Business Operations Manager | EMPA | South Africa





Ed Perry joined SLR as the Operations Manager for the Environmental Management Planning and Approvals (EMPA) team in Africa (offices in South Africa, Namibia, and Ghana). He has worked in environmental consultancy for over twenty five years for a wide range of public and private sector clients.

Ed is a registered Environmental Auditor with the Institute for Environmental Management and Assessment and a Lead Auditor with the International Cyanide Management Institute. Ed has been Project Director

for a large number of environmental and social impact assessments (ESIAs) and environmental authorisations throughout Africa. These have included: new mines and extensions to mines, renewable energy facilities; metal extractive industries; large water storage schemes, and oil and gas projects;.

Ed has also undertaken a wide range of environmental audits including; due diligence audits, EMPR audits, and over 20 international cyanide code audits of mines throughout Africa. These audits include assessing ESIAs, environmental and social management systems, resettlement action plans and associated documentation against the requirements of the IFC Performance Standards. Ed is a registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners Association of South Africa (EAPASA).

Education

- Postgraduate Certificate in Occupational Health and Safety, University of Cape Town (2016)
- Postgraduate Certificate in Environmental Law, Centre for Environmental Management, Potchefstrom (2012)
- Postgraduate Certificate in Environmental Assessment, Oxford Brookes University (2008)
- MSc Applied Hydrobiology, Cardiff University (1994)
- BSc (Hons) Environmental Science, Plymouth University (1990)

Project Experience

Oil and Gas

Total E&P South Africa -South and West Coast, South Africa and Namibia

Ed is the Project Director for a number of exploration and drilling environmental authorisation applications for Total. This includes the EIA for additional exploration well drilling and associated exploration activities in Block 5/6/7, off the South-West Coast of South Africa.

Shell - South Africa

Ed was the Project Manager for various environmental authorisations in South Africa associated with the Shell GUESS program. This program related to the closure and clean up of Shell service stations

Vopak - Richards Bay, South Africa

Ed was the Project Manager for an ESIA for a new terminal operated by Vopak at Richards Bay for the handling and storage of Liquid Petroleum Gas and Clean Petroleum Products.

Business Operations Manager | EMPA | South Africa



Vopak - Durban, South Africa

Ed was the Project Manager for an ESIA for the expansion of the Vopak terminal at Durban Docks for the handling and storage of Liquid Petroleum Gas and Clean Petroleum Products.

Bidvest - Durban South Africa

Ed was the Project Manager for an ESIA for the expansion of the Bidvest terminal at Durban Docks for the handling and storage of Liquid Petroleum Gas and Clean Petroleum Products.

ENI - East Coast, South Africa

Ed provided technical support for the EIA for regarding ENI's exploration activities off the KZN coast.

Mining

Jindal Mining - New Iron Ore Mine, South Africa

Ed is the Project Director for the environmental authorisation of a new iron ore mine in South Africa. This include undertaking an extensive ESIA process, stakeholder engagement process as well as other authorisations such as the Water Use Licence.

Lucara Diamonds - Karowe Diamond Mine, Botswana

Ed is part of the SLR team acting as the Independent Technical Expert (ITE) on behalf od the lender to assess a project to expand the mine. Ed undertook the environmental and social assessment against the requirements of the Equator Principles and the IFC Performance Standards.

Kefi Minerals - Tulu Kapi Gold Mine, Ethiopia

Ed is the Technical Reviewer for an Environmental and Social Due Diligence review of the ESHIA and associated documents against the requirements of the IFC Performance Standards, local legislation, and best practice. This includes liaison with the Environmental Assessment Practitioners producing the ESHIA and the Lender's representatives.

Swakop Uranium - Heap Leach Project, Namibia

Ed is the Technical Reviewer and Project Director for the heap leach project, undertaking screening and subsequent ESIA for the location of a new heap leach.

West Wits Gold Mine - South Africa

Ed is the Technical Reviewer and Project Director for an ESIA for a new gold mine in South Africa including open cast and underground mining. The application for a mining right was successful with an Environmental Authorisation being issued. A Water Use Licence is currently being applied for.

Maamba Collieries Limited - Maamba Coal Mine, Zambia

Ed was the lead auditor leading the creation and implementation of an integrated management system in accordance with the requirements of the IFC performance standards, ISO 14001, ISO 9001, and OHSAS 18001.

Eramet - Senegal

Lead Auditor for a due diligence audit of a mineral sands mining operation. The operation was the subject of a possible joint venture. The environmental audit, which included 3 days on site, was to establish if what environmental risks were involved with the project, which was just about to enter the construction phase.

Continental Coal Limited - Penumbra, South Africa

Business Operations Manager | EMPA | South Africa



Ed was the Lead Auditor undertaking review of EIA, EMP and site procedures against the requirements of the IFC Procedures.

Eurasian Natural Resources Corporation - Kakanda Mine, DRC

Ed was the Project Manager for the review of a Safety, Health, Environment and Community Management System for Kakanda Mine in the DRC.

Ruighoek Mine, South Africa

Ed was the Project Manager for an ESIA associated with the expansion of this chromium mine in South Africa.

AngloGold Ashanti - Yatela, Sadiola, Siguri Gold Mines, Mali and Guinea

Ed was the Lead Auditor and Project Manager undertaking a re-certification audit against the requirements of the International Cyanide Code for three gold mines.

Freda Rebecca Gold Mine - Zimbabwe

Ed was the Lead Auditor and Project Manager for a gap audit to ascertain the status of the gold mine with regards to its ability to comply with the International Cyanide Code

Gold Fields Ghana - Tarkwa and Damang Gold Mines

Ed was the Lead Auditor and Project Manager undertaking a re-certification audit against the requirements of the International Cyanide Code for the two gold mines.

Riversdale Capital - Zambeze Coal Mine, Zambia

Ed was the Technical Reviewer for an ESHIA for the development of the Zambeze Coal Mine on behalf of Riversdale Capital.

Industry

Dundee Precious Metals - Tsumeb Smelter, Namibia

Ed is the Project Director of an Agricultural Assessment to provide a consolidated management plan for improved agricultural land management, long term monitoring and mitigation of potential impacts.

Anglo-American - Polokwane Smelter, Polokwane

Ed was the Project Manager responsible for undertaking an external compliance audit for the Anglo-American Polokwane Smelter as stipulated in the slag stockpile permit for the Polokwane Metallurgical Complex. This included a review of the permit for the temporary stockpile of ash as part of the expansion of the Complex.

Distell - South Africa

Ed was Project Manager for a number of projects for Distell in order to obtain various environmental authorisations for their brewing facilities including the one for the siting of a new wastewater treatment works.

SPAR - South Africa

Ed was Project Manager for a number of energy projects undertaken for SPAR in South Africa including looking at Science Based Targets, Internal Carbon Pricing, and an ISO 50001 Energy Management System.

SCAW - South Africa.

Ed was the Project Manager for a range of Environmental Authorisations, including ESIAs, Air Emissions Licences, Water Use Licences and contaminated land assessments. These

Business Operations Manager | EMPA | South Africa



studies were undertaken for SCAW at anumber of their smelter sites in Gauteng over a 5 year period.

Pfizer - South Africa

Ed was the Project Manager and Lead Auditor for an EHS audit of the head offices of Pfizer in South Africa.

Sohar Aluminium - Oman

Ed was the Lead Auditor of Sohar Aluminium's environmental management system auditing the system against the requirements of ISO 14001 and benchmarking this facility against international requirements.

Sasol - Secunda

Ed was the Lead Auditor for a third party audit of waste contractors operating on behalf of Sasol. The audit investigated compliance with South African environmental legislation and environmental best practice.

Confidential - South Africa, Kenya, UAE

Ed was the project manager for a due diligence audit of a packaging company's facilities in South Africa, Kenya and UAE.

Infrastructure

Lesotho Highlands Development Agency - Lesotho

Ed took over as Project Manager undertaking an ESIA for the Polihali Reservoir and Western Access Road in Lesotho on behalf of the Lesotho Highlands Development Agency.

Freight Forwarders Group - Kenya and Tanzania

Ed was the Lead Auditor undertaking a re-certification audit against the requirements of the International Cyanide Code for the Freight Forwarders transportation group of companies.

Transnet Pipelines - South Africa

Ed was the Project Manager responsible for the creation and implementation of an Energy Management System for all of the pumps stations, workshops and offices for Transnet Pipelines, who pump crude oil and petroleum products from Durban to Johannesburg.

Interwaste - South Africa

Ed was the Technical Reviewer for the EIA for a new integrated waste management facility including a new landfill in South Africa against the requirements of NEMA and NEM:WA.

Power

Various Renewable Energy Companies - South Africa

Ed is the Project Director and Lead Author for the production of Environmental and Social Management Systems (ESMS) in accordance with the requirements of the International Finance Company (IFC).

Nampower - Namibia

Ed is the Technical Reviewer for an ESIA for a biomass power plant that will use wood from encroacher bush in Namibia. This project is being funded by the European Investment Bank and it is therefore required to comply with the IFC Performance Standards.

Department for International Development – UK Government

Business Operations Manager | EMPA | South Africa



The UK Department for International Development is providing support to medium sized renewable energy facilities (mainly hydroelectric power plants) in Uganda through the Global Energy Transfer Feed in Tariff programme (GET FiT). The project was to assess how local communities in the vicinity of these facilities could obtain power and how environmental and social safeguards for these types of facilities could be improved in the future. Ed was the lead environmental and social advisor undertaking a review of the environmental and social safeguards.

Confidential - Angola

Ed was Project Manager for a project undertaking a Strategic Environmental Assessment of locations for renewable energy facilities in Angola.

Confidential - Mozambique

Ed was the Project Manager for an ESIA to be submitted to the Mozambican authorities for the development of a unique renewable energy pilot facility.

Memberships and Associations

- IEMA Practitioner for the Institute of Environmental Management and Assessment
- IEMA Registered Environmental Auditor
- EAPSA Registered Environmental Assessment Practitioner in South Africa
- IAIA Member in South Africa

Publications

- The Role of Socio-Economic Factors, Seasonality and Geographic Differences on Household Waste Generation and Composition in the City of Tshwane. 2016 (Wastcon).
- EMS as a Tool for Integrated Business Risk Management. 2005 (various journals).
- Golder Associates EMS Roadmap. 2004 (CD ROM).
- Incentives to Encourage Recycling. 2002. Materials Recycling Week
- Recycle of Life. 2002. Government Business
- New Approaches to Management of Waste. 2002 (various journals)
- Minimise the Waste Maximise the Message. 2001 (various journals)
- Guide to Waste Reduction on Construction Sites, 1999, Construction Confederation



Associate Environmental Consultant | EMPA | South Africa

Sharon has over 22 years of experience as an environmental scientist and project manager. She has managed complex projects within the mining and power generation sectors, with a focus on industrial waste management. Sharon has managed multi-national and multi-disciplinary teams on environmental and social due diligence projects in Africa.

Sharon has worked on a variety of authorisation and auditing processes within the mining sector including diamond, coal, iron ore, gold, vanadium, copper, manganese, nickel and platinum, as well as tailings reclamation projects. Sharon has managed multi-disciplinary and multi-national teams on mining projects within Africa. Her focus has been on the progress of mining implementation from prospecting through to mine closure, including closure options and closure costs in line with the relevant country financial provisioning regulations.

Within the energy space, she has been involved in linear transmission line projects through sensitive socio-economic and biophysical environments. Sharon has worked on coal-fired power station, gas turbine, photovoltaic solar, wind turbine and hydro-electric scheme projects.

Sharon has worked extensively on general, hazardous and industrial waste facilities. She has carried out processes for Waste Management Licencing and has also worked on strategic solutions to waste related challenges in the energy sector.

Sharon also has experience on Resettlement Action Plans, Livelihood Restorations Plans and Community Census within southern Africa. Sharon has worked on various projects within Mozambique, Botswana, Namibia, Nigeria, Lesotho and South Africa.

Education

- MSc in Zoology and Environmental Education, 2007
- BSc (Hons) in Geography and Environmental Science, 2000
- BSc in Botany and Geography, 1999

Certifications

EAPASA Certified Environmental Assessment Practitioner, 2019/976 SACNASP Registered *Pr. Sci. Nat.*

Project Experience

NamWater Desalination Plant Environmental Authorisation Process, 2023

The environmental authorization process for the proposed NamWater Desalination Plant at Erongo, north of Swakopmund, as well as for the proposed PV site located near Trekkopje to supply electricity to the NamWater Desalination Plant. This project is focused on water provision for areas of central Namibia.

AA Polokwane PV Authorisation Process, 2023

The Integrated Environmental Authorisation Process for the proposed **Anglo American** Polokwane Solar PV site. The PV site will be used to generate electricity for use at the Polokwane Smelter, which is located in the Limpopo Province, South Africa.



Associate Environmental Consultant | EMPA | South Africa

AA Venetia PV Authorisation Process, 2023

The Integrated Environmental Authorisation Process for the proposed **Anglo-American** Venetia Mine Solar PV site. The PV site will be used to generate electricity for use at the Venetia Diamond Mine, which is located in the Limpopo Province, South Africa.

UMK Partial Backfill Motivation, 2023

A research and legal review project is underway to provide a motivation for the partial backfill of the United Manganese of the Kalahari open pit on closure of the mine. The motivation focuses on the best in terms of long term profitable agricultural business opportunities, and provisions of services and facilities from the mine infrastructure.

Obetsebi RAP Implementation, 2023Project Title, Company (YYYY-YYYY)

QGMI are contracted by the Ghana Department of Urban Roads to upgrade the Obetsebi Fly Over Interchange in Accra, Ghana. The project is aimed at the implementation of the Resettlement Action Plan that had been compiled in 2021 and entails extensive engagement with Project Affected Parties.

Holfontein Expansion Project integrated Authorisation Process, 2023

Integrated Environmental Authorisation Process to obtain the EA and Waste Management License for the proposed expansion of the Holfontein Hazardous Waste Management Facility in Gauteng, South Africa.

Der Brochen Resettlement Action Plan, 2022

Project management of the process for the **Anglo-American Platinum** Der Brochen resettlement action plan, in **Limpopo Province**.

Dundee Precious Metal Tsumeb (DPMT) Agricultural Assessment, 2022

An Agricultural Assessment was undertaken in order to understand the potential impacts of the **DPMT Smelter** on the local farming activities and to provide an **Agricultural Potential** map. The map would indicate the optimal crops for certain soil profiles, and the study would provide recommendations for farming methods, crops and rotations around the Smelter zone of influence, within northern Namibia.

Selkirk Audit for purchase, 2022

Environmental audit for **North American Nickel** to input to the feasibility of the Selkirk mine for purchase. The Selkirk Mine is located near Selkirk in Botswana. Provide a short paragraph describing the project, work conducted and your role.

Iduapriem Block 1 Sustainability Report, 2022

A sustainability and feasibility report was compiled for the proposed remining of block 1 at **AngloGold Ashanti Iduapriem Mine in Tarkwa**, **Ghana**. Several specialists input to the baseline and identified potentially significant impacts that may be generated by the remining operationProvide a short paragraph describing the project, work conducted and your role.

United Manganese of the Kalahari, 2021

EIA and EMPr update to include changes to the surface activities and infrastructure at the mine. In addition, a focused study was carried out to motivate for **partial backfilling** as a facilitator to socio-economic upliftment through innovative land use models. Provide a short paragraph describing the project, work conducted and your role.

North American Nickel NI 43-101, 2021

Environmental assessment of the Selebi Phikwe BCL Copper Mine for purposes of informing the 43-101 report for North American Nickel. This entailed an extensive audit of the site at the **Selebi Phikwe Copper Mine, Botswana**, identification of current and potential environmental impacts and opportunities, as well as confirmation of geology underground and against the cores drilled and documented over the last 50 years.



Associate Environmental Consultant | EMPA | South Africa

West Wits Gold Mine Limited, 2021

Water Use License application to support the proposed **open cast and underground mining** of gold resources within the Witwatersrand Basin. This included extensive public engagement, an Acid Mine Drainage risk assessment and management plan, and social plan.

Kareerand TSF Expansion Project, 2020

The AngloGold Ashanti Tailings Storage Facility (TSF) at Kareerand needed to be expanded for the purposes of reprocessing of other local tailings facilities and depositing the processed tailings at the Kareerand TSF. Sharon project managed the integrated Environmental Authorisation Application, which included an Environmental Impact Assessment under the National Environmental Management Act NEMA (Act 107 of 1998 as amended), a Waste Management License Application under the National Environmental Management: Waste Act NEMWA (Act 59 of 2008, as amended) and an Integrated Water and Waste Management Plan under the National Water Act NWA (Act 36 of 1998, as amended).

Sibanye Stillwater IWWMP and RSIP updates for 6 mines, 2020

Update of the Rehabilitation Strategic Implementation Plans and Integrated Water and Waste Management Plans for Marikana, Baobab, Rustenburg, Blue Ridge, Kroondal and Kwezi, and Pandora Mines.

Impala Platinum Stakeholder Engagement Process for SLP, 2020

Management of the Stakeholder Engagement Process for the Social and Labour Plan 2 and 3. The process included two rounds of meetings with key stakeholders and registered interested and affected parties.

Tshipi Borwa Ramp Up Feasibility Study, 2020

A feasibility assessment was carried out and an environmental study was undertaken to inform the proposed ramp up. This included any environmental impacts of risks that may increase as a result of the ramp up, as well as the required environmental authorisations and licensing that would need to be obtained prior to initiation of the ramp up.

Gauteng Rapid Land Release Project, 2020

Environmental Screening and Feasibility Studies were carried out for 12 sites identified by the Department of Human Settlement for potential residential and commercial development. The study investigated the sensitivity of the receiving environments as well as the authorisations and licenses that would be required prior to development.

ANRML ESDD. 2020

Citibank required an **Environmental and Social Due Diligence** (ESDD) review of the African Natural Resources and Mining Limited (ANRML) Iron Ore Mine and Processing Plant proposed in Kaduna State of Nigeria. Sharon managed a multi-national and multi-disciplinary team of specialists on a site investigation and in the compilation of the gap analysis, Red Flag Report and ESDD Report. The ESDD review was carried out against a reference framework including **IFC Performance Standards**, **Equator Principles III**, **African Development Bank Guidelines and Nigerian environmental and mining legislation**.

Tutuka Power Station Exemption Amendment Appeal, 2020

The Tutuka Power Station requested an amendment to the exemption of lining the continuous **Ash Disposal Facility** (ADF) for an additional period over the exempted 54ha that had been approved. The Amendment Application was rejected. Sharon managed the process for Appeal and compiled the Appeal document in response to the rejection, citing legislative support and specialist findings as motivation.



Associate Environmental Consultant | EMPA | South Africa

Chitima Monitoring Program, 2019

The proposed Chitima Integrated **Coal Power Project** in Tete Province of Mozambique undertook a monthly monitoring program for ambient air quality and ground and surface water quality. Sharon project managed the process for a period of two years, directing resources for sampling, lab analysis, interpretation and reporting.

Chitima ESIA and RAP, 2019

Sharon managed the finalisation of the ESIA Report for submission to the Mozambican authority for decision making. She further managed the initial stages of the **Resettlement Action Plan** for an estimated 718 households that would need to be relocated due to the proposed coal mine and power station development. Sharon managed the community census update and provided input to the RAP strategy and identification of directly and indirectly affected households. Sharon worked with a local Mozambican social consultant to align the RAP to the local legislation and to international best practice. A **Livelihood Restoration Plan** was completed as a component of this scope of work.

Kangra Mine Water Liability Assessment, 2019

Kangra Coal operates several mines throughout South Africa. Kangra required a Water Liability Assessment to inform the closure costs for the various mines. Sharon managed the specialist input from the hydrologists and hydrogeologists in compliance with the relevant and applicable South Africa legislation around mine closure and financial provision. The final report was submitted to Kangra Coal with closure budgets for decommissioning and post-closure water treatment costs per mine.

Rchards Bay Combined Cycle Power Plant, 2018

Sharon project managed the Integrated Environmental Authorisation process for the proposed **Combined Cycle Power Plant**, which is a gas-powered facility. The project entailed specialist investigations, specifically around wetland and terrestrial ecology due to the high levels of biodiversity and endemism within the Richards Bay ecosystems. Engagement was facilitated with Conservation organisations, including Ezemvelo KZN Wildlife, the competent and commenting authorities, interested and affected parties and the proponent, Eskom.

Kruisvallei Hydro-Electric Scheme, 2018

Sharon project managed the Integrated Environmental Authorisation process for the proposed **Kruisvallei Hydro-Electric Scheme** near Bethlehem in the Free State Province, along the Ash River. Issues around this proposed project included tourism activities along the river, as well as the impact of the Lesotho Highlands Water Project on the flow of the Ash River, which will affect the hydro-scheme feasibility. Sharon managed various specialist studies to compile the Applications and supporting Reports for this project. Provide a short paragraph describing the project, work conducted and your role.

Thabametsi IPP Coal-Fired Power Station, 2018

The **Thabametsi IPP Coal-Fired Power Station** project in Lephalale, Limpopo Province, initiated an Appeal in response to a negative decision regarding the Environmental Authorisation application. Sharon managed the appeal, which focused on updating the air quality specialist study and including a Climate Change Assessment. In addition to the Appeal, Sharon managed the permitting required for the relocation of endangered spider species from the development site and permits for the removal of protected trees. Provide a short paragraph describing the project, work conducted and your role.

DEA First State of Waste Report, 2018

Sharon was part of the Golder/Savanna team that compiled the **First State of Waste Report for South Africa for the Department of Environmental Affairs**. Sharon managed the plan for stakeholder engagement, which would include all provinces within South Africa. The key waste producers, re-users, recyclers, transporters and disposal contractors and



Associate Environmental Consultant | EMPA | South Africa

organisations were classed as key stakeholders and extensive communication was arranged with these stakeholders and information from significant waste generating organisations was obtained and analysed for the Report. Provide a short paragraph describing the project, work conducted and your role.

Khi Solar One, 2017

Sharon managed the Environmental Control Officer ECO and all environmental auditing on site at KHI Solar One power plant near Pofadder in the Northern Cape. Solar One is a 100MW concentrated solar power (CSP) plant. Environmental aspects were identified, impacts were monitored and reported, and mitigation, management and avoidance recommendations were discussed with the client, Abengoa. The plant covers an area of 140 hectares.

Medupi Power Station FGD Retrofit Integrated Authorisation Process, 2017

In order for Medupi Power Station to reach compliance with the conditions of their Air Emissions License, the power station needed to reduce sulphur emissions. The preferred technology was identified as **Flue Gas Desulphurisation** (FGD). This technology needed to be retrofit to the power station infrastructure. Sharon managed the required Integrated Environmental Authorisation process for this retrofit. The process comprised of highly technical chemical and water quality and quantity information and assessment. Close communication with the relevant national and provincial authorities was maintained throughout the process, as well as intensive engagement with key stakeholders including the Trans-Caledon Tunnel Authority (TCTA) regarding construction of and allocation from the MCWAP 2 water scheme. Provide a short paragraph describing the project, work conducted and your role.

Kendal Power Station Continuous Ash Disposal Facility, 2017

Kendal Power Station received an approval for an extended life for coal-fired electricity generation. This required additional area for the deposition of ash for the extended period of operation. Sharon project managed the **Integrated Environmental Authorisation process**. A team of engineers and specialist consultants was coordinated to undertake the required assessments to understand the sensitivities of the local receptors and the potential for biophysical, social and economic impact. The existing ADF was not lined, and the continuous ADF would require a Class C liner. The implications of the continued ash deposition was analysed and interpreted within the Impact Assessment Report which was submitted to the authorities.

Strategic Ash Beneficiation Project Exemption Application for Eskom, 2017

Sharon managed the specialist analysis, technical reporting and stakeholder engagement for Eskom Holdings, in order to apply for exemption of pulverised boiler ash for specific uses. This application included rigorous research of international use of ash in road construction, brick making and soil amelioration. The application was approved and informed changes to the NEMWA legislation.

Camden Power Station Grave Relocation, 2016

Camden Power Station ADF was approved for extension. However, there were several graves that had been identified and would need to be relocated. Sharon managed the process of engaging with the Heritage Specialist, the undertaker and the police, as required by legislation. Sharon supported the Heritage Specialist in communicating with the communities and families of the deceased and arranging plots for the remains at the local cemetery.

Koffiefontein Diamond Mine Slimes Dam Development EIA, 2016

Sharon managed the process for the applications for Waste Management License and Environmental Authorisation for the **Koffiefontein Diamond Mine Slimes Dam**. This slimes dam would be the first South African mining waste facility that would be lined in terms of the



Associate Environmental Consultant | EMPA | South Africa

NEMWA regulations. Sharon managed the specialists, engaged the engineers and other technical team members in order to successfully obtain the required license and authorisation.

Ndumo Gezisa Basic Assessment, 2015

Ndumo Gezisa 132kV powerline was proposed through very sensitive sand forest habitat in the north of the KwaZulu Natal Province. The process for the Basic Assessment included detailed GIS mapping, modelling and alternative route identification and assessment. The powerline development was very controversial because the line would carry electricity to remote areas of KZN that did not have access to power, but the line would impact on the periphery of a **highly sensitive sand forest and would require the relocation of several homesteads**. The process was successfully completed. Provide a short paragraph describing the project, work conducted and your role.

Pongola Vandover Golela 132kV powerline, 2015

Eskom required the installation of a 132kV powerline from the Candover substation to the new Golela substation. The line would traverse several ecotourism operations. The project was contentious and extensive discussion was required with **landowners and tourism operators** to agree upon the preferred route and management planning. Provide a short paragraph describing the project, work conducted and your role.

Kusile Power Station 60-year Ash Disposal Facility, 2014

Sharon managed the team working on the Integrated Environmental Impact Assessment process for the proposed **Kusile Power Station 60-year Ash Disposal Facility**. The project entailed an EIA to cover the NEMA as well as the NEMWA regulations, as well as and Integrated Water and Waste Management Plan for the facility, including salt and water balance in terms of GN704.

Sasol Mafutha Town Integrated Scoping Phase, 2014

Sharon formed part of an extensive environmental team on the Sasol Mafutha project, which included the proposed Mafutha Mine, Mafutha coal to Liquid Plant, and the Mafutha Town development. Sharon managed the Mafutha town EIA process, including input to the Town design and layout for optimal environmental and socio-economic benefits. The project was halted after the Scoping Phase due to the client experiencing financial limitations.

Grootvlei Power Station Solar Installation, 2014

Grootvlei Power Station applied for environmental authorisation for a **proposed solar installation** to power components of a new plant on the Power Station footprint. The process was carried out through a Basic Assessment and the key aspect for assessment was the effect on the local wetland. Sharon managed this project successfully to obtain authorisation.

Working Group for Ash Beneficiation, 2013

Sharon was appointed by the National Foundry Technology Network to compile a **Waste Management License Guideline**. This guideline was aimed as explaining the National Eskom established a working group for ash beneficiation, including other ash producers, such as Sasol, Mondi, Sappi, several academic institutions and the Coal Ash Association of South Africa. Sharon was appointed as the **Environmental Advisor** on this group. Sharon was active on the Working Group from 2013 to 2017.

Palm Ridge 88kV and Substation (2012)Project Title, Company (YYYY-YYYY)

Sharon managed the Basic Assessment for the proposed Palm Ridge 88kV powerline and substation. This project was aimed at providing electricity to the Palm Ridge community. The biggest challenge on this project was the **planning of an inclusive public participation process** for a community with a high level of illiteracy and inaccessibility to internet. Provide a short paragraph describing the project, work conducted and your role.



Associate Environmental Consultant | EMPA | South Africa

Kimberley Engineering Works Foundry WML, 2012

The Kimberley Engineering Works (KEW) Foundries has been operating for almost 100 years. With the promulgation of the NEMWA in 2008, KEW Foundry was required to comply with the regulations, and also to take cognisance of the National Environmental Management: Air Quality Act (Act 39 of 2004). Sharon managed the process for compliance to all relevant legislation.

IWWMP for Emfuleni Local Municipality, 2012

Emfuleni Local Municipality undertook to compile **Master Plans** for various waste aspects to be managed within the Municipality. Sharon project managed the compilation of the Integrated Water and Waste Management Plan which would input into the Waste Management Master Plan.

Olifantsfontein Landfill Site Waste Management License and EIA, 2011

The proposed Olifantsfontein general landfill site required environmental authorisation and Sharon was the project manager for the **Waste Management License** and Environmental Authorisation applications.

Klippan Mine EIA and community resettlement, 2011

Sharon was appointed by Klippan Mine to undertake the EIA application for the proposed expansion of the Klippan Coal Mine in Emalahleni, Mpumalnga Province. The project required the **resettlement of several households** for the purposes of expanding the open pit. Sharon managed the project up to the end of Scoping Phase, however, she recommended to the client that alternatives should be investigated as the impacts of the project were unacceptably high. The project was put on hold.

Zimalco Foundry NEMWA Process (2011)

Zimalco Foundry applied for a **Waste Management License**, and Sharon managed the process successfully to investigate potential environmental and socio-economic impacts of the Zimalco operation. The application was successful and Zimalco was compliant with the NEMWA going forward.

Prima Foundry NEMWA Process, 2011

Sharon managed the NEMWA Waste Management License Application Process for Prima Foundry. The Application was successful, and the Prima Foundry continued operating in line with the approved Waste Management Plan.

Monterey Sands WML, 2011

Monterey Sands is a foundry and sand reprocessing facility in the Benoni area. Sharon managed the application for a Waste Management License for the foundry and associated facilities.

Bapsfontein SEA, 2011

Bapsfontein Local Municipality undertook the compilation of the Strategic Development Framework (SDF) for the Municipality for 2011. Sharon managed the investigation and compilation of the Strategic Environmental Assessment to inform the planning of future development and conservation zones within the Municipality.

Teak Place WULA, 2010

Sharon undertook the compilation of the Water Use License Application for the proposed Teak Place Eco-Tourism development within the Cradle of Humankind.



Associate Environmental Consultant | EMPA | South Africa

Erand Housing Development, 2010

The Erand Housing Development required a Basic Assessment and EMP for the proposed residential 3 project. Sharon managed the environmental authorisation application process and undertook ECO auditing during the construction phase.

Steloy 24G application (2010)

Steloy Foundry applied for a 24G rectification for the disposal of solid waste to land. Sharon was involved in the process for rectification which was carried out as an Environmental Impact Assessment. Information provided through the process led to the competent authority fining the client and requiring rehabilitation of the impacted site.

Provide a short paragraph describing the project, work conducted and your role.

Integrated EIA for Cullinan Diamond Mins Dam 7 (2010)Project Title, Company (YYYYYYYYY)

Sharon was the Environmental Assessment Practitioner on the project to gain approval for the **rehabilitation and extension of Dam 7 at the Cullinan Diamond Mine** in Northern Gauteng. The project included several specialist studies as well as input by the engineers around the safety of the dam and the compliance of the dam size to environmental regulations and safeguards.

Provide a short paragraph describing the project, work conducted and your role.

Sewage Pipeline from Wilge Village to Phola WWTP (2010Project Title, Company (YYYY-YYYY)

Sharon project managed the integrated application for the proposed sewage pipeline to reticulate sewage from Wilge Village to the Phola Wastewater Treatment Plant (WWTP). The pipeline route would traverse the Wilge River, requiring detailed investigations of the potential impacts to the River should there be a spill from the pipeline. The management plan needed to address the mitigation of these impacts.

Provide a short paragraph describing the project, work conducted and your role.

Rapid Factory Renovators (2010Project Title, Company (YYYY-YYYY)

Rapid Factory Renovators (RFR) is a recycling facility that reprocesses used foundry sand. This operation required a Waste Management License in compliance to NEMWA. Sharon successfully managed the process for the RFR.

Provide a short paragraph describing the project, work conducted and your role.

Venetia Mine Venus Project (2009)Project Title, Company (YYYY-YYYY)

Sharon was the Environmental Assessment Practitioner on the Environmental Authorisation Application Process for the **Venus Project at Venetia Mine in Messina**, Limpopo Province. The project entailed the management of specialist studies, discussions with engineers and the relevant mine representatives to ascertain the feasibility of the project in terms of the potential for environmental and socio-economic impacts. Provide a short paragraph describing the project, work conducted and your role.

Janho Quarry ECO Management (2009) Project Title. Company (YYYY-YYYY)

Janho Quarry required weekly independent auditing by and Environmental Control Officer for the period of operation. Sharon was appointed as the ECO and undertook weekly investigations and compiled monthly compliance reports to the EMP for the site. Sharon managed the stakeholder grievance mechanism and reported these to the client for discussion and resolution.



Associate Environmental Consultant | EMPA | South Africa

Rhenosterspruit Eco-Development, 2009

Sharon undertook the compilation of the Eco-Reserve Conservation Plan for the proposed Rhenosterspruit Eco-Development within the Cradle of Humankind. The Conservation Plan supported the application for environmental authorisation.

Geduld Township establishment, 2009

The Geduld Township was earmarked for establishment near Springs in Gauteng Province. The township was controversial and the EIA processes entailed extensive stakeholder engagement with local land owners and residents. The site required specialist biodiversity investigations due to the size of the footprint and the conservation status of the grassland habitat.

EMPr amendment for Kleinkopje Colliery, 2009

The Kleinkopje Colliery required the amendment of their EMPr in order to include the Emalahleni Water Reclamation Project that affected the colliery management plan. Sharon worked at the environmental scientist on this amendment and undertook the site investigation, review of applicable reports and the technical amendment compilation.

EMPr amendment for Landau Colliery, 2008

Landau Colliery required the update of their EMPr to include the new Emalahleni Water Reclamation Project. Sharon worked at the environmental scientist on this amendment and undertook the site investigation, review of applicable reports and the technical amendment compilation.

Update of Cullinan Diamond Mine, 2008

Sharon undertook the update of the **Cullinan Diamond Mine EMPr** to include future operations planned for the mine. Sharon worked with specialist consultants as well as the mine engineers to ensure that all management issues were identified and addressed within the update.

Sani Pass Border Region Tourism Plan, 2008

Sharon project managed and compiled the **Tourism Plan** report for the Sani Pass Border Region. The Plan investigated the potential tarring of the road up Sani Pass to the Lesotho Border. This would make tourism access easier but was not supported by many of the tourism operators that took tourists up the pass in their 4x4 vehicles. Intensive stakeholder engagement was required for this study. Currently, as an outcome of this study, the Sani Pass road is being tarred.

EMPr update for Kleinkopje Colliery, 2007

Kleinkopje Colliery required to amendment of the EMPr to include the change in the Anglo Coal mining operations relating to the No. 4 coal seam. Sharon undertook the review and amendment of the EMPr for Anglo Coal.

EMPr amendment for the Landau Colliery, 2007

Landau Colliery required to amendment of the EMPr to include the change in the Anglo Coal mining operations relating to the No. 4 coal seam. Sharon undertook the review and amendment of the EMPr for Anglo Coal.

Cradle of Humankind Eco-Development, 2007

Sharon undertook the necessary process and technical report writing to submit an Implementation and Conservation Plan for the Cradle of Humankind Eco-Development. This development required integrated environmental authorisation.

Kruger National Park Security Office, 2007

Kruger National Park required a Tourism Plan for the Security Office near the Skukuza Gate. Sharon undertook the compilation of this Tourism Plan.



Associate Environmental Consultant | EMPA | South Africa

EMPr amendment for Vametco Vanadium Mine, 2006

Vametco Vanadium Mine located in Britz, North West Province, required an amendment of the EMPr to include additional operations that had been initiated. Sharon undertook the amendment for the colliery.

EMPr amendment for Anglo Coal at Kriel Colliery, 2006

Anglo Coal required the amendment of the Kriel Colliery EMPr in order to adjust the prospecting activities to consider the Elders Wetland. Sharon reviewed the proposed prospecting activities in relation to the potential impacts to the wetland and amended the EMPr to effectively include management action plans to mitigate these impacts.

EMPr update for Greenside Colliery, 2006

Sharon updated the **Greenside Colliery EMPr** for Anglo Coal to include the mining operations for the No. 4 coal seam Provide a short paragraph describing the project, work conducted and your role.

Cullinan Diamond Mine, 2006

Cullinan Diamond Mine initiated a **Biomonitoring Project** to assess quarterly aquatic quality within the McHardyspruit and other affected surface water bodies. Sharon managed this programme, including the scheduling of monitoring events, laboratory analysis and the interpretation of results and report compilation.

Pala Meetse Eco-Reserve EIA, 2006

Sharon was the project manager for the Integrated Environmental Authorisation application for the proposed Pala Meetse Eco-Reserve between Bela-Bela and Modimole in the Limpopo Province. The applications were supported by an eco-reserve conservation plan. Stakeholder engagement was extensive due to the fact that surrounding cattle farmers did not support the application and were concerned about wildlife diseases affecting their cattle. Provide a short paragraph describing the project, work conducted and your role.

EMPr addendum for Grootvlei Mine West Pit Operation, 2005

Grootvlei Mine required an addendum to their EMPr to address the mining operations at the West Pit. Sharon undertook the compilation of the Addendum and submitted this to the competent authority for approval.

Elders Mini Pit, 2005

Sharon was the Environmental Practitioner responsible for the EIA and EMPr compilation and process for the **proposed Elders Mini Pit opencast mining operation**. The processes included extensive engineering and specialist input, as well as significant engagement with the mine on the proposed Mine Works Programme and Life of Mine.

Kriel Dragline Walkway, 2005

Anglo Coal required the transfer of the **Kriel Dragline from the Syferfontein Colliery** to the Kriel Colliery. Sharon was involved on the planning of the Dragline Walkway, as well as in the auditing of the walkway management and rehabilitation.

Provide a short paragraph describing the project, work conducted and your role.



Associate Environmental Consultant | EMPA | South Africa

Memberships and Associations

• International Association for Impact Assessment - Member in South Africa

Publications

- Creating an Enabling Environment for Mining in Uganda. Presented at the 8th Annual Mineral Wealth conference in Kampala, Uganda, 3rd October 2019.
- Baseline Environmental and Social Assessments within the Exploration Phase, Mining Weekly, April 2019





Stephanie has 9 years of experience in environmental consulting. She has conducted several EIAs for projects in various sectors. Stephanie has managed multi-disciplinary teams on projects in Namibia and has worked on a variety of authorisation and auditing processes within various sectors. Key projects experience includes Environmental Assessments for urban development projects, road rehabilitation, telecommunication, waste management, and infrastructure development, mining and exploration projects. She has conducted numerous public participation and stakeholder engagement activities relevant to the projects. Stephanie also has experience in

environmental compliance monitoring and auditing for projects.

Education

- MPhil Environmental Management, University of Stellenbosch (2022)
- PGD Environmental Management, University of Stellenbosch (2018)
- BA (Hons) Geography and Environmental Studies, University of Namibia (2012)

Project Experience

Desalination Plant and Water Carriage System for the Central Coast of Namibia (2023ongoing)

Environmental and Social Impact Assessment for the proposed Desalination Plant and Water Carriage System for the Central Coast of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Environmental and Social Risk Screening of the PCLD and Scoping for ESMF or Comparable Safeguard Instrument (2023)

Preparation and stakeholder engagement for Environmental and Social Risk Screening of the PCLD and Scoping for ESMF or Comparable Safeguard Instrument. Stephanie was the project manager.

Osona Village Sewage Treatment Plant (2022) **

Environmental Impact Assessment of the proposed construction and operation of a sewage treatment plant at the Osona Village in the Otjozondjupa Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Environmental Compliance Monitoring, Osona Village (2018-2022) **

Stephanie has conducted monthly environmental compliance monitoring of the construction activities at the Osona Village Development. This includes a monthly site visit and monitoring

^{**}Denotes experience completed at another firm

Stephanie Strauss, MPhil

Senior Environmental Consultant | ESIA | Windhoek, Namibia



and reporting compliance to the client. It also includes applying for the renewal of the ECC for the development and updating the EMP as required.

Environmental Sensitivity Report for the Swakopmund Infrastructure Master Plan (2022) **

Stephanie compiled an Environmental Sensitivity Report to provide input into the Swakopmund Infrastructure Master Plan. The report aimed to outline environmentally sensitive areas which needed to be considered within the Master Plan.

Environmental Sensitivity Review Report: Windhoek Water and Wastewater Master Plan (2022) **

Stephanie compiled an Environmental Sensitivity Report to provide input into the Windhoek Water and Wastewater Master Plan. The report aimed to outline environmentally sensitive areas which needed to be considered within the Master Plan.

Exclusive Prospecting Licence 7547, Erongo Region (2021) **

Environmental Impact Assessment of the proposed exploration activities on EPL 7547 in the Erongo Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation with the affected farm owners as part of the application for environmental clearance.

Township Establishments in Walvis Bay, Erongo Region (2021) **

Environmental Impact Assessment for the establishment of eight townships in Walvis Bay in the Erongo Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation. The project also included the proposed development of a cemetery and identification of potential environmental and social impacts as part of the application for environmental clearance.

Operational Environmental Management Plans, Erongo Region (2021) **

Development of Operational Environmental Management Plans for existing tourism facilities of Namibia Wildlife Resorts (NWR). This involved site visits and identification of baseline environmental and social conditions on site and investigating and assessing activities taking place on site.

Telecommunication Towers in the Erongo, Kunene, Otjozondjupa, Omusati and Kavango West Regions, Namibia (2021) **

Environmental Impact Assessment for the Proposed Construction of Telecommunication Towers in the Erongo, Kunene, Otjozondjupa, Omusati and Kavango West Regions, Namibia. This entailed an identification of current and potential environmental impacts and

Stephanie Strauss, MPhil

Senior Environmental Consultant | ESIA | Windhoek, Namibia



opportunities, as well as public participation as part of the application for environmental clearance.

IFC Compliance Audit of the Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) for the Omburu 20MW PV Project (2020) **

Undertake a compliance audit of the EIA and EMP for the Omburu 20MW PV Project EIA against the IFC Performance Standards. It involved producing a gap analysis report which provided the results of the IFC Compliance audit.

Operational Environmental Management Plans (2021) **

Development of Operational Environmental Management Programme (OEMPr) for Shell DSA. This involved site visits and identification of baseline environmental and social conditions on site and investigating and assessing activities taking place on site.

Marble Mining Claim Authorisation (2020 **

Environmental assessment of the Existing Mining Operations on Mining Claims 65425 and 65426 to include additional mining claims 71547, 71548, 71549 and 71550 in the Erongo Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Exclusive Prospecting Licence (EPL) 6669 in the Kunene Region (2019) **

Environmental assessment of the proposed exploration activities on EPL 6669 in the Kunene Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Exclusive Prospecting License (EPL) 6226 near Kalkveld in the Otjozondjupa Region (2020) **

Environmental assessment of the proposed exploration activities on EPL 6226 near Kalkveld in the Otjozondjupa Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Preservation and Rehabilitation of Trunk Roads 8/2 and 8/3 (TR0802 and TR0803): Taranaki, Mururani Gate to Rundu in the Kavango East, Kavango West and Otjozondjupa Regions (2019) **

Environmental assessment of the proposed Preservation and Rehabilitation of Trunk Roads 8/2 and 8/3 (TR0802 and TR0803): Taranaki, Mururani Gate to Rundu in the Kavango East, Kavango West and Otjozondjupa Regions of Namibia. This entailed an identification of

Stephanie Strauss, MPhil

Senior Environmental Consultant | ESIA | Windhoek, Namibia



current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Preservation or Rehabilitation of Main Road 92 (MR92) [Oshakati-Outapi-Ruacana Road] in the Oshana and Omusati Regions (2019) **

Environmental assessment of the proposed Preservation or Rehabilitation of Main Road 92 (MR92) [Oshakati-Outapi-Ruacana Road] in the Oshana and Omusati Regions of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

ANNA Transmission Project (2019) **

Coordination and Facilitation of the Public Participation Process for the Angola-Namibia Transmission Line Project. The process included three rounds of meetings with key stakeholders and registered interested and affected parties.

Telecommunication Sites, Swakopmund (2019) **

Environmental assessment of the proposed Telecommunication sites in Swakopmund in the Erongo Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Filling Station, Keetmanshoop (2019) **

Environmental assessment of the proposed Filling Station on Erf 2539, Keetmanshoop Extension 6 in the Karas Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Arandis Data Center, Arandis (2019) **

Environmental assessment of the proposed Arandis Data Center in the Erongo Region of Namibia. This entailed an identification of current and potential environmental impacts, as well as public participation as part of the application for environmental clearance.

Namclay Bricks and Pavers, Uis (2018) **

Environmental Compliance Audit of the existing Namclay Bricks and Pavers operations. This involved a site visit and identification of baseline environmental and social conditions on site

Senior Environmental Consultant | ESIA | Windhoek, Namibia



and investigating and assessing the environmental compliance of activities taking place on site.

Osona Village Master Plan, Otjozondjupa Region (2018) **

Environmental assessment of the proposed Osona Village Development in the Otjozondjupa Region of Namibia. This entailed an identification of current and potential environmental impacts, as well as public participation as part of the application for environmental clearance.

Rundu waste disposal site, Kavango East Region (2017) **

Environmental assessment of the existing Rundu Waste Disposal Site in the Kavango East Region of Namibia. This entailed an identification of current and potential environmental impacts, as well as public participation as part of the application for environmental clearance.

Arandis Logistics Park, Erongo Region (2016) **

Environmental assessment of the proposed Arandis Logistics Park in the Erongo Region of Namibia. This entailed an identification of current and potential environmental impacts and opportunities, as well as public participation as part of the application for environmental clearance.

Memberships and Associations

 Environmental Assessment Professionals Association of Namibia (EAPAN) – President and registered as Practitioner

^{**}Denotes experience completed at another firm

CURRICULUM VITAE



QUALIFICATIONS

| BSc | 2003 |
|------------|------|
| BSc (Hons) | 2004 |
| MSc | 2006 |

EXPERTISE

- Environmental and Social Impact Assessments
- Environmental Management Programmes
- IWWMP / WULAs
- Management and facilitation of permitting and licensing processes
- Environmental compliance assessment
- Overall Project Management

PROJECTS

UPS BESS at Anglo American Platinum Smelters, Anglo American Platinum – Rustenburg Platinum Mine, North-West and Limpopo, 2023

MARLINE MEDALLIE

Associate Environmental Consultant

Environmental Management, Planning and Approvals, Africa

Majors in Natural & Environmental Science, Zoology and Botany, RAU, RSA

Majors in Natural & Environmental Science and Botany, RAU, RSA

Major in Botany (Molecular Systematics), UJ, RSA

Marline is an Associate Environmental Consultant based in SLR's offices in Johannesburg. As a specialist environmental project manager, she has over 13 years of experience in the field of environmental management and consulting primarily in the mining sector and more recently self-generation renewable energy in the mining sector. Clients that she has worked for include Anglo American — Sishen Mine, Kolomela Mine, New Largo Colliery (now owned by Seriti New Largo Coal (Pty) Ltd) and the Alexander Project (now owned by Sasol Mining); Black Mountain Mining (Pty) Ltd — Black Mountain Mine; West Wits MLI (Pty) Ltd — West Wits Project; Tshipi é Ntle Manganese Mining (Pty) — Tshipi Borwa Mine; United Managanese of Kalahari Mine (Pty) Ltd — UMK Mine; and Taung Gold (Free State) (Pty) Ltd Jeanette Project.

Marline has worked on projects throughout the project's lifecycle from site identification through conceptual to pre-feasibility and feasibility, to operation and closure for the mining, power, infrastructure and built environment sectors. This includes conducting site identification, screening and scoping studies, baseline studies and specialist management, Basic Assessment and EIAs, management planning and implementation including Integrated Water and Wastewater Management Plans, as well as public participation processes. Marline has an excellent working relationship with the various DMRE offices in the Northern Cape, Mpumalanga and Limpopo.

Marline has worked extensively across South Africa and her mining experience constitutes coal mines (Mpumalanga & KwaZulu-Natal), diamond mines (Western Cape & Lesotho), gold mines (Free State, North West & Gauteng), iron ore mines (Northern Cape), manganese mines (Northern Cape), zinc mine (Northern Cape) and platinum mines (Limpopo).

Projects at SLR and prior to SLR

Project Manager for the environmental Site Screening of the proposed uninterrupted power supply battery energy storage systems at the Anglo American Platinum Smelters. The Project involves the environmental screening process with the input from 3 specialist studies.



150MW Solar PV Plant at the Sishen Iron Ore Mine, Anglo American - Sishen Iron Ore Company (Pty) Ltd, Northern Cape, 2023 Project Manager for the BA Report and EMPr for the proposed development of the 150MW Solar PV Facility and associated infrastructure within the Mining Right area of the Sishen Iron Ore Mine. The Project involves the application for an environmental authorisation, general authorisation application, and Section 53 application in terms of the MPRDA. In addition, a public participation process was undertaken and 7 specialist studies were conducted in support of the BA Report and EMPr.

Hydrogen Production
Development Platform at
the Mogalakwena Mine,
Anglo American Platinum
Ltd – Rustenburg Platinum
Mine, Limpopo, 2022

Project Manager for the BA Report and EMPr for the proposed development of a hydrogen production development platform within the Mining Right area of the Mogalakwena Platinum Mine. The Project involved the application for an environmental authorisation. In addition, a public participation process was undertaken and 2 specialist studies were conducted in support of the BA Report and EMPr.

30MW Solar PV Plant at the Black Mountain Mine, Black Mountain Mining (Pty) Ltd, Northern Cape (NC), 2021 Project Manager for the Basic Assessment (BA) Report and Environmental Management Programme (EMPr) for the proposed development of the 30MW Solar PV Plant within the Mining Right area of the Black Mountain Mine. The Project involved the application for an environmental authorisation and amendment of the integrated water use licence (IWUL) through a general authorisation for the development of a Solar PV Plant and associated 66 Kilovolt (kV) Powerline. In addition, 12 specialist studies were conducted in support of the BA Report and EMPr.

Guinea Alumina Corporation, Guinea, 2020

Development of procedures for the social responsibility management system of Guinea Alumina Corporation in terms of the International Finance Corporation.

Mine Closure Plan for the Kolomela Mine, Anglo American, Kumba Iron Ore, NC, 2020 Assisting in the preparation and compilation of the mine closure plan for the Kolomela Mine.

Mine Closure Liability Updates for Anglo American Coal, Limpopo and KwaZulu-Natal (KZN), 2020

Updating the mine closure liability updates for various Anglo American Coal legacy mine sites.

Dingleton Resettlement for Anglo American, Kumba Iron Ore Ltd, NC, 2008 -2020 Project Manager for the environmental authorisation amendment application process. The Project involved the application for amendment of the environmental authorisation, application for removal of protected species permit, provision of environmental management support and environmental input into the pre-feasibility and feasibility studies, and environmental compliance assessments during implementation phase for the resettlement and decommissioning of the town of Dingleton at Sishen Mine.

West Wits Mining Project for West Wits (MLI) (Pty) Ltd, Gauteng, 2018 - 2020 Project Manager for the Environmental Impact Assessment (EIA) and EMPr in support of the Mining Right application for the West Wits Mining Project. The Project involved the application for an integrated environmental authorisation and waste management licence (WML) for the mining of gold at five open pits and two underground workings with associated infrastructure near Soweto and Roodepoort. In addition, 16 specialist studies were conducted, and a complex stakeholder engagement process was undertaken in compliance with requirements of the National Environmental Management Act, 1998 (NEMA, No. 107 of 1998), as amended.



| Tshipi Borwa Mine Ramp- |
|------------------------------|
| Up Project for Tshipi é Ntle |
| Manganese Mining (Pty) |
| Ltd, NC, 2019 |

Project Manager for the Environmental Constraints Study for the Tshipi Borwa Mine Ramp-Up Project. The Project involved compilation of the environmental constraints report and continuous interaction with the client and project engineering team.

New Largo Overland Conveyor for Seriti New Largo Coal (Pty) Ltd, Mpumalanga, 2019 Project Manager for the Environmental Feasibility Study for the New Largo Overland Conveyor Project. The Project involved compilation of the environmental feasibility chapter and continuous interaction with the client and project engineering team.

Tshipi Borwa Mine Expansion Project for Tshipi é Ntle Manganese Mining (Pty) Ltd, NC, 2018 -2019 Project Manager for the EIA and EMPr in support of an EMPr amendment for the expansion of the Tshipi Borwa Mine. The Project involved the application for an integrated environmental authorisation and WML for the extension of two existing waste rock dumps, construction of an overhead powerline and the construction of an overland conveyor within the Mining Right area. In addition, an application for the amendment of the IWUL and integrated water and wastewater management plan (IWWMP) were compiled and submitted to the competent authority.

Tshipi Borwa Mine Section 24G for Tshipi é Ntle Manganese Mining (Pty) Ltd, NC, 2018 Project Manager for the Section 24G Environmental Assessment Report for the Tshipi Borwa Mine. The Project involved the application for a Section 24 G rectification for the construction of a diesel farm and widening of a haul road.

Expansion of the United Manganese of Kalahari (Pty) Ltd Mine, NC, 2017 – 2019 Project Manager for the EIA and EMPr in support of an EMPr amendment for the expansion of the United Manganese of Kalahari Mine. The Project involved the application for an integrated environmental authorisation and WML for various changes to operations at the UMK mine, including optimisation of the mine pit requiring additional waste rock dumps, run-of-mine, product stockpiles and crushing operations with associated support and administrative infrastructure. In addition, an application for the amendment of the IWUL and integrated water and IWWMP were compiled.

Compliance assessment for AngloGold Ashanti Ltd's Vaal River Operations, North-West (NW)& Free State (FS), 2016 Project Manager for the IWUL environmental compliance assessment/ audit at the Vaal River gold mining operations. The Project involved a site investigation and compilation of the compliance assessment/ audit report.

Compliance assessment for AngloGold Ashanti Ltd's Mine Waste Solutions, NW, 2016 Project Manager for the IWUL environmental compliance assessment/ audit at the Mine Waste Solutions gold mining operations. The Project involved a site investigation and compilation of the compliance assessment/ audit report.

Compliance assessment at Hackney for Marula Platinum (Pty) Ltd, Limpopo, 2016 Project Manager for the EMPr performance assessment at the Hackney prospecting site. The Project involved a site investigation and compilation of the compliance assessment/ audit report.

Compliance assessment at Leeuwkop Platinum Mine for Afplats (Pty) Ltd, Limpopo, 2016 Project Manager for the EMPr performance assessment at the Leeuwkop Platinum Mine. The Project involved a site investigation and compilation of the compliance assessment/audit report.



Jeanette Project for Taung Gold (Free State) (Pty) Ltd, FS, 2014 - 2015 Project Manager for the EIA and EMPr in support of the Mining Right application for the Jeanette Project. The Project involved the application for an integrated environmental authorisation and WML for the underground mining of gold near Odendaalsrus. In addition, 12 specialist studies were conducted, and a complex stakeholder engagement process was undertaken in compliance with requirements of NEMA.

Kathu Supplier Park for Anglo American, Kumba Iron Ore Ltd and the Industrial Development Corporation of South Africa Ltd, NC, 2014 - 2015 Project Manager for the EIA for the proposed development of the proposed Kathu Industrial Park. The Project involved the application for environmental authorisation and water use licence. In addition, 6 specialist studies were conducted.

Alexander Project for Anglo American Inyosi Coal (Pty) Ltd, Mpumalanga, 2011 -2015 Project Manager for the EIA and EMPr in support of the greenfields Mining Right application for the Alexander Project. The Project involved the application for an integrated environmental authorisation and WML for the underground mining of coal near Kriel. In addition, 18 specialist studies were conducted, and a complex stakeholder engagement process was undertaken in compliance with requirements of NEMA.

New Largo Project for Anglo American Inyosi Coal (Pty) Ltd, Mpumalanga, 2011 - 2015 Project Manager for the EIA and EMPr in support of the greenfields Mining Right application for the New Largo Project. The Project involved the application for environmental authorisation and a WML for the opencast mining of coal near Emalahleni. In addition, 13 specialist studies were conducted, and a complex stakeholder engagement process was undertaken in compliance with requirements of NEMA.

Phola Kusile Coal Conveyor for Anglo American Inyosi Coal (Pty) Ltd, Mpumalanga, 2011 - 2012 Project Manager for the EIA for the proposed development of the Phola Kusile Coal Conveyor. The Project involved the application for environmental authorisation and a WML for the construction of the overland conveyor to transport coal from the beneficiation plant to the Kusile Power Station near Emalahleni. In addition, 16 specialist studies were conducted, and a complex stakeholder engagement process was undertaken in compliance with requirements of NEMA.

Sishen Western Expansion Project for Anglo American, Kumba Iron Ore Ltd, NC, 2008 - 2015 Project Manager for the BA and EIA for the Sishen Western Expansion Project. The Project involved the application for environmental authorisation, WML, WUL, mining permit and removal of protected species permits for the relocation of the Postmasburg-Hotazel railway line, Sishen-Lylyveld siding, Vaal Gamagara water pipeline, the 275 kV powerline and Dingleton-Dibeng public road in order for Sishen Mine to expand in a western direction. Provision of environmental management support, environmental input into the pre-feasibility and feasibility studies, and environmental compliance assessments during implementation phase were also provided. In addition, 10 specialist studies were conducted, and a complex stakeholder engagement process was undertaken in compliance with requirements of NEMA.

Sishen Expansion Project 2 for Anglo American, Kumba Iron Ore Ltd, NC, 2009 Project Coordinator for the Environmental Site Selection Study for the Sishen Expansion Project 2. The Project involved compilation of the environmental site selection report.

Sishen Mine's Protea Waste Dump Expansion for Sishen Iron Ore Company (Pty) Ltd, NC, 2008 - 2012 Project Manager for the EMPr Amendment Report for the extension of the Protea Waste Dump at Sishen Mine. The Project involved the application for an EMPr amendment.



| Diepspruit Colliery Expansion for Exxaro Coal (Pty) Ltd, Mpumalanga, 2008 - 2009 | Project Coordinator for the EIA and EMPr in support of the EMPr Amendment for the expansion of the Diepspruit Colliery. The Project involved the application for an EMPr amendment and WUL. |
|---|--|
| Letšeng Diamonds (Pty) Ltd Mine, Lesotho, 2008 | Compilation of an environmental action plan for the Letšeng Diamonds (Pty) Ltd Mine. |
| Eerstelingsfontein Colliery for Exxaro Coal (Pty) Ltd, Mpumalanga, 2007 - 2008 | Project Coordinator for the IWUL application and IWWMP for the Eerstelingsfontein Colliery. |
| Fish Eagle Reserve CC, Gauteng, 2007 - 2009 | Project Manager for providing environmental input into the response to the record of decision issued for the change in land use of Portion 75 and 76 of the Farm Uitvlught 434 IR, near Vereeniging. |
| Langklip South Project for De Beers Consolidated Mines (Pty) Ltd, Western Cape, 2007 | Project Coordinator for the EIA in support of the Mining Right application for the Langklip South Project, near Kleinzee. |
| Platreef Project for Ivanhoe Nickel & Platinum Ltd, Limpopo, 2007 - 2009 | Project Manager for providing environmental input into the baseline report for the Platreef Project. |
| MEMBERSHIPS | |
| Member | International Association for Impact Assessment (South Africa) EAPASA Registration in progress |

