



# **Environmental Management Strategy**

for the

**Dargues Gold Mine** 

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# for the

# **Dargues Gold Mine**

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Next Review Due	Within 3 month	ns of:					
	<ul> <li>the submission of an annual review under Condition 5(3);</li> </ul>						
	<ul> <li>the submission of an incident report under Condition 5(6);</li> </ul>						
	<ul> <li>the submission of an audit report under Condition 5(8); and</li> </ul>						
	any me	odification to the co	nditions of MP10_00	054.			

# **CONTENTS**

		Page
1.	INTRODUCTION	1
2.	STRATEGY	2
3.	LEGAL AND OTHER REQUIREMENTS	3
	3.1 PROJECT APPROVAL	3
	3.2 MINERAL AUTHORITIES	4
	3.3 LICENCES	4
	3.4 MANAGEMENT PLANS	6
	3.5 ACTS	6
	3.6 STANDARDS	
	3.7 GUIDELINES	8
4.	OBJECTIVES AND OUTCOMES	8
5.	MONITORING	14
6.	EVALUATION OF COMPLIANCE	26
7.	CORRECTIVE AND PREVENTATIVE ACTIONS	26
8.	INCIDENT REPORTING	27
9.	COMPLAINTS HANDLING AND DISPUTE RESOLUTION	27
	9.1 COMPLAINTS HANDLING	27
	9.2 DISPUTE RESOLUTION	28
10.	EMERGENCY RESPONSE	30
11.	STAKEHOLDER AND COMMUNITY CONSULTATION	30
12.	ROLES AND RESPONSIBILITY	31
13.	COMPETENCE TRAINING AND AWARENESS	31
14.	REVIEW	32

# **CONTENTS**

		Page
FIGURES		
Figure 1	Environmental Monitoring Locations	18
Figure 2	Project Site Water Storages	20
Figure 3	Independent Dispute Resolution Process	29
TABLES		
Table 1	Relevant Conditions – MP 10_0054	3
Table 2	Mineral Authorities	4
Table 3	Consents, Leases and Licences	4
Table 4	Management Plans	6
Table 5	Environmental Objectives and Outcomes	9
Table 6	Monitoring Requirements	15
Table 7	Surface Water Monitoring Program	22
Table 8	Surface Water Quality Trigger Values – Surrounding Waters	23
Table 9	Groundwater Monitoring Program – On Site	24
Table 10	Groundwater Quality Trigger Values – Project Site and Surrounds	25
Table 11	Groundwater Level Trigger Values – Non Project-related Bores	26
Table 12	Roles and Responsibility	31

# 1. INTRODUCTION

This *Environmental Management Strategy* was originally prepared by R.W. Corkery & Co Pty Limited (RWC) for Big Island Mining Pty Ltd (the Company) for the Dargues Gold Project (the Project). This Strategy is now maintained by the Company. Revision 5 of this Strategy was prepared by RWC and reviewed by the Company.

The Project Site is located approximately 60km southeast of Canberra, 13km south of Braidwood and immediately north of the village of Majors Creek. The Project consists of an underground gold mine, a run-of-mine (ROM) pad, temporary waste rock emplacement, processing plant, tailings storage facility and associated infrastructure and ancillary activities.

This document is the fifth revision of the *Environmental Management Strategy* for the Dargues Gold Project and has been prepared following granting of Modified Project Approval (MP) 10\_0054 MOD4 (see Section 3.1).

This document has been prepared in satisfaction of Condition 5(1) of MP 10 0054 MOD4.

The Project is fully described in the following documents and no further background information is provided in this document.

- *Environmental Assessment* dated September 2010 and associated documentation prepared to support the application for Project approval.
- Mining Operations Plan dated May 2017.
- Environmental Assessment Modification 1 dated April 2012.
- Response to Government Agency and Public Submissions for the Dargues Reef Gold Project Modification 1 dated June 2012.
- Environmental Assessment Modification 2 dated July 2013.
- Response to Government Agency and Public Submissions for the Dargues Reef Gold Project Modification 2 dated September 2013.
- Environmental Assessment Modification 3 dated August 2016.
- Response to Government Agency and Public Submissions for the Dargues Gold Mine Modification 3 dated November 2015.
- Statement of Environmental Effects for the Dargues Gold Mine Modification 4 dated November 2018.
- Response to Submissions for the Dargues Gold Mine Modification 4 dated January 2019.

In addition, a range of management plans have been prepared to guide operations within the Project Site. These include the following.

- Blast Management Plan.
- Noise Management Plan.
- Air Quality and Greenhouse Gas Management Plan.
- Biodiversity Management Plan.
- Aboriginal Heritage Management Plan.
- Traffic Management Plan.
- Waste Management Plan.
- Bushfire Management Plan.
- Water Management Plan.
- Rehabilitation Management Plan (incorporated into the Mining Operations Plan).

With the exception of the Water Management Plan, the above management plans apply to both the construction and ongoing operation of the Project. Whilst the Water Management Plan currently applies to both construction and operational phases as far as possible, operational phase infrastructure remains the subject of ongoing detailed design and therefore only a construction phase water balance is provided. Consistent with Condition 10 of Schedule 2 of Modified Project Approval 10\_0054 MOD4, the Water Management Plan will be updated progressively as further information becomes available or prior to the commencement of activities not covered by the plan. It is anticipated that a revised Water Management Plan covering the operational phase of the Project will be submitted for approval in January 2020, with the operational phase of the Project anticipated to commence in March 2020.

# 2. STRATEGY

This *Environmental Management Strategy* (EMS) forms part of the integrated Environmental Management System for the Project. It describes the overall framework for environmental management for the construction and ongoing operation of the Project. The EMS addresses the principal strategies to be adopted by the Company, including compliance management and monitoring, conflict resolution and consultation / information dissemination processes.

# 3. LEGAL AND OTHER REQUIREMENTS

#### 3.1 PROJECT APPROVAL

Project Approval 10\_0054 was originally issued for the Dargues Reef Gold Project, by the Minister for Planning on 2 September 2011. Subsequently, two appeals were lodged in relation to the Project Approval with the NSW Land and Environment Court. Following resolution of these appeals, Project Approval was granted by the Land and Environment Court on 7 February 2012. Modification 1 for the use of paste fill within the Project Site was subsequently approved on 12 July 2012. Modification 3 for an extension of the mine life and increase in the resource extracted was subsequently approved on 10 August 2016. Modification 4 for the relocation of the approved heavy vehicle crossing of Spring Creek and the reinstatement of the previously approved access track from the Site Access Road to the Tailings Storage Facility was subsequently approved on 23 May 2019.

This Environmental Management Strategy has been prepared in accordance with Condition 5(1) of MP 10\_0054 MOD4 (**Table 1**) and generally conforms to the AS/NZS ISO 14001:2016 Environmental Management System guidelines. It is required to be submitted for approval by the Secretary of the Department of Planning, Industry and Environment (DPIE).

The Company is committed to complying with all regulatory requirements and standards relevant to the environmental management of the Project. Copies of the relevant Acts, Regulations, Standards, Licences, Leases and Approvals will be maintained by the Environmental Supervisor at the Mine and can be readily accessed when required.

**Table 1** presents where each requirement identified in *Condition 5(1)* has been addressed in this document.

Table 1 Relevant Conditions - MP 10\_0054

	Requirement Section						
Condition	on 5(1)						
Environ	mental Management Strategy						
	ponent shall prepare and implement an Environmental Management Strategy for the to the satisfaction of the Secretary. This strategy must:						
(a)	be submitted to the Secretary for approval prior to construction;	Entire Document					
(b)	provide the strategic framework for environmental management of the project;	4					
(c)	identify the statutory approvals that apply to the project;	3.1, 3.2, 3.3					
(d)	describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;	12					
(e)	describe the procedures that would be implemented to:						
	<ul> <li>keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> </ul>	8, 11					
	<ul> <li>receive, handle, respond to, and record complaints;</li> </ul>	9.1					
	<ul> <li>resolve any disputes that may arise during the course of the project;</li> </ul>	9.2					
	respond to any non-compliance;	6, 7					

Requirement	Section
respond to emergencies; and	10
(f) include:	
<ul> <li>copies of any strategies, plans and programs approved under the conditions of th approval; and</li> </ul>	ais 3.4
<ul> <li>a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.</li> </ul>	5

# 3.2 MINERAL AUTHORITIES

Mineral Authorities issued to the Company for the Mine are listed in Table 2.

**Table 2 Mineral Authorities** 

Issuing Authority	Approval Number	Date of Issue	Expiry
Minister for Trade and Investment,	Mining Lease 1675	12 April 2012	12 April 2045
Regional Infrastructure and Services – Resources and Energy	Exploration Licence 6548	5 April 2006	5 April 2020
Resources and Energy	Exploration Licence 8372	21 May 2015	20 May 2021

# 3.3 LICENCES

The various licence, permits and consents issued to the Company for the Mine are listed in **Table 3**.

**Table 3 Consents, Leases and Licences** 

Issuing / Responsible		Consent/ Approval	Date of		
Authority	Туре	Number	Issue	Expiry	Comments
Land & Environment	Project Approval	10_0054	7 February	13 August	
Court			2012	2018	
Minister for Planning	Project Approval	10_0054	12 July	13 August	Permits use of paste fill.
	(Modification 1)	MOD1	2012	2018	
Minister for Planning	Project Approval	10_0054	24 October	13 August	Regularisation of Project
	(Modification 2)	MOD2	2013	2018	Layout.
Planning Assessment	Project Approval	10_0054	10 August	30 June	Additional infrastructure
Commission	(Modification 3)	MOD3	2016	2025	and mine life extension.
Department of	Project Approval	10_0054	23 May	30 June	Spring Creek crossing
Planning and	(Modification 4)	MOD4	2019	2025	relocation.
Environment					
Environment	Environmental	20095	18 May	-	Identifies discharge
Protection Authority	Protection		2012		points and discharge
(EPA)	Licence				limits and concentrations.
Environment	Environmental	20095	30 June	-	Anniversary date
Protection Authority	Protection		2012		changed.
(EPA)	Licence				
Environment	Environmental	20095	18 July	-	Pollution Studies and
Protection Authority	Protection		2013		Prevention Program
(EPA)	Licence				added to licence.

Issuing / Responsible Authority	Type	Consent/ Approval Number	Date of Issue	Expiry	Comments
Environment	Environmental	20095	9 May 2014		Decrease in monitoring
Protection Authority	Protection				to reflect care and
(EPA)	Licence				maintenance.
Environment	Environmental	20095	16	-	Operational EPL in place
Protection Authority	Protection		November		for construction
(EPA)	Licence		2018		activities.
Environment	Environmental	20095	18 June	-	Addition of spillway
Protection Authority	Protection		2019		sample point.
(EPA)	Licence				
Minister for Trade and	Mining Lease	1675	13 April	12 April	
Investment, Regional			2012	2024	
Infrastructure and					
Services – Resources					
and Energy					
Department of	Mining Lease	1675	8 December	12 April	Renewal of ML
Planning and			2017	2045	
Environment, Division					
of Resources and					
Geoscience					
Minister for Trade and	Exploration Lease	EL6003	3 October	2 October	Replaced by EL8372.
Investment, Regional			2002	2014	
Infrastructure and					
Services – Resources					
and Energy					
Department of	<b>Exploration Lease</b>	EL8372	21 May	20 May	Replaced EL6003.
Planning and			2015	2021	
Environment, Division					
of Resources and					
Geoscience					
Minister for Resources	Exploration Lease	EL6548	5 April 2006	5 April	
and Energy				2020	
NSW Office of Water	Water Licences	10WA119513	29 March	-	Extraction of
		and WAL39281	2017		groundwater from
		10WA119515	19 October		Dargues Gold Mine,
		and WAL39282	2017		Snobs workings, Stewart
		10WA119519	29 March		and Mertons workings,
		and WAL39287	2017		and United Miners
		10WA119517	29 March		workings.
		and WAL39292	2017		
Dams Safety	Tailings Storage	Dargues TSF	9 December		TSF design confirmation.
Committee	Facility		2016		
SafeWork NSW	Explosives	XSTR200092	16 July	23 April	
	Storage Licence		2018	2023	
Essential Energy	High Voltage	-	-	-	
	Permit				

Dargues Gold Mine

# 3.4 MANAGEMENT PLANS

The Management Plans, and their status, as required by MP 10\_0054 MOD4 for the Project are listed in **Table 4**.

**Table 4 Management Plans** 

Approval Authority	Title	Approval Date	Review Date	
	Noise Management Plan	Under Review		
	Blast Management Plan	08/01/2019		
	Air Quality & Greenhouse Gas Management Plan	08/01/2019		
	Water Management Plan	Under Review		
Department of Planning	Biodiversity Management Plan	08/01/2019	As identified by	
and Environment	Heritage Management Plan	08/01/2019	Condition 5(4) of MP 10_0054	
	Waste Management Plan	08/01/2019	_	
	Traffic Management Plan	08/01/2019		
	Bushfire Management Plan	08/01/2019		
	Erosion and Sediment Control Plan	Included in Water Management Plan		
Department of Planning and Environment, Division of Resources and Geoscience	Mining Operations Plan (incorporating a Rehabilitation Management Plan)	Under Review	As identified by Condition 5(4) of MP 10_0054 or prior to the end of the MOP term.	

# 3.5 ACTS

The key reference documents include the following Acts and their respective Regulations.

- Contaminated Land Management Act 1997.
- Dangerous Goods (Road and Rail Transport) Act 2008.
- Environmental Planning and Assessment Act 1979.
- Environment Protection and Biodiversity Conservation Act 1999.
- Local Government Act 1993.
- Work Health and Safety (Mines and Petroleum Sites) Act 2013.
- National Parks and Wildlife Act 1974.
- Work Health & Safety Act 2011.
- Protection of the Environment Administration Act 1991.
- Protection of the Environment Operations Act 1997.
- Roads Act 1993.

- Soil Conservation Act 1938.
- Biodiversity Conservation Act 2016.
- Water Act 1912.
- Water Management Act 2000.
- Mining Act 1992.

# 3.6 STANDARDS

The following standards are, or are potentially, of relevance to the Project's Environmental Management System. AS refers to an "Australian Standard", NZS refers to "New Zealand Standard" and ISO refers to the "International Standards Organisation".

- AS/NZS 3580.1.1:2016 Methods for sampling and analysis of ambient air Guide to siting air monitoring equipment.
- AS/NZS 3580.14:2014 Methods for sampling and analysis of ambient air Meteorological monitoring for ambient air quality monitoring applications.
- AS/NZS 3580.10.1:2016 Methods for sampling and analysis of ambient air –
   Determination of particulate matter Deposited matter Gravimetric method.
- AS/NZS 3580.9.3:2015 Methods for sampling and analysis of ambient air –
   Determination of suspended particulate matter Total Suspended Particulate
   Matter (TSP) High volume sampler gravimetric method.
- AS/NZS 3580.9.6:2015 Methods for sampling and analysis of ambient air –
  Determination of suspended particulate matter PM10 high volume sampler with
  size–selective inlet Gravimetric method.
- AS 1055:2018 Acoustics Description and measurement of environmental noise.
- AS/NZS IEC 61672.1:2019 Electroacoustics Sound level meters Specifications.
- AS 2187.2 2006 Explosives Storage and use Use of Explosives.
- AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.
- AS 1940:2017 The storage and handling of flammable and combustible liquids.
- AS/NZS 1596:2014 The storage and handling of LP Gas.
- AS/NZS ISO 14001:2016 Environmental management systems Requirements with guidance for use.
- ISO 19011:2018 Guidelines for auditing management systems.

Dargues Gold Mine

#### 3.7 GUIDELINES

The following guidelines are, or are potentially, of relevance to the Mine's Environmental Management System.

- Australian Dangerous Goods Code Edition 7.5.
- Community Consultative Committee Guideline published by the Department of Planning and Environment in 2019.
- Managing Urban Stormwater: Soils and Construction Volume 1 published by Department of Housing in 2004.
- Managing Urban Stormwater: Soils and Construction Volume 2C Unsealed Roads published by Department of Environment and Climate Change in 2008.
- Managing Urban Stormwater: Soils and Construction Volume 2E Mines and Quarries published by Department of Environment and Climate Change in 2008.
- National Water Quality Management Strategy: Australian Guidelines for Water Quality Monitoring and Reporting published by ANZECC/ARMCANZ in 2000.
- NSW EPA Approved Methods for the Sampling and Analysis of Air Pollutants in NSW published by Environment Protection Authority in 2007.
- NSW EPA Approved Methods for the Modelling and Assessment of Air Pollutants in NSW published by Environment Protection Authority in 2017.
- EPA 454/R-99-005 *Meteorological monitoring guidance for regulatory modelling applications* published by United States Environment Protection Authority in 2000.
- NSW Road Noise Policy published by Environment Protection Authority in 2011.
- Noise Policy for Industry published by Environment Protection Authority in 2017.
- Murray Darling Basin Groundwater Quality Sampling Guidelines, August 1997, Technical Report No. 3 published by Murray Darling Basin Commission.
- Waste Classification Guidelines published by Environment Protection Authority in 2014.

# 4. OBJECTIVES AND OUTCOMES

The Company's principal objectives and key performance outcomes in the development and operation of the Project are listed in **Table 5**. These objectives and key performance outcomes will be updated following any review or modification of the relevant Management Plans to improve environmental performance for the Project.

**Table 5 Environmental Objectives and Outcomes** 

ОВЈ	OBJECTIVES I		KEY PERFORMANCE OUTCOMES			
Wa	ter					
(a)	To ensure compliance with all relevant Project Approval and Environmental Protection Licence criteria and reasonable community expectations.	(i)	Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.			
(b)	To ensure sufficient water is available during all phases of the life of the Project for environmental and operation purposes.	(ii)	Sufficient water is available for all Project-related purposes, including for environmental and operational purposes.			
(c)	To ensure that appropriate sediment and erosion control measures are implemented and maintained.	(iii)	All water management structures constructed and maintained in accordance with Landcom (2004) and DECC (2008).			
(d)	To ensure that appropriate chemical and hydrocarbon management is implemented and maintained.	(iv)	All chemicals and hydrocarbons stored and used in accordance with manufactures instructions, Material Data Safety Sheet requirements and Australian Standards in a manner that ensure risk of water contamination is reduced to an acceptable level.			
(e)	To ensure that the permeability of the floor and embankment of the Tailings Storage Facility complies with the requirements of MP10_0054 MOD4.	(v)	Tailings Storage Facility meets all requirements during construction and seepage from the facility is less than the design criteria.			
(f)	To ensure that water within the Project Site is used in an efficient and environmentally responsible manner.	(vi)	Water resources are managed in a manner that maximises environmental flows and minimises the potential for adverse impacts to water resources.			
(g)	To ensure that appropriate aquatic ecology and stygofauna monitoring programs are implemented throughout the life of the Project.	(vii)	Aquatic and groundwater ecological monitoring programs are sufficiently robust to detect any adverse impacts associated with the Project.			
(h)	To ensure that an appropriate surface water and groundwater monitoring program is implemented throughout the life of the Project.	(viii	) Water monitoring programs are sufficiently robust to detect any adverse water quality or quantity impacts associated with the Project to allow appropriate adaptive management measures to be implemented.			
(i)	To ensure that appropriate contingency and emergency management plans are in place and regularly reviewed.	(ix)	Contingency and emergency management plans are prepared for all relevant contingencies and regularly reviewed and upgraded.			
(j)	To implement an appropriate incident reporting program, if required.	(x)	Incidents (if any) reported in an appropriate manner.			
(k)	To ensure that all relevant water-related information is made available in a timely and accessible manner.	(xi)	All water-related information is available in a timely manner on the Project website.			

ОВЈ	OBJECTIVES		KEY PERFORMANCE OUTCOMES			
Eco	logy					
(a)	To ensure compliance with all relevant Project Approval conditions, statements of commitment and reasonable community expectations.	(i)	Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.			
(b)	To implement appropriate biodiversity management and mitigation measures during all stages of the Project.	(ii)	All identified biodiversity management and mitigation measures implemented.			
(c)	To appropriately determine the degree of groundwater dependence of vegetation within the Project Site and determine the nature and significance of adverse Project-related impacts, if any.	(iii)	Degree of groundwater dependence determined and appropriate ongoing monitoring program implemented.			
(d)	To appropriately manage and offset Project- related adverse impacts, if any, on phreatophytic vegetation within the Project Site.	(iv)	Off-site Biodiversity Offset Strategy identified and implemented with the identified timeframes.			
(e)	To appropriately implement and manage the approved On-site Biodiversity Offset Strategy.	(v)	On-site Biodiversity Offset Strategy identified and implemented with the identified timeframes.			
(f)	To appropriately manage those sections of the Project Site not within the On-site Biodiversity Offset Area to achieve the approved final landform and land use.	(vi)	Identified areas managed in a manner that does not result in off-site impacts and ensures that the identified final landform and land use is established.			
(g)	To implement an appropriate complaints handling and response protocol.	(vii)	Complaints (if any) handled and responded to in an appropriate manner.			
(h)	To implement appropriate corrective and preventative actions, if required.	(viii)	Corrective and preventative actions implemented, if required.			
(i)	To implement an appropriate incident reporting program, if required.	(ix)	Incidents (if any) reported in an appropriate manner.			
Traf	ffic					
a)	To effectively manage Project-related traffic to minimise conflict between vehicles using Majors Creek Road.		Effective management of traffic in a manner that ensures that there is minimal conflict between vehicles using Majors Creek Road.			
b)	To ensure that Project-related traffic does not result in unacceptable impacts on traffic within Braidwood.		Effective management of traffic in a manner that ensures that there is minimal adverse impact on traffic within Braidwood.			
Noi	se					
(a)	To ensure compliance with all relevant Project Approval and Environmental Protection Licence criteria and reasonable community expectations.		Compliance with all relevant criteria and reasonable community expectations, as determined in consultation with the relevant government agencies.			
(b)	To implement appropriate noise management and mitigation measures during all stages of the Project.		All identified noise management and mitigation measures implemented.			

OB.	IECTIVES	KEY	PERFORMANCE OUTCOMES
(c)	To implement an appropriate attended and unattended noise monitoring program to establish compliance or otherwise with relevant criteria during all stages of the Project.		All identified monitoring undertaken in accordance with the relevant procedures and at the relevant intervals.
(d)	To implement an appropriate complaints handling and response protocol.	(iv)	Complaints (if any) handled and responded to in an appropriate manner.
(e)	To implement appropriate corrective and preventative actions, if required.	(v)	Corrective and preventative actions implemented, if required.
(f)	To implement an appropriate incident reporting program, if required.	(vi)	Incidents (if any) reported in an appropriate manner.
Air	Quality		
(a)	To ensure compliance with all relevant Project Approval and Environmental Protection Licence criteria and reasonable community expectations.	(i)	Compliance with all relevant criteria and reasonable community expectations.
(b)	To implement appropriate air quality management and mitigation measures during all stages of the Project.	(ii)	All identified air quality management and mitigation measures implemented.
(c)	To implement a monitoring program to establish compliance or otherwise with relevant criteria during all stages of the Project.	(iii)	All identified monitoring undertaken in accordance with the relevant procedures and at the relevant intervals.
(d)	To implement an appropriate complaints handling and response protocol.	(iv)	Complaints (if any) handled and responded to in an appropriate manner.
(e)	To implement appropriate corrective and preventative actions, if required.	(v)	Corrective and preventative actions implemented, if required.
(f)	To implement an appropriate incident reporting program, if required.	(vi)	Incidents (if any) reported in an appropriate manner.
Reh	nabilitation		
	To rehabilitate the boxcut with slopes of approximately 1:3 (V:H).		Provide a low maintenance, geotechnically stable, non-polluting and safe landform which blends with
(b)	To appropriately sealed ventilation rise.		surrounding landforms and provides land suitable for the final land use of nature conservation and/or
	To appropriately shaped and cover a free draining tailings storage facility with appropriate surface water management structures and embankment slopes of approximately 1:3 (V/H) or less.		agriculture.
٠,	To shape, cover and vegetate processing plant and office area with all agreed infrastructure removed.		
	To appropriately rehabilitate the site access road. A suitable light vehicle track will remain to permit access to the areas under rehabilitation.		
	To revegetate the Project Site in accordance with the <i>Biodiversity Management Plan</i> .		

ОВЈ	ECTIVES	KEY PERFORMANCE OUTCOMES						
Her	itage							
(a)	To implement protocols for the management and protection of Aboriginal objects/sites located within the Project Area.	(i)	Compliance with all relevant criteria and government requirements.					
(b)	To describe measures that would be implemented if any Aboriginal objects are encountered during the life of the Project.							
(c)	To describe measures that would be implemented if any Aboriginal skeletal remains are encountered during the life of the Project.							
(d)	To implement protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal heritage of the Project Site.							
Bus	hfire							
(a)	To ensure that Project activities are managed in a manner that reduces to an acceptable level the risk of ignition of bushfires within the Project Site.	(i)	No bushfires are initiated within the Project Site as a result of Project activities.					
(b)	To ensure that measures are implemented to allow appropriate management of bushfires within the Project Site.	(ii)	Any ignition within the Project Site is managed/extinguished without harm to life or property.					
Blas	sting							
(a)	To ensure compliance with all relevant Project Approval and Environmental Protection Licence criteria and reasonable community expectations.	(i)	Compliance with all relevant criteria and reasonable community expectations.					
(b)	To implement appropriate blast management and mitigation measures during all stages of the Project.	(ii)	All identified noise management and mitigation measures implemented.					
(c)	To implement an appropriate blast monitoring program to establish compliance or otherwise with relevant criteria during all stages of the Project.	(iii)	All identified monitoring undertaken in accordance with the relevant procedures and at the relevant intervals.					
(d)	To implement an appropriate complaints handling and response protocol.	(iv)	Complaints (if any) handled and responded to in an appropriate manner.					
(e)	To implement appropriate corrective and preventative actions, if required.	(v)	Corrective and preventative actions implemented, if required.					
(f)	To implement an appropriate incident reporting program, if required.	(vi)	Incidents (if any) reported in an appropriate manner.					
Wa	ste							
(a)	Employees are educated in the importance of waste stream segregation for recycling.	(i)	Informed workforce on the management of waste and recycling.					

# **Environmental Management Strategy**

Document No. DGM-0405-0806-EMS

Dargues Gold Mine

OB.	JECTIVES	KEY PERFORMANCE OUTCOMES						
(b)	The ease of waste storage, handling, disposal and tracking is improved.	(ii) Efficient waste management strategies implemented.						
(c)	The potential for contamination of general waste streams is reduced.	(iii) The potential for contamination by general waste has been minimised.						
(d)	An income from recyclable waste streams can potentially be generated.	(iv) Recycling efficiencies and income have been implemented.						
(e)	The costs of disposal for some items can potentially be reduced.	(v) Disposal of general waste minimised.						

# 5. MONITORING

In order to meet the objectives and key performance outcomes listed in **Section 4**, the following monitoring strategy is outlined in **Table 6** and **Figures 1 and 2**. The HSEC Superintendent will be responsible for the implementation of the monitoring strategy and the continued monitoring requirements of the Mine.

More information regarding the implementation of the various monitoring programs is provided in the relevant management plans for the Mine.

Document No. DGM-0405-0806-EMS

Dargues Gold Mine

# **Table 6 Monitoring Requirements**

Environmental Monitoring Requirement	Monitoring Location	Frequency	Criteria	Timing	Characterisation/ Quantification	Record of Information
Noise Manageme	ent Plan					
Attended Noise Monitoring	R20 R27 R29 R34 R108	Quarterly (Day, evening, night)	35 dB(A) Laeq(15 minutes) (Day, evening, night) 45 dB(A) La1(1 minute) (Night)	15 minute measurement period	LAmax LA1 LA10 LA50 LA90 LAmin LAeq	Operator's Name. Location of Monitoring. Recording Intervals (date and time). Meteorological conditions. Statistical noise level descriptor with notes identifying principal noise sources. Instrument make, model, serial number and calibration details. Brief description of activities occurring within Project Site. Relevant fixed plant and mobile equipment, operating shift logs and location.
Unattended Noise Monitoring	Southern Section of Project Site (or as required to investigate noise emissions)	Real Time	33dB(A)	Constant	Statistical Noise parameters including LA <sub>1</sub> , LA <sub>10</sub> , LA <sub>90</sub> , LA <sub>eq</sub> (15 min) in 1/3 octaves. Periodic audiofiles.	-
Traffic Noise Monitoring	600 Majors Creek Road	Annually	55dB(A) L <sub>Aeq(1 hour)</sub> (Day) 50dB(A) L <sub>Aeq(1 hour)</sub> (Night)	-	-	Automated traffic counter (7day period) at residence. Project Site - count of vehicles leaving site (7 day period).
Blast Manageme	nt Plan				_	1
Blast Monitoring	R27 R29 R108	Every Blast	As per condition 3(6) of MP10_0054	Instantaneous	-	Ground vibration (mm/s) Airblast overpressure (dB(L))
Air Quality and G	Greenhouse Gas Management Pla	n				
PM <sub>10</sub>	R20	24 hour, one-day- in six	As per condition 3(14) of MP10_0054	Minimum of 12 months.	HVAS and depositional dust gauges to determine compliance with Condition 3(14) of MP10_0054.	Meteorological – temperature, wind speed and direction and sigma-theta. $PM_{10}$ dust concentration
Deposited dust	DD1-R20 DD2-R29 DD3-North of Processing Plant DD4-Southeast of Processing Plant DD5-East of TSF	Monthly	Maximum Increase 2 g/m²/month. Maximum Total 4 g/m²/month  (Annual average)	-	DD1 and DD2 to be used for determining compliance. DD3 and DD5 to be used for determining the upwind deposited dust levels	Meteorological – temperature, wind speed and direction and sigma-theta.  Deposited dust levels
Greenhouse	Electrical and Diesel usage	Collated quarterly.	-	-	-	-

Dargues Gold Mine

Environmental Monitoring Requirement	Monitoring Location	Frequency	Criteria	Timing	Characterisation/ Quantification	Record of Information
Water Managem	nent Plan					
Water Balance	Water transfer points as identified on Figure 1 of the Water Management Plan  Continuous  Nil  Continuous  Flows – L/month		Flows – L/month	Flows – monthly recording		
	Harvestable rights dams (water levels)	Continuous	Nil	Continuous	Levels – mm (to be converted to capacity in dam)	Levels – continuous recording, monthly data download
Surface Water	See <b>Table 7</b>	See <b>Table 7</b>	See Tables 8, 9 and 10	See <b>Table 7</b>	-	Date and time of sampling Water quality/flow
Aquatic Ecology	AE-1 – below escarpment AE-2 – below escarpment AE-3 – above escarpment AE-4 – above escarpment AE-5 – Spring Creek AE-6 – Spring Creek AE-7 – Majors Creek AE-8 – Majors Creek	6 monthly	Comparison with baseline monitoring	Spring and Autumn	-	Date and time of sampling Tabulated aquatic health data
Groundwater quality	See <b>Table 11</b> .	See <b>Table 11</b>	See Tables 12 and 13	See <b>Table 11</b>	-	Date and time of sampling Water quality
Construction Env	vironmental Management Plan					
Water Quality	In addition to monitoring frequency in <b>Table 7</b> , SW1 to SW10 will be measured for turbidity (TSS)	Within 24 hours of the cessation of a significant rainfall event (>10mm in 24 hours) if safe to do so	See table 10 (TSS)	As required	Determines adequate control of sedimentation and erosion	Date and time of sampling Water quality
On-site sediment control structure monitoring	Inspection of existing sediment and erosion controls prior to construction activities taking place.	Inspection of all sediment and erosion controls prior to predicted Significant Rainfall (25mm in a 24hr period).	Each control measure is rated as either compliant or non-compliant. Where an existing sediment and erosion control structure is in place and is either effective or requires maintenance.	As required	Existing sediment and erosion control structures will be in a serviceable condition prior to commencement of construction works.	Site records kept for audit purposes.

Dargues Gold Mine

Environmental	Monitoring Location	Frequency	y Criteria Timing Characterisation/ Quantification		· ·	Record of Information
Monitoring Requirement					Quantification	
<b>Biodiversity Mar</b>	nagement Plan					
Phreatophytic Vegetation Monitoring	Within zone of groundwater drawdown (ridge tops, upperand mid-slopes and within and adjacent to Spring Creek) Outside zone of groundwater drawdown (ridge tops and upper- and mid-slopes in Tableland Basalt Forest EEC)	Continuous	Comparison with baseline monitoring	Continuous	Continuous water use, continuous water stress, stem increment, and vapour pressure deficit.	Methodology employed. Results of the monitoring program. Recommendations for further monitoring.
On-site Vegetation monitoring program	Within the Project Site – 4 x quadrats  Outside Project Site – 2 x quadrats	Six monthly	Comparison with baseline monitoring	Spring and autumn	-	Methodology employed. Results of the monitoring program. Recommendations for further monitoring.
On-site fauna monitoring program	Various as per Gaia (2010)	Annual	Comparison with baseline monitoring	Summer and Late Winter (Little Eagle nest survey)	-	Methodology employed. Results of the monitoring program. Recommendations for further monitoring.
Stygofauna	Dargues Reef workings Snobs workings 2 x bore holes within Project Site 2 x boreholes outside of Project Site	Six monthly	Comparison with baseline monitoring	Spring and autumn	-	Date and time of sampling Tabulated stygofauna diversity and abundance data.
<b>Traffic Managem</b>						
Heavy vehicle traffic volume	Project Site entrance	Constant	As per Condition 3(41) of MP10_0054	Constant	-	Dates and times of concentrate vehicle departures
<b>Bushfire Manage</b>	ement Plan					
Fire breaks and access tracks.	Various	As required	-	-	-	-
Vegetation Fuel Loads	Various	As required	-	-	-	-
Fire Fighting Equipment	Various	Daily during very high or above fire danger periods.	-	-	-	-

Dargues Gold Mine

Document No. DGM-0405-0806-EMS

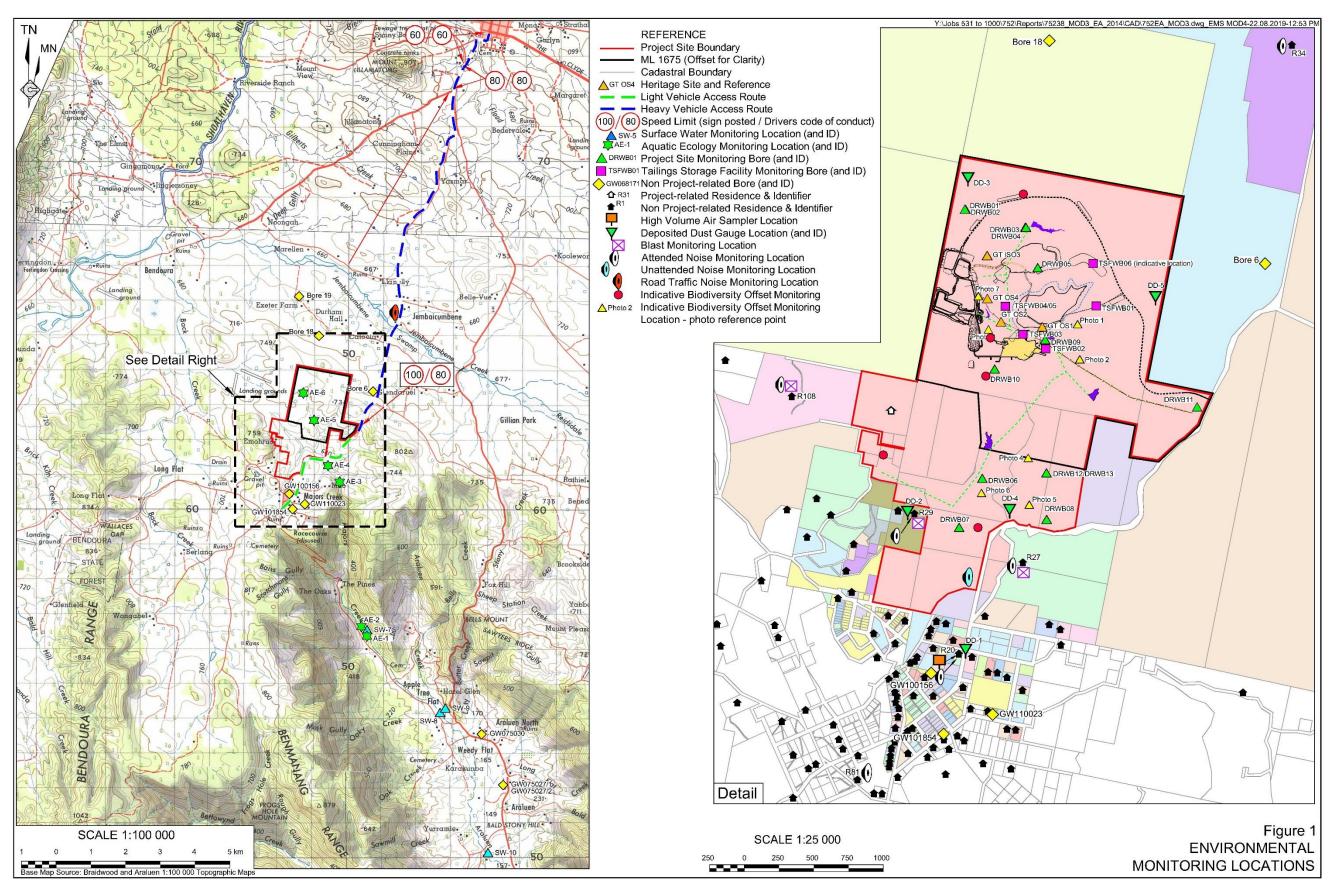


Figure 1 Environmental Monitoring Locations

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Document No. DGM-0405-0806-EMS

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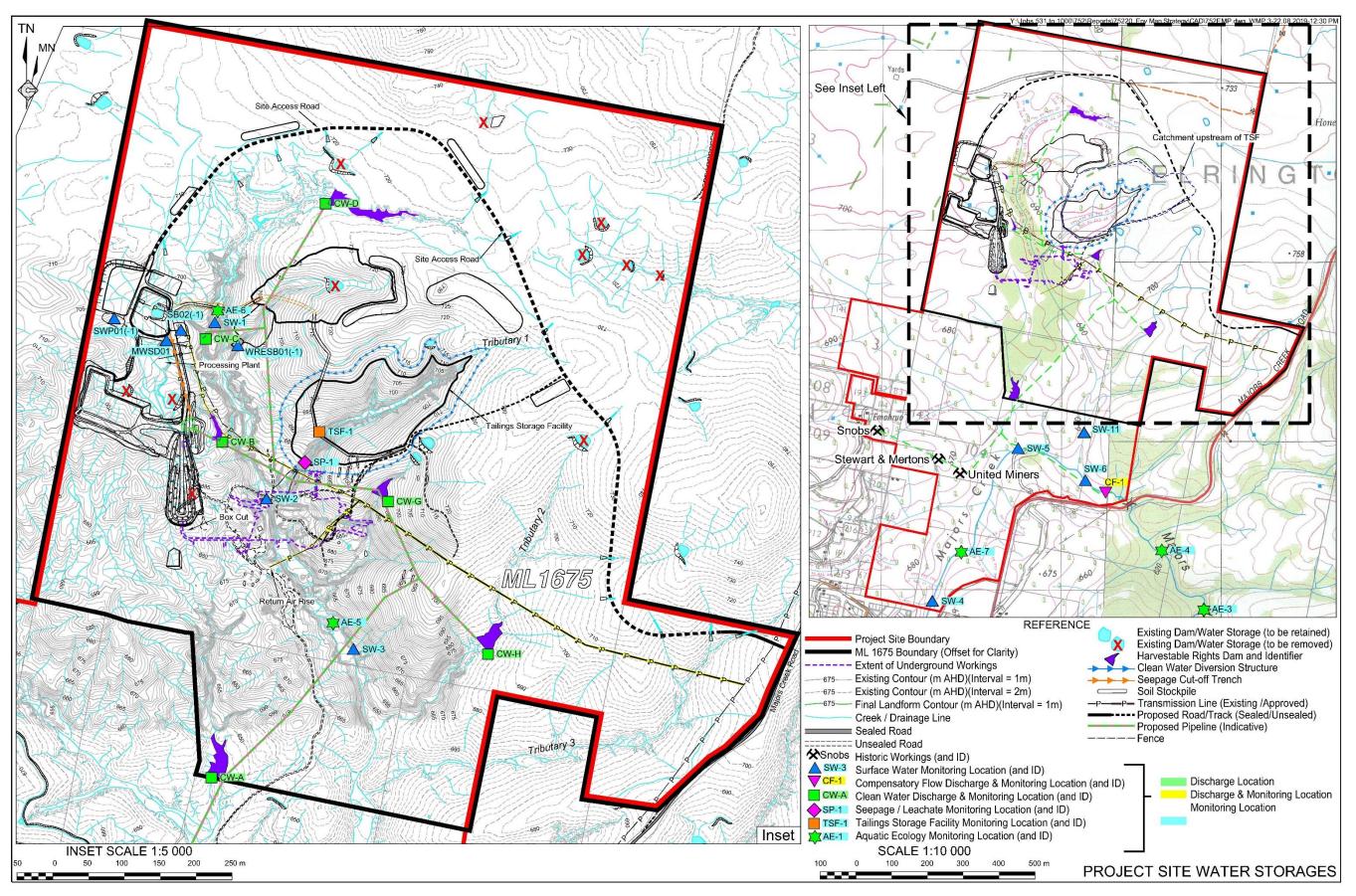


Figure 2 Project Site Water Storages

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Document No. DGM-0405-0806-EMS

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The surface water quality monitoring program is summarised in **Table 7**. Monitoring locations are presented on **Figures 1** and **2** and relevant trigger values are presented in **Tables 8**, **9** and **10**.

**Table 7 Surface Water Monitoring Program** 

Monitoring Location	Monitoring Frequency <sup>1</sup>	Hd	Electrical Conductivity	Dissolved Oxygen	REDOX <sup>2</sup>	Temperature	Biological Oxygen Demand	Turbidity	Total Suspended Solids (TSS)	Major cations <sup>2</sup>	Major anions²	TKN <sup>2</sup>	TON <sup>2</sup>	Ammonia Nitrogen	Phosphorus²	Metals²	Xanthates	Oil and Grease	Alkalinity (CaCO <sub>3</sub> )	Hardness	Flow Rate
CF-1	Monthly	R/C, L	R. L	F	F	F	L		L	L	L	L	L	L	L	L	L	L	L	L	М
SP-1	Weekly when pumping	R/C, L	R. L	F	F	F	L		L	L	L	L	L	L	L	L	L	L	L	L	М
SP-2	Monthly	F	F	F	F	F															
SP-3	Monthly	F	F	F	F	F															
SP-4	Monthly	F	F	F	F	F															
SW-1	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-2	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	D
SW-3	SW-3 Monthly		F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-4	SW-4 Monthly		F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	D
SW-5	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-6	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	D
SW-7	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-8	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-8	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-9	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-10	Monthly	F, L	F, L	F	F	F	L	F	L	L	L	L	L	L	L	L	L	L	L	L	
SW-11	-																				D
TSF-1	Weekly	R/C, L	R. L	F	F	F			L	L	L	L	L	L	L	L	L	L	L		М
WRESB01	Monthly / Weekly (F)	F, L	F, L	F	F	F	L		L	L	L	L	L	L	L	L	L	L	L	L	
month monit																					
Major Major	ote 2: REDOX = Oxygen reduction potential TON = Total Oxidised Nitrogen, Major cations = sodium, potassium, calcium, Major anions = chloride and sulphate, TKN = Total Kjeldahl Nitrogen.  TON = Total Oxidised Nitrogen, Phosphorous = total phosphorus and reactive phosphorus, Metals = Al, As, Cd, Cr, Co, Cu, Fe, Hg, Mg, Mn, Ni, Pb, Zn, TKN = Total Kjeldahl Nitrogen.																				
L = Lal	d measurement M = Meter oratory measurement D = Data logger Real time/continuous measurement																				

Table 8 Surface Water Quality Trigger Values – Surrounding Waters

Analyte	Unit	Trigger Value		
pH value	рН	6.5-8.5		
Oil and Grease	mg/L	>10		
Total suspended solids	mg/L	>50		
Electrical Conductivity	μS/cm	>450		
Bicarbonate Alkalinity as CaCO <sub>3</sub>	mg/L	>85		
Carbonate Alkalinity as CaCO <sub>3</sub>	mg/L	>1.0		
Hydroxide Alkalinity as CaCO₃	mg/L	>5		
Total Alkalinity as CaCO₃	mg/L	>85		
Chloride	mg/L	>75		
Sulphate	mg/L	>25		
Calcium	mg/L	>35		
Magnesium	mg/L	>15		
Sodium	mg/L	>25		
Potassium	mg/L	>2.5		
Nitrate as N	mg/L	>0.65		
Nitrite as N	mg/L	>0.02		
Total Oxidized Nit. As N	mg/L	-		
Total Phosphorus as P	mg/L	>0.20		
Arsenic	mg/L	>0.013		
Cadmium	mg/L	>0.0016²		
Chromium	mg/L	>0.001		
Copper	mg/L	>0.0099²		
Lead	mg/L	>0.063²		
Mercury	mg/L	>0.0006		
Nickel	mg/L	>0.078²		
Zinc	mg/L	>0.057²		

Groundwater levels and water quality monitoring requirements are listed in **Table 9**. Monitoring locations are presented on **Figure 1** and relevant trigger values are presented in **Tables 10** and **11**.

Table 9 Groundwater Monitoring Program - On Site

	Table	9 Gro	ound	dwat	er Mo	nitor	ing	Prog	ram	– Or	1 Site	е					
Bore	Monitoring Frequency <sup>1</sup>	Standing Water Level <sup>2</sup>	рН	Electrical Conductivity	Dissolved Oxygen	REDOX <sup>3</sup>	Temperature	Major cations <sup>3</sup>	Major anions³	TKN³	TON <sup>3</sup>	Ammonia Nitrogen	Phosphorus <sup>3</sup>	Metals³	Kanthates	Alkalinity (CaCO <sub>3</sub> )	Pumping Rate
Project Site M	lonitoring Bores																
DRWB01	Monthly/quarterly	D	F, L	F, L	F	F	F	L	L	L	L	L	L	L			
DRWB02	Monthly/quarterly	D	F, L	F, L	F	F	F	L	L	L	L	L	L	L			
DRWB03	Monthly/quarterly	D															
DRWB04	Monthly/quarterly	D	F, L	F, L	F	F	F	L	L	L	L	L	L	L			
DRWB05	Annual	М					ı	Dry	/ since	cons	tructi	on		ı			
DRWB06	Monthly/quarterly	D	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		
DRWB07	Monthly/quarterly	D	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		
DRWB08	Monthly/quarterly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		
DRWB09	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		М
DRWB10	Monthly/quarterly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		М
DRWB11	Monthly/quarterly	М															
DRWB12	Monthly/quarterly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		
DRWB13	Monthly/quarterly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		
Deep Granodi	orite Aquifer			•		•		•		•	•		•		•		
MW01	Monthly/quarterly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L		
Tailings Storag	ge Facility Monitori	ng Bo	res	•		•		•		•	•		•		•		
TSFWB01	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L	L	
TSFWB02	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L	L	
TSFWB03	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L	L	
TSFWB04	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L	L	
TSFWB05	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L	L	
TSFWB06	Weekly/monthly	М	F, L	F, L	F	F	F	L	L	L	L	L	L	L	L	L	
Historic Work	ings																
Snobs	Monthly/quarterly	М	F	F, L	F, L	F	F	L	L	L	L	L	L	L		L	М
Stewart and Mertons	Monthly/quarterly	М	F	F, L	F, L	F	F	L	L	L	L	L	L	L		L	М
United Mines	Monthly/quarterly	М	F	F, L	F, L	F	F	L	L	L	L	L	L	L		L	М
Registered Pri	ivate Bores - < 3km																
GW100156	Quarterly/annual	М	F	F, L	F, L	F	F	L	L	L	L	L	L	L		L	
GW110023	Quarterly/annual	М	F	F, L	F, L	F	F	L	L	L	L	L	L	L		L	
GW101854⁵	Quarterly/annual		F	F, L	F, L	F	F	L	L	L	L	L	L	L		L	
and su	oring Frequency (Standir Irface water quality mon ta logger (Six-hourly me)	itoring i	s to b						tory W	ater Q	uality)	. Whe	re prac	cticable	e, grou	ndwat	.er

Note 2: D = Data logger (Six-hourly measurements)

M = manual measurement

Note 3: REDOX = Oxygen reduction potential

Major cations = sodium, potassium, calcium

Major anions = chloride and sulphate

TKN = Total Kjeldahl Nitrogen

TON = Total Oxidised Nitrogen

Phosphorous = total phosphorus and reactive phosphorus

Metals = AI, As, Cd, Cr, Co, Fe, Hg, Mg, Mn, Ni, Pb, Zn

Note 4: F = field measurement

L = Laboratory measurement

Note 5: Bore equipped with a pump. Not suitable for monitoring of standing water levels.

Note 6: Landholder has requested standing water level monitoring only.

Note 7: Nested bore or adjacent bores. Both bores to be monitored.

Table 10 Groundwater Quality Trigger Values – Project Site and Surrounds

Parameter	Unit	Initial Trigger Value		
pH value	рН	6.5-8.5		
Electrical Conductivity	μS/cm	>1300		
Dissolved Oxygen	%sat	-		
REDOX	mV	-		
Bicarbonate Alkalinity as CaCO <sub>3</sub>	mg/L	>200		
Carbonate Alkalinity as CaCO <sub>3</sub>	mg/L	>0.1		
Hydroxide Alkalinity as CaCO <sub>3</sub>	mg/L	>0.1		
Total Alkalinity as CaCO <sub>3</sub>	mg/L	>200		
Chloride	mg/L	>300		
Sulphate	mg/L	>110		
Calcium	mg/L	>110		
Magnesium	mg/L	>50		
Sodium	mg/L	>60		
Potassium	mg/L	>1.8		
Nitrate as N	mg/L	>3.2		
Nitrite as N	mg/L	>0.02		
Total Oxidized Nit. As N	mg/L	>3.2		
Total Phosphorus as P	mg/L	>0.71		
Aluminium	mg/L	-		
Arsenic	mg/L	>0.002		
Cadmium	mg/L	>0.0005		
Chromium	mg/L	>0.001		
Copper	mg/L	>0.0007		
Iron	mg/L	-		
Lead	mg/L	>0.0012		
Mercury	mg/L	>0.0002		
Nickel	mg/L	>0.003		
Zinc	mg/L	>0.057		
Xanthate	mg/L	-		

Table 11 Groundwater Level Trigger Values – Non Project-related Bores

Parameter	Aquifer	Trigger Value					
	Granodiorite or Regolith	Standing water level below 10 <sup>th</sup> percentile					
Standing water level in non-Project related bores	Alluvial Aquifer	measured level					
Telateu poles	All aquifers – actively used bores	Standing water level below intake during normal operation of the bore					

#### 6. EVALUATION OF COMPLIANCE

Following each monitoring program, a monitoring report will be prepared by either the relevant specialist consultants, monitoring contractor or Company personnel. Where appropriate, this may be limited to a *Monthly Environmental Monitoring Report* to be prepared by the Environmental Supervisor.

The Environmental Supervisor, or their delegate, will review all reports and associated monitoring results against the relevant trigger values and implement the relevant actions identified in the Management Plans in the event that exceedances of the trigger values are identified.

# 7. CORRECTIVE AND PREVENTATIVE ACTIONS

Where an exceedance of the relevant trigger values are observed the Environmental Supervisor may identify a range of Corrective and preventative actions. Alternatively, such actions may be an outcome of the identified action described above.

Corrective and/or preventative actions will be assigned to relevant Company personnel. Actions will be communicated by the Mining Manager or the Environmental Supervisor internally through planning meetings and toolbox talks and outstanding actions will be monitored for their effectiveness upon completion.

A copy of the investigation report and regular updates on the status of the identified corrective and/or preventative actions will be provided to the relevant government agencies and, if required, any complainant. In addition, a copy of all reports will be included in the Annual Review.

#### 8. INCIDENT REPORTING

The Company shall notify the relevant government authorities of any incident associated with the Mine as soon as practicable after the Company becomes aware of the incident. Within 7 days of the date of the incident, the Company will provide the relevant agencies with a detailed report on the incident.

# 9. COMPLAINTS HANDLING AND DISPUTE RESOLUTION

#### 9.1 COMPLAINTS HANDLING

The Company has established the following methods by which complaints may be received and subsequently recorded and responded to in a timely manner.

- Directly via the 24-hour, 7 day per week Community Information Line (1800 732 002). This number is advertised widely in the local media, on signage at the Project Site entrance and on the Project web site.
- Directly via a dedicated email address (DGM.Community@divminerals.com.au) which will be advertised in a similar manner to the Community Information Line.
- Directly via the Project website (www.divminerals.com.au).
- Indirectly via the relevant government agencies.

All complaints will be registered in a database and responded to within one business day from receipt of the complaint. The following information will be recorded (where it can be reasonably obtained) in the database.

- The date / time the complaint was made.
- Complainant's name.
- Complainant's contact details, including telephone number and/or email address.
- The nature of the complaint.

The nature of the response will depend on the nature and source of the complaint but will include one or more of the following actions.

- 1. Liaison with the complainant to ascertain all details, to identify the nature and source of the complaint and to provide supplementary details for the log. Details recorded in the log will include:
  - the date and time of the complaint;
  - the method by which the complaint was made;
  - details of the person making the complaint;
  - the nature of the complaint;

Dargues Gold Mine

- action taken in relation to the complaint including any follow-up contact; and
- if no action, the reason why.
- 2. As appropriate, the initiation of monitoring or other investigations to verify or otherwise the exceedance or non-compliance with approval or licence condition(s).
- 3. Initiation of appropriate changes in operating practices or procedures.
- 4. Conducting a follow-up interview with the resident to determine their level of satisfaction with the response and the resultant outcome.

A copy of the complaint report sheet will be supplied to the complainant, if requested. The complaints database will be updated on the Company's website monthly and a summary of the complaints received in each 12 month period will also be included in each *Annual Environmental Management Report*. The Environmental Supervisor will be responsible for the recording of the complaint, response action requirements and updating of the database and website.

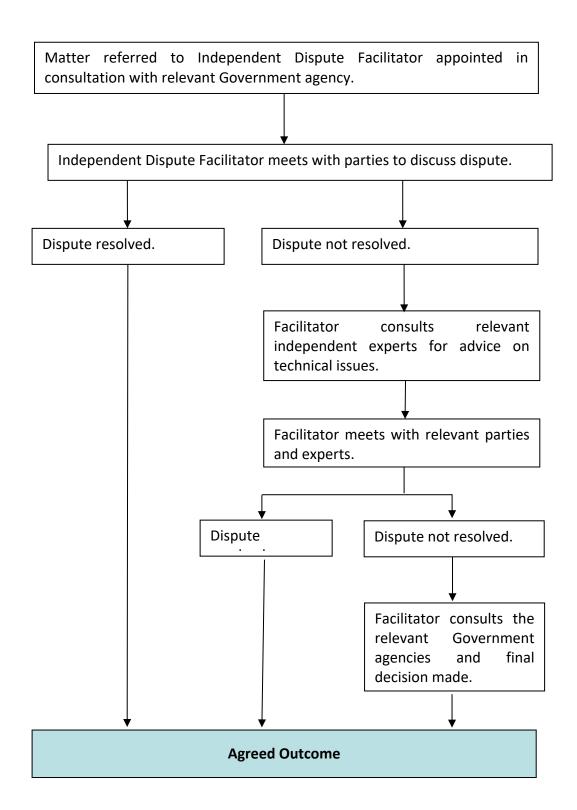
# 9.2 DISPUTE RESOLUTION

In the event that any complainant does not consider that the response or reactions adequately address their concerns, the following procedure will be adopted.

- 1. A meeting will be convened with the Mining Manager or other senior Company personnel to seek resolution of the matter. The complainant will be provided with a written response, detailing the results of investigations undertaken and the agreed actions to be taken regarding the measures to be implemented.
- 2. On implementation of the nominated measures, a further meeting will be convened to seek advice of satisfaction, or otherwise, regarding the outcomes.

If, after 21 days following Steps 1 and 2, the complainant believes the matter remains unresolved and no further agreement can be reached as to additional measures to be undertaken, the matter will be referred to an independent Dispute Facilitator for independent review (Figure 3).

Figure 3 Independent Dispute Resolution Process



Dargues Gold Mine

# 10. EMERGENCY RESPONSE

A detailed Emergency Response Plan will be developed for the Project in consultation with the relevant emergency services (Police, Ambulance, Fire Service and Rural Fire Service).

The Plan will include detailed response plans for the following, both on surface and underground.

- Fire emergency.
- Medical emergency.
- Structural stability emergency (both underground and Tailings Storage Facility related).
- Major chemical spill emergency.

The Environmental Supervisor will be responsible for the implementation and updating of the emergency response procedure.

# 11. STAKEHOLDER AND COMMUNITY CONSULTATION

The Company will undertake consultation with all relevant stakeholders to allow for consideration of all reasonable views and timely feedback to any issues that are raised. The approach to be taken would be constructive to ensure that the required environmental management of the Project meets with expectations described in the *Environmental Assessment* and subsequent review of any approvals. All personnel will be responsible for ensuring that any issues raised are dealt with through the appropriate pathways as stated by the relevant Management Plans.

Relevant stakeholders include, but are not limited to, the following.

- Department of Planning, Industry and Environment.
- Environment Protection Authority.
- Queanbeyan Palerang Regional Council.
- Eurobodalla Shire Council.
- Registered Aboriginal Parties.
- Dargues Gold Mine Community Consultative Committee.
- Local community.

Communication, consultation and information dissemination strategies will include the following.

- Regular community newsletters and meetings.
- Regular meeting with the Dargues Gold Mine Community Consultative Committee.

- Individual meetings on request with surrounding landholders and interested community groups.
- Placement of all relevant environmental management monitoring and other relevant documents on the Project website.

# 12. ROLES AND RESPONSIBILITY

The roles and responsibility for the EMS are listed in **Table 12**.

Table 12 Roles and Responsibility

ROLES	RESPONSIBILITY						
General Manager	Will ensure adequate resources are available to enable the implementation of this Strategy and all Environmental Management Plans.						
HSEC Superintendent	Accountable for the overall environmental performance of the Mine, including the following.  • Key performance outcomes of this Strategy.  • Evaluation of Compliance.  • Corrective and Preventative Actions.  • Incident Reporting.  • Dispute Resolution.  • Review of this Strategy.  • Consultation Strategies.						
Environmental Advisor	<ul> <li>Ensure the implementation of this Strategy, including the following.</li> <li>Ensure employees are competent through training and awareness programs.</li> <li>Monitoring.</li> <li>Corrective Action and Preventative Action in consultation with the Mine Manager.</li> <li>Complaints handling.</li> <li>Consultation Strategies.</li> </ul>						
All personnel	Ensure compliance with this EMS including consultation strategies approved by the Environmental Supervisor.						

# 13. COMPETENCE TRAINING AND AWARENESS

All personnel shall undergo environmental management awareness training. Environmental management shall be a component of the competency based site induction program. The following areas will be covered in the induction.

- Noise management.
- Blast management.
- Air quality management.

Dargues Gold Mine

- Water management, including hydrocarbon and chemical management.
- Biodiversity management.
- Aboriginal heritage management.
- Waste management.
- Traffic management.
- Reporting of incidents.
- Community consultation.

The HSEC Superintendent shall be responsible for ensuring the appropriate Environmental Management training is included in the induction.

# 14. REVIEW

In accordance with Condition 5(4) of MP10\_0054 MOD4, this Strategy will be reviewed and, if required, revised within 3 months of:

- the submission of an annual review under Condition 5(3);
- the submission of an incident report under Condition 5(6);
- the submission of an audit report under Condition 5(8); and
- any modification to the conditions of MP10\_0054.

This review will include the adequacy of strategies, plans and programs as required under the Project Approval. Recommendations for appropriate measures or actions to improve the environmental performance of the Project and/or any assessment, plan or program will be incorporated into this Strategy.

# **Environmental Management Strategy**

**BIG ISLAND MINING PTY LTD** 

Document No. DGM-0405-0806-EMS

Dargues Gold Mine

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