2019 Social and Environmental Management Plan for Letšeng Diamond Mine, Lesotho

FINAL

July 2019

Prepared by:

JDConsulting

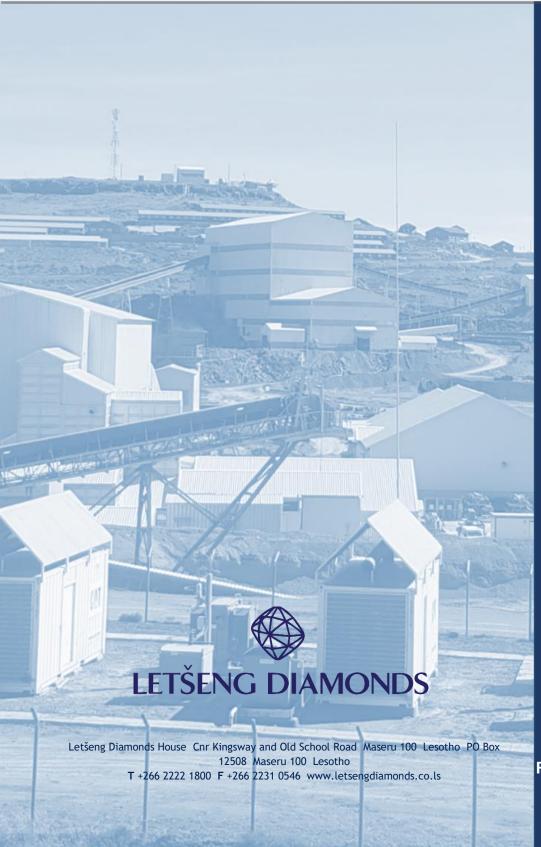
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Change History						
Rev	Review By:	Change Details	Clause(s) Amended	Approved By:	Sign	Date
01	J Daneel	Scheduled Update	Various	J Houghton		,,
02	J Daneel	Scheduled Update	Various	J Taylor		

VERSION 3

2019 SOCIAL & ENVIRONMENTAL MANAGEMENT PLAN LETŠENG DIAMOND MINE, LESOTHO



REF: LD-HSE/ENV/SEMP/9.5.0

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REPORT: 2019 Social and Environmental Management Plan, Letšeng Diamond

Mine, Lesotho

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Revision No: 03
Date: July 2019

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GLOSSARY

"Assessment" - The process of collecting, organising, analysing, interpreting and communicating data that is relevant to some decision.

"Biodiversity" - The structural, functional and compositional attributes of an area, ranging from genes to landscapes.

"Audit" - The process whereby a company's environmental performance is tested against its environmental policies and objectives during the operational phase of a project. This may be done by means of internal site inspections, and internal and external compliance audits

"Climate Change" Climate change refers to significant changes in global temperature, precipitation, wind patterns and other measures of climate that occur over several decades or longer.

"Critical Habitat" - Areas with high biodiversity value, including (i) habitat of significant importance to Critically Endangered and/or Endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.

"Construction" - The building, erection or establishment of a facility, structure or infrastructure that is necessary for the undertaking of a listed or specified activity.

"Contractor" - Individuals or companies appointed by Letšeng Diamonds (LD) to act on behalf of LD during construction and operation of mining and mining-related activities at LD. Contractors are required to adhere to the SEMP and all LD Policies and Procedures and are responsible for ensuring that all their sub-Contractors, suppliers and staff appointed by them also adhere to the Management Plans.

"Ecosystem Services" - Benefits that people, including businesses, derive from ecosystems. There are four types of ecosystem services: (i) provisioning services - the products people obtain from ecosystems; (ii) regulating services, - the benefits people obtain from the regulation of ecosystem processes; (iii) cultural services - the non-material benefits people obtain from ecosystems; and (iv) supporting services - the natural processes that maintain the other services.

"Environment" - Surroundings in which organisms operate, including air, water, land, natural resources, flora, fauna, humans and their interrelations. The environment is made up of: the soil, water and atmosphere; fauna and flora; any part, combination or interrelationships among these; and all the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

"Environmental Aspect" - An element of an organisation's activities or products or services that can interact with the environment. A significant environmental aspect has or can have a significant environmental impact.

"Environmental Impact" - The effect of an activity on the environment, whether desirable or undesirable. Undesirable or negative environmental impacts will result in damage and/or pollution of, or detriment to the environment, or danger to the public, whether immediate or delayed.

"Environmental Management Plan" - An action plan or system which addresses the how, when, who, where and what of integrating environmental mitigation and monitoring measures throughout an existing or proposed operation or activity.

- **"Expansion"** The modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased.
- "Good International Industry Practice" The exercise of professional skill, diligence, prudence, and foresight that would reasonably be expected from skilled and experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally or regionally.
- "Greenhouse Gas" Greenhouse gas is a gas that absorbs and emits radiant energy within the thermal infrared range. Greenhouse gases cause the greenhouse effect. The primary greenhouse gases in Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide and ozone.
- "Habitat" An ecological or environmental area inhabited by a particular species or that which supports a typical community of species.
- "ISO14001" An internationally accepted standard that sets out a framework of essential elements for putting an effective Environmental Management System (EMS) in place.
- "ISO45001" An internationally accepted standard that sets out a framework of essential elements for putting an effective Occupational Health and Safety Management System in place.
- "Kimberlite" Type of igneous rock best known for sometimes containing diamonds.
- "Land Capability" The inherent capacity of land to be productive under sustained use and specific management methods.
- "Land Use" The activities that take place within a given area or space.
- "Life of Mine" The number of years that the operation is planning to mine and treat ore, as taken from the current mine plan, which is based on the defined mineral resource and production rates.
- "Management of Change" A systematic process for dealing with change to manage associated SHE risks.
- "Mining" The making of any excavation for the purpose of winning a mineral. Covers reconnaissance, prospecting, mining or retention operations in relation to a prospecting or mining right, permit or licence.
- "Mining Related Activities" Activities directly related to mining, that are required for mine construction, operation and/or rehabilitation; these activities serve no purpose other than to support the construction, operation and/or rehabilitation of the mine; and will be removed and/or rehabilitated at the end of the life of the mine unless they can be utilised as part of the end-use requirement of the mine and to the benefit of the local community and environment.
- "Mitigation" Measures designed to avoid, reduce or remedy adverse negative impacts.
- "Monitoring" The process which ensures that the environmental requirements stipulated in the SEMP are being complied with and allows for on-going impacts to be tracked in order to measure the effectiveness of the mitigation. The repetitive and continued observation, measurement and evaluation of environmental data to follow changes over a period of time to assess the efficiency of control measures.
- "New Project / New Activity" Major expansion or change to the existing mining and mining related activities with notable environmental impacts and/or consequence to interested or affected parties.

"Project Affected Communities" - Adjacent communities which are potentially directly affected by the mining operations. For LD, these include people from PhuthaLichaba Village and from the Pae-leaitlhatsoa Community, which constitutes eight villages within the Khubelu Valley.

"Proponent" - The developer of the project in this case: Letšeng Diamonds (Pty) Ltd.

"Public" - Any individual or group concerned with or affected by the project and its consequences, including: tourists; local, regional, and national authorities; investors; construction staff; environmental interest groups; and the general population.

"Rehabilitation" - Measures implemented to return a damaged environment to its former natural state or to imitate as closely as possible its former natural state.

"Remediation" - Measures implemented to: clean-up a polluted environment to a stable state in order to avoid long-term leaching / spread of pollutants or health risks; or repair an altered / disturbed environment to avoid long-term visual scarring, safety risks, erosion and further degradation and secondary impacts.

"Stockpile" - Includes any heap, pile, slurry pond and accumulation of any substance where such substance is stored as a product or stored for use at any mine or activity.

"Workforce" - People employed by the proponent or the Contractor, persons involved with activities related to the Letšeng Diamond Mine, or persons present or visiting the mining area, including permanent, contract, or casual labour and informal traders.

NOTE: Additional definitions are provided under each section of the SEMP (Part B) where required.

ACRONYMS

CEM Centre for Environmental Management

CEO Chief Executive Officer

COO Chief Operations Officer

CITES Convention on the International Trade of Species of Wild Flora and Fauna

cpht Carats per hundred tonnes

CSI Corporate Social Investment

CSR Corporate Social Responsibility

DoE Department of Environment

EO Environmental Officer

EM Environmental Manager

EMS Environmental Management System

ER Emergency Response

ESAP Environmental and Social Action Plan

GHG Greenhouse Gas

GIIP Good International Industry Practice

GoL Government of Lesotho

GRI Global Reporting Initiatives

HSE Health Safety and Environment

IFC International Finance Corporation

ISO International Organisation for Standardisation

LD Letšeng Diamonds

LMRC Land Management and Rehabilitation Coordinator

MOC Management of Change

MSDS Materials Safety Data Sheets

mtpa Million tonnes per annum

NEP National Environment Policy

PAC Project Affected Community

PoPs Persistent Organic Pollutants

PPE Personal Protective Equipment

PS Performance Standard

RPO Radiation Protection Officer

RoD Record of Decision

SEIA Social & Environmental Impact Assessment

SEMP Social & Environmental Management Plan

SHE Safety, Health and Environment

SHE-O SHE Officer

SOP Standard Operating Procedure

STW Sewage Treatment Works

SWMP Stormwater Management Plan

tpa Tonnes per annum

TSF Tailings Storage Facility

UNCBD United Nations Convention on Biological Diversity

UNFCCC United Nations Framework Convention on Climate Change

WTW Water Treatment Works

WRD Waste Rock Dump

SECTION A: PREAMBLE

1 INTRODUCTION AND SCOPE OF THE SEMP

1.1 Background to the Project and Previous SEMP

Letšeng Diamond Mine is an existing diamond mine located in the north-western Lesotho highlands. The mine is owned by Letšeng Diamonds (Pty) Ltd (Letšeng Diamonds) with joint shareholding by Gem Diamonds and the Government of Lesotho. Letšeng has been operating since 2004.

This updated Social and Environmental Management Plan (SEMP) Report replaces the 2016 SEMP. The SEMP covers the management of all existing operations and anticipated future expansions, including expansions to the Patiseng Tailings Storage Facility (TSF), expansions to the Waste Rock Dump (WRD) in the RTZ and Qaqa Valleys and relocation of the mining complex to a new facility to allow for the expansion of the mining pits.

The SEMP is implemented under the Letšeng Diamonds (LD) Integrated Health Safety and Environment (HSE) Management System. The HSE Management System is compliant with ISO Standards 14001 (2015) and 45001 (2018). LD first obtained certification for its HSE Management System at an audit undertaken by DQS South Africa in December 2015. The latest Certification Audit was conducted in 2018. The certificate of compliance is provided in **Appendix A.**

The SEMP takes cognisance of existing and impending Lesotho environmental legislation and regulations and serves to align environmental management at LD to good international industry practice, specifically the International Finance Corporation (IFC) Performance Standards and Guideline for Sustainable Development, and the Equator Principles for environmental and social risk management.

The SEMP is a legally binding document under the Record of Decision (RoD) issued by the Department of Environment (DoE) in the Ministry of Tourism, Environment and Culture. As such, it is obligatory for LD to comply with the management commitments and actions contained herein. The SEMP is reviewed and revised every three (3) years and resubmitted to the DoE for approval.

In accordance with the conditions of the RoD, an annual external audit is undertaken in order to measure LD compliance with the commitments contained in the SEMP, with the resulting audit report submitted to the DoE.

The commitments contained in this document are supported and enabled through detailed social and environmental action plans and operating procedures which form part of the mine's Environmental Management System.

1.2 **Proponent**

Letšeng Diamonds (LD) is a Lesotho-registered company formed in 1995. LD is 70% owned by Gem Diamonds Limited and 30% owned by the Lesotho Government. Gem Diamonds is a leading global producer of high value diamonds and is listed on the London Stock Exchange. LD is famous for producing large, top colour white diamonds, making it the highest average dollar per carat kimberlite diamond mine in the world.

Letšeng has an existing Mining Right, Reg. No. 26033. The Mining Lease was issued by the Lesotho Department of Mines in October 1999 and was valid for a period of 10 years, renewable three times,

each for a five-year period. A new lease will be required in 2024. Letšeng is currently negotiating a new Mining Agreement and Right valid until 2035, which is the current Life of Mine (LoM).

1.3 Project Description

1.3.1 Historical Overview

The Letšeng-la-Terae kimberlite pipes (the Main Pipe and the Satellite Pipe) were formally discovered in 1957. The pipes were declared a government digging from 1959 to 1967 during which time there were up to 6 000 local diggers on the site. Rio Tinto Exploration (Pty) Ltd. was awarded the exploration licence for the pipes in 1968 during which time over 80,000 tonnes of kimberlite were treated. Although diamond grades of the Letšeng pipes were low overall, many large high-quality stones were recovered. Rio Tinto abandoned the deposit in 1972.

De Beers in partnership with Lesotho's government reopened the mine in 1977 but low grades and the 1980s diamond market recession lead to the mine being economically unviable and it was closed again in 1982.

The mining rights for the Letšeng Mine were acquired by Letšeng Diamonds (Pty) Ltd. in 1999. The reconstruction of the mine's infrastructure commenced in 2003 and production from a new 350 tonnes per hour (tph) treatment facility (Plant No. 1) commenced in March 2004. Production at the Satellite Pipe resumed in March 2004.

Construction of a second 350 tph treatment facility, Plant No. 2, started during 2007 and production commenced in March 2008. The treatment capacity from the two main treatment facilities (Plant No. 1 & No. 2) is currently close to 6 million tonnes per annum (mtpa).

The Letšeng ore reserve is unique in being extremely low grade (nominally 1,7 carats per hundred tonnes) but being a producer of very high-quality large stones. The current life of mine planning is for 16 years (until 2035).

1.3.2 Current Operations

The LD Lease Area covers an area of 1 674 ha with operations consisting of the open pit mining of kimberlite from two pits; the Main Pit and the Satellite Pit. The mining method used involves drill and blast and haulage of waste rock and ore using a fleet of 41t, 54t and 90t dump trucks. The LD layout plan is provided in *Figure A1.1*.

There are two main treatment plants for the processing of the ore (No. 1 and No. 2 Plant). Alluvial Ventures, a LD Joint Venture (JV) partner, treats approximately 1mtpa, sourced from Main Pit and from low grade stockpiles. The total volume of ore to be treated on site is forecast as 7.0 million tonnes for 2019.

Mining is a continuous operation, running 24 hours per day, seven days a week. Rock blasting takes place on average three times a week and not more than once a day. The explosives used in the pit are ammonia nitrate-based and blasting is structured to reduce ground shock and noise impacts through sequentially delayed charges. Waste rock is disposed of onto the waste rock dumps in the RTZ Valley and the Qaqa Valley (*Figure A1.1*). The forecast for waste stripping for 2019 is 25,7 million tonnes. Tailings are disposed of in a co-disposal facility, the Patiseng Tailings Storage Facility (TSF).

Ancillary services and facilities, such as fuel depots, workshops, explosives stores and the emulsion storage facility are located onsite, as well as on-site accommodation of mine staff, with associated catering and recreational facilities. Raw water is supplied by the Mothusi Dam, with treatment to

potable standards at the on-site Water Treatment Works (WTW). Wastewater is treated at the on-site Sewage Treatment Works (STW) and processing of industrial and domestic waste is undertaken at the onsite solid waste handling facility. Bulk power supply is provided via Eskom's Clarens 88 kV line, with backup generators on site should they be required.

The mining of ore and waste rock, the treatment process and the deposition of tailings are all outsourced to specialist contractors. Catering and housekeeping is likewise outsourced to an external catering company. Collectively, LD and its contractors employ a total of 1448 people (April 2019 figures).

1.3.3 Organisational Structure

The overall management structure with key areas of responsibility is provided in Figure 1.2.

1.3.4 Further Expansions and Mining Planning

The LD long-term mine planning involves a constant evaluation and assessment of alternative scenarios for mining the Main Pit and Satellite Pit such as potential future underground mining. The feasibility of various scenarios is largely influenced by projected diamond revenues.

The SEMP makes provision for integrating environmental management into long-term mine planning to ensure that any changes or additions to authorised activities are identified early in the planning process and assessed thoroughly with due consideration to alternative options, including the "no-go" option.

Any changes to the mine plan which may deviate materially from the current scenario will be subjected to an impact assessment and authorised, if required, by the relevant authorities well before such changes are effected.

In the same way that mine planning is constantly evaluating different scenarios; the SEMP is a dynamic document that is reviewed and revised every three years to ensure its relevance to the current mining operations and mine plan.

Figure A1.1 LD Layout Plan

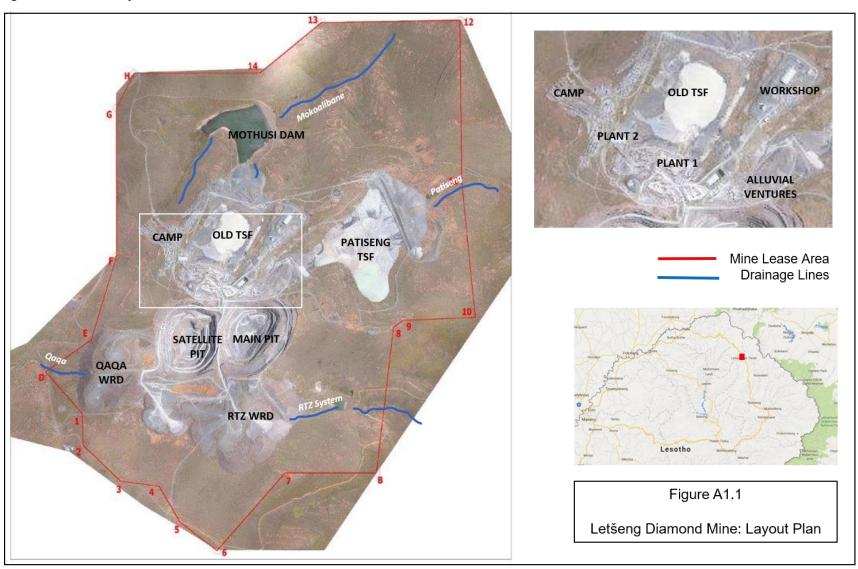
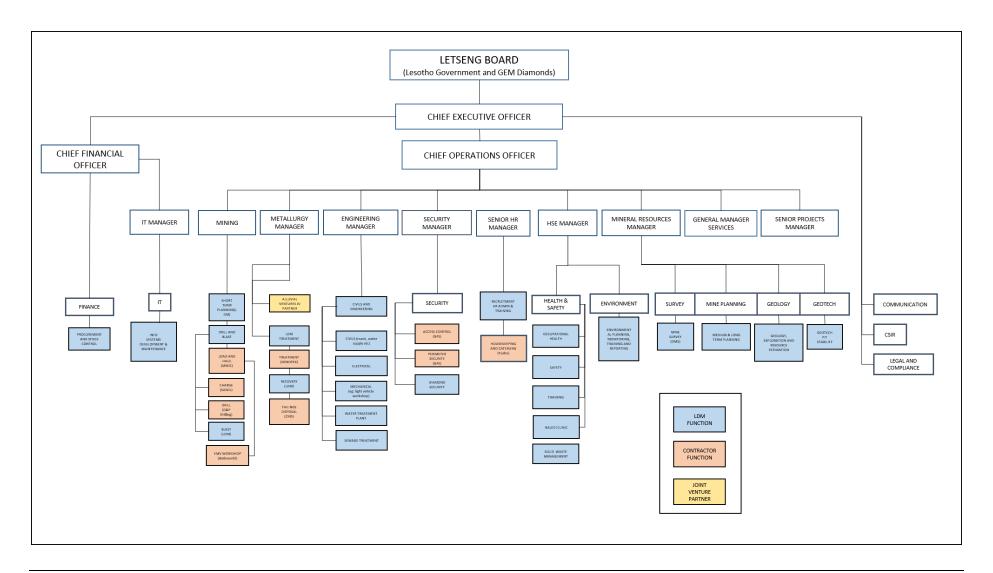


Figure A1.2 Letšeng Diamonds Management Structure and Areas of Responsibility



2 LEGAL AND CORPORATE REQUIREMENTS

2.1 Overview of Legal Requirements

2.1.1 Record of Decision

Current operations at the mine are authorised on the basis of an RoD from the DoE. The RoD was last extended in 8 July 2015 for a period of five (5) years with the following conditions:

- Conditions stated in the previous RoD will be complied with;
- The Social and Environmental Management Plan (SEMP) will be observed and complied with;
- Any changes that may occur in regard to the operations of the above-mentioned conditions will be communicated to the DoE for concurrence before implementation.

Conditions of the previous RoD (July 2010) which remain valid under the 2015 extension are as follows:

- Submission of water quality monitoring reports every six (6) months;
- Quarterly submission of statistics of hazardous waste and information on its disposal;
- Submission of annual external audit reports; and
- Submission of a five (5) year terminal environmental audit report six (6) months before the RoD expiry.

The ROD is due for renewal for a further 5-year period in 2020.

This SEMP ensures that the environmental management documentation is aligned with current Lesotho legislation and international good practice. On approval by the DoE, this SEMP effectively replaces the 2016 SEMP and becomes the basis for the external compliance audit and reporting to DoE. The conditions of the RoD (as listed above) have been incorporated into this SEMP.

The legal requirements outlined in the sections below are informed by the LD Legal Register which has been developed as part of the integrated HSE Management System. The Legal Register is reviewed as required or at least on an annual basis during the internal and the external SHE legal compliance audits and updated accordingly. Consequently, the Legal Register is the official record of relevant legislation, permits, licences and other requirements and is considered to be a working or live document. The legal requirements reflected below are valid as of the date of completion of this SEMP and will be reviewed and updated in future amendments, as required.

2.1.2 Constitution of Lesotho

The mandate for environmental management is derived from Section 36 of the Constitution of Lesotho, which states that:

Lesotho shall adopt policies that are designed to protect and enhance the natural and cultural environment of Lesotho for the benefit of both present and future generations and shall endeavour to assure all its citizens a sound and safe environment adequate for their health and well-being.

2.1.3 National Environmental Policy

The overall goal of the Lesotho National Environmental Policy (NEP) is to achieve sustainable livelihoods and development for Lesotho. The objectives of the policy include:

- To secure for all Basotho a high quality of environment to enhance health and well-being;
- To use and conserve the environment and natural resources for the benefit of present and future generations, taking into account the rate of population growth and productivity of available resources;

- To conserve Basotho cultural heritage and utilise it for the benefit of present and future generations;
- To halt environmental degradation, and to restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere and to preserve biological diversity;
- To implement the principle of optimal sustainable yield in the use of natural resources and ecosystems; and
- To ensure that the true and total costs of environmental use and abuse are borne by the user, i.e., the "polluter pays" principle.

The SEMP has been aligned to the overarching objectives and guiding principles of the NEP.

2.2 Relevant Environmental Legislation

Legislation relevant to mining at LD is listed below in *Table A2.1*.

Table A2.1 Legislation Relevant to Environmental Aspects of Mines

Legislation	Requirements
Lesotho Environment Act No.10 of 2008	• The Environment Act, 2008 provides a framework environmental law for the implementation of the National Environmental Policy. It sets out the principles of environmental management in Part II, section 3(2) of the Act.
	 The Environmental Act specifies the need for an environmental licence that must be obtained for certain types of projects and activities prior to construction of the development. A list of these types of developments is provided in Part A of the First Schedule of the Act and includes mining.
	The SEMP takes cognisance of the principles of environmental management embodied in this Act, and makes provision for land rehabilitation, biodiversity protection, pollution control, integrated waste management, air quality monitoring, implementation of a soils and land capability management plan and integrated monitoring and reporting.
Lesotho Environmental	Draft Regulations for EIA have been published under Section 113 of the Environmental Act, 2008. These cover:
Impact	Project Briefs;
Assessment Regulations	Environmental Impact Studies
(Draft)	Environmental Impact Statement
	Access to information
	Environmental Monitoring and Audit
	 Strategic Environmental Assessment for Policies, Plans and Programmes
	It is anticipated that these Regulations will be finalised in 2019. The LD Management of Change process makes allowance for environmental assessment of all new projects, as per the Regulations, if necessary.

Legislation Requirements

Hazardous (Health Care) Waste Management Regulations No 37 of 2012

Hazardous (Health The Hazardous (Health Care) Waste Management Regulations 2012 have been enacted Care) Waste pursuant to Section 113 of the Environment Act 2008.

The Regulations provide for the management of hazardous health care waste from generation to disposal.

A person responsible for running a health care facility shall be responsible for the preparation and implementation of a health care waste management plan, which includes, amongst other things, details of the types and amount of health care waste to be generated, a list of duties and responsibilities for the management of health care waste, measures to reduce generation of health care risk waste and contingency plans for the storage, treatment or disposal of health care risk waste in the event of a disruption in collection and treatment arrangements as well as emergency plans for incidents such as spills, accidents and fire.

The SEMP, under Waste Management, includes commitments to comply with these regulations.

Lesotho Mines and Minerals Act No. 4 of 2005 Part VIII – Environmental Obligations

- An EIA is a prerequisite for obtaining mining rights in terms of this Act.
- The holder of the mineral right should conduct operations in such a manner as to
 preserve the natural environment, minimise and control waste and loss of or damage
 to natural and biological resources and prevent (and where unavoidable treat) pollution
 and contamination of the environment.
- During and at the end of operations in any mine the holder of the mineral right shall take such measures as are required to maintain and restore the top soil in affected areas and restore the land substantially to the condition prior to operations.
- The holder of the mineral right should ensure the area is rehabilitated and ultimately reclaimed in an acceptable manner.
- The holder of the mineral concession should make adequate on-going financial provision for compliance with the obligations under this Act.
- Specifies the need for a Mining (or Quarrying) Licence (including sand mining).

An Integrated Rehabilitation and Closure Plan which is based on a sustainable end land-use vision is provided for. This is aligned to the Mining Lease Agreement and GIIP. Premature and Life of Mine closure costs are quantified on an annual basis and incorporated into the Company Business Plan.

Lesotho Water Act 15 of 2008

- No person shall engage in an activity of using or abstracting water without a water use permit.
- Where pollution occurs or is likely to occur as a result of activities on land, the person
 who owns, controls, occupies or uses the land in question shall be responsible for taking
 measures to prevent such pollution from occurring or continuing.
- If there is a discharge of effluent into water courses a permit in accordance with the Environment Act, 2008, must be obtained.
- Regulates the requirement for a construction permit for any water related activities such as storage, water purification, sewage treatment and effluent discharge.

The SEMP outlines the requirement for all relevant permits and licences and makes provision for adherence to any of the specified conditions. A register of all relevant environmental permits, authorisations and licences required is maintained on site and updated on a regular basis.

Legislation	Requirements
Historical Monuments, Relics, Fauna and Flora Act No 41 of 1967	No person may destroy or damage or remove from its original habitat or export from Lesotho any flora or fauna proclaimed under section 8 as protected without the written consent of the commission. Note: Provisions for the protection of historical monuments and archaeology are now superseded by new Heritage Act.
National Heritage Act, 2011	 The National Heritage Act provides for the preservation and protection of heritage sites such as graves, spiritual sites, or archaeological or palaeontological sites. It requires that no person shall: impact on all or any part of a heritage site; impact on a heritage object; or relocate or disturb the position of a fixed heritage object. Any person who discovers any object which he reasonably believes has heritage significance shall immediately notify a heritage inspector or the District Administrator of the district where the object is discovered, and where possible, deliver the object to the heritage inspector or the District Administrator who shall acknowledge receipt of the object in writing. The SEMP makes provision for a "Chance Find Procedure" which covers the inadvertent or unexpected discovery of any sites or artefacts of cultural heritage significance.
Radiation Protection Agency Act, 2018	This Act provides for the establishment of the Radiation Protection Agency; beneficial and peaceful uses of nuclear energy; protection of human health and the environment against harmful effects of ionising radiation and safety and security of radiation sources.
Lesotho National Climate Change Policy, 2017	The National Climate Change Policy translates the National Vision 2020, as well as the National Strategic Development Plan into concrete and discrete actions and re-affirms the country's resolve to address climate change within the context of sustainable development as articulated by the Paris Agreement to which Lesotho is a signatory.
	The Policy identifies vulnerable areas and risks presented by climate change. It then describes 22 policy directions/statements, of pivotal importance and focus, on which various sector adaptation and mitigation interventions will be anchored to address fundamental critical issues.
	The SEMP takes cognisance of this and makes provision for Climate Change mitigation and adaptation under the section "Energy, Climate Change and Air Quality Management".

2.3 Mining Agreement

The LD Mining Agreement (MA) was entered into in terms of Sections 6 and 15 of the Mining Rights Act, 1967 (Act No 43 of 1967). This Act has since been repealed by the Mines and Minerals Act, 2005.

The mining lease was issued by the Lesotho Department of Mines in October 1999 and was valid for a period of 10 years, renewable three times, each for a five-year period. A new lease will be required in 2024.

Sections of the MA which are applicable to social and environmental management at LD are listed in Table A2.2.

Table A2.2 LD Mining Agreement

NALA Costicio	Requirements
MLA Section Section 9:	a) Lesotho Nationals shall be given priority for employment by the Mining Company
Employment of Lesotho Nationals	and its contractors in all phases of their operations in Lesotho to the maximum extent reasonably possible consistent with the effective conduct of their operations;
	The Mining Company may employ foreign skilled, technical, clerical and administrative personnel in the conduct of its operations in Lesotho in the event that qualified Lesotho nationals are not available for such employment;
	c) The mining company shall conduct training programmes in consultation with the Government's training officers for the benefit of unskilled and semi-skilled employees in Lesotho and shall use its best efforts to ensure that such employees
	 may be qualified for advancement; and d) The Mining Company shall provide instruction in theoretical courses and practical trainingand shall use its best efforts to ensure the qualification and advancement of Lesotho nationals in the clerical, administrative, technical and management employment categories.
	SEMP No 2: Socio-Economic and Cultural Heritage Management makes provision for these MLA requirements.
Section 10: Preference of Lesotho Goods and Services	In the conduct of its operations in Lesotho and in the purchase, construction and
	 a) Materials and products made in Lesotho, if such materials and products are not less favourable in price (on a delivered basis), quality and delivery dates than comparable materials and products from foreign sources; and b) Services agencies located in Lesotho, owned by nationals of Lesotho or by legal entities established pursuant to Lesotho Law, if they are not less favourable in price and quality of service than comparable foreign services and can render such services at such times as the Mining Company may require.
	SEMP No 2: Socio-Economic and Cultural Heritage Management makes provision for these MLA requirements.
Section 27: Assets on Expiration, Surrender or Termination	 a) All infrastructure shall become the property of the Government without change; b) The Government or its nominees shall have a right to buy each item of Plant and Equipment and materials and supplies therein at fair market value on an "as is" and "where is" basis; and
	c) The mining company shall take all reasonable measures to ensure that all the property shall be maintained in the same condition as they were in at the date of expiration, surrender or termination, fair wear and tear accepted, and no such property shall be disassembled or destroyed except as specifically provided in this paragraph.
Section 28: Restoration	Upon expiration, surrender or termination of this agreement, the Mining Company shall as required by law and otherwise in accordance with good mining practice:
Provisions	 a) make the production area and the infrastructure area safe to the reasonable satisfaction of the Commissioner;
	b) shall fill in or fence all holes, shafts, pits (except the two open pits of the main pipe and the satellite pit) or other excavations, using as fill materials to the maximum extent possible, tailings and other original substrata materials accumulated on the
	 surface; to the extent feasible and at the request of the Commissioner, shall level the surface and, if levelling is not reasonable in the circumstance shall contour grade and terrace; and

MLA Section	Requirements	
	 d) leave the Production and Infrastructure Areas in a clean and orderly condition to the reasonable satisfaction of the Commissioner. 	
	In addition, the Mining Company shall reopen any natural drainage systems which may	
	have been obstructed in the course of its operation to the extent feasible.	

2.4 International Conventions

Lesotho is a signatory to a number of international conventions. These are summarised in *Table A2.3* below, with reference to their relevant to LD operations:

Table A2.3 International Conventions of Relevance

Convention	Relevance to LD
Basel Convention (R 1051 of 21 August 1998) for the control of transboundary movement of hazardous waste and its disposal	Letšeng imports diesel fuel and explosives emulsion from South Africa and moves waste oil and other potentially hazardous waste, such as incinerator ash, over the border back into South Africa for safe treatment and/or disposal where such facilities do not exist in Lesotho.
The Paris Agreement within the United Nations Framework Convention on Climate Change (UNFCCC) dealing with greenhousegas-emissions mitigation, adaptation and finance.	Letšeng produces GHG emissions through consumption of fossil fuels directly and indirectly, as well as through other mechanisms. Letšeng, as an installation, is also vulnerable to climate change due to its location, reliance on natural water sources and potentially polluting mine waste deposits, such as tailings facilities and waste rock dumps.
Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC)	Provides a framework for emissions reduction, including use of the Clean Development Mechanism to encourage industries to reduce carbon emissions.
Montreal Protocol on Substances that Deplete the Ozone Layer (1987) - international treaty designed to protect the ozone layer by phasing out the production of substances believed to be responsible for ozone depletion.	Provides a framework to encourage signatory countries to minimise use of ozone depleting substances.
World Heritage Convention - promote cooperation among nations to protect heritage of outstanding universal value	Administered by UNESCO to protect globally important biodiversity and cultural heritage, such as the uKhahlamba Drakensberg World Heritage Site close to Letšeng in South Africa.
United Nations Convention on Biological Diversity (UNCBD) - conservation of biological diversity, sustainable use of its components; and fair and equitable sharing of benefits arising from genetic resources.	This is relevant to LD as the mine is located in an area recognised for its high biodiversity and in an area of critical habitat as defined by IFC Performance Standard No 6.
Ramsar Convention requires "commitments from its member countries to maintain the ecological character of their Wetlands of International Importance"	Not directly relevant as there are no declared Ramsar sites near LD.
Convention on International Trade in Endangered Species (CITES) to ensure that international trade in specimens of wild animals and plants does not threaten their survival.	Spiral aloe is a CITES Appendix 1 listed species which is an endemic and endangered species in Lesotho that is targeted for trade. Two colonies of this species occur close to the LD mine lease area.
Convention to Combat Desertification	Not directly relevant to LD. Provides a framework for countries to take steps to minimise risk of desertification.

Convention	Relevance to LD
Stockholm Convention on Persistent Organic Chemicals (PoPs) protects human health and the environment from persistent organic pollutants.	Regulates the use of PoPs and discourages their use. No PoPs are used on site at LD.
ILO – International Labour Organisation	Lesotho is signatory to the ILO and has ratified 23 conventions under the ILO. This does not include Convention No 169, which relates to Indigenous People. The IFC Performance Standard No 7, which relates to Indigenous People, therefore does not apply.

2.5 Corporate Requirements

As a London-listed organisation, Gem Diamonds have committed themselves to a variety of voluntary guidelines and standards. The standards and guidelines listed below are adhered to in as far as is practicable to enable efficient business processes, whilst ensuring implementation of the most advanced sustainable development and corporate social responsibility practices.

Corporate requirements of Gem Diamonds include the following:

- Global Reporting Initiative (GRI): The GRI is a voluntary reporting guideline involving a variety of sustainable development and corporate social responsibility indicators, including economic, labour and decent work, environmental, human rights and product responsibility aspects of the business;
- Environmental Management System (EMS) development in line with ISO 140001 requirements and the content of this SEMP;
- Compliance with the **ISO 14001 (2015) and 45001 (2018)** health, safety and environmental management systems;
- The International Council of Mining and Metals (ICMM); ICMM 10 principles for sustainable development, which encompass issues relating to environmental stewardship, the role of mining and metals in society, and human well-being;
- Equator Principles; The Equator Principles is a risk management framework, adopted by financial
 institutions, for determining, assessing and managing environmental and social risk in projects. It is
 primarily intended to provide a minimum standard for due diligence to support responsible risk
 decision-making;
- International Finance Corporation:
 - EHS & Mining Guidelines;
 - Performance Standards; and
- The UN Global Compact. UNGC 10 principles related to human right, labour, environment and anticorruption.

A phased approach has been adopted to the implementation of the above standards and guidelines. Reporting on the various parameters is undertaken on a monthly and quarterly basis and these data are utilised to drive continuous improvement at operational level and to compile the annual Gem Diamonds Sustainable Development report.

3 ENVIRONMENTAL RISK ASSESSMENT

3.1 Social and Environmental Impact Assessment

The 2019 SEMP was largely informed by the Social and Environmental Impact Assessment (SEIA) which was undertaken by ERM Consultants in 2012/2013 for the existing operations and incorporated future expansions envisaged at the time.

The SEIA was undertaken based on Lesotho legal requirements and aligned with the Equator Principles and International Finance Corporation (IFC) Performance Standards (IFC, 2012) and Guideline (IFC, 2007). The SEIA furthermore provided the opportunity to address gaps in baseline information. The SEIA was informed by several specialist studies and reports and covered all phases of the mining operations including existing operations, construction and operation phases for new projects and/or mine expansions, rehabilitation and closure and assessed the direct, indirect and cumulative impacts associated with all these phases.

3.2 Environmental Risk Register

In line with the ISO 14001 requirements, LD maintains a comprehensive Environmental Risk Register whereby all environmental aspects and associated impacts are identified and assessed and appropriate management actions indicated. The 2019 SEMP is directly informed by the current Risk Register.

The risk assessment process takes account of the following:

- The 2013 SEIA;
- Baseline Risk Assessments;
- Specialist Investigations (e.g. into nitrate management);
- Internal and External Audit Findings;
- Incidents and non-conformances and investigation outcomes;
- Results of ongoing environmental monitoring, analysis and trending of results;
- Changes in legislation and international standards; and
- Changes to operations.

The Environmental Risk Register is a dynamic document and is updated at least annually. As a result, it is always kept current to reflect changing conditions and circumstances.

4 SCOPE OF THE SEMP

The scope of the 2019 SEMP is as follows:

- Management of social and environmental impacts for all existing operations and anticipated future expansions undertaken by Letšeng or any of its agents or contractors.
- Management of social and environmental impacts which may be anticipated as a result of normal operating conditions as well as those which may result from abnormal conditions and emergencies, such as spillages or dam failure.
- The management of all mining and mining-related activities undertaken by LD and its contractors during all phase of the mine's development are addressed in this SEMP. This includes: construction of new facilities and expansion of mine activities; operation; rehabilitation, mine closure and post closure activities.

5 SEMP REVISION AND KEY CHANGES

5.1 Approach

The approach to updating the SEMP is illustrated in Figure A5.1.

The SEMP revision was informed largely by the updated Environmental Risk (Impacts/Aspect) Register, discussed in Section 3.2. In addition, cognisance was taken of LD's legal obligations and results and recommendations from internal and external SEMP audits.

The process of revising the SEMP was as follows:

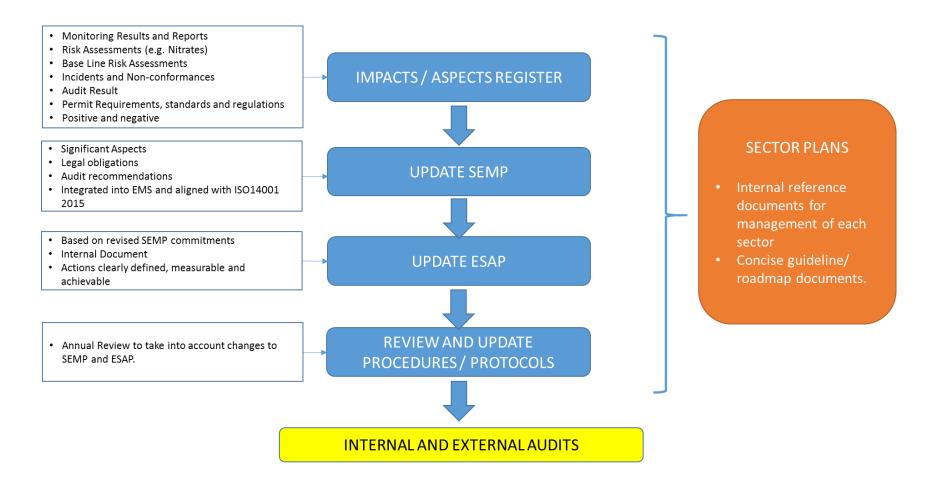
- Update of the LD Environmental Risk Register;
- Review of the 2016 SEMP;
- Review of legal obligations, including permit conditions;
- Revision of the SEMP and compiling draft new SEMP;
- Internal review by LD Management;
- Submission of 2019 SEMP to DoE.

On approval by DoE, the 2019 SEMP is legally binding and supersedes the 2016 SEMP entirely.

The 2019 SEMP forms the bases of the Environmental and Social Action Plan (ESAP) which is updated accordingly. The ESAP is the mine's working document for implementing the provision of the SEMP. Furthermore, all relevant procedures and protocols will be aligned to the 2019 SEMP during the annual review.

The Sector Plans are internal guidelines documents arranged by theme (e.g. Water, Waste, Hazardous Substances etc) to support the implementation of the SEMP commitments.

Figure A5.1 Approach to Updating the SEMP and Associated Documents



5.2 Key Changes to the SEMP

It has been six (6) years since Letšeng developed and implemented its "new generation" SEMP. Since then environmental management on site has matured considerably with the development and implementation of policy, procedures, protocols and other practices. Judicious monitoring of impacts and evaluation of environmental performance has led to a deeper understanding of the relevant environmental issues and opportunities. Letšeng also has in place a certified Integrated HSE Management System which effectively supports the achievement of the SEMP commitments.

In tandem with this, there have been new developments within the Lesotho legislation in response to International trends, most notably the adoption of the **Climate Change Adaptation Policy** of 2017 and the signing into legislation of the **Radiation Protection Agency Act**, 2018. The amendments to the SEMP clearly respond to this.

Key changes to the SEMP have been made in the context of the above, and include:

- Refocusing on the management of the significant impacts and/or opportunities, by highlighting the primary objectives and relegating the "enabling" or supporting activities/mechanisms to the relevant columns under each related objective. In addition to "Supporting Documents and Records", additional columns have been added for "Performance Evaluation, Tracking and Reporting" and "Contingency / Non-compliance Strategy". Monitoring and measuring activities therefore no longer appear as standalone commitments but are integrated under the relevant key objective. The same applies for Emergency Response.
- The inclusion of "Noise and Vibration" under Element 3: Public Safety, Health and Wellbeing.
- A more stringency focus on Radiation Sources and Radiation Generating Devices, under Element 5: Hazardous Substances and Dangerous Goods. Letšeng has increased the number of sources used on site and there has been a concomitant evolution in the Lesotho legislation related to radiation protection.
- Climate Change mitigation and adaptation. This section, under Element 7: Energy, Climate
 Change and Air Quality, has been expanded to reflect the mine's commitment to reducing
 GHGs and adapting its operations to best accommodate the projected climate change
 scenarios.

Detailed tracking of the changes is provided in Appendix B.

Table A5.1 Key changes from SEMP Version 02 (2016) to Version 03 (2019)

2016 SEMP (Version 2)		2016 → 2019		2019 SEMP (Version 3)		
1	SEMP Implementation	Minor Modifications		SEMP Implementation		
2	Socio-economic and Cultural Heritage	Minor Modifications	2	Socio-economic and Cultural Heritage		
3	Public Health and Safety	Incorporation of Noise and Vibrations (Element 10) into this section	3	Public Health, Safety and Wellbeing		
4	Waste Management	Minor Modifications	4	Waste Management		
5	Hazardous Substances Management	Increased emphasis on Radiation Sources management	5	Hazardous Substances and Dangerous Goods Management		
6	Water and Mine Waste Management	Minor Modifications	6	Waste and Mine Waste Residue Management		
7	Energy, Climate Change and Air Quality	Increased emphasis on Climate Change Mitigation and Adaptation	7	Energy, Climate Change and Air Quality		
8	Soils, Landuse and Land Capability	Minor Modifications	8	Soils, Landuse and Land Capability		
9	Biodiversity and Ecosystem Services	Minor Modifications	9	Biodiversity and Ecosystem Services		
10	Noise and Vibrations	Incorporated into Element No 3: Public Health, safety and Wellbeing				

SECTION B: SOCIAL AND ENVIRONMENTAL MANAGEMENT PLAN

This Section B contains the actual SEMP commitments which are legally binding under the LD Record of Decision.

1 SEMP IMPLEMENTATION

LD has in place an integrated HSE Management System certified in terms of ISO 14001 (2015) and ISO 45001 (2018). General provisions for the implementation of the SEMP as part of the HSE Management System, are included in this section.

No	2019 Revised Commitment	Responsibility	Supporting Documents	Records
1.1	LD shall implement the SEMP under the Letšeng Integrated Health, Safety and Environmental Management System, and will maintain ISO14001 certification for mine wide operations.	Environmental Manager	Environmental Management System Manual; EMS Processes	ISO 14001 (2015) Record of Certification Internal and External HSE System Audit Reports Gem Way Audit Reports
1.2	Top management shall ensure that adequate human, financial and material resources are provided to achieve effective implementation of the SEMP.	Chief Operations Officer (COO)	 Documented: Business Planning Process. Roles, Responsibility and Authority Process. 	Annual Business Plan, Env Budget, Organogram
1.3	LD shall develop the required competence and create the necessary awareness throughout all levels and sectors of its organisation to fulfil the commitments under the SEMP.	Environmental Manager	 Documented: Competency Training and Awareness Process. Training Matrix, manuals and materials 	Training Needs Analysis Training and Awareness Records and materials
1.4	LD shall internally and externally communicate information relevant to the SEMP as established by the organisation's communication processes and as required by its legal obligations.	Environmental Manager	Documented: Communication Participation and Consultation Process. Environmental Management Reporting Process.	Communication records: Attendance Registers, Minutes of meetings, correspondence and reports

No	2019 Revised Commitment	Responsibility	Supporting Documents	Records
1.5	LD shall manage actual and potential threats to the environment and society through a mine wide Environmental Risk identification, assessment and management process.	HSE Manager	 Documented: Hazard Identification, Risk Assessment and Determining Controls Process Emergency Preparedness and Response Process 	Environmental Risk Register / Matrix Baseline Risk Assessments Issue-Based Risk Assessments
1.6	LD shall identify, assess and manage all new or modified social and environmental risk exposures through an effective management of change (MOC) process	HSE Manager	Documented: • Management of Change Process	MOC Records: Request for change forms, Change Evaluations, Change risk assessment and MOC Register
1.7	LD shall identify, assess and implement opportunities for enhancing environmental and social benefits resulting from its operations.	Environmental Manager	 Documented: Hazard Identification, Risk Assessment and Determining Controls Process 	Environmental Aspect Register
1.8	LD shall monitor, measure, analyse and evaluate its performance in compliance with the SEMP.	Environmental Manager	Documented: • Performance Measuring and Monitoring Process • Integrated Monitoring and Reporting Plan and Protocols.	Monitoring Databases, Monitoring Reports
1.9	LD shall undertake an annual external SEMP compliance audit as per the conditions of the RoD and report outcomes to the DoE	Environmental Manager	Record of Decision, External Audit Plan	External Audit Reports
1.10	LD shall review and revise the SEMP every three years, or more often as required by changing internal and external circumstances.	Environmental Manager	EMS Manual	Updated SEMP
1.11	LD shall maintain relevant and accurate records to demonstrate adherence to SEMP commitments.	Environmental Manager	Document and Data Control processes	SEMP Record Register

2 SOCIO-ECONOMIC AND CULTURAL HERITAGE MANAGEMENT

This section covers the following aspects of Socio-Economic and Cultural Heritage Management:

- Community and Stakeholder Relations;
- Employment, Training and Skills Development;
- Procurement of Local Goods and Services;
- Corporate Social Responsibility;
- Cultural Heritage;
- Visual Impact and Aesthetics; and
- Social Closure.

The following overall objectives have been adopted to the management of Socio-Economic and Cultural Heritage impacts and benefits:

LD shall:

- Respect the fundamental human and traditional rights of the Project Affected Communities (PACs), their cultural and heritage, and maintain on-going and transparent communication with such communities, keeping them informed of developments at LD in order to maintain community-based "social license to operate";
- Develop and implement fair labour practices in accordance with the Mining Agreement, legislated processes and policies and the International Labour Organisation (ILO);
- Maximise benefits to local businesses and entrepreneurs through local procurement of goods and services where practicable;
- Develop a lasting positive legacy for host communities through the implementation of an effective CSI Plan that contributes to the sustainable development of PACs;
- Document and protect the heritage/ historic resources of the mine;
- Maintain landscape integrity to facilitate post-mining land uses and options, and mitigate the visual impact of the mine where reasonable and feasible; and
- Ensure a stakeholder and PAC-supported End Landuse and make adequate provision for social closure in keeping with Good International Industry Practice (GIIP).

In support of the above, LD has committed as follows:

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy					
2.1										
2.1.1	LD shall maintain a strong, constructive and mutually supportive relationship with Project Affected Communities and relevant stakeholders.	Cultural H Managem No 1 Stakehold Managem Stakehold Document Communi Comms Officer Consultati Document Grievance		Tracking and reporting grievances to Management and to the HSE Subcommittee of the Board.	All non-compliances and/or incidents related to PACs will be logged on the mine HQMS. Concerns, Issues and grievances investigated, and corrective action taken. Outcome communicated to the aggrieved party.					
2.1.2	LD shall undertake on-going and open consultation and communication with PACs and other stakeholders and will address all concerns or issues in an appropriate manner.		Stakeholder Management Plan Stakeholder Register Documented Communication							
2.1.3	LD shall consult with PACs and key stakeholders throughout the entire project lifecycle, including at mine closure.		Officer Consultation Process							
2.1.4	LD shall respect the human, cultural and traditional rights of the PACs at all times and ensure appropriate conduct of the Mine's personnel towards PACs.									
2.2	2.2 Employment, Training and Skills Development									
2.2.1	LD shall implement fair and transparent recruitment processes and practices compliant with the requirements of the Mining Agreement and legislated processes.	HR Manager	Recruitment and Employment of Fixed- term Nationals (Casuals).	Grievances and issues related to employment to Logged, tracked, addressed and reported via the						
2.2.2	LD shall clearly communicate the Labour Recruitment Policy and Process to PACs through the stakeholder engagement process.	Comms Officer	LD Recruitment Policies. Documented Communication,	Procedures	rnal Grievance Management					

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy				
			Participation and Consultation Process						
2.2.3	LD shall promote sustainable lifestyles among its employees through providing appropriate training and career path development.	HR Manager	Training Needs Analysis Training and Development Policy Training Records	Tracking and reporting of performance against training targets.	N/A				
2.3	2.3 Procurement of Local Goods and Services								
2.3.1	LD shall maximise benefits to local businesses through procurement of goods and services from Lesotho-owned and based companies where possible, in accordance with the conditions of the Mine Agreement.	Finance Manager	Procurement Policy Procurement Annual Target and Records	Monitoring and tracking of local procurement against annual targets Reporting on progress to finance committee and Subcomm of the Board.					
2.4	Corporate Social Responsibility	1	,	1					
2.4.1	LD shall provide a lasting positive legacy for host communities through implementing culturally appropriate and sustainable Corporate Social Investment Projects in accordance with corporate implementation guidelines.	CSI Coordinator	Gem CSI Implementation Guidelines CSI Strategy	Monitoring of CSI projects against set KPIs. Reporting on progress to management and Subcomm of the Board.					
2.5	2.5 Cultural Heritage Resources								
2.5.1	LD shall preserve and protect the heritage resources and historic records related to diamond mining at Letšeng for future cultural heritage opportunities.	CEO	Socio-Economic and Cultural Heritage	Ad hoc inspection of heritage sites to monitor condition	Incidents reported in Mine HQMS,				
2.5.2	LD shall protect all known sites of cultural heritage significance within the Mine Lease Area.	LMRC (Land Management	Management: Guideline No 1		investigated and corrective action taken				

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
2.5.3	LD shall prevent destruction of unknown cultural heritage resources through the implementation of a chance find process.	and Rehab Coordinator)	Documented Chance Find Process		
2.5.4	Should it be necessary to remove or relocate any sites of cultural heritage as a result of mine expansion activities, LD shall notify the relevant authorities and apply due legal process.		Heritage Inventory and Records Historic records and archives		
2.6	Visual Impact and Aesthetics				
2.6.1	LD shall minimise the visual impact of all existing and proposed new infrastructure where technically and financially feasible.	Env Manager	Guideline for the Mitigation of Visual Impact	Monitoring the implementation of visual mitigation measures. Areas which have undergone rehabilitation will be monitored in accordance with the Rehabilitation Monitoring Plan and Programme.	Any deviation from the visual mitigation measures will be recorded and investigated and corrective action taken if necessary.
2.6.2	LD shall design and operate mine waste residue facilities to minimise the visual impact on sensitive receptors, where technically and financially feasible.	Env Manager	Documented Management of Change (MOC) Process MOC records		
2.6.3	LD shall undertake prompt rehabilitation of areas disturbed as a result of infrastructure construction.	LMRC	Soils and Land Management: Guideline No 6 Concurrent Rehabilitation Plan and Programme Rehabilitation Monitoring Plan and Programme.		Failure to achieve the desired aesthetic shall
2.6.4	LD shall implement concurrent rehabilitation of mine residue deposits where practicable and apply closure criteria to minimise the visual impacts according to the End Landuse Plan.	LMRC			trigger an investigation and corrective action.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
2.7	Social Closure				
2.7.1	LD shall ensure a stakeholder and PAC-supported end landuse through undertaking external consultation regarding the planned end land-use in a timeous manner and according to International Industry Standards and Practices.	Env Manager	Integrated Rehabilitation and Closure Plan and programme. Closure Criteria Closure Risk Assessment and Gap Analysis Training Records Minutes of meetings	N/A	N/A
2.7.2	LD shall develop social closure criteria and make financial provision for social closure in keeping with International Industry Standards and Practices.	HR Manager			
2.7.3	LD shall address potential retrenchment and mine closure related socio-economic impacts through ongoing up-skilling of labour and career path development for mine employees.	HR Manager			

3 PUBLIC SAFETY, HEALTH AND WELLBEING

This section covers the following aspects of Public Safety and Health:

- Public safety, health and wellbeing during Operations;
- Post-Closure public safety, health and wellbeing; and
- Catastrophic Failure of Water and Mine Waste Storage Facilities.

The following overall objectives have been adopted for the management of Public Safety and Health Risks.

LD shall:

- Safeguard PACs and the general public against potential safety risks resulting from mining and mine-related activities during operations and following mine closure; and
- Develop and implement strategies to minimise the risk to community health due to mine operations; and to promote general community health and wellbeing.

In support of the above objectives, LD has made a number of commitments, outlined in the Table below.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
3.1	Public Safety, Health and Wellbeing During Operations				
3.1.1	LD shall safeguard PACs and the general public against potential safety and health risks resulting from mining and mine-related activities during operations.	HSE Manager	As detailed below	As detailed below	As detailed below
3.1.2	LD shall support and promote the health and wellbeing of its PACs through the implementation of a primary healthcare outreach project.	Health Super	Primary Health Care Outreach Programme Records of primary health care outreach initiatives	Recording and reporting on outreach interventions	N/A

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy							
3.1.3	LD shall prevent accidental injury or damage to property outside the mine lease area, as a result of mine-related traffic.	HSE Manager	Traffic Management Plan. Relevant records and communication.	Recording and reporting of mine traffic related non-conformances, incidents and accidents on Public roads outside of the Mine Lease Area	Investigation of all incidents Undertake the necessary corrective/disciplinary action							
3.1.4	Public access to the Mine Lease Area shall be strictly controlled and all public access excluded from the high security mine area.	Security Manager	Security Policy and documented Process Security Records	Recording and reporting of incidences and non-conformances	Investigate and undertake corrective action. Press charges for trespassing.							
3.1.5	LD shall mitigate against public property damage as a result of mine blasting activities and minimize discomfort from mine-related noise.	Mining Manager	Documented Blasting Process Blasting Records, Results	Annual ground- shock/vibration	Non-compliance with adopted standards for							
3.1.6	LD will restrict blasting to daylight hours and adhere to current practice of sounding a siren and evacuating the blast zone prior to blasting in accordance with the SOP.		_	_	_		_	_		of vibration monitoring. Documented External Grievance Management	monitoring and reporting Reporting of Blast noise and vibration monitoring to PACs.	ground-shock to be recorded, investigated and corrective action undertaken.
3.1.7	Blasting shall be undertaken according to the LD blasting procedures in order to reduce ground-shock, fly rock and the risk of structural damage to mine, public and private structures and infrastructure.		Process. Grievance Register and Records	Recording and reporting of flyrock damage.	Damage repair.							
3.1.8	LD will maintain machinery, vehicles and equipment in good condition and in accordance with a vehicle/equipment maintenance plan to restrict noise output.	Env Manager	Noise Monitoring Records Documented External Grievance Management Process	Ambient noise monitoring on site and at the nearest project affected community will be undertaken annually.								

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
3.1.9	LD shall implement pollution prevention measures to mitigate the risk to public health $^{\rm 1}$.	Env Manager	Various pollution prevention documented processes	Refer to Sections 4; 5 and 6	All non-conformance
3.1.10	Responsible waste management practices shall be implemented in order to minimise the risk to public health and safety as a result of exposure to mine waste ² .	Env Manager	General and Hazardous Waste Management: Guideline No 2. Documented Integrated Waste Management Process Waste Strategy	Refer to Section 4: Waste Management	and/or incidents to be reported on HQMS Investigate and undertake corrective action.
3.1.11	 LD shall safeguard the downstream communities from the potential catastrophic effects of dam or TSF failure during operations. This will be achieved by: Designing and operating all mine waste residue and water storage facilities to ensure physical and chemical stability under normal and abnormal conditions during operations and post-closure. implementing, maintaining and exercising Emergency Response Plans, Evacuation Plans and Recovery Plans for catastrophic failure of waste residue and water storage facilities, as appropriate. 	coo	Waste Residue Facility (WRD and TSF) and Mothusi Dam design reports and operational manuals. Code of Practice (COP) for mine waste residue and water storage facilities. Dam Failure Assessments Flood Risk Assessment Report Letšeng Crisis Management Plan Site Flood Plan for Dams Community Flood Plan	On-going internal and external monitoring, auditing and reporting of all mine waste residue and water storage facilities as per the COPs for each of the facilities.	Implement, maintain and exercise Emergency Response Plans, Evacuation Plans and Recovery Plans for catastrophic failure of waste residue and water storage facilities, as appropriate.

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¹ Refer to Section 5 for further details of Pollution Control Measures

² Refer to Section 4 for further details of Waste Management Objectives.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
			Flood Preparedness Plan		
3.2	Post-Closure Public Safety and Health				
3.2.1	LD shall safeguard the long-term safety and health of PACs through decommissioning and closing of all mining-related infrastructure and landscapes according to a GoL-approved safe and sustainable End Land Use, Closure Objectives and using proven closure criteria.	соо	Integrated Rehabilitation and Closure Plan	Performance monitoring and reporting during closure operations;	Undertake the necessary
3.2.2	LD shall undertake any necessary maintenance and repairs to the closure infrastructure and landscape during the post-closure aftercare period. The post-closure aftercare period will be determined in the Detailed Closure Plan ³ and aligned to International Industry Standards and Practices.	coo	End Landuse Plan Closure Criteria Closure Risk Assessment	Monitoring, evaluation and reporting of key performance indicators during the stipulated aftercare period.	corrective action to meet the desired closure objectives.

³ Refer to Section **Error! Reference source not found.**: Closure Planning and Provision

4 WASTE MANAGEMENT

This section covers environmental management measures related to solid waste generated at LD. Waste covered in this section includes:

- General domestic waste;
- Non-hazardous Industrial waste;
- Healthcare risk waste from the onsite clinic;
- Solid waste from the sewage plant; and
- Hazardous waste.

The measures provided in this section cover the entire waste cycle (Cradle to Grave) and focus on applying the waste hierarchy of avoidance, minimisation, reuse, recycling, treatment and correct disposal.

"Hazardous waste" refers to waste that may, by circumstances of use, quantity, concentration or inherent physical, chemical or infectious characteristics, cause ill-health or increase mortality in humans, fauna and flora, or adversely affect the environment when improperly treated, stored, transported or disposed of.

"Healthcare Risk Waste" refers to human and animal anatomical waste, infectious human and animal waste, sharps, chemical waste, pharmaceutical waste and radioactive waste generated by healthcare professionals, healthcare facilities and other non-healthcare professionals.

The following overall objectives have been adopted to Waste Management.

LD shall:

- Adhere to waste management principles of avoidance, minimisation, reuse, recycling, treatment and correct disposal; and implement control measures to prevent inappropriate storage, treatment and disposal of waste that may cause soil, water or air pollution and pose health and safety risks to workers and nearby communities;
- Handling, storage, transportation and disposal of hazardous waste will be undertaken in accordance with the law and with GIIP, applying the precautionary principle and providing assurance that final disposal of hazardous wastes is undertaken in a manner which is not harmful to the environment or human health and safety, through the provision of safe disposal certificates; and
- Waste disposal will be conducted in strict accordance with the Law and only once other technically and financially feasible options for waste reduction through avoidance, reuse and recycling have been exhausted.

In support of the above objectives, LD has made a number of commitments, outlined in the Table below.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
4.1	General				
4.1.1	LD shall handle, store, transport, treat and dispose of all hazardous and non-hazardous waste in accordance with Lesotho Law and conditions of any applicable permits or licences.	HSE Manager	General and Hazardous Waste Management: Guideline No 2		
4.1.2	LD shall reduce the quantities of hazardous and non-hazardous waste materials introduced to site by applying green procurement principles.	Supply chain Manager	Legal Register Waste Management Strategy	All waste generated on site, including general, hazardous, industrial and	Non-compliances and Incidents will be reported on HQMS, Investigated and corrective action implemented.
4.1.3	LD shall reduce the quantities of hazardous and non-hazardous waste materials generated on site by implementing waste recycling and reuse initiatives, where practicable.	HSE Manager	Documented Integrated Waste Management Process	healthcare risk waste, will be measured and reported in terms of the Waste Monitoring Protocol. Waste generation, collection, storage and treatment sites will be routinely inspected.	
4.1.4	LD shall ensure that all waste which is removed from site for recycling, reuse, repurposing and/or disposal is undertaken in a responsible manner compliant with legal requirements and international norms and standards.	HSE Manager	Site Specific Waste Management Plans Waste Sort Area SOP Waste Inventory		
4.1.5	LD shall maintain a dedicated Waste Management Site for the storage, sorting, treatment and disposal of general waste. The site will be designed, developed, maintained and operated according to an approved documented operating process.	HSE Manager	Waste Monitoring Protocol Waste Manifests and Safe Disposal Certificates		
4.1.6	LD shall determine expected waste volumes and types, assess pollution prevention opportunities and identify treatment, storage and disposal requirements for all planned new activities, equipment and process alterations, and plan accordingly.	Env Manager	Documented Management of Change (MOC) Process and documentation	N/A	N/A

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
4.2	Handling, Storage, Treatment and Transportation				
4.2.1	Waste shall be separated, where practicable, to allow for the appropriate management of the various waste streams and to facilitate the recycling, reuse, treatment and disposal of waste according to the relevant processes.	HSE Manager	General and Hazardous Waste Management: Guideline No 2 Waste Management Strategy Integrated Waste Management Procedure Site Specific Waste Management Plans Waste Inventory Waste Monitoring		Non-compliances and Incidents will be reported on HQMS, Investigated and corrective action implemented.
4.2.2	Waste shall be stored so as to prevent or control accidental releases to air, soil, and water resources, and in order to avoid odours, scavenging and vermin.	HSE Manager		Waste generation, collection, storage and treatment sites will be	
4.2.3	LD shall clearly mark all waste collection, storage, treatment and disposal areas with appropriate signage.	HSE Manager		routinely inspected. Periodic inspections of off-site transfer stations	
4.2.4	Waste shall be stored in a manner that prevents mixing of incompatible wastes and/or cross-contamination.	HSE Manager			
4.2.5	On-site and off-site transportation of waste shall be conducted so as to prevent spills, releases, and harmful exposures to employees and the public.	HSE Manager	Protocol		
4.3	General Waste Disposal				
4.3.1	On-site waste treatment and/or waste disposal shall only be undertaken under authorisation from the relevant authorities and in strict accordance with permit conditions and other legal requirements.	HSE Manager	Waste Management Strategy Incinerator Operation SOP Documented Food Waste Disposal Process Documented Building Rubble Disposal Process Waste Manifests	Routine inspections of all waste disposal sites at Letšeng. Period inspections of the approved general waste disposal site.	Non-compliances and Incidents will be reported on HQMS, Investigated and corrective action
4.3.2	Off-site disposal of general waste shall only take place at permitted facilities.	Env Manager		disposal site.	implemented.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
			Safe Disposal Certificates		
4.4	Hazardous and Healthcare Risk Waste				
4.4.1	LD shall practice safe handling, storage, transportation, treatment and disposal measures for hazardous and healthcare risk waste according to the relevant documented processes and legal obligations.	HSE Manager	General and Hazardous Waste Management: Guideline No 2 Legal Register Waste Management	All waste generated on site, including general, hazardous, industrial and healthcare risk waste, is measured and reported in terms of the Waste Monitoring Protocol. Routine inspections of all facilities used for the collection and storage of hazardous and health care risk waste. Periodic inspections of 3 rd party health care risk waste disposal facilities. Hazardous waste volumes reported to DoE on a quarterly basis as per the RoD	Non-compliances and Incidents will be reported
4.4.2	Hazardous and healthcare risk waste shall be segregated from general waste and according to type in order to facilitate safe handling, storage, transportation and disposal practices, and to prevent cross-contamination.	HSE Manager	Strategy Documented Integrated Waste Management Process Site Specific Waste Management Plans		on HQMS, Investigated and corrective action implemented. Emergency response plans for all high-risk hazardous wastes. Provision of adequate spill response materials specific to the pollution threat and located near the high-risk areas. Spill drills will be undertaken according to the programme specified in the Emergency Response Plans
4.4.3	Transportation of hazardous and healthcare risk waste shall be conducted in accordance with the relevant legislation and permit conditions.	HSE Manager	Waste Monitoring Protocol Hazardous and healthcare waste inventory Hydrocarbon		
4.4.4	Hazardous and healthcare risk waste shall be disposed of in a manner permitted by the authorities at an approved waste disposal facility.	Env Manager	Management Plan Documented Soil Treatment Process SOP for handling & disposal of health care risk waste Waste Manifests and Safe Disposal Certificates		

5 HAZARDOUS SUBSTANCES AND DANGEROUS GOODS MANAGEMENT

This section deals with identification and management of risks/impacts associated with the handling, storage, use and disposal of hazardous substances and dangerous goods. Dangerous goods include the radioactive sources radiation generating sources.

"Hazardous substances" are those that, following worker exposure, can have an adverse effect on health. Examples of hazardous substances include poisons, substances that cause burns or skin and eye irritation, and substances that may cause cancer. Many hazardous substances are also classified as dangerous goods.

"Dangerous Goods" are substances that may be corrosive, flammable, explosive, spontaneously combustible, toxic, oxidising, or water-reactive. These goods can be deadly and can seriously injure or kill people, damage property and the environment.

"Radioactive Source" means radioactive material that is permanently sealed in a capsule or closely bonded in a solid form and any radioactive material is released through the breaking or leaking of the source but does not include nuclear material or material encapsulated for disposal.

"Radiation Generating Device" is a collective term for devices which produce ionizing radiation, including, certain sealed radioactive sources, small particle accelerators used for single purpose applications which produce ionizing radiation (e.g., radiography), and electron generating devices that produce X-rays incidentally.

Hazardous substances are classified based only on *health effects* (whether they are immediate or long term), while dangerous goods are classified according to their *immediate physical or chemical effects*, such as fire, explosion, corrosion and poisoning, affecting property, the environment or people.

The following overall objective has been adopted to the management of hazardous substances and dangerous goods.

LD shall minimise risk of environmental pollution and risk to human health and safety through implementation of control measures to prevent the release of, and/or exposure to, all hazardous substances and dangerous goods;

In support of the above objective, LD has made a number of commitments, outlined in the table below.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
5.1	General				
5.1.1	LD shall handle, use and store all hazardous substances and dangerous goods in such a manner as to minimise the risk to human health and safety and to the environment as a result of uncontrolled exposure or spillage.	HSE Manager	Hazardous Substances and Dangerous Goods: Guideline No 3 Legal Register	General use, storage, handling and disposal of	Non-compliances and Incidents will be reported on HQMS, Investigated and corrective action implemented.
5.1.2	LD shall transport, store, handle and dispose of all hazardous substances and dangerous goods in accordance with Lesotho Law and the conditions of any permits or licences, if applicable.	HSE Manager	Handling and Storage of Hazardous Substances and Dangerous Goods Process	HCS will be monitored as part of routine and general site inspections conducted by the HSE Department.	Emergency response plans for all high-risk hazardous substances Provision of adequate spill response materials specific to the pollution threat and located near the high-risk areas. Spill drills will be
5.2.3	LD shall minimise the quantities of hazardous substances and dangerous goods on site, as far as practicable, through substitution with non-hazardous alternatives and judicious stock control.	HSE Manager	Hazardous Substances Inventory Hydrocarbon Management Plan	Tracking and reporting of non-conformances and/or incidents. Reporting all significant	
5.1.4	LD shall assess all planned new activities and /or process alterations in order to identify expected hazardous substances or dangerous goods, to assess the risks and to implement additional management measures as required.	Env Manager	Management of Change (MOC) Procedure and documentation	spillages to the DoE as per the legislation.	undertaken according to the programme specified in the Emergency Response Plans
5.2	Radiation and Radio-active sources				
5.2.1	LD shall source, transport, use and replace all radiation and radioactive sources in strict accordance with Lesotho Law, conditions of any applicable permits or licences and internationally accepted standards.	Radiation Protection Officer (RPO)	Hazardous Substances and Dangerous Goods: Guideline No 3	Monitoring of individual exposure via TLD Badges.	Non-compliances and incidents will be

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
5.2.2	All radioactive sources used on site shall be strictly managed via a contractual arrangement with the supplier of the source, approved by the Lesotho Radiation Protection Agency.		Legal Register Inventory of Sources: Radiation Report Occupational Radiation Protection Procedure Disused Radiation Sources Agreement	Weekly or monthly surveys of controlled and supervised areas, deviations reported to	reported to management immediately. Formal investigations
5.2.3	LD shall not store or dispose any radiation or radioactive source on site. Contracted suppliers will dispose of radiation sources appropriately in accordance with the Disused Radiation Sources Agreement.			Occupational Radiation Protection Procedure Disused Radiation	conducted and corrective action implemented. Emergency preparedness and
5.2.4	Radiation generating sources, such as Xray tubes, are classified as hazardous waste and shall be transported, handled and disposed of in strict accordance with the relevant legislation and at approved disposal facilities.				response process shall be in place for onsite radiation emergencies
5.3	Transportation and Transmission of Bulk Hazardous Substance	s			
5.3.1	LD shall minimise the risk of spillage during bulk transportation to the mine by engaging only approved transport operators with EM pre-approved Spill Response Plans, all relevant permits, licences and signage, and equipped with appropriate spill response kits.	Env Manager	Route Risk Assessment Traffic Management Plan Spill Response Plans	Routine inspections of bulk transport vehicles for signage, spill kits, emergency plans etc	Non-compliances and Incidents will be reported on HQMS, Investigated and corrective action implemented. Provision of adequate spill response materials. Spill-response simulations (Spill drills) undertaken periodically.
5.3.2	LD shall minimise the risk of spillages during transmission of hazardous substances on site (including dispensing into tanks and vehicles) through the provision of engineering solutions and through applying clear operating processes.	Procurement Manager	Diesel Handling Procedure Spill Response Plans Spill Drill Procedure Hydrocarbon Management Plan	Routine inspections of all bulk storage and dispensing facilities. Tracking and reporting of non-conformances and/or incidents. Reporting all significant spillages to the DoE as per the legislation .	

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
5.4	Use and Storage				
5.4.1	All hazardous substances and dangerous goods shall be used only for the approved purpose, by appropriately trained personnel and in accordance with relevant SOP and the MSDSs.				Non-compliances and Incidents will be reported on HQMS,
5.4.2	All hazardous substances shall be stored according to the specifications of the MSDSs, and according to chemical compatibility.	HSE Manager	Drococc	General use, storage and handling of HCS will be monitored as part of routine and general site inspections conducted by the HSE Department. Tracking and reporting of non-conformances and/or incidents. Reporting all significant spillages to the DoE as per the legislation.	Investigated and corrective action implemented. Emergency response
5.4.3	All hazardous substances shall be stored in secondary containment as specified in the relevant documented processes.				plans for all high-risk hazardous substances Provision of adequate spill response materials specific to the pollution threat and located near
5.4.4	All oil separation traps shall be fit for purpose, properly operated and maintained and regularly inspected according to an SOP, in order to minimise the risk of environmental pollution.				
5.4.5	All hazardous substances shall be clearly labelled.				the high-risk areas. Spill drills will be
5.4.6	Hazardous substances storage areas shall be clearly signposted.				undertaken according to the programme specified in the Emergency
5.4.7	Relevant up to date MSDSs shall be clearly displayed in close proximity to the storage and handling areas for such HCS.				Response Plans
5.5	Hazardous Substances Disposal				
5.5.1	Expired or redundant hazardous substances will be clearly marked as such and be accompanied by the appropriate MSDS.	HSE Manager	Hazardous Substances and Dangerous Goods: Guideline No 3	Routine inspections of storage areas.	Non-compliances and Incidents will be reported on HQMS, Investigated and

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
5.5.2	LD will dispose of hazardous substances and hazardous substances containers according to the MSDS and Waste Management Processes.	HSE Manager	Documented Transport, Handling and Storage of Hazardous Substances and Dangerous Goods Process Documented Integrated Waste Management Process Hazardous Substances Inventory Waste Manifests Safe Disposal Certificates	Waste Management Reporting to DoE as per the RoD	corrective action implemented.

6 WATER AND MINE WASTE RESIDUE MANAGEMENT

This section covers all aspects of water management, namely:

- Water Conservation and Demand Management;
- Stormwater Management;
- Groundwater Management;
- Hydrology (Surface Water Quantity);
- Surface Water Quality; and
- Water Storage and Mine Waste Residue storage facilities.

Mine waste residue is covered in this section, in particular as it relates to the potential for surface and groundwater pollution from the waste rock dumps (WRDs) and the tailings storage facilities (TSFs). Other aspects such as dust, visual impacts and the rehabilitation and closure of these features are covered under other sections in this SEMP, as relevant.

"Mine Waste Residue" in relation to this document, refers to any debris, discard, tailings, slimes, screening, slurry, waste rock, foundry sand, beneficiation plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated for potential re-use, or which is disposed of, by the holder of a mining right, mining permit or production right. At LD this includes the Waste Rock Dump (WRD) and the Tailings Storage Facilities (TSFs).

"Stormwater Management" includes strategies implemented to control the surface flow of stormwater such that erosion, sedimentation and pollution of surface and ground water resources in the immediate and surrounding environments are mitigated.

The following overall objectives have been adopted to the management of water and mine waste residue.

LD will:

- Minimise raw water use through reuse and recycling of process water and through the application of water use efficiencies throughout its operations;
- Maintain, where practicable, the ecological and human reserve requirement for the immediate downstream catchment;
- Mitigate the pollution risk to clean surface water sources through the separation of clean and dirty water runoff via the implementation of an appropriate Stormwater Management System;

- Minimise the risk to human and aquatic environmental health through applying appropriate actions to ensure that all surface water discharged from the mine lease area meets with the appropriate standards adopted by the GoL.
- Minimise potential negative impacts and risk of catastrophic failure of all mine waste residue and water storage facilities throughout their life cycle, during normal and abnormal circumstances. This will be achieved through appropriate design, operation, and closure practices.

In support of the above objectives, LD has made a number of commitments, outlined in the table below.

No	Commitment	Resp	Supporting Documents Processes and Records,	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy						
6.1	5.1 Water Conservation and Demand Management										
6.1.1	 LD shall minimise raw water use through implementation of practical and achievable conservation measures across all sectors of the mine, including: Containment, recovery and reuse of process and dirty water; potable water saving processes; and maintenance of water supply infrastructure to prevent loss. 	Eng Manager	Water and Mine Waste Management: Guideline No 4 Water conservation KPIs Documented processing and potable water supply processes Water conservation awareness campaign and records Dynamic Water Balance and database Water consumption records and maintenance records	Accurate and ongoing metering of raw and recycled water consumption throughout operations. Track, evaluate and report performance against KPIs.	Investigate, identify data gaps and/or inaccuracies in metering and take corrective action. Investigate reasons for non-compliance with KPIs and implement corrective action. Review KPI's if necessary.						
6.1.2	LD shall incorporate water efficient technologies and design measures into the design specifications for all new mine infrastructure and retrofit existing operations or facilities where practicable.	Env Manager	Documented Management of Change Process MOC documentation								

No	Commitment	Resp	Supporting Documents Processes and Records,	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy						
6.2	5.2 Hydrology and Stormwater Management										
6.2.1	LD shall avoid the pollution of clean surface water sources through appropriate stormwater management controls and separation of clean and dirty water runoff on site during normal and abnormal conditions.	Eng Manager	Water and Mine Waste Management: Guideline No 4 Stormwater Management Plan Stormwater designs and layout plans. Surface water monitoring protocol	Surface water monitoring and Reporting. Inspection of stormwater structures, particularly after abnormal rainfall conditions.	Repair and/or upgrade damaged or inadequate stormwater structures.						
6.2.2	LD shall maintain the ecological and human reserve requirements of the downstream catchment where practicable and without compromising normal mining activities.	Env Manager	Water and Mine Waste Management: Guideline No 4 Reserve determination reports. Surface water monitoring protocol and database.	Streamflow monitoring on all major streams exiting the mine lease area.	Provision of alternative and safe drinking water supply where the human requirements cannot be safely met.						
6.3	Water Quality										
6.3.1	LD shall mitigate the impact on groundwater and groundwater users, ensuring that groundwater resources are not negatively impacted in either quality or quantity.	Env Manager	Manager Management: Guideline No 4 Legal Register Hydrogeological and Contaminant Flow Model Env Groundwater Monitoring Groundwater quality monitoring as per the Protocol		Non-compliance with legal or adopted standards will trigger an investigation into source of contamination.						
6.3.2	LD shall comply with relevant Lesotho groundwater quality standards. Where Lesotho standards are not available, relevant internationally recognised standards shall apply, benchmarked against local ambient conditions.	Env Manager		Groundwater quality	Implement corrective action. Purge and re-establish monitoring boreholes as necessary.						
6.3.3	LD shall minimise the risk to human and aquatic environmental health through applying appropriate actions to ensure that all surface water discharged from the mine	Env Manager	Water and Mine Waste Management: Guideline No 4	Periodic water quality monitoring as per the Protocol.	Non-compliance with legal or adopted						

No	Commitment	Resp	Supporting Documents Processes and Records,	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
	lease area meets with the appropriate standards adopted by the GoL. Where Lesotho standards are not available, relevant internationally recognised standards will apply, benchmarked against local ambient conditions.		Legal Register Surface water Monitoring Protocol and Database	Biannual biomonitoring (as per ROD). Performance tracking/trending and reporting to management. Biannual reporting to DoE as per ROD.	standards will trigger an investigation into source of contamination. Implement corrective action.
6.3.4	Process or "dirty" water shall only be discharged directly into the ambient environment under permit from the relevant authority, and only once all other feasible options to retain and reuse the water on site, have been exhausted.	Env Manager	Documented Pit Dewatering Process Discharge Permits and Records	Ongoing water quality monitoring during pit dewatering into the environment; Volume recording /Flow rates from v-notches; Evaluation of impact and reporting to DoE as per permit conditions.	Register and report non-compliance. Implement corrective action.
6.3.5	LD shall apply appropriate pollution control and spill prevention measures (as outlined elsewhere in the SEMP) in order to minimise the risk of surface and groundwater pollution.	Env Manager	Documented Spill Response Process Hydrocarbon Management Plan Documented Transport, Handing and Storage of Hazardous Substances and Dangerous goods Process	Regular site inspections; Non-conformance and incident tracking and reporting; Reporting of significant incidents to DoE.	Register and report all non-compliances. Investigate and implement corrective actions.
6.3.6	LD shall operate the sewage treatment plant optimally to meet the required standards in order to reduce the risk of pollution of the mine's raw water supply and natural surface water bodies.	Eng M	Wastewater Treatment Plant SOP and records	Daily operational checks at STP; Monitoring as per Surface water Protocol;	Non-compliance with legal or adopted standards will trigger an investigation into source.

No	Commitment	Resp	Supporting Documents Processes and Records,	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy	
				STP Performance evaluation, trending and reporting.	Implement corrective action.	
6.3.7	LD shall provide and maintain adequate and appropriate ablution facilities throughout the mine, in particular at remote sites, to reduce the risk of <i>E.coli</i> contamination of surface water bodies.	Eng M	Portable Loos and Septic Tanks SOP	Routine Site inspections	Register a non- compliance on HQMS;	
6.3.8	Natural riverine and wetland functioning shall be maintained, where practicable, through avoiding direct and indirect damage to streams and wetland habitat and water quality.	LMRC	Water and Mine Waste Management: Guideline No 4 LD Biodiversity No-Go Areas	Noutille Site Hispections	Investigate and implement corrective actions.	
6.3.9	LD shall minimize nitrates generated from blasting through applying strict blasting discipline and adhering to the actions contained in the mine's Nitrate Management Strategy and Plan.	Mining Manager	Nitrates Management Strategy and Plan Documented Blasting Processes Blasting records	Inspection and sign-off of platforms prior to blasting. Routine PTOs of charging practices. Recording and reporting of misfires. Routine VOD monitoring to evaluate blast efficiency.	Register a non- compliance/incident on HQMS; Investigate and implement corrective action;	
6.3.10	LD shall recover and reuse nitrate-enriched wastewater through implementing and maintaining return water systems as far as practicable.	Met M	Nitrates Management Strategy and Plan	Routine site inspections. Metering of Return water flows.	Non-compliance with legal or adopted standards will trigger an	
6.3.11	LD shall optimize the passive assimilation of nitrates through protecting and supporting natural systems and impoundments (i.e, streams, wetlands and dams).	Env Manager	Nitrates Action Plan	Monitoring and trending nitrate levels within all affected catchments.	investigation Implement corrective action via the Nitrate	
6.3.12	LD shall implement a catchment-based Nitrate Action Plan to achieve target water quality objectives for mine water discharges. This may involve active treatment, controlled	Env Manager	Water System Process	Tracking nitrate management actions and reporting progress to management.	Action Plan.	

No	Commitment	Resp	Supporting Documents Processes and Records,	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
	releases, return water systems and/or inter-catchment transfers.				
6.4	Mine Waste Residue and Water Storage facilities				
6.4.1	LD shall safeguard the downstream communities and environment from the potential polluting effects of waste residue storage facilities and from catastrophic failure of these facilities.	соо	Water and Mine Waste Management: Guideline No 4 As indicated below.	Surface water quality monitoring as indicated in 6.3.3. As indicated below.	As indicated below.
6.4.2	LD shall design, operate and close all waste rock residue storage facilities to ensure physical and chemical stability during normal and abnormal conditions, during operation and on closure.	Mining Manager	WRD design reports and operational manuals WRD Code of Practice	Daily, weekly and monthly inspections, monitoring and reporting. Quarterly remote (drone) surveys.	Apply recommended corrective actions in the event of non-compliance.
6.4.3	LD shall design, operate and close all tailings storage facilities to ensure physical and chemical stability during normal and abnormal conditions, during operation and on closure.	Met M	Old Slimes and Patiseng Code of Practice Mothusi Dam Operation and Maintenance SOP Dam Burst Assessment	inspections, monitoring and reporting as per COP. Quarterly audits and annual event of no	Apply recommended corrective actions in the event of non-compliance. Implement, maintain and
6.4.4	LD shall design, operate and close all water storage facilities to ensure physical and chemical stability during normal and abnormal conditions, during operation and on closure.	Dam Failure Assessments Flood Risk Assessment Re close all water storage facilities cal stability during normal and Eng M Dam Failure Assessments Flood Risk Assessment Re Letšeng Crisis Manageme Plan	Site Flood Plan for Dams Community Flood Plan	Daily, weekly and monthly inspections, monitoring and reporting as per COP. Quarterly reports and annual external review	exercise Emergency Response Plans, Evacuation Plans and Recovery Plans for catastrophic failure of waste residue and water storage facilities, as appropriate.

7 ENERGY, CLIMATE CHANGE AND AIR QUALITY MANAGEMENT

This section deals with the mitigation of harmful particulate and gaseous emissions from mining operations and initiatives to combat and adapt to climate change, conserve energy and reduce the emission of greenhouse gasses.

"Carbon Footprint" is the total set of greenhouse gas (GHG) emissions caused by an organisation, event, product or person.

"Greenhouse Gas (GHG)" is any gas whose absorption of solar radiation is responsible for the greenhouse effect, including carbon dioxide, methane, ozone, and the fluorocarbons.

"Climate Change" a change in global or regional climate patterns, in particular a change apparent from the mid to late 20th century onwards and attributed largely to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels.

The following overall objectives have been adopted to the management of energy, climate change and air quality.

LD shall:

- <u>Minimise</u> energy use through the application of technically and financially feasible energy efficient technologies and methodologies, thereby reducing costs to company and minimising the company carbon footprint;
- Combat climate change through reducing GHG emissions and mitigate against the effects of climate change through implementing a climate change adaptation plan.
- Minimise impacts of dust and other air emissions on human health, aesthetic value and flora and fauna.

In support of the above, LD has made a number of commitments, outlined in the table below.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy							
7.1	7.1 Energy Conservation and Efficiency											
7.1.1	LD shall seek to minimise energy use through implementation of technically and financially feasible energy efficient technologies and practices for all existing operations.	Eng Manager	Energy, Climate Change and Air Quality Management: Guideline No 5 Energy Policy Energy Balance	Accurate metering of electrical power use throughout the organisation. Electrical power and fuel consumption will be quantified and reported in accordance with corporate reporting requirements	Investigate, identify data gaps and/or inaccuracies in metering and take corrective action. Investigate reasons for non-compliance with							
7.1.2	LD shall assess and implement clean energy options and/or energy saving alternative technologies, practices and initiatives for all new projects or process changes as part of the Management of Change Process.	Eng Manager	Documented Management of Change Process and other documentation.	Track, evaluate and report performance against KPIs and other energy efficiency targets as relevant.	KPIs and implement corrective action. Review KPI's if necessary.							
7.2	Climate Change Mitigation and Adaptation											
7.2.1	LD shall adapt its current operations to reduce vulnerability to climate change and to minimise the risk of catastrophic events which may result from extreme weather conditions.	coo	Energy, Climate Change and Air Quality Management: Guideline No 5 LD Climate Change Adaptation Plan and Risk	r Quality Management: uideline No 5 C Climate Change daptation Plan and Risk ssessment anagement of Change orporate Risk Register ocumented Emergency Relevant data will be collected on a monthly basis in order to inform the annual GHG assessment. Reporting on climate change mitigation and adaptation in annual Environmental Performance Report	Contingency planning and provision as indicated in the Climate Change Adaptation Plan and relevant emergency							
7.2.2	LD shall plan, design and implement all future expansions to accommodate climate change projections.	соо	Assessment Management of Change Corporate Risk Register Documented Emergency		action plans. Implement, maintain and exercise Emergency Response Plans, Evacuation Plans and Recovery Plans for all							
7.2.3	LD shall decommission and close all structures, infrastructure and facilities to ensure a safe and	coo	Preparedness, Prevention and Response Plan and Process		emergency conditions							

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy	
	sustainable end landuse under projected climate change conditions.		Integrated Rehabilitation and Closure Plan			
7.2.4	LD shall mitigate against climate change through minimising its Greenhouse Gas (GHG) emissions, and thereby reducing its total Carbon Footprint as much as practicable.	Env Manager	Annual Corporate Carbon Footprint Energy Policy			
7.3	Air Quality					
7.3.1	LD shall mitigate against the impacts of dust and other air emissions on human health and wellbeing, aesthetic value, and flora and fauna.	Env Manager				
7.3.2	LD shall comply with the relevant Lesotho air quality standards and where local standards are not available, then relevant internationally recognised standards will apply, benchmarked against local ambient conditions.	Env Manager	Energy, Climate Change and Air Quality Management: Guideline No 5 Legal Register	Air Quality Management: Guideline No 5 Legal Register		Non-compliance with legal or adopted standards will trigger an
7.3.2	LD shall undertake point source dust suppression where necessary (e.g. at PCA and drilling) and maintain to ensure optimal efficiency.	HSE Manager	Documented Dust Suppression Process Documented Incinerator Operation Process	Ambient dust and gaseous emissions will be monitored, tracked and reported according to the LD Air Quality Monitoring	investigation into source of contamination. Implement corrective	
7.3.3	LD shall undertake dust suppression of roads during dry and windy conditions.	HSE Manager	Air Quality Monitoring Protocol	Protocol. Regular emissions testing of	action. Non-compliances /	
7.3.4	LD shall restrict speed of all vehicles along all mine roads, including haul roads, and enforce the speed limit.	HSE Manager	Air Quality Monitoring database	mobile and stationary plant.	incidents are logged on HQMS and further investigation and	
7.3.5	LD shall restrict disturbed areas and rehabilitate / revegetate promptly where practicable in order to minimise dust.	Env Manager	Documented PCA Operation Process Plant maintenance records		corrective action.	
7.3.6	No burning of waste shall be undertaken on site unless permitted by the relevant authority.	HSE Manager				

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
7.3.7	LD shall maintain all diesel and petrol powered plant in optimal running order and in accordance with their maintenance schedules in order to reduce the gaseous emissions.	HSE Manager			

8 SOILS, LAND USE AND LAND CAPABILITY

This section covers soils, landuse and land capability management as follows:

- Soils conservation and protection against loss;
- Soil pollution protection;
- On-going rehabilitation and habitat restoration; and
- Mine Closure Planning and Provision.

"Premature closure" is the sudden or abrupt closure of all mining operations due to unexpected or unforeseen circumstances. Premature closure may be as a result of economic instability, operational incident causing fatalities and environmental degradation or disasters.

"LOM Closure" is the planned closure of a mine at a predetermined date, normally when all financially feasible resources have been mined.

"Concurrent Rehabilitation" refers to the on-going measures which are taken to repair disturbed or degraded land and return it to a stable and non-polluting state.

The following overall objectives have been adopted to the management of soils, landuse and land capability.

LD shall:

- Conserve soils and soil functionality, and maintain land capability as far as practicable through: minimising soil clearance; preserving soil quality and quantity through appropriate stockpiling; and undertaking on-going, concurrent rehabilitation during life of mine, where practicable;
- Determine a sustainable, legally compliant and socially acceptable end land-use and provide the necessary financial resources for rehabilitation and closure accordingly.

In support of the above, LD has made a number of commitments, outlined in the table below.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy					
8.1	8.1 Soil Management									
8.1.1	LD shall conserve natural soils and maintain soil viability and land capability within the mine lease area, as far as practicable, to enable effective and sustainable mine rehabilitation.	LMRC		Areas disturbed and rehabilitated will be quantified and reported	All non-compliances / incidents will be recorded on the mine's HQMS. Incident investigations undertaken and corrective action determined and implemented					
8.1.2	LD shall restrict soil disturbance to designated areas only, as identified on the Mine Site Plan and approved by the LMRC.	LMRC	Soils and Land Capability	in accordance with corporate requirements.						
8.1.3	LD shall strip soil from designated and approved development areas according to an optimised stripping plan and programme.	LMRC	Management: Guideline No 6 Soil Stripping Plan Documented Soil Stripping and Stockpiling	eline will be quantified and reported as per corporate reporting requirements and a soil balance maintained.						
8.1.4	LD shall stockpile soils in designated areas according to the relevant processes and an approved and optimised stockpile design.	LMRC								
8.1.5	Soil stockpiles and stockpile types shall be clearly identified on the Mine Site Plan and on the ground through appropriate signage.	LMRC	Process Soil Balance Stormwater Management Plan	testing prior to utilising the soil for rehabilitation and ameliorated if necessary.						
8.1.6	LD shall limit the potential for soil erosion through installing appropriate stormwater management measures throughout the mine area.	LMRC	Soil Stockpile optimised design	Soil erosion occurring on site will be detected during general site inspections, and the						
8.1.7	Wind and stormwater protection measures shall be implemented on exposed rehabilitated areas and maintained until vegetation is establishment and/or the risk of erosion is minimal.	LMRC		necessary corrective action will be implemented.						
8.1.8	LD shall minimise the risk of soil pollution from hydrocarbons, noxious chemicals or harmful substances through implementation of management actions described under waste and hazardous substances management sections of the SEMP.	LMRC	Hydrocarbon Management Plan Documented Spill	Routine site inspections undertaken of high-risk areas.	All non-compliances / incidents will be recorded on the mine's HQMS.					

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
			Response Process Documented Transport, Handling and Storage of Hazardous Substances and Dangerous Goods Process	Contaminated soil will be analysed for hydrocarbon content upon completion of the treatment process and prior to stockpiling or use in rehabilitation.	Incident investigations undertaken and corrective action determined and implemented
8.1.9	Contaminated soil shall be recovered and ameliorated on-site using environmentally sound measures to a standard which allows for safe stockpiling and use in rehabilitation as per the relevant procedures.	LMRC	Documented Soil Treatment Process		
8.2	Land Capability and Rehabilitation				
8.2.1	LD shall maintain land capability through the designation of No-go areas and undertake immediate rehabilitation of areas which were impacted by on-going construction activities, where practicable.		Soils and Land Capability Management: Guideline No 6	Areas which have undergone rehabilitation	Failure to achieve the desired land functionality and/or biodiversity shall trigger an investigation and corrective action.
8.2.2	LD shall undertake concurrent rehabilitation of disturbed areas, including mine waste residue deposits, where practicable, and as provided for in a Concurrent Rehabilitation Plan and Programme.	LMRC	Rehabilitation Plan and Schedule.	will be monitored in accordance with the Rehabilitation Monitoring Plan and Programme.	
8.2.3	LD shall employ tried and tested rehabilitation practices in order to restore soil and land functionality, surface stability and biodiversity.		Rehabilitation Monitoring Plan and Programme.		und confective doctorii
8.3	Closure Planning and Provision				
8.3.1	LD shall determine a sustainable, socially acceptable and legally compliant end land-use for the Letšeng Mining Lease Area.	Env	Soils and Land Capability Management: Guideline	Rehabilitation and Closure Liability will be	N/A
8.3.2	LD shall determine overall mine closure objectives and specific closure criteria for all the mine's features, structures and	Manager	No 6	included in the Annual Financial Statements	N/A

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy	
	infrastructure in line with the proposed end land-use, taking into account climate change projections.		Letšeng integrated Rehabilitation and			
8.3.3	LD will review and update the Premature and Life of Mine (LoM) closure costs on an annual basis.		Closure Plan. Letšeng End Landuse Plan Concurrent Rehabilitation Plan Closure and rehabilitation Risk Assessment and Gap Analysis. SOP for the Annual Closure Quantification. Annual Closure Costing Report			
8.3.4	LD will make financial provision for premature closure.	Financial manager				
8.3.5	Financial provision will include a post-closure care and maintenance period and monitoring, in keeping with International Industry Standards and Practices.	Env Manager		rehabilitation Risk Assessment and Gap		
8.3.6	LD will design and develop all new structures, infrastructure and waste residue storage facilities to allow for concurrent and/or cost-effective closure and rehabilitation, where practicable.	Env Manager				
8.3.7	LD will prepare a Detailed Rehabilitation and Closure Plan ten (10) years before scheduled / LoM closure in keeping with International Industry Standards and Practices.	Env Manager				

9 BIODIVERSITY AND ECOSYSTEM SERVICES

This section covers the following aspects of biodiversity management as follows:

- Habitat Protection;
- Species Protection; and
- Ecosystem Services;

The management of impacts related to loss of biodiversity as a result of pollution, lands disturbance and stripping of soils are covered elsewhere in the SEMP as relevant.

The following overall objectives have been adopted to the management of hazardous substances and dangerous goods.

LD shall:

- Preserve and promote biodiversity through the protection and management of natural habitats within the Mine Lease. Given that the Mine Lease is located within a Critical Habitat Area, LD will strive to achieve "no net loss" of biodiversity through applying the mitigation hierarchy of avoidance, minimisation, restoration and offsetting.
- Avoid loss of individual plant species, particularly priority species, during mine expansion activities through rescue and relocation exercises.
- Optimise the provision of ecosystem services delivered by the mine lease area through:
 - Minimising the impact on natural habitat,
 - o Minimising pollution of land, water and air;
 - o Restoring natural habitat where practicable; and
 - o Ensuring chemical and physical stability of all mine residue storage facilities.

"No net loss" is defined as the point at which project-related impacts on biodiversity are balanced by measures taken to avoid and minimize the project's impacts, to undertake on-site restoration and finally to offset significant residual impacts, if any, on an appropriate geographic scale (e.g., local, landscape-level, national, regional).

In support of the above objectives, LD has made a number of commitments, outlined in the table below.

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy			
9.1	Biodiversity and Habitat Protection							
9.1.1	LD shall preserve and promote biodiversity through the protection, management and restoration of natural habitats within the mine lease area.		Biodiversity and	Veld quality monitoring undertaken as detailed in the Biodiversity				
9.1.2	Letšeng Mine is located within a "Critical Habitat Area". LD shall strive to achieve no net-loss of biodiversity within the Mine Lease Area through applying the mitigation hierarchy of avoidance, minimisation, restoration and offsetting.		E E E N B A LMRC III N R R	Ecosystem Services: Environmental Guideline No 7. Riodiversity "No-Go"	Biodiversity Off-sets I monitored and reported i as specified in the Biodiversity Monitoring Protocol	Non-conformances and incidents of biodiversity or habitat loss or damage will be reported on HQMS, investigated and corrective action taken.		
9.1.3	LD shall designate and enforce biodiversity protection areas ("no-go" areas) and shall restrict disturbance of natural habitat to designated areas as identified on the Mine Site Plan and approved by the LMRC.			Area Plan. Integrated Biodiversity Monitoring and Reporting Protocol				
9.1.4	Natural rangeland within the mine lease area shall be managed to optimise plant and animal biodiversity and veld condition.			Rehabilitation Monitoring Plan and	on rehabilitated areas monitored in accordance with the Rehabilitation			
9.1.5	LD shall undertake biodiversity and habitat restoration of disturbed and/or rehabilitated areas using tried and tested rehabilitation methods.		Programme.	Monitoring Plan and Programme.				
9.1.6	LD shall maintain restricted / controlled access to the mine lease areas in order to prevent uncontrolled external impacts on biodiversity.	Security Manager	Security Policy and documented Processes Security Records	Recording and reporting of incidences and non-conformances	Investigate and undertake corrective action. Press charges for trespassing.			
9.2	9.2 Species Conservation							
9.2.1	LD shall preserve indigenous plant and animal species on the mine through habitat protection and management, and rescue / relocation exercises.	LMRC	Documented Priority Plant Rescue Process	Monitoring and recording of plant search and rescue programmes.	Non-conformances and incidents related to species conservation will			

No	Commitment	Resp	Supporting Documents and Records	Performance Evaluation, Tracking and Reporting	Contingency / Non-compliance Strategy
9.2.2	A priority plant search and rescue process and practice will be implemented and applied to all mine expansions impacting on natural habitat		Documented Seed collection and Storage Process Biodiversity "No-Go"	Flora and Fauna Species will be monitored and reported as detailed in the relevant Monitoring	be reported on HQMS, investigated and corrective action taken.
9.2.3	Rescued plants will be relocated to biodiversity protection areas or into the biodiversity gardens/nursery.		Area Plan Flora and Fauna Monitoring and Reporting Protocol	Protocol	
			Faunal Database		
9.2.4	LD will harvest and safely store seeds and rescue plants for propagating and use in rehabilitation on site.		Priority Species Database Biodiversity Display Garden Database		
			Search and Rescue Records		
9.3	Ecosystem Services and Habitat Restoration				
9.3.1	LD shall optimise the delivery of ecosystem services provided by the mine lease area through restricting the impacts on natural habitats, minimising pollution of land, air and water and restoring natural functionality where practicable.		Biodiversity and Ecosystem Services: Environmental Guideline No 7.	Rehabilitation and Restoration activities monitored as per the	Non-conformances and incidents reported on HQMS, investigated and corrective action taken.
9.3.2	LD will facilitate the sustainable use of natural resources within the mine lease area by PACs, where feasible and permitted by the LD Security and Safety policies.	LMRC	Integrated Rehabilitation and Closure Plan	Rehabilitation Monitoring Plan and Programme Monitoring use of natural resources (eg: grazing)	
9.3.3	Concurrent rehabilitation of mining areas will be undertaken where practicable and in accordance with the concurrent rehabilitation plan.		Concurrent rehabilitation Plan Biodiversity No-go Areas Plan.		

10 REFERENCES

- ERM Southern Africa (Pty) Ltd & JD Consulting, 2013. Social and Environmental Management Plan for Letšeng Diamond Mine, Lesotho.
- ERM Southern Africa (Pty) Ltd, 2013. Social and Environmental Impact Assessment for Letšeng Diamond Mine, Lesotho.
- GRI, 2013; Sustainability Reporting Guidelines.
- IFC, 2012. IFC Performance Standards for Social and Environmental Sustainability.
- IFC, 2007. Environmental Health and Safety: General Guideline.
- IFC, 2007. Environmental Health and Safety: Guidelines for Mining.
- IFC, 2007. Environmental Health and Safety: Guidelines for Waste Management.
- ISO, 2015. ISO 14001 International Standard for Environmental Management Systems Requirements with guidance for use.
- JDConsulting, 2016. Social and Environmental Management Plan for Letšeng Diamond Mine, Lesotho (Version 2)

APPENDICES

APPENDIX A Certificate of ISO 14001 compliance

APPENDIX B SEMP Record of Change

APPENDIX A Certificate of ISO 14001 compliance



CERTIFICATE



This is to certify that



Letšeng Diamonds (Pty) Ltd Letšeng Diamond Mine

Letšeng-La-Terai Mokhotlong Lesotho

Has implemented and maintains an Environmental Management System.

Open pit mining, processing of diamond bearing ore and associated support processes and activities.

Through an audit, documented in a report, it was verified that the Management System fulfils the requirements of the following standard:

ISO 14001: 2015

Certificate registration no. 40600366 UM15

Valid from

2018-10-19

2021-10-18

Date of certification

2018-10-19

DQS GmbH

Stefan Heinloth Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany Administrative Office: DQS South Africa, P.O.Box 672, Randburg 2125 - South Africa

APPENDIX B SEMP Record of Change

	2016 SEMP	CHANGE DISCUSSION		2019 SEMP
No	DECRIPTION		No	DECRIPTION
1	SEMP IMPLEMENTATION			
1.1 – 1.13	Covers the following: Maintenance of the ISO14001 EMS and certification thereof; Top management accountability; Competency training and awareness; Internal and external communication; Reporting to the DoE as per the conditions of the ROD; Mine-wide environmental risk identification, assessment and management process; Management of Change Process; Positive social and environmental impact identification, assessment and management process; process and practice to monitor, measure, analyse and evaluate its social and environmental performance; Internal and External Audits;	This section remains largely unchanged, although the emphasis has shifted from enabling mechanisms to focus on the actual objective, and minor rewording has been applied. Although much of this Element is covered by the processes required under the Environmental Management System, it was still considered necessary to provide the linkage between the SEMP and the EMS. This Element achieves this aim.	1.1 – 1.11	Remains in Element 1: SEMP Implementation. The commitments are covered
	Revision of the SEMP; andRecord Keeping.			
2	SOCIO-ECONOMIC AND CULTURAL HER	ITAGE MANAGEMENT		
2.1 (2.1.1- 2.1.6)	Community and Stakeholder Relations	Focus has shifted to key Actions (rather than on the mechanisms to achieving the objective and supporting the action): Emphasis on: Maintaining a strong, constructive and mutually supportive relationship with PACs and Stakeholders;	2.1 (2.1.1 – 2.1.4)	Community and Stakeholder Relations

1

2016 SEMP		CHANGE DISCUSSION		2019 SEMP
No	DECRIPTION		No	DECRIPTION
		 Ongoing and open consultation throughout the project lifecycle; and Respecting the human, cultural and traditional rights of the PACs. 		
2.2 (2.2.1- 2.2.2) 2.3 (2.3.1-	Employment and In-migration Training and Skills Development	This Section has been consolidated into one section. The emphasis on In-Migration management has been dropped as there is no evidence over the past 6 years that in-migration is occurring or is a concern. It should be noted original ESIA which informed the 2013 (and then the 2016) SEMP was based on Project Kholo which	2.2 (2.2.1 – 2.2.3)	Employment training and Skills Development
2.3.2)		anticipated a significant expansion of operations which could possibly attract job-seekers. This did not occur.		
2.4 (2.4.1)	Procurement of Local Goods and Services	No significant change	2.3 (2.3.1)	Procurement of Local Goods and Services
2.5 (2.5.1)	Corporate Social Responsibility	No significant change	2.4 (2.4.1)	Corporate Social Responsibility
2.6 (2.6.1- 2.6.4)	Cultural Heritage Resources	Focus has shifted to key Actions (rather than on the mechanisms to achieving the objective and supporting the action). Minor rewording.	2.5 (2.5.1- 2.5.4)	Cultural Heritage Resources
2.7 (2.7.1- 2.7.4)	Visual Impact and Aesthetics	No significant change	2.6 (2.6.1- 2.6.4)	Visual Impact and Aesthetics
2.8 (2.8.1- 2.8.3)	Social Closure	Minor changes, reference made to undertaking social closure in accordance with good international industry standards. The Integrated Rehabilitation and Closure Plan is referenced under Supporting documents and records.	2.7 (2.7.1- 2.7.3)	Social Closure
3	PUBLIC SAFETY AND HEALTH		3	PUBLIC SAFETY, HEALTH AND WELLBEING
3.1 (3.1.1 – 3.1.6)	Public Health and Safety During Operations	The primary change here is to include the commitments previously made under Element 10: Noise and Vibrations, since these (in the context of the SEMP) mainly relate to public health and wellbeing. Hence Element 10 was discontinued, and the provisions for restricting noise, and blasting vibration (as well as monitoring) were included in the updated Element 3: Public Safety, Health and Wellbeing.	3.1 (3.1.1 – 3.1.11)	Public Safety Health and Wellbeing during operations

2016 SEMP		CHANGE DISCUSSION	2019 SEMP		
No	DECRIPTION		No	DECRIPTION	
3.2	Post-Closure Public Health and Safety	Focus has shifted to key objectives (rather than on the mechanisms	3.2	Post-Closure Public Safety, Health	
(3.2.1 –		to achieving the objective and supporting the action). Minor	(3.2.1 –	and Wellbeing.	
3.2.3)		rewording.	3.2.2)		
3.3	Catastrophic Failure of Water and		(shifted unde	er 3.1)	
(3.3.1 –	Mine Waste Storage Facilities	section on its own (also refer to Item 6.4: Mine Waste Residue and			
3.3.2)	WASTE BAANACERAENT	Water Storage Facilities).			
4	WASTE MANAGEMENT	Franches difficulty has been discovered as the control of the cont		Community	
4.1	Waste Classification and Management	Focus has shifted to key objectives (rather than on the mechanisms	4.1	General	
(4.1.1 – 4.1.6)		to achieving the objective and supporting the action). Minor rewording.	(4.1.1 – 4.1.6)		
4.1.0)	Handling, Storage, Treatment and	No material changes. Minor rewording.	4.1.0)	Handling, Storage, Treatment and	
(4.2.1 –	Transportation	No material changes. Willor rewording.	(4.2.1 –	Transportation	
4.2.5)	Transportation		4.2.5)	Transportation	
4.3	General Waste Disposal	Provision for safe disposal certificates has been removed as a	4.3	General Waste Disposal	
(4.3.1 -	·	commitment and rather referenced as supporting	(4.3.1 –	·	
4.3.3)		documents/records under the relevant commitment.	4.3.2)		
4.4	Hazardous and Healthcare Risk Waste	Waste inventory and safe disposal certificates are now refenced as	4.4	Hazardous and Healthcare Risk Waste	
(4.4.1 –		supporting documents /records under the appropriate commitment	(4.4.1 –		
4.4.6)			4.4.4)		
4.5	Spillage and Emergency Response	Spillage and Emergency response is largely an EMS function and all	Shifted to the "Contingency / Non-compliance		
(4.5.1 –		reference to spillage and emergency response has been removed as	Strategy" column of the SEMP table.		
4.5.4)		a standalone commitment but has been reflected as a contingency			
4.6	Measuring and Reporting	/ non-compliance strategy under the relevant commitment. Monitoring, measuring, evaluating and reporting is a means by	Shifted und	der the "Performance Evaluation,	
(4.6.1 –	Weasuring and Reporting	which performance in achieving a certain commitment is measured		Reporting" column of the SEMP table.	
4.6.3)		and tracked. All references to these functions have been removed	Trucking and	Reporting Column of the Scivil table.	
7.0.5,		as standalone SEMP commitments, but have been included in a			
		dedicated column (Performance Evaluation, Tracking and			
		Reporting) under the appropriate commitments.			
5	HAZARDOUS SUBSTANCES AND DANGEROUS GOODS				
5.1	Risk Assessment and Management	Focus has shifted to key objectives (rather than on the mechanisms	5.1	General	
		to achieving the objective and supporting the action). Minor			

2016 SEMP		CHANGE DISCUSSION	2019 SEMP	
No	DECRIPTION		No	DECRIPTION
(5.1.1 –		rewording. The HCS Inventory has been shifted to under Supporting	(5.1.1 –	
5.1.6)		Documents and Records	5.1.4)	
		This is a new section added to this Element, in response to the	5.2	Radiation and Radio-active Sources
		increase in sources on site, and the signing into Law of the Radiation	(5.2.1 –	
		Protection Agency Act.	5.2.4)	
5.2	Transport and transmission	No material changes. Minor rewording.	5.3	Transport and Transmission of Bulk
(5.2.1 –			(5.3.1 -	Hazardous Substances
5.2.2)			5.3.2)	
5.3	Use and Storage	No material changes. Minor rewording.	5.4	Use and Storage
(5.3.1 –			(5.4.1 –	
5.3.7)			5.4.7)	
5.4	Hazardous Substances Disposal	No material changes. Minor rewording.	5.5	Hazardous Substances Disposal
(5.4.1 –			(5.5.1 –	
5.4.4)			5.5.2)	
5.5	Spillage and Emergency Response	Spillage and Emergency response is largely an EMS function and all	Shifted to	the "Contingency / Non-compliance
(5.5.1 –		reference to spillage and emergency response has been removed as	Strategy" col	umn of the SEMP table.
5.5.4)		a standalone commitment but has been reflected as a contingency		
		/ non-compliance strategy under the relevant commitment.		
5.6	Measuring and Reporting	Monitoring, measuring, evaluating and reporting is a means by	Shifted und	der the "Performance Evaluation,
(5.6.1 –		which performance in achieving a certain commitment is measured	Tracking and	Reporting" column of the SEMP table.
5.6.2)		and tracked. All references to these functions have been removed		
		as standalone SEMP commitments, but have been included in a		
		dedicated column (Performance Evaluation, Tracking and		
		Reporting) under the appropriate commitments.		
6	WATER AND MINE WASTE RESIDUE MA		1	
6.1	Water Conservation and Demand	Focus has shifted to key objectives (rather than on the mechanisms		Water Conservation and Demand
(6.1.1 –	Management	to achieving the objective and supporting the action). Minor	(6.1.1 –	Management
6.1.5)		rewording. The Water Balance and Conservation KPIs have been	6.1.2)	
		shifted to the relevant columns: i.e: Supporting Documents and		
		Records, and Performance Tracking.		
6.2	Stormwater Management	Focus has shifted to key objectives (rather than on the mechanisms		Hydrology and Stormwater
(6.2.1 –		to achieving the objective and supporting the action). Minor	•	Management
6.2.2)		rewording. Commitments from these two sections have been	6.2.2)	

2016 SEMP		CHANGE DISCUSSION	2019 SEMP		
No	DECRIPTION		No	DECRIPTION	
6.3	Hydrology and Geohydrology	combined, with groundwater quality included into the Section			
(6.3.1 –		below.			
6.3.2)					
6.4	Surface and Groundwater Quality	This includes Groundwater Quality. Greater emphasis has been	6.3	Water Quality	
(6.4.1 –		placed on the management of nitrates generated by Letšeng, with	(6.3.1 –		
6.4.9)		more specific actions indicated. This is informed by the Nitrates	6.3.12)		
		Management Strategy which has evolved over the past three years.			
6.5	Mine Waste Residue and Water	This section has been expanded by separating out the different		Mine Waste Residue and Water	
(6.5.1)	Storage Facilities	types of facilities i.e: TSFs, Water Storage dams and Waste Rock	(6.4.1 –	Storage Facilities	
		dumps.	6.4.4)		
6.6	Monitoring and Reporting	Monitoring, measuring, evaluating and reporting is a means by		der the "Performance Evaluation,	
(6.6.1 –		which performance in achieving a certain commitment is measured	Tracking and	Tracking and Reporting" column of the SEMP table.	
6.6.10)		and tracked. All references to these functions have been removed			
		as standalone SEMP commitments, but have been included in a			
		dedicated column (Performance Evaluation, Tracking and Reporting) under the appropriate commitments.			
		Reporting) under the appropriate communents.			
7	ENERGY, CLIMATE CHANGE AND AIR QU	JALITY MANAGEMENT			
7.1	Energy Conservation and Carbon	GHG and Carbon footprint commitments have been removed and	7.1	Energy Conservation and Efficiency	
(7.1.1-	Footprint	placed in a new section (below)	(7.1.1-		
7.1.5			7.1.2)		
		New Section focussing on Climate Change Mitigation and	7.2	Climate Change Mitigation and	
		adaptation has been included. This is in response to the increased	(7.2.1-7.2.4	Adaptation	
		focus on Climate Change internationally and from a corporate level,			
		and the publication of the Lesotho National Climate Change Policy.			
7.2	Air Quality	No material changes. Minor rewording.	7.3	Air Quality	
(7.2.1-					
7.2.7)					
7.3	Monitoring and Measuring	Monitoring, measuring, evaluating and reporting is a means by		der the "Performance Evaluation,	
(7.3.1-		which performance in achieving a certain commitment is measured	Tracking and	Reporting" column of the SEMP table.	
7.3.6)		and tracked. All references to these functions have been removed			
		as standalone SEMP commitments, but have been included in a			
		dedicated column (Performance Evaluation, Tracking and			
		Reporting) under the appropriate commitments.			

	2016 SEMP	CHANGE DISCUSSION	2019 SEMP		
No	DECRIPTION		No	DECRIPTION	
8	SOILS, LANDUSE AND LAND CAPABILITY				
8.1	Soil Conservation and Protection	Remains largely unchanged, minor rewording and organising of the	8.1	Soil Management	
(8.1.1-	against Damage and Loss	commitments	(8.1.1-		
8.1.10)			8.1.9)		
8.2	Land Capability and Rehabilitation	No material changes. Minor rewording.	8.2	Land Capability and Rehabilitation	
(8.2.1-			(8.2.1-		
8.2.3)			8.2.3)		
8.3	Closure Planning and Provision	Remains largely unchanged, minor rewording and organising of the	8.3	Closure Planning and Provision	
(8.3.1-		commitments. The reference to a Risk Assessment has been moved	(8.3.1-		
8.3.10)		to the Supporting Document and Records column.	8.3.7)		
		Letšeng has in place a mature Rehabilitation and Closure Plan and			
		Programme, which includes the annual closure costing.			
8.4	Monitoring and Reporting	Monitoring, measuring, evaluating and reporting is a means by	Shifted under the "Performance Evaluation,		
(8.4.1-		which performance in achieving a certain commitment is measured	Tracking and	Reporting" column of the SEMP table.	
8.4.7)		and tracked. All references to these functions have been removed			
		as standalone SEMP commitments, but have been included in a			
		dedicated column (Performance Evaluation, Tracking and			
		Reporting) under the appropriate commitments.			
9	BIODIVERSITY AND ECOSYSTEM SERVICE		Τ		
9.1	Biodiversity and Habitat Protection	Focus has shifted to key objectives (rather than on the mechanisms	9.1	Biodiversity and Habitat Protection	
(9.1.1-		to achieving the objective and supporting the action). Minor	(9.1.1-		
9.1.7)		rewording.	9.1.6)		
9.2	Species Conservation	No material changes. Minor rewording.	9.2	Species Conservation	
(9.2.1-			(9.2.1-		
9.2.4)			9.2.4)		
9.3	Ecosystem Services and Habitat	Minor rewording. Reference to the rehabilitation trials have been	9.3	Ecosystem Services and Habitat	
(9.3.1-	Restoration	dropped as these have largely been concluded and are undergoing	(9.3.1-	Restoration	
9.3.4)	Manifesting and Day	maintenance monitoring.	9.3.3)	lan tha "Danfarra 5 lan	
9.4	Monitoring and Reporting	Monitoring, measuring, evaluating and reporting is a means by		der the "Performance Evaluation,	
(9.4.1-		which performance in achieving a certain commitment is measured	Tracking and	Reporting" column of the SEMP table.	
9.4.6)		and tracked. All references to these functions have been removed			
		as standalone SEMP commitments, but have been included in a			
		dedicated column (Performance Evaluation, Tracking and			
		Reporting) under the appropriate commitments.			

2016 SEMP		CHANGE DISCUSSION	2019 SEMP	
No	DECRIPTION		No	DECRIPTION
10	NOISE AND VIBRATIONS		(Removed)	
10.1 (10.1.1- 10.1.2)	Noise	This has been moved to Element 3: Public Safety, Health and Wellbeing.	Removed	
10.2 (10.2.1)	Vibration	This has been moved to Element 3: Public Safety, Health and Wellbeing.	Removed)	
10.3 (10.3.1- 10.3.3)	Monitoring and Reporting	Monitoring, measuring, evaluating and reporting is a means by which performance in achieving a certain commitment is measured and tracked. All references to these functions have been removed as standalone SEMP commitments, but have been included in a dedicated column (Performance Evaluation, Tracking and Reporting) under the appropriate commitments.		der the "Performance Evaluation, de Reporting" column of the relevant itment.