

**CURRICULUM VITAE
LUSANI RATHANYA**

Profession : Environmental Consultant
Specialisation : Water and Waste
Years experience : Ten (10) Months

KEY RESPONSIBILITIES

Application of Environmental Authorisation, water and waste licences
Compile Basic Assessments and Environmental Management Plans
Compile IWWMP
Compile EIA Reports
Compile proposals and budget for tenders
Undertake public participation process
Liaise with key stakeholders and clients

SKILLS BASE AND CORE COMPETENCIES

Water and Waste licences application and related documentation

EDUCATION AND PROFESSIONAL STATUS

***Degrees: Bsc (Hons) Environmental Management and Analysis
Bsc Geology***

Courses: Environmental Management

Professional Society Affiliations: None

EMPLOYMENT

*Current: Savannah Environmental (Pty) Ltd: Environmental consultant
Date to date: 02 July 2012-to date*

*Previous: Department of Environmental Affairs
Date: 01 May to 31 June 2012
Position: Junior Environmental Compliance Officer*

PROJECT EXPERIENCE

Current projects include:

- 1). Environmental Impact Assessment
 - Basic Assessment Process for Kathu Package Sewerage Treatment Plant, Northern Cape
 - Scoping Report for Prieska Solar Facility in Northern Cape Province
 - Amendments of the EMP for Kathu Solar Energy and Kathu 132kV Power Line, in Northern Cape
 - Amendments of the EMP for Gouda Wind Energy in Eastern Cape
 - Amendments of the EMP for Sishen Solar Energy in Northern Cape
 - Amendments of Environmental Authorisation for Kathu 132 kV power line, Northern Cape
 - Amendments of Environmental Authorisation for Amakhala Wind Monitoring Masts, Eastern

Cape

- Basic Assessment Process for Allemans Fontein Solar Energy Facility, Northern Cape
- Basic Assessment Process for Carolus Poort Solar Energy Facility, Northern Cape
- Basic Assessment for Gillmer Solar Energy Facility, Northern Cape
- Basic Assessment Process for the Expansion of AFRKO Solar Energy Facility, Gauteng Province
- Basic Assessment Process for the expansion of wastewater treatment works and pipelines within Gauteng Province
- Basic Assessment process for Noblesfontein Wind Energy facility power line and substation, Northern Cape
- Amendments of !Kaxu three phases EMP, Northern Cape

2). Water Use and Waste Licences

- Application of Water Use and Waste Licence and Section 27 motivation for Kathu Package Sewerage Treatment Plant, Northern Cape
- Integrated Water and Waste Management Plan for Kathu Package Sewerage Treatment plant, Northern Cape
- Application of Water Use Licence and Section 27 motivation for West Coast One Wind Energy Project, Western Cape
- Application of Water Use Licence and Section 27 motivation for Gouda Wind Energy Project, Western Cape
- Application for waste licence for the ERWAT module five expansion, Gauteng Province

3). Plants and Tree Permits

- Application for Plant permit for Sishen Solar Energy Facility, Northern Cape
- Application for plant permit for Noblesfontein Wind Energy Facility, Northern Cape

4) Public Participation and Proposals

- Kathu Package Sewage Water Treatment Plant, Northern Cape
- Proposal for the proposed stormwater management infrastructure along the R500 road – near Fochville, Gauteng province
- Proposal for the proposed expansion of the waste water treatment facility Hartbeestfontein, Gauteng province

5). Compliance Monitoring

- Kathu Solar Energy Facility is compliant with all the provisions within the Environmental Authorisation
- Sishen Solar Energy Facility is compliant with all the provisions within the Environmental Authorisation
- Noblesfontein Wind Energy Facility is compliant with all the provisions within the Environmental Authorisation

6). Research

- Water Use licensing in Botswana
- Solar and Wind Energy Facilities in Eritrea

CURRICULUM VITAE

JO-ANNE THOMAS

Profession : Environmental Consultant
Specialisation : Environmental Management; Strategic environmental advice;
Environmental compliance advice & monitoring; Environmental Impact Assessments; Policy, strategy & guideline formulation; Project Management; General Ecology
Years experience : Fourteen (14) years in the environmental field

KEY RESPONSIBILITIES

Provide technical input for projects in the environmental management field, specialising in Strategic Environmental Advice, Environmental Impact Assessment studies, 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; 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

Courses:

Environmental Impact Assessment, *Potchefstroom University*, 1998

Environmental Law, *Morgan University*, 2001

Professional Society Affiliations:

Professional Natural Scientist (Registration No 400024/00).

EMPLOYMENT

Current: Director of Savannah Environmental (Pty) Ltd. Independent specialist environmental consultant

October 1997-November 2005: Bohlweki Environmental (Pty) Ltd: Senior Environmental Scientist; Environmental Management and Project Management

January to July 1997: Junior Science Teacher, Sutherland High School, Pretoria

PROJECT EXPERIENCE

Current projects include:

Compliance Monitoring

- ECO compliance monitoring for the construction of the De Hoop Dam and the deviation of the R555, Limpopo Province
- Project manager – Environmental Officers for Gamma-Kappa 765kV power line between Laingsburg and Beaufort West, Western Cape
- Project manager – ECO compliance monitoring for the rehabilitation of Blaauwpan Dam, Gauteng Province
- Project manager – ECO compliance monitoring for the expansion of Waterval WCW, Gauteng Province
- Project manager - ECO compliance monitoring for the Mine Water Recovery Project at Duvha Power Station, Mpumalanga Province

Electricity Sector Projects: Wind Energy

- Project manager for the proposed EXXARO West Coast wind energy facility and associated infrastructure at a site within the Western Cape (for EXXARO Resources)
- Project manager for the proposed Oyster Bay wind energy facility, Eastern Cape Province (for Renewable Energy Resources Southern Africa)
- Project manager for the proposed Spitskop Bay wind energy facility, Eastern Cape Province (for Renewable Energy Resources Southern Africa)

- EIA and EMP for the proposed wind energy facility and associated infrastructure at a site within the Western Cape (for Eskom Generation)
- EIA and EMP for the proposed wind energy facility and associated infrastructure at a site near Hopefield, Western Cape Province (for Umoya Energy)
- Project manager for the proposed Klipheuwel/Dassiesfontein wind energy facility and associated infrastructure at a site within the Overberg area of the Western Cape (for BioTherm Energy)
- Project manager for the proposed Suurplaat wind energy facility and associated infrastructure at a site within the Western Cape (for Moyeng Energy)
- Project manager for the proposed West Coast One wind energy facility and associated infrastructure at a site within the Western Cape (for Moyeng Energy)
- Project manager for the proposed Rhebokfontein wind energy facility and associated infrastructure at a site within the Western Cape (for Moyeng Energy)
- Basic Assessment for proposed wind monitoring masts on a site north of Koekenaap, Western Cape Province (for EXXARO Resources)
- Basic Assessment for proposed wind monitoring masts on a site in the Overberg area, Western Cape Province (for BioTherm Energy)
- Basic Assessment for proposed wind monitoring masts on a site near Beaufort West, Western Cape Province (for Umoya Energy)
- Basic Assessment for proposed wind monitoring masts on a site near Laingsburg, Western Cape Province (for Umoya Energy)

Electricity Sector Projects: Solar Energy

- Project manager for the EIA and EMP for two PV sites within the Western and Northern Cape Provinces (for INCA Energy)
- Project manager for the Basic Assessment and EMP for PV site within the Northern Cape Province (for INCA Energy)
- Project manager for the EIA and EMP for the proposed Waterberg PV plant, Limpopo Province (for Thupela Energy)
- Project manager for the EIA and EMP for the proposed Project Ilanga (125MW CSP facility) near Upington, Northern Cape Province (for Ilangethu Energy)
- Project manager for the EIA and EMP for two PV sites within the Northern Cape Province (for MedEnergy Global)
- Project manager for the Basic Assessment and EMP for PV sites within 4 ACSA airports within South Africa (for ACSA PV)
- Project manager for the Basic Assessment and EMP for a PV site near Rustenburg, North-West Province (for Momentous Energy)

Electricity Sector Projects: Eskom

- Project manager for the EIA and EMP for the proposed Mokopane Integration Project, Limpopo Province (for Eskom Transmission)
- Project manager for the proposed transmission lines from the Koeberg-2 Nuclear Power Station site, Western Cape Province (for Eskom Transmission)
- Project manager for the proposed Tshwane strengthening project, Phase 1, Gauteng Province (for Eskom Transmission)
- Project manager for the EIA and EMP for the proposed Kyalami Strengthening Project, Gauteng Province (for Eskom Transmission)

- Project manager for the EIA and EMP for the proposed Steelpoort Integration Project, Limpopo Province (for Eskom Transmission)
- Project manager for the EIA and EMP for the proposed conversion of the existing Open Cycle Gas Turbine (OCGT) Ankerlig Power Station (located in Atlantis Industria) to a Combined Cycle Gas Turbine (CCGT) power station, and the associated 400 kV transmission power line between Ankerlig Power Station and the Omega Substation (for Eskom Generation)
- Project manager for the EIA and EMP for the proposed conversion of the existing Open Cycle Gas Turbine (OCGT) Gourikwa Power Station (located near Mossel Bay) to a Combined Cycle Gas Turbine (CCGT) power station, and the associated 400 kV transmission power line between Gourikwa Power Station and the Proteus Substation (for Eskom Generation)

Strategic and Regional Assessments

- Strategic Assessment for the location of wind energy facilities within the Western Cape Province (for Western Cape Department of Environmental Affairs and Development Planning)
- Regional Assessments for wind energy developments within identified areas in the Overberg Area of the Western Cape Province (for BioTherm Energy)
- Regional Assessment for wind energy developments within an identified area in the Sutherland Area of the Northern and Western Cape Province (for Investec Bank Limited)
- Regional Assessment for wind energy developments within an identified area on the West Coast of the Western Cape Province (for Investec Bank Limited)
- Regional Assessment for wind energy developments within an identified area on the West Coast of the Western Cape Province (for Eskom Holdings Limited)

Environmental Management Tools

- Review the effectiveness and efficiency of the environmental impact management (EIA) system in South Africa on behalf of the Department of Environmental Affairs and Tourism
- Development of a comprehensive site-specific EMP for the construction and operation of the Eskom Braamhoek Integration Project, Free State and KwaZulu-Natal Provinces
- Compilation of Provincial Guidelines for off-road routes within the Western Cape Province
- Water use permit applications for water use at Tiffindell Ski Resort, Eastern Cape Province
- Water use permit applications for various properties within the Olifants West Game Reserve, Limpopo Province
- Environmental Risk Analysis for Salbro Property Holdings, Gauteng Province
- Project integration and compilation of a Strategy for Sustainable Development for Gauteng Province
- Advice regarding environmental compliance of existing and future development at Tiffindell Ski, Eastern Cape Province
- Advice regarding environmental compliance at Salberg factory, Gauteng Province

Peer Review

- Review of EIAs submitted in terms of the ECA for the Northern Cape Department of Tourism, Environment and Conservation, including:
 - * EIA for a new wastewater treatment works in Warrenton
 - * EIA for chicken layer houses in Kimberley
 - * EIAs for the upgrading of petrol stations in Kimberley
 - * EIA for a new up-market residential development in Kathu
 - * EIA for residential development in Kimberley

- Review of EIA and EMP for the proposed Waterfall Wedge development, Gauteng Province

Infrastructure Projects

- Project manager for the EIA and EMP for the proposed bridge across the Ngotwane River located on the border of South Africa and Botswana

Mining Sector Projects

- Amendment of Environmental Management Programme for the Waterberg Colliery near Lephalale, Limpopo Province
- Amendment of EMPR for Grootegeluk Coal Mine near Lephalale, Limpopo Province, to include coal transportation infrastructure between the mine and Medupi Power Station
- Environmental Impact Assessment and Environmental Management Programme in terms of the MPRDA for the proposed Elitheni Coal Mine near Indwe, Eastern Cape Province
- Environmental Management Programmes for three borrow pits associated with the proposed Groot Letaba River Development Project, Limpopo Province

Water resources projects

- Project manager for the EIA and EMP for the proposed modification of the existing Hartebeestfontein Water Care Works, Gauteng Province (for ERWAT)
- Project manager for the EIA and EMP for the proposed expansion of the existing Welgedacht Water Care Works, Gauteng Province (for ERWAT)

Projects undertaken on behalf of Bohlweki Environmental include:

Specialist projects

- Development of an Environmental Policy for the Ekurhuleni Metropolitan Municipality
- Development of an Integrated Environmental Policy for the City of Tshwane Metropolitan Municipality Environmental Opportunities and Constraints Assessment for the Wonderboom Airport
- Review of the State of the Environment Report for the North West Province

Transport sector projects

- Environmental Impact Assessment and Environmental Management Plan for the proposed N2 Wild Coast Toll Road between East London (Eastern Cape) and Durban (KwaZulu-Natal)
- Environmental input to the Denneboom Local Integrated Transport Plan
- Environmental input to the Ekurhuleni transportation corridors study
- Environmental Impact Assessment for the proposed Platinum Highway from Warmbaths via Pretoria to Skilpadhek (on the South Africa-Botswana border), including obtaining all environmental permits required.
- Environmental Scoping Study and public participation process for the upgrading of Provincial Main Road 100 between the intersection with Main Road 521 and Ndwedwe
- Environmental Management Plan for repairs of portions of the N3 and N1, Gauteng
- Environmental Scoping Study and public participation process for the Kingsway Relief Road in Maseru, Lesotho

Electricity Sector projects

- Project manager for the undertaking of an EIA and compilation of an EMP for the proposed Open Cycle Gas Turbine (OCGT) Power Station and associated 400 kV Transmission lines and substation at Atlantis, Western Cape Province
- Environmental Scoping Study for a new coal-fired power station in the Lephalale area, Limpopo Province
- Project manager for the undertaking of Environmental Scoping Study and compilation of an Environmental Management Plan for various 132 kV Sub-Transmission lines and substations within the Mpumalanga Province
- Detailed Environmental Scoping Study and public participation for the proposed Capacity Increase Project at Arnot Power Station, Mpumalanga Province
- Project manager for the undertaking of an Environmental Scoping Study and EMP for the proposed 132 kV sub-Transmission line between the GaRankuwa and Dinaledi substations, North West Province
- Project manager for the undertaking of an EIA for the proposed 765 kV Transmission line between the existing Hydra Substation (near De Aar) and the proposed Gamma Substation (near Victoria West), Northern Cape Province
- EIA & public participation for the proposed new Ikaros Substation and associated 400 kV Transmission line infrastructure, North West Province
- Environmental Scoping Study public participation for the Establishment of Eskom Infrastructure for Power Supply to the C-Cut Development at Premier Mine, Cullinan, Gauteng Province
- EIA & public participation for the proposed 3rd 400 kV Transmission line between the Poseidon and Grassridge Substations in the Eastern Cape Province
- EIA & public participation for the proposed new 400 kV Transmission line between Matimba Substation (near Lephalale) and Witkop Substation (near Polokwane), Limpopo Province
- Environmental Impact Study and public participation for the proposed 2nd 400 kV Transmission line between the Grassridge Substation and the Poseidon Substation in the Eastern Cape.
- Public Participation Process for the proposed Return-to-Service of the Camden Power Station, Mpumalanga Province
- Detailed Environmental Scoping Study and public participation for the Breyten Strengthening Project: proposed new Breyten Substation and associated 88 kV Distribution line, Mpumalanga Province
- Environmental Pre-Scoping Study for the proposed Concentrating Solar Plant, in the Northern Cape Province
- Environmental Impact Assessment public participation for the proposed new nine 132 kV power lines between the Grassridge Substation and the Coega Industrial Development Zone, Eastern Cape Province

Pipelines

- Environmental Impact Assessment for the proposed Petronet New Multi-Products Pipeline (NMPP) between Durban and Gauteng Province
- Exemption application for the construction of a gas pipeline between Majuba Mine and Majuba Power Station, Mpumalanga Province.
- Exemption application for the construction of an emergency water supply pipeline from Mamelodi to Ekandustria via Cullinan, Gauteng Province.
- Environmental Scoping Study for the installation of a new water supply pipeline from Centurion to Diepsloot, Gauteng Province.

EIAs for Technology projects

- Environmental Impact Assessment for the proposed Alternative Fuels and Resources Project at Alpha's ULCO Plant near Kimberley in the Northern Cape Province
- Environmental Impact Assessment for the proposed Alternative Fuels and Resources Project at Dudfield Plant, North West Province
- Environmental Impact Assessment for the proposed Blending Platform to be established within the Gauteng Province
- Investigation of possible alternative Scrap tyre collection and disposal strategies in Gauteng, South Africa

Mining sector projects

- Environmental Management Programme Report (EMPR) for the proposed small-scale kaolin clay mine near Ndwedwe, KwaZulu-Natal Province

- Environmental Management Programme Report (EMPR) for prospecting activities within the Premier Mine Game Farm, Cullinan for De Beers Consolidated Mines Limited
- Environmental Management Plan for the Proposed C-Cut Development at Premier Mine, Cullinan
- Environmental Management Programme Report for the Proposed C-Cut Development at Premier Mine, Cullinan
- Environmental Impact Assessment and public participation process for the Proposed C-Cut Development at Premier Mine, Cullinan

Development projects

- A detailed Environmental Scoping Study and public participation process for the Thaba ya Batswana Development on portions of the Farm Rietvlei 101 IR, Gauteng
- Environmental Scoping Report and public participation process for the development of a Community Safety Centre in Khutsong-South, Carletonville

Water resources projects

- A detailed Environmental Impact Assessment of new regional water care infrastructure in the DD5A sub-drainage district in Eastern Gauteng (adjacent to the Blesbokspruit Ramsar Site) for the East Rand Water Care Company (ERWAT)

**CURRICULUM VITAE
GABRIELE WOOD**

Profession : Public Participation and Social Consultant
Specialisation : Public Participation Processes Implementation
Years experience : 5 years

KEY RESPONSIBILITIES

Specific responsibilities as a Public Participation and Social Consultant include professional execution of public participation consulting for a variety of projects. This includes managing and coordinating public participation processes for Environmental Impact Assessments (EIA).

SKILLS BASE AND CORE COMPETENCIES

- Qualitative and Quantitative Social Research
- Social Assessment (Stakeholder and Social Analysis)
- Public participation process implementation, monitoring and evaluation
- Facilitation (Focus Groups, Community Meetings, Interest Group Meetings, Public Meetings, Public Open Days, Workshops, Forums, Committees, etc.)
- Stakeholder Management
- Community Needs Assessment
- Relocation Facilitation
- Project Administration
- Minute Taking
- Report Writing

EDUCATION AND PROFESSIONAL STATUS

Degrees:

B. Hons. Anthropology (Cum Laude): University of Johannesburg (2004 – 2005)

B.A. Psychology: University of Johannesburg (2002 – 2004)

Courses:

South African Advertising Research Foundation (SAARF) living Standards Measure (LSM) Training (2010).

Certificate in Focus Group Moderation Skills, Market Research for Africa (2007)

Prestige Diploma in Public Relations: Allenby Campus Boksburg now Damlin College (2001)

EMPLOYMENT

May 2012 – Current:

Savannah Environmental (Pty) Ltd: Public Participation and Social Consultant

March 2007 – April 2012:

NMA Effective Social Strategists (Pty) Ltd: Assistant Project Manager – Public Participation and Social Research

January 2005 – March 2007 (Part-time):

University of Johannesburg: Department of Anthropology and Development Studies: Student Tutor and Research Assistant

PROJECT EXPERIENCE

Current projects include:

- Garob Wind Energy Facility Project - EIA (juwi Renewable Energies)
- Zen Wind Energy Facility – EIA (VentuSA Energy)
- Prieska and Prieska North Solar PV Facilities – EIA (VentuSA Energy)
- Musina Solar PV Energy Facility – EIA (BioTherm Energy)
- Aberdeen Solar PV Energy Facility – EIA (BioTherm Energy)
- Sishen PV 132kV Power Line – Basic Assessment (Aveng/Vexicom)
- Southern Cross and Tutwa Solar PV Energy Facilities – BA (Tiquen Trading and Flint Ridge Trading)
- Lephalele Coal Fired Power Station – EIA and EMP (Exxaro)

CURRICULUM VITAE

TONY BARBOUR

Environmental Consultant and Researcher

SKILLS BASE AND CORE COMPETENCIES

- More than 18 years experience in the field of environmental management.
- Undertaken 20 Social Impact Assessments (SIA) for EIAs commissioned by the Department of Environmental Affairs and Development Planning (DEA&DP).
- Developed SIA guidelines for DWAF.
- Worked experience in South Africa, Botswana, Namibia, Zambia, Lesotho and Swaziland.

TERTIARY EDUCATION

- BSc (Geology and Economics) Rhodes, 1984
- BEcon (Hons) Rhodes, 1985
- MSc (Environmental Science) University of Cape Town, 1992

EMPLOYMENT HISTORY

- Private consultant: November 2004 – present
- UCT: August 1996- October 2004. Environmental Evaluation Unit, Senior Environmental Consultant and Researcher.
- 1991-1996: Ninham Shand Consulting, Cape Town. Senior Environmental Scientist
- 1996-2000; SRK Consulting, Associate Director, Cape Town
- 1990- Current: Lecturer, UCT and Cape Technikon, Environmental Economics, SIA, SEA, EIA and Waste Management.

SELECTED RELAVANT PROJECT EXPERIENCE

- SIA for the Darling Wind Farm, Western Capr (2001-2002).
- Portnet Saldanha, EIA for the expansion of a bulk iron ore exporting facility at the Port of Saldhana (2000).
- SIA for road upgrade between Gansbaai and Bredadorp (2005)
- SIA for Zeekoevlei Golf Estate, Somerset West (2005)
- SIA for Silwersand Golf and Resort Estate, Robertson, Western Cape (2003)
- Internal Review consultant for Golder Associates on Namakwa Sands Heavy Mineral Mining EIA (current).
- Review of EIA for Zeekoevlei Golf Course Estate, Somerset West (2005)
- Review of EIA for Oostenberg Waste Transfer Station, Brackenfell, Western Cape (2004)
- Review of EIA for N7 Road upgrade, Clanwilliam, Western Cape (2002).

CURRICULUM VITAE
LOURENS MARTINUS DU PLESSIS

MetroGIS (Pty) Ltd

Visual Assessment and Geographic Information Systems Specialist

SKILLS BASE AND CORE COMPETENCIES

- More than 17 years experience in the application of Geographical Information Systems (GIS) in Environmental Planning and Management.
- Extensive practical knowledge in spatial analysis, environmental modelling and digital mapping.
- Experience in applying GIS in EIAs, State of the Environment Reports and Environmental Management Plans.

TERTIARY EDUCATION

- BA (University of Pretoria) Geography and Anthropology (Malors), 1993

EMPLOYMENT HISTORY

1999-present: MetroGIS, Director

1997-1999: GISBS, Project Manager

1990-1997: GisLAB c, Project Manager / Member

SELECTED RELAVANT PROJECT EXPERIENCE

- Visual Impact Assessments and Viewshed Analysis for various types of developments, including telecommunications structures, mining activities and tourism accommodation in National Parks and other environmentally sensitive areas. Some recent and current projects include:
 - * Proposed Altantis Open Cycle Gas Turbine power station.
 - * Matimba B proposed coal-fired power station.
 - * Zues to Mercury transmission line (comparative viewshed analysis)
 - *Mercury-Ferrum-Garone transmission line intergration
 - *Mmamambula (Botswana) transmission line and power station viewshed analysis Kynoch Gypsum Tailings dam extension
 - *N1 Western Bypass Shell service station
 - *Coega regional hazardous waste processing facility.
 - *Robinson Deep landfill extension
 - Concentrating Solar Power (CSP) plant
- EIAs for the utilisation of GIS based systems to determine and manage environmental impacts. Various projects in South Africa.

ABRIDGED CURRICULUM VITAE

MARIANNE STROHBACH SAVANNAH ENVIRONMENTAL (PTY) LTD

Profession : Specialist Scientist

Specialisation : Plant Ecology and Botany, with special reference to vegetation mapping, vegetation state assessment, dynamics of arid and semi-arid vegetation and population dynamics of harvested plants, conservation planning

Work experience: Twenty (20) years active in Plant Ecology

SKILLS BASE AND CORE COMPETENCIES

- Four years Plant Conservation (Namibia)
- 16 years active research in vegetation mapping, vegetation state assessment, vegetation and plant population dynamics, long-term vegetation monitoring
- Advisory to International Standards for plant species that are harvested for commercial purposes
- Research Project Management
- Ecological assessments for developmental purposes (BAR, EIA)
- Working knowledge of environmental planning policies, regulatory frameworks and legislation
- Identification and assessment of potential environmental impacts and benefits
- Development of practical and achievable mitigation measures and management plans and evaluation of risk to project execution
- Experienced in environmental monitoring
- Completed projects in several Provinces of South Africa, as well as Zimbabwe and Namibia

EDUCATION AND PROFESSIONAL STATUS

Degrees:

2003 M.Sc. in Botany, University of Pretoria, Pretoria, RSA

1991 B.Sc. Hons in Botany, Nelson Mandela Metropolitan University, Port Elizabeth, RSA

1990 B.Sc. in Biological Sciences, Nelson Mandela Metropolitan University, Port Elizabeth

Short Courses:

2008 Landscape Functional Analysis for vegetation condition and restoration monitoring

2002 Satellite Image Analysis for Vegetation Mapping, German Aerospace Centre (DLR) Cologne/Würzburg, Germany

Methods and Techniques of Environmental Management, Deutsche Stiftung für Internationale Entwicklung, Berlin, Germany

1993 Conservation Law Enforcement, Ministry of Environment and Tourism, Namibia

Professional Society Affiliations:

South African Association for Botanists

Association of Desert Net International

The South African Council for Natural Scientific Professions: Pr. Sci. Nat. Reg. No. 400079/10

(Botany and Ecology)

EMPLOYMENT

Current: Ecologist, Savannah Environmental (Pty) Ltd

2011: Lecturer, Plant Ecology, University of Pretoria

1997 onwards: working as vegetation ecologist on a freelance basis, involved in part-time positions and contractual research as outlined below

1995 to 1996: Agricultural Researcher at the National Botanical Research Institute, Windhoek, Namibia

1992 to 1995: Vegetation ecologist at the Ministry of Environment and Tourism, Namibia, Directorate of Scientific Services

Past Affiliations and Research

2001 – 2010: contractual work with BIOTA (BIODiversity Transect analysis in Africa) as affiliate to the National Botanical Research Institute, Namibia.

Deliverables:

Project management, including research proposal, financial management and project implementation.

Modelling of Savanna Dynamics:

Collating and summarising available phytosociological data for ecological modellers to use in creating a generic savanna model for the Namibian savannas

Defining plant functional types to simplify vegetation data and to use as indicators in monitoring techniques by livestock farmers

Vegetation Patterns and Processes in Namibian Savannas:

Small scale monitoring of vegetation dynamics over a range of soil conditions and seasons

Determine ecological barriers to and best practice for rangeland restoration

Vegetation classification and mapping in Central Namibia:

Collection and analysis of phytosociological baseline data for the central Thornbush Savanna in Namibia, delineation of vegetation types with the aid of satellite imagery

2006: German Scientific Authority to CITES, Plants, Federal Agency for Nature Conservation

International Standard for the Sustainable Wild Collection of Medicinal & Aromatic Plants

Assisting in the compilation of a reference guide for minimum research standards necessary to ensure sustainable use of economically utilised plants (updated in FairWild Standard Version 2, 2010)

2004: contractual work for Desert Research Foundation of Namibia

Vegetation description and mapping of the Namibian Eastern Communal Areas and assess possible development options using indigenous plant resources

1997 to 2010: contractual work with CRIAA-SADC as ecologist.

Deliverables:

The Sustainably Harvested Devil's Claw Project:

Annual surveys of Harpagophytum populations to determine harvesting quotas for rural communities

Determine and monitor impact of harvesting frequency and techniques on survival of Harpagophytum procumbens

Educate harvester communities on issues of resource management

In collaboration with the German Federal Agency for Nature Conservation

This work was extended in 2006 to the Hwange Area, NW Zimbabwe, together with Africa Now

Pilot Devil's Claw cultivation trials:

Increase available resources of Harpagophytum procumbens

Give communities ownership and better access of their resources to improve their income

Namibian National Devil's Claw Situation Analysis:

Design and implement a country-wide survey of Harpagophytum species to assess resource availability compared to annual export figure

1999 to 2001: Assistant curator at the Swakopmund Museum (part-time position)

Help maintain existing collections and exhibits, design and create new exhibits for the museum in collaboration with the Museum Hannover, Germany

Specialist Scientist Vegetation Surveys and related Impact Assessments were done for following clients:

Langer Heinrich Uranium Pty (Ltd): Central Namib Desert, Namibia

University of Namibia, Hentiesbay Research Centre: West Coast, Namibia

Sasol – Limpopo Province

EcoAgent – Northern Cape, Eastern Cape, Limpopo and Mpumalanga

Namwater – Karst aquifers, north-central Namibia

ENVASS (for AfriDevo) – Northern Cape

Johann Lanz

Professional profile

Education

- M.Sc. (Environmental Geochemistry) University of Cape Town 1996 - June 1997
- B.Sc. Agriculture (Soil Science, Chemistry) University of Stellenbosch 1992 - 1995
- BA (English, Environmental & Geographical Science) University of Cape Town 1989 - 1991
- Matric Exemption Wynberg Boy's High School 1983

Professional work experience

I am registered as a Professional Natural Scientist (Pri.Sci.Nat.) in the field of soil science, registration number 400268/12.

- **Soil Science Consultant** **Self employed** **2002 - present**
I run a soil science consulting business, servicing clients in both the environmental and agricultural industries. Typical consulting projects involve:
 - Soil specialist study inputs to EIA's, SEA's and EMPR's. These have focused on impact assessments and rehabilitation on agricultural land, rehabilitation and re-vegetation of mining and industrially disturbed and contaminated soils, as well as more general aspects of soil resource management. Recent clients include: CSIR; Aurecon; Sharples Environmental Services; Mainstream Renewable Power; BioTherm Energy; MBB Consulting Engineers; WKN Windcurrent; Corobrik; Western Cape Provincial Department of Environmental Affairs and Development Planning; Alcan aluminium smelter (Coega); Namaqualand Restoration Initiative; AECI; Afrimat; Tiptrans.
 - Soil resource evaluations and mapping for agricultural land use planning and management. Recent clients include: Lourensford Wine Estate; Thelema Mountain Vineyards; Delaire Wine estate; Newton-Johnson Wines; Spier Estate; Colors Fruit; Kaarsten Boerdery; Amanzi Country Estate (Port Elizabeth); Rudera Wines; Flagstone; Cob Creek Estate (Jeffreys Bay); Solms Delta Wines; Dornier Wines.
 - I have conducted several recent research projects focused on conservation farming, soil health and carbon sequestration.
 - I am project managing the development of soil nutrition software for Farmsecure Agri Science.
- **Soil Science Consultant** **Agricultural Consultants International (Tinie du Preez)** **1998 - end 2001**
Responsible for providing all aspects of a soil science technical consulting service directly to clients in the wine, fruit and environmental industries all over South Africa, and in Chile, South America.
- **Contracting Soil Scientist** **De Beers Namaqualand Mines** **July 1997 - Jan 1998**
Completed a contract to make recommendations on soil rehabilitation and re-vegetation of mined areas.

Publications

- Lanz, J. 2012. Soil health: sustaining Stellenbosch's roots. In: M Swilling, B Sebitosi & R Loots (eds). *Sustainable Stellenbosch: opening dialogues*. Stellenbosch: SunMedia.
- Lanz, J. 2010. Soil health indicators: physical and chemical. *South African Fruit Journal*, April / May 2010 issue.
- Lanz, J. 2009. Soil health constraints. *South African Fruit Journal*, August / September 2009 issue.
- Lanz, J. 2009. Soil carbon research. *AgriProbe*, Department of Agriculture.
- Lanz, J. 2005. Special Report: Soils and wine quality. *Wineland Magazine*.

I am a reviewing scientist for the South African Journal of Plant and Soil.

CURRICULUM VITAE
JACO VAN DER WALT

Profession : *Archaeologist*

Specialisation : *Cultural Resource Management and Iron Age Archaeology*

Work experience : *10 years*

SKILLS BASE AND CORE COMPETENCIES

- Archaeological Impact Assessments
- Heritage Impact Assessments
- Heritage Management Plans
- Archaeological research projects
- Cultural resource management
- Phase II cultural resource management projects: archaeological excavations
- Grave relocation
- Project Management

TERTIARY EDUCATION

- 2001, BA Archaeology (Cultural Heritage Tourism), University of Pretoria (SA)
- 2002, BA Archaeology (Hons) , University of Witwatersrand (SA)
- Present, Masters Archaeology, University of Witwatersrand (SA)

EMPLOYMENT HISTORY

- 2011 – Present: Founder and owner of Heritage Contracts and Archaeological Consulting CC. 2007 – 2010: CRM Archaeologist, Managed the Heritage Contracts Unit at the University of the Witwatersrand
- 2005 - 2007: CRM Archaeologist, Director of Matakoma Heritage Consultants
- 2004: Technical Assistant, Department of Anatomy University of Pretoria
- 2003: Archaeologist, Mapungubwe World Heritage Site Archaeological Rehabilitation Project
- 2001 - 2002: CRM Archaeologists, For R & R Cultural Resource Consultants, Polokwane
- 2000: Museum Assistant, Fort Klapperkop, Pretoria

SELECTED RELEVANT PROJECT EXPERIENCE

- Archaeological Impact Assessment for the Chronimet Underground Mine, Opencast mine, process plant, Amandelbult, Limpopo Province.
- Archaeological And Palaeontological Impact Assessment For The Updated EMP for Trans Hex Mining Operations, Richtersveld, Northern Cape
- Archaeological Impact Assessment for Sasol’s project Mafuta, Lephalale, Limpopo Province.
- Archaeological and Heritage Statement for the Proposed Lg5 Opencast Mining Area, North West Province
- Field supervisor at Mapungubwe (World Heritage Site) Archaeological Rehabilitation project
- Field Director for Iron Age mitigation for chrome Mining by Herculite Ferrochrome, North West Province.
- Field Director phase 2 documentation for The Heads Trust, Heritage Assessment, and monitoring for Lydenburg Ext 38 housing development, Lydenburg, Mpumalanga, principle investigator Prof. T. Huffman
- Field Director phase 2 documentation for Sterkspruit housing development, Lydenburg, Mpumalanga.
- Field Director Middle Iron Age Mitigation For Wesizwe Platinum mining, principle investigator.
- Field Director Phase 2 documentation of Khoni Iron Age Settlement Lydenburg.
- Field Director for the Archaeological Mitigation For Booyendal Platinum Mine, Steelpoort, Limpopo Province.
- Monitoring of heritage sites affected by the ARUP Transnet Multipurpose Pipeline from Jhb to Durban
- Field Director for the Phase 2 mapping of a late Iron Age site located on the farm Kameelbult, Zeerust, North West Province.