capillary breaks, geofabric, etc.) - use alternate rate cells below, specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / hauf / place / crush / screen / borrow etc.). Costs for haulage of specialised/additional materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material included in rate), If additional material included in rate), and form 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Υ		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.), and / or additional requirements (i.e., geofabric / composite lining etc.).
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Adverse Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (medium to high risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or moderate to high propensity for spontaneous combustion) and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y		ha	\$313,000		\$0		This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities of high geochemical risk, and / or low shear strength that prohibits economically efficient construction methods. This rate assumes suitable capping material/s are available on site within 10 km, and an average cap thickness of approximately > 2 m + growth media up to 0.2 m depth. This may require additional materials (i.e., capillary breaks, geofabric, etc.), specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / hauf / place / crush / screen / borrow etc.). Costs for haulage of specialised materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Υ		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	Use alternate rate cell		\$0		Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
	Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values. Long naulage soil / weathered rock / sediment e.g.	Y		allow m3	Use alternate rate cell		\$0	Calcat Herri Divis	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.). Capping/cover material available within
	capping/covers, removal of contamination, etc.		l	I III3	List Mine Wa	aste Subtotal	\$0	Select Haul Distance Here	50 km round trip e.g. waste /
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment)	Source, cart and spread growth media (Select Haul Distance from List)	у		m3	Select from List			Select Haul Distance Here	If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced.
	Direct seeding / fertiliser (pasture grass species)	Y		ha	\$1,875		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Direct seeding / fertiliser (tree or native grass species)	Y		ha	\$4,135		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
		_		_	_	_			

Hydromulch - base grade or standard for flat areas that can be irrigated by water cart Hydromulch - base grade or standard for flat areas that can be irrigated by water cart Y m2 \$0.80 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	used on flat well prepared irrigation e.g. sewage attion areas. Ranges from lepending on size and lepending on size and lepending on size and separed size and lepending on size and set than 4.1, and where water cart may be stry standard application ha. Product will last s than 3 months) and guired to grow ASAP for cost includes cover crop is seeding required. on steep areas where required for up to 12 attornate of 4-500kg/ha. des cover crop only, ling required. on extreme slopes where required for up to 18 attornate of 4-4,000kg/ha cost includes cover trip to 18 attornate of 4-4,000kg/ha cost includes cover trip to 18 attornate of 4-4,000kg/ha cost includes cover trip attornate seeding required.
Hydromulch - base grade or standard for flat areas that can be irrigated by water cart Hydromulch - base grade or standard for flat areas that can be irrigated by water cart Flydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months Hydromulch - bigh performance flexible growth medium grade The stability of the sta	is than 4:1, and where water cart may be stry standard application ha. Product will last is than 3 months) and or cost includes cover crop is seeding required to grow ASAP for cost includes cover crop is seeding required. In steep areas where required for up to 12 carton rate of ~3500kg/ha. des cover crop only, fining required. In extreme slopes where required for up to 18 carton rate of ~4,000kg/ha. So cost includes cover
Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months Hydromulch - high performance flexible growth medium grade Hydromulch - high performance flexible growth medium grade Y m2 \$1.80 \$0 Assumes use of stabilisation is months. Application of stabilisation is months. Application of fertiliser (pasture) Y ha \$420.00 \$0 These rates ha last few years I soft openance (pasture) Y ha \$140.00 \$0 Assumes 2.50 to demand etc) the rate. Socil amplication (adding lime (pursum etc.) Y Ha \$100.00 \$0 Assumes 2.50 to demand etc) the rate. Assumes 2.50 to demand etc) the rate.	required for up to 12 zation rate of ~3500kg/ha. des cover crop only, ding required. on extreme slopes where required for up to 18 zation rate of ~4,000kg/ha s cost includes cover
Hydromulch - high performance flexible growth medium grade Y m2 \$2.50 \$0 stabilisation is months. Applic minimum. This crop only, addition grade Assumes 250 In fluctuated over the properties of the proper	required for up to 18 cation rate of ~4,000kg/ha s cost includes cover
Single application of fertiliser (pasture) Y ha \$420.00 \$0 fluctuated over however in light (lower fuel prior this is a suitable suitable state was a last few years I was a last f	
Single application of fertiliser (trees) Y ha \$140.00 \$0 conditions (too demand etc) the rate. Social amelioration (adding lime (runsum etc.) Y ha \$100.00 \$0 Assumes 2.5 the rate.	kg / ha. These rates have the last few years at of current conditions ses, reduced demand etc) le standard rate.
	ave fluctuated over the however in light of current ver fuel prices, reduced his is a suitable standard
	/ ha as an average e.
	ence with agronomy
	for no-climb stock
	for standard stock
Compliance wi	th AS 1319-1994 - Safety
installed every	ccupational environment - 25 m. naterial at \$205/hr,
Supply from external sources virgin excavated natural material (VENM) for growth media. Y m3 880.80 \$0 (\$22 (\$00km) from nominal rate of material.	20/hr) load Artic Trucks imported stockpile - allow f \$70/m3 for imported fill
Supply from external sources a combination of virgin excevated natural (XPMM) and spoil from large excavation for filing voids and/or capping etc. **Solution** **Soluti	void at \$270/hr, 20/hr) load Artic Trucks imported stockpile - allow f \$60/m3 for imported fill
	rubbing of light wth e.g. regrowth
depth of 0.2 m Topsoil stripping Y m3 \$4.86 \$0 haul to final ref	psoil at an approximate into stockpiles; load and habilitation location preading where
Growth media supplementation with manure Y ha \$747.50 \$0 Addition of man quality.	nure to improve soil
Material that co	an be applied as an preading topsoil prior to
hydromulching	m for earthworks and equired to rehabilitate c suitable for re-use by nd-user - D6 Dozer (or 200 per hour and pasture
Water Management Clean water dams to be retained after decommissioning – make safe and minor earthworks Water Management V allow S2,500 S0 Nydromulching Provisional sur revegetation re dam batters et an alternate lar similar) earthworks	
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment) Subtotal Water Management Clean water dams to be retained after decommissioning – make safe and minor aearthworks Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor and minor allow stopped and minor after mine closure – make safe	m for earthworks and equired to rehabilitate c suitable for re-use by nd-user - D6 Dozer (or ure grass.
Water Management Clean water dams to be retained after decommissioning – make safe and minor earthworks Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list) Water Management Clean water dams to be retained after decommissioning – make safe and minor Y allow \$2,500 \$0 \$0 So an anternate and is initially @ ~\$2 grass. Provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate lar similar) + past in the provisional sur revegetation re dam batters et an alternate	equired to rehabilitate c suitable for re-use by nd-user - D6 Dozer (or urre grass. Ides the volume of sediment requiring an excavator, truck and
Water Management Clean water dams to be retained after decommissioning – make safe and minor earthworks Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks Provisional sur revegetation re dam batters et an alternate large after mine closure – make safe and minor earthworks Provisional sur revegetation re dam batters et an alternate large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks Provisional sur revegetation re dam batters et an alternate large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks Provisional sur revegetation re dam batters et an alternate large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor Y allow \$10,500 \$0 S0 Elect Haul Distance Here This item inclusion contaminated series (Select Haul Distance Here) This item inclusion contaminated series (Select Haul Distance from list) Provisional sur revegetation re dam batters et an alternate large clean batters et	equired to rehabilitate c suitable for re-use by nd-user - D6 Dozer (or ure grass. des the volume of sediment requiring an excavator, truck and out the dam.
Water Management Clean water dams to be retained after decommissioning – make safe and minor earthworks Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list) Maintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Maintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Maintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Maintenance of Rehabilitation in inspections, and are also as the safe and minor and are allow \$50. Water Management Subtotal Solect from List Water Management Subtotal Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Y ha Solect from List Water Management Subtotal Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Y Areas Areas Maintenance of Areas Maintenance	equired to rehabilitate c suitable for re-use by nd-user - D6 Dozer (or ure grass. des the volume of sediment requiring an excavator, truck and out the dam. maintenance might fing, watering, fertillsing, ng, erosion control, did not code not include orks.
Maintenance of Rehabilitated Areas Maintenance of areas that have been shaped and seeded and revegetation has been 'successful' Y Name Nam	squired to rehabilitate so uitable for re-use by nd-user - D6 Dozer (or ure grass. des the volume of sediment requiring an excavator, truck and out the dam. maintenance might fing, watering, fertilising, ng, erosion control, dits - does not include
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment) Subtotal \$0	squired to rehabilitate could be considered for evuse by nd-user - 06 Dozer (or urre grass. des the volume of sediment requiring an excavator, truck and out the dam. maintenance might fing, watering, fertilising, ng, erosion control, office - does not include order. minor repair - rills, minor repair - rills,
International Survey International Revegetation (Growth Media Development and Ecosystem Establishment) Subtotal S0	squired to rehabilitate so uitable for re-use by nd-user - D6 Dozer (or ure grass. so used he for re-use by nd-user - D6 Dozer (or ure grass. so used ment requiring an excavator, truck and out the dam. maintenance might ding, watering, fertilising, ng, erosion control, dits - does not include orks. grant properties of the dame o
Nater Management Clean water dams to be retained after decormissioning – make safe and minor earthworks Clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks Provisional sur revegetation rearrange Select from class Provisional sur revegetation reversed into class near from the floor of the dam to enable it to be converted into clean water structure Y	squired to rehabilitate so uitable for re-use by nd-user - D6 Dozer (or ure grass. des the volume of seediment requiring an excavator, truck and out the dam. maintenance might ding, watering, fertilising, ng, erosion control, ditts - does not include orks. maintenance might ding, watering, fertilising, ng, erosion control, ditts - does not include orks. maintenance might are provided in the control of th
Land Preparation and Revegetation (Growth Media Development and Ecosystem Establishment) Subtotal Water Management Clean water dams to be retained after decommissioning — make safe and minor earthworks V allow \$2,500 \$50 \$50 \$70	squired to rehabilitate so uitable for re-use by nd-user - D6 Dozer (or ure grass. des the volume of seediment requiring an excavator, truck and out the dam. maintenance might ding, watering, fertilising, ng, erosion control, ditts - does not include orks. maintenance might ding, watering, fertilising, ng, erosion control, ditts - does not include orks. maintenance might are provided in the control of th
Maintenance of Rehabilitation repair - moderate Existing rehabilitation repair - moderate Existing rehabilitation repair - moderate Existing rehabilitation repair - moderate Y	squired to rehabilitate so uitable for re-use by nd-user - D6 Dozer (or ure grass. des the volume of seediment requiring an excavator, truck and out the dam. maintenance might ding, watering, fertilising, ng, erosion control, ditts - does not include orks. maintenance might ding, watering, fertilising, ng, erosion control, ditts - does not include orks. maintenance might are provided in the control of th

Domain 3c: Overburden & Waste

Total Cost for Overburden & Waste Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Contaminated Materials	Treatment of known Acid Sulfate Soils	Y		ha	\$2,580		\$0	Information	Assumes ASS is treatable via neutralisation and does not require capping and isolation. Assumes 1% by weight lime addition and treatment to 100 mm depth only.
	Removal and disposal of plastic liner (i.e. dam, leach pad, sump etc.)	Y		m2	\$1		\$0		Provisional sum for cutting using ripping tynes and on-site disposal of the liner.
	Long haulage brine/salt for disposal (Select Haul Distance from list)	Y		tonne	Select from List			Select Haul Distance Here	Costs for haulage to location for authorised disposal.
	Brine disposal to landfill - fees only	Y		tonne	\$288		\$0		Rate for trackable liquid levy of \$78.20 per tonne and authorised disposal to landfill.
	Long haulage water (clean or contaminated) (Select Haul Distance from list)	Y		tonne	Select from List			Select Haul Distance Here	Assumes transport in a 20,000 L tanke Add disposal costs to additional items
				Contan	ninated Mater	ials Subtotal	\$0		I
Roads and Tracks	Unsealed roads / vehicle park-up areas – minor works including deep rip and trim	Y		ha	\$1,040.00		\$0		Assumes ~6 m road width - 16H Grader.
	Unsealed roads / access tracks / vehicle park-up areas with windrows and/or small earthen bunds – minor earthworks and deep rip and trim	Y		ha	\$1,500		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - no seed
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip and seed (pasture grass)	Y		ha	\$3,700		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / vehicle park-up areas – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$4,485		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (pasture grass)	Υ		ha	\$4,870		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - pasture grass seed
	Unsealed roads / haul roads / vehicle park-up areas with windrows and/or small earthen bunds – Minor earthworks, final trim and deep rip, ameliorate and seed (native tree/shrub/grass)	Y		ha	\$7,025		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation) - native tree/shrub seed
	Remove stabilised material (blue metal, aggregate etc.) from roadways and disposal on-site/locally (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the scraping and removal of the volume of stabilised material from the road, laydown or othe surface using an excavator, dozer and grader to enable the establishment of rehabilitation.
				R	oads and Tra	cks Subtotal	\$0		
Earthworks / Structural Works (Landform Establishment)	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List			Select Push Length Here	Major bulk pushing to achieve grades nominated in the approval/permit
	Minor reshaping and pushing	Υ		ha	\$3,900		\$0		D10 Dozer @ \$400 per hour and 16 H grader @ \$230 per hour (50% utilisation).
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
	Shotcrete application on cuttings and steep slopes	Y		m2	\$185.00		\$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0		Undertaken using D10 dozer and 16M grader.
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Y		ha	\$1,600		\$0		Combination of dozer and excavator work plus grader for ~4 hours each per ha.
	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Y		m2	\$27.00		\$0		Installation of on-site rock material (rip- rap) where managing water run-off fron disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an additional \$20/m2.

Mine Waste

Ideal Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with little chemical reactivity (no to low risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NMD) / Saline Mine Drainage (SMD) and/or low to moderate propensity for spontaneous combustion) and good physical properties (not significantly hydrophilic, shear strength does not limit equipment choice, no artificial strengthening required)	¥	ha	\$82,000	\$0	This includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume material with the appropriate chemical and physical properties. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness of approximately 0.5 m to 1 mand 0.15 m - 0.2 m growth media (assume at least 1 m thick cover required for carbonaceous material covers). Water quality from runoff, seepage etc. meets site-specific environment water quality values. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.)
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Efficient Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (low to medium risk Potential Acid Forming (PAF) / Neutral Mine Drainage (NIMD) / Saline Mine Drainage (SNIMD) and/or low to moderate propensity for spontaneous combustion and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y	ha	\$146,500	\$0	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities where the tailings or rejects base is at a strength that enables economically efficient construction methods with small plant. This rate assumes suitable capping material is available on site within 10 km, and an average cap thickness ranging from > 1 m to 2 m thickness constructed in 1 m layers + growth media up to 0.2 m depth. This may require additional materials (such as capillary breaks, geofabric, etc.) - use alternate rate cells below, specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised/additional materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material include in rate,) If additional material to make up landform, provide buttress or other works aside from tailings cap naterial include in rate,) If additional material required in rate, and the provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Additional materials required for reshaping, capping / sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y	allow	Use alternate rate cell	\$0	Include additional cost to import materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
Adverse Tailings Capping - reshaping, capping / sealing of trafficable tailings facility with moderate chemical reactivity (medium to high risk Potential Acid Forming (PAF) / Neutral Mine Drainage (SMD) and/or moderate to high propensity for spontaneous combustion) and moderate physical properties (not significantly hydrophilic, shear strength limits equipment choice somewhat, no artificial strengthening required)	Y	ha	\$313,000	\$0	This item includes sourcing, carting, spreading, moisture conditioning and compaction of a suitable volume of material to cap / cover facilities of high geochemical risk, and / or low shear strength that prohibits economically efficient construction methods. This rate assumes suitable capping materials are available on site within 10 km, and an average cap thickness of approximately > 2 m + growth media up to 0.2 m depth. This may require additional materials (i.e., capillary breaks, geofabric, etc.), specific material types (e.g. acid neutralising / consuming materials, competent rock etc.), and associated activities (i.e., load / haul / place / crush / screen / borrow etc.). Costs for haulage of specialised materials must be added separately if required. If site haulage longer than 10 km round trip add the volume of the relevant material requiring haulage for this distance in 8.05 (spreading costs for tailings cap material included in rate). If additional material to make up landform, provide buttress or other works aside from tailings cap, use rate from 9.02 for relevant haulage and spreading in additional to any long haulage volume in 8.05.

And the control of c										
March Marc		/ sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific	Υ		allow	ooo aitoinato		\$0		materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric /
March Marc		/ sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific	Υ		allow			\$0		materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric /
See a series of the control of the c		sealing of weak or soft surfaced tailings facility with poor physical properties (significantly hydrophilic, low shear strength limits equipment choice greatly, artificial strengthening required) OR visible adverse impacts on legacy sites from chemical reactivity	Y		ha	\$843,000		\$0		properties significantly restrict adequate desiccation, resulting in a tailings shear strength that is very weak excluding access by conventional small plant. Small equipment used for rehabilitation. This excludes any additional material
Part		/ sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific	Y		allow			\$0		materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric /
Interference of commentation and a commentation and		/ sealing of structure to facilitate water quality from runoff, seepage etc. meeting site-specific environment water quality values.	Y		allow	rate cell		\$0		materials (i.e., shale / clay, competent drainage materials etc.) and / or additional requirements (i.e., geofabric / composite lining etc.).
More representation (Company) The r			Υ		m3	List			Select Haul Distance Here	Capping/cover material available within 50 km round trip e.g. waste /
Bestet team between the control of t	Land Dranavation and			ı	1	Mine Wa	ste Subtotal	\$0		
Service data asset (15 and) Owns seating from growing register growing register growing and processing segrence introduction and processing segrence in the processing segrence in the processing	Revegetation (Growth Media Development and Ecosystem	Distance from List)				List			Select Haul Distance Here	Virgin Excavated Natural Material (VENM) may need to be externally sourced.
Devel seading further greater greate opening. Per search seading further greater grea										
Direct reading feetback time or notice grates and feetback time or notice grates withing microside search of the property of t										Includes treating, weighing, mixing with
whether the production of the time for the control of the control			Ť		na	\$1,8/5		ÞU		helicopter (aerial seeding).
In the control of the			Y		ha	\$4,135		\$0		fertiliser + spreading by tractor or
surface audior implants or a, second to the control panel bibliomic or a, second to the control panel bibliomic or a control panel bibliomic or an experiment of the control panel bibliomic or an experiment or an experiment of the control panel bibliomic or an experiment or an			Y		m2	\$1.90		\$0		surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and
Fyldromich - base grade or associated for find arease but can't be inigitated by easter can't and when the finding of the search of the inigitated by easter can't be initiated by easter can't be easter can't be initiated by easter can't be easter can't be easter to be initiated by easter can't be easter to be initiated by easter can't be easter can't be easter to be initiated by easter can't be ea			Υ		m2	\$0.43		\$0		surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and
Hydromulch - broaded filter matrix grade for steep areas to stabilise up to 12 morths. Application is required for up to 12 morths. Application and en-2000s/yis. additional seeding required. Hydromulch - high performance flexible growth medium grade Hydromulch - high performance flexible growth medium grade Assumes use on advanced steep to 18 morths. Assumes used on advanced stabilisation is required for up to 12 morths. Application grade additional seeding required. Assumes used on advanced stabilisation is required for up to 12 morths. Application grade additional seeding required. Assumes used on advanced and advanced advanced and advanced an			Υ		m2	\$0.80		\$0		gradient of less than 4:1, and where irrigation from water cart may be possible. Industry standard application rate of 2500kg/ha. Product will last short term (less than 3 months) and vegetation is required to grow ASAP for stability. This cost includes cover crop
stablisation is required for up to 18 months. Application is required for up to 18 months. Application is required for up to 18 months. Application are 4—4,000xpa minimum. This cost includes cover agroup only, additional seeding required. Single application of fertiliser (pasture) Y ha \$120,00 \$0 \$0 Assumes 2.50 to / ha. These rates have fluctuated over the last few years however in light of current conditions (tower furprises, reduced demand etc.) this is a suitable standard rate. Single application of fertiliser (rives) Y ha \$140,00 \$0 These rates have fluctuated over the last few years however in light of current conditions (tower furprises, reduced demand etc.) Single application of fertiliser (rives) Y ha \$1,000 \$0 Assumes 2.51 to year however in light of current conditions (where fluctuated over the last few years however in light of current conditions) (where fluctuated over the last few years however in light of current conditions) (which is a suitable standard rate. Spoil amelioration (adding lime / gypsum etc.) Y ha \$1,000 \$0 Assumes 2.51 to year however in light of current conditions (which is a suitable standard rate.) For example of the conditions of the last few years however in light of current conditions (which is a suitable standard rate.) For example of the conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of current conditions of the last few years however in light of			Υ		m2	\$1.80		\$0		stabilisation is required for up to 12 months. Application rate of ~3500kg/ha. This cost includes cover crop only,
Single application of fertiliser (pasture) Y ha \$420.00 \$0 Inutuated over the last few years however in light of current conditions (lower full prices, reduced demand dets) this is a suitable standard rate. These rates have fluctuated over the last few years however in light of current conditions (lower full prices, reduced demand dets) this is a suitable standard rate. Spoil amelioration (adding lime / gypsum etc.) growth media amelioration with biosolids Y ha \$1,000 \$0 \$0 Assumes 2.5 1/ ha as an average application rate. Construct no-climb stock fence around rehabilitated where the companion of			Υ		m2	\$2.50		\$0		stabilisation is required for up to 18 months. Application rate of ~4,000kg/ha minimum. This cost includes cover
Single application of fertiliser (trees) Y ha \$14,00 \$0 Inst few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate. Spoil amelioration (adding lime / gypsum etc.) Y ha \$1,000 \$0 Assumes 2.5 t/ ha as an average application rate. growth media amelioration with biosolids Y ha \$1,015 \$0 Recent experience with agronomy projects. Construct no-climb stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas Y m \$13,00 \$0 Slandard rate for standard stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas Purchase and erect warning signs Y allow \$250,00 \$0 Compliance with AS 1319-1984 - Safety signs for the occupational environment-installed every 25 m. Dro to preval material (VENM) for growth media. Supply from external sources virgin excavated natural material (VENM) for growth media. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Topsoil stripping Y m3 \$72,50 \$0 Clearing and grubbing of trees and vegetation Y ha \$4,730,00 \$0 Construct and a spoil of the composition of virgin excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y ha \$4,730,00 Addition of material in the final probabilitation location required or respreading where necessary. Addition of manure to improve soil		Single application of fertiliser (pasture)	Y		ha	\$420.00		\$0		fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc)
growth media amelioration with biosolids growth media amelioration with biosolids Construct no-climb stock fence around rehabilitated areas Construct standard stock fence around rehabilitated stock fencing. Supply from external sources virgin excavated natural material (VENM) for growth media. The supply from external sources virgin excavated natural material (VENM) for growth media. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y Ma \$72.50 So Clearing and grubbing of tight vegetation virging and grubbing of light vegetation prowth experiments of the proposal at an approximate depth of 0.2 min to stockpiles, load and had to final rehabilitation location required or esperading where necessary. Addition of manure to improve soil		Single application of fertiliser (trees)	Y		ha	\$140.00		\$0		last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.
Construct standard stock fence around rehabilitated areas Purchase and erect warning signs Y allow \$250,00 \$0 Sundard rate for standard stock fencing. Compliance with AS 1319-1994 - Safety signs for the occupational environment installed every 25 m. D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (90-km) from imported stockpile - allow nominal rate of \$70/m3 for imported fill material. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y m3 \$72.50 \$0 Clearing and grubbing of trees and vegetation Y m3 \$4.86 \$0 Clearing and grubbing of trees and vegetation with masure Y m3 \$4.86 \$0 Addition of manure to improve soil		Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000		\$0		application rate.
Construct no-climb stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas Construct standard stock fence around rehabilitated areas I standard rate for standard stock fence around rehabilitated areas I standard rate for standard stock fencing. Compliance with AS 1319-1994 - Safety signs for the occupational environment installate devery 25 m. Supply from external sources virgin excavated natural material (VENM) for growth media. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Supply from external sources around except except except except except except except except exce		growth media amelioration with biosolids	Y		ha	\$1,015		\$0		
Construct standard stock fence around rehabilitated areas Purchase and erect warning signs Y allow \$250.00 \$0 Supply from external sources virgin excavated natural material (VENM) for growth media. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y m \$13.00 \$0 Supply from external sources virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y m \$13.00 \$0 Supply from external sources of the occupational environment - installed every 25 m. D7 to spread material at \$205/hr, Excavator (\$220/hr) load Aftic Trucks (90c/km) from improrted stockpile- allow nominal rate of \$70/m3 for imported stockpile- allow nominal rate of \$70/m3 for imported stockpile- allow nominal rate of \$60/m3 for imported stockpiles- allow nominal rate of \$60/m3 for imported stockpiles- allow nominal rate of \$60/m3 for imported stockpiles; load and haul to final rehabilitation location required or respreading where necessary. Growth media sunelementation with manure Y base \$13.00 \$0 Sunel media sunelementation with manure Y base \$13.00 \$0 Sunel media sunelementation with manure Y Addition of manure to improve soil			Y		m	\$22.00		\$0		Standard rate for no-climb stock
Purchase and erect warning signs Y allow \$250.00 \$0 Compliance with AS 1319-1994 - Safety signs for the occupational environment - installed every 25 m. D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (\$200/hr) for imported stockpile - allow nominal rate of \$70/m3 for imported fill material. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y m3 \$4.86 \$0 Compliance with AS 1319-1994 - Safety signs for the occupational environment - installed every 25 m. D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (\$200/kn) from imported stockpile - allow nominal rate of \$70/m3 for imported fill material. Clearing and grubbing of trees and vegetation Y ha \$4,730.00 \$0 Clearing and grubbing of light vegetation growth e.g. regrowth Topsoil stripping Y m3 \$4.86 \$0 Addition of manure to improve soil		Construct standard stock fence around rehabilitated	Y		m	\$13.00		\$0		Standard rate for standard stock
Supply from external sources virgin excavated natural material (VENM) for growth media. Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Topsoil stripping Y m3 \$80.80 \$0 So So So So So So So So So S			Y		allow	\$250.00				Compliance with AS 1319-1994 - Safety signs for the occupational environment -
Supply from external sources a combination of virgin excavated natural material (VEMM) and spoil from large excavation for filing voids and/or capping etc. Clearing and grubbing of trees and vegetation Y m3 \$72.50 \$0 \$0 D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (900/km) from imported stockpile - allow nominal rate of \$60/m3 for imported fill material. Clearing and grubbing of trees and vegetation Y ha \$4,730.00 \$0 Clearing and grubbing of light vegetation growth e.g. regrowth Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load and haut of final rehabilitation (occurred) into stockpiles; load and haut of final rehabilitation (occurred) required or respreading where necessary. Growth media supplementation with manure Y ha \$747.50 \$0 Addition of manure to improve soil			Y		m3	\$80.80		\$0		D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - allow nominal rate of \$70/m3 for imported fill
Vegetation growth e.g. regrowth Stripping Y m3 \$4.86 \$0 haul to final rehabilitation location required or respreading where necessary. Growth media supplementation with manure Y has \$747.50 \$0 Addition of manure to improve soil		virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping	Υ		m3	\$72.50		\$0		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - allow nominal rate of \$60/m3 for imported fill
Topsoil stripping Y m3 \$4.86 \$0 Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load and haut to final-ballitation location required or respreading where necessary. Growth media supplementation with manure Y ba \$747.50 \$0 Addition of manure to improve soil		Clearing and grubbing of trees and vegetation	Y		ha	\$4,730.00		\$0		
Growth media supplementation with manure V ha \$747.50 \$0 Addition of manure to improve soil		Topsoil stripping	Y		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load and haul to final rehabilitation location required or respreading where
1,7		Growth media supplementation with manure	Υ		ha	\$747.50		\$0		

	Utilise biotic soil media - organic topsoil alternative	Y		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior to hydromulching.
	Land Preparation and Revegetation (Grov	vth Media De	evelopment ar	nd Ecosyster	n Establishme	ent) Subtotal	\$0		
Water Management	Clean water dams to be retained after decommissioning – make safe and minor earthworks	Y		allow	\$2,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ ~\$200 per hour and pasture grass.
	Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks	Y		allow	\$10,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of contaminated sediment requiring removal using an excavator, truck and dozer to clean out the dam.
				Wa	ater Managem	ent Subtotal	\$0		
Maintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Y		ha	\$925		\$0		Rehabilitation maintenance might include re-seeding, watering, fertilising minor re-shaping, erosion control, inspections/audits - does not include major repair works.
	Existing rehabilitation repair - minor	Y		ha	\$1,200		\$0		Areas requiring minor repair - rills, minor growth media replacement.
	Existing rehabilitation repair - moderate	Y		ha	\$1,700		\$0		Areas requiring moderate repair - rills, significant growth media replacement
	Existing rehabilitation repair - major	Υ		ha	\$2,500		\$0		Areas requiring major repair - rills, gullies, growth media replacement, some level of additional surface water management.
	Existing rehabilitation repair - total failure of landform	Y		ha	\$40,000		\$0		Areas that require extensive rehabilitation repair - re-design and re construction of landform.
			Mainte		habilitated Ar		\$0		
					Additional lies	ms Subtotal	\$0		
					Additional Ite	ilis Subtotai	+ 5	\$0	

Domain 4c: Active Mine & Voids

Total Cost for Active Mine & Voids Domain

\$0

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

Management Precinct	Activity / Description	Applicable (Y or N)	Quantity	Unit	Default Unit Rate	Alternative Unit Rate	Total Cost	Basis for Costs Estimation and Additional Relevant Information	Description / Notes:
Open Cut	Active pit area – benches blasted and doze to acceptable grade	Y		Lm	\$1.93		\$0		Blasting in a 8x9 pattern of bench height 25 m with D11 push of 50-75 m.
	Drill & blast faces to make safe	Υ		m3	\$0.95		\$0		Bulk Drilling say 8°9 pattern, assuming a stem height of 6 m, charge length of 19 m, explosive density of 0.9, diameter of 229 mm, explosives at 665.3 kg/hole with a powder factor of 0.37 with an approximate bench height of 25 m.
	High wall treatment – (trench and safety berm)	Υ		m	\$90.00		\$0		D10 dozer, 16H Grader and revegetation with pasture grass.
Earthworks / Structural Works			I	I		Cut Subtotal	\$0	Select Push Length Here	
(Landform Establishment)	Major bulk pushing to achieve grades nominated in the approval/permit – Select Push Length	Y		m3	Select from List				Major bulk pushing to achieve grades nominated in the approval/permit D10 Dozer @ \$400 per hour and 16 H
	Minor reshaping and pushing	Y		ha	\$3,900		\$0		grader @ \$230 per hour (50% utilisation).
	Fill dams, voids etc Source local material, cart and spread to cap or backfill, cap thickness determined by approval / permit (Select Haul Distance from List)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of material requiring backfill using an excavator and scraper to fill the void and enable the establishment of rehabilitation.
	Shotcrete application on cuttings and steep slopes	Y		m2	\$185.00		\$0		This rate is used to rehabilitate steep slopes of weathered rock, roadway cuttings, etc that cannot be cut back and stabilised.
	Trim, rock rake & deep rip (includes levelling / landscaping and rip in 1 direction)	Y		ha	\$1,130.00		\$0		Undertaken using D10 dozer and 16M grader.
	Structural works, banks, waterways - contour banks, drainage channels and other soil conservation measures	Y		ha	\$1,600		\$0		Combination of dozer and excavator work plus grader for ~4 hours each per ha
	Construction of spine drains / drop structures and/or stabilising water course entry points - required for large catchments	Υ		m2	\$27.00		\$0		Installation of on-site rock material (rip- rap) where managing water run-off from disturbed land and/or upon entry to water courses - prevents erosion of gully head (assumes competent material is locally available). If required to be sourced off site, assume an additional \$20/m2.
Land Preparation and	E	arthworks / S	tructural Wo	rks (Landforn	n Establishm	ent) Subtotal	\$0	Colored Hand Distance Hann	If to a self-to a self-to a
Revegetation (Growth Media Development and Ecosystem Establishment)	Source, cart and spread growth media (Select Haul Distance from List)	Y		m3	Select from List			Select Haul Distance Here	If topsoil is not available on-site, then Virgin Excavated Natural Material (VENM) may need to be externally sourced.
	Planting mature trees (>15 cm) Planting tube stock (<15 cm)	Y		allow allow	\$15.00 \$6.60		\$0 \$0		4 m centres. 4 m centres.
	Direct seeding / fertiliser (pasture grass species)	Y		ha	\$1,875		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Direct seeding / fertiliser (tree or native grass species)	Y		ha	\$4,135		\$0		Includes treating, weighing, mixing with fertiliser + spreading by tractor or helicopter (aerial seeding).
	Hydro-seeding with straw mulching and bitumen tack with native seed	Y		m2	\$1.90		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Native seed +\$1.00
	Hydro-seeding with straw mulching and bitumen tack with pasture seed	Y		m2	\$0.43		\$0		Process to be used on flat well prepared surfaces under irrigation e.g. sewage treatment irrigation areas. Ranges from \$0.15 - \$0.50 depending on size and input variables. Pasture seed +\$0.10
	Hydromulch - base grade or standard for flat areas that can be irrigated by water cart	Υ		m2	\$0.80		\$0		Assumes use on flat areas with a gradient of less than 4:1, and where irrigation from water cart may be possible. Industry standard application rate of 2500kg/ha. Product will last short term (less than 3 months) and vegetation is required to grow ASAP for stability. This cost includes cover crop only, additional seeding required.
	Hydromulch - bonded fibre matrix grade for steep areas to stabilise up to 12 months	Y		m2	\$1.80		\$0		Assumes use on steep areas where stabilisation is required for up to 12 months. Application rate of ~3500kg/ha. This cost includes cover crop only, additional seeding required.
	Hydromulch - high performance flexible growth medium grade	Υ		m2	\$2.50		\$0		Assumes use on extreme slopes where stabilisation is required for up to 18 months. Application rate of ~4,000kg/ha minimum. This cost includes cover crop only, additional seeding required.
	Single application of fertiliser (pasture)	Y		ha	\$420.00		\$0		Assumes 250 kg / ha. These rates have fluctuated over the last few years however in light of current conditions (lower fuel prices, reduced demand etc) this is a suitable standard rate.

	Total Cost for A	ativa M	ina 0 1/	oide De	main			\$0	
					Additional Ite	ems Subtotal	\$0		
			Mainte		habilitated Ar		\$0 *0		
	Existing rehabilitation repair - total failure of landform	Y	Mainte	ha et Bo	\$40,000	see Cubtaint	\$0		Areas that require extensive rehabilitation repair - re-design and re- construction of landform.
	Existing rehabilitation repair - major	Υ		ha	\$2,500		\$0		Areas requiring major repair - rills, gullies, growth media replacement, some level of additional surface water management.
	Existing rehabilitation repair - moderate	Y		ha	\$1,700		\$0		Areas requiring moderate repair - rills significant growth media replacement
	Existing rehabilitation repair - minor	Y		ha	\$1,200		\$0		Areas requiring minor repair - rills, minor growth media replacement.
Maintenance of Rehabilitated Areas	Maintenance of areas that have been shaped and seeded and revegetation has been 'successful'	Y		ha	\$925		\$0		Rehabilitation maintenance might include re-seeding, watering, fertilisin minor re-shaping, erosion control, inspections/audits - does not include major repair works.
				Wa	ater Managem	ent Subtotal	\$0		
	Remove sediments from the floor of the dam to enable it to be converted into clean water structure (Select Haul Distance from list)	Y		m3	Select from List			Select Haul Distance Here	This item includes the volume of contaminated sediment requiring removal using an excavator, truck ar dozer to clean out the dam.
	Large clean water dams (i.e. ≥ 2 ha) to be retained after mine closure – make safe and minor earthworks	Υ		allow	\$10,500		\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) + pasture grass.
Water Management	Clean water dams to be retained after decommissioning – make safe and minor earthworks	Y Y	velopment al	allow	\$2,500	sit) Subtotal	\$0		Provisional sum for earthworks and revegetation required to rehabilitate dam batters etc suitable for re-use by an alternate land-user - D6 Dozer (or similar) @ -\$200 per hour and pastu grass.
	Land Preparation and Revegetation (Grov	vth Media De	velonment ar	nd Ecosysten	n Fetablishm	ent) Subtotal	\$0		hydromulching.
	Utilise biotic soil media - organic topsoil alternative	Y		m2	\$2.50		\$0		Material that can be applied as an alternative to spreading topsoil prior t
	Growth media supplementation with manure	Y		ha	\$747.50		\$0		necessary. Addition of manure to improve soil quality.
	Topsoil stripping	Y		m3	\$4.86		\$0		Stripping or topsoil at an approximate depth of 0.2 m into stockpiles; load a haul to final rehabilitation location required or respreading where
	Clearing and grubbing of trees and vegetation	Y		ha	\$4,730.00		\$0		Clearing and grubbing of light vegetation growth e.g. regrowth
	Supply from external sources a combination of virgin excavated natural material (VENM) and spoil from large excavation for filing voids and/or capping etc.	Υ		m3	\$72.50		\$0		D10 push into void at \$270/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - al nominal rate of \$60/m3 for imported material.
	Supply from external sources virgin excavated natural material (VENM) for growth media.	Y		m3	\$80.80		\$0		D7 to spread material at \$205/hr, Excavator (\$220/hr) load Artic Trucks (90c/km) from imported stockpile - all nominal rate of \$70/m3 for imported to material.
	Purchase and erect warning signs	Y		allow	\$250.00		\$0		Compliance with AS 1319-1994 - Sal signs for the occupational environme installed every 25 m.
	Security fence around steep section of high wall	Y		m	\$64.00		\$0		1800mm x 3 barb chain-link mesh security fence and gate standard 2.5 mesh & 32 mm post not concreted
	growth media amelioration with biosolids	Y		ha	\$1,015		\$0		Recent experience with agronomy projects.
	Spoil amelioration (adding lime / gypsum etc.)	Y		ha	\$1,000.00		\$0		Assumes 2.5 t / ha as an average application rate.
	Single application of fertiliser (trees)	Y		ha	\$140.00		\$0		last few years however in light of curi conditions (lower fuel prices, reduced demand etc) this is a suitable standarate.

Domain 5c: Management Activities

Total Cost for Management Activities

Additional Assumptions: Record any relevant assumptions to this domain below:

Key Rehabilitation Area Data for Domain	Enter data below manually
Total Landform Establishment:	
Total Growth Media Development:	
Total Ecosystem Establishment:	

		Applicable			Default Unit	Alternative		Basis for Costs Estimation	
Management Precinct	Activity / Description	(Y or N)	Quantity	Unit	Rate	Unit Rate	Total Cost	and Additional Relevant Information	Description / Notes:
Water Management	On-site treatment of contaminated water due to high salt (includes removal of metals etc, brine disposal and cost of mobile water treatment unit)	Y		ML	\$3,600		\$0		Rate can fluctuate depending on treatment type however this is a suitable standard rate for current programs at mining operations.
	On-site treatment of contaminated water due to low pH (incudes removal of metals etc, neutralisation treatments and cost of mobile water treatment unit	Y		ML	\$1,500		\$0		Rate can fluctuate depending on treatment type however this is a suitable standard rate for current programs at mining operations.
Creek Diversions			ı	Wa	ater Managem	ent Subtotal	\$0		Assumes material is suitable for
OTOGR DIVERSIONS	Repairs and/or stabilisation of new or compromised water course diversion	Y		m	\$2,500		\$0		revegetating and has a reasonable chance of stabilising. Assumes maintenance has been kept
	Long term maintenance of water course diversion – Channel constructed through backfilled material	Y		m	\$1,500		\$0		up and significant works are not required. Assumes maintenance has been kept
	Long term maintenance of water course diversion – Channel constructed through competent material	Y		m	\$750.00		\$0		up and significant works are not required. Assumes competent material is locally
	Installation of rock armouring	Y		m2	\$6.00		\$0		available - multiply costs by 2 for sourcing and transporting from offsite location.
			1		Creek Diversi	ons Subtotal	\$0		Ī
Maintenance of Rehabilitated Areas	Pest management on buffer lands, non-disturbed, and rehabilitated areas	Υ		ha	\$150.00		\$0		Feral animal baiting programs if required and waste materials required to be removed.
	Land management of undisturbed areas (rehabilitation, weeds, ferals, erosion and sediment control works)	Υ		ha	\$400.00		\$0		Undisturbed areas within the lease boundary that require land management activities.
Heritage Items			Mainte	enance of Re	habilitated Ar	eas Subtotal	\$0		Item for the redistribution of Aberiainal
nemage nems	The restoration and care and maintenance of items that have heritage significance	Y		allow	Use alternate rate cell		\$0		Item for the redistribution of Aboriginal artefacts, preservation of European heritage items or a combination of activities.
	•		l.	l	Heritage Ite	ems Subtotal	\$0		
Sundry Items									Provisional sum to be used to refine th
	Development of an 'Unplanned' Project Closure Plan - State Significant Development with closure planning well progressed i.e. preferred cover design, closure environment modelled e.g. groundwater /subsidence / pit lakes, preliminary seal designs, etc. and only finalisation of detailed engineering deigns required	Y		allow	\$100,000		\$0		dosure plan with execution strategies for rehabilitation activities. Assumes outcomes of studies readily available including modelling, landform design, geochemistry, demolition, etc. Costs to finalise options by domain an finalise designs for construction. Assume a simple site e.g. single over out, no legacy operations historic in the area, little social dependence, etc. Depending on site size, complexity, fin land use requirements and knowledge base investigations can range from ~575k to >51 M. Sites with more than 1 pit to add \$50,000 to rate.
	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with at least \$2 of the following aspects requiring closure planning, but no significant issues realised at this time: previous subsidence, medium or higher geochemistry risk and/or spontaneous combustion propensity, known/ likely contamination, tailings / rejects, final vold	Y		allow	\$90,000		\$0		Provisional sum to be used to refine th conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities. Estimated cost for developing closure plan including studies - basic to satisfy risks and decisions - includes risk assessment, options analysis, Closure Plan. Stites with more than 1 pit to add \$50,000 to rate.
	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with no EPJ and/or only one of the following relevant aspects: previous subsidence, low to medium geochemistry risk and/or spontaneous combustion propensity, known limited contamination, small approved final void	Y		allow	\$15,000		\$0		Assumes sediment control is the key concern for rehabilitation e.g. small mines, exploration operations. Include risk assessment, sampling and analyses on <5 samples, one study an Closure Plan.
	Development of an 'Unplanned' Project Closure Plan - State Significant Development with only preliminary to conceptual closure planning in place	Y		allow	\$300,000		\$0		Includes costs for key investigations and studies including designs e.g. geochemistry, Contamination Remediation Action Plan, subsidence risk, cover/capping and final landform, site wide surface water, etc. Provision sum to be used to refine the conceptue closure plan into a detailed closure plan with execution strategies for rehabilitation activities. Assume at least 15 types of studies required ranging from geotechnical to ecology and social, development of closure plan including address of obligations. Assume a simple site e.g. single open cut, no legacy operations historic in the area, little social dependence, etc. Depending on site size, complexity, fin land use requirements and knowledge base investigations can range to x\$3 h. Sites with more than 1 pit to add \$50,000 to rate.

Division of Resources and Geoscience Rehabilitation Cost Estimation Tool - Open_Cut (3)

Page 46 of 49

	Development of an 'Unplanned' Project Closure Plan - Non State Significant Development with at least ≥2 of the following aspects resulting in significant issues requiring remediation: previous subsidence, medium or higher geochemistry risk and/or spontaneous combustion propensity, known/ likely contamination, tailings / rejects, final void	Y		allow	\$125,000		\$0		Includes costs for key investigations and studies including economic treatments and designs e.g. geochemistry. Contamination Remediation Action Plan, subsidence risk, cover/capping and final landform, site wide surface water, etc. Provisional sum to be used to refine the conceptual closure plan into a detailed closure plan with execution strategies for rehabilitation activities.
	Develop a Review of Environmental Factors (REF) to facilitate rehabilitation including contamination works.	Y		allow	\$27,950		\$0		Based on experience for a REF after completion of a detailed closure study (e.g. contamination investigation) costs could range from \$10,000 to \$100,000 ex GST. Note this does not apply to a Statement of Environmental Effects or Environmental Impact Statement.
	Site security during closure	Y		yr.	\$75,000		\$0		Provisional sum for site security measures required during closure. This includes nightly patrols and first response in the event of an out of hours incident.
	Choose type of HAZMAT Clean-up required - cleaning and decontaminating plant and equipment,	Y		allow	\$0			Select type of HAZMAT Clean-up Required	Type of HAZMAT Clean-up required - cleaning and decontaminating plant and equipment, chemical storage locations,
	chemical storage locations, oil and grease traps, tanks, vessels, and pipe work etc								oil and grease traps, tanks, vessels, and pipe work etc
	Removal and disposal of radiation devices	Y		each	\$31,630		\$0		Provisional sum for removal and disposal of monitoring devices on conveyors using a radiation source (i.e., Americium – 241, Plutonium – 238, Caesium - 137 etc). Source Isotope type, quantity, strength, weight, source holder type, source holder type, loic-up location (among others) will directly affect pricing.
	Additional fees for accessing State, Crown or other public lands for rehabilitation/remediation activities	Y		allow	Use alternate rate cell		\$0		Provisional sum.
					Sundry Ite	ems Subtotal	\$0		
Mobilisation and Demobilisat	Mobilisation & Demobilisation for small mine or quarry - small fleet	Y		Item	\$12,000		\$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation for small mine or quarry - medium to large fleet	Y		Item	\$35,000		\$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site <150 km)	Υ		item	\$100,000		\$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site >150 km but <500 km)	Y		item	\$150,000		\$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site >500 km but <1000 km)	Y		item	\$300,000		\$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
	Mobilisation & Demobilisation (Distance to site >1000 km)	Y		item	\$500,000		\$0		May include specialist demolition equipment and/or suitable plant to execute bulk earthworks as required.
Additional Items			Мо	bilisation and		tion Subtotal	\$0		This item includes a state and add by
Auditional items	Other 1 <insert></insert>	N			This is				This item includes < <to added="" be="" by="" operator="" the="">></to>
	Other 2 <insert></insert>	N			deliberately				This item includes < <to added="" be="" by="" operator="" the="">></to>
	Other 3 <insert></insert>	N			left blank				This item includes < <to added="" be="" by="" operator="" the="">></to>
					Additional Ite	ems Subtotal	\$0		
	Total Cost for	r Mana	gement	Activiti	es			\$0	

Assumptions and rehabilitation requirements
List or record any assumptions made when completing this tool:



Activity

Domain

Justification for Change of Rates in the Rehabilitation Cost Estimation Tool

DRG unit/rate

Tool. A ju		y a third party has l		e Rehabilitation Cost Estimation ed in the above table have been
	Authrorisation Representatives	Name		Date

Adopted Rates

Justification