

Corlie Steyn

Environmental Specialist

Qualifications

BA

BA (Hons) Geography
(Cum Laude)

HED

MPhil Environmental
Management

Professional registrations

Member, International
Association for Impact
Assessments South
Africa (IAIASa)

Member, Environmental
Assessment Practitioners
Association of South
Africa (EAPASA)

Specialisation

Environmental
management

15

years in industry

Corlie is a professionally registered senior environmental practitioner specialising in environmental consulting for various disciplines. She has most recently been involved in renewable energy, civil, roads and gas power related projects.

She has extensive experience in environmental management and research projects related to climate change. She also has experience in the evaluation and review of environmental impact assessments (EIAs); advising on law enforcement and environmental matters; managing public participation processes (PPPs), including in-depth interviews with stakeholders; chairing workshops and presenting final reports to government departments and civil society stakeholders.

Corlie is a registered member of the International Association for Impact Assessment South Africa (IAIASa) and the Environmental Assessment Practitioners Association of South Africa (EAPASA). She is a part-time lecturer and moderator at the Nelson Mandela University's (NMU's) Department of Nature Conservation.

She holds an MPhil degree in Environmental Management from the University of Stellenbosch, South Africa. She also holds an Honours Degree in Geography, a BA Degree and a Higher Education Diploma, all obtained from the University of Pretoria in South Africa.

Experience

The National Working for Wetlands Programme, South Africa, South African National Biodiversity, 06/2013 - 06/2022, Senior Environmental Practitioner

Zutari was appointed since 2013 until 2022 for the design, planning, environmental, project and risk management of the South African Government's Working for Wetlands Programme, which is a nationally run initiative by the South African National Biodiversity Institute (SANBI). The programme's objective is to rehabilitate damaged wetlands and to protect wetlands in all nine provinces of South Africa, with an emphasis on complying with the principles of the Expanded Public Works Programme (EPWP) through employing only local small, medium and micro enterprises (SMMEs). Responsible to manage specialists, budgets, compilation and review rehabilitation plans as well as basic assessment reports.

Environmental services for the development of the 300MW Kokerboom 3 Wind Energy Facility and 60MW Kokerboom 4 Wind Energy Facility, battery energy storage systems and associated infrastructure on Farms 1/214, 2/214 and RE/213 near Loeriesfontein in the Northern Cape, 2020-2021 Senior Environmental Practitioner.

Business Venture Investments No. 2105 and 1733 (Pty) Ltd (BVI), proposed to construct 300MW and 60MW Wind Energy Facilities (WEFs) and associated infrastructure on adjacent farms near Loeriesfontein in the Northern Cape. Zutari has been appointed as the independent environmental assessment practitioner (EAP) to facilitate the requisite scoping and environmental impact reporting (S&EIR) processes for both applications in accordance with the NEMA and

associated legislation. Responsible for the coordination of specialists, compilation of the application forms, scoping reports, environmental impact reports, public participation coordination, stakeholder engagement, drafting of environmental management programmes (EMPRs) and rehabilitation plans.

Environmental services for the proposed 300 MW Namakwa solar energy development, Northern Cape Province, South Africa, Veld Solar One (Pty) Ltd and Veld Solar Two (Pty) Ltd, 08/2016 – 06/2021, Senior Environmental Practitioner

Zutari was appointed to undertake an environmental impact assessment (EIA) for the development of three solar sites, approximately 20 km north-west of Aggeneys in the Northern Cape Province from 2016-2022. The intention is that the solar facilities form part of a consolidated solar development consisting of the proposed Nama Sun 150 MW concentrated solar power (CSP) farm and proposed Veld PV South consisting of a 75 MW photovoltaic (PV) facility and utilise shared infrastructure where possible to minimise their overall footprint. Responsible for compilation of the Basic Assessment reports, application forms, public participation coordination, stakeholder engagement, drafting of environmental management programme (EMPr) and rehabilitation plan, coordination of specialists, budget management and invoicing for the proposed Veld PV South energy facility on the farm Haramoep in the Namakwa District Municipality. During 2021 the client proposed amendments to the facilities. Responsibilities entailed the writing of the amendment reports and management of the specialists.

Solid waste cost estimate reports, Eastern Cape Province, South Africa, Various, 06/2012 - 07/2021, Senior Environmental Practitioner

The project entailed the compilation of a waste cost estimate report for 5 waste sites within the Senqu Local Municipality. Responsible for client liaison, budget, and compilation of the reports.

Project 17: Environmental advisory services to George Local Municipality, Western Cape Province, South Africa, George Local Municipality, 02/2019 - 02/2021, Senior Environmental Practitioner

Appointed to carry out environmental services for various identified projects namely Swart River Dam, Peter's Road and Rooidraai Road. Responsible for the basic assessment (BA) environmental process for remedial works along Rooidraai Road in Herolds Bay as well the Peter's Road Project. Responsible for compiling basic assessment report (BAR), the public participation process (PPP), and the application form. Duties include corresponding with and managing environmental specialists and liaising with environmental competent authority.

Mossel Bay Upgrading of Informal Settlements Programme (UISP), Western Cape Province, South Africa, Mossel Bay Local Municipality, 01/2017 – 08/2020, Environmental Practitioner

Zutari has been appointed to develop the Upgrading of Informal Settlements Programme (UISP) for 17 informal settlements in Mossel Bay. The objective of the project entails the preparation of the upgrading plans acquisition of statutory approvals from the relevant government authorities. Responsible for the compilation of basic assessment reports (BARs) and for the public participation process (PPP).

Upgrading of the Churchill water treatment works (WTW), Eastern Cape Province, South Africa, Nelson Mandela Bay Metropolitan Municipality (NMBMM), 02/2007 – 12/2020, Senior Environmental Practitioner

Zutari has been appointed as the lead consultant for the planning, design and contract administration as well as the preparation, invitation and assessment of contract tender documents for the upgrading of the Churchill water treatment works (WTW). The scope involves the upgrading and modernisation of the dosing and control systems to address bottlenecks within the works; the replacement of the mechanical and electrical equipment as well as upgrading of other equipment to match the quality and duty of the new equipment; the refurbishment of civil structures and buildings and the refurbishment or replacement of pipework and fittings. Zutari also undertook the environmental engineering services on the project. Responsible for compilation of application form and basic assessment reports (BAR) as well as the drafting of the public participation process (PPP) documents.



Materials supply for gravel roads in the Western Cape, Western Cape Province, South Africa, Provincial Government of the Western Cape (PGWC): Department of Transport and Public Works (DTPW), 02/2015 - 02/2020, Senior Environmental Practitioner

Zutari has been appointed to assist with the material supply and planning, design and control aspects for the maintenance of gravel roads in the Central Karoo and Eden District Municipalities. Services include engineering geology, environmental studies, materials source identification and project management. The contract primarily entails locating and proving suitable material sources for the re-gravelling of 300 km and maintenance activities of 45 000 km of all gravel roads in the two identified district municipalities. Project manager for the Eden District Municipality roads, responsible for drafting and reviewing of environmental management programmes (EMPrs). Also responsible for site visits, client liaison and management of junior employees.

Engineering services for the development of Newcastle Power Station, New South Wales (NSW), Australia, AGL Energy Limited (AGL), 06/2018 - 12/2019, Senior Environmental Practitioner

The project entailed an environmental impact assessment (EIA) and design for the proposed gas power station at Tomago in the Newcastle area of New South Wales (NSW) to provide approximately 250 megawatts (MW) of firming capacity to the National Electricity Market (NEM). Responsible to summarise the biodiversity development assessment, noise and vibration assessment, visual assessment, electromagnetic fields (EMF) assessment, bushfire assessment, plume rise assessment, fire safety and groundwater assessments.

Pre-feasibility study for Luapula Hydropower Project, Democratic Republic of the Congo (DRC) and Zambia, Southern African Power Pool (SAPP), 07/2018 – 03/2019, Senior Environmental Practitioner

Zutari was engaged to carry out pre-feasibility studies for the environmental and social impact assessment (ESIA) opportunity for the development of the proposed Luapula River Hydroelectric Scheme. The scheme, which includes multiple dams with capacities ranging from 600 to 900 MW, is geared to secure electricity supply for Zambia and the Democratic Republic of the Congo (DRC). To bring this vision to life, Zutari will work in parallel with a technical team to document the project baseline, assess and recommend alternatives, and identify the environmental and social concerns. The project team will also develop terms of reference (ToR), which will guide the ESIA. Responsible for the compilation of the legislation chapter of the screening report and compilation of the terms of reference (ToR) for the ESIA as well as report writing.

Preliminary design and contract documentation for the development of Lonsdale Street Sewer Stage 2A, Victoria (VIC), Australia, City West Water, 04/2018 - 12/2018, Senior Environmental Practitioner

The project involved the preliminary design of Stage 2A (Lonsdale Street) for issue to a design and construct tender. Stage 2A works are understood to consist of a 1 400 mm internal diameter glass reinforced plastic (GRP) sewer running from an invert level of 0.48 mAHd at Spencer Street (CH 0) to an invert level of approximately 2.50 mAHd at Elizabeth Street (CH 900). A total length of 900 m. A 600 mm diameter augured pipe will be used to connect the Elizabeth Street shaft to the existing ELZ manhole within Elizabeth Street. Stage 2A will connect directly into Stage 1 works at Spencer Street. Responsible for the compilation of a risk report and review of all applicable legislation. The report had to identify key risks and issues and propose mitigation measures to support the project approvals where required, the site management plan and environmental management and compliance throughout the design and construction.

Screening process for two gas-to-power facilities in Saldanha, Western Cape Province, South Africa, Solar Reserve South Africa, 02/2016 - 03/2018, Environmental Practitioner

The project involved constructing two gas-to-power facilities in Saldanha, which comprise up to three phases consisting of 1 000 MW combined cycled gas turbines (CCGTs) each. It also involved constructing a pipeline line corridor for water intake and a gas pipeline from a liquefied natural gas (LNG) terminal. Zutari's scope involved a constraints and opportunity analysis of the two sites, including reviewing legislative and policy requirements, such as the IFC Performance Standards on Environmental and Social Sustainability. A description of the environmental and socio-economic baseline was provided, including sensitivities, and high-sensitivity and "No Go" areas were identified. Responsible for project management, team liaison and coordination, compilation of documents, public participation coordination, stakeholder engagement, drafting of



environmental management programme (EMPr) and rehabilitation plan, coordination of specialists, budget management and invoicing. Also responsible for assisting with the compilation of the two scoping reports.

Environmental impact assessment (EIA) for the Hotazel Solar Park and associated infrastructure, Northern Cape Province, South Africa, juwi Renewable Energies (Pty) Ltd, 05/2016 - 10/2017, Environmental Practitioner

The project entailed an environmental impact assessment (EIA) for the development of a 200 MW photovoltaic (PV) solar facility including a utility scale battery storage facility. This included the basic assessment report (BAR) for the transmission line for the Hotazel solar park facility. Responsible for compiling the BAR.

Western Cape Road materials supply strategy, Western Cape Province, South Africa, Provincial Government of the Western Cape (PGWC): Department of Transport and Public Works (DTPW), 06/2008 - 07/2017, Environmental Practitioner

Increasing pressures from tightened environmental legislation have resulted in lengthy waiting periods for identifying required material sources. The wait is also caused by investigation phases and getting approval from the Mineral Resources and Petroleum Development Act (DMR), the Department of Environmental Affairs and Development Planning (DEADP), the National Environmental Management Act (NEMA) and the Land Use Planning Ordinance (LUPO). Zutari 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. Responsible for report compilation, corresponding with key stakeholders and specialists and undertaking the public participation process (PPP).

Construction of a second bridge across the River Niger, Delta State, Nigeria, Nigeria Sovereign Investment Authority (NSIA), 05/2014 - 08/2016, Environmental Practitioner

The Federal Government of Nigeria proposed to construct a second bridge across the River Niger between Onitsha and Asaba and selected the Julius Berger-AIIM Consortium as the preferred bidder. Zutari was appointed on behalf of AIIM to undertake an environmental and social impact assessment (ESIA) required in terms of the Environmental Decree No 86 of 1992, in accordance with the International Finance Corporation (IFC) guidelines, which included a resettlement action plan (RAP). The aim was to ensure regulatory compliance with the Nigerian environmental legislation and achieve the highest possible compliance with Equator Principles (EPs). Responsible for the compilation of the environmental management plan (EMP) for the proposed bridge.

Environmental impact assessment (EIA) for the expansion of approved solar energy facilities near Prieska and De Aar, Northern Cape Province, South Africa, Mulilo Renewable Energy (Pty) Ltd (MRE), 03/2013 - 06/2016, Environmental Practitioner

The project involved an environmental impact assessment (EIA) for the expansion of approved solar energy facilities located on the Hoekplaas and Klipgats Farms in Prieska and the Badenhorst Dam and Du Plessis Dam Farms in De Aar. The expansion of Hoekplaas Farm includes ten additional 75 MW photovoltaic (PV) facilities, while the expansion of Klipgats Pan Farm includes six additional PV units. The expansion of Badenhorst Dam Farm includes four additional 75 MW PV facilities, and that of the Du Plessis Dam Farm includes three additional PV units. Responsible for the compilation of the environmental management plan (EMP).

Shire River Basin Management Programme Phase I (SRBMP-I) project: Preparation of National Integrated Catchment Management and Rural Infrastructure Development Guidelines, Shire River Basin, Malawi, Ministry of Agriculture, Irrigation and Water Development (MoAIWD), 02/2014 - 04/2016, Environmental Practitioner

The project entailed the preparation of National Integrated Catchment Management and Rural Infrastructure Development Guidelines as part of the Shire River Basin Management Program (SRBMP) project. The overall objective of the project is to increase sustainable social, economic and environmental benefits by effectively and collaboratively planning, developing and managing the Shire River Basin's natural resources. The project development objective (PDO) and global environmental objective (GEO) of the first phase (SRBMP-I) are to develop the basin's planning framework in order to improve land and water management for ecosystem and



livelihood benefits in target areas. Zutari was appointed to collect and review existing guidelines and to compile consolidated national catchment management guidelines for Malawi, which are targeted at a community and village level. The guidelines are developed by and for use by the relevant government departments, their development partners and other stakeholders and cover multi-sectoral planning and implementation of catchment management at different scales (from basin-wide to village level). Responsible for the compilation of the Permaculture Chapter in the guidelines.

Construction of Outeniqua Wind Farm, Western Cape Province, South Africa, juwi Renewable Energies (Pty) Ltd, 03/2013 - 03/2015, Environmental Practitioner

Zutari was appointed to undertake an environmental impact assessment (EIA) process for the construction of a wind energy facility (WEF) and all associated infrastructure near Uniondale in the Western Cape. The proposed WEF would comprise 13 to 15 turbines of 2 MW to 3 MW each, with a combined total capacity of 39 MW. Responsible for the compilation of the environmental management plan (EMP).

Development of Langezandt Quays, Western Cape Province, South Africa, Golden Falls Trading 193, 06/2011 - 03/2015, Environmental Practitioner

This project entailed an environmental impact assessment (EIA) for the proposed development of Langezandt Quays in Struisbaai. Responsible for the compilation of the environmental management plan (EMP).

Environmental impact assessment (EIA) for three photovoltaic (PV) facilities near De Aar, Northern Cape Province, South Africa, Mulilo Renewable Energy (Pty) Ltd (MRE), 09/2011 - 01/2015, Environmental Practitioner

The project entailed an environmental impact assessment (EIA) for three photovoltaic (PV) power facilities near De Aar in the Northern Cape. PV2 is located on Paarde Valley Farm (Portion 2 of Farm 145), generating between 75 and 150 MW, and covering an area of 225 to 450 ha. PV3 is located on the Badenhorst Dam Farm (Portion 1 of Farm 180), generating between 100 and 135 MW, and covering an area of 300 to 405 ha. PV4 is on the Du Plessis Dam Farm (Farm 179 remainder), generating 19 MW, and covering an area of 1 060 ha. The associated infrastructure required for the PV facility include 132 kV overhead transmission lines; the upgrading of access roads and water supply infrastructure linking the site to the municipal network. Responsible for the compilation of an environmental report and a screening report as per criteria of the independent power producer (IPP) programme as well as an environmental management plan (EMP) for the proposed solar energy facility on Annex Du Plessis Dam Farm.

Solid waste cost estimate reports, Northern and Western Cape Provinces, South Africa, Various, 06/2012 - 07/2014, Environmental Practitioner

The project entailed the compilation of a solid waste cost estimate report for the George Local Municipality as well as the Hantam Local Municipality and six sites within the district. Responsible for site visits, public participation and compilation of the reports.

Cost estimate for solid waste sites in the George and Uniondale municipal areas, Western Cape Province, South Africa, Mubeko Africa, 06/2014 - 2018, Environmental Practitioner

This project entailed the compilation and public-private partnership (PPP) involved with the updated cost estimate for the solid waste sites in George and Uniondale.

Proposed wind and solar/photovoltaic (PV) energy facility near Springbok, Northern Cape Province, South Africa, South Africa Mainstream Renewable Power Developments, 03/2012 - Date, Environmental Practitioner

The project involved environmental impact assessments (EIA) for a 750 MW wind energy facility and a 250 MW solar photovoltaic energy facility on farms near Springbok. Responsible for report compilation, corresponding with key stakeholders and specialists and undertaking the public participation process (PPP).



Scenario planning to assess the implications of climate change on land and water use within the agricultural sector of the Garden Route, Western Cape Province, South Africa, Wildlife and Environment Society South Africa (WESSA), 01/2008 - 12/2010, Environmental Practitioner

The project comprised a study for the completion of a publication relating to climate change. The study entailed examining how farmers' perceptions of weather conditions correspond with the climatic data recorded at various meteorological stations by conducting in-depth interviews; and studying analysed farmers' adaptive responses and perceptions of climate change. The project implemented a scenario-planning exercise to determine adaptation trends in the observed and projected climate for the Garden Route, with the aim of providing possible solutions for wiser agricultural practices. Responsible for completing two reports; public participation; literature reviews of the existing data relating to the implications of changes in temperature and rainfall patterns on agricultural practices; and the collation of climatic data; the completion of an assessment of current agricultural practices, including an assessment of the farmers' attitudes towards changing rainfall patterns and other climatic variables. The results were incorporated into a scenario-planning exercise to determine trends in the observed and projected climate for the project area. Final results were reviewed by a panel of experts, comprising an agricultural economist, a climatologist, a biologist, and a sociologist, during a workshop where the panel suggested recommendations to the farmers, agricultural unions, relevant government departments and politicians, based on the outcomes projected by the models. These reports were then disseminated to government departments and civil society stakeholders.

Review of impact assessments and appeals, Western Cape Province, South Africa, Western Cape Department of Environmental Affairs and Development Planning, 05/2008 - 04/2010, Principal Environmental Officer

The project entailed the review of impact assessments and appeals in terms of the Environment Conservation Act (ECA). Responsible for site visits and consulting on land development processes.

Unifying and standardising of highway engineering practices, Abu Dhabi, United Arab Emirates (UAE), Abu Dhabi Department of Transport (DoT), 01/2009 - 01/2010, Environmental Practitioner

The project included an environmental impact assessment (EIA) for the Abu Dhabi transport system, relating to the unifying and standardising of highway engineering practices. Responsible for reviewing the manual, completing comment sheets and writing the environmental chapter.

Review of the biodiversity components of municipal spatial development frameworks (SDFs), Western Cape Province, South Africa, South African National Biodiversity Institute (SANBI), 01/2008 - 04/2008, Environmental Practitioner

Zutari was appointed to provide an overview of the requirements for biodiversity in spatial development frameworks (SDFs) and an assessment of the current status of biodiversity in these SDFs in the Western Cape. This formed part of the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF) funded Cape Action for People and the Environment (CAPE).

Independent review of environmental impact assessment (EIA) applications, Eastern Cape Province, South Africa, Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), 02/2007 - 04/2008, Specialist Independent Reviewer

The project entailed the review of environmental impact assessment (EIA) applications to assist the Eastern Cape Province with the processing of the backlog of applications in terms of the Environment Conservation Act (ECA).

Review of impact assessments and appeals, Western Cape Province, South Africa, Western Cape Department of Environmental Affairs and Development Planning, 03/2003 - 12/2006, Environmental Officer

The project involved the review of applications in terms of the National Environmental Management Act (NEMA). Responsible for liaising with relevant authorities with regard to applications, conducting site visits, consulting on land development processes, environmental management program reports, liaising with stakeholders on the implementation of the relevant environmental legislation and checking legal non-compliance. Also responsible for liaising with municipalities and mentoring junior environmental officers.



