
Name	:	Siphamandla Mzolo
Profession	:	Environmental Management, Environmental Permitting, Environmental Audit, Environmental Impact Assessment.
Date of Birth	:	09 April 1988
Parent Firm	:	Zutari (Pty) Ltd
Position in Firm	:	Environmental consultant
Years with firm	:	3
Nationality	:	South African
BI & Male/Female Status	:	Black, Male
Education	:	BSc (Hons): Environmental Management, University of South Africa. BSc: Geology and Environmental Management, University of Johannesburg. Certificate: Environmental Law for Managers, Northwest University.
Professional Accreditation	:	Professional Natural Scientist, South African Council for Natural Scientific Professions (SACNASP). Member, International Association for Impact Assessment South Africa (IAIAsa).
Languages	:	English
Countries of Work Experience	:	South Africa
Current Position on Team	:	Environmental consultant

KEY QUALIFICATIONS

Siphamandla is an environmental consultant with a broad knowledge and practical application of environmental management tools across various sectors. His key duties include undertaking pre-feasibility studies, authoring, compiling, and finalising Environmental Impact Assessments (EIAs) and Environmental Management Programmes (EMPRs) for construction and operation of various projects, such as bio-gas plants, solar energy plants, wind farms, tourist attraction site, balancing dams, mixed land-use developments, and mining operations. He is also instrumental in conducting water use license applications for various operations and environmental due diligence studies for business acquisition.

He is experienced in conducting NEMA compliance audits, water use licence audits, GN R704 compliance audits, and environmental performance assessments. He supported the implementation of ISO14001 EMS and undertook internal compliance audits in terms of ISO14001:2015 for various operations. He was also responsible for collecting data, classifying, and quantifying GHG emissions in terms of Scope 1, 2 and 3. He conducted continuous environmental inspections as a mine environmental control officer (ECO), authoring environmental operational procedures, providing environmental performance improvement strategies, investigating various environmental incidents, as well as developing short term, and long-term remedial action plans. He also led and managed rehabilitation projects from planning phase to execution, coordinated stakeholder engagements, authored, and finalised Mine Closure Liability Assessments. With 6 years in the mining industry, from operations and being seconded to project management, he has developed an understanding of the companies' short-term and long-term liabilities.

RELEVANT EXPERIENCE

Application for Environmental Authorisation (EA) for the Change in Layout and Footprint of the Mogalakwena 120MW Photovoltaic Solar Energy Facility for the Mogalakwena Mine on the Remainder of Portion 3 of the Farm Armoede 823 LR within the Mogalakwena Local Municipality, Limpopo Province, Pele Green Energy (Pty) Ltd. *Environmental Consultant*

After the EA was issued, Mogalakwena Mine Solar Power (Pty) Ltd appointed Pele Green Energy (PGE) and EDF Renewables, a consortium known as PGE-EDFR, as the Independent Power Producer (IPP) to develop the proposed project. To meet the energy demand of the mine, PGE-EDFR has provided a design that changes the authorised project footprint for the development and as such the authorization is required through a Part 2 Amendment Application process.

Responsible for compiling and finalizing the EA Part 2 Amendment Report. Responsible for compiling and finalizing the Part 2 Amendment Report as per the National Environmental Management Act (NEMA) Environmental Impact Assessment Regulations (EIA), Government Notice (GN) R982.

Cato Ridge Environmental Impact Assessment (EIA) and Water Use Licence Application, KwaZulu-Natal Province, Cato Ridge Development Company Ltd, 07/2021 – Present. *Land Identification Agent*

and Environmental Consultant.

The Cato Ridge Development is an initiative of the land holder to strategically release land on commercial terms to end users and developers for the development of a large-scale logistics hub and intermodal transport facility. The land holdings comprise 1885 ha of land that is strategically located with high potential for development.

Responsible for facilitating engagements with Tribal Leaders. As part of the land identification process to conserve the critically endangered KZN Sandstone Sourveld Grasslands, carried out site visits within the tribal areas in KZN and had preliminary meetings with various Headman of the respective Traditional Authorities to discuss terms and conditions of releasing land and quantifying the cost of the conditions. In order to develop a resolution to be concluded with the Traditional Leaders, to subsequently submit the resolution to the Ingonyama Trust Board to secure the lease on the identified land parcels.

Responsible for reviewing the Section 27 National Water Act (NWA) Motivation Report and Water Use Technical Report and compiling the Integrated Water and Waste Management Plan (IWWMP). Completing water use license application forms online and submission of Water Use Licence Application (WULA) to the Department of Water and Sanitation (DWS).

Proposed Ilanga Emoyeni PV Solar Energy Facility on the Remainder of Farm Schietkuil No. 3 in the Beaufort West Municipality of the Western Cape Province, 01/11/2022 to 11/11/2022. Environmental Consultant

Windlab is applying for Environmental Authorisation (EA) for three solar energy facilities (SEF) and an overhead powerline (OHPL) or "gridline" to connect with the National Grid. These projects are situated within a Renewable Energy Development Zone (REDZ) and the strategic transmission corridor or Electrical Grid Infrastructure (EGI) corridor and must undergo an expedited Basic Assessment (BA) process provided for in Government Notice 145 of 2021 (GN145/2021).

Responsible for authoring and compiling Environmental Management Programme (EMPr) Reports. The applicant is applying for Environmental Authorisation (EA) for three solar energy facilities and an overhead powerline (or gridline) to connect to the National Grid. A total of eight EMPrs were compiled to support the EA application.

God's Window Skywalk, South Africa, Motsamayi Tourism Group (Pty) Ltd, 08/2021 - 12/2024. Environmental Consultant

Zutari was appointed to conduct an environmental impact assessment (EIA) and water use licence application (WULA) for the proposed construction of a skywalk and skybridge at God's Window in the Mpumalanga Province. These services are to ensure compliance with the National Environmental Management Act (Act No. 107 of 1998) (NEMA), National Water Act, 1998, as well as other associated or required environmental authorisations.

Responsible for authoring and finalising the Section 27 (NWA) Motivation Report, and Water Use Technical Report. Completing water use license application forms online and submission of WULA to DWS. Also responsible for compiling and finalising the Draft Environmental Management Programme (EMPr) Report. Ad hoc engagements with the DWS and applicant, presenting water uses, conducting Section 21 (c & i) presentation to DWS, as well following up with the competent authority (DWS) regarding the application.

God's Window Skywalk, South Africa, Motsamayi Tourism Group (Pty) Ltd, 03/2022 - 06/2022. Environmental Consultant

Zutari was appointed to conduct an environmental impact assessment (EIA) and water use licence application (WULA) for the proposed construction of a skywalk and skybridge at God's Window in the Mpumalanga Province. These services are to ensure the General Authorisation is granted to allow the geotechnical investigations to take place.

Responsible for authoring and finalising the General Authorisation (GA) Technical Report, Section 27 (NWA) Motivation Report (i.e., for geotechnical investigations) and completing the general water use authorisation forms online and submission of GA application to DWS. Ad hoc engagements with DWS and applicant and following up with the competent authority (DWS) to ensure the GA is approved. GA was granted.

Support Services for Water Use Licence Application for Proposed Photovoltaic Energy Facility for Mogalakwena Mine Solar Power (Pty) Ltd, Limpopo, Limpopo Province, South Africa, PGE-EDFR

Consortium, 03/2022 - 09/2022. *Environmental Consultant*

Zutari was appointed to conduct the Water Use License Application (WULA) for the Mogalakwena Mine Solar Energy Facility (SEF) and provide the required supporting documents during the application process. The application also includes the necessary engagements with the relevant Authorities.

Responsible for authoring and finalizing the General Authorisation (GA) Technical Report, Section 27 (NWA) Motivation Report and completing the general water use authorization forms online and submission of GA application to DWS. Ad hoc engagements with DWS and applicant, preparing and presenting the GA motivation over a full WULA to DWS, and following up with the competent authority (DWS) to ensure the GA is approved. GA was granted.

30ML Raw water balancing dam in George, George Local Municipality, Western Cape, 02/2022 - 02/2025. *Environmental Consultant*

Design, procurement and construction supervision of a new 30 ML balancing dam adjacent to the existing George Water Treatment Works.

Responsible for compiling the Determination of Environmental Authorisation (EA) Applicability Report for the proposed balancing dam and working with geo-spatial data to compile environmental sensitivity maps and cartographic maps.

Simba CM Project, Integrated Environmental Authorisation, Gauteng, South Africa, 01/2022 – 07/2022. *Environmental Consultant*

Zutari was appointed to undertake an environmental impact assessment for the proposed. Zutari was appointed to undertake a Basic Assessment Process and Waste Management License application for the Simba Isando biogas plant. This process aims to identify, assess and report on any potential impacts that the proposed project may have on the receiving environment, if implemented. The investigation outcome described how impacts on the biophysical and socio-economic environment can be, as far as possible, enhanced or mitigated and managed as the case may be.

Responsible for authoring and finalising the Basic Assessment Report (BAR), Environmental Management Programme (EMPr), completing environmental authorisation application, and compiling Background Information Document (BID) used in the Public Participation Process (PPP). Ad hoc engagements with the competent authority regarding the application. Supported the waste management licence application process. The application required an Integrated EA (consisting of Waste Management and Environmental Authorisation application) since the proposed activities triggered a Waste Management Licence the Basic Assessment Process was also triggered. Responsible for the Basic Assessment Process component and consolidating the two applications.

Water feasibility study for a combined treatment plant at Arnot Coal Mine closed colliery, Mpumalanga Province, South Africa, Seriti Coal (Pty) Ltd, 01/2020 - 10/2022. *Environmental Consultant*

Zutari was appointed to undertake a feasibility study for further definition of the integrated water management plan (IWMP) for the collection of excess water and the treatment and discharge of reclaimed water from the Arnot mining area, as well as the management of all waste material produced due to the implementation of the IWMP.

Responsible for water use licence application (including application forms), assisted in compiling the Water Use Summary Technical Report, finalising, and submission of WULA to DWS. Ad hoc engagements with the DWS, applicant and following up with the competent authority (DWS) regarding the application.

Engineering services for the Cresco De Beers photovoltaic (PV) project, Limpopo Province, South Africa, Cresco Project Finance (Pty) Ltd, 04/2021 - 04/2022. *Environmental Consultant*

De Beers Venetia Mine (hereto referred to as De Beers) proposes the development of a Photovoltaic (PV) solar energy facility (SEF) to reduce its consumption of grid-supplied power by using solar power. The solar energy facility will be constructed and operated by an independent power producer or contracted development partner. De Beers Group has established a Special Purpose Vehicle (SPV) company under which permitting activities will be conducted. This SPV is owned by De Beers, however ownership will be transferred to the independent power producer or development partner, once appointed.

Responsible for the water use licence application (including completing online application forms), site visit and

ad hoc engagements with the regional DWS.

Constantia Kloof stormwater management, Gauteng Province, South Africa, Growthpoint Properties, 09/2019 - 06/2021. *Environmental Consultant*

Growthpoint Properties has been experiencing pollution issues at their Constantia Office Park. Zutari was appointed to carry out a complete study to develop a stormwater solution to lower the annual clean-up cost of removing silt and litter at the office park and to improve the aesthetics. It includes all investigations, water use license application (WULA), environmental approvals and feasibility design.

Responsible for the water use licence application (including completing application forms online), finalising and submission of WULA to DWS. Ad hoc engagements and following up with the competent authority (DWS) regarding the application.

Environmental authorisation for the Mogalakwena solar photovoltaic (PV) facility, Limpopo Province, South Africa, 06/2021. *Public Participation Agent*

Zutari was appointed to conduct the environmental authorisation for the development of a solar photovoltaic (PV) facility of up to 90 MW close to Anglo American Platinum's Mogalakwena Mine to reduce the mine's consumption of grid-supplied power by procuring locally generated solar power.

Responsible for recording, writing up meeting minutes, compiling the Comments and Responses Report, facilitating public meetings and placing site notices across 53 villages as part of the Public Participation Process for the EA application.

Sibanye employee housing, South Africa, Western Platinum, 09/2020 - 08/2021. *Survey Agent*

Zutari has been appointed to assist Sibanye Stillwater with the compilation of housing strategies for six of their operations under their gold and platinum segments. Zutari was also approached to compile the housing and living conditions plan as per the Mining Charter III for seven operations.

Responsible for working with large geo-spatial data, management, editing, updating, and validating as well as importing and exporting of datasets and calculations. Conducting Local Municipality Capacity Assessment (LMCA) for the Madibeng Local Municipality, authoring and documenting results of the capacity assessment. The capacity assessment was undertaken to gauge readiness of the municipality for farming related initiatives. Leading survey discussions and conducting key informant interviews with employees.

Engineering and design for Grande Cote Operations SA fire suppression, Ghana, Africa, 08/2020 – 08/2021. *Asset Transformation Practitioner*

The client required a fire protection system for a plant used to mine sand. It also required the re-design of a fire protection system for a tank farm. Zutari was appointed by Grande Cote Operations to provide services to execute basic engineering and detail design for the installation of the Wet Concentrator Plant (WCP) and Tank Farm Fire Suppression Systems. The objective of the project was to address the associated fire risks at the Floating modules by installing a fully automated fire protection and detection systems. This project included electrical, control and instrumentation engineering, mechanical engineering, and civil engineering designs, as well as 3D modelling of the integrated plant fire systems.

Responsible for eliminating barriers, mapping pipeline, handling, and editing geo-spatial data and creating various cartographic maps.

Technical due diligence to acquire Hazeldean Retail Square, Gauteng, South Africa, 10/2021 – 12/2021. *Environmental Consultant*

Broll Property Group (Pty) Ltd appointed Zutari as an independent environmental assessor to carry out a Level 1 Environmental Site Assessment (ESA) for the property. Broll aims to acquire the Hazeldean Retail Square situated in Hazeldean, City of Tshwane Metropolitan Municipality, Pretoria, Gauteng. The square comprises of a suite of retail shops including an Engen petrol filling station adjacent to the retail square (both referred to as the site). The filling station is leasing the land from Redefine Properties Ltd. As part of the process to purchase the property, Broll has commissioned a technical due diligence exercise to assess the property for any environmental "fatal flaws" prior to the acquisition.

Responsible for conducting the Level 1 Environmental Site Assessment (ESA) according to ISO 14015: 2003

(South African National Standard: Environmental management: Environmental assessment of sites and organisations), creating cartographic maps, authoring, and finalising the ESA report.

Rietspruit Closure Pre-feasibility Study, Mpumalanga Province, Souths Africa, 06/2020 - 02/2021. Asset Transformation Practitioner

Zutari was appointed by SAEC to conduct a Pre-Feasibility Study on their dormant Rietspruit Colliery in order to assess all reasonable value-creating opportunities and select the optimal investment alternative. And ensure the technical and commercial viability of the selected investment prior to further study and optimisation in the Feasibility phase. Zutari is required to review and address knowledge gaps, develop the closure roadmap, undertake a sustainability assessment; assist in the selection of the land use alternatives and manage the project. Zutari shall produce post-mining land use options identification report; sustainability assessment report of identified post-mining land use options; rehabilitated area status quo report; conceptual land use layouts (three options) with semi-detailed cost estimates; closure roadmap and the Pre-Feasibility study report. The purpose of the Pre-Feasibility study is to inform and facilitate decision-making in terms of the final sustainable land use options and whether to pursue further studies.

Involved in identifying post-mining land use options. Also tasked to assist in developing conceptual land use layout maps and co-author the Mine Closure Pre-feasibility Study Report.

Bokamoso Ba Rona Programme, Gauteng Province, South Africa, Talmar RSA (Pty) Ltd, 06/2020 – 11/2020. Asset Transformation Practitioner

The Bokamoso Ba Rona (BBR) Agri-Industrial Programme is a multi-stakeholder programme aimed at promoting sustainable economic activity through the development of a large-scale agri-industrial and energy hub on 30 000 ha of ground in the West Rand of Johannesburg. The key objective of the programme is to build a globally competitive, inclusive, environmentally sustainable and diversified economy with the people of the West Rand through facilitating large-scale, socio-economic empowerment. This will be done by the development of the programme area for agri-industrial and commercial purposes. The programme was conceived by founding partners Sibanyes Stillwater, GIFA, WRDA and FWRDWA. Zutari is part of the Programme Manager, under the leadership of Talmar and working with Cliffe Decker Hofmeyr Incorporated (CDH) Attorneys. Zutari is assisting with developing a post-mining economy in the West Rand, offering innovative solutions across the project lifecycle (including advisory, design, delivery and asset management). Responsible for working with large datasets and cartography using QGIS Software, Geo-spatial data management, editing, updating, and validating as well as importing and exporting of datasets and calculations within attributes. Authored and finalised a GIS Training Manual for Non-GIS personnel.

Responsible for working with large datasets and cartography, geo-spatial data management, editing, updating, and validating as well as importing and exporting of datasets and calculations within attributes. Authored and finalised a GIS Training Manual for Non-GIS personnel.

Detailed design and execution (FEL 4) for Klipspruit Extension Project (KPSX), including procurement and construction management, Mpumalanga, South Africa, 04/2018 – 09/2021, South32 SA Coal Holdings. Asset Transformation Practitioner

Zutari was appointed to perform the detailed design and execution (FEL 4) for the Klipspruit Extension Project (KPSX), including procurement and construction management. The project involved the design of non-process infrastructure and bulk materials handling (BMH) facilities, as well as undertaking geotechnical investigations and interpretive reporting for all mine related infrastructure for extensions to the mine. The infrastructure includes a run-of-mine (ROM) stockpile and tip with 11.5 m wall and semi-mobile crusher, 9 km of conveyors, roads, and three bridges. Zutari provided value engineering by designing a fit-for-purpose solution.

Responsible for the application (including facilitating public participation) for Proclamation of Realignment of D432 Northern Access Road and De-proclamation of D432 Road

Proposed Chicken-egg Laying Poultry farm on 84 Hollgate Agricultural Holdings, Lesedi Municipality, Gauteng, Draft Basic Assessment, ESGiA (Pty) Ltd, 12/2019 – 03/2020. Environmental Consultant

Phola Poultry (Pty) Ltd intends to build and operate an Egg Laying Facilities in Hallgate Agricultural Holdings (AH) on the East Rand in Gauteng. The owner of the company has been successfully rearing egg laying chickens on a smaller scale for some time. Based on this success, the proposed development site in was purchased and the owner has been self-funding the development of this farm.

Responsible for authoring and finalising the Basic Assessment Report (BAR), Environmental Management Programme (EMPr), completing environmental authorisation application, and compiling BID to be used in the Public Participation Process (PPP).

Rehabilitation of the Land Disturbed by Illegal Sand Mining activities on Portion 55 of the Farm Pienaarspoort 339 JR, Gauteng, 02/2018 – 12/2019. *Project Manager*

During the past years illegal mining activities took place on the property owned by Afrimat. These illegal sand mining activities elevated significant concerns for the landowner, other affected stakeholders, and threatened public safety.

Leading and managing the rehabilitation project. Responsible for conducting a community awareness campaign - to educate community regarding dangers associated with mining under the high voltage Eskom power transmission lines and benefits of reporting illegal mining activities to the relevant authorities. The campaign was carried out in collaboration with Eskom, Tshwane Disaster Management and Tshwane Metropolitan Municipality. Authoring letters and emails to inform all affected stakeholders concerning the illegal mining activities. Authored and compiled a rehabilitation plan and monitoring programme of the land disturbed by illegal mining activities. Involved in volumetric calculations/estimations to determine the required fill material using Studio Open Pit by Datamine software. Liaised with Eskom and other stakeholders concerning the progress of rehabilitation and persisting challenges. Compiling scope of work of aerial survey work and digital terrain model. Chaired ad hoc meetings with the specialists and the contractor to monitor rehabilitation progress, and compile status progress reports. Planning, supervising and overseeing site rehabilitation work. Ongoing monitoring of progress and compiling status progress reports for the Group Operations Manager.

Rehabilitation of a Mined-out Silica Sand Mine Located on Portion 10 of Farm Pienaarspoort 339 JR, Gauteng, 09/2017 – 12/2019. *Project Assistant subsequently in 2019 assumed the Project Manager role*

Delf Sand wholly owned by Afrimat Ltd ceased operations during 2017 and since then undertaken rehabilitation activities in preparation for the closure of the silica sand mine as part of the environmental legal obligation as per environmental authorisation and mining rights.

Leading and managing the rehabilitation project. Responsible for planning, authoring, and compiling a preliminary and subsequently a comprehensive rehabilitation plan as well as determining the cost of rehabilitation of the Delf Sand Mine. Prepared correspondence to inform affected stakeholders regarding the intent of the Mine to undertake rehabilitation in preparation for decommissioning and closure of the mine. Coordinating stakeholder engagements with the assistance of stakeholder and communications team. Facilitating meetings regarding the involvement of local Small, Medium and Micro Enterprises (SMMEs) and advising the project funder and main contractor. Providing advice to the Operations Manager to make decisions on appointing specialists. Prepared and compiled rehabilitation programme/schedule. Coordinated contractor and specialist work (including groundwater, soil and land capability, terrestrial ecology, noise, air quality, watercourses and flood line determination). Authored an Alien Eradication Programme reviewed by an independent specialist (i.e., Ecologist). Planned, prepared, and coordinated alignment meetings to ensure the project is executed according to the rehabilitation plan, specialists' recommendations, and schedule. Ensured the protection of watercourse (streams/rivers) running adjacent the site boundary. Supervising and overseeing site rehabilitation work. Ongoing monitoring of progress and compiling status progress reports for the Group Operations Manager. Responsible for reporting (including authoring the report) the presence of graves to the South Africa Heritage Resources Agency (SAHRA). Ensured the protection of the grave site (approximately 40 graves). Engaged relatives (including their legal representatives) and held meetings to recommend protection of graves which were found within the mining right area.

Renewal of an Air Emissions License for Afrimat Silica Drying Plant at Cullinan, Afrimat Ltd, Gauteng, South Africa, 02/2019 – 09/2019. *Project Manager*

Afrimat Silica is wholly owned by Afrimat Ltd. The company had to renew an expired Air Emissions Licence for their Silica Sand drying plant. The operation continued to run the drying plant despite the expired licence. The Tshwane Department of Environmental and Agriculture fined Afrimat Silica for operating without a valid AEL. The business was under pressure to rectify and apply for a new AEL to resume silica drying activities on site.

Responsible for the AEL application and completion of the application process (i.e., includes completing the AEL application form). Collecting and quantifying throughput and output data from the drying plant and washing plant. Preparing and drafting newspaper advertisement and site notices to inform interested and affected

parties regarding the intent of the mine to renew the AEL as part of the PPP. Providing advice in appointing an Air Quality Specialist to conduct stack emissions tests and recommend abatement methods. Ensured the preparations for the stack emissions tests have been completed prior to the test date. Authoring external and internal environmental issue register. Preparing engagements and liaise with officials from the competent authority and scribe meeting minutes. AEL was granted.

Requirements of the Location, Construction, and Operation of the Salvage Yard Facility for Afrimat sites across South Africa, 06/2018 – 10/2018. *Environmental researcher and report author*

These standards have been prepared to protect human health and the environment by ensuring the safe, adequate and sustainable operation of salvage yard in Afrimat operations. These standards apply to person or persons who operates a salvage yard. To safeguard the operation with the duty of care, describe the requirements for the location, construction, and operation of the salvage yard facilities. Moreover, there is no legislation in South Africa regulating the location, construction and operation of a salvage yard facility. Therefore, the guide makes use of the international guides and standards to compile and implement the salvage yard requirements.

Responsible for conducting research, literature review and gathering site-specific information and data. Consulted environmental personnel from other Afrimat mining sites to establish persistent environmental issues relating to salvage yards development and operation. Authored, compiled, and finalised a guide for the “Requirements of the Location, Construction, and Operation of the Salvage Yard Facility for Afrimat sites across South Africa”. This guide has been prepared to protect the environment and human health by ensuring the safe, adequate and sustainable operation of salvage yards within Afrimat operations.

Guide to Compile a Site-Specific Waste Management Plan for Afrimat mining sites, South Africa, 05/2018 – 09/2018. *Environmental researcher and report author*

Waste separation, control and handling have proven to be ineffective on many Afrimat operations. Firstly, an operating standard procedure for separating waste is not implemented. Therefore, waste cannot be separated into various waste streams. The solution was to develop a Guide to Compile a Site-Specific Waste Management Plan.

Responsible for conducting, research, literature review and gathering site-specific information. Consulted environmental personnel from other Afrimat sites to establish persistent environmental issues associated with waste control and management, analysed this data in terms of incident frequency. Authored, consolidated information, and finalised a guide to be used across Afrimat. Eventually, developed a template to be tailored to site-specific conditions/requirements.

The impact of changes in the 2015 Financial Provisioning Regulations for Afrimat Ltd, South Africa, 03/2019 – 05/2019. *Speaker*

Conducted literature review and face-to-face interviews, collected, consolidated, and analysed critical data regarding the anticipated impact that would be created by the changes in the NEMA Financial Provisioning (FP) Regulations, 2015. Seconded to present the changes in the FP Regs 2015 and their impact on “business as usual”. Demonstrated and analysed how the changes will significantly affect business practice. Highlighted and compared changes between the FP Regs 2015 and Proposed FP Regs, November 2017. Determined significant changes in the recent regulations, and how the changes would affect annual rehabilitation, mine closure, reporting and legal compliance. Presented findings at the Annual Afrimat Sustainability Conference in 2019.

Guide to compile dust fall report for Afrimat Ltd, South Africa, 11/2017. *Environmental researcher and report author*

Responsible for authoring a template to be used across Afrimat Ltd. Template developed in terms of the Standard Test Method for Collection and Measurement of Dustfall (Settleable Particulate Matter) (i.e., ASTM D1739-98: 2017). Presented the guide and its usage at the Annual Afrimat Sustainability Conference in 2018.

Carbon Footprint Reporting (Annual) for various Afrimat Ltd mining sites, 2017, 2018 & 2019. *Data collector and analyst*

Responsible for collecting 2017 and 2018 data. The data Included paper for office printing, employee commute (i.e., private car, car hire and flights), type of vehicle used, diesel/petrol/oil utilisation, number of stationary air conditioners and types, total waste disposed to municipal landfill, company owned vehicles, generators,

electricity consumption and flights invoices, drilled and blasted overburden, total production tons and product sold. Classifying and quantifying GHG emissions in terms of Scope 1, 2 and 3 in accordance with the UK Department for Environment, Food & Rural Affairs GHG conversion Factors for Company Reporting, 2018

Internal NEMA Audit in fulfilment of Environmental Authorisation for various Mining Rights for Afrimat Ltd, South Africa, 2018 – 2019. *Environmental Auditor*

Legal requirement for all mining right holders, Afrimat Ltd had to honour the directive.

Responsible for conducting (annual) site and document audits to verify the level of compliance with the conditions of the approved EMPr and EA. The audit was undertaken in terms of regulation 34 and in accordance with Appendix 7 of the 2014 NEMA EIA regulations. Compiled the Environmental Audit Report and reviewed by an Independent Environmental Auditor and submitted it to the competent authority as required by EA conditions.

Internal GN R704 compliance audit in fulfilment of GN R704 requirements for various Mining Rights under Afrimat Ltd, South Africa, 2018 – 2019. *Environmental Auditor*

Responsible for conducting site and document audit to verify compliance with the requirements of the GN R704 (Regulations on Use of Water for Mining and Related Activities Aimed at The Protection of Water Resources).

Afrimat adopting Environmental Management System (EMS) as per ISO 14001 protocol to improve environmental performance and legal compliance, 2016 - 2019. *EMS Implementor and Audit Preparer*

Afrimat Ltd took a business decision to appoint an ISO 1400 Auditor to perform an audit on their Environmental Management System once in two years as part the strategy to improve environmental performance across their operations.

Responsible for developing and implementing EMS documentation (included authoring and compiling environmental operational procedures, risk assessments, water usage guides, waste management methods, energy efficiency strategies, cartographic maps reflecting scope of mine, annual environmental compliance reports, internal monthly environmental inspection reports, environmental performance reports, concurrent rehabilitation etc). Preparing for an external independent ISO 14001 audit by conducting an internal/mock audit. This involved auditing the site as well as documentation to verify and test level of compliance with the EMS requirements as per the ISO14001: 2015 standard.

Annual Financial Provision Reports for various Afrimat Ltd mining sites, South Africa, 2015 – 2019. *Mine Closure Assessor and report author*

Legal reporting requirement for the mining right holder as per Financial Provisioning Regulations.

Responsible for undertaking closure liability assessments. This included authoring and finalising various Annual Rehabilitation Plans and Mine Closure Plans, Environmental Risk Assessments and Determination of Quantum for Financial Provision for Mine Closure. Determination of Quantum for financial provision for Mine Closure was compiled using the Guideline for the Evaluation for the Quantum of Closure Related to Financial Provision Provided by a Mine, developed by the DMR, September 2004 (i.e, DMR template).

Investigation of various environmental incidents in Afrimat Ltd mining sites, South Africa, 2015 – 2019. *Incident investigator*

Authoring and finalising environmental incident and corrective action (including immediate and long-term mitigations measures) reports.

Responsible for conducting environmental incident investigations on various areas such as ready-mix plants, mine workshops, waste storage areas, hydrocarbon storage areas, water storage areas, plant areas, mining areas, open pits, watercourses, and stormwater channels etc.

Annual Mining Works Programme Reporting for various Afrimat Ltd mining sites, South Africa, 2018 – 2019. *Environmental Assessor and report author*

Environmental compliance reporting requirement as per Environmental Authorisation.

Compiled and finalised Mining Works Programme annual reports (i.e., detailing mined tons, mining methods

and equipment, technical skills, exploration results, cashflow & evaluation, and future capital expenditure).

EMPr Audit in fulfilment of Environmental Authorisation for various Mining Rights, Afrimat Ltd, 2015 – 2019. Environmental Assessor and report author

Legal reporting requirement as per Environmental Authorisation of the mining right holder.

Conducted site and documentation audit to verify environmental compliance with the conditions of the EMPr. Compiled the Audit report to be reviewed by an Independent Auditor. Audit undertaken in terms of regulation 34 and in accordance to Appendix 7 of the 2014 NEMA EIA regulations.

Estimate annual remaining Mineral Resources and Reserves (Industrial Minerals) for various Afrimat Ltd sites, South Africa, 2015 – 2019. Estimator and Report Compiler

Reporting requirement as per the environmental authorisation and mining rights.

Responsible for calculating and estimating Mineral Resources and Mineral Reserves and reporting in accordance with the guidelines defined in the 2007 version of the South African Code for Reporting of Mineral Resources and Mineral Reserves(the SAMREC Code), as amended in July 2009.

Water sampling activities for Afrimat Silica and Delf Sand Mine, Gauteng, South Africa, 2014 – 2015. Data Collector

Assisted in borehole yield tests. Responsible for measuring borehole levels to be provided to the ECO as per the EMPr requirements.

Aggregate and Silica Sand Grading for Lyttleton Dolomite and Delf Silica Sand, Afrimat Ltd, 2014 -2015, Lab Assistant

Product Quality control as part of operation, including sampling, conducting test, and analysing aggregate material & foundry Silica Sand.

Assisted in sampling from a conveyor belt, stockpile, preparing test samples, carrying out tests and analysing aggregate in accordance with SANS 195:2006, SANS 197:2006 SANS 201:2008. Assisted in collecting samples from a conveyor belt, stockpile and preparing test samples. Undertaking tests and analysing product as per the American Foundry Society (AFS) Method test to ensure the product meets specification and quality upon despatch.

Application for Water Use Licences for various mining sites owned by Afrimat Ltd, South Africa, 2014 – 2016. Project Assistant

Assisting in completing water use licence applications. Responsible for collecting water usage data from the plants and water used for dust suppression. Drawing up a water balance diagram and approved by the Mine Engineer/Civil Engineer/Environmental Specialist. Preparing engagements and liaising with officials from the competent authority and drafting meeting minutes.

Application for Prospecting Permits for various sites owned by Afrimat Ltd, South Africa, 2014 – 2016. Project Assistant

Assisted in compiling the Prospecting Works Programme and completing the application form. Assisted in compiling the Annual Rehabilitation Plan, Determination of Quantum for Financial provision for mine closure rehabilitation (Using the Guideline Document for the Evaluation for the Quantum of Closure Related to Financial Provision compiled by the DMR) and Environmental Risk Assessment report.

Upgrade of a River Crossing at Mposa, Richards Bay, Kwa-Zulu Natal, Transnet SOC Ltd, 02/2013 – 06/2013. Project Assistant

Transnet SOC Ltd appointed H & H Environmental Consulting cc to undertake an Environmental Impact Assessment (EIA) process in an effort to obtain environmental authorisation for the proposed Upgrade of a River Crossing at Mposa, Richards Bay, Kwa-Zulu Natal.

Assisted in writing environmental screening report, collected traffic data adjacent to the river crossing (supervised by a Traffic Engineer). Also assisted in compiling letters (correspondence) and distributing them to the competent authority and other interested and affected parties. Responsible for compiling public

participation meeting minutes.

**Development of Cultural Lounge and Conference Club at Escort, Kwa-Zulu Natal, South Africa, 02/2013
– 06/2013 Assessment Process, *Project Assistant***

Assisted in writing up and compiling the BAR and EMPr reports and assisted in authority liaison.

DECLARATION

I confirm that the above information contained in the CV is an accurate description of my experience and qualifications and that, at the time of signature, I am available and willing to serve in the position indicated for me in the Proposal for Professional Services for the ORWRDP-2, for the durations and at the locations indicated therein.

siphamandla Mzolo

Signed by: siphamandla Mzolo,
siphamandla.mzolo@ukhah.com
29/09/2023 13:06:18(UTC+02:00) 

Signature of Staff Member

29/09/2023

Date

