

CURRICULUM VITAE

KAREN JODAS

Director: Savannah Environmental (Pty) Ltd

Environmental Scientist and Project Manager (MSc.; Pr Sci Nat)

SKILLS BASE AND CORE COMPETENCIES

- Sixteen years experience in the environmental management and impact assessment field
- Fourteen years experience in Project Management - Project management of large environmental assessment and management projects
- Strategic and compliance advise for all aspects of environmental assessment and management
- External and peer review of EIA reporting and EIA process
- 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
- Environmental compliance advise, monitoring and reporting for construction projects
- Compilation and review of the reports in accordance with all relevant environmental legislation
- Public participation/involvement and stakeholder consultation
- Environmental strategy, policy and guidelines development
- Experienced in assessments for both linear developments and nodal developments
- Key experience in the assessment of impacts associated with renewable energy projects
- Wide range of experience for public and private sector projects
- Completed projects in all nine Provinces of South Africa, as well as Zambia and Lesotho
Registered Professional Natural Scientist (Registration No 400106/99)

TERTIARY EDUCATION

- BSc Earth Sciences, majoring in Geography and Zoology, *Rhodes University, Grahamstown*, 1993
- BSc Honours in Geography (in Environmental Water Management), *Rhodes University, Grahamstown*, 1994. Major subjects included Water Resources Management, Streams Ecology, Fluvial Geomorphology and Geographic Information Systems.
- MSc in Geography (Geomorphology), *Rhodes University, Grahamstown*, 1996

EMPLOYMENT HISTORY

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

Jan 1997 – September 2005: Associate of Bohlweki Environmental (Pty) Ltd. Environmental Management Unit: Manager; Principle Environmental Scientist focusing on Environmental Management and Project Management.

RELEVANT PROJECT EXPERIENCE

- Site selection/screening processes for development projects
- EIAs for more than 100 renewable energy facility projects throughout South Africa
- EIAs for Transmission and Distribution line projects in all provinces
- Development of Environmental Management Tools for development projects
- Environmental Control Officer (ECO) / Compliance Advise, Monitoring and Auditing
- Due diligence reporting

**CURRICULUM VITAE
UMESHREE NAICKER**

Profession : *Environmental Consultant*
Specialisation : *Environmental Management*
Work experience : *4 years*

SKILLS BASE AND CORE COMPETENCIES

- . The compilation of the environmental application forms and reports for the environmental processes; Basic Assessment, Scoping and EIR, Amendment Application and Appeals Procedure
- Co-ordinate and facilitate Public Participation Process (PPP):
- Liaising with client, relevant authorities and departments.
- ECO/EO Audits and the compilation and implementation of Environmental Management Programmes

TERTIARY EDUCATION

- . BSc (Environmental Science) Obtained from the University of Kwa Zulu Natal (2007)
- 2. BSc Hons (Environmental Science) obtained from the University of South Africa (2011)

EMPLOYMENT HISTORY

- 1. January 2012 to current, Company : Savannah Environmental, Position: Environmental Consultant
- 2. February 2008 – November 2011, Company : Buk'indalo Consultancy, Position: Jnr Environmental Consultant

SELECTED RELEVANT PROJECT EXPERIENCE

- Basic Assessment Process for the construction of various Local Roads and Causeways in the Umkhanyakude District Municipality
- 2. Basic Assessment Process for the construction of two Bridges (No 3126/1 & 3127/1), and Extension to Local Road L1135 Uthukela District Municipality
- 3. Scoping Report for the Raising of the Refurbishment Dam Wall and the Installation of a pipeline for the Eston Sugar Mill, 2008.
- 4. Basic Assessment Process for the construction of two Bridges (No 3126/1 & 3127/1), and Extension to Local Road L1135 Uthukela District Municipality for 2010, Department of Transport: Estcourt Cost Centre.
- 5. Basic Assessment Process for the construction of Local Roads and Causeways in the Umkhanyakude District Municipality for 2011, Department of Transport

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.

CURRICULUM VITAE

IAIN PATON

Geologist

SKILLS BASE AND CORE COMPETENCIES

Engineering and Geology.

TERTIARY EDUCATION

Rhodes University, Grahamstown, South Africa

- 1993: Bachelor of Science Degree in Geology and Economics
- 1994: Bachelor of Science with Honours Degree in Geology

WORK EXPERIENCE

- 1995 to 1996 Mine Geologist – Western Areas Gold Mine (JCI Limited), Johannesburg
- 1996 to 1997 Senior Geologist – Western Areas Gold Mine (JCI Limited), Johannesburg
- 1997 to 1998 Logging Geologist - Halliburton Energy Services (Drilling Systems), Aberdeen, Scotland
- 2000 - 2006 Construction Site Manager – Progex, Knysna
- 2006 to 2008 Engineering Geologist & Member - Siyakhula Lab cc, Knysna Civil Laboratory & Geotechnical Services
- 2008 to date Engineering Geologist & Member - Outeniqua Geotechnical Services cc (Formerly Siyakhula Lab cc), Knysna

CURRICULUM VITAE
STEPHAN GAIGHER

COMPANY : *G&A Heritage*
SPECIALIST : *Heritage Management Consultants*

SKILLS BASE AND CORE COMPETENCIES

- Heritage Impact Assessment
- Archaeological Impact Assessment
- Grave Relocation

EDUCATION AND PROFESSIONAL STATUS

1992 - 1994

Town and Regional Planning

Ancient Cities studies

Course on determining *Genius Loci* (Sense of Place)

1994 – 1996

BA – Philosophy (*Cum Laude*) with specialization in *Aesthetics and Ethics*

BA – Archaeology (*Cum Laude*)

1996 – 1998

BA Hons. – Archaeology (*Cum Laude*)

2010 – Present

MA – Archaeology (not awarded yet)

EMPLOYMENT

- Junior Lecturer | University of Venda

1998 - 2000

Lecturing of pre-graduate courses in Archaeology, Forensic Archaeology and Forensic Anthropology

- Principal Investigator | Archaeo-Info Northern Province

1998 - 2005

Managing Director and Principal Investigator

- Over 2000 Heritage Impact Studies performed during this time
- Over 2500 Graves Repatriated

- Principal Investigator | G&A Heritage

2005 - Present

Managing Director and Principal Investigator

- Director of Archaeological Research | Lajuma Research Centre

2005 – Present

SELECTED RELEVANT PROJECT EXPERIENCE

- Eskom Solar Integration Project (Northern Cape)
- Brickvale Solar Park PV Array
- Camden Mbewu 400kVa

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