Curriculum vitae: Ms DL ERASMUS

Name : **ERASMUS, DIANE LUCIE**

Date of Birth : 22 April 1965

Profession/Specialisation : Environmental Practitioner

Years with Firm : 10

Nationality : South African

Years experience : 28

Key qualifications

Diane currently manages the George office of Aurecon's environmental team where she has been active in the field of environmental management with more than two decades of experience. She has also been assisting with management of the environmental team in the Cape Town team and so has managerial responsibility for a team of 21 people. She obtained experience as a specialist consultant in undertaking environmental impact assessments for both small and medium to large-scale developments. This includes a wide range of projects, from communication structures, housing and resort applications to pipelines, bridges and industrial developments. She has also undertaken environmental processes in a number of African countries, including South Africa, Nigeria, Namibia, Uganda Botswana and Malawi.

Diane has experience in writing and implementing environmental management plans (EMP's) for the construction and operational phases of developments. She has also been responsible for undertaking studies that address strategic environmental input into the early stages of project planning, including environmental management frameworks (EMF's) and feasibility/planning projects. She has undertaken a number of projects where international best practice was a pre-requisite, this has entailed ensuring compliance with amongst others, World Bank and International Finance Corporation standards.

Diane's responsibilities on projects have included drawing up proposals, project and financial management of projects, management of specialist teams, integration of specialist findings and compilation of reports. Furthermore, she has been responsible for undertaking environmental impact assessments (EIA's) and has acquired a number of skills, including the ability to analyse the environment in a holistic manner, while evaluating options and trade-offs. She has also been involved in undertaking scoping and stakeholder participation; assessment of impacts and evaluation of their potential significance; as well as recommending mitigation measures, management and monitoring of impacts; and managing, coordinating and integrating the findings of an interdisciplinary team.

She is a certified environmental practitioner at the Environmental Assessment Practitioners Association of South Africa (EAPASA) and has been active at the International Association for Impact Assessment: South Africa (IAIAsa), acting as Western Cape Chair (2006); Southern Cape Chair (2007) and National President (2008).

Employment record

02/2007 - Date	Aurecon, Associate and Principal Environmental Practitioner
2004 - 2007	Doug Jeffery Environmental Consultants, Environmental Practitioner
1999 - 2004	Consulting as Diane Erasmus Environmental Services (DEES), Owner
1998 - 1999	EnviroAfrica, Associate
1996 -1998	Enviro-Consult, Partner
1993 - 1996	Botany Department, Stellenbosch University, Contract Researcher
1989 - 1991	Forestry Faculty, Stellenbosch University, Junior Researcher
1989	University of Cape Town (UCT), Fresh Water Unit, Research Assistant

Management experience

2012 - Date Management of the Aurecon Cape Town environmental team

Experience record

Amendment of an environmental and socio-economic impact assessment (ESEIA) from coal-fired to concentrated solar power (CSP) technology for power generation near Arandis town (Erongo Region)



03/2016 - 08/2016. Reviewer. An environmental certificate was issued in 2012 to the Namibia Power Corporation (Pty) Ltd (NamPower) to build a thermal coal-fired power station near Arandis in the Erongo Region. This project was put on hold and NamPower now proposes to develop a concentrated solar power (CSP) facility on the same site. Aurecon was appointed to undertake an assessment of the CSP technologies proposed on the same site, as required in terms of the Environmental Management Act (Act No. 7 of 2007). (NamPower).

Implementation service provider (ISP) for flood risk management (FRM) at the Shire River Basin (Southern Region, Malawi) 07/206 - 08/2016. Environmental Specialist. The Shire River Basin Management Programme (Phase 1) Project (SRBMP-1) aims to transform the largely sectoral planning approaches in the Shire River Basin into inclusive stakeholder-based development planning and management of the basin's water and related natural resources to generate sustainable social, economic and environmental benefits. Aurecon was appointed as the implementation service provider (ISP) for flood risk management. Responsible for the safeguards report which details the environmental and social aspects related to the engineering designs for the first batch of civil works (seven interventions) for proposed flood mitigation civil works in the lower Shire River Basin (includes riverbank stabilisation structures, dykes and culverts) as part of the Shire River Basin Management Programme. (BRL Ingénierie).

Transaction advisory services for the Botswana-South Africa (BOSA) Transmission Interconnection Project (South Africa and Botswana) 04/2016 - 07/2016. Environmental Specialist. Aurecon was appointed to provide consultancy services comprising a scoping study, feasibility study up to the project implementation phase which included procurement of an engineering, procurement and construction (EPC) firm and project financial close. Responsible for acting as an environmental specialist as part of the transaction advisor team with responsibility for environmental and social input into the preliminary design and the subsequent environmental and social impacts assessment (ESIA) for the 400 kV transmission lines from the Isang substation in Botswana to the Watershed B substation in South Africa. (Southern African Power Pool (SAPP)).

Pre-feasibility study for a 500 MW gas fired power plant in Abia State, Nigeria (Abia State, Nigeria) 12/2015 - 03/2016. Environmental Specialist. Orascom Construction (Egypt) and Geometric Power (Nigeria) are jointly developing a nominal 500 MW gas fired power plant in Abia State Nigeria. The client engaged Aurecon to carry out the pre-feasibility study for the project. This aspect included an overview of the environmental and social aspects of the project. (Orascom Construction).

Preparation of national integrated catchment management and rural infrastructure development guidelines (Malawi) 02/2014 - 11/2015. Environmental Specialist. The aim of this project is to address the interlinked challenges of poverty and a deteriorating natural resource base not only in the Shire Basin but in Malawi as a whole, to reduce the process of environmental degradation and improve the productive potential of natural resources. Responsible for assisting with compiling a consolidated network of catchment management guidelines that address best practice for land and natural resources management for the Malawi government. Oversight of production of a series of videos targeted at village-level audience. (Ministry of Agriculture, Irrigation and Water Development (MoAIWD)).

Western Cape Provincial road materials supply strategy (Western Cape Province, South Africa) 02/2008 - 11/2015. Environmental Specialist. Aurecon was appointed for prospecting suitable road making materials, sampling, testing and identifying technically suitable sources to be used for both identified projects and as strategic pits as well as for getting all the required approvals. Responsibilities included environmental screenings of two potential borrow pits as required under the National Environmental Management Act (NEMA) (No 107 of 1998). Involved for 1 person-month. (Provincial Government of the Western Cape (PGWC): Department of Transport and Public Works).

Proposed construction of a second bridge across the River Niger between Onitsha and Asaba (Delta State, Nigeria) 05/2014 - 09/2015. Project Manager. Aurecon was appointed to provide the lead consultancy services for the environmental and social impact assessment (ESIA) for the proposed bridge over the Niger River, including the identification of environmental risks for the proposal, a scoping and EIA study as well as the development of an environmental management plan (EMP). Responsible for the environmental process, including the financial management of the budget, project coordination and the management of a team of 19 sub-consultants. Involved for 2 person-months. (Nigeria Sovereign Investment Authority (NSIA)).

High level environmental and social pre-feasibility assessment of proposed coal mine and power station near Mbeya, south of Rukwa Lake (Tanzania) 11/2014 - 09/2015. Environmental Specialist. Aurecon was appointed to undertake pre-feasibility studies of the mine and power station, respectively, and this aspect included an overview of the environmental and social aspects of the project. Involved for 1 personmenth. (Rukwa Development Company).



Sustainability training course (KwaZulu-Natal Province, South Africa) 2015. Environmental Specialist. Aurecon was appointed to compile and present a one day training course on sustainable development for Pragma. Responsible for compilation of the course and for presenting twice to asset managers at the eThekwini Metropolitan Municipality. Involved for 1 person-month. (Pragma).

Three photovoltaic power plants and associated infrastructure (Namibia) 2014 - 2015. Environmental Specialist. Aurecon was appointed to undertake the environmental processes for three PV plants in Namibia in accordance with Namibian environmental legislation. Responsible for advice throughout the project and review of all documentation. Involved for 1 person-month. (NamPower).

Morupule B Phase II, 300 MW Brownfield Coal IPP (Central District, Botswana) 06/2014 - 12/2014. Environmental Specialist. Aurecon was appointed as the technical advisor to the government of Botswana for the development of 2 new X 150 MW coal fired power units at next to the existing units. Responsible for overseeing the environmental aspects of the appointment, including drawing up terms of reference for the environmental process to be undertaken. Involved for 1 person-month. (Ministry of Minerals, Energy and Water Resources (MMEWR), Botswana).

Proposed hydropower station and associated infrastructure at Boegoeberg dam on the Orange River, near Groblershoop (Northern Cape Province, South Africa) 06/2013 - 04/2014. Project Manager. Aurecon was appointed to provide the lead consultancy services for the environmental impact assessment (EIA) for the proposed 15 MW hydro power station at Boegoeberg, including the identification of environmental risks for the proposal, a scoping and EIA study and the development of an environmental management plan (EMP). Responsible for the environmental process, including the financial management of the budget, project coordination and the management of a team of 5 sub-consultants. Involved for 2 person-months. (Boegoeberg Hydro Electric Power (Pty) Ltd).

Update to rapid strategic environmental assessment (SSEA): Development of a pilot catchment management plan (Uganda) 08/2013 - 09/2013. Environmental Coordinator. Appointed to prepare a pilot catchment management plan for the Awoja Catchment. Major social and environmental issues within the catchment area were identified early in the process as critical informants to catchment management planning so these can be integrated into the planning process at an early stage. The SSEA has focussed on identifying the issues and conditions in the catchment related to water and natural resources that are likely to be a major influence, and that might represent important risks, as linked to potential water resource development options. Coordinated the environmental in-out into the catchment management plan (i.e. the SSEA). Involved for 0.75 person-months. (Ministry of Water and Environment (Uganda)).

Pre-feasibility study and screening for fatal flaws for the increase in capacity for the Kouga Dam (Eastern Cape Province, South Africa) 10/2012 - 03/2013. Environmental Coordinator. A pre-feasibility study was undertaken to investigate potential raising of the Kouga Dam in the Baviaanskloof World Heritage Site. The feasibility study has identified potential environmental and social risks associated with the various options considered. Responsible for coordination of environmental input into the overall study. Involved for 0.5 person-months. (Department of Water Affairs (DWA)).

Social and environmental impact assessments (SEIA) process for the proposed mining of the Z20 uranium deposit (Namibia) 2012. Reviewer. Aurecon and SLR Environmental Consulting were appointed to manage the social and environmental impact assessments (SEIA) process for the proposed mining of the Z20 uranium deposit. This entailed undertaking a baseline description and assessment of impacts and the development of an environmental management plan (EMP), as well as public participation. Responsible for the internal review of the scoping report. Involved for 0.2 person-months. (Rössing Uranium).

Environmental and socio-economic impact assessment (ESEIA) for a fuel storage facility in the Etosha National Park (Namibia) 2011 - 2012. Project Manager. The project involved an environmental and socio-economic impact assessment (ESEIA) to assess the impact of a fuel storage facility at Okaukuejo in the Etosha National Park. This included a baseline description and environmental impact assessment study and the development of an environmental management plan (EMP), as well as public participation. Responsible for the management of the environmental process; financial management of the budget; client interaction; and writing of reports. Involved for 1 person-month. (Millennium Challenge Account (MCA)).

Environmental and socio-economic impact assessment (ESEIA) for the proposed coal-fired power station at Arandis (Namibia) 2011 - 2012. Project Manager. The project entailed an environmental and socio-economic impact assessment (ESEIA) for a proposed coal-fired power station at Arandis. The ESEIA included a site screening and selection process, a scoping and environmental impact assessment study and



the development of an environmental management plan (EMP). Responsible for the management of the environmental process; financial management of the budget; project co-ordination; and management of a team of 11 sub-consultants. Involved for 8.6 person-months. (Namibian Power Corporation (NamPower)).

Health, safety, environment and quality (HSEQ) brochure for Rössing Uranium's expansion project (Namibia) 2010 - 2011. Team Member. The project involved the compilation of a succinct report describing the Rössing Uranium health, safety, environmental and quality (HSEQ) management system (HSEQ brochure). The report will serve as an annexure to various environmental and social impact assessments (ESIA's), and environmental and social management plans (ESMP's) currently underway. The aim is to provide the authorities and other readers with an adequate understanding of the system and the various management policies, programmes and procedures already in use at the mine. Responsible for providing technical input and assisting with the compilation of the HSEQ brochure. Involved for 1.4 person-months. (Rössing Uranium).

Environmental and socio-economic impact assessment (ESEIA) for the infrastructure upgrading in Etosha National Park (Etosha, Namibia) 2010 - 2011. Project Manager. Aurecon was appointed to provide the lead consultancy services for the environmental and socio-economic impact assessment (ESEIA) for proposed upgrading of infrastructure within two zones of the Etosha National Park. This included the identification of the preferred sites for development, a socio-economic census of the park residents, using a multi-criteria decision analysis (MCDA) model, a baseline description and environmental impact assessment (EIA) study and the development of an environmental management plan (EMP), as well as public participation. Responsible for the environmental process, including the financial management of the budget, project coordination and the management of a team of 6 sub-consultants. Involved for 6.7 person-months. (Millennium Challenge Account (MCA)).

North Corridor Development project: railway line in Malawi (Malawi) 12/2010. Package Manager. The project involved the management of the public participation aspect of the environmental impact assessment (EIA) to investigate the development of railway infrastructure to transport coal from the Moatize mine in Mozambique to the Port of Nacala in Mozambique, through Southern Malawi. The public participation process (PPP) for this project involved a thorough approach, including a number of public and stakeholder meetings at national, district and local level to ensure the engagement of the affected parties in the process. Responsible for managing the environmental process; management of specialists; client interaction regarding technical aspects; public participation; and writing of the reports. Involved for 7.6 person-months. (Vale).

Technical feasibility study to investigate future expansion of the Lüderitz Port (Namibia) 2010. *Environmental coordinator.* A technical feasibility study was undertaken to investigate future expansion of the Lüderitz Port as a key step to the expansion of Namport's national operations. The feasibility study has identified a possible development scenario for the port. Responsible for coordination of environmental input into the overall study, including management of marine and social specialists. Involved for 1.2 person-months. (The Namibian Ports Company (Pty) Ltd (Namport)).

Environmental and socio-economic impact assessment (ESEIA) for the proposed coal-fired power station at Walvis Bay (Namibia) 2008 - 2009. Project Manager. Aurecon was appointed by the Namibian Power Corporation (NamPower) to provide the lead consultancy services for the environmental and socio-economic impact assessment (ESEIA) for the proposed coal-fired power station at Walvis Bay, including the identification of environmental boundaries for the proposal, a site screening and selection process, a scoping and environmental impact assessment (EIA) study and the development of an environmental management plan (EMP). Responsible for the environmental process, including the financial management of the budget, project coordination and the management of a team of 12 sub-consultants. Involved for 6.5 person-months. (Namibian Power Corporation (NamPower)).

Floating liquefied natural gas (LNG) facility in the Mossel Bay area (Western Cape Province, South Africa) 2008. Public Participation Process (PPP) Manager. The project involved the management of the public participation aspect of the environmental impact assessment (EIA), as appointed by PetroSA to investigate the development of infrastructure for the importation of liquefied natural gas (LNG) in Vleesbaai, west of Mossel Bay, in order to augment the supply of gas to its existing gas-to-liquid (GTL) facility located in the vicinity of Mossel Bay. Responsible for managing the public consultation process related to the EIA. Involved for 1 person-month. (PetroSA).

Assessment of alternative alignments for the railway line in Malawi (Malawi) 2008. Team Member. The project involved the assessment of the environmental aspects of four alternative alignments for railway infrastructure to transport coal from the Moatize Mine in Mozambique to the Port of Nacala, through Southern Malawi. A multi-criteria decision analysis (MCDA) was undertaken of the four alternatives to consider the best solution from a variety of perspectives. Responsible for technical input; managing the input from the



environmental team; and writing of reports. Involved for 2 person-months. (Vale).

Garden Route environmental management framework (EMF) (Western Cape Province, South Africa) 2008. Environmental Engineer. Aurecon was appointed to contribute to the hydrology and infrastructure information layers and provision of local liaison support for the development of the Garden Route environmental management framework (EMF), focusing on the Kaaimans River to Noetzie study area on the Garden Route in the Southern Cape. Responsible for providing input into the process. Involved for 1.2 personments. (Earth Inc./Department of Environmental Affairs and Tourism (DEAT)).

Paratus emergency generation facility in Walvis Bay (Walvis Bay, Namibia) 2008. Lead Consultant. The project entailed managing the environmental process in relation to a proposed 50 MW heavy fuel oil emergency electricity generation facility located in the industrial port area. Responsible for the environmental process, including the financial management of the budget, project coordination, and the management of a team of subconsultants. Involved for 0.5 person-months. (Namibian Power Corporation (NamPower)).

Upgrading of the Knysna wastewater treatment works (WWTW) (Western Cape Province, South Africa) 2007. *Project Manager.* The project entailed undertaking a scoping and an environmental impact assessment (EIA) process in terms of National Environmental Management Act (NEMA). Responsible for management of the environmental process; project coordination; management of a team of six sub-consultants; client interaction; financial management of the project; and writing of reports. Involved for 4 person-months. (Knysna Local Municipality).

Review of the biodiversity components of municipal spatial development frameworks (SDFs) in the Cape Action for People and the Environment (C.A.P.E.) domain (Western Cape Province, South Africa) 2007. Project Manager. The project involved the provision of an overview of the requirements for biodiversity in spatial development frameworks (SDF's), and an assessment of the current status of biodiversity in these SDF's. Responsible for undertaking the review of numerous SDF's, and the compilation of a feedback report. Involved for 3 person-months. (South African National Biodiversity Institute (SANBI)).

Coal-fired power station and associated infrastructure in the Witbank area (Mpumalanga Province, South Africa) 2007. Team Member. The project entailed assisting in dealing with the appeal process on the positive authorisation for the 5 400 MW base-load power plant and associated infrastructure. Responsible for assisting with the environmental impact assessment (EIA) appeal process. Involved for 0.5 person-months. (Eskom).

Review of applications to develop under the Environmental Conservation Act (Act 73 of 1989) (ECA) (Eastern Cape Province, South Africa) 2007. Team Member. The project involved the provision of an independent review of a range of development applications. Responsible for acting as independent reviewer. Involved for 6 person-months. (Eastern Cape Provincial Government).

Environmental management plan (EMP) for the Glen Housing development, Camps Bay, Cape Town (Western Cape Province, South Africa) 2006. Project Manager. The project involved the compilation of the environmental management plan (EMP) for the construction phase for this housing development. Responsible for managing the EMP process; and training for construction staff. Involved for 1 person-month. (Private developer).

Residential development, Romansbaai Beach and Country Estate, Gansbaai (Western Cape Province, South Africa) 2006. Project Manager. The project entailed undertaking an environmental impact assessment (EIA) for this residential development in a sensitive environment. The EIA involved the identification of development opportunities and constraints, management of a large team of specialists and extensive public participation. Responsible for managing the EIA process; managing a team of sub-consultants; interaction with clients; financial management of the project; and writing of reports. Involved for 4.5 person-months. (Pinnacle Point Developments).

Environmental management plan (EMP): Sunnydale housing development, Sunnydale, South Peninsula (Western Cape Province, South Africa) 2006. Project Manager. The project entailed the compilation the environmental management plan (EMP) for the construction phase for this housing development. Responsible for managing the EMP process and providing training for the construction staff. Involved for 1.5 person-months. (Private developer).

Residential development, Montagu Country Estate, Montagu (Western Cape Province, South Africa) 2006. The project undertook an environmental impact assessment (EIA) for the residential development around an existing golf course. Responsible for the management of the environmental process; project



coordination; management of a team of sub-consultants; client interaction; financial management of the project; and writing of reports. Involved for 3 person-months. (Private developer).

Mixed use development, Klapmuts (Western Cape Province, South Africa) 2006. Project Manager. The project involved undertaking the scoping stage of the environmental impact assessment (EIA) process for a mixed density township development, Klapmuts Housing Estate, in the Western Cape. Responsible for management of the EIA process; management of a team of sub-consultants; client interaction; financial management; and writing of reports. Involved for 2 person-months. (Simondium Development Trust).

Proposed communications mast, Newlands, Cape Town (Western Cape Province, South Africa) 2006. Project Manager. The project involved the compilation of a scoping checklist for the proposed mast for upgraded communications for the electrical supply system for the City of Cape Town. Responsible for management of the EIA process; client interaction; financial management; and writing of reports. Involved for 1.5 person-months. (City of Cape Town).

Cape Point Wine Estate, Noordhoek (Western Cape Province, South Africa) 2006. Project Manager. The project undertook an environmental impact assessment (EIA) for the development of a restaurant and hotel development, with a housing component for a property in the heart of Noordhoek. Responsible for management of the EIA process; management of a team of sub-consultants; client interaction; financial management of the project; and writing of reports. Involved for 4 person-months. (Private developer).

Redevelopment of the Heartlands site for AECI Limited, Somerset West (Western Cape Province, South Africa) 2005. Public Participation Process (PPP) Manager. The project involved undertaking the public participation process (PPP) for the heritage impact assessment (HIA) process for the project. Responsible for managing the PPP. Involved for 0.5 person-months. (Melanie Attwell Heritage Consultants).

Change in land use for housing, Mfuleni (Western Cape Province, South Africa) 2005. Project Manager. The project involved the compilation of a scoping checklist for the proposed development of low cost housing in Cape Town. Responsible for managing the environmental management plan (EMP) process; client interaction and writing of reports. Involved for 0.5 person-months. (City of Cape Town).

Cellular communication structures for MTN (Western Cape Province, South Africa) 1998 - 2005. The project involved undertaking the environmental process for 65 cellular communications base stations throughout the Western Cape. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 5 person-months. (MTN).

Environmental management plan (EMP) for Heron Banks Golf Course development, Sasolberg (Free State Province, South Africa) 2005. Project Manager. The project involved the compilation of the environmental management plan (EMP) for the operational phase of this golf course and housing development on the banks of the Vaal River. Responsible for managing the EMP process. Involved for 0.75 person-months. (Private developer).

Environmental management plan (EMP) for the Heritage Park development, Somerset West (Western Cape Province, South Africa) 2005. Project Manager. The project involved the compilation of the environmental management plan (EMP) for the construction phase for this housing development. Responsible for managing the EMP process and providing training for the construction staff. Involved for 0.5 personmenths. (Private developer).

Residential development, Parow, Cape Town (Western Cape Province, South Africa) 2004. Project Manager. The project involved the compilation of a scoping checklist for the change in land use of a small piece of open space in the centre of an existing residential area. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 0.75 personmonths. (Private landowner).

Environmental management plan (EMP) for Abelone Farm, Hawston (Western Cape Province, South Africa) 2004. Project Manager. The project entailed the compilation of the environmental management plan (EMP) for the construction phase for this development. Responsible for managing the EMP process. Involved for 0.75 person-months. (Private developer).

Residential development, Onrus (Western Cape Province, South Africa) 2004. Project Manager. The project involved the compilation of a scoping checklist for the change in land use to a small piece of land on the urban edge. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 0.75 person-months. (Private landowner).



Change in land use, Kommetjie (Western Cape Province, South Africa) 2004. Project Manager. The project entailed the compilation a scoping checklist for the change in land use to a small piece of land on the urban edge. Responsible for managing the environmental impact assessment (EIA) process; including client interaction and writing of reports. Involved for 1 person-month. (Private landowner).

Upgrading of the Excelsior Hotel, Swiss Farm, Franschhoek (Western Cape Province, South Africa) 2004. *Project Manager.* The project entailed the compilation of a scoping checklist for upgrade to the existing facilities of the hotel. Responsible for managing the environmental impact assessment (EIA) process; client interaction and writing of reports. Involved for 1 person-month. (Private developer).

Township development, Heritage Park, Somerset West (Western Cape Province, South Africa) 2004. Project Manager. The project involved undertaking an environmental impact assessment (EIA) process for the development of this residential and commercial township development. Responsible for managing the EIA process; client interaction and writing of reports. Involved for 1.5 person-months. (Somerset Trust Business Park).

Skuifraam repeater station, Franchhoek (Western Cape Province, South Africa) 2004. Project Manager. The project involved the compilation of a scoping checklist for a repeater site to allow for enhanced radio communications during the construction phase of the Berg River Dam. Responsible for managing the environmental impact assessment (EIA) process; client interaction and writing of reports. Involved for 0.5 person-months. (Telkom).

Radio network for the train system in the Karoo (Western Cape Province, South Africa) 2002 - 2004. Project Manager. The project involved the undertaking of the screening process and scoping checklists for 15 sites throughout the Karoo, as part of the upgrade to the radio network system for trains. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 6 person-months. (Transtel).

Upgrade to the City of Cape Radio Trunking Network for Emergency Services, Cape Town (Western Cape Province, South Africa) 2003 - 2004. *Project Manager.* The project involved undertaking the scoping process for 13 sites as part of the upgrade to the City of Cape radio trunking network for emergency services. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 6 person-months. (City of Cape Town).

Environmental management plan (EMP) for Farm Groot Paternoster No. 1014, Groot Paternoster Punt (Western Cape Province, South Africa) 2003. Project Manager. The project involved the compilation and overseeing of the implementation of the environmental management plan (EMP) for the construction phase for this development. Responsible for managing the EMP process and training of construction staff. Involved for 1 person-month. (Private developer).

Upgrade to Village Drums and Pails facility in Phillipi (Western Cape Province, South Africa) 2003. *Project Manager.* The project involved undertaking the scoping process upgrade to facilities for drum reconditioning. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 1 person-month. (Village Drums and Pails).

Environmental management plan (EMP) for Hillside Farm, Kommetjie (Western Cape Province, South Africa) 2003. Project Manager. The project involved the compilation of the environmental management plan (EMP). Responsible for managing the EMP process and providing training for the construction staff. Involved for 1 person-month. (DC & Associates).

Development of a cellular communications network for Cell C, Cape Town (Western Cape Province, South Africa) 2002 - 2003. Project Manager. The project undertook the screening process and scoping checklists for 31 cellular communications base stations. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 4 person-months. (Siemens).

Change in land use, Panache Country Lodge, Erf 7754, Hout Bay (Western Cape Province, South Africa) 2002. Project Manager. The project involved the compilation of a screening report and a scoping checklist for the change in land use to allow for resort facilities. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 0.5 person-months. (Private landowner).



Environmental management plan (EMP) for farm dams, De Dam, Oudtshoorn (Western Cape Province, South Africa) 2002. Project Manager. The project involved the compilation of the environmental management plan (EMP) for the construction phase for the dam construction. Responsible for managing the EMP process. Involved for 1 person-month. (Private landowner).

Environmental management plan (EMP) for Celestewood development in Sunnydale, South Peninsula (Western Cape Province, South Africa) 2002. Project Manager. The project involved the compilation and overseeing of the implementation of the environmental management plan (EMP) for the construction phase for this housing development. Responsible for managing the EMP process, including construction staff training. Involved for 1 person-month. (Private developer).

Environmental management plan (EMP): water supply pipeline, Moorreesberg (Western Cape Province, South Africa) 2002. Project Manager. The project involved the compilation and overseeing of the implementation of the environmental management plan (EMP) for the construction phase for this development. Responsible for managing the EMP process, including construction staff training. Involved for 3 personments. (MVD).

Residential development, Sunnydale, Cape Town (Western Cape Province, South Africa) 2002. Project Manager. The project involved the compilation of a scoping checklist for the change in land use of an agricultural area for residential development. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 0.5 person-months. (DC & Associates).

Change in land use for the establishment of a church: remainder of Farm 766, Phillipi (Western Cape Province, South Africa) 2002. Project Manager. The project involved undertaking the screening report and scoping checklist for the change in land use for the establishment of a church. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 0.5 person-months. (Ebenezer Baptist Church).

Change in land use, Portion 3 of Pardekloof Farm No 475, Caledon (Western Cape Province, South Africa) 2002. Project Manager. The project entailed the compilation of a screening report and scoping checklist for a change in land use of sensitive mountain fynbos for resort development. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 1 person-month. (Private landowner).

Radio trunking sites for Telkom communications system, Sutherland (Western Cape Province, South Africa) 2002. Project Manager. The project entailed undertaking the screening process and scoping reports for 27 sites for an upgraded communications system in this isolated area. This project was selected by Telkom as part of the best practice document (BPD) presented at the World Summit for Sustainable Development (WSSD) in Johannesburg in 2002. Responsible for managing the environmental impact assessment (EIA) process, including client interaction and writing of reports. Involved for 6 person-months. (Telkom).

Upgrade to the Stony Point area, Betty's Bay (Western Cape Province, South Africa) 2001. *Project Manager.* The project entailed undertaking a scoping exercise for the upgrade to the area. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 2 person-months. (Hangklip-Kleinmond Municipality).

Residential development, Portion 12 of Farm 214, Brackenfell (Western Cape Province, South Africa) 2001. Project Manager. The project undertook a scoping exercise for the residential development proposed for the area. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 1 person-month. (Terraplan Associates).

Environmental management plan (EMP) for the City of Cape Town Radio Trunking System (Western Cape Province, South Africa) 2001. Project Manager. The project involved the compilation and overseeing of the implementation of the environmental management plan (EMP) for the construction phase for the construction phase of 14 sites. Responsible for managing the EMP process and training the construction staff. Involved for 1 person-month. (City of Cape Town).

Residential development, Portion 25 of Cape Farm 951, Sunnydale, Cape Town (Western Cape Province, South Africa) 2001. Project Manager. The project entailed the compilation of a scoping checklist for the change in land use of an agricultural area for residential development. Responsible for managing the environmental impact assessment (EIA) process; client interaction; and report writing. Involved for 0.5 personmonths. (DC & Associates).



Water supply pipeline, Moorreesberg (Western Cape Province, South Africa) 2001. Project Manager. The project involved undertaking the scoping process for the water supply system to the agricultural area. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 1.5 person-months. (MVD).

Construction and upgrade of farm dams, De Dam Farm, Oudtshoorn (Western Cape Province, South Africa) 2001. Project Manager. The project entailed undertaking the screening process and scoping checklist for the construction of one farm dam and the upgrading of another. Responsible for managing the environmental impact assessment (EIA) process; including client interaction and writing of reports. Involved for 1 person-month. (Private landowner).

Development of a cellular communications network for Motorola, Cape Town (Western Cape Province, South Africa) 2000 - 2001. Project Manager. This project, as part of the bid to become the third cellular network provider in South Africa, involved the undertaking of the screening process for blanket exemptions for 135 cellular communications base stations sites throughout Cape Town. Responsible for the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 4 person-months. (Motorola).

Review of applications to develop under the Environmental Conservation Act (Act 73 of 1989) (Western Cape Province, South Africa) 1998 - 2000. Reviewer. The project involved the provision of an independent review of a range of development applications. Responsible for the review applications. Involved for 2 personments. (Provincial Government of the Western Cape (PGWC)).

MTN cellular communication structures: application for exemption, Cape Town (Western Cape Province, South Africa) 2000. Project Manager. The project involved undertaking the screening process for blanket exemptions for 12 sites for MTN. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 5 person-months. (MTN).

Development of a cellular communications network for Lucent Technologies, Cape Town (Western Cape Province, South Africa) 2000. Project Manager. This project, as part of the bid to become the third cellular network provider in South Africa, involved the undertaking of the screening process for blanket exemptions for 45 cellular communications base stations sites throughout Cape Town. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 5 person-months. (Lucent Technologies).

Low cost housing development, Saron (Western Cape Province, South Africa) 1999. Project Manager. The project entailed undertaking the environmental evaluation and report for exemption for the low cost housing development. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 0.5 person-months. (Rumboll & Verster).

Faunal assessment for the development at Silverstroom, Atlantis (Western Cape Province, South Africa) 1999. Project Manager. The project entailed undertaking a specialist faunal study as part of the environmental impact assessment (EIA) process. Responsible for providing specialist input. Involved for 0.5 person-months. (Knight Hall & Hendry).

Environmental management plan (EMP) for the Sixteen Mile Beach housing development, Yzerfontein (Western Cape Province, South Africa) 1999. Project Manager. The project involved the compilation of the environmental management plan (EMP) for the operational phase of this housing development. Responsible for managing the EMP process. Involved for 1 person-month. (Private developer).

MTN cellular communications base stations: Environmental management system (EMS) (South Africa) 1999. Project Manager. The project was concerned with controls for the construction periods - guidelines for MTN. Responsible for managing the environmental impact assessment (EIA) process. Involved for 1 personmenth. (MTN).

Residential development, Jantjiesfontein, Berg River (Western Cape Province, South Africa) 1999. Project Manager. The project involved undertaking the environmental evaluation and report for exemption for the housing development. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 0.5 person-months. (Rumboll & Verster).

Crematorium, Somerset West (Western Cape Province, South Africa) 1999. *Project Manager.* The project entailed undertaking the environmental evaluation and application report for a crematorium in Helderberg.



Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 0.5 person-months. (Excem).

Industrial development, Klipheuwel (Western Cape Province, South Africa) 1999. Project Manager. The project involved undertaking an environmental evaluation and report for exemption for an industrial development. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 0.75 person-months. (Private developer).

Environmental management plan (EMP) for Jacobuskraal housing development, Yzerfontein (Western Cape Province, South Africa) 1998. Project Manager. The project entailed the compilation of the environmental management plan (EMP) for the operational phase of this housing development. Responsible for managing the EMP process. Involved for 1 person-month. (Private developer).

Faunal assessment for a housing development on Pappegaaiberg, Stellenbosch (Western Cape Province, South Africa) 1998. Project Manager. The project entailed undertaking the specialist faunal study as part of the environmental impact assessment (EIA) process. Responsible for giving specialist input. Involved for 0.6 person-months. (SRK Consulting).

Faunal assessment for the housing development at Uitkamp, Durbanville (Western Cape Province, South Africa) 1998. Specialist. The project involved undertaking a specialist faunal study as part of the environmental impact assessment (EIA) process. Responsible for giving specialist input. Involved for 0.75 person-months. (Doug Jeffery Environmental Consultants).

Faunal assessment for the Paradyskloof Golf Estate, Stellenbosch (Western Cape Province, South Africa) 1997. Specialist. The project entailed undertaking specialist faunal study as part of the environmental impact assessment (EIA) process. Responsible for giving specialist input. Involved for 0.75 person-months. (SRK Consulting).

Assessment of the preservation of biotic diversity in forestry plantations (South Africa) 1997. Project Manager. The project entailed the assessment of the contribution of the forestry industry to the preservation of biodiversity in South Africa. Responsible for managing the environmental input. Involved for 2 personments. (Timber Growers Association).

Residential development, Muizenberg East, Cape Town (Western Cape Province, South Africa) 1997. Project Manager. The project involved undertaking the environmental evaluation for a housing development. Responsible for managing the environmental impact assessment (EIA) process, client interaction and report writing. Involved for 0.75 person-months. (Ogden Entertainment).

Faunal assessment for the Sparrebos development, Knysna (Western Cape Province, South Africa) 1996. Specialist. The project involved undertaking a specialist faunal study as part of the environmental impact assessment (EIA) process. Responsible for giving specialist input. Involved for 1 person-month. (SRK Consulting).

Education

1993 : MSc Nature Conservation, University of Stellenbosch, South Africa
 1988 : BSc (Hons) Nature Conservation, University of Stellenbosch, South Africa
 1987 : BSc Botany and Zoology, University of Cape Town (UCT), South Africa

Career enhancing courses

2013 : Level 1 SUSOP training, SUSOP (Pty) Ltd / JK Tech (Pty) Ltd
2013 : Sustainability Reporting, Environmental and Sustainability Solutions

2012 : Conflict resolution, Centre for Conflict Resolution (CCR), Cape Town, South Africa

2011 : Sustainability Assessments, International Association for Impact Assessment (South

Africa),

2009 : Mutual Gains Approach to Sustainability, Regional Programme on the Management of

Sustainability

2008 : Cumulative Impact Assessment, International Association for Impact Assessment (Perth)

Professional affiliations



Environmental Practitioner, Environmental Assessment Practitioners Association of South Africa (EAPASA) Member, International Association of Impact Assessment (IAIA)

Languages

	Reading	Writing	Speaking
Afrikaans	Fair	Fair	Fair
English	Excellent	Excellent	Excellent

Research projects

Erasmus DL, 2002. <u>"Baboon damage in pine plantations in the Western Cape"</u>. Unpublished MA dissertation, University of Stellenbosch.

Croxford DL, 1988. <u>"Home range patterns of genets in the Jonkershoek Nature Reserve"</u>. Unpublished BSc Hons thesis, University of Stellenbosch. 1988.

Publications

Erasmus DL, and Retief F, 2008. <u>"The Contribution of the International Association for Impact Assessments (South Africa) (IAIAsa) to the Evolution of Environmental Assessment Debates in South Africa"</u>. Presented at the Department of Environmental Affairs and Tourism's (DEAT's) conference: Ten Years of Environmental Impact Assessments in South Africa, 24 - 25 November 2008.

Erasmus DL, Boucher C, Marais C, and McDonald D, 1993 and 1996. "Data Catalogue of All Research Projects Undertaken in the Fynbos Biome". National Botanical Institute (NBI) and the Foundation for Research Development (FRD), Volumes 1 & 11.

Referees

Company	7		Contact	Person		Telepho	ne nr.		
Doug J	effery	Environmental	Doug Jef	fery		+27	21	875	5272/
Assessme	ents			•		doug@c	lougjeff.	co.za	
ERM			Brett Law	/son		+21	21	702	9100/
						Brett.lav	/son@ei	rm.com	
By my signa assignment		ow I certify the c	orrectness	of the information	above a	nd my av	/ailability	/ to underl	take this
Signature o	f Staff M	ember	D	ate					



Curriculum vitae: Mr K Sakarea

Name : **Kagiso Sakarea**Date of Birth : 27 March 1984

Profession/Specialisation : Environmental management

Years with Firm : 8

Nationality : Motswana

Years experience : 8

Key qualifications

Kagiso is an environmental consultant with Digbywells Environmental Botswana with 8 years' experience. During that period he has worked on infrastructure projects, petroleum projects, oil and gas, electricity transmission, mining, power stations. He also has extensive environmental monitoring experience.

His experience has equipped her with concrete knowledge of environmental procedures such as environmental impact assessments (EIAs); environmental management plan (EMPs); authority liaison and public consultation processes.

Kagiso obtained a Bachelor of Arts Degree in Environmental Science from the University of Botswana in 2007. He is accredited as an Environmental Assessment Practitioner (EAP) with Botswana Environmental Assessment Practitioners Association (BEAPA). He has also completed first year of MSc Environmental Science with University of Botswana.

Employment record

06/2009 - Date Digbywells, Unit Manager: EIA

Experience record

Environmental Monitoring of the Kazungula Bridge Project and associated infrastructure 10/2015 - date. Environmental Control Officer. The project entails construction of a bridge over the Zambezi River as well as One Stop Border Posts in Botswana and Zambia. Inclusive in the monitoring are borrow pits in both countries. The scope of work for the ECO entails coordination of specialist studies being air quality monitoring, noise monitoring, surface and ground water monitoring. The ECO is responsible for taking water samples in the Chobe and Zambezi Rivers monthly, noise monitoring as well as change Dust Fall Out buckets and Volatile Organic Compounds monitoring tubes. The ECO is also overseeing compliance of the contractor through undertaking site visits on a weekly basis. (Governments of Botswana and Zambia)

Environmental Impact Assessment for the North West Grid Connection Lot 1 and Lot 2 2015 - 05/2017. Environmental Consultant EIA The project is a 500km 400Kv line from Morupule to Orapa then Maun passing through over 10 villages. The project entailed consultations with interested and affected parties as well as managing specialists like ecologist, archaeologist and sociologist. Responsible for stakeholder consultations, drafting reports for submission to Department of Environmental Affairs. (Botswana Power Corporation)

Botswana-South Africa (BOSA) Transmission Project (Botswana and South Africa) 04/2016 - 04/2018. Environmental Consultant. The Botswana - South Africa (BOSA) Transmission Interconnector Project entails the construction of approximately 560 km of 400 kV transmission line between Botswana and South Africa to alleviate congestion on the Matimba - Phokoje - Insukamini line, increase the power transfers within the Southern African Power Pool (SAPP) network, increase stability in the power pool and improve system control, adequacy and reliability. Responsible for drafting Botswana part for Scoping report and EIA Report (Southern African Power Pool (SAPP)).

Environmental Impact Assessment for the North West Grid Connection Lot 5 2016 - 09/2017. *Environmental Consultant* EIA for the 500km 400Kv line from Phokoje to Pandamatenga. The project entailed consultations with interested and affected parties as well as managing specialists like ecologist and archaeologist. The project passes through wildlife management areas and he is responsible for stakeholder consultations, drafting reports for submission to Department of Environmental Affairs. (Botswana Power





Environmental Impact Assessment for the Jindal Mmamabula Energy Project 2014 - 2016. *Environmental Consultant* EIA's This is a development by Jindal from India which plans to operate coal mines for electricity generation and other coal for export. The project entailed conducting consultations in 5 villages affected by the development. Responsible for community consultations (Jindal)

Environmental Impact Assessment for the Gaborone Water Master Plan *Environmental Consultant.* The project was part of efforts to improve water supply to Gaborone and surrounding areas. The project entailed extensive consultations in Gaborone and surrounding area as well as other Interested and Affected Parties. (Water Utilities Corporation).

Environmental Impact Assessment for the North East Water Reticulation Project *Environmental Consultant.* The project was meant improve water supply in over 20 villages in the North East, which entailed upgrading existing water tanks, constructing new ones as well as pipelines to supply water to new areas. Completed the EIA for the project in North East which entailed consultations in 20 villages and assessment of impacts as well as drafting and getting approvals for the Terms of Reference and Scoping Report and the Detailed Environmental Impact Assessment report. (Water Utilities Corporation).

Kubu Energy Coal Bed Methane Exploration *Environmental Consultant.* The project was a joint venture Sasol Petroleum International and Origin from Australia. The project was exploration for the presence of methane gas. Responsible for community consultations in Serowe, Mmashoro, Mosu, Letlhakane, Mosu and Mokubilo. (Kubu Energy).

Kubu Energy Coal Bed Methane Exploration Environmental and Community Liaison Officer. During exploration activities there were camps put up for workers and well as fly camps. Responsible for implementing the Environmental Management Plan. On community issues was secretary for the ranchers committee which was started to act as a bridge between the project and farmers in the area. (Kubu Energy).

University of Botswana Methane Monitoring *Environmental Control Officer.* Undertaking methane monitoring on the access road to the new University of Botswana Medical School Hospital. The monitoring was undertaken over 7 days and considerable amounts of methane was recorded in one of the Vent Pipes. Our report came with recommendations on the action needed to be taken.(Abdulla Associates)

Environmental Monitoring for the Morupule Colliery Limited Expansion-Construction of 11kV and 66kV overhead lines and 11/66kV Substation. *Environmental Control Officer*. The project entailed construction powerlines over 15km in length and construction of a new substations. Undertook environmental monitoring over a period of 6 months for the project. The monitoring included Safety, Health and Environment. (PB Power).

Environmental Monitoring for the construction of a BPC Substation in Lobatse (Botswana) *Environmental Control Officer.* The project construction of a new substation in Lobatse, a town in the Southern part of the country approximately 60km from the capital city. completed the environmental monitoring for the expansion of the existing BPC Substation. The monitoring included Safety, Health and Environment (PB Power).

BPC Substation Environmental Monitoring SSK Airport Road Gaborone (Botswana) *Environmental Control Officer (ECO).* completed the environmental monitoring for the expansion of the existing BPC Substation. The monitoring included Safety, Health and Environment. (PB Power).

Water Sampling from Oil/Water separator *Environmental Control Officer.* Total operates a depot in Gaborone that has systems that captures storm water and the water is tested before it is released. Sampling of water from separator to check for presence and acceptable levels of Volatile Petroleum hydrocarbons (VPH's) before the water is released into the storm water system. (Total Botswana).

Environmental Management Plan for Total Depot. Environmental Consultant. Total was increasing capacity of its depot and the EMP included consultations with stakeholders Responsible for overseeing all





consultations and drafting the EMP report. (Total Depot).

Environmental Management Plan for Kwa Nokeng Oil Environmental Consultant. Kwa Nokeng intend to construct a new fuel depot in the North Western part of the country. Responsible for overseeing all consultations and drafting the EIA report. (Total Depot).

Education

2014- : MSc Environmental Science, University of Botswana (year one completed, paused due to

2015 work commitments)

2003 - : BA Environmental Science, University of Botswana

2007

Professional affiliations

Botswana Environmental Assessment Practitioners Association

Languages

	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent
Setswana	Excellent	Excellent	Excellent

Referees

Company	Contact Person	Telephone no.
Kazungula Bridge Project	Mr Kobamelo Kgoboko	+267 7281 2503
Botswana Power Corporation	Mr. Spokes Makobo	+267 7131 2705

By my signature below I certify the correctness of the information above and my availability to undertake this assignment.

Signature of Staff Member Date





Curriculum vitae: Ms LW MLOTSHWA

Name : MLOTSHWA, LUNGILE WENDY

Date of Birth : 31 January 1992

Profession/Specialisation : Environmental management

Years with Firm : 3

Nationality : South African

Years experience : 4

Key qualifications

Wendy is an environmental consultant in Aurecon's Tshwane office with three years' experience working in the environmental industry. She has gained valuable experience specialising in water use licence applications (WULAs) for various sectors such as mining, transport, power stations and other buildings infrastructure. Wendy also specialises in environmental auditing and/or monitoring and she acts as consulting environmental officer for various green buildings projects in Gauteng.

Her experience has equipped her with concrete knowledge of environmental procedures such as environmental impact assessments (EIAs); basic assessments (BAs); environmental management programmes (EMPrs); social surveys; authority liaison and public consultation processes.

Wendy obtained a Bachelor of Science (Honours) in Environmental Science from the University of KwaZulu-Natal (UKZN), South Africa, in 2013. She is registered as a candidate natural scientist with the South African Council for Natural Scientific Professions (SACNASP) and is a member of the Golden Key International Honour Society (GKIHS) and the International Association for Impact Assessment (IAIAsa).

Employment record

04/2015 - Date Aurecon, Junior Environmentalist

04/2014 - 03/2015 DMT-Kat Batla (Pty) Ltd, Environmental Intern

Experience record

Further phases of the Olifants River Water Resources Development Project, Phase 2 (ORWRDP-2) (Limpopo Province, South Africa) 08/2015 - 03/2019. Environmental Consultant. The Olifants River Water Resources Development Project (ORWRDP-2) was an extensive water resource development project to supply water for domestic and industrial (mining) use in Limpopo. Responsible for undertaking the basic assessment process. Involved for 4.75 person-months. (Department of Water and Sanitation (DWS)).

Construction of roads at Ga-Seleka Village (Limpopo Province, South Africa) 01/2016 - 08/2018. Environmental Control Officer (ECO). The objective of the project is to upgrade two district roads in the vicinity of Lephalale and, in the process, develop long-term economic and employment opportunities in the area. The 13 affected communities fall within three wards of the Lephalale Local Municipality. The project involved the following main components: safety, health and environment (SHE); social and institutional development; the design and construction of roads; project specification Item 1.2 as well as job creation and skills transfer through labour-intensive construction (LIC) during the design phase. Responsible for monitoring compliance with the construction environmental management plan (CEMP) and other environmental related statutes and standards. Involved for 0.75 person-months. (Exxaro Coal Lephalalale).

Botswana-South Africa (BOSA) Transmission Project (Botswana and South Africa) 04/2016 - 04/2018. Environmental Consultant. The Botswana - South Africa (BOSA) Transmission Interconnector Project entails the construction of approximately 560 km of 400 kV transmission line between Botswana and South Africa to alleviate congestion on the Matimba - Phokoje - Insukamini line, increase the power transfers within the Southern African Power Pool (SAPP) network, increase stability in the power pool and improve system control, adequacy and reliability. Aurecon was appointed to provide transaction advisory services, including a scoping study and a feasibility study up to the project implementation phase, which included procurement of an engineering, procurement and construction (EPC) firm and project financial close. Aurecon's services focussed on the collection of data and information, techno-economic and financial analysis, market review and analysis, evaluation of analytical results, advice on institutional and legal framework, reporting and liaising with client and sponsor management committees. Responsible for drafting of the scoping report, client and authority liaison. Involved for 1 person-month. (Southern African Power Pool (SAPP)).



Construction of the Maxwell Office Park, Building 3 (Gauteng Province, South Africa) 08/2015 - 04/2018. Environmental Control Officer (ECO). Aurecon has been appointed as the environmental consultants to monitor and audit compliance during the construction of their green facility at the Maxwell Office Park. This project was part of the greater Waterfall City development situated in the Midrand area, Johannesburg. Responsible for implementing the environmental management plan (EMP) and conducting weekly inspections or environmental audits. Involved for 0.5 person-months. (Atterbury Property Holdings).

Design of the new Discovery head office in Sandton (Gauteng Province, South Africa) 01/2014 - 01/2018. Environmental Control Officer (ECO). Aurecon was contracted to provide mechanical, electrical and environmentally sustainable design (ESD) for the construction of the new Discovery head office in Sandton. Phase I consists of approximately 85 000 m² of office space, a 1 000 m² data centre and 200 000 m² of basements. The future Phases II and III could add a further 45 000 m² of office space to the development. Responsible for implementing the environmental management plan (EMP) and/or conducting monthly environmental audits. Involved for 0.25 person-months. (Growthpoint Properties).

Upgrading of Mogalakwena wastewater treatment works (WWTW) (Limpopo Province, South Africa) 02/2014 - 12/2017. *Junior Environmental Assistant*. Mokopane is experiencing strong growth due to mining expansion projects. The additional human settlements require upgrading and expansion of existing wastewater treatment facilities. Aurecon was contracted for design and supervision services for the upgrading of the existing Mokopane wastewater treatment works (WWTW) and the construction of new bulk drainage lines to the new 10 Ml/d Mogalakwena WWTW. Responsible for assisting with compiling a water use licence application (WULA) report and relevant application forms. Involved for 0.75 person-months. (Mogalakwena Local Municipality).

Pre-feasibility study for dragline relocation at Landau Colliery (Mpumalanga Province, South Africa) 11/2015 - 09/2017. Environmental Consultant. Aurecon was appointed to undertake a dragline relocation pre-feasibility study at Landau Colliery located in eMalahleni. The scope of works extended to waste classification of discard material sources for Madini and Elandsfontein dumps. The works also included the compilation of a scoping and environmental impact report for the proposed construction of a road, with the purpose of relocating the dragline from the Kromdraai Section to the Navigation Section of Landau Colliery. Responsible for drafting of the scoping report and client liaison. Involved for 1.5 person-months. (Anglo Operations Proprietary).

Relocation of a 33 kV transmission powerline (Limpopo Province, South Africa) 05/2015 - 06/2017. Environmental Consultant. The Mogalakwena Local Municipality proposed to construct a new 33 kV transmission line in the Mokopane area due to difficulty in accessing the existing 33 kV line in the mountainous Moorddrift/Baviaanskloof area; maintenance is a constant issue, as there is no existing service road. The new 2.2 km-long transmission line will be constructed in a more accessible area. Responsible for compiling a basic assessment (BA) application. Involved for 0.25 person-months. (Mogalakwena Local Municipality).

Olifants River Water Resources Development Project, Phase 2 (ORWRDP-2) (Limpopo Province, South Africa) 09/2009 - 06/2017. Environmental Consultant. The second phase of the Olifants River Water Resources Development Project (ORWRDP-2) was an extensive water resource development project to supply water for domestic and industrial (mining) use in Limpopo. The project was divided into two main schemes. The first scheme comprised a 70 km-long pumping main from the Flag Boshielo Dam to Mokopane, including three 6 MW pump stations en route. The second scheme consisted of the abstraction and distribution of water from the De Hoop Dam to various end points. Both schemes were monitored and controlled from a single remote control point with all elements linked via approximately 180 km of fibre optic cable. Responsible for compilation of borrow pits or mining permits, managing environmental specialists and authority liaison. Involved for 0.5 person-months. (Trans-Caledon Tunnel Authority (TCTA)).

Ellaton housing development (North West Province, South Africa) 11/2014 - 05/2017. *Environmental Consultant*. Aurecon was appointed for the planning, design and construction monitoring services the low cost/economical housing development. The scope works also included the design of sewer, potable water and electricity reticulation systems. Responsible for drafting of the construction environmental management programme (EMPr). Involved for 0.25 person-months. (Manapendlo Social Housing Institute).

Acquisition of options to register servitude for two 400 kV transmission lines (Gauteng Province, South Africa) 05/2013 - 05/2017. Environmental Consultant. The project entailed the acquisition of options to register servitude over land within an environmentally approved corridor for two 400 kV transmission lines from Matla Power Station to Jupiter B Substation as well as managing the environmental management plan (EMP) during construction on behalf of Eskom. The work included preliminary design; project management; legal and notarial services; developing the information management application (IMA); environmental management;



valuation and negotiation services; producing option sketches and compiling plans for negotiations; submission of the signed options to Eskom and consultation with various statutory bodies to obtain approvals for crossing their servitudes and properties. Responsible for assisting with compilation of the integrated water use licence application (IWULA) and authority consultations. Involved for 0.75 person-months. (Eskom Holdings SOC Ltd).

Upgrading of Simon Vermooten Road between Lynnwood and Waltloo Roads (Gauteng Province, South Africa) 05/2012 - 04/2017. Environmental Control Officer (ECO). The project entails the upgrading of Simon Vermooten Road between Lynnwood and Waltloo Roads to a six-lane dual carriageway road as well as the raising and widening of the bridge (to eight lanes) where the road passes over the N4 freeway. Aurecon was appointed to undertake the detailed design. The implementation of bus rapid transit (BRT) along Simon Vermooten Road is also a priority. Responsible for monitoring compliance with the construction environmental management plan (CEMP) and other environmental related statutes and standard. Involved for 0.25 personmonths. (City of Tshwane Metropolitan Municipality (CTMM)).

Construction of the Altoostyd substation (Limpopo Province, South Africa) 09/2016 - 01/2017. Environmental Consultant. Aurecon was appointed to develop mitigation measures to protect the Altoostyd Substation against flooding and undertake the water use licence application (WULA) process for working within a natural drainage line. Responsible for compiling a general authorisation application and authority consultations. (Eskom Holdings SOC Limited).

Construction of the substation for the Khanyisa power station (Mpumalanga Province, South Africa) 05/2016 - Date. Environmental Consultant. ACWA Power proposed to construct a sub-station (within 500 m of a watercourse) that will transmit power from their proposed Khanyisa Power Station to the distribution line. Responsible for compiling a general authorisation application, client liaison and authority consultations. (ACWA Power Africa Holdings).

Environmental authorisation amendment for Khanyisa Power Station (Mpumalanga Province, South Africa) 01/2015 - 12/2016. Junior Environmental Assistant. The project involved applying for the amendment of the environmental authorisation (EA) for the proposed Khanyisa Power Station and the amendment of authorisations for associated infrastructure, including a water supply pipeline, substation and transmission line. Aurecon commissioned specialist studies, including air quality, stormwater, waste, noise and traffic, to address the potential environmental and social impacts of the project; compiled an amendment report summarising the change in these impacts; undertook the public participation/stakeholder engagement process and applied for the amendment of the water use licence application (WULA). Further applications included a scoping and environmental impact assessment (EIA) process for repositioning the substation and 400 kV transmission line and a basic assessment for repositioning a water supply pipeline. Responsible for compiling an integrated water and waste management plan (IWWMP) report, client liaison and authority consultations. Involved for 1 person-month. (ACWA Power Africa Holdings).

Basic assessment report (BAR) for the expansion of Garankuwa cemetery (Gauteng Province, South Africa) 01/2015 - 12/2016. Junior Environmental Consultant. Aurecon undertook a basic assessment process according to the National Environmental Management Act (Act 107 of 1998) for the proposed expansion of the existing Ga-Rankuwa cemetery. Responsible for drafting a basic assessment report (BAR) application. Involved for 0.25 person-months. (City of Tshwane).

Reconfiguration of Menlyn Park Shopping Centre, Phases 1 and 2 (Gauteng Province, South Africa) 01/2013 - 11/2016. Environmental Control Officer (ECO). Aurecon was contracted to provide heating, ventilation and air conditioning (HVAC); environmentally sustainable design (ESD) and civil and structural services for the reconfiguration of the Menlyn Park Shopping Centre, which entails the expansion and refurbishment of the facility. The project is constructed in two phases. Phase 1 is approximately 40 0000 m² and consists of a new food court and entertainment arena, a retail village and a new retail area. Phase 2 consists of approximately 65 000 m² of air conditioned space including shops, restaurants and mall area. Responsible for monitoring compliance with the construction environmental management plan (CEMP) and other environmental related statutes and standard. Involved for 0.5 person-months. (Old Mutual Properties/Pareto Limited).

Construction of a sewer line from the Menlyn Park Shopping Centre (Gauteng Province, South Africa) 06/2016 - 10/2016. Environmental Consultant. Aurecon has been appointed by ORIGIN Project Management on behalf of Old Mutual Property (Pty) Ltd to compile a management plan for the construction activities of the sewer main from within the Menlyn Retail Park premises to the City Council sewer line located within the South African National Roads Agency Limited (SANRAL) Road Reserve. The sewer line was proposed to accommodate sewage from the new section of the Menlyn Park Shopping Centre as it cannot be



accommodated by the existing sewer system. Responsible for implementing, compiling and submitting the environmental management programme (EMPr) to the relevant authority, client liaison and authority consultations. (Old Mutual Property).

Diesel spill response for Menlyn Park Shopping Centre (Gauteng Province, South Africa) 08/2016. Environmental Specialist. The project entailed a response to spillage of approximately 20 000 I of diesel from Menlyn Park Shopping Centre into the Moreletaspruit in eastern Pretoria. Responsible for compilation of emergency report. (Pareto Limited).

Basic assessment report (BAR) for the expansion of Mabopane cemetery (Gauteng Province, South Africa) 01/2015 - 06/2016. Junior Environmental Consultant. Aurecon undertook a basic assessment process in terms of the National Environmental Management Act (Act No 107 of 1998) for the proposed expansion of the existing Mabopane cemetery site. Responsible for drafting a basic assessment report (BAR) application. Involved for 0.25 person-months. (City of Tshwane).

Feasibility and complete engineering (FEL 3 and 4) for the Overvaal tunnel (Mpumalanga Province, South Africa) 06/2014 - 04/2016. Junior Environmental Consultant. Aurecon was appointed for the feasibility (FEL 3) development for the construction of the second Overvaal tunnel as well as the complete engineering (FEL 4) thereof. In addition to the development of the tunnel, Transnet SOC required the reinstatement, upgrading and/or construction of a ventilation system for the existing tunnel. The new tunnel needs to accommodate a double electrified signalled track. Responsible for compiling an integrated water use licence application (IWULA)/ integrated water and waste management plan (IWWMP) report. Also responsible for client liaison and authority consultation. Involved for 1.5 person-months. (Transnet SOC Limited).

Basic assessment (BA) for Shisha Bridge (Limpopo Province, South Africa) 03/2014 - 12/2015. Junior Environmental Assistant. Aurecon provided environmental services on the National Environmental Management Act (NEMA) Basic Assessment for the proposed repair and upgrading of the Shisha River low level bridge, located on the S57 near the Sirheni Bushveld Camp in the Kruger National Park. Responsible for assisting with compiling a water use licence application (WULA) report and relevant application forms. Also responsible for client and authority consultation and site visits. Involved for 0.5 person-months. (Gibb Engineering & Science PTA).

Cleaning of stormwater control dam for Amino Consultants (Gauteng Province, South Africa) 05/2015 - 10/2015. Junior Environmental Consultant. The project entailed desilting, cleaning and re-instatement of catchment of stormwater control dam at Growthpoint Business Park in Midrand. Responsible for compiling a water use licence application (WULA) report and authority consultation. Involved for 0.5 person-months. (Growthpoint Properties).

Environmental impact assessment (EIA) for the Swaziland Rail Link Project (South Africa and Swaziland) 02/2013 - 06/2015. Social Facilitator. Aurecon was appointed to provide environmental services for the required environmental impact assessment (EIA) of the proposed Swaziland Rail Link, which runs from Davel to Nerston in Mpumalanga, through Swaziland, to Nsezi in Richards Bay, KwaZulu-Natal. The aim of the project is to unlock the potential of a multinational strategic rail corridor and divert general freight traffic off the dedicated heavy haul Richards Bay coal line. The project activities included the upgrading of existing railway sections, the construction of a new rail link from Lothair to Sidvokodvo in Swaziland and the construction of new rail yards. Responsible for field data collection and social surveys. Involved for 0.5 personmonths. (Transnet Capital Projects (TCP)).

Basic assessment for installation of a 10 MW hydropower unit on the Mooi-Mgeni transfer scheme (KwaZulu-Natal Province, South Africa) 12/2014 - 03/2015. Environmental Consultant/Project Coordinator. The project entailed environmental authorisation for the installation of a 10 MW hydropower unit on the Mooi-Mgeni transfer scheme (MMTS-2) at the Mpofana outfall as a means of energy recovery. Responsible for research, client liaison, project management, compilation of the environmental authorisation, mapping and compilation of the basic assessment report, along with the environmental management programme (EMPr). Involved for 4 person-months. (Umgeni Water).

Prospecting rights application for mine in Western Bushveld complex (North West Province, South Africa) 11/2014 - 02/2015. Environmental Consultant/Project Coordinator. The project involved an application to prospect within the Western Bushveld complex for pegmatite, vanadium and titanium. Responsible for mapping, client liaison and compilation of the environmental management plan (EMP) reports. Involved for 3 person-months. (IRL (SA) Investment Holdings (Pty) Ltd).

Integrated water use licence application (IWULA) for Sumo Coal (Mpumalanga Province, South Africa)



05/2014 - 02/2015. Environmental Consultant. The project comprised the revision of the water use licence (WUL) for the water activities associated with the coal mine and plant for coal beneficiation. Responsible for research, project management, revision of integrated water use licence application (IWULA) report, completion of application forms and client liaison. Involved for 11 person-months. (Sumo Coal (Pty) Ltd).

Expansion of Amersfoort Abattoir (Mpumalanga Province, South Africa) 09/2013 - 12/2014. Junior Environmental Consultant. Aurecon, as the professional services provider (PSP) and environmental assessment practitioner (EAP), undertook a basic assessment, waste license and water use license application process for the Amersfoort Abattoir. Responsible for compiling an integrated water use licence application (WULA) report, client liaison and authority consultation. Involved for 0.84 person-months. (Royal HaskoningDHV).

Education

2013 : BSc (Hons) Environmental Science, University of KwaZulu-Natal (UKZN), South Africa

2012 : BSc Environmental Science, University of KwaZulu-Natal (UKZN), South Africa

Professional affiliations

Member, Golden Key International Honour Society (GKIHS)
Member, International Association for Impact Assessment South Africa (IAIAsa)
Candidate Natural Scientist, South African Council for Natural Scientific Professions (SACNASP)

Languages

	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent
IsiZulu	Excellent	Excellent	Excellent

Research projects

Mlotshwa W, 2013. <u>"Reconstruction of the Palaeoenvironment Based on a 5 500-year-old Sedimentary Charcoal Record from Muzi Lake, North-eastern KwaZulu-Natal (2013)"</u>. Research for BSc (Hons) degree.

Honours and awards

Top third year student in Zoology (2012)

Certificate of Merit in GIS and Remote Sensing (2012)

Certificate of Merit in Biogeography and Climatic Change (2012)

Certificate of Merit in Rangeland: Plants, Ecology and Management (2011)

Referees

Company	Contact Person	Telephone no.
Nendau (Pty) Ltd	Mr Lucky Nene	+27 72 665 8758
University of KwaZulu-Natal	Dr Bheki Ncube	+27 79 966 6056

By my signature below I certify the correctness of the information above and my availability to undertake this assignment.

Signature of Staff Member	Date



Curriculum vitae: Mrs A VISAGIE

Name : **VISAGIE, AMELIA**Date of Birth : 20 December 1967

Profession/Specialisation : Skills/capacity building and social economic development process

facilitator

Years with Firm : 7

Nationality : South African

Years experience : 28

Key qualifications

Amelia is currently employed as a socio-development development project manager in Aurecon's Environment and Planning Unit in the Tshwane Office. She has over 27 years' experience in government and the private sector. She is currently responsible for social research and development, stakeholder engagement, public participation, enterprise development and community mobilisation and sustainability projects. She has extensive experience in training needs analysis, curriculum development, training, facilitation and designing awareness campaigns.

Amelia is an accredited assessor and facilitator with a national qualification in Adventure-related Experiential Learning (AEL); a public participation and stakeholder management facilitator, professional coach; appreciative inquiry facilitator and neurolinguistics practitioner. Her skills include project management, curriculum development, training and facilitation skills and negotiation skills. She presents different courses on a regular basis, including mentoring and coaching; leadership and managerial development; team building interventions; performance and time management; managing effectives meetings; telephone etiquette; customer services; diversity awareness workshops; assertiveness workshops; and secretarial development courses at the University of the Witwatersrand (Wits) and for University of Pretoria (UP).

Community development courses presented by Amelia include, but are not limited to: asset-based community development programmes; community pedestrian safety courses, 'eat what you grow' vegetable garden courses; conflict management courses; motivational courses and interventions; creativity in the workplace; and entrepreneurial development. She also developed the Advanced Management Development Programmes (AMDPs) and Emerging Management Development Programmes (EMDPs) for the University of Pretoria, which are currently still presented to officials in the Public Service. Amelia advises and assists consultants in the development of their training and development policies, and aligns their course material.

She was a finalist in the South African Business Women of the year competition. She is also the founding member of the Public Service Trainers Forum (PSTF), a national government forum, as well as the Chrysalis Foundation for abused girls. She regularly acts as a motivational speaker on Women's Day events in South Africa and was also a speaker on Creativity in Training at the PSTF Conference, the annual Rooi Rose Women's Day event as well as the Cancer Association Women's Conference. She has also written numerous motivational articles for different magazines.

Amelia holds a BCom (Hons) Industrial Psychology from the University of South Africa (UNISA) as well as a National Diploma in Personnel Management from the Technikon Pretoria (now Tshwane University of Technology), South Africa. She is also registered as a Chartered HR Professional with Commissioner of Oath recognition with the South African Board for People Practices (SABPP).

Employment record

2011 - Date	Aurecon, Project Manager: Socio-Economic Development
2011 - 2012	ONE Creative Social Investment (CSI), Member
2009 - 2012	Kenako Consulting (Pty) Ltd, Founder Member
2009 - 2011	Chameleon Champions (Pty) Ltd, Founder Member/Owner
2008 - 2010	Chameleon Kidz, Founder Member/Owner
2003 - 2010	Chameleon Assessment, Founder Member
2000 - 2010	Chameleon Performance Improvers, Owner
1995 - 1999	Gauteng Provincial Government, Assistant Director
1992 - 1995	TPA Training, Training Officer
1990 - 1991	TPA Roads, Assistant Personnel Practitioner



Management experience

2000 - 2012 Business Owner: Chameleon Performance Improvers

1995 - 1999 Assistant Director: Training and Development

Experience record

N3 Independent engineering audits (Regional, South Africa) 09/2009 - 09/2019. Project Manager/Training Coordinator. A social responsibility audit was conducted by Aurecon on N3 Toll Concession (Pty) Ltd (N3TC). The N3TC holds a concession from the SA National Roads Agency Limited (SANRAL) to manage the N3 toll road between Heidelberg in Gauteng and Mooi River in KwaZulu-Natal. Personal responsibilities included undertaking an analysis, report writing and site visits. Involved for 1.6 person-months. (N3 Toll Concession (Pty) Ltd (N3TC)).

Construction of Roads at Ga-Seleka Village and community involvement (Limpopo Province, South Africa) 01/2016 - 08/2018. Social Research and Development Project Manager. The objective of the project is to upgrade two district roads in the vicinity of Lephalale and in the process develop long term economic and employment opportunities in the area. The 13 affected communities fall within three wards of the Lephalale Municipality (Ward 8, 10 and 11). Responsible for stakeholder participation and management (Lephalale Development Forum, Shanduka Black Umbrellas, Swift Resources, RAL, Lephalale Local Municipality, Ward Councillors etc); public participation; job creation (40 jobs during construction and 200 jobs during construction phase); community awareness campaigns and training; SMME development and training and Project Steering Committees (PSC's). Also responsible for Community Liaison Officers (CLO's) and Pedestrian Safety officer (PSO's) selection, recruitment, appointment and training and development. Aurecon's support of the Clothes to Cash Exchange (C2TX) initiative that was run by the company's Advisory EPL Unit and driven by Amelia in association with its emerging professional's organisation Limelight, was also concluded in 2017. The initiative was a great success and resulted in a sizeable amount of clothing being collected that was used to benefit the communities by planting 19 trees in 14 schools in 14 villages, which included shade trees (indigenous trees) and fruit trees. Involved for 2.55 person-months. (Exxaro Coal Lephalalale).

Botswana-South Africa (BOSA) Transmission Project (Botswana and South Africa) 05/2016 - 04/2018. Training Coordinator. The South Africa-Botswana Transmission Interconnector Project entails the construction of approximately 560 km, 400 kV transmission line between South Africa and Botswana. Aurecon was appointed to provide consultancy services comprising a scoping study, feasibility study up to the project implementation phase which included procurement of an engineering, procurement and construction (EPC) firm and project financial close. Advisory services focused on the collection of data and information, technoeconomic and financial analysis, market review and analysis, evaluation of analytical results, advice on institutional and legal framework, reporting and liaising with SAPP and sponsor management committees. Responsible for stakeholder management plan (SMP) with an in-depth stakeholder participation and management combined with public participation open house workshops and development of the Informed and affected parties' database, as well as a concerns and issues register to submit with environmental impact assessment (EIA) reports. Other duties included project management of the public participation process with local Botswana company to understand different legislation necessary for the smooth running of the stakeholder engagement process. Involved for 0.1 person-months. (Southern African Power Pool (SAPP)).

Northern Cape road incident management systems (RIMS) (Northern Cape Province, South Africa) 02/2015 - 02/2018. Project Manager and Implementer. The development of RIMS has been endorsed by the White Paper of National Transport Policy which states that 'Government will implement an Incident Management System in all national roads'. The proposed systems that will be maintained are located in the Northern Cape Province, they are the Calvinia and Springbok systems as well as the Upington, Kimberley and De Aar cluster systems. This comprises all current SANRAL routes in the Northern Cape with a total length of approximately 2 743 km. Aurecon was appointed for maintaining the RIMS and ensuring implementation as well as proper coordination and management of incidents in compliance with the agreed protocols. This also included ensuring adequate training and knowledge of the incident management system amongst the emergency services personnel, preparing monitoring reports and identifying high incident zones and hazardous locations as well as addressing critical issues impacting on the effective implementation of incident management and creating awareness to all emergency services of the RIMS. Responsible for mentoring and coaching the RIMS Aurecon co-ordinator of the Northern Cape offices, to establish RIMS steering committees and centralised communication centres for emergency services as well as identifying alternative routes and developing quideline procedure documents. Involved for 0.4 person-months. (South African National Roads Agency Limited (SANRAL)).



Environmental impact assessment (EIA) for Haakdoorndrift opencast project (Limpopo Province, South Africa) 003/2016 - 12/2017. Training Coordinator. Aurecon was appointed by Anglo American Platinum to undertake the environmental impact assessment (EIA), waste and water licenses for the Haakdoorndrift opencast project at their Amandelbult Complex as part of their opencast activities. Specialist studies include groundwater, soil and land capability, terrestrial and aquatic biodiversity, noise, blasting and vibration, heritage and palaeontology, social impact assessment (SIA) and as well as floodline determination. Responsible for stakeholder participation and management combined with public participation open house workshops and development of the informed and affected parties' database. Other duties included concerns and issues registers for all phases of reporting. Involved for 0.5 person-months. (Rustenburg Platinum Mines Limited).

Vuk'uphile contractor development programme for contractor/supervisors (North West Province, South Africa) 09/2013 - 09/2017. Assessor/Training Coordinator. As part of the Expanded Public Works Programme (EPWP), The National Department of Public Works (DPW) initiated the Vuk'uphile learnership programme. The programme is intended to develop emerging contractors into skilled contractors able to execute labour-intensive projects. Aurecon was appointed for the project management and implementation of the programme for contractor and supervisor development. Responsible for developing the selection programme, selection criteria, and interview questions for the selection of CIDB contractors for development in North West Province. Also responsible for the formal literacy and numeracy assessment of ± 80 potential contractors. Involved for 0.4 person-months. (North West Department of Public Works, Roads & Transport).

Viljoenskroon substation transmission basic assessment (Free State Province, South Africa) 08/2015 - 06/2017. Training Coordinator. Aurecon performed a basic assessment to obtain environmental authorisation for the Viljoenskroon Municipality substation and transmission line. Responsible for stakeholder participation and management combined with public participation open house workshops and development of the Interested and Affected Parties' (I&AP's) database. Also responsible for concerns and issues registers for all phases of reporting during the environmental impact assessment (EIA) process. Involved for 0.03 personmonths. (Eskom).

Transport engineering and construction management of two pedestrian/cyclist rail crossings (Gauteng Province, South Africa) 11/2015 - 06/2017. Training Coordinator. The Flagship Tembisa Hub is part of the Tembisa Urban Renewal Programme (TURP) for Ekurhuleni Metropolitan Municipality (EMM). The project was undertaken in order to prevent and resolve fatal accidents caused by pedestrians crossing the main Tembisa rail line at unprotected and unsafe points to gain access to social and commercial facilities in the civic precinct. Aurecon undertook the design and construction of Sheba Street between George Nyanga Drive and railway line up to Seafrankwe Street aligning with the newly proposed pedestrian crossing into a complete street accommodating sidewalks, cycle lane, with street lights and greening. Responsible for developing design-led thinking workshop outline investigate needs of stakeholders and facilitated the workshop with Aurecon Engineers and the Ekurhuleni Municipality. Involved for 0.1 person-months. (Ekurhuleni Metropolitan Municipality (EMM)).

Sibanye Gold PV plant environmental impact assessment (EIA) (Gauteng Province, South Africa) 06/2015 - 04/2017. Training Coordinator/Public Participation Practitioner. Aurecon managed the environmental impact assessment (EIA) process required for authorising a proposed 200 MW photovoltaic facility in terms of the National Environmental Management Act. Sibanye Gold, a mining company, intends to develop the project to gain greater independence from Eskom. The project will provide power exclusively to Sibanye Gold. The generated electricity may be used at any one of its mines in the Westonaria/Carletonville region. Responsible for stakeholder participation and management combined with public participation open house workshops and development of the informed and affected parties' concerns and issues registers. Involved for 0.63 person-months. (Sibanye Gold Shared Services).

Sustainable development roadmap for mine closure plan (North West Province, South Africa) 06/2016 - 03/2017. Training Coordinator. Aurecon was tasked by AngloGold Ashanti to assess the current status quo of the Vaal River operations mine closure plan in the sustainable development arena in order to assess the current status quo of the sustainable development plans and programmes with regards to mine closure. This Roadmap will assist the mine to link the roadmap with their social and labour plan for mobilisation of the communities, as well as the mine workers, so that it compliments mine closure plans and assists with sustainable development plans. Responsible for determining potential gaps; research of constructive analysis of successful case studies and the barriers that prevent wider mine closure implementation; developing a sustainable mine closure roadmap. Involved for 0.84 person-months. (AngloGold Ashanti).

Stakeholder participation and management combined with public participation open house workshops and development of the Informed and affected parties' database as well as a concerns and issues



registers for all phases of reporting (Gauteng Province, South Africa) 02/2015 - 01/2017. Process Developer and Facilitator. Aurecon was appointed for providing planning support to three local municipalities with the upgrading or relocation of 24 informal settlements. A policy framework was drafted to guide decision making in terms of the upgrading or relocation of these settlements and also included proposing a strategy, programme and plans for the three respective municipalities to upgrade or relocate the settlements. The upgrading programme informs the municipality of the expected costs and timeline for the suggested upgrades. Responsible for the development and facilitation of the appreciative inquiry engagement strategy for inclusion of the communities and municipal wards to give feedback and inputs in the framework so that it can inform and direct our report. Involved for 0.5 person-months. (Housing Development Agency (HDA)).

Exxaro Digby Wells Belfast asset-based community development (ABCD) livelihood workshop (Mpumalanga Province, South Africa) 07/2015 - 06/2016. Project Manager and Implementer. Aurecon was sub-contracted to assist with identifying a suitable relocation site for communities living in a proposed mine footprint area and thereafter assist with drafting a scope of work for the implementation of the resettlement action plan (RAP). Specifically, Aurecon was appointed to conduct a two-day workshop with the community to identify potential livelihood restoration projects. The workshop was based on the 'asset-based community development' (ABCD) methodology. Responsible for the development and facilitation of the ABCD workshop. Involved for 0.02 person-months. (Exxaro/Digby Wells).

Incident management systems - North West and Gauteng (Gauteng and North West Provinces, South Africa) 12/2012 - 12/2015. Training Coordinator. The project involved the provision of services relating to the operations, maintenance and management of the incident management systems (IMSs) for the North West and Gauteng Provinces. Aurecon was appointed to maintain the system and to ensure that the implementation complies with the agreed protocols and to ensure the proper coordination and management of incidents in terms of the agreed procedures and protocols; and to ensure that there is adequate training and knowledge of the incident management system amongst the emergency services personnel; to prepare monitoring reports and to identify high incident clusters; to address critical issues impacting on the effective implementation of incident management and to create awareness of the incident management system. Responsible for establishing steering committees and centralised communication centres for emergency services, identifying alternative routes and developing guideline procedure documents. Involved for 6 person-months. (South African National Roads Agency Limited (SANRAL)).

Ekurhuleni Aerotropolis master plan (Gauteng Province, South Africa) 10/2013 - 07/2015. Training Coordinator. Aurecon lead a consortium to craft the aerotropolis (or airport city) strategy for the City of Ekurhuleni. It is a landmark endeavour that coordinates development across a 1 075 km² region to maximise the potential and prosperity for as many as 5 million future South Africans over the next 25 to 30 years. The consortium led by Aurecon delivered the Aerotropolis Ekurhuleni strategy to increase competitiveness in global markets and leverage the access that air travel and air freight provides. Four dimensions of the master plan effort were crucial to the development of a viable, flexible, and authentically local master planning effort; Vision plan, masterplan framework, urban design improvements and a social development framework. Responsible for development of community facilitation process and facilitation of eight workshops and handling of issues and concerns and get buy-in and ownership. Involved for 1.9 person-months. (Ekurhuleni Metropolitan Municipality (EMM)).

Social Cohesion Community Conversations programme (Regional, South Africa) 06/2014 - 04/2015. Project Manager/Training Coordinator. The Department of Arts and Culture (DAC) launched a Nation Building and Social Cohesion Community Conversations programme, following up on the 2012 National Social Cohesion Summit; and Cabinet approval of a new social cohesion strategy. Aurecon was appointed to aid with the community engagement process and report writing for the national social cohesion report-back and monitoring summit for 2014/2015. This project involved developing, coaching and facilitating a social cohesion process to enable participation in all provinces in rural and urban areas in order to get inputs from South Africans on how the government and private sector can increase cohesion South Africa. Personal responsibilities included undertaking an analysis, report writing and site visits. Involved for 0.6 person-months. (Department Arts and Culture (DAC)).

Olifants River Community Pedestrian Safety Project (Limpopo Province, South Africa) 06/2013 - 12/2014. Developer and project team member. The Olifants River community road safety project (ORCRSP) was a CSI initiative undertaken jointly with the contractor on the Olifants River water resources development project, an extensive water resource development project to supply water for domestic and industrial (mining) use in the Limpopo Province. It formed part of Aurecon's commitment to uplifting communities in our project areas. The Olifants River community road safety project focused on creating awareness of the hazards associated with increased traffic during construction and operations. It involved the broader community in promoting road safety usage, with a specific focus on school going generations, in order to influence positive



road usage behaviour. Responsible for developing and designing the Aurecon safety mascot, and training material for community pedestrian officers (CPO's) in 7 schools in the local area. Also responsible for pre-assessment of local unemployed women and selection of the pool of CPO's for training. (Trans-Caledon Tunnel Authority (TCTA)).

Project Steering Committee (PSC) development (North West Province, South Africa) 11/2013 - 11/2014. Developer and Facilitator. Design and development of training material and presentation of a Project Steering Committee (PSC) course for 30 local council members and community members. Responsible for development of course material and facilitation of course. Involved for 0.6 person-months. (Rustenburg Municipality).

Trans African Concessions (TRAC) Community Pedestrian Safety Project (Mpumalanga Province, South Africa) 08/2011 - 06/2014. Training Coordinator. The Trans African Concessions (TRAC), who is responsible for the operation and management of 571 km of the National Route 4 (N4) toll road, responded to accident statistics by resolving to improve pedestrian safety. Having identified high traffic zones where pedestrians may be particularly vulnerable, TRAC called for proposals for the implementation of a pedestrian safety education plan at identified schools. As a pilot project, the focus was on schools in the Ngodwana area in Mpumalanga. Aurecon was awarded full project design, management and community consultation of TRAC's very first community pedestrian safety pilot project (CPSPP). Responsible for developing a pedestrian safety process, in collaboration with the TRAC, where community pedestrian officers (CPO's) were trained to serve as a walking school bus to school and back. Chief learning officers (CLO's) educated children in pedestrian safety in the community. Involved for 0.9 person-months. (Trans African Concessions (TRAC)).

Central Energy Fund (CEF) Solar Park in Prieska (Northern Cape Province, South Africa) 05/2013 - 02/2014. Project Manager/Training Coordinator. A feasibility study was undertaken for the Central Energy Fund (CEF) Solar Park to provide a suitable framework and baselines for procuring the first 1 GW solar park and the wider 5 GW solar corridor in Prieska. The project entailed local stakeholder management and communication; to understand the concerns and expectations of the local community. Responsible for the public participation and stakeholder engagement process. Involved for 1 person-month. (CEF (SoC) Ltd).

Implementation of the development of food plots in Kathu (Northern Cape Province, South Africa) 02/2011 - 01/2014. Project Manager. Aurecon was responsible for the implementation of a food plot development project in the Ga-Segonyana and Joe Morolong Local Municipalities. The municipalities agreed to identify three sites for food plots to provide a sustainable source of nourishment for community members. The project involved preliminary visits to the identified food plots in order to understand the local communities' level of knowledge regarding pesticides, fertilisers, rotational cropping, recycling and other key aspects of vegetable farming. Three cooperatives already exist, representing 12 unemployed members. Due to the fact that most of these community members were unskilled, it was important that Aurecon ensured that both theoretical and practical knowledge was taught. Responsible for developing and designing designed course material for a local food plot project for 16 community members. Involved for 4 person-months. (Assmang Ltd).

Integrated Planning Transport Operating Centre (IPTOC) (Eastern Cape Province, South Africa) 05/2012 - 09/2013. Project Member/Task Leader. The FIFA World Cup was hailed as one the largest events on the international sporting calendar. In preparation for, and during, the 2010 event, Aurecon was tasked with the design, implementation, training, staffing, operation and maintenance of the Nelson Mandela Bay Metropolitan Municipality (NMBMM) Transport Operations Centre (TOC). Responsible for the development of an Education Training and Development strategy and implementation framework. Involved for 0.6 person-months. (Nelson Mandela Bay Metropolitan Municipality (NMBMM)).

Discretionary grants for the Transport Education Training Authority (TETA) (National, South Africa) 09/2011 - 10/2012. *Project Member.* The Transport Education and Training Authority's (TETA) primary functions are inter alia to; facilitate the development; registration and implementation of learnership; skills programmes and strategic initiatives and approval of works skills plans. One of the key functions of the organization is the disbursement of mandatory and discretionary grants (DG) to stakeholders to facilitate workplace skills development and training. Aurecon was appointed for the project management and improvement of the discretionary grants disbursement for the Transport Education and Training Authority (TETA). Responsible for facilitating the development; registration and implementation of learnership; skills programmes and strategic initiatives and approval of works skills plans. Involved for 0.25 person-months. (Transport Education and Training Authority (TETA)).

Member of ONE Creative Social Investments (CSI) (South Africa) 2011 - Date. *Member.* Responsible for black economic empowerment (BEE) project management and identification. Involved for 24 person-months.



(ONE Creative Social Investment (CSI)).

Eat What You Grow Vegetable Garden (EWUG) project (North West Province, South Africa) 2011. Project Manager. The project entailed the development of a vegetable garden training programme for school children and training of school governing body members (SGB's) in the Rustenburg area. Responsible for mentoring children with their vegetable garden projects. (Platinum Group Metals).

Chameleon Champions (South Africa) 2009 - 2011. Founding Member and Owner. Responsible for business consulting and entrepreneurial development. (Chameleon Champions (Pty)).

University of South Africa: Train the Trainer programme (Gauteng Province, South Africa) 2007 - 2011. *Course Developer.* Responsible for developing a Train the Trainer Education and Training Development Programme (ETDP), a distance education programme. (University of South Africa (UNISA)).

Owner and Director of Chameleon Performance Improvers (South Africa) 2000 - 2010. Owner and Director. The project involved training and facilitation for the government, the University of the Witwatersrand (Wits), and the University of Pretoria. Responsible for consulting, training and curriculum development. (Chameleon Performance Improvers).

Founder Member and Owner of Chameleon Kidz (South Africa) 2008 - 2010. Founder Member and Owner. Responsible for education in studying, reading and life skills programmes for children and students. (Chameleon Kidz).

Kenako community development (South Africa) 2009 - 2010. Founding Member. Responsible for the section 21 community development and incubation centres. (Kenako Consulting (Pty) Ltd).

Curriculum development and facilitation (South Africa) 2006 - 2010. Project Manager and Owner. Subcontracted to do curriculum development and facilitation of all public service programmes. (University of Pretoria).

Community skills audits in Rustenburg (North West Province, South Africa) 2010. Interviewer and Facilitator. The project involved the auditing of 85 small, medium and macro enterprises (SMME's) on community level to determine their training needs. Responsible for carrying out community skills audits and SMME audits for development and training purposes. Involved for 24 person-months. (Monyetleng Investments).

Appointment of employees for the Gautrain project (Gauteng Province, South Africa) 2009. Facilitator. Responsible for the in-basket recruitment process for the appointment of competent employees for the Gautrain Rapid Rail Link project. Involved for 24 person-months. (Bombela Concession Company (Pty) Ltd/Bombardier Transportation).

Atteridgeville Community Project (Gauteng Province, South Africa) 2009. Facilitator. Responsible for the training of individual entrepreneurs in self-management, entrepreneurial skills and the establishment of cooperatives, and assisting with the setting up of financial cooperatives. Involved for 24 person-months. (Department of Trade and Industry).

Labour intensive construction (CIS) training, Levels 5 and 7 (South Africa) 03/2005 - 12/2006. Marketer. The project involved the training of all municipal engineers and technical personnel nationwide in labour intensive construction (LIC) methods on levels 5 and 7. A total of 2 700 applicants were trained by South African Value Education (SAVE), contracted by the Local Government Sector Education and Training Authority (LGSETA). Responsible for development of material and training. Involved for 0.75 person-months. (Local Government Sector Education and Training Authority (LGSETA)).

Establishment of the South African Social Security Agency (SASSA) (South Africa) 2006. Project Team Member. Part of the project team responsible for the establishment of the South African Social Security Agency (SASSA) through the Department of Social Development. This included process development and a communication strategy. (Department of Social Development).

Leadership and management development programmes (Gauteng Province, South Africa) 2005 - 2010. Curriculum Developer and Facilitator. The project entailed public service leadership and management courses. Responsible for the leadership and development programmes for public service employees through the University of Pretoria. (Continuing Education University of Pretoria (CE at UP)).



Facilitation of the Skills Development Act (South Africa) 2004. Facilitator. Actively involved in the facilitation of the Skills Development Act at different national levels. Responsible for skills auditing, the alignment of company objectives and strategies with training needs, the compilation of workplace skills plans (WSP's), communicating with different sector education and training authorities (SETA's), regarding the implementation of the process. (NQA).

Chameleon Assessment (South Africa) 2003 - 2010. Founding Member. Responsible for the assessment centres. (Chameleon Assessment).

Standard Generating Body for Public Administration and Management (SGB: PAM) (South Africa) 2003. *Member.* Appointed and served on the Standard Generating Body for Public Administration and Management (SGB: PAM) of the National Standards Body 3 (NSB3). (Standard Generating Body for Public Administration and Management (SGB: PAM)).

Strategic Approach to Trainer Development workshop (South Africa) 2002. Project Manager. Responsible for presenting the Strategic Approach to Trainer Development workshop to the United Nations (UN), the South African Police Service (SAPS), USKO, the University of South Africa (UNISA), and South African Management Development Institute (SAMDI). Involved for 24 person-months. (SAPS).

Assistant Director at the Gauteng Provincial Government (Gauteng Province, South Africa) 1995 - 1999. Assistant Director. Responsible for implementing and training all staff on performance management/system. (Gauteng Provincial Government).

Training component for Nelson Mandela's office (Gauteng Province, South Africa) 1998. Assistant Director. Seconded to the president's office to establish a training component. Responsible for the selection and placement of trainers, and mentoring the trainers. Involved for 24 person-months. (Office of the President).

Training Officer: Trade Practices Act (TPA) (South Africa) 1992 - 1995. *Training Officer.* Responsible for giving training. (Trade Practices Act (TPA): Training).

Establishing a Human Resources Development Committee (Gauteng Province, South Africa) 1995. Personnel Practitioner. Responsible for establishing a human resources development committee in Gauteng, with representatives of 10 departments. Involved for 24 person-months. (Gauteng Provincial Government).

Education

2013 : BCom (Hons) Industrial Psychology, University of South Africa (UNISA) 2004 : BCom Industrial Psychology, University of South Africa (UNISA)

1989 : NDip Personnel Management, Technikon Pretoria, South Africa

Career enhancing courses

2017 : Strategic Conversations, Aurecon 2017 : Designing Strategy, Aurecon

2016 : Design to Innovate Workshop, Aurecon

2012 : Group Facilitation, Team and Leadership Development Centre

2012 : Asset Based Community Driven (ABCD) Process, Gordon Institute of Business

Management

2012 : Asset Based Community Driven (ABCD) Process, Gordon Institute of Business

Management

2010 : Study and Reading Skills Course, Reading Zone
 2007 : E-scale Coaching Course, TAG Consulting
 2005 : Neurolinguistic Practitioner (NLP), Pat Horn

2004 : Performance Management Course, Kuvla and Associates 2003 : Assessor Training, Assessment College of South Africa

2002 : Self-Empowerment Course, Creandum

2001 : Quality Assurance Course, University of South Africa (UNISA) 2001 : HIV/Aids Advocacy Training, Department of Health (DOH)

2000 : Negotiation Skills Course, Prof Manie Spoelstra

2000 : Adventure Related Experiential Learning (AEL) Facilitator, Team Building Institute (TBI)

2000 : Needs Analysis, South African Management Development Institute (SAMDI)



Professional affiliations

Chartered HR Professional (Commissioner of Oaths), South African Board for People Practices (SABPP)

Languages

	Reading	Writing	Speaking
Afrikaans	Excellent	Excellent	Excellent
English	Excellent	Excellent	Excellent

Publications

Visagie A, 1997. "The Difference between Games and Simulations in the Training Environment". -.

Visagie A, 1998. "The Training Officer and Research: Theory and Practice". -.

Referees

Company	Contact Person	Telephone no.
Digby Wells	Jan Perold	+27 82 717 5663
N3TC	Con Roux	+27 87 285 6382
Road Agency Limpopo	Modjadji Mabialwa	+27 82 779 0873

ake thi

