



KARARA MINING LIMITED

Karara Mining Limited

Groundwater Licence Operating Strategy

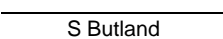
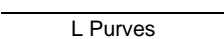
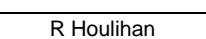
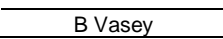
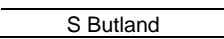
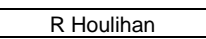



GWL171229

The Karara Iron Ore Project

CORP-EN-REP-1022

31 March 2025

CORP-EN-REP-1022- KARARA MINING LIMITED

REV	DESCRIPTION	ORIG	REVIEW	APPROVED	DATE
0	Issued for Use	 S Butland	 L Purves	 R Houlihan	11-Oct-13
1	Issued for Use	 B Vasey	 S Butland	 R Houlihan	19-April-16
2	Issued for Use	 J Farmer	 M Chen	 M Chen	31-Mar-25

DEPARTMENT OF WATER AND ENVIRONMENT REGULATIONS

REV	DESCRIPTION	APPROVER	DATE
0	Issued for use	 Sheila Trevisan Regional Director Mid West Gascoyne	16/6/2025

CONTENTS

1	INTRODUCTION.....	1
2	SUMMARY.....	2
3	DEFINITIONS.....	3
4	SCHEME DESCRIPTION.....	4
5	SUMMARY OF CURRENT LICENCES.....	9
6	WATER MANAGEMENT INFRASTRUCTURE.....	10
7	OPERATING RULES.....	11
8	MONITORING.....	12
9	ADMINISTRATIVE REQUIREMENTS.....	14
10	ENVIRONMENTAL REQUIREMENTS.....	15
11	CONTINGENCY PLANS.....	16
12	WATER USE EFFICIENCY.....	17
13	REFERENCES.....	18

LIST OF FIGURES

Figure 1: Production and Monitoring Bore Location (GWL171229).....	8
--	---

LIST OF TABLES

Table 1: Locations of Activity.....	1
Table 2: Summary of Monitoring Commitments.....	2
Table 3: Definitions.....	3
Table 4: Summary of Abstraction Details.....	5
Table 5: Summary of Available Monitoring Bores, Recovery Bores.....	5
Table 6: Summary of Current Groundwater Licences.....	9
Table 7: Summary of Current Operating Flow Meters.....	11

Table 8: Summary of Groundwater Monitoring Requirements 13

1 INTRODUCTION

Karara Mining Limited (KML) is fully owned by the Chinese steel producer Anshan Iron and Steel Group Corporation (AnSteel). KML manages the Greater Karara Project (the Project), which comprises of the Karara Iron Ore Project (KIOP), Mungada Iron Ore Project (MIOP) and Hinge Iron Ore Project (HIOP). KIOP involves mining of magnetite ore deposits at Mt Karara, while MIOP and HIOP involved mining of hematite ore deposits at Terapod, Blue Hills North and Hinge ore deposits.

The Project is located approximately 90 km east of the town of Morawa and 220 km inland from the Port of Geraldton, Mid-West Gascoyne, Western Australia. Access to site is either inland through Perenjori via Rothsay Road or from the coast through Morawa via Mungada Road.

Abstraction bores are located in tenements M59/644, M59/649 and M59/721. There are also three wet TSF recovery bores (operating as needed) located in tenements G59/38 and M59/645. The water will be utilised at the locations of activity shown in Table 1.

Table 1: Locations of Activity

Planned Activity	Location of Activity
Dewatering for mining purposes	G59/38, M59/645-I, M59/644-I, M59/649-I, M59/721-I
Dust suppression for mining purposes	G59/38, M59/644-I, M59/645-I, M59/649-I, M59/721-I, M59/730, L59/108, L59/76, L59/80, L59/98, L59/99
Earthwork and construction purposes	G59/38, M59/644-I, M59/645-I, M59/649-I, M59/721-I, M59/730, L59/108, L59/76, L59/80, L59/98, L59/99
Mineral ore processing and other mining purposes	G59/38, M59/644-I, M59/645-I, M59/649-I, M59/721-I, M59/730, L59/108, L59/76, L59/80, L59/98, L59/99

This Groundwater Licence Operating Strategy (GLOS) has been prepared in accordance with the Department of Water and Environmental Regulation (DWER) *Operational policy 5.08: Use of operating strategies in the water licensing process* (DWER, 2011). The licensee will be required to comply with the GLOS on approval by the DWER and any modifications to the GLOS that are made and approved during the term of the licence.

2 SUMMARY

The monitoring and other commitments proposed in this Operating Strategy are summarised below:

Table 2: Summary of Monitoring Commitments

KML Commitments	
1	KML will comply to the commitments contained within this groundwater operating strategy.
2	Monitoring will include; meter readings, water levels, pH and salinity as EC as described in Table 7.
3	Major components analysis will be conducted annually for all operating/equipped bores for the parameter suite outlined in the DWER Operating policy no. 5.12 – <i>Hydrogeological reporting associated with a groundwater well licence</i> .
4	Annual aquifer review will be submitted by the 31 st of August each year.
5	Triennial aquifer review will be submitted by the 31 st of August 2026 and every three years thereafter.
6	Reports will be prepared in accordance with the DWER (2007) <i>Guidelines for Hydrogeological Reporting associated with a Groundwater Well Licence</i> .
7	Each production bore will be fitted with a cumulative water meter of a type approved under the <i>Rights in Water and Irrigation (Approved Meters) Order 2009</i> .
8	Water meters will be installed in accordance with the provisions of the document <i>Guidelines for Water Meter Installation (2009)</i> before any water is taken.
9	The accuracy of the water meters will be maintained within plus or minus 5% of the volume metered, in field conditions.
10	Water meters replaced during the licence period will be documented in the annual aquifer review.

3 DEFINITIONS

Table 3: Definitions

Abbreviation	Definition
5C	Licence to abstract groundwater
26D	Licence to construct or alter bores
AnSteel	Anshan Iron and Steel Group
BIF	Banded Ironstone Formation
DSO	Direct Shipping Ore (Hematite)
DWER	Department of Water and Environmental Regulation
EC	Electrical Conductivity
GD	Ground Disturbance
GLOS	Groundwater Licence Operating Strategy
GWL	Groundwater Well Licences
HDPE	Heavy duty polyethylene
HIOP	Hinge Iron Ore Project
KIOP	Karara Iron Ore Project
KML	Karara Mining Limited
kL	Kilolitre
m/d	Meters per day
m ³ /d	Cubic meter per day
MIOP	Mungada Iron Ore Project
Mt	Million tons
mtpa	Million tons per annum
Project	Greater Karara Project
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i>
RL	Reference level
TDS	Total Dissolved Solids
TSF	Tailing Storage Facility
uPVC	Polyvinyl Chloride

4 SCHEME DESCRIPTION

The economical deposits at the Project are both the hematite deposits located at Blue Hills North, Terapod South, Terapod West and Hinge and the more extensive magnetite deposit that is mined via open pit (Karara). Processing of the hematite consisted of crushing and screening before it is transported to Geraldton, whereas the magnetite deposit requires crushing and processing to separate the magnetite concentrate from the impurities. The project is designed to produce approximately 8 mtpa of dry magnetite concentrate and any coincidental DSO from an overall designed mine life of 40 years based on an estimated magnetite reserve of 522 Mt and an estimated resource of 1962 Mt (KML, 2009).

Mining of Karara magnetite pit commenced in 2010 at a RL of 410 meters and is expected to get as deep as -2 mRL with the first water encountered at the 286 mRL, approximately eight years after the start of mining. Water-bearing fractures are expected to extend down to about 250 mRL. Baseline hydrogeological studies have predicted that there will be no substantial groundwater inflows to the pit below 250 mRL (Rockwater, 2009).

The Blue Hills North project started in 2011 and took approximately two years to complete. The Terapod project commenced in 2012 and also took approximately two years to complete both Terapod South and Terapod West. Terapod South and West pits intersected the water table at the 320 mRL between six months to a year after mining in each pit commenced.

The primary aquifer at the Project occurs through distinct fracturing within the BIF but also as a result of the secondary porosity induced by the iron enrichment process. The complexity of folding and faulting has contributed to the intricacy of these fractures and joint systems. The primary aquifer has a very low primary permeability but due to the deformation secondary permeability is in the order of 0.5 to 10 m/d.

Bore yields in the Project are highly variable. Recommended abstraction rates range from 179 m³/d at MKW318 to 1,700 m³/d at Terapod sump, with groundwater quality ranging from fresh to hypersaline. The bores will be operated at sustainable rates during the life of the project. The sustainable rates will be determined by long-term extraction and monitoring. Estimated yields are given in Table 4 and are based on 48-hour pumping tests, airlift yields and medium or long-term yields from operating production bores.

A large number of groundwater holes have been drilled at the Project and some of them have been completed as production or monitoring bores. Details of the production and monitoring bores are outlined in Table 4 and Table 5, and locations of the bores are shown in Figure 1.

Table 4: Summary of Abstraction Details

GWL171229 - Karara Mining Limited					
Bore ID	Status	mE (GDA94_50)	mN (GDA94-50)	Tenement	Estimated Yield (m ³ /d)
MKW310	Production	479505	6773272	M59/644	500
TPD1001	Production	487826	6777819	M59/649	1,469
MKW311	Production	481451	6774834	M59/721	700
Terapod Sump	Sump	N/A	N/A	M59/649	1,700
Karara Sump	Sump	N/A	N/A	M59/644	800
Wet TSF interception trench	Sump	478289	6769308	M59/645	336
MKW318	Production	479292	6772929	M59/644	179
MKW319	Production	481236	6774356	M59/644	181
Blue hills North Pit Sump	Sump	482609	6775478	M59/721	397

Table 5: Summary of Available Monitoring Bores, Recovery Bores

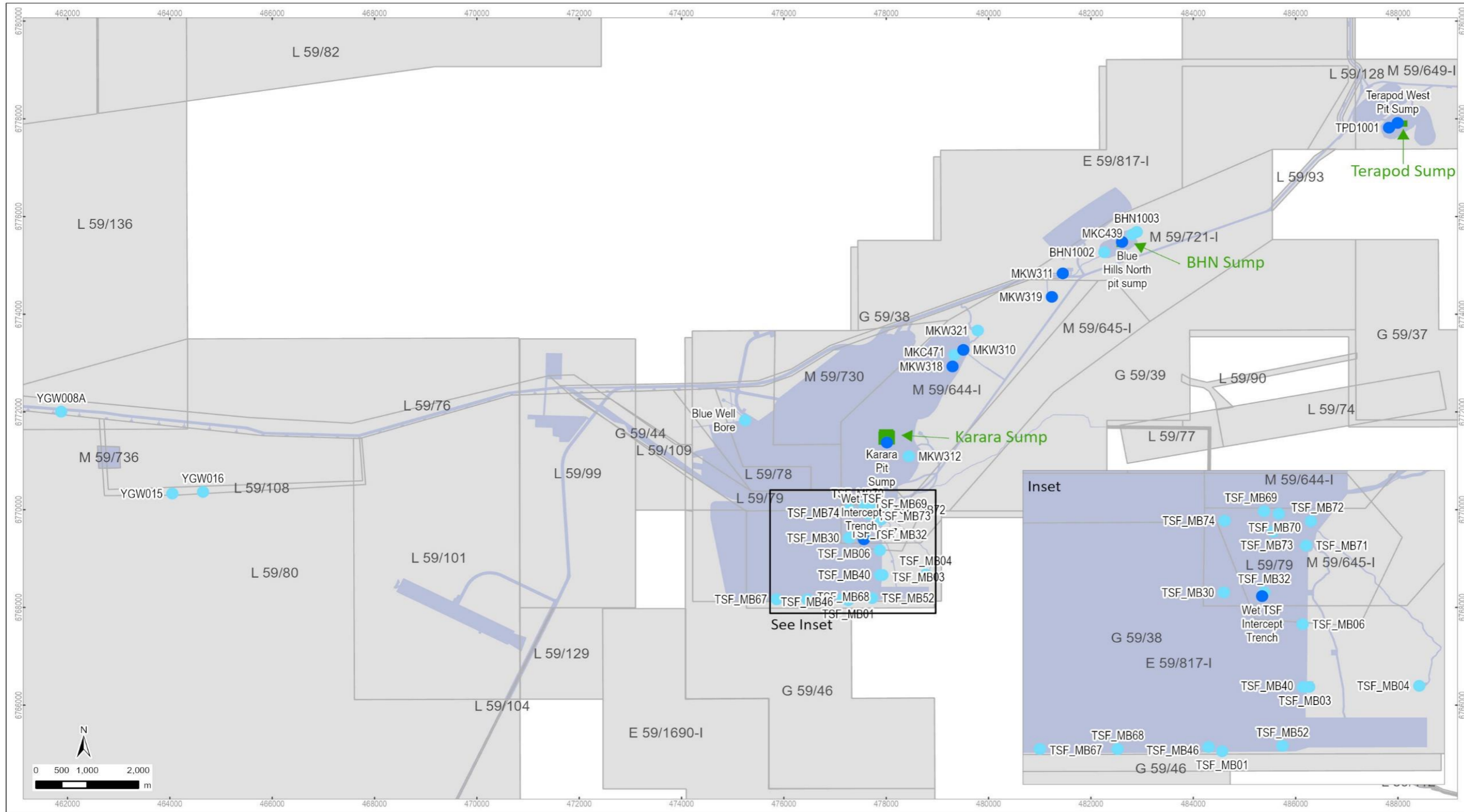
GWL171229 - Karara Mining Limited				
Bore ID	mE	mN	Tenement	Comments
MKW312	478439	6771093	M59/644	Compliance monitoring of water levels at Karara pit
MKW321	479787	6773658	M59/644	Compliance monitoring of water levels at Karara pit
MKC471	479329	6773170	M59/644	Compliance monitoring of water levels at Karara pit
Blue Well Bore	475238	6770600	G59/38	Monitoring the effect of dewatering west of Karara Hill
MKC439	482808	6775633	M59/721	Compliance monitoring of water levels at BHN pit
BHN1002	482261	6775269	M59/721	Compliance monitoring of water levels at BHN pit
BHN1003	482896	6775685	M59/721	Compliance monitoring of water levels at BHN pit
YGW008A	461876	6772004	L59/80	Regional groundwater monitoring
YGW015	464050	6770328	L59/80	Regional groundwater monitoring
YGW016	464646	6777819	L59/80	Regional groundwater monitoring
TSF_MB01	477258	6768146	G59/38	Monitoring of water balance for Wet TSFs

**KARARA MINING LIMITED
KARARA CORPORATE STANDARD
GROUNDWATER LICENCE OPERATING STRATEGY GWL171229**

GWL171229 - Karara Mining Limited				
Bore ID	mE	mN	Tenement	Comments
TSF_MB03	477926	6768663	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB04	478771	6768672	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB05	477769	6769168	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB06	477875	6769167	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB07	477768	6768666	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB08	477657	6768405	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB09	477261	6768458	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB11	477428	6769366	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB12	477584	6769175	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB32	477580	6769423	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB33	477736	6769421	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB40	477879	6768663	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB45	477345	6768183	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB46	477154	6768181	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB52	477721	6768189	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB62	477925	6769420	M59/645	Monitoring of water balance for Wet TSFs Recovery bore for Wet TSFs
TSF_MB63	478114	6768940	G59/38	Monitoring of water balance for Wet TSFs Recovery bore for Wet TSFs
TSF_MB64	478198	6768277	G59/38	Monitoring of water balance for Wet TSFs Recovery bore for Wet TSFs
TSF_MB65	477807	6768199	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB66	476755	6768282	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB67	475859	6768164	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB68	476456	6768164	G59/38	Monitoring of water balance for Wet TSFs
TSF_MB69	477579	6770074	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB70	477684	6770054	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB71	477901	6769799	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB72	477939	6769996	M59/645	Monitoring of water balance for Wet TSFs
TSF_MB73	477650	6769913	M59/645	Monitoring of water balance for Wet TSFs

KARARA MINING LIMITED
KARARA CORPORATE STANDARD
GROUNDWATER LICENCE OPERATING STRATEGY GWL171229

GWL171229 - Karara Mining Limited				
Bore ID	mE	mN	Tenement	Comments
TSF_MB74	477277	6769999	M59/645	Monitoring of water balance for Wet TSFs



Karara Mine Iron Ore Project

Production and Monitoring Bores (GWL171229)



- Production Bore
- Monitoring Bore
- Current Mining Proposal Area
- Reporting Tenement
- Production Sump



Ref: K0084 F6 Proj: GDA94 MGAZ50
 Version: B Scale: 1:100,000
 3 February 2025 Size: A4

Figure 1: Production and Monitoring Bore Location (GWL171229)

5 SUMMARY OF CURRENT LICENCES

The Project is located within the Gascoyne Groundwater Proclamation Area under the *Rights in Water and Irrigation Act, 1914* (RIWI Act). Therefore, licences under section 26D (licence to construct or alter bores) and section 5C (licence to abstract groundwater) are required for the Project.

Abstraction to take water is licenced under groundwater licence GWL171229 with an annual water entitlement of 1,000,000 kL (Table 6). Water allocation under GWL171229 is for dust suppression including but not limited to earthworks and construction purposes, exploration and drilling operations, dewatering for mining purposes and ore processing.

Table 6: Summary of Current Groundwater Licences

DWER Licence	Entitlement (kL)	Licence
GWL171229	1,000,000	Karara Mining Limited

6 WATER MANAGEMENT INFRASTRUCTURE

Production bores are located either along mining pit perimeters or strategically placed inside the pit crest to target high flow zones. Currently five production bores and four sumps are set up for operation across all pits and are operated as necessary to provide the site with water or pit dewatering. Bores are typically drilled to a maximum depth of between 50 to 160 meters depending on their location and target aquifer and constructed in either steel or uPVC with screened/slotted sections across the aquifer to be dewatered. Abstraction is facilitated by the use of submersible electric bore pumps and powered by diesel generators.

Dewatering sumps are intended to be used during the final stages of pit dewatering when the use of abstraction bores fail to maintain dry mining conditions. Dewatering sumps typically consist of excavated trenches up to 4 meters below floor level against the pit perimeter where groundwater flow is encountered. Dewatering sumps will be equipped with a diesel-powered centrifugal pump and associated pipeline.

Water conveyance infrastructure consists of pipelines, transfer dams and submersible pumps. Approximately 40 km of pipeline has been installed to transport water from the abstraction point to its final location. Pipeline size and routes are designed to:

- Optimise the hydraulic performance in combination with pump duties;
- Comply with Ground Disturbance Permit (GD) application requirements; and
- Incorporate flexibility to change with mining requirements.

Pipe material is predominantly black, co-extruded HDPE compliant with pipe work and valve specifications AS/NZS 1477-2006. Pressure ratings range from PN6.3 to PN25, depending on application, location and diameter of the pipe.

Five transfer dams are located around site to provide storage and a collection point for dust suppression. Three of the transfer dams are installed with a portable standpipe and a diesel powered centrifugal pump. The design and size of each transfer dam varies on its location, but generally each transfer pond is approximately two meters in depth and lined with 1.5 - 2.0 mm HDPE liner. Water storage areas are safeguarded with fencing and egress to prevent harm to native fauna.

Five new deep TSF monitoring bores (TSF MB62 – MB66) were installed in April 2023, three (TSF MB62 – MB64) of which were constructed to be also used as recovery bores for extraction of excessive groundwater to control seepage and groundwater mounding in vicinity of the Wet TSF 2A as needed. Those bores were drilled to a depth of up to 52.0m below top of casing (ToC) and completed with 100 mm Class 9 uPVC casing, with 12 m of machine-slotted casing (1 mm aperture) set against water bearing zones (Rockwater, 2023).

7 OPERATING RULES

Bores will be operated within their pumping capacities determined by test-pumping and subsequent monitoring data. Total annual extraction will be within the licence limit. There will be little seasonal variation in the pattern of draw, except for a small increase in the summer months when more water will be needed for dust suppression. Water meters will be installed at each water source and maintained in good working condition and calibrated as per the manufacturer's specifications (Table 7).

Table 7: Summary of Current Operating Flow Meters

Sampling Site	Flow Meter ID Number	Meter Type	Meter Manufacturer	Installation Date
TPD1001	21958019	Turbine	Triangle	25/11/2023
MKW311	19168841	Turbine	Triangle	07/02/2017
Wet TSF interception trench	20214592	Turbine	Triangle	29/09/2022
Karara Pit Sump	188021815	Ultrasonic	ARAD	16/07/2020
	17000554	Turbine	Triangle	19/11/2022

Note: The above list is the current operating abstraction points. Additional locations may be installed with a flow meter. Any changes will be reported in the subsequent annual aquifer review.

Site water usage will comply with KML Dust Management Procedure CORP-EN-PRO-1005 and summarised below;

- Low salinity water (<10,000 mg/L TDS) will be used for camp water supplies, processing ore, dust suppression and mineral exploration drilling.
- High salinity water (>10,000 but <15,000 mg/L TDS) will be used for road maintenance, dust suppression and processing ore.
- High salinity water (>15,000 mg/L TDS) will only be used for dust suppression where it can be controlled and prevented from adversely affecting native vegetation.

8 MONITORING

The licensee will carry out, or arrange to have carried out, the groundwater monitoring. The monitoring programme outlined below (Table 8) will be adopted to determine the impact of groundwater abstraction on the aquifer.

- Pumpage – Measure and record monthly to the nearest kiloliter the volume pumped from each operating bore using a cumulative flow meter;
- Water Level – Record to the nearest centimeter in all bores;
- Salinity as EC, pH – Record for all operating/equipped bores using calibrated equipment; and
- Major Components Analysis – Sample and conduct annually for all operating/equipped bores for the parameter suite outlined in the DWER Operating policy no. 5.12 - Hydrogeological reporting associated with a groundwater well licence, annually. The lab analytes include:

Physico-chemical

- pH
- Conductivity (preferably compensated to 25°C; report value measured; compensation factor and complete units (e.g. mS/cm, not mS)
- Total dissolved solids (calculated @ 180°C)
- Total hardness (as CaCO₃)
- Total alkalinity (as CaCO₃)

Ions

- Calcium (Ca)
- Magnesium (Mg)
- Sodium (Na)
- Potassium (K)
- Ammonia (NH₄)
- Phosphate (PO₄)
- Carbonate (CO₃)
- Bicarbonate (HCO₃)
- Chloride (Cl)
- Sulphate (SO₄)
- Nitrate (NO₃)
- Silica (SiO₂)

Metals

Filter and acidify samples in field

- Aluminium (Al)
- Arsenic (AS)
- Cadmium (Cd)
- Chormium (Cr)
- Iron (Fe)
- Manganese (Mn)
- Mercury (Hg)
- Selenium (Se)
- Zinc (Zn)

Table 8: Summary of Groundwater Monitoring Requirements

Status	Parameter Monitored	Monitoring Frequency
Production	Pumpage	Monthly, Recorded at the end of each calendar month
	Water Level	Monthly, Recorded at the end of each calendar month
	Salinity as EC and pH	Monthly, Recorded at the end of each calendar month
	Major Components Analysis	Annually, Recorded every June
Monitoring	Water Levels	Monthly, Recorded at the end of each calendar month
	Salinity as EC and pH	Quarterly, Recorded during the last week of September, December, March and June
Regional Monitoring	Water Level	Quarterly, Recorded during the last week of September, December, March and June
	Salinity as EC and pH	Quarterly, Recorded during the last week of September, December, March and June

9 ADMINSTRATIVE REQUIREMENTS

The Operating Strategy will apply for the life of the licence and licence renewals. It will be reviewed annually as part of the annual production monitoring summary, or when there are changes to the water-supply borefield.

Circumstances in which the Operating Strategy will be amended including, but are not limited to:

- Where additional monitoring is required for improved understanding of the impacts of pumping operations;
- If pumping results in some previously unforeseen impact/s;
- If licence conditions have been amended; and
- If new information on the status of the water resource indicates that changes are needed to the Operating Strategy.

The person responsible for implementing the Operating Strategy is:

Michael Chen

Mobile: 0427 492 854

Manager Environment, Water and Exploration

Phone: 08 6298 1027

Karara Mining Limited:

E-mail: michael.chen@kararamining.com.au

PO Box 7200

Cloisters Square WA 6850

The water year for the licence is 1 July to 30 June.

An annual production monitoring summary is to be produced each year by a competent groundwater professional, and a triennial aquifer review will be produced every three years. The reports will be in accordance with the DWER (2007) *Guidelines for Hydrogeological Reporting associated with a Groundwater Well Licence*. The scheduled reporting date for annual reports is before the 31st August and the next triennial review is due the 31st August 2026 with each consecutive triennial every three years thereof.

10 ENVIRONMENTAL REQUIREMENTS

A numerical groundwater model was developed by Rockwater, 2011 for the Project area, including both Terapod West and Terapod South pits. Results from the groundwater model indicate that the inherent risk to the environment from groundwater extraction in the area is expected to be negligible.

The Melaleuca shrubs and trees in the drainage depression east of Mt Karara Ridge have been described by Soil Water Consultants, 2009 as being non-phreatophytic. These were previously understood to be groundwater dependent ecosystems (GDE) by Rockwater in 2008 but recent studies indicate that the vegetation is reliant on the available moisture stored in the soil profile and replenished after rainfall events. Mining at the Project is unlikely to affect surface water flows within the drainage depression.

Vegetation communities of the Claypan areas north of Terapod are more likely to be dependent on periodic inundation of surface water than upon groundwater. The modeling results for Karara mine site presented in the Groundwater Impact Assessment (Rockwater, 2011) indicate that drawdowns could extend to the area after five years of dewatering but like the Melaleuca shrubs' mining is unlikely to impact the community.

Highly saline water (>15,000 mg/L TDS) will not be used for dust suppression where it could adversely affect native vegetation, unless there is no runoff or overspray.

Persistent groundwater mounding occurs in vicinity of the wet TSF. To minimise potential impacts on the surrounding vegetation health due to rising groundwater levels in the area, wet TSF recovery bores were installed in accordance with a hydrogeological assessment of seepage around the wet TSF required by DWER in the current Licence L8721/2013/2 for Karara Minesite Beneficiation Plant. The proposed recovery bores will commence pumping within 6 months if mass vegetation death of at least 1ha occurs due to elevated standing water levels (SWL) in proximity of Wet TSF 2A in line with Condition 35 of the current DWER Licence L8721/2013/2.

The delivery system for groundwater pumped for the Project will be designed using best practice methods to minimise the likelihood of uncontrolled water loss. All water will be transported in maintained pipelines that will be regularly inspected. In the event of any uncontrolled water loss, pumping to the affected area will cease until the bore or pipeline can be repaired and any water loss contained. A maintenance schedule will be implemented to facilitate regular inspections to pipelines, plant and associated reticulation infrastructure.

There are no surface water bodies that could be impacted by mining or groundwater extraction in the area.

11 CONTINGENCY PLANS

It is unlikely that there are any environmental features that could require extraction rates to be reduced. Should the monitoring programme indicate significant lowering of the water table or increases in groundwater salinity other than what has been presented by Rockwater 2011, the DWER will be advised through the annual production/monitoring summary or the three-yearly aquifer review. If any adverse impacts are identified, extraction in the area would be reduced or stopped.

Impacts to pastoral bores have been determined as being unlikely. The closest operational pastoral bore is located at the Karara homestead approximately 8.5 kilometers from the Karara Hill borefield. The homestead bore provides a potable water supply to the residence of the Karara station. Groundwater monitoring of bores at Blue Well, KSA104 and the regional monitoring network will be monitored as detailed in Section 8 to ensure there is no impact caused by groundwater abstraction at any of the KML tenements.

Contingency plans related to the pumping operations are primarily directed towards prevention and containment of spillages and leakage of saline water and include the following:

- Any minor leaks will be controlled by temporary bunding, and the pipeline will be repaired as soon as possible.
- If there was a major leak in the pipeline the borefield and transfer pumps would be shut down until repairs were completed.

In the event of a bore or pump failing, a standby bore will be used. If there were two or more failures at the same time, individual bore pumping rates will be increased (provided the increase is within the capacity of the pumps and drawdowns in the bores would not be excessive); or else the quantity of water pumped from the borefield will be reduced until the bores or pumps were replaced.

12 WATER USE EFFICIENCY

The processing plant and tailings storage facility will be designed to minimise water requirements and to maximise the recycling of water. The application of water for dust suppression will be carefully controlled to prevent runoff or over-spray.

The delivery system for groundwater pumped for the Project will be designed using best practice methods to minimise the likelihood of uncontrolled water loss. In the event of any uncontrolled water loss, pumping will cease until the bore or pipeline can be repaired and any water loss contained.

A maintenance schedule will be implemented to facilitate regular inspection of pipelines, plant, and associated reticulation infrastructure.

13 REFERENCES

Department of Water, 2009. Hydrogeological Reporting Associated with a Groundwater Well Licence, Operational Policy No. 5.12

Department of Water 2011, Operational policy 5.08: Use of operating strategies in the water licensing process, Department of Water, Perth.

Karara Mining Limited 2009, Karara Iron Ore Project - Years 1 to 6, Unpublished Report, Prepared by Karara Mining Limited

Karara Mining Limited 2013, Karara Corporate Standard, Environmental Procedure - Dust Management and Monitoring, Unpublished Report No CORP-EN-PRO-1005, Prepared by Karara Mining Limited

Rockwater, 2008, Karara Groundwater Assessment, Unpublished Report No 319.0/08-02e, Prepared for Karara Management Services

Rockwater, 2011, Groundwater Impact Assessment, Mungada Iron Ore Project, Unpublished Report No 319.0/11/01 Rev.2, Prepared for Karara Mining Limited

Rockwater, 2023, Karara Wet TSF Hydrogeological Assessment of Seepage Area, Unpublished Report No 319-0/23/02 Rev.0, Prepared for Karara Mining Limited

Soil Water Consultants, 2009, GDE Investigation of the Drainage Depression (Previously Referred to as the 'Gilgai' Area) at the Proposed Karara Minesite, Unpublished Report No 151/004, Prepared for Karara Mining Limited