Qualifications

MTech Nature Conservation

BTech Nature Conservation

NDip Nature Conservation

Aquaculture Certificate

Professional registrations

Professional Scientist, South African Council for Natural Scientific Professions (SACNSP)

Member, International Association for Impact Assessment South Africa (IAIAsa)

Specialisation

Impact Assessments, Environmental Management Programmes (EMPr), Environmental Control Officer (ECO) and Legislation

years in industry

Wynand Loftus

Senior Consultant

Wynand is an environmental scientist with more than seven years' experience in environmental science, including environmental management, environmental impact assessments (EIAs), and environmental regulatory compliance. He has been involved in a range of projects across South Africa, including EIAs for municipal civil infrastructure and housing, renewable energy developments and environmental auditing and compliance monitoring.

He is experienced in managing full EIA processes, including, amongst others, compiling cost proposals for environmental advisory services; client interaction; budget management; conducting public participation processes (PPPs); compiling project reports such as EIA reports and environmental management programmes (EMPrs); and compiling of environmental maps in ArcView GIS.

Wynand is an experienced environmental control officer (ECO) on various infrastructure and borrow pit projects, with expertise in, amongst others, auditing and monitoring environmental compliance on site, compiling environmental audit reports, and conducting environmental induction training with contractors.

He obtained a Master of Technology in Nature Conservation in 2013 and a Bachelor of Technology in 2011, both from the Nelson Mandela Metropolitan University (NMMU) in South Africa. He is registered as a professional scientist with the South African Council for Natural Scientific Professions (SACNASP) and is a member of the International Association for Impact Assessment South Africa (IAIAsa).

Experience

The Improvements and Management of Gravel Roads for 2020/21, 2021/22 and 2022/23, Western Cape Province, South Africa, Provincial Government of the Western Cape (PGWC): Department of Transport and Public Works (DTPW), Senior Consultant/Environmental Control Officer (ECO

Zutari was appointed to assist the Western Cape DTPW with the improvement and management of gravel roads on the provincial road network. Main role on the appointment is ECO work on gravel roads – environmental induction and training, monitoring compliance with the EMPr, providing environmental advisory services and ensuring that rehabilitation is done, and that mining takes places to ensure good rehabilitation can be achieved. Also assist the DTPW with obtaining landowner approvals for temporary expropriation of land for gravel mining.



ZUTARİ

Namdeb wind monitoring campaign, Namibia, Namdeb, 03/2020 - 12/2021, Senior Consultant to Project Manager

Zutari was appointed to investigate conduct a technical pre-feasibility study of a wind farm to provide electricity for Namdeb's diamond mines along the southern Namibian coastline. Responsible for compilation of environmental screening report and submission to the Namibian Ministry of Environment, Forestry and Tourism.

Nuweveld wind farms, Western Cape Province, South Africa, Red Cap Energy (Pty) Ltd (Red Cap), 03/2019 - 12/2021, Senior Consultant to Project Manager

Appointed to facilitate three environmental impact assessments (EIAs) for the proposed Nuweveld wind farms, and to undertake one basic assessment (BA) process for an approximately 120 km gridline connection. Involved with all delivery related tasks, including compiling reports, full responsibility for the Environmental management Programme (EMPr), conducting site inspections, conducting public participation processes and managing spatial data.

Materials supply for gravel roads, Western Cape Province, South Africa, Provincial Government of the Western Cape (PGWC): Department of Transport and Public Works (DTPW), 02/2015 - 02/2021, Senior Consultant/Environmental Control Officer (ECO)

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. Obtaining approval for the use of material sources was a challenge due to the associated environmental and legal aspects, where legal approval was required from the Department of Mineral Resources (DMR) and from the Department of Environmental Affairs and Development Planning (DEADP). Responsible for carrying out basic assessment (BA) processes to apply for environmental authorisation and mining permits from the DMR. The BA included all relevant authority correspondence and public participation processes (PPPs). Also responsible for carrying out environmental control officer (ECO) duties at various borrow pits throughout the Garden Route and Central Karoo District Municipalities, including site inspections, compiling monthly ECO reports, monitoring mining activities, and corresponding with the two district municipalities.

Environmental advisory services to the Mossel Bay Local Municipality, Western Cape Province, South Africa, Mossel Bay Local Municipality, 01/2019 - 06/2021, Senior Consultant

Appointed on a municipal panel to provide environmental advisory services, including environmental impact assessments (EIAs), basic assessments (BAs) and environmental management programmes (EMPrs). Responsible for compiling and submitting an environmental applicability checklist to the local environmental, competent authority. Also responsible for facilitating the BA and EIA processes.

Environmental advisory services to George Local Municipality, Western Cape Province, South Africa, George Local Municipality, 02/2019 - 02/2021, Senior Consultant

Appointed to carry out the basic assessment (BA) environmental process for remedial works along Rooidraai Road in Herolds Bay. Responsible for compiling basic assessment reports (BARs), 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 - 12/2019, Senior Consultant

Appointed to provide project management services for informal settlement upgrading in the Mossel Bay Local Municipality via the UISP, as a follow on to the National Upgrading Support Programme (NUSP). Aurecon's scope of works included the project planning, procurement of requisite planning and environmental permissions and implementation oversite for 22 informal settlements. Responsible for coordinating environmental processes and project management, including four (4) Section 24G processes



and one (1) amendment application, facilitating specialist inputs and assessments, and corresponding and interacting with relevant organs of state and authorities.

Basic assessment (BA) for the Koeris Wind Energy Facility (WEF) temporary fuel storage facility, Northern Cape Province, South Africa, Mainstream Renewable Power, 10/2018 - 10/2019, Senior Consultant

Appointed to facilitate the requisite basic assessment (BA) environmental process for the construction of a temporary fuel storage facility for the construction period of the Koeries Wind Energy Facility (WEF) in Springbok. Responsible for carrying out the full BA process, including compiling a basic assessment report (BAR) and environmental management programme (EMPr), conducting a full public participation process (PPP) and carrying out all project management related duties.

Environmental planning and compliance for the Working for Wetlands Programme 2017-2019, National, South Africa, Department of Environmental Affairs (DEA), 11/2016 - 06/2019, Senior Consultant

Zutari, in association with GroundTruth, was appointed to undertake the planning and approval processes for the Working for Wetlands Programme for the period 2017-2019. The programme has been mandated to rehabilitate damaged wetlands and to protect pristine wetlands. The methodology followed constitutes three phases. The coarse-scale planning (Phase 1) entails the identification of degraded wetlands for rehabilitation purposes; the detailed planning (Phase 2) is for the identification and design of rehabilitation interventions and obtaining environmental authorisations in terms of the National Environmental Management Act no 107 of 1998 (NEMA) and Phase 3, the provision of implementation support, includes setting out and signing off constructed interventions and monitoring and evaluating wetland rehabilitation projects. Responsible for the compilation of basic assessment reports (BARs), the public participation process (PPP) and application form as well as conducting site inspections.

Ladismith West flood damage repair, Western Cape Province, South Africa, Hatch Goba, 01/2016 - 03/2017, Environmental Control Officer (ECO)

The project entailed providing environmental control officer (ECO) services for the construction and repair of stream crossings along a provincial road. Work was carried out within watercourses and sound environmental management was particularly important. Responsible for conducting site inspections and compiling the ECO reports to ensure compliance with the environmental maintenance management plan (MMP). Also responsible for conducting environmental induction training with the contractor and his staff, informing them of the environmental sensitivity of the site, identifying no-go areas, and educating staff on the importance of practising sound environmental management.

Saffraan Rivier maintenance management plan (MMP), Western Cape Province, South Africa, Private client, 2015 - 03/2017, Consultant/Environmental Control Officer (ECO)

The appointment involved providing environmental advisory services to a private landowner in Oudtshoorn, including correspondence with the competent authority and the compilation of a road management plan and an environmental maintenance management plan (MMP) for the property. Responsible for compiling a road rehabilitation plan and MMP for the farm and acting as environmental control officer (ECO) on the river rehabilitation and alien clearing activities.

Midbrak sewer upgrades and pump station (Great Brak River), Western Cape Province, South Africa, V3 Consulting Engineers, 2016 - 03/2017, Environmental Control Officer (ECO)

The project involved providing environmental control officer (ECO) services for the construction of a main sewer line and pump station. Responsible for conducting site inspections and compiling ECO reports, the post-construction audit report, and post-rehabilitation audit reports. The rehabilitation comprised the replanting a variety of coastal forest species along the pipeline alignment and watering the plants every fortnight. Also responsible for conducting environmental induction training with the contractor and his staff, informing them of the environmental sensitivity of the site, identifying no-go areas and educating staff on the importance of practising sound environmental management.

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V

Environmental audit for the Garden Route Casino, Western Cape Province, South Africa, Garden Route Casino, 07/2018 - 06/2019, Senior Consultant

The project involved providing environmental advisory services and the complete requisite environmental audit for the Garden Route Casino and determining the best way forward for the casino to comply with its responsibilities. Responsible for correspondence with the local environmental competent authority regarding the regulatory environmental audit requirements applicable to the Garden Route Casino. Also responsible for carrying out the environmental audit, compiling an audit report and submitting the report to the competent authority.

Beaufort West 22 kV power lines, Western Cape Province, South Africa, Eskom, 2015 - 2016, Environmental Control Officer (ECO)

The project involved providing environmental control officer (ECO) services for the construction of six 22 kV powerlines through undeveloped land in Beaufort West. Responsible for ECO services.

Environmental impact assessment (EIA) for the extension of ashing facilities at Kriel Power Station, Mpumalanga Province, South Africa, Eskom, 08/2016 - 11/2017, Senior Consultant

Appointed to undertake an environmental impact assessment (EIA) for the extension of an ash dam facility at the Kriel Power Station. The EIA was postponed after the scoping phase was completed in 2011 due to further geotechnical investigation being required for the preferred site. In 2016, Aurecon's appointment was amended to allow for a new EIA process to be undertaken in terms of the latest environmental legislation. Responsible for comparing 2014 National Environmental Management Act (NEMA) EIA regulations with the amended 2017 NEMA EIA Regulations and listing similarly listed activities.

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

The project comprised entailed an environmental impact assessment (EIA) for the development of a 200 MW solar photovoltaic (PV) facility, including a utility scale battery storage facility, as well as transmission line. Aurecon's services included environmental management and advisory, transport assessments, hydrological assessments and stormwater planning. Responsible for assisting the project leader with public participation process (PPP).

Herold Meander mixed-use development, Western Cape Province, South Africa, Sonqua Consulting, 01/2016 - 03/2017, Consultant

The project involved a mixed-used development (i.e. agricultural village) comprising various agricultural components, including amongst others hops farming, small scale product processing, flower farming, honey farming, an aquaculture facility, and grazing for livestock). The housing component and infrastructure included package plant wastewater treatment works (WWTWs), a reservoir and pipelines. The development also has various tourism activities and a community hall. Responsible for carrying out the scoping and environmental impact assessment (EIA) processes, which included compiling environmental reports, and public participation and project management duties such as specialist management and consultation with authorities.

Basic assessment (BA) process for the Bitou Public Safety Centre, Western Cape Province, South Africa, SMEC, 2015 - 2016, Consultant

The project involved a full basic assessment (BA) process for the Bitou Public Safety Centre in Plettenberg Bay. Responsible for compiling reports, including the basic assessment report (BAR) and environmental management plan (EMP); conducting a full public participation process (PPP); and all project management related duties.

Brandwacht Mediclinic amendment application, Western Cape Province, South Africa, Atterbury Property Developments, 2015 - 2016, Consultant

The project involved a Part 2 amendment application process, which included compiling an impact statement report and public participation, for the Brandwacht Mediclinic in Stellenbosch. The original decision was

appealed and therefore an amendment application was submitted via the Western Cape Minister of Environmental Affairs' Office. Responsible for coordinating the amendment application process.

Uitvlug Section 24G application, Western Cape Province, South Africa, Private client, 2014 - 2016, Consultant

The project involved carrying out a full environmental Section 24G process for the illegal construction of a road and vegetation clearance in Oudtshoorn. Responsible for carrying the Section 24G rectification process.

Henque waste management licence (WML), Western Cape Province, South Africa, Henque Waste, 2015, Consultant

Responsible for carrying out a full waste management licence (WML) application for a waste management and sorting facility.

Sonskynvallei Phase 3 municipal housing project, Western Cape Province, South Africa, Mossel Bay Local Municipality, 2014 - 2015, Consultant

The project entailed providing environmental advisory services and carrying out a full basic assessment (BA) environmental process for the municipal housing development in Sonskynsvallei. Infrastructure upgrades associated with the project included increasing the capacity of an existing water reservoir, and constructing a new bulk water pipeline and sewer rising main. Specialist assessments included archaeological, botanical, heritage, traffic and visual assessments. Responsible for carrying out a full BA process, including the compilation of environmental reports such as a basic assessment report (BAR) and environmental management programme (EMPr); conducting a full public participation process (PPP) and all project management related duties, including specialist management and consultation with authorities.

Golden Valley Municipal Housing Project, Western Cape Province, South Africa, George Local Municipality, 2014, Consultant

The project entailed providing environmental advisory services and carrying out a full basic assessment (BA) environmental process for the municipal housing development in Golden Valley, Blanco, George. The project proposal included the establishment of serviced erven, streets and top structures. Responsible for carrying out a full BA process, including the compilation of environmental reports such as a basic assessment report (BAR) and environmental management programme (EMPr); conducting a full public participation process (PPP) and all project management related duties, including specialist management and consultation with authorities.

Conville Municipal Housing Project, Western Cape Province, South Africa, George Local Municipality, 2014, Consultant

The project entailed providing environmental advisory services and carrying out a full basic assessment (BA) environmental process for the municipal housing development comprising of Community Residential Units (CRU, 2 storey walk-ups) in Conville, George. Responsible for carrying out a full BA process, including the compilation of environmental reports such as a basic assessment report (BAR) and environmental management programme (EMPr); conducting a full public participation process (PPP) and all project management related duties, including specialist management and consultation with authorities.

Thembalethu N2 Municipal Housing Project, Western Cape Province, South Africa, George Local Municipality, 2014, Consultant

The project entailed providing environmental advisory services and carrying out a full basic assessment (BA) environmental process for the municipal housing development in Golden Valley, Blanco, George. The project proposal included the establishment of serviced erven, streets and top structures. Responsible for carrying out a full BA process, including the compilation of environmental reports such as a basic assessment report (BAR) and environmental management programme (EMPr); conducting a full public participation process (PPP).



Metrogrounds Municipal Housing Project, Western Cape Province, South Africa, George Local Municipality, 2014, Consultant

The project entailed providing environmental advisory services and carrying out a full basic assessment (BA) environmental process for the municipal housing development in Golden Valley, Blanco, George. The project proposal included the establishment of serviced erven, streets and top structures. Responsible for carrying out a full BA process, including the compilation of environmental reports such as a basic assessment report (BAR) and environmental management programme (EMPr); conducting a full public participation process (PPP) and all project management related duties, including specialist management and consultation with authorities.

Erf 325 East Municipal Housing Project Amendment Application, Western Cape Province, South Africa, George Local Municipality, 2014 - 2017, Consultant

Compilation of Impact Statement Report in support of an application to amend the existing Environmental Authorisation and assist the project manager with public participation related tasks e.g. placing adverts and compiling and distributing notifications.

Pre-Feasibility Environmental Constraints Analysis for George Municipality Housing Infill, Western Cape Province, South Africa, George Local Municipality, 2014 - 2017, Consultant

Investigated various proposed infill housing sites throughout George. Compilation of a pre-feasibility constraints report which included presenting the sites spatially with all the relevant (and available) desktop based environmental GIS information and determining whether further environmental investigations in terms of NEMA would be required. A recommendation relating to the required environmental approvals were also made.

CANDICE DÜRR

PROFILE

Candice Dürr obtained her BSc degree (Zoology and Geography) from the North West University's Potchefstroom Campus in 2009. After building her career experience in environmental sciences at NCC Environmental Services she enrolled at the University of South Africa (UNISA) and completed her BSc Honours degree in Environmental Management in 2014. During this time Candice was appointed as an environmental assessment practitioner at Aurecon South Africa's Pretoria office where she gained vast and valuable experience in a broad range of fields such as Environmental Impact Assessments (EIAs), Environmental Monitoring and Auditing, Environmental Screening and Water- and Waste Management License Applications, to name a few.

Candice is a hard-working, enthusiastic environmental scientist with over seven years of environmental science and a combined total of three years of customer care experience.

An employee who has always been praised by previous employers for excellent quality of work done with integrity and humility, timeous completion of projects and eagerness to learn. Strong report writing skills, ability to manage a budget, excellent organisational skills, good client relations and a "get it done WELL" attitude are a few of the skills that have ensured previous success in on- or off-site projects.

Candice currently works as a freelance environmental assessment practitioner on various projects.

PERSONAL DETAILS

Nationality	South African
Email address	durrenvironmental@gmail.com
Contact number	074 368 1824

EXPERIENCE

FREELANCE ENVIRONMENTAL ASSESSMENT PRACTITIONER, CANDICE DURR ENVIRONMENTAL SERVICES, PRETORIA, SOUTH AFRICA –CURRENT

After returning to South Africa from the UAE, I was afforded the opportunity to return to my profession as an environmental assessment practitioner in a freelancing capacity in January 2021. Current projects include Part 2 Amendment Applications, EIAs and Environmental Monitoring and Auditing.

ENVIRONMENTAL SCIENTIST, AURECON, PRETORIA, SOUTH AFRICA – 2012-2016

I was employed as an environmental scientist in Aurecon's Tshwane office. I gained valuable experience as an environmental assessment practitioner (environmental impact assessments (EIAs) and statements), environmental control officer, environmental compliance auditor and other environmental management roles. Each EIA project included a social impact assessment and public meetings. In addition to the above roles, I also gained experience while working on various green building projects throughout South Africa and am proficient in the compilation of environmental management plans and MAN-06 short correlation reports for green star submissions. I am also knowledgeable in water use licence applications and integrated waste management license applications.

ENVIRONMENTAL MANAGER, NCC ENVIRONMENTAL SERVICES, CAPE TOWN, SOUTH AFRICA – 2010-2012

I was employed by NCC as an environmental manager in the head office in Tokai, Cape Town where I was environmental advisor to a project manager on the Kusile Power Station Project - the largest construction project in the Southern Hemisphere at the time. My roles included ensuring compliance to existing environmental authorisations, permits, water use licenses and waste management licenses as well as the managing the application process for new authorisations, permits and licenses. It was a very hands-on, project focussed role where I learned a tremendous amount of practical ways to manage project-specific environmental issues and gained valuable knowledge about large-scale construction.

EDUCATION

- University of South Africa Bachelor of Science Honours degree (Environmental Management), 2014
- University of the North West (Potchefstroom campus) Bachelor of Science degree (Environmental and Biological Sciences, majors in Geography and Zoology), 2009
- Centre for Environmental Management (Potchefstroom University) NQ7 certificate in environmental law, 2011
- Vetta Communication certificate in conflict management, 2010

SKILLS

Career specific skills which I am hoping to bring to your company include the following:

- Draft, compile and submit environmental authorisation applications, scoping reports, basic assessment reports and environmental impact assessments.
- Draft, compile and submit water use and waste management license applications.
- Compile environmental management programmes (EMPr) as part of the EIA process as well as post authorisation process.
- Compile EMPr for Green Star Building submissions.
- Environmental monitoring and regulations and permit implementation for contractor/developer.
- Environmental Control Officer (ECO) duties as required by the approved environmental authorisation.
- Environmental screenings and offering input into pre-scoping phase designs and route determinations.
- Presenting environmental issues to stakeholders and interested and affected parties.

In addition to the skills mentioned above, I have also mastered the followings skills, to name a few:

- Computer literate proficient in Microsoft Office including Work, Excel, Project and Powerpoint.
- Strong administrative skills.
- Excellent written and verbal communication skills. Can conduct webinars, chair meetings and speak in front of large groups.
- Strong report writing.
- Good client relations.
- GIS capabilities.
- Process driven and strong ability to follow instructions.
- Project leader skills.
- Attention to detail.

REFERENCES

Reuben Heydenrych Associate / Senior Environmental Practitioner / Landscape Architect Aurecon South Africa <u>reuben.heydenrych@aurecongroup.com</u> +27 12 427 2000

Mohil Singh Project Manager Eskom <u>mohil.Singh@eskom.co.za</u> +27 82 853 3878

Jonathan Szöke Line Manager NCC Environmental Services JonathanS@ncc-group.co.za +27 83 232 6356

Clair Corless Housing Manager Cherokee Nation Construction Services ccorless@dsduae.com +97155 254 2203 QUALIFICATIONS

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NORTH-WEST UNIVERSITY YUNIBESITI YA BOKONE-BOPHIRIMA NOORDWES-UNIVERSITEIT

BACHELOR OF SCIENCE

in

ENVIRONMENTAL AND BIOLOGICAL

awarded to

CANDICE BEECH

after complying with all the requirements

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This is an English translation of the content of the original certificate issued in Afrikaans and conferred at a graduation cetemony held on 9 September 2009.





CANDICE BEECH

having complied with the requirements of the Higher Education Het and the Institutional Statute, was admitted to the degree of

BACHELOR OF SCIENCE HONOURS

in Environmental Management

at a congregation of the University on 3. June 2014

M. 1-1+ mentallanya Vice-Chancellor Executive Dean





Centre for Environmental Management

This is to certify that

C BEECH 8505150096089

successfully completed the course

Environmental Law for Environmental Managers NQF Level: 7

CEM-02.1/0103/2011

18-23 July 2011

Prof. JC Nel Executive Manager: Centre for Environmental Management Course Leader

Prof. JJ Pienaar Dean Faculty of Natural Science

PROJECT EXPERIENCE

Desilting of the Growthpoint stormwater control dam (Gauteng Province, South Africa). Environmental Consultant. A small stormwater control dam is situated at the lowest point of the Growthpoint Business Park in Midrand. Over the existence of the business park, silt has accumulated in the dam to such an extent that the dam is now filled and has virtually no capacity left. Therefore, Growthpoint intends to desilt the dam. Responsible for the compilation of the maintenance management plan, which is to be submitted to the competent authority for approval in order to authorise the regular desilting of the dam. (Growthpoint Properties).

Olifants River Water Resources Development Project - Phase 2 (Limpopo and Mpumalanga Province, South Africa). Environmental Assessment Practitioner. The Olifants River Water Resources Development Project (ORWRD) Phase 2 is the continuation of the previous bulk water pipeline phases to deliver water from the new De Hoop dam to surrounding areas. Responsible for borrow pit license applications, updating of the environmental management plan (EMP) and updating the environmental technical specifications document. (TCTA on behalf of Department of Water and Sanitation).

Mogalakwena Local Municipality - various overhead line (OHL) projects (Limpopo Province, South Africa). Environmental Consultant. The Municipality appointed Aurecon to conduct a screening and prefeasibility exercise to determine whether overhead power lines can be constructed in the area. Responsible for compilation of the screening report in terms of the environmental requirements that the proposed project would require. (Mogalakwena Local Municipality).

Environmental impact assessment (EIA) for 140 MW Esiama gas-fired generation plant (Western and Ashanti Region, Ghana). *Environmental Consultant*. The project entailed the update and completion of the environmental impact assessment (EIA) process for the 140 MW gas-fired generation plant in Esiama in Ghana. This included specialist studies for air quality, noise, ecology and waste. Responsible for update and completion of the EIA process and submission to the Ghana EPA who granted the environmental permit. (Aggreko International Project).

Mabopane Cemetery expansion basic assessment report (BAR) (Gauteng Province, South Africa). Environmental Consultant. Aurecon was appointed to compile a report on the Basic Assessment Process in terms of the National Environmental Management Act (No 107 of 1998) for the proposed expansion of the existing Mabopane Cemetery. Responsible for the compilation of the project's environmental management programme (EMPr). (City of Tshwane).

Pomona extension 186 (Gauteng Province, South Africa). *Environmental Consultant.* Aurecon provided environmentally sustainable design (ESD) and mechanical services for development of a contemporary warehouse with an office component pursuing a Green Star certification. Responsible for compilation of the project's environmental management plan (EMP). (Mont Blanc Projects & Properties (MBPP)).

Kimberley-Homestead power line (Northern Cape Province, South Africa). *Environmental control officer (reviewer)*. Aurecon provided environmental control officer services for the construction of a 132 kV distribution power-line from Kimberley to Homestead. Responsible for review of the on-site ECO reports. (Eskom Holdings).

Klipplaats 400 kV line deviation (Mpumalanga Province, South Africa). *Environmental Assessment Practitioner.* The project entailed environmental studies, a water use license application and preliminary design for the Klipplaats 400 kV deviation at the Tweefontein Coal Mine. Responsible for compilation and submission of the basic assessment report, public participation practitioner. (Glencore Xstrata Coal South Africa).

Shisha Bridge basic assessment (Limpopo Province, South Africa). Environmental Assessment Practitioner (reviewer). Aurecon provided environmental services on the NEMA basic assessment process for the repair and upgrading of the Shisha River low level bridge. Responsible for reviewing the environmental management plan (EMP) for the project. (Gibb Engineering & Science PTA).

Novartis Head Office (Gauteng Province, South Africa). Environmental Control Officer (ECO)/Environmental Consultant. The project comprised environmentally sustainable design (ESD) services and leadership in energy and environmental design (LEED) submission for the new Novartis Head Office in Waterfall City, Midrand. Responsible for compiling the environmental management plan (EMP) and conducted monthly ECO audits to audit compliance of the project with the EMP. Also compiled the erosion and sedimentation control (ESC) plan for submission. (Atterbury Waterfall Investment).

Rooiberg landfill waste management licence applications (Limpopo

Province, South Africa). Environmental Assessment Practitioner. Aurecon was appointed to conduct the waste license application process to license the Rooiberg waste disposal facility. Responsible for compiling the basic assessment report, public participation and waste license application forms. (Department of Environmental Affairs (DEA)).

Mechanical and environmentally sustainable design (ESD) for the new Discovery head office in Sandton (Gauteng Province, South Africa). Environmental Control Officer (ECO)/Environmental Consultant. Aurecon was contracted to provide mechanical and environmentally sustainable design (ESD) on the new head office for Discovery in Sandton. This resource-efficient and cost-effective building, developed in joint venture by Growthpoint Properties Limited and Zenprop Property Holdings, is one of the largest single commercial office developments in Africa. There are existing buildings in the proposed development area which will be demolished. Extensive earth works and lateral support will also form part of the construction phase related to the development. Responsible for compiling the environmental management plan (EMP) and conducting monthly ECO audits to audit compliance of the project with the EMP. Also compiled the MAN-6 short report which is a correlation report between the EMP and the requirements of the New South Wales guidelines. (Growthpoint Properties).

Amersfoort Abattoir (Mpumalanga Province, South Africa). Environmental Assessment Practitioner (reviewer). The proposed poultry abattoir will be designed to a capacity that will allow for a slaughter of 150 000 broilers per week. Aurecon was appointed by the Mpumalanga Department of Agriculture, Rural Development, and Land Administration (DARDLA) through Royal HaskoningDHV who are acting as the engineering consultants on this proposed project, to conduct the environmental impact assessment (EIA) for the proposed Amersfoort Poultry Abattoir located to the south of Ezamokuhle Township. Responsible for reviewing the environmental management plan (EMP) for the project. (Royal HaskoningDHV).

Servitudes and environmental management plan (EMP) for transmission line construction (Mpumalanga Province, South Africa). Environmental Assessment Practitioner. Aurecon's appointment entails the acquisition of options to register servitudes over land within an environmentally approved corridor for 2 x 400 kV transmission lines for a distance of 119.611 km from Matla Power Station near Secunda, Mpumalanga Province to Jupiter B Substation, in the vicinity of Rosherville, Gauteng Province and the management of the environmental management

plan (EMP) during construction of the corridor on behalf of Eskom. Responsible for the compilation of the construction and operational management plan. (Eskom Holdings SOC Limited).

Basic assessment (BA) and environmental management plan (EMP) for the Pangaea/Kanga 88 kV power lines (Mpumalanga Province, South Africa). Environmental Assessment Practitioner. Eskom proposed the establishment of two 88 kV substations (Pangaea and Kanga) and two 88 kV loop-in, loop-out lines from the existing 88 kV Erasmus-Arbor line in order to ensure electric supply for the upcoming Kusile Railway Line. Aurecon was appointed to conduct a basic assessment for the proposed routes chosen for the construction of the power lines. Responsible for environmental assessments and author of the environmental management plan (EMP). (Eskom Distribution).

Site specific environmental management plan (EMP) and water use license (WUL) compilation for the Umfolozi-Mbewu power line and new substation (KwaZulu-Natal Province, South Africa). Author of the Environmental Management Plan (EMP). After undergoing the necessary environmental impact assessments (EIAs) and stakeholder engagement processes, Eskom Transmission received environmental authorisation (EA) (Ref: 12/12/20/881) from the National Department of Environmental Affairs (DEA) to construct a 765 kV transmission line between the proposed new Mbewu substation near Empangeni to the existing Umfolozi substation near Ulundi in the Zululand and Uthungula District Municipality. Aurecon was appointed to assist in the compilation of the required environmental management plan (EMP) and to submit the plan to the department for approval, after which it will form part of the environmental obligations of Eskom and its appointed contractors during the construction phase of the project. Responsible for compiling the site specific environmental management plan (EMP). (Eskom Holdings Ltd).

Bathlako Mine annual environmental management plan (EMP) audit (North West Province, South Africa). *External Auditor*. Batlhako Mining appointed Aurecon as external environmental auditor. The audit entailed providing an assessment of the effectiveness of the measures taken by the authorisation holder (Batlhako Mine) to comply with the requirements set out in the approved environmental management plan (EMP). Responsible for auditing the mine against the approved EMP requirements. (Bathlako Mining Ltd).

Environmental services for the demolition and construction of the

Illovo Edge III Project (Gauteng Province, South Africa). *Environmental Control Officer (ECO)/Environmental Consultant*. The project entailed the provision of environmentally sustainable design (ESD) services to help Mont Blanc Projects & Properties (MBPP) in achieving a Green Star SA Rating for Phase 3 of the Illovo Edge office development. Responsible for the compilation of an EMP and a MAN-06 correlation report. (Mont Blanc Projects & Properties (MBPP)).

Environmental impact assessment (EIA) for the Swaziland Rail Link Project (South Africa and Swaziland). Environmental Assessment Practitioner. Aurecon was appointed to provide environmental services for the required environmental impact assessment (EIA) for 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 consists of various works, including the upgrading of existing railway sections (including rebuilding certain sections), construction of an entirely new rail link from Lothair to Sidvokodvo in Swaziland and the construction of new rail yards. Responsible for environmental assessments, compiling the EIA reports and authoring the environmental management plans (EMPs) for the project. (Transnet Capital Project (TCP)).

Menlyn Park Shopping Centre reconfiguration, Phase 1 and 2 (Gauteng Province, South Africa). Environmental Control Officer (ECO)/Environmental Consultant. Aurecon has been the consulting engineers on Menlyn Shopping Centre since 1998 and has been involved in all upgrades and alterations ever since. The recent reconfiguration of the mall includes the expansion and refurbishment of the facility. Aurecon was contracted to provide heating, ventilation and air conditioning (HVAC); civil and structural services for this project. Responsible for the compilation of an EMP and a MAN-06 correlation report. (Old Mutual).

Environmentally sustainable design (ESD) for the Maxwell Office Park (Gauteng Province, South Africa). *Environmental Control Officer (ECO)*. Aurecon was appointed as the environmentally sustainable design (ESD) consultants for several buildings in the Maxwell Office Park in Midrand. The 4-Star green rated buildings comprise three storeys and include a number of sustainable features. Responsible for conducting weekly site visits and monthly environmental management plan (EMP) audits as independent environmental control officer (ECO). (Atterbury Properties).

Design of Atholl Towers office development (Gauteng Province, South Africa). *Environmental Control Officer (ECO).* The project involved the environmentally sustainable design (ESD) for the Atholl Towers office development between Katherine and Patricia Streets in Atholl. Aurecon has been appointed as the ESD consultants and landscape architects. Responsible as independent environmental control officer (ECO) for conducting monthly environmental management plan (EMP) audits and compiling MAN-06 short correlation reports for green star submission. (BLW Properties).

Environmental services for the demolition and refurbishment of the Atrium on 5th Project (Gauteng Province, South Africa). Environmental Control Officer (ECO)/Environmental Consultant. The project comprised the refurbishment and upgrading of the 10-storey Atrium on 5th's concrete office block in Sandton central business district (CBD) to a more modern-looking building by erecting a new glass façade. Aurecon is providing the structural engineering and environmentally sustainable design (ESD) services for the Atrium on 5th project. Atrium on 5th has been awarded a Green Star Office v1 Design rating by the Green Building Council of South Africa (GBCSA). Responsible for conducting monthly environmental management plan (EMP) audits as well as the compilation of an EMP and a MAN-06 correlation report. (Liberty Properties).

Design and construction of a new office building for the Department of Government Communication and Information System (GCIS) (Gauteng Province, South Africa). Environmental Control Officer (ECO). The project entailed the design and construction of a new multi-storey office building For the Government Communication and Information System (GCIS) in Hatfield. The building design achieved a 4-Star Green rating from the Green Building Council of South Africa (GBCSA). Responsible for conducting monthly environmental management plan (EMP) audits as independent environmental control officer (ECO). (Growthpoint Properties).

8 Melville Road Office building (Sandton, Gauteng, South Africa). Environmental Control Officer (ECO). The project entailed the design and construction of a green building in Sandton. Responsible for conducting monthly environmental management plan (EMP) audits. (Intaprop (Pty) Ltd).

Environmentally sustainable design (ESD) consultant for Lakeside Office Park, Block 3 (Gauteng Province, South Africa). Environmental Control Officer (ECO). The major refurbishment of the building was undertaken by Growthpoint Properties in collaboration with AMA Architects. Aurecon was appointed as the environmentally sustainable design (ESD) consultant for the refurbishment of the Lakeside Office Park, Block 3. The building won the SAPOA 2013 Overall Green Award. Responsible for conducting monthly environmental management plan (EMP) audits. (Growthpoint Properties).

Environmental services for the construction of the USAID additional office space project (Gauteng Province, South Africa). Environmental Control Officer (ECO)/Environmental Consultant. USAID undertook the design and construction of additional office space for the proposed expansion of USAID and other US Government Agencies operations in Southern Africa. USAID Southern Africa is situated on a 3.5 hectare portion in the Groenkloof area in Pretoria. Responsible for conducting monthly environmental management plan (EMP) audits as well as the compilation of an EMP and a MAN-06 correlation report. (CJ Irons).

Redevelopment of a warehouse and office building for Grundfos (Gauteng Province, South Africa). Environmental Control Officer (ECO). Aurecon was appointed to provide engineering services, environmentally sustainable design (ESD) and act as the principal agent for the redevelopment of a warehouse of approximately 6 300 m² and an office building of approximately 3 300 m² for Grundfos. Responsible for conducting monthly environmental management plan (EMP) audits as independent environmental control officer (ECO). (Growthpoint Properties).

Construction of MTC Office building (Gauteng Province, South Africa). *Environmental Control Officer (ECO).* The project involved the construction of a new building for Gautrain's Head Offices in Midrand. Aurecon was appointed for the environmentally sustainable design (ESD) and landscape architecture for the building and the streetscape design linking the building with the station. Responsible for conducting monthly environmental management plan (EMP) audits. (Growthpoint Properties).

Environmental control officer (ECO) services for the construction of *Umtu substation and power line* (Northern Cape Province, South Africa). Environmental Control Officer (ECO). Kalahari Resources (Pty) Ltd (Kalagadi Manganese) made an application to Eskom Distribution for the provision of a new substation at the Kalahari Resources Umtu site in order to supply the power required for a new manganese mine and sinter plant situated in close proximity to Hotazel, on Farm Umtu No. 281, in the Kgalagadi District Municipality. Following this, Eskom identified the Kalahari

Resources application as an opportunity to strengthen the Hotazel Distribution network by building a new 132 kV line from the new substation at the Umtu site through to Hotazel distribution substation. Responsible for monitoring and auditing the environmental management plan (EMP) on a bi-weekly basis. (Eskom Distribution).

Lynnwood Bridge office building, Phase 3 (Gauteng Province, South Africa). Environmental Control Officer (ECO)/Environmental Consultant. This project comprised the provision of engineering services for the third phase of the development of the Lynnwood Bridge office building. Responsible for conducting monthly environmental management plan (EMP) audits as well as the compilation of an EMP, a watercourse management plan (WMP) and a MAN-06 correlation report. (Atterbury Properties).

Ingula pumped storage scheme (KwaZulu-Natal Province, South Africa). *Environmental Consultant.* The Eskom Ingula PSS project will utilise surplus electricity that is generated during off-peak hours to pump water from the lower to the upper reservoir where the water is released again during peak load hours to generate wanted electricity. Eskom holds a water use license (WUL) for this project. Aurecon was appointed to conduct annual auditing of the compliance to this license. Responsible as external auditor for auditing of the WUL in 2014 and 2015. (Eskom Holdings SOC Limited).

Engineering services for the new Hyundai headquarters (Gauteng Province, South Africa). Environmental Control Officer (ECO). The client required a cost-effective design that meets the requirements of a 4-Star Green Star SA - Office Design v1 rating for the Hyundai Automotive headquarters in Bedfordview. Aurecon was engaged to provide a wide range of innovative engineering services for this environmentally-friendly building. Responsible for conducting monthly environmental management plan (EMP) audits. (M&F Giuricich Developments (Pty) Ltd).

Ash disposal facility (Mpumalanga Province, South Africa). Environmental Consultant. The project was concerned with a 60-year ash disposal facility for the Kusile Power Station Project in Balmoral. Responsible for ensuring sufficient and complete environmental impact assessment (EIA) process and the water use licence application (WULA). (Eskom).

CONCO construction monitoring (Mpumalanga Province, South Africa). *Environmental Officer.* CONCO appointed Aurecon to act as the

contractor's environmental officer for the construction of the 400 kV loops. Responsible as relief environmental officer representing the contractor in ensuring all environmental requirements are implemented on site. (Consolidated Power Projects (Pty) Ltd (CONCO)).

Environmental impact assessment (EIA) and route determination for the Duvha-Minerva line deviation (Mpumalanga Province, South Africa). Environmental Advisor. The project entailed an environmental impact assessment (EIA) and route determination for the deviation of the existing 400 kV Duvha-Minerva transmission line in order to clear the mining rights area for Anglo Coal. Responsible for advising on all aspects of the EIA as well as the determination of the most feasible route; assessing the need for a water use license (WUL) and monitoring and reviewing the progress of consultants performing the assessments. Also responsible for integration with Anglo Coal regarding scheduling issues, servitude environmental agreements and issues. (Eskom Group Capital/Transmission).

Co-disposal ash/gypsum facility (Mpumalanga Province, South Africa). *Environmental Advisor.* The project was concerned with a co-disposal facility of ash and gypsum for the flue-gas desulfurization (FGD) system of the Kusile Power Station Project. Responsible for environmental assessment gap analysis, in collaboration with environmental lawyers, to determine whether the disposal facility has obtained sufficient authorisation to commence with both construction and operation. Also responsible for obtaining water use licence (WUL) and integrated waste management licence. (Eskom Group Capital/Transmission).

Kusile Railway Line (Mpumalanga Province, South Africa). *Environmental Consultant.* The project was concerned with a 24 km railway line siding from the existing Pretoria-Witbank line to Kusile Power Station for the transportation of limestone. Responsible for ensuring sufficient and complete environmental impact assessment (EIA) process and the water use licence application (WULA). (Eskom).

Duplication of the Vlakfontein-Mamelodi pipeline, Phase 2 (Gauteng Province, South Africa). *Environmental Consultant.* The project involved the duplication of a 52 km water supply pipeline, routed adjacent to the existing Rynfield-Mamelodi R1 and H26 pipelines, within the existing servitudes from Vlakfontein to Mamelodi. Responsible for the compilation and submission of water use licence applications (WULAs). (Rand Water).

Augmentation of the Moreleta outfall sewer (Gauteng Province, South

Africa). Environmental Control Officer (ECO). The Moreleta Spruit outfall sewer had insufficient capacity to handle the flow of sewage, resulting in regular spillage of raw effluent. Aurecon was appointed for the feasibility and preliminary design of the Moreleta Spruit outfall sewer to determine the most viable option for refurbishment and upgrading. The detailed design, environmental impact assessment (EIA), geotechnical investigation and project risk assessment of the required works were completed in Phases 1 and 2. Phase 3 involved the rehabilitation of outfall/collector sewer pipes in the Moreleta Spruit catchment area. Responsible for conducting monthly environmental management plan (EMP) audits as independent environmental control officer (ECO). (City of Tshwane).

Qualifications

BSc Environmental Geography

Specialisation

Environmental management

6

years in industry

David Rathobei



Senior Environmental Practitioner

David is a qualified environmental scientist proficient in conducting field surveys, collecting data to establish baseline condition levels of pollution or contamination for a site or area of consideration and developing plans to prevent, control or fix environmental problems, such as soil or water pollution. He is experienced in data interpretation, development of conceptual models and report writing.

David obtained a Bachelor of Science degree in Environmental Geography from the University of the Free State in 2014 and is currently busy with his Master's degree in Sustainable Mining and Remediation Management.

Experience

Asset management for existing housing projects in Cape Town, Western Cape Province, South Africa, City of Cape Town, 05/2015 - 06/2020, Project Resource

Zutari was requested to rezone and subdivide three portions of historical open spaces within the culturally sensitive neighbourhood of Bo-Kaap in Cape Town. The purpose of this process is to provide legal tenure and transfer ownership to three families who have been living on the land for decades without legal ownership and consequent lack of security of tenure. Responsible for compiling an environmental compliance checklist for municipal-owned housing facilities in Kalksteenfontein in the Bonteheuwel area.

Grid connection infrastructure from proposed Kokerboom wind energy facilities to the existing Eskom Helios substation, near Loeriesfontein, Northern Cape Province, South Africa, Business Venture Investments No1788 (Pty) Ltd, 09/2015 - 06/2018, Project Resource

Kokerboom (Pty) Ltd proposes to construct three wind energy facilities (wind farms) and associated infrastructure, which would be constructed in three phases. Each of these would have maximum generation capacity of 140 to 200 MW with a combined generation capacity of approximately 560 to 800 MW near Loeriesfontein in the Northern Cape. A separate basic assessment is to be undertaken for the 132 kV transmission line. Responsible for assisting with the environmental impact assessment (EIA) reports and public participation process (PPP).

Environmental planning and compliance for the Working for Wetlands Programme for the period 2017 to 2019, Free State, Province, South Africa, Department of Environmental Affairs (DEA), 11/2016 - 04/2018, Project Resource

Zutari, in association with GroundTruth, was appointed to undertake planning and approval processes for the Working for Wetlands Programme for the period 2017 to 2019. The programme is mandated to rehabilitate damaged wetlands and to



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protect pristine wetlands, 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). The project entailed a basic assessment report as well as rehabilitation plans. Responsible to assist with the environmental impact assessment (EIA) reports and public participation process (PPP).

High-level environmental screening assessment, Western Cape Province, South Africa, The University of Stellenbosch, Tygerberg Campus, 08/2017, Project Resource

The project entailed a high level environmental screening assessment. Responsible to conduct the screening assessment.

Table Mountain Group (TMG) Aquifer exploratory phase (Western Cape Province, South Africa) 12/2015 – current. Environmental Scientist/Environmental Control Officer (ECO).

Zutari has been appointed for the project management and conceptual infrastructure planning for the exploratory phase extension of the Table Mountain Group (TMG) Aquifer feasibility study and pilot project. The aquifer can provide large bulk water supply for local municipalities and irrigation water for agriculture in the Western and Eastern Cape. Zutari's scope includes managing the exploration of groundwater in the aquifer system in order to establish the potential of the aquifer as a long-term water resource for the Western Cape. I was responsible for assisting the senior environmental scientist with compiling checklist applications for the Department of Environmental Affairs and Development Planning to assess the need for environmental authorisation as well as assisting with the compilation of a site-specific environmental management plan (EMP) for each of the six proposed borehole sites. Also responsible as the environmental control officer (ECO) to ensure that the mitigation measures included in the EMP are met during the drilling process.

ZESCO Lusaka transmission and distribution refurbishment (TDR) project, Lusaka, Zambia, ZESCO Limited, 10/2014 - 05/2019, Independent Environmental Reviewer

ZESCO intended to reinforce and upgrade the power transmission and distribution infrastructure in the Lusaka area as a priority to increase the capacity and improve the reliability of the electricity network for all consumers throughout the area. Zutari was appointed to carry out investigations and planning, design, procurement, construction supervision and project management services for ZESCO Lusaka transmission and distribution refurbishment project. Responsible for the review of the environmental and social impact assessment and environmental and social management plans against European Investment Bank standards and for .auditing of transmission line and substation contractors against financial institution (EIB and IFC) environmental and social safeguard standards.

Strengthening of TR1/1 George-Oudtshoorn, Western Cape Province, South Africa, Western Cape Government: Department of Transport and Public Works (DTPW), 06/2018 - 12/2021, Environmental Advisor

The Western Cape Government: Department of Transport and Public Works aim to undertake maintenance and upgrades on a section of TR1/1 between George and Oudtshoorn. Responsible for screening of potential sites for upgrading where natural areas will be disturbed, assessing all regulatory requirements for upgrades and water use considerations, and advising on alternatives and best feasible options with least environmental impacts as well as compiling the BAR.

Witzenberg waste projects, Western Cape Province, South Africa, Witzenberg Local Municipality, 09/2017 - 12/2021 Environmental Auditor

Zutari was contracted by the Municipality of Witzenberg for the planning of new solid waste infrastructure, including transfer and drop off facilities for Ceres. The project entailed the preliminary design of six public waste drop off facilities and a central material recover facility and transfer station to service the municipal area. The new solid waste infrastructure provides a modern and streamlined network of waste drop off points for use by the community to drop off their garden waste as well as any other oversized waste not collected by the municipality. It also serves as a depot to drop off recyclable wastes. The material recovery facility will ensure that all recyclables are diverted from landfill, saving the municipality the cost to transport and dispose of the waste. It will also create jobs for the community in the area. Responsible for site visit, liaison with client, review of specialist reports and license/permit documentation to determine compliance to conditions. Also responsible for submission of audit report to the Witzenberg Municipality.



Upgrading of Zandvliet wastewater treatment works (WWTW) (Western Cape Province, South Africa) 03/2014 - 06/2024. Environmental Control Officer.

Zutari was appointed to analyse/plan and design equipment and infrastructure for the capacity extension and refurbishment of Zandvliet wastewater treatment works (WWTW). The refurbishment includes the Maccassar pump station, and the Black-Mac screening station and pipeline. Aurecon was responsible for the documentation and procurement, and contract administration and construction supervision. The capacity of the existing works was extended through the construction of a new membrane bioreactor (MBR) plant, primary settling tanks (PSTs) and sludge dewatering facilities. The existing two 27 Ml/d conventional activated sludge (AS) plants and the 18 Ml/d MBR plant were refurbished with new mechanical equipment. A new administration building was constructed to house an upgraded supervisory control and data acquisition (SCADA) system. Responsible for conducting environmental audits to ensure compliance with the environmental management plans (EMPs) during the construction phase of the project.

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