

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 : Eleven (11) 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 monitoring
- Formulation of environmental policies, strategies and guidelines
- 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:

Electricity Sector Projects

- 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)
- 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)

- 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)
- 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)

Compliance Monitoring

- Audit of environmental compliance for Salberg Concrete Products
- ECO compliance monitoring for the construction of the De Hoop Dam and the diversion of the R555, Limpopo Province
- ECO compliance monitoring for the Mine Water Recovery Project at Duvha Power Station, Mpumalanga Province
- Compilation of an Environmental Management Plan and ECO compliance monitoring for existing and future development at Tiffindell Ski, Eastern Cape Province
- ECO compliance monitoring for construction of the Nelson Mandela Bay 2010 Soccer Stadium

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

- 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
- 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

- 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
- 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
- Detailed Environmental Scoping Study and public participation for the Breyten Strengthening Project: proposed new Breyten Substation and associated 88 kV Distribution line, Mpumalanga Province
- Public Participation Process for the proposed Return-to-Service of the Camden Power Station, Mpumalanga 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.
- 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

ALICIA GOVENDER

Profession : *Environmental Consultant*

Years experience : *3 years in the environmental field*

KEY RESPONSIBILITIES

Professional execution of consulting services.

Reporting for a variety of projects.

SKILLS BASE AND CORE COMPETENCIES

- Microsoft office
- Geographic Information Systems (ArcView 8.3, ArcMap, Idrisi) (to 3rd year level)

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- 2004 - 2006, B.Sc (*Social Science*), Geography and Environmental Management, University of KwaZulu-Natal
- 2007 - 2010, B.Sc (*Honours*), Environmental Management, University of South Africa

EMPLOYMENT

- November 2008 - Present, Savannah Environmental (Pty) Ltd, Environmental Consultant
- Aug 2007 - October 2008, Fraser Alexander Tailings, Trainee Environmental Technical Risk Officer
- July 2007, Department of Agriculture and Environmental Affairs through the School of Environmental Sciences (Geography) (Durban)
 - Review of backlog EIA applications under new ECA regulations.
 - Administrative assistant for launch of project.
 - Archiving of EIA applications.

SELECTED RELEVANT PROJECT EXPERIENCE

- EIA & EMP for the upgrade of the Hartebeestfontein Wastewater Care Works: ERWAT
- EIA & EMP for the extension of the Welgedacht Wastewater Care Works: ERWAT
- Operational EMP for the Medupi Power Station: Eskom
- Educational Booklet for the Environmental Management Plan for Medupi Power Station construction
- ECO Audit Reports for De Hoop Dam
- Public Participation for the Tshwane Strengthening Project Phase 1: Eskom Transmission
- Basic Assessment for Wind Monitoring Masts for sites-Laingsburg and Beaufort West: Umoya
- Basic Assessment for Wind Monitoring Masts for sites North of Koekenaap: Mulilo
- Basic Assessment for the Proposed Bus and Taxi facility in the Dilokong Area- SANRAL
- Basic Assessment for the Proposed Wind Monitoring Masts in the Overberg Area- BioTherm Energy
- EIA for the proposed Wind Energy Facility in the Overberg area near Caledon- BioTherm Energy

CURRICULUM VITAE

SHAWN JOHNSTON

Sustainable Futures ZA

Process Facilitator

SKILLS BASE AND CORE COMPETENCIES

- Facilitator, Mediator and Trainer
- Planning, Process Design and Conceptualising
- Facilitation, Public and Stakeholder Liaison
- Process co-ordination, problem-solving and negotiation skills.

TERTIARY EDUCATION

- B.Tech Environmental Management – Cape Peninsula University of Technology, Cape Town
- National Diploma in Horticulture, Cape Technikon, Cape Town
- Certificate in Conflict Resolution and Environmental Mediation, Partnership Lifeskills Centre/ Global Future Links- Washington DC, USA

EMPLOYMENT HISTORY

- Leadership South Programme
- FutureLinks South Africa
- Common Ground Consulting
- Sustainable Futures ZA

SELECTED RELEVANT PROJECT EXPERIENCE

- LEAD FACILITATOR, OLIFANTS/ DORING RIVER WATER USER ASSOCIATION CAPACITY BUILDING PROJECT. (Current). Facilitation and co-ordinator of the Olifant/ Doring Water User Association Capacity Building for commercial farmers and emerging black farmers.
- ESKOM PROCESS FACILITATOR. ESKOM ANKERLIG CLOSED CYCLE GAS TURBINE CONVERSATION PROJECT AND ASSOCIATED PROJECT, ATLANTIS, CAPE TOWN. (Current) Responsible for facilitating the public participation process for the Eskom Ankerlig gas turbine conversion from OCTG to CCGT and associated EIA studies.
- ESKOM PUBLIC PARTICIPATION PROCESS, ESKOM WIND ENERGY FACILITY, WEST COAST OF SOUTH AFRICA (Current) Responsible for facilitating the public participation process for the EIA process near Koekenaap in the Matzikama Municipality, Cape West Coast.
- PART TIME LECTURER, WATER AND CONFLICT, INTERGRATED WATER RESOURCES MANAGEMENT PROGRAMME AT THE UNIVERISTY OF THE WESTERN CAPE (2006-current). Assisted with establishing the first water and conflict resolution module in the MSc Integrated Water Resource Management degree course.

CURRICULUM VITAE

DAVID HOARE

Ecologist

SKILLS BASE AND CORE COMPETENCIES

Ecological consultant since 1995. Author of over 200 specialist ecological consulting reports. Wide experience in botanical studies within grassland, savanna and fynbos, as well as riparian, coastal and wetland vegetation.

Main areas of specialization:

- Vegetation ecology, primarily in grasslands, thicket, coastal systems, wetlands
- Plant biodiversity and threatened species specialist
- Remote sensing, analysis and mapping of vegetation
- Specialist consultant for environmental management projects

TERTIARY EDUCATION

- Matric - Graeme College, Grahamstown, 1984
- B.Sc (majors: Botany, Zoology) - Rhodes University, 1991-1993
- B.Sc (Hons) (Botany) - Rhodes University, 1994 with distinction
- M.Sc (Botany) - University of Pretoria, 1995-1997 with distinction
- PhD (in progress) – Nelson Mandela Metropolitan University, Port Elizabeth, "Patterns and determinants of plant biodiversity in temperate, mesic grasslands of South Africa" under supervision of Prof. Richard Cowling

EMPLOYMENT HISTORY

- 1 February 1998 – 30 November 2004, Researcher, Agricultural Research Council, Range and Forage Institute, Private Bag X05, Lynn East, 0039. Duties: project management, general vegetation ecology, remote sensing image processing.
- 1 December 2004 – present, Member, David Hoare Consulting cc no. 2001/034446/23. Consultant, specialist consultant contracted to a number of existing companies and organisations.
- 1 January 2009 – 30 June 2009, Lecturer, University of Pretoria, Botany Dept.

SELECTED RELEVANT PROJECT EXPERIENCE

- Vegetation pattern in Pilanesberg National Park using digital photogrammetric data preparation techniques, 1 August – present.
- VegMap digital mapping and description of vegetation units of Eastern Cape for new national vegetation map (Dept. of Environmental Affairs and Tourism/National Botanical Institute) and contributions to text and vegetation descriptions in accompanying booklet.
- Classification and mapping of the savanna biome of South Africa using remote sensing techniques, 1 February 1998 – 20 November 1999.
- Natural resource survey of nodes O R Tambo and Maputoland, using remote sensing

techniques, 1 November 2001 – December 2003.

- Field data collection for National Land Cover Change Project, Dec 2003 – March 2004.
- Vegetation survey of KwaMhlanaga Landcare site, March 2004.
- Scale physiognomic survey of Suikerbosrand Nature Reserve, 1 March 1998 – 1 April 1998.
- Natural resource survey of Mpumalanga, South Africa, using remote sensing techniques, 1 November 1998 – 2000.
- Vegetation of the corridor of the proposed Eskom powerline from Port Elizabeth to Bedford. September 2000.

National land cover change mapping and monitoring – development of guidelines, protocols and recommendations for a national mapping project, 1 June 2000 – 30 November 2000.

CURRICULUM VITAE
ANDREW ROBERT JENKINS

Researcher and Scientist

SKILLS BASE AND CORE COMPETENCIES

- Over 20 years experience in the field of avian impact assessment in South Africa.

TERTIARY EDUCATION

- **1989-1998:** MSc upgraded to PhD, Percy FitzPatrick Institute, University of Cape Town. Thesis title: Behavioural ecology of Peregrine and Lanner Falcons in South Africa.
- **1988:** BSc Hons in Zoology, University of Natal, Pietermaritzburg (with distinction). Project title: Bill morphology, feeding ecology and niche partitioning in six sympatric species of granivorous birds.
- **1984-1987:** BSc, University of Natal, Pietermaritzburg, majoring in Zoology and African & Experimental Zoology.
- **1983:** Matriculated at St. Stithian's College, Randburg.

EMPLOYMENT HISTORY

- **September 2007-March 2009:** Employed as a research scientist by the Wildlife & Energy Interaction Group of the Endangered Wildlife Trust, tasked with (i) consolidating and strengthening existing research, and initiating new research initiatives, in the field of wildlife/power line interactions, and particularly in the mitigation of bird mortalities associated with electrical infrastructure, and (ii) doing in-depth EIA assessments for major proposed developments in energy infrastructure. Designed the WEIG research programme for 2008-2011, focusing on the mitigation of bird:power line collisions.
- **March 2002-February 2007:** Employed as research scientist at FitzPatrick Institute, UCT from March 2002, managing the *Western Cape Raptor Research Programme*, and overseeing various raptor-based projects, including a collaboration with electricity supplier Eskom to reduce the incidence of line faults associated with large eagle nests on electricity transmission pylons in the Karoo, and a collaboration with the Critical Ecosystem Partnership Fund to investigate the value of the Black Harrier as a surrogate species in the conservation of lowland Fynbos and Renosterveld. Also conducted work on the suitability of Barn Owls as bio-control agents for rodents in a wheat-farming area, and the role of African Fish Eagles and other raptors as indicators of agrochemical contamination in an area of intensive viticulture, and organized and led a survey of the Taita Falcon population of the Mpumalanga escarpment. During this period, co-supervised one MSc thesis, three MSc Conservation Biology mini-theses, and two BSc Hons projects.
- **January 2003-Present:** Retained by various agencies to do EIA work as an avian specialist for development projects in the Greater Cape Town area, and more broadly in the Western Cape. Set up *AVISENSE* Consulting in April 2009.
- **January 1989-Present:** Conducted long-term field study of Peregrine Falcons on the Cape Peninsula, including monitoring of breeding performance and demography of a colour-marked population. Still ongoing.
- **January 2003-2004:** Retained to design and oversee monitoring of impacts on avifauna of the Eskom Demonstration Wind Farm facility at Klipheuwel, W Cape.
- **April 2001-2004:** Produced initial scoping report and conducted subsequent monitoring of the potential impact of the proposed Darling National Demonstration Wind Farm facility on the local avifauna.

- **November 1998–December 2000:** Employed as a postgraduate research fellow at the FitzPatrick Institute, UCT, working on various projects concerning the biology of predation. Also co-supervised the two Masters mini-theses in Conservation Biology, and oversaw the experiential training year of a Cape Technikon Nature Conservation student.
- **November 1998:** Subcontracted by the Environmental Evaluation Unit, UCT, to conduct the avian component of a site evaluation for the proposed extension of the Namakwa Sands heavy mineral sands mine area near Lutzville on the Cape west coast.
- **September 1996, August 1997, August 2000:** Part of ornithological team subcontracted by Afridev Consultants to survey the birds of the Katse Basin, Lesotho: phase 1A of the Lesotho Highlands Water Scheme.
- **August 1995:** Part of ornithological team subcontracted by Afridev Consultants to survey the birds of the Mohale Basin, Lesotho: phase 1B of the Lesotho Highlands Water Scheme.
- **July 1992 & December/January 1993:** Contributor to "Environmental survey to determine priority areas for conservation, community use and development in the West Coast urban structure plan". Assessed avian diversity in proposed priority areas in a study coordinated by the National Botanical Institute.
- **June 1991:** Assisted with bird component of "Baseline biological study of phase 1a of the Lesotho Highlands water scheme", coordinated by Loxton Venn environmental consultants.
- **December 1989:** Assisted with environmental impact assessment of the West Coast Heavy Mineral Sands Project at *Brand se Baai*, subcontracted by UCT's Environmental Evaluation Unit.

SELECTED RELAVANT PROJECT EXPERIENCE

- Major EIA contracts completed during this time include a contribution to the Strategic Environmental Assessment for energy development in the western Cape Peninsula, and avifaunal studies of Eskom Generation's proposed Wind Energy Facility in the Vredendal area, Western Cape, and Macquarie's proposed Hopefield Wind Energy Facility, Hopefield, Western Cape.
- Involved in all the bird impact studies completed to date for proposed wind farms in South Africa, from the Darling and Eskom Klipheuwel facilities in 2003, to the Hopefield facility in 2009.
- Established track record as a published research ornithologist, spanning >20 years, including the development of a management plan for large eagles nesting on transmission pylons, and recent pioneering work on the affects of power line collisions on populations of threatened large terrestrial birds.

CURRICULUM VITAE

NICK HELME

SKILLS BASE AND CORE COMPETENCIES

Botanist

HIGHER EDUCATION

BSc (Honours) - Botany. 1990. UCT, South Africa.

Dean's Merit List & distinction – 1988; Class Medal & distinction – 1989

PROFESSIONAL REGISTRATION

Pri.Sci.Nat # 400045/08

BEE COMPLIANCE

Level Four Contributor BE # 1915

EMPLOYMENT HISTORY

Since 1997 I have been based in Cape Town, and have been working as a specialist botanical consultant, specialising in the diverse flora of the south-western Cape. Since the end of 2001 I have been working on my own and trade as Nick Helme Botanical Surveys.

SELECTED RELAVANT PROJECT EXPERIENCE

A selection of work undertaken in the general area over the last few years is as follows:

- Botanical Scoping and Impact Assessment of proposed St Helena Hills development (DJ Environmental 2009)
- Botanical Impact Assessment of Portion 4 of Farm 560, Yzerfontein (EnviroLogic 2009)
- Botanical Impact Assessment of Portion 9 of Farm 957, Saldanha (EnviroLogic 2008)
- Botanical Sensitivity study of Portion 4 of Farm Yzerfontein 560 (De Villiers family 2008)
- Botanical Scoping and Impact Assessment of proposed overnight sites in the West Coast National Park (SANParks 2008 & 2010)
- Botanical Scoping and Impact Assessment of proposed Wind Energy Facility near Hopefield (Savannah Environmental 2008 & 2009)
- Botanical Impact Assessment of proposed development on Portion 87 of the Farm Witteklip 123, Vredenburg (CCA Environmental 2008)
- Fine Scale Vegetation Mapping and Conservation Planning for Saldanha Municipality (CapeNature & SANBI, 2006 - 2007)
- Botanical Assessment of Rem. Erf 460 Ptn A, St Helena (Envirodinamik 2007)
- Baseline botanical assessment of Portion 5 of the Farm Duyker Eiland 6, St Helena (Johan Neethling Environmental Services 2006)
- Specialist Botanical input for the proposed expansion of the St Helena Urban Edge (CK Rumboll 2006)
- Botanical Assessment of Phases 4-9, Sandy Pt Heights, St Helena (EnviroLogic 2006)
- Botanical Scoping and Impact Assessment of proposed Blaauzicht Estate, St Helena (CCA 2004 and Glasshouse Consultants 2005)
- Botanical Assessment of Erf 24, St Helena (Envirodinamik 2005)

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

GARRY PATERSON

Environmental Consultant and Researcher

ACADEMIC QUALIFICATIONS:

- Matriculated: 1976, Dalziel High School, Motherwell, Scotland
- BSc (Hons) Geography, 1980, University of Strathclyde, Glasgow, Scotland
- MSc (Soil Science) cum laude, 1998, University of Pretoria

PROFESSIONAL CAREER:

- 1981-1987: Soil Scientist: Soil and Irrigation Research Institute, Pretoria
- 1987-1992: Senior Soil Scientist: Soil and Irrigation Research Institute, Pretoria
- 1992-present: Senior Soil Scientist: ARC-Institute for Soil, Climate & Water

FIELDS OF SPECIALITY AND COMPETENCE:

- Soil classification and mapping
- Soil interpretations
- Soil survey project management
- Environmental assessment
- Soil survey and land capability course presentation
- Ground penetrating radar

PUBLICATIONS:

- Three refereed articles (S.A. Journal of Plant and Soil)
- Nine Congress papers/posters
- S.A. Soil Classification (1991) (Member of working group)
- Seven 1:250 000 Land Type Maps
- Three Land Type Memoirs
- More than 100 soil survey reports and/or maps

COURSES COMPLETED:

- Course in Project Management (University of Stellenbosch)
- Course in Junior Personnel Management (Dept of Agriculture)
- Course in Handling of Grievances and Complaints (Dept of Agriculture)
- Course in Marketing (ARC-ISCW)
- Course in National Qualifications Framework Assessment, ARC-CO
- Training Course in Ground Penetrating Radar (GSSI, USA)
- Introduction to ArcGIS 8, GIMS, 2004

PROFESSIONAL STATUS:

- Registered Natural Scientist (SA National Council for Natural Scientific Professions)

- Member of South African Soil Classification Working Group
- Member of Soil Science Society of South Africa (1982-present)
- President of Soil Science Society of South Africa (2005-2007)
- Council Member of South African Soil Survey Association (2002-2003)
- Scientific Referee, S.A. Journal for Plant and Soil
- External Examiner, University of Pretoria and University of Witwatersrand

MISCELLANEOUS:

- Editor, Soil Science Society newsletter, 1993-present
- Member, Clapham High School (Pretoria) Governing Body 1998-2002
- Member, Northern Gauteng Football Referee's Association
- Member, Rosslyn Golf Club (Club Champion 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 RELEVANT 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

TIMOTHY JG HART

Archaeological Contracts Office (ACO) cc

Partner

SKILLS BASE AND CORE COMPETENCIES

- Assessment, excavation or conservation of pre-colonial sites such as shell middens, stone artefact scatters, rock art, cave deposits dating to the Early, Middle and Late Stone Age as well as late Pleistocene fossil bone accumulations.
- Exhumation of cemeteries.
- Analysis of building sequences, industrial structures, historic landscapes and features.
- Development of conservation and management plans for historic features and areas.
- Working on EIA projects as a specialist member of multi-disciplinary teams.

TERTIARY EDUCATION

- MA (Archaeology), University of Cape Town

EMPLOYMENT HISTORY

- 1984: RSA, Spatial Archaeology Research Unit, UCT, Field Archaeologist
- 1884-1985: RSA, Zeekoe Valley Archaeological Project, Southern Methodist University. Field Archaeologist. World's largest archaeological survey.
- 1986-1987: RSA, UCT Archaeology. Part-time teachings while a student.
- 1987-1991: RSA, ACO Project Manager, archaeological rescue work, course tutor.
- 1991- present: RSA, ACO UCT co-director, heritage management, contracted research both local, international, academic and commercial.

SELECTED RELAVANT PROJECT EXPERIENCE

1991-2008: Survey and mitigation of heritage resources – mining operations of De Beers.

1993: Survey and mitigation of heritage resources – Namakwa Sands mining, Brandsebaai

2004: Eskom Cape Strengthening Project

2004: Eskom: Bacchus sub-station expansion, Omega sub-station EIA project

2005: Eskom: Kudu Integration project (Namaqualand)

2005-2006: Atlantis Open Cycle Gas Turbine project, Mossel Bay OCGT project

2007-2008: EskomNuclear 1 EIA programme (ongoing)

2007: Eskom Proposed Wind Energy Facility (WEF) and Transmission Line, Vredendaal

2009: Hopefield WEF

2009: Cookhouse WEF

CURRICULUM VITAE

MORNE DE JAGER

M2 Environmental Connections cc

Founding member of the Closed Corporation

SKILLS BASE AND CORE COMPETENCIES

- Water monitoring programme design
- Water Quality Analysis and Modelling
- Environmental Auditing,
- Noise Monitoring, Modelling and Control
- Biological Monitoring
- Environmental Impact Assessment and Management
- IT skills (software as well as hardware)
- Conflict resolution and stakeholder facilitation.

TERTIARY EDUCATION

B.Eng (Chem) (University of Pretoria)

EMPLOYMENT HISTORY

- Department of Water Affairs and Forestry (1998 – 2001; Pollution Control Officer)
- EcoSat (2001 – 2002; Environmental Monitoring, Control and Management)
- Menco (2002 – current; See above)
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SELECTED RELEVANT PROJECT EXPERIENCE

- Noise Impact Assessment for Skychrome (Pty) Ltd (A Ferro-chrome mine)
- Noise Impact Assessment for Mooiooi Chrome Mine (Western Chrome Mines)
- Noise Impact Assessment for Buffelsfontein East and West (Western Chrome Mines)
- Noise Impact Assessment for Elandsdrift (Sylvania)
- Noise Impact Assessment for Jagdlust Chrome Mine (Eastern Chrome Mines),
- Noise Impact Assessment Apollo Brick (Pty) Ltd (Clay mine and brick manufacturer).

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).