

CURRICULUM VITAE OF MMAKOENA MMOLA

Profession :	Environmental Assessment Practitioner
Specialisation:	Environmental Permitting, Environmental Assessments, and Compliance
Work Experience:	4 years

VOCATIONAL EXPERIENCE

Mmakoena is an Environmental Consultant with 4 years of experience in the environmental field. She holds a B.Sc. (Hons) in Geochemistry from the University of the Witwatersrand and is currently completing her B.Sc. (Hons) in Environmental Management with the University of South Africa.

Mmakoena's experience includes undertaking environmental permitting and environmental authorisation applications, compiling basic assessment reports, scoping and environmental impact assessment reports and environmental management programmes, executing the public participation process, undertaking environmental compliance audits, providing environmental control officer services, conducting environmental screening assessments, managing sub-consultants, project management and preparing proposals and budgets in response to requests for quotations.

SKILLS BASE AND CORE COMPETENCIES

- Well-developed communication and report writing skills
- Adaptability and ability to handle pressure
- Organisational skills
- Ability to build and maintain client relationships
- Loyalty, dedication and dependability
- Ability to coordinate and synthesize environmental information
- Ability to work to tight deadlines and on multiple projects
- Thorough knowledge of environmental legislation and the environmental impact assessment process
- Quality focus and attention to detail
- Ability to deliver high quality work to agreed budgets
- MS Office Package (Word, PowerPoint and Excel)
- Adobe Acrobat
- Google Earth
- ArcGIS (basic)

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- Bachelor of Science (Hons) Environmental Management, in progress, University of South Africa
- Bachelor of Science (Hons) Geochemistry, 2016, University of the Witwatersrand
- Bachelor of Science Geology, 2015, University of the Witwatersrand

Short Courses:

- Environmental Management and Regulations, 2018, Kuvimbika
- Research Methodology and Report Writing, 2017, Imsimbi Training

Professional Society Affiliations:

- Professional Natural Scientist, Environmental Science, South African Council for Natural and Scientific Professions – Registration Number: 126748

EMPLOYMENT

Date	Company	Roles and Responsibilities
2021 - Current:	Savannah Environmental (Pty) Ltd	<p><i>Environmental Assessment Practitioner</i></p> <p><u>Tasks include:</u></p> <ul style="list-style-type: none"> • Undertake environmental screening assessments, environmental permitting and environmental authorisation applications. • Undertake water use authorisation applications on the e-WULAA system. • Complete Part 1 and Part 2 EA amendment applications and prepare motivation reports in support of applications for Part 2 EA amendments. • Undertake environmental compliance audits and provide ECO services. • Efficient and quality report writing to execute and manage the delivery of environmental impact assessment (EIA) reports and Environmental Management Programmes in line with the requirements of the National Environmental Management Act and EIA Regulations. • Liaison with relevant environmental authorities. • Execution of the public participation process. • Professional client liaison. • Project management. • Manage third parties or sub-consultants to which functions have been outsourced. • Preparation of proposals and budgets.
2019 - 2020	Golder Associates Africa (Pty) Ltd	<p><i>Junior Environmental Consultant</i></p> <p><u>Tasks included:</u></p> <ul style="list-style-type: none"> • Water use license applications • Environmental compliance and water use license audits

Date	Company	Roles and Responsibilities
		<ul style="list-style-type: none"> • Environmental control officer services • Annual integrated water and waste management plan updates • Assist with wetland assessments • Assist with mine closure and rehabilitation plans • Liaise with clients and competent authorities • Provide assistance on local environmental and social impact assessments • Undertake site visits • Compile environmental reports • Generate environmental screening reports • Undertake administrative tasks
2017 - 2019	Shango Solutions	<p>Junior Consultant</p> <p><u>Tasks included:</u></p> <ul style="list-style-type: none"> • Conduct environmental compliance and financial provision audits for prospecting sites as per the MPRDA • Environmental authorisation applications • Prospecting right and mining permit applications • Basic assessment reports • Environmental management programmes/plans • Execute the public participation process • Section 102 amendment applications as per the MPRDA • Prepare maps • Liaise with sub-consultants/specialists • Undertake administrative tasks

PROJECT EXPERIENCE

RENEWABLE POWER GENERATION PROJECTS: SOLAR ENERGY FACILITIES AND WIND ENERGY FACILITIES

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
700MW (7x 100MW) Mutsho Solar PV, Limpopo Province	CRI Eagle	EAP
Angora Wind Energy Facility, Northern Cape Province	Great Karoo Renewable Energy (Pty) Ltd	EAP
Merino Wind Energy Facility, Northern Cape Province	Great Karoo Renewable Energy (Pty) Ltd	EAP
Vrede and Rondavel Solar PV Facilities, Free State Province	Mainstream Renewable Energy Developments (Pty) Ltd	Assistant EAP
400MW (4x 100MW) Pixley Park Solar PV, Northern Cape Province	Mullilo Energy Holdings	EAP

Basic Assessments

Project Name & Location	Client Name	Role
Northam Solar Photovoltaic (PV) Facility, Limpopo Province	Northam Platinum Limited	EAP

Hamlett Wind Energy Facility, Eastern Cape Province (project in progress)	Hamlett (Pty) Ltd	EAP
Becrux Solar PV Facility, Mpumalanga Province	The SOLA Group	EAP

Screening Studies

Project Name & Location	Client Name	Role
Environmental Screening for the Proposed Secunda and Sasolburg Solar PV Facilities, Free State Province and Mpumalanga Province	The SOLA Group	EAP

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Biodiversity Permitting and General Authorisation Applications for the Harmony Tshepong, Nyala and Eland Solar PV Facilities, Free State Province	Nyala Photovoltaic (Pty) Ltd Tshepong Photovoltaic (Pty) Ltd Eland Photovoltaic (Pty) Ltd	EAP
General Authorisation Application for the Northam Solar PV Facility, Limpopo Province	Northam Platinum Limited	EAP

Environmental Authorisation Amendment Applications

Project Name & Location	Client Name	Role
Part I Amendment: Proposed 75MW Sannaspos PV Plant (Phase 1) and its associated infrastructure, Free State Province	ENGIE BU Africa	EAP
Part I Amendment: Construction of the 140MW Korana Wind Energy Facility, Northern Cape Province	Mainstream Renewable Energy Developments (Pty) Ltd	EAP
Part I Amendment: Construction of the 75MW Korana Solar Energy Facility, Northern Cape Province	Mainstream Renewable Energy Developments (Pty) Ltd	EAP
Part I Amendment: Construction of the 140MW Khai-Ma Wind Energy Facility, Northern Cape Province	Mainstream Renewable Energy Developments (Pty) Ltd	EAP

GRID INFRASTRUCTURE PROJECTS

Basic Assessments

Project Name & Location	Client Name	Role
Electrical Grid Infrastructure for the Kolkies and Sadawa PV clusters, Western Cape Province	Mainstream Renewable Energy Developments (Pty) Ltd	EAP
Electrical Grid Infrastructure for the Vrede and Rondavel Solar PV Facilities, Free State Province	Mainstream Renewable Energy Developments (Pty) Ltd	EAP
Sadawa Collector Substation, Western Cape Province	Mainstream Renewable Energy Developments (Pty) Ltd	EAP
Main Transmission Substation (MTS) associated with the Choje Wind Farm cluster, Eastern Cape Province (project in progress)	Wind Relic (Pty) Ltd	EAP

Environmental Authorisation Amendment Applications

Project Name & Location	Client Name	Role
<i>Part I Amendment: Construction of a 132kV power lines associated with the Poortjies Wind Energy Facility, Northern Cape Province</i>	<i>Mainstream Renewable Energy Developments (Pty) Ltd</i>	<i>EAP</i>
<i>Part I Amendment: Construction of a 132kV power lines associated with the Khai-Ma Wind Energy Facility, Northern Cape Province</i>	<i>Mainstream Renewable Energy Developments (Pty) Ltd</i>	<i>EAP</i>

GAS EXPLORATION PROJECTS

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
<i>Kroonstad Gas Exploration Right and Environmental Authorisation, Free State Province</i>	<i>Western Allen Ridge Gold Mines (Pty) Ltd</i>	<i>Assistant EAP and Public Participation Consultant</i>

MINING PROJECTS

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
<i>Pure Source Mine Mining Right Application, Free State Province</i>	<i>Monte Cristo Commercial Park (Pty) Ltd</i>	<i>Assistant EAP and Public Participation Consultant</i>

Basic Assessments

Project Name & Location	Client Name	Role
<i>Basic Assessment for the Western Margin Gap West Prospecting Right, Free State Province</i>	<i>White Rivers Exploration (Pty) Ltd</i>	<i>Assistant EAP</i>
<i>Basic Assessment for the Ventersburg Consolidated Prospecting Right, Free State Province</i>	<i>White Rivers Exploration (Pty) Ltd</i>	<i>Assistant EAP</i>
<i>Basic Assessment for the Nkuzana Prospecting Right, KwaZulu-Natal Province</i>	<i>WRE Base Metals (Pty) Ltd</i>	<i>Junior EAP</i>
<i>Basic Assessment for the Kroonstad North Prospecting Right, Free State Province</i>	<i>White Rivers Exploration (Pty) Ltd</i>	<i>Junior EAP</i>
<i>Basic Assessment for the Vredefort West Extension Prospecting Right, Free State Province</i>	<i>White Rivers Exploration (Pty) Ltd</i>	<i>Junior EAP</i>
<i>Basic Assessment for the Beisa North Prospecting Right, Free State Province</i>	<i>Sunshine Mineral Reserves (Pty) Ltd</i>	<i>EAP</i>
<i>Basic Assessment for the Palmietfontein Mining Permit, North-West Province</i>	<i>Palm Chrome (Py) Ltd</i>	<i>Assistant EAP</i>

Specialist Studies

Project Name & Location	Client Name	Role
<i>New Largo Mine Closure and Rehabilitation Plan, Mpumalanga Province</i>	<i>Seriti Coal</i>	<i>Junior Environmental Consultant</i>
<i>Smarty Minerals Integrated Environmental Authorisation: Wetland Impact Assessment Report, Limpopo Province</i>	<i>Smarty Minerals Investment (Pty) Ltd</i>	<i>Junior Environmental Consultant</i>
<i>Glencore Water Treatment Plant Pipeline: Wetland Monitoring, Mpumalanga Province</i>	<i>Glencore</i>	<i>Junior Environmental Consultant</i>

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
Glencore Merafe Wonderkop Smelter, Regulation 34 Audit, North West Province	Glencore	Auditor
Tshipi Borwa Mine Water Use Licence Audit, Northern Cape Province	Tshipi Borwa Mine	Auditor
Samancor Middelburg Ferrochrome: Construction of ore dryer, Mpumalanga Province	Samancor Middelburg Ferrochrome	ECO
Various Annual Financial Provision and Environmental Compliance Audits for prospecting sites as per the MPRDA, Free State and KwaZulu-Natal Province	White River's Exploration (Pty) Ltd	Auditor
Impala Platinum Limited – Springs annual external Water Use Licence Audit, Gauteng Province	Impala Platinum Limited	Auditor

INFRASTRUCTURE DEVELOPMENT PROJECTS (BRIDGES, PIPELINES, ROADS, WATER RESOURCES, STORAGE, ETC)**Specialist Studies**

Project Name & Location	Client Name	Role
Closure cost model estimate and closure cost report for the Proposed Surface Pipeline and Associated Infrastructure, Gauteng Province	AngloGold Ashanti	Junior Environmental Consultant
Wetland Impact Assessment report for Proposed Surface Pipeline and Associated Infrastructure, Gauteng Province	AngloGold Ashanti	Junior Environmental Consultant

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
MWCAP-2A Environmental Management Audit, Limpopo Province	Nexia SAB&T	Auditor

AGRICULTURE PROJECTS**Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications**

Project Name & Location	Client Name	Role
Dew Crisp Water Use Licence Application, Gauteng Province	Dew Crisp (Pty) Ltd	Junior Environmental Consultant (providing assistance)

OTHER**Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Anglo African Metals Zero Waste Recovery Solution, Mpumalanga Province	Anglo African Metals (Pty) Ltd	EAP
Eskom Majuba Landfill, Mpumalanga Province (project in progress)	Eskom	EAP
Expansion of Recreational and Sports Facilities at the Country Club Johannesburg	Country Club Johannesburg	EAP

CURRICULUM VITAE OF JO-ANNE THOMAS

Profession:	Environmental Management and Compliance Consultant; Environmental Assessment Practitioner
Specialisation:	Environmental Management; Strategic environmental advice; Environmental compliance advice & monitoring; Environmental Impact Assessments; Policy, strategy & guideline formulation; Project Management; General Ecology
Work experience:	Twenty four (24) years in the environmental field

VOCATIONAL EXPERIENCE

Provide technical input for projects in the environmental management field, specialising in Strategic Environmental Advice, Environmental Impact Assessment studies, environmental auditing and monitoring, environmental permitting, public participation, Environmental Management Plans and Programmes, environmental policy, strategy and guideline formulation, and integrated environmental management. Key focus on integration of the specialist environmental studies and findings into larger engineering-based projects, strategic assessment, and providing practical and achievable environmental management solutions and mitigation measures. Responsibilities for environmental studies include project management (including client and authority liaison and management of specialist teams); review and manipulation of data; identification and assessment of potential negative environmental impacts and benefits; review of specialist studies; and the identification of mitigation measures. Compilation of the reports for environmental studies is in accordance with all relevant environmental legislation.

Undertaking of numerous environmental management studies has resulted in a good working knowledge of environmental legislation and policy requirements. Recent projects have been undertaken for both the public- and private-sector, including compliance advice and monitoring, electricity generation and transmission projects, various types of linear developments (such as National Road, local roads and power lines), waste management projects (landfills), mining rights and permits, policy, strategy and guideline development, as well as general environmental planning, development and management.

SKILLS BASE AND CORE COMPETENCIES

- Project management for a range of projects
- Identification and assessment of potential negative environmental impacts and benefits through the review and manipulation of data and specialist studies
- Identification of practical and achievable mitigation and management measures and the development of appropriate management plans
- Compilation of environmental reports in accordance with relevant environmental legislative requirements
- External and peer review of environmental reports & compliance advice and monitoring
- Formulation of environmental policies, strategies and guidelines
- Strategic and regional assessments; pre-feasibility & site selection
- Public participation processes for a variety of projects
- Strategic environmental advice to a wide variety of clients both in the public and private sectors
- Working knowledge of environmental planning processes, policies, regulatory frameworks and legislation

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- B.Sc Earth Sciences, University of the Witwatersrand, Johannesburg (1993)
- B.Sc Honours in Botany, University of the Witwatersrand, Johannesburg (1994)
- M.Sc in Botany, University of the Witwatersrand, Johannesburg (1996)

Short Courses:

- Environmental Impact Assessment, Potchefstroom University (1998)
- Environmental Law, Morgan University (2001)
- Environmental Legislation, IMBEWU (2017)
- Mining Legislation, Cameron Cross & Associates (2013)
- Environmental and Social Risk Management (ESRM), International Finance Corporation (2018)

Professional Society Affiliations:

- Registered EAP with the Environmental Assessment Practitioners Association of South Africa (EAPASA) (2019/726)
- Registered with the South African Council for Natural Scientific Professions as a Professional Natural Scientist: Environmental Scientist (400024/00)
- Registered with the International Association for Impact Assessment South Africa (IAIASa): 5601
- Member of the South African Wind Energy Association (SAWEA)

EMPLOYMENT

Date	Company	Roles and Responsibilities
January 2006 - Current:	Savannah Environmental (Pty) Ltd	Director Project manager Independent specialist environmental consultant, Environmental Assessment Practitioner (EAP) and advisor.
1997 – 2005:	Bohlweki Environmental (Pty) Ltd	Senior Environmental Scientist at. Environmental Management and Project Management
January – July 1997:	Sutherland High School, Pretoria	Junior Science Teacher

PROJECT EXPERIENCE

Project experience includes large infrastructure projects, including electricity generation and transmission, wastewater treatment facilities, mining and prospecting activities, property development, and national roads, as well as strategy and guidelines development.

RENEWABLE POWER GENERATION PROJECTS: PHOTOVOLTAIC SOLAR ENERGY FACILITIES

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Christiana PV 2 SEF, North West	Solar Reserve South Africa	Project Manager & EAP
De Aar PV facility, Northern Cape	iNca Energy	Project Manager & EAP
Everest SEF near Hennenman, Free State	FRV Energy South Africa	Project Manager & EAP
Graafwater PV SEF, Western Cape	iNca Energy	Project Manager & EAP
Grootkop SEF near Allanridge, Free State	FRV Energy South Africa	Project Manager & EAP
Hertzogville PV 2 SEF with 2 phases, Free State	SunCorp / Solar Reserve	Project Manager & EAP

Project Name & Location	Client Name	Role
Karoshhoek CPV facility on site 2 as part of the larger Karoshhoek Solar Valley Development East of Upington, Northern Cape	FG Emvelo	Project Manager & EAP
Kgabalatsane SEF North-East for Brits, North West	Built Environment African Energy Services	Project Manager & EAP
Kleinbegin PV SEF West of Groblershoop, Northern Cape	MedEnergy Global	Project Manager & EAP
Lethabo Power Station PV Installation, Free State	Eskom Holdings SoC Limited	Project Manager & EAP
Majuba Power Station PV Installation, Mpumalanga	Eskom Holdings SoC Limited	Project Manager & EAP
Merapi PV SEF Phase 1 – 4 South-East of Excelsior, Free State	SolaireDirect Southern Africa	Project Manager & EAP
Sannaspos Solar Park, Free State	SolaireDirect Southern Africa	Project Manager & EAP
Ofir-Zx PV Plant near Keimoes, Northern Cape	S28 Degrees Energy	Project Manager & EAP
Oryx SEF near Virginia, Free State	FRV Energy South Africa	Project Manager & EAP
Project Blue SEF North of Kleinsee, Northern Cape	WWK Development	Project Manager & EAP
S-Kol PV Plant near Keimoes, Northern Cape	S28 Degrees Energy	Project Manager & EAP
Sonnenberg PV Plant near Keimoes, Northern Cape	S28 Degrees Energy	Project Manager & EAP
Tutuka Power Station PV Installation, Mpumalanga	Eskom Transmission	Project Manager & EAP
Two PV sites within the Northern Cape	MedEnergy Global	Project Manager & EAP
Two PV sites within the Western & Northern Cape	iNca Energy	Project Manager & EAP
Upington PV SEF, Northern Cape	MedEnergy Global	Project Manager & EAP
Vredendal PV facility, Western Cape	iNca Energy	Project Manager & EAP
Waterberg PV plant, Limpopo	Thupela Energy	Project Manager & EAP
Watershed Phase I & II SEF near Litchtenburg, North West	FRV Energy South Africa	Project Manager & EAP
Alldays PV & CPV SEF Phase 1, Limpopo	BioTherm Energy	Project Manager & EAP
Hyperion PV Solar Development 1, 2, 3, 4, 5 & 6, Northern Cape	Building Energy	Project Manager & EAP
Vrede & Rondavel PV, Free State	Mainstream Renewable Energy Developments	Project Manager & EAP

Basic Assessments

Project Name & Location	Client Name	Role
Aberdeen PV SEF, Eastern Cape	BioTherm Energy	Project Manager & EAP
Christiana PV 1 SEF on Hartebeestpan Farm, North-West	Solar Reserve South Africa	Project Manager & EAP
Heuningspruit PV1 & PV 2 facilities near Koppies, Free State	Sun Mechanics	Project Manager & EAP
Kakamas PV Facility, Northern Cape	iNca Energy	Project Manager & EAP
Kakamas II PV Facility, Northern Cape	iNca Energy	Project Manager & EAP
Machadodorp 1 PV SEF, Mpumalanga	Solar To Benefit Africa	Project Manager & EAP
PV site within the Northern Cape	iNca Energy	Project Manager & EAP
PV sites within 4 ACSA airports within South Africa, National	Airports Company South Africa (ACSA)	Project Manager & EAP
RustMo1 PV Plant near Buffelspoort, North West	Momentous Energy	Project Manager & EAP
RustMo2 PV Plant near Buffelspoort, North West	Momentous Energy	Project Manager & EAP
RustMo3 PV Plant near Buffelspoort, North West	Momentous Energy	Project Manager & EAP
RustMo4 PV Plant near Buffelspoort, North West	Momentous Energy	Project Manager & EAP

Project Name & Location	Client Name	Role
Sannaspos PV SEF Phase 2 near Bloemfontein, Free State	SolaireDirect Southern Africa	Project Manager & EAP
Solar Park Expansion within the Rooiwal Power Station, Gauteng	AFRKO Energy	Project Manager & EAP
Steynsrus SEF, Free State	SunCorp	Project Manager & EAP
Sirius Solar PV Project Three and Sirius Solar PV Project Four (BA in terms of REDZ regulations), Northern Cape	SOLA Future Energy	Project Manager & EAP
Northam PV, Limpopo Province	Northam Platinum	Project Manager & EAP
Kolkies PV Suite (x 6 projects) and Sadawa PV Suite (x 4 projects), Western Cape	Mainstream Renewable Energy Developments	Project Manager & EAP

Screening Studies

Project Name & Location	Client Name	Role
Allemans Fontein SEF near Noupoot, Northern Cape	Fusion Energy	Project Manager & EAP
Amandel SEF near Thabazimbi, Limpopo	iNca Energy	Project Manager & EAP
Arola/Doomplaat SEF near Ventersdorp, North West	FRV & iNca Energy	Project Manager & EAP
Bloemfontein Airport PV Installation, Free State	The Power Company	Project Manager & EAP
Brakspuit SEF near Klerksorp, North West	FRV & iNca Energy	Project Manager & EAP
Carolus Poort SEF near Noupoot, Northern Cape	Fusion Energy	Project Manager & EAP
Damfontein SEF near Noupoot, Northern Cape	Fusion Energy	Project Manager & EAP
Everest SEF near Welkom, Free State	FRV & iNca Energy	Project Manager & EAP
Gillmer SEF near Noupoot, Northern Cape	Fusion Energy	Project Manager & EAP
Grootkop SEF near Allansridge, Free State	FRV & iNca Energy	Project Manager & EAP
Heuningspruit PV1 & PV 2 near Koppies, Free State	Cronimat	Project Manager & EAP
Kimberley Airport PV Installation, Northern Cape	The Power Company	Project Manager & EAP
Kolonnade Mall Rooftop PV Installation in Tshwane, Gauteng	Momentous Energy	Project Manager & EAP
Loskop SEF near Groblersdal, Limpopo	S&P Power Unit	Project Manager & EAP
Marble SEF near Marble Hall, Limpopo	S&P Power Unit	Project Manager & EAP
Morgenson PV1 SEF South-West of Windsorton, Northern Cape	Solar Reserve South Africa	Project Manager & EAP
OR Tambo Airport PV Installation, Gauteng	The Power Company	Project Manager & EAP
Oryx SEF near Virginia, Free State	FRV & iNca Energy	Project Manager & EAP
Rhino SEF near Vaalwater, Limpopo	S&P Power Unit	Project Manager & EAP
Rustmo2 PV Plant near Buffelspoort, North West	Momentous Energy	Project Manager & EAP
Spitskop SEF near Northam, Limpopo	FRV & iNca Energy	Project Manager & EAP
Steynsrus PV, Free State	Suncorp	Project Manager & EAP
Tabor SEF near Polokwane, Limpopo	FRV & iNca Energy	Project Manager & EAP
Upington Airport PV Installation, Northern Cape	The Power Company	Project Manager & EAP
Valeria SEF near Hartebeestpoort Dam, North West	Solar to Benefit Africa	Project Manager & EAP
Watershed SEF near Lichtenburg, North West	FRV & iNca Energy	Project Manager & EAP
Witkop SEF near Polokwane, Limpopo	FRV & iNca Energy	Project Manager & EAP
Woodmead Retail Park Rooftop PV Installation, Gauteng	Momentous Energy	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO and bi-monthly auditing for the construction of the Adams Solar PV Project Two South of Hotazel,	Enel Green Power	Project Manager

Project Name & Location	Client Name	Role
Northern Cape		
ECO for the construction of the Kathu PV Facility, Northern Cape	REISA	Project Manager
ECO and bi-monthly auditing for the construction of the Pulida PV Facility, Free State	Enel Green Power	Project Manager
ECO for the construction of the RustMo1 SEF, North West	Momentous Energy	Project Manager
ECO for the construction of the Sishen SEF, Northern Cape	Windfall 59 Properties	Project Manager
ECO for the construction of the Upington Airport PV Facility, Northern Cape	Sublary Trading	Project Manager
Quarterly compliance monitoring of compliance with all environmental licenses for the operation activities at the Kathu PV facility, Northern Cape	REISA	Project Manager
ECO for the construction of the Konkoonsies II PV SEF and associated infrastructure, Northern Cape	BioTherm Energy	Project Manager
ECO for the construction of the Aggeneys PV SEF and associated infrastructure, Northern Cape	BioTherm Energy	Project Manager

Compliance Advice and ESAP Reporting

Project Name & Location	Client Name	Role
Aggeneys Solar Farm, Northern Cape	BioTherm Energy	Environmental Advisor
Airies II PV Facility SW of Kenhardt, Northern Cape	BioTherm Energy	Environmental Advisor
Kalahari SEF Phase II in Kathu, Northern Cape	Engle	Environmental Advisor
Kathu PV Facility, Northern Cape	Building Energy	Environmental Advisor
Kenhardt PV Facility, Northern Cape	BioTherm Energy	Environmental Advisor
Kleinbegin PV SEF West of Groblershoop, Northern Cape	MedEnergy	Environmental Advisor
Konkoonsies II SEF near Pofadder, Northern Cape	BioTherm Energy	Environmental Advisor
Konkoonsies Solar Farm, Northern Cape	BioTherm Energy	Environmental Advisor
Lephalale SEF, Limpopo	Exxaro	Environmental Advisor
Pixley ka Seme PV Park, South-East of De Aar, Northern Cape	African Clean Energy Developments (ACED)	Environmental Advisor
RustMo1 PV Plant near Buffelspoort, North West	Momentous Energy	Environmental Advisor
Scuitdrift 1 SEF & Scuitdrift 2 SEF, Limpopo	Building Energy	Environmental Advisor
Sirius PV Plants, Northern Cape	Aurora Power Solutions	Environmental Advisor
Upington Airport PV Power Project, Northern Cape	Sublary Trading	Environmental Advisor
Upington SEF, Northern Cape	Abengoa Solar	Environmental Advisor
Ofir-ZX PV SEF near Keimoes, Northern Cape	Network S28 Energy	Environmental Advisor
Environmental Permitting for the Steynsrus PV1 & PV2 SEF's, Northern Cape	Cronimet Power Solutions	Environmental Advisor
Environmental Permitting for the Heuningspruit PV SEF, Northern Cape	Cronimet Power Solutions	Environmental Advisor

Due Diligence Reporting

Project Name & Location	Client Name	Role
5 PV SEF projects in Lephalale, Limpopo	iNca Energy	Environmental Advisor
Prieska PV Plant, Northern Cape	SunEdison Energy India	Environmental Advisor
Sirius Phase One PV Facility near Upington, Northern Cape	Aurora Power Solutions	Environmental Advisor

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Biodiversity Permit & WULA for the Aggeneys SEF near Aggeneys, Northern Cape	BioTherm Energy	Project Manager & EAP
Biodiversity Permit for the Konkoonises II SEF near Pofadder, Northern Cape	BioTherm Energy	Project Manager & EAP
Biodiversity Permitting for the Lephallale SEF, Limpopo	Exxaro Resources	Project Manager & EAP
Environmental Permitting for the Kleinbegin PV SEF West of Groblershoop, Northern Cape	MedEnergy	Project Manager & EAP
Environmental Permitting for the Upington SEF, Northern Cape	Abengoa Solar	Project Manager & EAP
Environmental Permitting for the Kathu PV Facility, Northern Cape	Building Energy	Project Manager & EAP
Environmental Permitting for the Konkoonsies Solar Farm, Northern Cape	BioTherm Energy	Project Manager & EAP
Environmental Permitting for the Lephallale SEF, Limpopo	Exxaro Resources	Project Manager & EAP
Environmental Permitting for the Scuitdrift 1 SEF & Scuitdrift 2 SEF, Limpopo	Building Energy	Project Manager & EAP
Environmental Permitting for the Sirius PV Plant, Northern Cape	Aurora Power Solutions	Project Manager & EAP
Environmental Permitting for the Steynsrus PV1 & PV2 SEF's, Northern Cape	Cronimet Power Solutions	Project Manager & EAP
Environmental Permitting for the Heuningspruit PV SEF, Northern Cape	Cronimet Power Solutions	Project Manager & EAP
Permits for the Kleinbegin and UAP PV Plants, Northern Cape	MedEnergy Global	Project Manager & EAP
S53 Application for Arriesfontein Solar Park Phase 1 – 3 near Danielskuil, Northern Cape	Solar Reserve / SunCorp	Project Manager & EAP
S53 Application for Hertzogville PV1 & PV 2 SEFs, Free State	Solar Reserve / SunCorp	Project Manager & EAP
S53 Application for the Bloemfontein Airport PV Facility, Free State	Sublunary Trading	Project Manager & EAP
S53 Application for the Kimberley Airport PV Facility, Northern Cape	Sublunary Trading	Project Manager & EAP
S53 Application for the Project Blue SEF, Northern Cape	WWK Developments	Project Manager & EAP
S53 Application for the Upington Airport PV Facility, Free State	Sublunary Trading	Project Manager & EAP
WULA for the Kalahari SEF Phase II in Kathu, Northern Cape	Engie	Project Manager & EAP

RENEWABLE POWER GENERATION PROJECTS: CONCENTRATED SOLAR FACILITIES (CSP)

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Ilanga CSP 2, 3, 4, 5, 7 & 9 Facilities near Upington, Northern Cape	Emvelo Holdings	Project Manager & EAP
Ilanga CSP near Upington, Northern Cape	Ilangethu Energy	Project Manager & EAP

Project Name & Location	Client Name	Role
Ilanga Tower 1 Facility near Upington, Northern Cape	Emvelo Holdings	Project Manager & EAP
Karoshhoek CPVPD 1-4 facilities on site 2 as part of the larger Karoshhoek Solar Valley Development East of Upington, Northern Cape	FG Emvelo	Project Manager & EAP
Karoshhoek CSP facilities on sites 1.4; 4 & 5 as part of the larger Karoshhoek Solar Valley Development East of Upington, Northern Cape	FG Emvelo	Project Manager & EAP
Karoshhoek Linear Fresnel 1 Facility on site 1.1 as part of the larger Karoshhoek Solar Valley Development East of Upington, Northern Cape	FG Emvelo	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO for the construction of the !Khi CSP Facility, Northern Cape	Abengoa Solar	Project Manager
ECO for the construction of the Ilanga CSP 1 Facility near Upington, Northern Cape	Karoshhoek Solar One	Project Manager
ECO for the construction of the folar Park, Northern Cape	Kathu Solar	Project Manager
ECO for the construction of the KaXu! CSP Facility, Northern Cape	Abengoa Solar	Project Manager
Internal audit of compliance with the conditions of the IWUL issued to the Karoshhoek Solar One CSP Facility, Northern Cape	Karoshhoek Solar One	Project Manager

Screening Studies

Project Name & Location	Client Name	Role
Upington CSP (Tower) Plant near Kanoneiland, Northern Cape	iNca Energy and FRV	Project Manager & EAP

Compliance Advice and ESAP reporting

Project Name & Location	Client Name	Role
Ilanga CSP Facility near Upington, Northern Cape	Ilangethu Energy	Environmental Advisor
Ilangaletu CSP 2, Northern Cape	FG Emvelo	Environmental Advisor
Kathu CSP Facility, Northern Cape	GDF Suez	Environmental Advisor
Lephalale SEF, Limpopo	Cennergi	Environmental Advisor
Solis I CSP Facility, Northern Cape	Brightsource	Environmental Advisor

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Environmental Permitting for the Ilanga CSP Facility near Upington, Northern Cape	Ilangethu Energy	Project Manager & EAP
Environmental Permitting for the Kathu CSP, Northern Cape	GDF Suez	Project Manager & EAP
WULA for the Solis I CSP Facility, Northern Cape	Brightsource	Project Manager & EAP

RENEWABLE POWER GENERATION PROJECTS: WIND ENERGY FACILITIES

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Sere WEF, Western Cape	Eskom Holdings SoC Limited	EAP
Aberdeen WEF, Eastern Cape	Eskom Holdings SoC Limited	Project Manager & EAP
Amakhala Emoyeni WEF, Eastern Cape	Windlab Developments	Project Manager & EAP
EXXARO West Coast WEF, Western Cape	EXXARO Resources	Project Manager & EAP
Goereesoe Wind Farm near Swellendam, Western Cape	iNca Energy	Project Manager & EAP
Hartneest WEF, Western Cape	Juwi Renewable Energies	Project Manager & EAP
Hopefield WEF, Western Cape	Umoya Energy	EAP
Kleinsee WEF, Northern Cape	Eskom Holdings SoC Limited	Project Manager & EAP
Klipheuwel/Dassiesfontein WEF within the Overberg area, Western Cape	BioTherm Energy	Project Manager & EAP
Moorreesburg WEF, Western Cape	iNca Energy	Project Manager & EAP
Oyster Bay WEF, Eastern Cape	Renewable Energy Resources Southern Africa	Project Manager & EAP
Project Blue WEF, Northern Cape	Windy World	Project Manager & EAP
Rhebokfontein WEF, Western Cape	Moyeng Energy	Project Manager & EAP
Spitskop East WEF near Riebeeck East, Eastern Cape	Renewable Energy Resources Southern Africa	Project Manager & EAP
Suurplaat WEF, Western Cape	Moyeng Energy	Project Manager & EAP
Swellendam WEF, Western Cape	IE Swellendam	Project Manager & EAP
Tsitsikamma WEF, Eastern Cape	Exxarro	Project Manager & EAP
West Coast One WEF, Western Cape	Moyeng Energy	Project Manager & EAP

Basic Assessments

Project Name & Location	Client Name	Role
Amakhala Emoyeni Wind Monitoring Masts, Eastern Cape	Windlab Developments	Project Manager & EAP
Beaufort West Wind Monitoring Masts, Western Cape	Umoya Energy	Project Manager & EAP
Hopefield Community Wind Farm near Hopefield, Western Cape	Umoya Energy	Project Manager & EAP
Koekenaap Wind Monitoring Masts, Western Cape	EXXARO Resources	Project Manager & EAP
Koingnaas WEF, Northern Cape	Just Palm Tree Power	Project Manager & EAP
Laingsburg Area Wind Monitoring Masts, Western Cape	Umoya Energy	Project Manager & EAP
Overberg Area Wind Monitoring Masts, Western Cape	BioTherm Energy	Project Manager & EAP
Oyster Bay Wind Monitoring Masts, Eastern Cape	Renewable Energy Systems Southern Africa (RES)	Project Manager & EAP
Wind Garden & Fronteer WEFs, Eastern Cape	Wind Relc	Project Manager & EAP

Screening Studies

Project Name & Location	Client Name	Role
Albertinia WEF, Western Cape	BioTherm Energy	Project Manager & EAP
Koingnaas WEF, Northern Cape	Just Pal Tree Power	Project Manager & EAP
Napier Region WEF Developments, Western Cape	BioTherm Energy	Project Manager & EAP
Tsitsikamma WEF, Eastern Cape	Exxarro Resources	Project Manager & EAP

Project Name & Location	Client Name	Role
Various WEFs within an identified area in the Overberg area, Western Cape	BioTherm Energy	Project Manager & EAP
Various WEFs within an identified area on the West Coast, Western Cape	Investec Bank Limited	Project Manager & EAP
Various WEFs within an identified area on the West Coast, Western Cape	Eskom Holdings Limited	Project Manager & EAP
Various WEFs within the Western Cape	Western Cape Department of Environmental Affairs and Development Planning	Project Manager & EAP
Velddrift WEF, Western Cape	VentuSA Energy	Project Manager & EAP
Wind 1000 Project	Thabo Consulting on behalf of Eskom Holdings	Project Manager & EAP
Wittekleibosch, Snylip & Doriskraal WEFs, Eastern Cape	Exxarro Resources	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO for the construction of the West Coast One WEF, Western Cape	Aurora Wind Power	Project Manager
ECO for the construction of the Gouda WEF, Western Cape	Blue Falcon	Project Manager
EO for the Dassiesklip Wind Energy Facility, Western Cape	Group 5	Project Manager
Quarterly compliance monitoring of compliance with all environmental licenses for the operation activities at the Gouda Wind Energy facility near Gouda, Western Cape	Blue Falcon	Project Manager
Annual auditing of compliance with all environmental licenses for the operation activities at the West Coast One Wind Energy facility near Vredenburg, Western Cape	Aurora Wind Power	Project Manager
External environmental and social audit for the Amakhala Wind Farm, Eastern Cape	Cennergi	Project Manager
External environmental and social audit for the Tsitsikamma Wind Farm, Eastern Cape	Cennergi	Project Manager
ECO for the construction of the Excelsior Wind Farm and associated infrastructure, Northern Cape	BioTherm Energy	Project Manager
External compliance audit of the Dassiesklip Wind Energy Facility, Western Cape	BioTherm Energy	Project Manager

Compliance Advice

Project Name & Location	Client Name	Role
Amakhala Phase 1 WEF, Eastern Cape	Cennergi	Environmental Advisor
Dassiesfontein WEF within the Overberg area, Western Cape	BioTherm Energy	Environmental Advisor
Excelsior Wind Farm, Western Cape	BioTherm Energy	Environmental Advisor
Great Karoo Wind Farm, Northern Cape	African Clean Energy Developments (ACED)	Environmental Advisor
Hopefield Community WEF, Western Cape	African Clean Energy Developments (ACED)	Environmental Advisor

Rheboksfontein WEF, Western Cape	Moyeng Energy	Environmental Advisor
Tiqua WEF, Western Cape	Cennergi	Environmental Advisor
Tsitsikamma WEF, Eastern Cape	Cennergi	Environmental Advisor
West Coast One WEF, Western Cape	Moyeng Energy	Environmental Advisor

Due Diligence Reporting

Project Name & Location	Client Name	Role
Witteberg WEF, Western Cape	EDPR Renewables	Environmental Advisor
IPD Vredenburg WEF within the Saldanha Bay area, Western Cape	IL&FS Energy Development Company	Environmental Advisor

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Biodiversity Permitting for the Power Line between the Tsitsikamma Community WEF & the Diep River Substation, Eastern Cape	Cennergi	Project Manager & EAP
Biodiversity Permitting for the West Coast One WEF, Western Cape	Aurora Wind Power	Project Manager & EAP
Environmental Permitting for the Excelsior WEF, Western Cape	BioTherm Energy	Project Manager & EAP
Plant Permits & WULA for the Tsitsikamma Community WEF, Eastern Cape	Cennergi	Project Manager & EAP
S24G and WULA for the Rectification for the commencement of unlawful activities on Ruimsig AH in Honeydew, Gauteng	Hossam Soror	Project Manager & EAP
S24G Application for the Rheboksfontein WEF, Western Cape	Ormonde - Theo Basson	Project Manager & EAP
S53 Application & WULA for Suurplaat and Gemini WEFs, Northern Cape	Engie	Project Manager & EAP
S53 Application for the Hopefield Community Wind Farm near Hopefield, Western Cape	Umoya Energy	Project Manager & EAP
S53 Application for the Project Blue WEF, Northern Cape	WWK Developments	Project Manager & EAP
S53 for the Oyster Bay WEF, Eastern Cape	RES	Project Manager & EAP
WULA for the Great Karoo Wind Farm, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP

CONVENTIONAL POWER GENERATION PROJECTS (COAL)

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Mutsho Power Station near Makhado, Limpopo	Mutsho Consortium	Project Manager & EAP
Coal-fired Power Station near Ogies, Mpumalanga	Ruukki SA	Project Manager & EAP
Thabametsi IPP Coal-fired Power Station, near Lephalale, Limpopo	Axia	Project Manager & EAP
Transalloys Coal-fired Power Station, Mpumalanga	Transalloys	Project Manager & EAP
Tshivasho IPP Coal-fired Power Station (with WML), near Lephalale, Limpopo	Cennergi	Project Manager & EAP
Umbani Coal-fired Power Station, near Kriel, Mpumalanga	ISS Global Mining	Project Manager & EAP

Project Name & Location	Client Name	Role
Waterberg IPP Coal-Fired Power Station near Lephallale, Limpopo	Exxaro Resources	Project Manager & EAP

Basic Assessments

Project Name & Location	Client Name	Role
Coal Stockyard on Medupi Ash Dump Site, Limpopo	Eskom Holdings	Project Manager & EAP
Biomass Co-Firing Demonstration Facility at Arnot Power Station East of Middleburg, Mpumlanaga	Eskom Holdings	Project Manager & EAP

Screening Studies

Project Name & Location	Client Name	Role
Baseload Power Station near Lephallale, Limpopo	Cennergi	Project Manager & EAP
Coal-Fired Power Plant near Delmas, Mpumalanga	Exxaro Resources	Project Manager & EAP
Makhado Power Station, Limpopo	Mutsho Consortium, Limpopo	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO for the Camden Power Station, Mpumalanga	Eskom Holdings	Project Manager

Compliance Advice

Project Name & Location	Client Name	Role
Thabametsi IPP Coal-fired Power Station, near Lephallale, Limpopo	Axia	Environmental Advisor

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Permit application for the Thabametsi Bulk Water Pipeline, near Lephallale, Limpopo	Axia	Project Manager & EAP
S53 & WULA for the Waterberg IPP Coal-Fired Power Station near Lephallale, Limpopo	Exxaro Resources	Project Manager & EAP
S53 Application for the Tshivasho Coal-fired Power Station near Lephallale, Limpopo	Cennergi	Project Manager & EAP

CONVENTIONAL POWER GENERATION PROJECTS (GAS)

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Ankerlig OCGT to CCGT Conversion project & 400 kV transmission power line between Ankerlig and the Omega Substation, Western Cape	Eskom Holdings SoC Limited	Project Manager & EAP
Gourikwa OCGT to CCGT Conversion project & 400kV transmission power line between Gourikwa & Proteus Substation, Western Cape	Eskom Holdings SoC Limited	Project Manager & EAP
Richards Bay Gas to Power Combined Cycle Power Station, KwaZulu-Natal	Eskom Holdings SoC Limited	Project Manager & EAP
Richards Bay Gas to Power Plant, KwaZulu-Natal	Richards Bay Gas Power 2	Project Manager & EAP
Decommissioning & Recommissioning of 3 Gas Turbine Units at Acacia Power Station & 1 Gas Turbine Unit at Port Rex Power Station to the existing	Eskom Holdings	Project Manager & EAP

Project Name & Location	Client Name	Role
Ankerlig Power Station in Atlantis Industria, Western Cape		
320MW gas-to-power station in Richards Bay, KwaZulu-Natal	Phinda Power Projects	Project Manager & EAP

Screening Studies

Project Name & Location	Client Name	Role
Fatal Flaw Analysis for 3 area identified for the establishment of a 500MW CCGT Power Station	Globeleq Advisors Limited	Project Manager & EAP
Richards Bay Gas to Power Combined Cycle Power Station, KwaZulu-Natal	Eskom Holdings SoC Limited	Project Manager & EAP

GRID INFRASTRUCTURE PROJECTS

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Aggeneis-Oranjemond Transmission Line & Substation Upgrade, Northern Cape	Eskom Transmission	Project Manager & EAP
Ankerlig-Omega Transmission Power Lines, Western Cape	Eskom Transmission	Project Manager & EAP
Karoshhoek Grid Integration project as part of the Karoshhoek Solar Valley Development East of Upington, Northern Cape	FG Emvelo	Project Manager & EAP
Koeberg-Omega Transmission Power Lines,, Western Cape	Eskom Transmission	Project Manager & EAP
Koeberg-Stikland Transmission Power Lines, Western Cape	Eskom Transmission	Project Manager & EAP
Kyalami Strengthening Project, Gauteng	Eskom Transmission	Project Manager & EAP
Mokopane Integration Project, Limpopo	Eskom Transmission	Project Manager & EAP
Saldanha Bay Strengthening Project, Western Cape	Eskom Transmission	Project Manager & EAP
Steelpoort Integration Project, Limpopo	Eskom Transmission	Project Manager & EAP
Transmission Lines from the Koeberg-2 Nuclear Power Station site, Western Cape	Eskom Transmission	Project Manager & EAP
Tshwane Strengthening Project, Phase 1, Gauteng	Eskom Transmission	Project Manager & EAP
Main Transmission Substation (MTS) associated with the Choje Wind Farm cluster, Eastern Cape	Wind Relic	Project Manager & EAP

Basic Assessments

Project Name & Location	Client Name	Role
Dassenberg-Koeberg Power Line Deviation from the Koeberg to the Ankerlig Power Station, Western Cape	Eskom Holdings	Project Manager & EAP
Golden Valley II WEF Power Line & Substation near Cookhouse, Eastern Cape	BioTherm Energy	Project Manager & EAP
Golden Valley WEF Power Line near Cookhouse, Eastern Cape	BioTherm Energy	Project Manager & EAP
Karoshhoek Grid Integration project as part of the Karoshhoek Solar Valley Development East of Upington, Northern Cape	FG Emvelo	Project Manager & EAP

Project Name & Location	Client Name	Role
Konkoonsies II PV SEF Power Line to the Paulputs Substation near Pofadder, Northern Cape	BioTherm Energy	Project Manager & EAP
Perdekraal West WEF Powerline to the Eskom Kappa Substation, Western Cape	BioTherm Energy	Project Manager & EAP
Rheboksfontein WEF Powerline to the Aurora Substation, Western Cape	Moyeng Energy	Project Manager & EAP
Soetwater Switching Station near Sutherland, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Solis Power I Power Line & Switchyard Station near Upington, Northern Cape	Brightsource	Project Manager & EAP
Stormwater Canal System for the Ilanga CSP near Upington, Northern Cape	Karoshhoek Solar One	Project Manager & EAP
Tsitsikamma Community WEF Powerline to the Diep River Substation, Eastern Cape	Eskom Holdings	Project Manager & EAP
Two 132kV Chickadee Lines to the new Zonnebloem Switching Station, Mpumalanga	Eskom Holdings	Project Manager & EAP
Electrical Grid Infrastructure for the Kolkies and Sadawa PV clusters, Western Cape	Mainstream Renewable Energy Developments	Project Manager & EAP
Sadawa Collector substation, Western Cape	Mainstream Renewable Energy Developments	Project Manager & EAP
Electrical Grid Infrastructure for the Vrede and Rondavel PV facilities, Free State	Mainstream Renewable Energy Developments	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO for the construction of the Ferrum-Mookodi Transmission Line, Northern Cape and North West	Trans-Africa Projects on behalf of Eskom	Project Manager
EO for the construction of the Gamma-Kappa Section A Transmission Line, Western Cape	Trans-Africa Projects on behalf of Eskom	Project Manager
EO for the construction of the Gamma-Kappa Section B Transmission Line, Western Cape	Trans-Africa Projects on behalf of Eskom	Project Manager
EO for the construction of the Hydra IPP Integration project, Northern Cape	Trans-Africa Projects on behalf of Eskom	Project Manager
EO for the construction of the Kappa-Sterrekus Section C Transmission Line, Western Cape	Trans-Africa Projects on behalf of Eskom	Project Manager
EO for the construction of the Namaqualand Strengthening project in Port Nolloth, Western Cape	Trans-Africa Projects on behalf of Eskom	Project Manager
ECO for the construction of the Neptune Substation Soil Erosion Mitigation Project, Eastern Cape	Eskom	Project Manager
ECO for the construction of the Ilanga-Gordonia 132kV power line, Northern Cape	Karoshhoek Solar One	Project Manager

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Environmental Permitting and WULA for the Rockdale B Substation & Loop in Power Lines,	Eskom Holdings	Project Manager & EAP
Environmental Permitting and WULA for the Steelpoort Integration project, Limpopo	Eskom Holdings	Project Manager & EAP
Environmental Permitting for Solis CSP near Upington, Northern Cape	Brightsource	Project Manager & EAP

MINING SECTOR PROJECTS

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Elitheni Coal Mine near Indwe, Eastern Cape	Elitheni Coal	Project Manager & EAP
Groot Letaba River Development Project Borrow Pits	Iiso	Project Manager & EAP
Grootegeluk Coal Mine for coal transportation infrastructure between the mine and Medupi Power Station (EMPr amendment), Limpopo	Eskom Holdings	Project Manager & EAP
Waterberg Coal Mine (EMPr amendment), Limpopo	Sesoko Resources	Project Manager & EAP
Aluminium Plant WML & AEL, Gauteng	GfE-MIR Alloys & Minerals	Project Manager & EAP

Basic Assessments

Project Name & Location	Client Name	Role
Rare Earth Separation Plant in Vredendal, Western Cape	Rareco	Project Manager & EAP
Decommissioning and Demolition of Kilns 5 & 6 at the Slurry Plant, Kwa-Zulu Natal	PPC	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO for the construction of the Duhva Mine Water Recovery Project, Mpumalanga	Eskom Holdings SoC Limited	Project Manager
External compliance audit of Palesa Coal Mine's Integrated Water Use License (IWUL), near KwaMhlanga, Mpumalanga	HCI Coal	Project Manager
External compliance audit of Palesa Coal Mine's Waste Management License (WML) and EMP, near KwaMhlanga, Mpumalanga	HCI Coal	Project Manager
External compliance audit of Mbali Coal Mine's Integrated Water Use License (IWUL), near Ogies, Mpumalanga	HCI Coal	Project Manager
Independent External Compliance Audit of Water Use License (WUL) for the Tronox Namakwa Sands (TNS) Mining Operations (Brand se Baai), Western Cape	Tronox Namakwa Sands	Project Manager
Independent External Compliance Audit of Water Use License (WUL) for the Tronox Namakwa Sands (TNS) Mineral Separation Plant (MSP), Western Cape	Tronox Namakwa Sands	Project Manager
Independent External Compliance Audit of Water Use License (WUL) for the Tronox Namakwa Sands (TNS) Smelter Operations (Saldanha), Western Cape	Tronox Namakwa Sands	Project Manager
Compliance Auditing of the Waste Management Licence for the PetroSA Landfill Site at the GTL Refinery, Western Cape	PetroSA	Project Manager

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Waste Licence Application for the Rare Earth Separation Plant in Vredendal, Western Cape	Rareco	Project Manager & EAP

WULA for the Expansion of the Landfill site at Exxaro's Namakwa Sands Mineral Separation Plant, Western Cape	Exxaro Resources	Project Manager & EAP
S24G & WML for an Aluminium Plant, Gauteng	GfE-MIR Alloys & Minerals	Project Manager & EAP

INFRASTRUCTURE DEVELOPMENT PROJECTS (BRIDGES, PIPELINES, ROADS, WATER RESOURCES, STORAGE, ETC)

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Bridge across the Ngotwane River, on the border of South Africa and Botswana	Eskom Holdings	Project Manager & EAP
Chemical Storage Tanks, Metallurgical Plant Upgrade & Backfill Plant upgrade at South Deep Gold Mine, near Westonia, Gauteng	Goldfields	Project Manager & EAP
Expansion of the existing Welgedacht Water Care Works, Gauteng	ERWAT	Project Manager & EAP
Golden Valley WEF Access Road near Cookhouse, Eastern Cape	BioTherm Energy	Project Manager & EAP
Great Fish River Wind Farm Access Roads and Watercourse Crossings near Cookhouse, Eastern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Ilanga CSP Facility Watercourse Crossings near Upington, Northern Cape	Karoshhoek Solar one	Project Manager & EAP
Modification of the existing Hartebeestfontein Water Care Works, Gauteng	ERWAT	Project Manager & EAP
N10 Road Realignment for the Ilanga CSP Facility, East of Upington, Northern Cape	SANRAL	Project Manager & EAP
Nxuba (Bedford) Wind Farm Watercourse Crossings near Cookhouse, Eastern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Pollution Control Dams at the Medupi Power Station Ash Dump & Coal Stockyard, Limpopo	Eskom	Project Manager & EAP
Qoboshane borrow pits (EMPr only), Eastern Cape	Emalaheni Local Municipality	Project Manager & EAP
Tsitsikamma Community WEF Watercourse Crossings, Eastern Cape	Cennergi	Project Manager & EAP
Clayville Central Steam Plant, Gauteng	Bellmall Energy	Project Manager & EAP
Msenge Emoyeni Wind Farm Watercourse Crossings and Roads, Eastern Cape	Windlab	Project Manager & EAP

Basic Assessments

Project Name & Location	Client Name	Role
Harmony Gold WWTW at Doornkop Mine, Gauteng	Harmony Doornkop Plant	Project Manager & EAP
Ofir-ZX Watercourse Crossing for the Solar PV Facility, near Keimoes, Northern Cape	Networx S28 Energy	Project Manager & EAP
Qoboshane bridge & access roads, Eastern Cape	Emalaheni Local Municipality	Project Manager & EAP
Relocation of the Assay Laboratory near Carletonville, Gauteng	Sibanye Gold	Project Manager & EAP
Richards Bay Harbour Staging Area, KwaZulu-Natal	Eskom Holdings	Project Manager & EAP
S-Kol Watercourse Crossing for the Solar PV Facility, East of Keimoes, Northern Cape	Networx S28 Energy	Project Manager & EAP
Sonnenberg Watercourse Crossing for the Solar PV Facility, West Keimoes, Northern Cape	Networx S28 Energy	Project Manager & EAP

Project Name & Location	Client Name	Role
Kruisvallei Hydroelectric Power Generation Scheme, Free State	Building Energy	Project Manager & EAP
Masetjaba Water Reservoir, Pump Station and Bulk Supply Pipeline near Nigel, Gauteng	Naidu Consulting Engineers	Project Manager & EAP
Access Road for the Dwarsug Wind Farm, Northern Cape Province	South Africa Mainsteam Renewable Power	Project Manager & EAP

Screening Studies

Project Name & Location	Client Name	Role
Roodepoort Open Space Optimisation Programme (OSOP) Precinct, Gauteng	TIMAC Engineering Projects	Project Manager & EAP
Vegetable Oil Plant and Associated Pipeline, Kwa-Zulu Natal	Wilmar Oils and Fats Africa	Project Manager & EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
ECO and bi-monthly auditing for the construction of the Olifants River Water Resources Development Project (ORWRDP) Phase 2A: De Hoop Dam, R555 realignment and housing infrastructure	Department of Water and Sanitation	Project Manager Auditor
ECO for the Rehabilitation of the Blaaupan & Storm Water Channel, Gauteng	Airports Company of South Africa (ACSA)	Project Manager
Due Diligence reporting for the Better Fuel Pyrolysis Facility, Gauteng	Better Fuels	Project Manager
ECO for the Construction of the Water Pipeline from Kendal Power Station to Kendal Pump Station, Mpumalanga	Transnet	Project Manager
ECO for the Replacement of Low-Level Bridge, Demolition and Removal of Artificial Pong, and Reinforcement the Banks of the Crocodile River at the Construction at Walter Sisulu National Botanical Gardens, Gauteng Province	South African National Biodiversity Institute (SANBI)	Project Manager
External Compliance Audit of the Air Emission Licence (AEL) for a depot in Bloemfontein, Free State Province and in Tzaneen, Mpumalanga Province	PetroSA	Project Manager

Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
WULA for the Izubulo Private Nature Reserve, Limpopo	Kjell Bismeyer, Jann Bader, Laurence Saad	Project Manager & EAP
WULA for the Masodini Private Game Lode, Limpopo	Masodini Private Game Lodge	Environmental Advisor
WULA for the Ezulwini Private Nature Reserve, Limpopo	Ezulwini Investments	Project Manager & EAP
WULA for the Masodini Private Game Lode, Limpopo	Masodini Private Game Lodge	Project Manager & EAP
WULA for the N10 Realignment at the Ilanga SEF, Northern Cape	Karoshhoek Solar One	Project Manager & EAP
WULA for the Kruisvallei Hydroelectric Power Generation Scheme, Free State	Building Energy	Project Manager & EAP

Project Name & Location	Client Name	Role
S24G and WULA for the illegal construction of structures within a watercourse on EFF 24 Ruimsig Agricultural Holdings, Gauteng	Sorrer Language Services	Project Manager & EAP

HOUSING AND URBAN PROJECTS

Basic Assessments

Project Name & Location	Client Name	Role
Postmasburg Housing Development, Northern Cape	Transnet	Project Manager & EAP

Compliance Advice and reporting

Project Name & Location	Client Name	Role
Kampi ya Thude at the Olifants West Game Reserve, Limpopo	Nick Elliot	Environmental Advisor
External Compliance Audit of WUL for the Johannesburg Country Club, Gauteng	Johannesburg Country Club	Project Manager

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
Due Diligence Audit for the Due Diligence Audit Report, Gauteng	Delta BEC (on behalf of Johannesburg Development Agency (JDA))	Project Manager

ENVIRONMENTAL MANAGEMENT TOOLS

Project Name & Location	Client Name	Role
Development of the 3rd Edition Environmental Implementation Plan (EIP)	Gauteng Department of Agriculture and Rural Development (GDARD)	Project Manager & EAP
Development of Provincial Guidelines on 4x4 routes, Western Cape	Western Cape Department of Environmental Affairs and Development Planning	EAP
Compilation of Construction and Operation EMP for the Braamhoek Transmission Integration Project, Kwazulu-Natal	Eskom Holdings	Project Manager & EAP
Compilation of EMP for the Wholesale Trade of Petroleum Products, Gauteng	Munaca Technologies	Project Manager & EAP
Operational Environmental Management Programme (OEMP) for Medupi Power Station, Limpopo	Eskom Holdings	Project Manager & EAP
Operational Environmental Management Programme (OEMP) for the Dube TradePort Site Wide Precinct	Dube TradePort Corporation	Project Manager & EAP
Operational Environmental Management Programme (OEMP) for the Kusile Power Station, Mpumalanga	Eskom Holdings	Project Manager & EAP
Review of Basic Assessment Process for the Wittekleibosch Wind Monitoring Mast, Eastern Cape	Exxaro Resources	Project Manager & EAP
Revision of the EMP for the Sirius Solar PV	Aurora Power Solutions	Project Manager & EAP

Project Name & Location	Client Name	Role
State of the Environment (SoE) for Emalahleni Local Municipality, Mpumalanga	Simo Consulting on behalf of Emalahleni Local Municipality	Project Manager & EAP
Aspects and Impacts Register for Salberg Concrete Products operations	Salberg Concrete Products	EAP
First State of Waste Report for South Africa	Golder on behalf of the Department of Environmental Affairs	Project Manager & EAP
Responsibilities Matrix and Gap Analysis for the Kruisvallei Hydroelectric Power Generation Scheme, Free State Province	Building Energy	Project Manager
Responsibilities Matrix and Gap Analysis for the Roggeveld Wind Farm, Northern & Western Cape Provinces	Building Energy	Project Manager

PROJECTS OUTSIDE OF SOUTH AFRICA

Project Name & Location	Client Name	Role
Advisory Services for the Zizabona Transmission Project, Zambia, Zimbabwe, Botswana & Namibia	PHD Capital	Advisor
EIA for the Semonkong WEF, Lesotho	MOSCET	Project Manager & EAP
EMP for the Kuvaninga Energia Gas Fired Power Project, Mozambique	ADC (Pty) Ltd	Project Manager & EAP
Environmental Screening Report for the SEF near Thabana Morena, Lesotho	Building Energy	EAP
EPBs for the Kawambwa, Mansa, Mwense and Nchelenge SEFs in Luapula Province, Zambia	Building Energy	Project Manager & EAP
ESG Due Diligence for the Hilton Garden Inn Development in Windhoek, Namibia	Vatange Capital	Project Manager
Mandahill Mall Rooftop PV SEF EPB, Lusaka, Zambia	Building Energy	Project Manager & EAP
Monthly ECO for the PV Power Plant for the Mocuba Power Station	Scatec	Project Manager

CURRICULUM VITAE OF LEHLOGONOLO MASHEGO

(Comprehensive CV)

Profession: Public Participation and Environmental Consultant
Specialisation: Environmental Assessment Practitioner
Work Experience: Four (4) years and ten (10) months

VOCATIONAL EXPERIENCE

Professional experience lies mainly in the environmental consulting field specialising in environmental impact assessments, public participation processes and facilitation, environmental planning, environmental research, environmental training, rehabilitation, . Having served the mining, construction and infrastructure industries.

SKILLS BASE AND CORE COMPETENCIES

- Project management,
 - Microsoft Office,
 - Interpersonal and communication skills,
 - Presenting,
 - Report writing and formatting,
 - Environmental legislative interpretation,
 - Planning and organising, • Leading, coaching and mentoring,
 - Research,
 - Networking and marketing,
 - Data analysis, interpretation and management, and
- Quality management systems and document control.

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- Masters in Environmental Science, University of Witwatersrand, 2021
- BSocSci Hons in Geographical and Environmental Science, University of Pretoria, 2016
- BA Geography, University of Johannesburg, 2015

Short Courses:

- Rethinking Integrated Environmental Management in Pursuit of the Sustainable Development Goals, IAIAsa National Conference, 2021
- Proposed Amendments to the Financial Provisioning Regulations 2015, IAIAsa, 2021
- Towards Sustainable and Responsible Mine Closure, IAIAsa, 2021
- Comprehensive Safety File Compilation Training Course, MAB Consultancy, 2019
- Monitor the Application of Health, Safety and Environmental Protection Procedures OHS Act 85 of 1993, Shesha Management Services, 2019
- Project Management, Africa International Advisors, 2017

Professional Society Affiliations:

- International Association of Impact Assessment – South Africa (IAIAsa); 5579

Other Relevant Skills:

- xxx

EMPLOYMENT

Date	Company	Roles and Responsibilities
Jan 2022 - Current:	Savannah Environmental (Pty) Ltd	<i>Public Participation and Environmental Consultant</i> <u>Tasks include:</u> <ul style="list-style-type: none"> • <i>Public participation</i> • <i>Technical writing</i> • <i>Research</i>
Apr 2019 – Current	International Association of Impact Assessment – South Africa	<i>Branch Committee Member – Students and Young Professionals</i> <u>Tasks include:</u> <ul style="list-style-type: none"> • <i>Marketing</i> • <i>Strategic development</i> • <i>Events management</i> • <i>Stakeholder engagement</i> • <i>Student empowerment</i> • <i>Risk Assessment</i>
Jan 2020 – Dec 2021	GCS Water and Environmental Consultants	<i>Environmental Liaison Officer</i> <u>Tasks included:</u> <ul style="list-style-type: none"> • <i>Public participation and facilitation</i> • <i>Authority and client liaison</i> • <i>Report writing</i> • <i>Environmental authorisation applications</i> • <i>Marketing</i> • <i>Tendering and proposal compilation</i> • <i>Project administration</i> • <i>Project management</i>

Date	Company	Roles and Responsibilities
		<ul style="list-style-type: none"> • Application of environmental management systems • Maintenance of ISO systems • Environmental control officer, auditing and compliance monitoring • Internal and external training • Health and safety, risk identification and risk management • Project management • Project organisation and planning • Human Resources Management and marketing • Mentoring and coaching • Team continual development representative with the duty of assigning fundamental tasks for continuous growth and development
April 2018 – Dec 2019	Myezo Environmental Management Services	<p>Junior Environmental Consultant</p> <p><u>Tasks included:</u></p> <ul style="list-style-type: none"> • Project assistance • Project administration • Project support • Report writing • Research • Document control • Quality management system management
April 2017 – Mar 2018	Myezo Environmental Management Services	<p>Environmental Intern and Project Assistant</p> <p><u>Tasks included:</u></p> <ul style="list-style-type: none"> • Project assistance • Project administration • Project support • Report writing • Research • Document control • Quality management system management
2016	University of Pretoria – Department of Geography and Environmental Sciences	<p>Student mentor</p> <p><u>Tasks included:</u></p> <ul style="list-style-type: none"> • Academic mentoring and coaching • Academic support and guidance • Academic recommendations • Research assistance • Personal guidance
Oct 2013 – Sep 2014	University of Johannesburg – Annirand Dayhouse	<p>Hawker/Leader</p> <p><u>Tasks included:</u></p> <ul style="list-style-type: none"> • Head of Communication • Secretary • Head of Community Service • Mentoring and academic guidance • Overseeing all administration tasks

Date	Company	Roles and Responsibilities
		<ul style="list-style-type: none"> In-charge of social media platforms

PROJECT EXPERIENCE

Project experience primarily lies in the mining industry having worked extensively in Mpumalanga, North West and Gauteng Province with an averaged four (4) and a half work experience acquired. Construction and housing development projects in and around the Gauteng Province with an averaged three (3) years work experience acquired.

RENEWABLE POWER GENERATION PROJECTS: SOLAR ENERGY FACILITIES

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Lephalale Solar Project – Limpopo Province	Grootgeluk Mine – Exxaro Coal	Public Participation Lead

CONVENTIONAL POWER GENERATION PROJECTS (COAL)

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
EMPr Amendment Application for Voorspoed Coal Mine, Free State	De Beers Consolidated Mines	Public Participation Lead

GRID INFRASTRUCTURE PROJECTS

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Proposed Donatello Substation, Gauteng Province	MDT Environmental	Junior PPP

MINING SECTOR PROJECTS

Screening Studies

Project Name & Location	Client Name	Role
Feasibility Study of Pitlakes as a Mine Closure Option.	Coaltech Research Association	Public participation lead

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
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Annual Environment Performance Assessment for Tharisa Mine, North West Province	Tharisa Minerals	ECO
Monthly Audit for Arbor Railway Siding, Mpumalanga Province	Gijima Supply Chain Management	ECO
Monthly Audit for Forfar Railway Siding	Aplorox (Pty) Ltd	ECO
Annual EMPr and IWUL Audit for Hawerklip Railway Siding	Brazen Alger	ECO

Due Diligence Reporting

Project Name & Location	Client Name	Role
Annual Rehabilitation Strategy and Implementation Programme (RSIP) for Mafube Mine, Mpumalanga Province	Exxaro Coal, Mpumalanga	Junior EAP and report writer
Annual Rehabilitation Strategy and Implementation Programme (RSIP) for Belfast Mine, Mpumalanga Province	Exxaro Coal, Mpumalanga	Junior EAP and report writer
Annual Rehabilitation Strategy and Implementation Programme (RSIP) for Rietkuil Siding, Mpumalanga Province	Exxaro Coal, Mpumalanga	Junior EAP and report writer
Annual Rehabilitation Strategy and Implementation Programme (RSIP) for Tharisa Mine, North West Province	Tharisa Minerals	Junior EAP and report writer

INFRASTRUCTURE DEVELOPMENT PROJECTS (BRIDGES, PIPELINES, ROADS, WATER RESOURCES, STORAGE, ETC)

Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Basic Assessment Report for the proposed development of the K11 Road, Gauteng Province	Vuka-Afrika Consulting Engineers and Project Managers	Junior EAP
Decommissioning of a Transnet pipeline running from Durban to Johannesburg	Hydro Science	Junior EAP

Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
12 th Avenue Bridge Rehabilitation, Gauteng Province	E-Square Engineering	ECO
Oxford Road Road Rehabilitation, Gauteng Province	E-Square Engineering	ECO
Chaplin Stormwater Infrastructure Rehabilitation, Gauteng Province	E-Square Engineering	ECO

HOUSING AND URBAN PROJECTS


Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
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<i>Gauteng Rapid Land Release Programme, Unitas Park and Evaton West, Gauteng Province</i>	<i>Department of Human Settlements</i>	<i>Junior EAP</i>
<i>Matsulu Waste Transfer Station, Mpumalanga Province</i>	<i>Zethu Consulting Services</i>	<i>Junior EAP</i>



Short CV/Summary of Expertise – Simon Todd

 <p>SIMON TODD CONSULTING ECOLOGICAL SPECIALIST SERVICES Assessment/Management/Research</p>	<p>Simon Todd Pr.Sci.Nat C: 082 3326502 O: 021 782 0377 Simon.Todd@3foxes.co.za 60 Forrest Way Glencairn 7975</p>	<p>Ecological Solutions for People & the Environment</p>
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Professional Profile

Simon Todd has extensive experience in biodiversity management and ecological assessment across South African ecosystems. This includes a variety of broad-scale strategic assessments and best-practice guidelines for a range of industries. In addition, Simon Todd has conducted a large amount of research on the impacts of land-use on biodiversity and has published numerous scientific papers in international peer-reviewed journals on this topic. Simon Todd is a recognised ecological expert and is a past chairman and current executive committee member of the Arid-Zone Ecology Forum and has over 20 years' experience working throughout the country. Simon Todd is registered with the South African Council for Natural Scientific Professions (No. 400425/11).

Recent notable projects include:

- First-author of a book chapter on the ecological impacts of Shale Gas development on the Karroo of South Africa. (2017)
 - Co-author on the Biodiversity chapter of the Shale Gas SEA being conducted by CSIR. (2016)
 - Co-author on the Eskom Grid Infrastructure SEA, managed by CSIR. (2016)
 - Co-author on the Wind and Solar SEA, managed by CSIR. (2015)
-

Abbreviated CV

- Profession: Independent Ecological Consultant - Pr.Sci.Nat 400425/11
- Specialisation: Plant & Animal Ecology
- Years of Experience: 20 Years

Skills & Primary Competencies

- Research & description of ecological patterns & processes in Thicket, Savannah Nama Karoo, Succulent Karoo, Arid Grassland and Fynbos Ecosystems.
- Ecological Impacts of land use on biodiversity and provision of associated management advice.

- Vegetation surveys & degradation assessment & mapping
- Long-term vegetation monitoring
- Faunal surveys & assessment.
- GIS & remote sensing

Tertiary Education:

- 1992-1994 – BSc (Botany & Zoology), University of Cape Town
- 1995 – BSc Hons, Cum Laude (Zoology) University of Natal
- 1996-1997- MSc, Cum Laude (Conservation Biology) University of Cape Town

Employment History

- 1997 – 1999 – Research Scientist (Contract) – South African National Biodiversity Institute
- 2000-2004 – Specialist Scientist (Contract) - South African National Biodiversity Institute
- 2004-2007 – Senior Scientist (Contract) – Plant Conservation Unit, Department of Botany, University of Cape Town
- 2007-Present – Senior Scientist (Associate) – Plant Conservation Unit, Department of Botany, University of Cape Town.
- 2010-Present – Self-employed as consultant and sole proprietor of Simon Todd Consulting, which has conducted more than 150 specialist assessments.

General Experience & Expertise

- Lead ecologist on several SEA chapters, including Eskom Grid Infrastructure, Wind and Solar SEA and Shale Gas SEA.
- Conducted a large number of fauna and flora specialist assessments distributed widely across South Africa. Projects have ranged in extent from <50 ha to more than 50 000 ha.
- Widely-recognized ecology specialist. Published numerous peer-reviewed scientific publications based on various ecological studies across the country. Past chairman of the Arid Zone Ecology Forum and current executive committee member.
- Extensive field and personal experience across a broad range of South African ecosystems, with particular focus on the Western, Northern and Eastern Cape.
- Strong research background which has proved invaluable when working on ecologically sensitive and endangered ecosystems, habitats and species.
- Published numerous research reports as well as two book chapters and a large number of papers in leading scientific journals dealing primarily with human impacts on the vegetation and ecology of South African ecosystems.
- Maintain several long-term vegetation monitoring projects which have led to several publications.
- Guest lecturer at two universities and have also served as an external examiner.
- Reviewed papers for more than 12 international ecological journals.
- SACNASP registered as a Professional Natural Scientist, (Ecology) No. 400425/11.

Current Committees

- SANBI Vegmap Committee – 2015 – present
- CSIR Wind and Solar SEA Phase II advisory committee – 2016-present
- AZEF deputy chair – 2012-present
- SANBI Karoo Biogaps Taxon leads' committee and executive committee member.

Recent & Relevant Outputs & Publications

Strategic Environmental Assessments

Co-Author. Chapter 7 - Biodiversity & Ecosystems - Shale Gas SEA. CSIR 2016.

Co-Author. Chapter 1 Scenarios and Activities – Shale Gas SEA. CSIR 2016.

Co-Author – Ecological Chapter – Wind and Solar SEA. CSIR 2014.

Co-Author – Ecological Chapter – Eskom Grid Infrastructure SEA. CSIR 2015.

Contributor – Ecological & Conservation components to SKA SEA. CSIR 2017.

Specialist Fauna and Flora Assessments:

Specialist Ecological studies for many different developments distributed across the country including:

- Over 30 Wind Energy projects
- More than 60 Solar Energy developments
- More than 30 different housing, roads, mining and other infrastructure development projects.
- More than 20 electricity transmission infrastructure projects.

A full list of projects is available on request.

Chris van Rooyen Consulting

VAT#: 4580238113

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Tel: +27 (0)82 4549570 cell

Curriculum vitae: Chris van Rooyen

Name : Chris van Rooyen
Profession/Specialisation : Avifaunal Specialist
Highest Qualification : LLB
Nationality : South African
Years of experience : 19 years

Key Qualifications

Chris van Rooyen has twenty years' experience in the assessment of avifaunal interactions with industrial infrastructure. He was employed by the Endangered Wildlife Trust as head of the Eskom-EWT Strategic Partnership from 1996 to 2007, which has received international acclaim as a model of co-operative management between industry and natural resource conservation. He is an acknowledged global expert in this field and has consulted in South Africa, Namibia, Botswana, Lesotho, New Zealand, Texas, New Mexico and Florida. He also has extensive project management experience and he has received several management awards from Eskom for his work in the Eskom-EWT Strategic Partnership. He is the author and/or co-author of 17 conference papers, co-author of two book chapters, several research reports and the current best practice guidelines for avifaunal monitoring at wind farm sites. He has completed more than 100 power line assessments; and has to date been employed as specialist avifaunal consultant on more than 30 renewable energy generation projects. He has also conducted numerous risk assessments on existing power lines infrastructure. He also works outside the electricity industry and he has done a wide range of bird impact assessment studies associated with various residential and industrial developments (see key project experience below).

Key Project Experience

Bird Impact Assessment Studies for Solar Energy Plants:

1. Concentrated Solar Power Plant, Upington, Northern Cape.
2. De Aar and Droogfontein Solar PV Pre- and Post-construction avifaunal monitoring
3. JUWI Kronos PV project, Copperton, Northern Cape
4. Sand Draai CSP project, Groblershoop, Northern Cape (underway)
5. Biotherm Helena PV Project, Copperton, Northern Cape
6. Biotherm Letsiao CSP Project, Aggenys, Northern Cape
7. Biotherm Enamandla PV Project, Aggenys, Northern Cape
8. Biotherm Sendawo PV Project, Vryburg, North-West
9. Biotherm Tlisitseng PV Project, Lichtenburg, North-West

Bird Impact Assessment Studies for the following overhead line projects:

1. Chobe 33kV Distribution line
2. Athene - Umfolozi 400kV
3. Beta-Delphi 400kV
4. Cape Strengthening Scheme 765kV
5. Flurian-Louis-Trichardt 132kV
6. Ghanzi 132kV (Botswana)
7. Ikaros 400kV
8. Matimba-Witkop 400kV
9. Naboomspruit 132kV
10. Tabor-Flurian 132kV
11. Windhoek - Walvisbaai 220 kV (Namibia)
12. Witkop-Overysse 132kV
13. Breyten 88kV
14. Adis-Phoebus 400kV
15. Dhuvu-Janus 400kV
16. Perseus-Mercury 400kV

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17. Gravelotte 132kV
18. Ikaros 400 kV
19. Khanye 132kV (Botswana)
20. Moropule – Thamaga 220 kV (Botswana)
21. Parys 132kV
22. Simplon –Everest 132kV
23. Tutuka-Alpha 400kV
24. Simplon-Der Brochen 132kV
25. Big Tree 132kV
26. Mercury-Ferrum-Garona 400kV
27. Zeus-Perseus 765kV
28. Matimba B Integration Project
29. Caprivi 350kV DC (Namibia)
30. Gerus-Mururani Gate 350kV DC (Namibia)
31. Mmamabula 220kV (Botswana)
32. Steenberg-Der Brochen 132kV
33. Venetia-Paradise T 132kV
34. Burgersfort 132kV
35. Majuba-Umfolozi 765kV
36. Delta 765kV Substation
37. Braamhoek 22kV
38. Steelpoort Merensky 400kV
39. Mmamabula Delta 400kV
40. Delta Epsilon 765kV
41. Gerus-Zambezi 350kV DC Interconnector: Review of proposed avian mitigation measures for the Okavango and Kwando River crossings
42. Giyani 22kV Distribution line
43. Liphobong-Kao 132/11kV distribution power line, Lesotho
44. 132kV Leslie – Wildebeest distribution line
45. A proposed new 50 kV Spoornet feeder line between Sishen and Saldanha
46. Cairns 132kv substation extension and associated power lines
47. Pimlico 132kv substation extension and associated power lines
48. Gyani 22kV
49. Matafin 132kV
50. Nkomazi_Fig Tree 132kV
51. Pebble Rock 132kV
52. Reddersburg 132kV
53. Thaba Combine 132kV
54. Nkomati 132kV
55. Louis Trichardt – Musina 132kV
56. Endicot 44kV
57. Apollo Lepini 400kV
58. Tarlton-Spring Farms 132kV
59. Kuschke 132kV substation
60. Bendstore 66kV Substation and associated lines
61. Kuiseb 400kV (Namibia)
62. Gyani-Malamulele 132kV
63. Watershed 132kV
64. Bakone 132kV substation
65. Eerstegoud 132kV LILO lines
66. Kumba Iron Ore: SWEP - Relocation of Infrastructure
67. Kudu Gas Power Station: Associated power lines
68. Steenberg Booyesdal 132kV
69. Toulon Pumps 33kV
70. Thabatshipi 132kV
71. Witkop-Silica 132kV
72. Bakubung 132kV
73. Nelsriver 132kV

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74. Rethabiseng 132kV
75. Tilburg 132kV
76. GaKgapanne 66kV
77. Knobel Gilead 132kV
78. Bochum Knobel 132kV
79. Madibeng 132kV
80. Witbank Railway Line and associated infrastructure
81. Spencer NDP phase 2 (5 lines)
82. Akanani 132kV
83. Hermes-Dominion Reefs 132kV
84. Cape Painsinsula Strengthening Project 400kV
85. Magalakwena 132kV
86. Benfiosa 132kV
87. Dithabaneng 132kV
88. Taunus Diepkloof 132kV
89. Taunus Doornkop 132kV
90. Tweedracht 132kV
91. Jane Furse 132kV
92. Majeje Sub 132kV
93. Tabor Louis Trichardt 132kV
94. Riversong 88kV
95. Mamatsekele 132kV
96. Kabokweni 132kV
97. MDPP 400kV Botswana
98. Marble Hall NDP 132kV
99. Bokmakiere 132kV Substation and LILO lines
100. Styldrift 132kV
101. Taunus – Diepkloof 132kV
102. Bighorn NDP 132kV
103. Waterkloof 88kV
104. Camden – Theta 765kV
105. Dhuvu – Minerva 400kV Diversion
106. Lesedi –Grootpan 132kV
107. Waterberg NDP
108. Bulgerivier – Dorset 132kV
109. Bulgerivier – Toulon 132kV
110. Nokeng-Fluorspar 132kV
111. Mantsole 132kV
112. Tshilamba 132kV
113. Thabamoopo - Tshebela – Nhlovuko 132kV
114. Arthurseat 132kV
115. Borutho 132kV MTS
116. Volspruit - Potgietersrus 132kV
117. Neotel Optic Fibre Cable Installation Project: Western Cape
117. Matla-Glockner 400kV
118. Delmas North 44kV
119. Houwhoek 11kV Refurbishment
120. Clau-Clau 132kV
121. Ngwedi-Silwerkrans 134kV
122. Nieuwehoop 400kV walk-through
123. Booyendal 132kV Switching Station
124. Tarlton 132kV

Bird Impact Assessment Studies for the following residential and industrial developments:

1. Lizard Point Golf Estate
2. Lever Creek Estates
3. Leloko Lifestyle Estates

4. Vaaloewers Residential Development
5. Clearwater Estates Grass Owl Impact Study
6. Sommerset Ext. Grass Owl Study
7. Proposed Three Diamonds Trading Mining Project (Portion 9 and 15 of the Farm Blesbokfontein)
8. N17 Section: Springs To Leandra –“Borrow Pit 12 And Access Road On (Section 9, 6 And 28 Of The Farm Winterhoek 314 Ir)
9. South African Police Services Gauteng Radio Communication System: Portion 136 Of The Farm 528 Jq, Lindley.
10. Report for the proposed upgrade and extension of the Zeekoegat Wastewater Treatment Works, Gauteng.
11. Bird Impact Assessment for Portion 265 (a portion of Portion 163) of the farm Rietfontein 189-JR, Gauteng.
12. Bird Impact Assessment Study for Portions 54 and 55 of the Farm Zwartkop 525 JQ, Gauteng.
13. Bird Impact Assessment Study Portions 8 and 36 of the Farm Nooitgedacht 534 JQ, Gauteng.
14. Shumba's Rest Bird Impact Assessment Study
15. Randfontein Golf Estate Bird Impact Assessment Study
16. Zilkaatsnek Wildlife Estate
17. Regenstein Communications Tower (Namibia)
18. Avifaunal Input into Richards Bay Comparative Risk Assessment Study
19. Maquasa West Open Cast Coal Mine
20. Glen Erasmia Residential Development, Kempton Park, Gauteng
21. Bird Impact Assessment Study, Weltevreden Mine, Mpumalanga
22. Bird Impact Assessment Study, Olifantsvlei Cemetery, Johannesburg
23. Camden Ash Disposal Facility, Mpumalanga
24. Lindley Estate, Lanseria, Gauteng

Ongoing involvement in Bird Impact Assessment Studies for wind-powered generation facilities:

1. Eskom Klipheuwel Experimental Wind Power Facility, Western Cape
2. Mainstream Wind Facility Jeffreys Bay, Eastern Cape (EIA and monitoring)
3. Biotherm, Swellendam, (Excelsior), Western Cape (EIA and monitoring)
4. Biotherm, Napier, (Matjieskloof), Western Cape (pre-feasibility)
5. Windcurrent SA, Jeffreys Bay, Eastern Cape (2 sites) (EIA and monitoring)
6. Caledon Wind, Caledon, Western Cape (EIA)
7. Innowind (4 sites), Western Cape (EIA)
8. Renewable Energy Systems (RES) Oyster Bay, Eastern Cape (EIA and monitoring)
9. Oelsner Group (Kerriefontein), Western Cape (EIA)
10. Oelsner Group (Langefontein), Western Cape (EIA)
11. InCa Energy, Vredendal Wind Energy Facility Western Cape (EIA)
12. Mainstream Loeriesfontein Wind Energy Facility (EIA and monitoring)
13. Mainstream Noupoot Wind Energy Facility (EIA and monitoring)
14. Biotherm Port Nolloth Wind Energy Facility (Monitoring)
15. Biotherm Laingsburg Wind Energy Facility (EIA and monitoring)
16. Langhoogte Wind Energy Facility (EIA)
17. Vleesbaai Wind Energy Facility (EIA and monitoring)
18. St. Helena Bay Wind Energy Facility (EIA and monitoring)
19. Electrawind, St Helena Bay Wind Energy Facility (EIA and monitoring)
20. Electrawind, Vredendal Wind Energy Facility (EIA)
21. SAGIT, Langhoogte and Wolseley Wind Energy facilities
22. Renosterberg Wind Energy Project – 12 month preconstruction avifaunal monitoring project (2014)
23. De Aar – North (Mulilo) Wind Energy Project – 12 month preconstruction avifaunal monitoring project (2014)
24. De Aar – South (Mulilo) Wind Energy Project – 12 month bird monitoring (2014)
25. Namies – Aggenys Wind Energy Project – 12 month bird monitoring (2014)
26. Pofadder - Wind Energy Project – 12 month bird monitoring (2014)
27. Dwarsrug Loeriesfontein - Wind Energy Project – 12 month bird monitoring (2014)
28. Waaihoek – Utrecht Wind Energy Project – 12 month bird monitoring (2014)
29. Amathole – Butterworth Utrecht Wind Energy Project – 12-month bird monitoring & EIA specialist

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30. Noupoort East and West Wind Energy Projects 12-month bird monitoring & EIA specialist study (Innowind)
31. Beaufort West Wind Energy Facility 12-month bird monitoring & EIA specialist study (Mainstream)
32. Leeuwdraai Wind Energy Facility 12-month bird monitoring & EIA specialist study (Mainstream)
33. Sutherland Wind Energy Facility 12-month bird monitoring (Mainstream)
34. Maralla Wind Energy Facility 12-month bird monitoring & EIA specialist study (Biotherm)
35. Esizayo Wind Energy Facility 12-month bird monitoring & EIA specialist study (Biotherm)
36. Humansdorp Wind Energy Facility 12-month bird monitoring & EIA specialist study (Cennergi)
37. Aletta Wind Energy Facility 12-month bird monitoring & EIA specialist study (Biotherm)
38. Eureka Wind Energy Facility 12-month bird monitoring & EIA specialist study (Biotherm)
39. Makambako Wind Energy Facility (Tanzania) 12-month bird monitoring & EIA specialist study (Windlab) study (underway)

Bird Impact Assessment Studies for Solar Energy Plants:

1. Concentrated Solar Power Plant, Upington, Northern Cape.
2. De Aar and Droogfontein Solar PV Pre- and Post-construction avifaunal monitoring
3. JUWI Kronos PV project, Copperton, Northern Cape
4. Sand Draai Solar project, Groblershoop, Northern Cape
5. Helena PV Project, Copperton, Northern Cape
6. Letsitsing Solar Project, Lichtenburg, North-West
7. Sendawo Solar Project, Vryburg, North-West
8. Letsoai Solar Project, Aggeneys Northern Cape
9. Enamandla Solar Project, Aggeneys, Northern Cape

Professional affiliations

I work under the supervision of and in association with Albert Froneman (SACNASP Zoological Science Registration number 400177/09) as stipulated by the Natural Scientific Professions Act 27 of 2003.

CURRICULUM VITAE LOURENS DU PLESSIS

PERSONAL INFORMATION AND CONTACT DETAILS

Name: Lourens Martinus du Plessis
Date of birth: 1969-11-13
Marital status: Married
Nationality: South African
Profession/specialisation: Geographer/environmental GIS specialist
Company: MetroGIS (Pty) Ltd
Years with firm: 11 years
Position: Director
Experience: 20 years
Postal address: PO Box 384, La Montagne, 0184
Telephone/fax: 012 349 2884/5 (w) 082 922 9019 (cell) 012 349 2880 (fax)
E-mail: lourens@metrogis.co.za

KEY QUALIFICATIONS AND EXPERIENCE

Primary function

The application of Geographic Information Systems (GIS) in environmental planning and management, impact assessments and spatial modeling.

Experience and expertise

- Data sourcing and acquisition
- Data capture
- Data evaluation
- Data conversion and transfer
- GIS database development, implementation and maintenance
- Spatial analysis/modelling (visibility, slope, aspect, shadow, surface, raster, proximity, etc.)
- Digital terrain/elevation modeling
- Terrain evaluation
- Image processing
- Impact assessment and impact management
- Environmental management
- Decision support systems interface development
- Project management
- Map production, display, queries and reporting
- Environmental sciences expertise
- Process development
- Visual impact assessment

Technological (software) expertise

- Arc/Info and ArcGIS
- ArcView
- PlanetGIS
- Vistapro (virtual landscape rendering software)
- Various GIS support software packages and applications
- Range of Microsoft standard applications (including Microsoft Word/Excel/Access, etc.)

Awards

Award: Best South African Environmental Technical Paper
Awarded for: National Environmental Potential Atlas (ENPAT National)
Awarded by: Environmental Planning Professions Interdisciplinary Committee (EPPIC)
Date: 1995

Award: Map Gallery Most Analytical Competition - 3rd Place
Awarded for: Environmental Potential Atlas for South Africa
Awarded by: Environmental Systems Research Institute (ESRI)
Date: 1997 International ESRI User Conference

Award: Best Cartographic Map Gallery Competition - 3rd Place
Awarded for: Environmental Potential Atlas for South Africa (Publication)
Awarded by: Environmental Systems Research Institute (ESRI)
Date: 1998 International ESRI User Conference

Award: QDC Performance Award
Awarded for: ENPAT Development
Awarded by: Q Data Consulting
Date: 1998

Award: Best South African Environmental Technical Paper
Awarded for: Environmental Potential Atlas for South Africa (Publication)
Awarded by: Environmental Planning Professions Interdisciplinary Committee (EPPIC)
Date: 1998

Publications/maps featured in publications

Name: Environmental Potential Atlas for South Africa
Authors: W. van Riet, J. van Rensburg, P. Claassen, L. du Plessis and T. van Viegen
Publisher: J.L. van Schaik
Date: 1997

Name: ESRI Map Book (Volume 13)
Authors: Various
Publisher: Environmental Systems Research Institute (ESRI)
Date: 1998

Name: Pilanesberg Official Map and Park Guide
Authors: North-West Parks & Tourism Board and Jacana
Publisher: Jacana Media (Pty) Ltd
Date: 2001

Name: KwaZulu-Natal - A celebration of biodiversity
Authors: Jacana
Publisher: Jacana Media (Pty) Ltd
Date: 2001

Name: Garden Route - Still Bay to Storms River (Discover the Magic)
Authors: Jacana
Publisher: Jacana Media (Pty) Ltd
Date: 2003

Name: Lowveld and Kruger Guide

Authors: High Branching Team
Publisher: Jacana Media (Pty) Ltd
Date: 2004

Name: Heights to Homes to Oceans (H₂O) Water Wise information poster
Authors: Rand Water
Publisher: Rand Water
Date: 2004

Name: Kruger National Park Map and Photographic Guide
Authors: Andy Tinker Photography
Publisher: Andy Tinker Photography
Date: 2007

WORK EXPERIENCE/EMPLOYMENT DETAILS

GisLAB CC (Geographic Information Systems Laboratory - University of Pretoria)
Period: 4/1990 - 9/1997
Position: Member / Project Manager

GISBS (Geographic Information Systems Business Solutions - Q Data Consulting)
Period: 10/1997 - 10/1999
Position: Project Manager

MetroGIS (Pty) Ltd
Period: 11/1999 - to date
Position: Director / Project Manager

EDUCATION/QUALIFICATIONS

Degree: BA (University of Pretoria) Geography and Anthropology (Majors)
Other Subjects: Archaeology, Philosophy and Political Science
Date Received: 1993

PROJECTS SUMMARY

*(A brief description of **some** prominent and relevant projects)*

General projects

GIS mapping and database for Black Eagle habitats and flight patterns in the Karoo National Park

Environmental planning and development control schemes for the Drakensberg *Babangibone, Cathkin Peak and Garden Castle* development nodes

Goukou River (Stilbaai) Environmental Structure Plan

Conservation and open space proposals for the Umhlanga Forest

Grootvlei mine water pumping operation (Blesbokspruit sub-catchment)

GIS services for the Saldannah steel plant

ENPAT Provincial (1:250,000 scale GIS decision support systems) based on an inventory of environmental and socio-economic geographic data

- ENPAT Northern Province (Limpopo Province)
- ENPAT Mpumalanga
- ENPAT North-West

ENPAT Metropolitan (1:50,000 scale GIS decision support systems) containing environmental and socio-economic geographic data that were evaluated for conservation opportunities, development constraints and agricultural constraints

- ENPAT Gauteng
- ENPAT Cape Town
- ENPAT Durban Functional Region (DFR)
- ENPAT Bloemfontein/Botshabello
- ENPAT Port Elizabeth

ENPAT National (1:1,000,000 scale GIS decision support system) and ENPAT publication

Environmental Management Frameworks (EMF). Frameworks of spatially represented information connected to environmental management parameters designed to aid in the pro-active identification of potential conflict between development proposals and critical and/or sensitive environments

- EMF Northern Province (Limpopo Province)
- EMF Mpumalanga
- EMF North-West

Spatial Development Initiatives (SDI). The fast tracking of the EMF concept for priority SDI's

- Lubombo Corridor SDI
- Coega Industrial Development Zone (IDZ)
- Wild Coast SDI
- West Coast Investment Initiative

Sigma colliery: North-West strip operation

Development masterplan for the Tswaing Crater Museum

Conservation plan for the Rietvlei Nature Reserve

GIS services for the planning and management of the Chobe National Park (Botswana)

GIS services for an environmental overview of South Africa

Demarcation/delineation of regions in South Africa

Orange-Vaal (ORVAAL) transfer scheme - Caledon cascades scheme

ENPAT Provincial (1:250,000 scale GIS decision support systems) based on an inventory of environmental and socio-economic geographic data

- ENPAT Eastern Cape
- ENPAT Free State
- ENPAT Kwa-Zulu Natal

Environmental Management Frameworks (EMF). Frameworks of spatially represented information connected to environmental management parameters designed to aid in the pro-active

identification of potential conflict between development proposals and critical and/or sensitive environments

- EMF Eastern Cape
- EMF Free State
- EMF Kwa-Zulu Natal

Hennops River EMF (environmental inventory and management proposals in Centurion)

The Important Bird Areas (IBA) of South Africa map and database

Centurion Metropolitan Substructure Environmental Management Framework (EMF)

Alexandra renewal project EMF

Carbon Sinks and Sequestration - Eastern Cape Wild Coast. Information maps for the "*Carbon Sinks - A Rehabilitation Option for South Africa's Natural Environment*" report

Prince Edward and Marion Islands. Maps for the World Heritage Site (WHS) bid document

Theewaterskloof and Genadendal - Integrated spatial data management system

Gauteng Communication Network Strategy (GAUCONS). Environmental zones for the control of the construction of telecommunication structures

Gauteng Industries Buffer Zones. The mapping of industrial and mining activities, the creation of buffer control zones and the development of a GIS-based decision support system for the Gauteng Province

Limpopo National Park (LNP) Mozambique. Base maps for fieldwork and planning

Schmidtsdrift Environmental Management Program Report (EMPR)

Loch Vaal Environmental Management Framework (EMF)

Rustenburg - Strategic Environmental Assessment (SEA). The creation of environmental control zones, a GIS-based decision support system and information poster

Faerie Glen Nature Reserve Strategic Environmental Assessment (SEA)

Willow Quarries - Environmental Impact Assessment (EIA). Modeling of mining expansion plan and the potential impact on Golden Mole habitats

Ekurhuleni Metropolitan Municipality (EMM) Environmental Management Framework (EMF)

Limpopo - State of the Environment Report (SoER)

Windhoek (Namibia) - Environmental Structure Plan (ESP)

Gauteng Supplementation and Implementation of EIA Regulations Project (EIA SIP)

Siyanda District Municipality Environmental Management Framework (EMF)

Olifants and Letaba River Catchments Environmental Management Framework (EMF)

Regional Strategic Environmental Assessments (Regional Assessments)

Regional assessment for the Eskom Wind Energy Facility (Sere) in the Western Cape

Regional assessments for the Eskom Wind Integration Project (WIP)

- Area 1: West Coast (Saldanha to Garies)
- Area 2: Overberg Region
- Area 3: Beaufort West region
- Area 4: Eastern Cape (Tsitsikamma to Port Elizabeth)
- Area 5: Northern Cape (Hondeklipbaai to Port Nolloth)

Sandveld wind energy Regional Assessment

West Coast National Park (Saldanha area) Regional Assessment

Regional Assessment for the Theewaterskloof Municipal area

Brand-se-Baai (Exxaro) wind energy regional assessment

Overberg (BioTherm) wind energy regional assessments

- Area 1: Gordons Bay to Pearly Beach)
- Area 2: Napier RA (Agulhas NP/Swellendal region)

Suurplaat/Sutherland (Investec Wind Energy Development) Regional Assessment

Waterberg (Limpopo) Concentrating Solar Power (CSP) Regional Assessment (Exxaro)

Visual Impact Assessments (VIA), viewshed analyses and visual assessments

Some recent or current projects include:

- Coal strip mining in Zimbabwe viewshed analyses
- Viewshed analyses and sensitivity mapping for telecommunication masts in the northern provinces (Limpopo, Mpumalanga and North-West)
- Siemens 3rd license cellular communications infrastructure EIAs. Viewshed analyses and sensitivity mapping for over 4,000 telecommunication mast sites in all major metropolitan areas of South Africa.
- CSIR high mast viewshed analysis and sensitivity mapping
- Atlantis Open Cycle Gas Turbine power station VIA
- Kynoch Gypsum Tailings dam extension VIA
- N1 Western Bypass Shell service station VIA
- Coega regional hazardous waste processing facility VIA
- Robinson Deep landfill extension VIA
- Hazardous waste blending platform VIA
- Mercury-Ferrum-Garona transmission line integration VIA
- Matimba B (Medupi) coal-fired power station VIA
- Concentrating Solar Power (CSP) plant in Upington VIA
- Zeus to Mercury transmission line (comparative viewshed analyses)
- Mmamabula (Botswana) transmission line and power station viewshed analyses
- Petronet new multi-products pipeline VIA
- Wind energy facility (Sere) in the Western Cape province VIA
- Ankerlig power station conversion and transmission line VIA
- Gourikwa power station conversion and transmission line VIA
- Kyalami strengthening project VIA
- Steelpoort integration project VIA
- Medupi reservoir and telecommunication mast VIA
- Cookhouse wind monitoring masts VIA for a Basic Assessment Report
- Hopefield wind monitoring masts VIA for a Basic Assessment Report
- Amakhala wind monitoring masts VIA for a Basic Assessment Report
- Caledon, Worcester and Tulbach wind monitoring masts VIAs for Basic Assessment

Reports

- Overberg masts VIA for a Basic Assessment Report
- Britannia Bay wind monitoring mast VIA for a Basic Assessment Report
- Brand-se-Baai wind monitoring masts VIA for a Basic Assessment Report
- Deep River wind monitoring masts VIA for a Basic Assessment Report
- Happy Valley wind monitoring masts VIA for a Basic Assessment Report
- River Bank wind monitoring mast VIA for a Basic Assessment Report
- Uiekraal wind monitoring masts VIA for a Basic Assessment Report
- Beaufort West wind monitoring masts VIA for a Basic Assessment Report
- Laingsburg Wind monitoring masts VIA for a Basic Assessment Report
- Rheboksfontein, Suurplaat and West Coast wind monitoring masts VIAs for Basic Assessment Reports
- Cookhouse wind energy facility VIA
- Hopefield wind energy facility VIA
- Mokopane Integration Project VIA
- Cradle of Humankind World Heritage Site (WHS) viewshed protection zone, visual character assessment and visual zonation plan
- Proposed Indwe wind energy facility VIA
- Proposed Amakhala wind energy facility VIA
- Proposed Boontjieskraal wind energy facility VIA
- Proposed Britannia Bay wind energy facility VIA
- Proposed Brand-se-Baai wind energy facility VIA
- Proposed Upington and Pofadder solar thermal facilities VIAs
- Proposed Dorper wind energy facility VIA
- Proposed Flagging Trees wind energy facility VIA
- Proposed Rheboksfontein, Suurplaat and West Coast wind energy facilities VIAs
- Proposed Riverbank wind energy facility VIA
- Proposed Waterberg photovoltaic plant VIA
- Eskom wind intergration projects VIAs (current)
- Welgedacht water care works VIA

PROFESSIONAL AFFILIATIONS

Application for *Geographical Information Sciences (GISc) Professional Practitioner* submitted to (and currently under review by) The South African Council for Professional and Technical Surveyors (PLATO).

LANGUAGES

	Reading	Writing	Speaking
Afrikaans	Excellent	Excellent	Excellent
English	Excellent	Excellent	Excellent