CURRICULUM VITAE JO-ANNE THOMAS

Director: Savannah Environmental (Pty) Ltd

Environmental Scientist

SKILLS BASE AND CORE COMPETENCIES

- Ten (10) years experience in the environmental field
- Experienced in project management for a range of projects
- Experienced in the identification and assessment of potential negative environmental impacts and benefits through the review and manipulation of data
- Experienced in the identification of practical and achievable mitigation and management measures and the development of appropriate management plans
- Experienced in the compilation and review of environmental reports in accordance with relevant environmental legislative requirements
- Experienced in the formulation of environmental policies, strategies and guidelines
- Experienced in undertaking public participation processes for a variety of projects
- Experienced in providing 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
- Registered Professional Natural Scientist (Registration No 400024/00)

TERTIARY EDUCATION

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

EMPLOYMENT HISTORY

Nov 2006 – present: Savannah Environmental (Pty) Ltd: Director; Environmental Scientist

Oct 1997 – Oct 2005: Bohlweki Environmental (Pty) Ltd: Environmental Scientist

- EIA and EMP for the proposed Steelpoort Integration Project, Mpumalanga & Limpopo Provinces (for Eskom Transmission)) project management & report compilation
- EIA and EMP for the proposed wind energy facility and associated infrastructure at a site within the Western Cape (for Eskom Generation)) report compilation
- Development of a comprehensive site-specific EMP for the construction and operation of the Eskom Braamhoek Integration Project, Free State and KwaZulu-Natal Provinces project management & report compilation
- EIA and EMP for the proposed Open Cycle Gas Turbine (OCGT) Power Station and associated 400 kV Transmission lines and substation at Atlantis, Western Cape Province project management & report compilation
- Environmental Scoping Study for a new coal-fired power station in the Lephalale area, Limpopo Province report compilation
- Detailed Environmental Scoping Study & public participation for the proposed Capacity Increase
 Project at Arnot Power Station, Mpumalanga Province
- Numerous EIAs for various electricity sector projects (generation, transmission & distribution) in all nine provinces of South Africa

CURRICULUM VITAE KAREN JODAS

Director: Savannah Environmental (Pty) Ltd Environmental Scientist (MSc, Pr.Sci.Nat)

SKILLS BASE AND CORE COMPETENCIES

- Eleven (11) years experience in the environmental management and assessment field
- Nine (9) years experience in Project Management
- Project management of large environmental assessment & environmental management projects
- Experienced in the identification & assessment of potential environmental impacts & benefits
- Experienced in the development of practical & achievable mitigation measures & management plans, and evaluation of risk
- Experienced in the formulation of environmental strategy, policy & guidelines
- Working knowledge of environmental planning processes, policies, regulatory frameworks & legislation
- Experienced in the compilation and review of the reports in accordance with all relevant environmental legislation
- Wide range of experience for public and private sector projects completed more than 50 environmental projects for a wide variety of Clients
- Experienced in undertaking public participation processes for a variety of projects
- Completed projects in all nine Provinces of South Africa, as well as Zambia and Lesotho
- Specialisation: Strategic environmental assessment and advice; Project Management and coordination of environmental projects; Environmental Management; Environmental Impact
 Assessment; Integration of environmental studies and environmental processes into larger
 engineering-based projects and ensuring compliance to legislation and guidelines; Hydrology and
 Water Management; General Ecology
- Registered Professional Natural Scientist (Registration No 400106/99)

TERTIARY EDUCATION

B.Sc Earth Sciences, majoring in Geography and Zoology, *Rhodes University, Grahamstown*, 1993

B.Sc 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.

M.Sc in Geography (Geomorphology), *Rhodes University, Grahamstown*, 1996 Water Quality Management, *Potchefstroom University*, 1998 Environmental Law Course, *Aldo Leopold Institute*, 2002

EMPLOYMENT HISTORY

Nov 2006 – present: Savannah Environmental (Pty) Ltd: Director; Environmental Scientist Oct 1997 – Oct 2005: Bohlweki Environmental (Pty) Ltd: Associate, Environmental Scientist

- EIA and EMP for the proposed wind energy facility and associated infrastructure at a site within the Western Cape (Eskom Generation) project management & report compilation
- Development of a comprehensive site-specific EMP for the construction and operation of the Eskom Braamhoek Integration Project, Free State and KwaZulu-Natal Provinces (Eskom Transmission) project management & report compilation
- EIA and EMP for the proposed Steelpoort Integration Project, Mpumalanga & Limpopo Provinces (Eskom Transmission) report compilation
- Environmental Scoping Study for a new coal-fired power station in the Lephalale area, Limpopo Province (Eskom Generation) report compilation
- Detailed Environmental Scoping Study & public participation for the proposed Capacity Increase Project at Arnot Power Station, Mpumalanga Province (Eskom Generation) report compilation
- Numerous EIAs for various electricity sector projects (generation, transmission & distribution) in all nine provinces of South Africa

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 Coordination, 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 FutureLinks Washington DC, USA

EMPLOYMENT HISTORY

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

- LEAD FACILITATOR, OLIFANTS/DORING RIVER WATER USER ASSOCIATION
 CAPACITY BUILDING PROJECT. (Current) Acting as the lead faciliator and co-ordinator of
 the Olifant/Doring Water User Associon Capacity Bulding for commercial farmers and
 emerging black farmers.
- ESKOM PROCESS FACILITATOR, ESKOM ANKERLIG CLOSED CYCLE GAS TURBINE
 CONVERSION PROJECT AND ASSOCIATED PROJECTS, ATLANTIS CAPE TOWN
 Current) Responsible for facilitating the public participation process for the Eskom Ankerlig
 gas turbine conversion from OCGT to CCGT and associated EIA studies relating to Ankerlig
 Power Station in Atlantis, Cape Town.
- 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 of the proposed Eskom Wind Energy Facility near Koekenaap in the Matzikama Municipality on the Cape West Coast.
- PART-TIME LECTURER, WATER AND CONFLCIT, INTERGRATED WATER RESOURCES
 MANAGEMENT PROGRAMME AT THE UNIVERSITY OF THE WESTERN CAPE WESTERN
 CAPE (UWC) (2006 Current) Assisted with establishing the first Water and Conflict
 Resolution module in the M.Sc Integrated Water Resources Management degree course.

CURRICULUM VITAE Demos A. Dracoulides

Company: DDA Position: Director

SKILLS BASE AND CORE COMPETENCIES

- Air pollution dispersion modelling and noise modelling
- Development of computerised air pollution emission inventories and databases
- Air pollution in-stack monitoring
- Noise source measurements and monitoring
- Design of noise mitigation measures and procedures

TERTIARY EDUCATION

M.Sc. in Engineering, Energy Studies, University of Cape Town, SA.

Diploma in Mechanical Engineering, Polytechnical School of Engineering, University of Patras, Greece

EMPLOYMENT HISTORY

•	Consulting Office, Demos Dracoulides & Associates (DDA)	1996- to date
•	Environmental Consultant, Paraskevopoulos-Georgiadis LTD, Athens	1997-1999
•	Scientific Officer, Energy Research Institute, Cape Town	1995-1996
	Research Engineer, Energy Research Institute, Cape Town	1993-1995

- Compilation of an air pollution emissions inventory for the Greater Cape Town area, part of the Brown Haze study for Cape Town.
- Air Pollution Emission and Dispersion Modelling Study for the Cape Town International Airport.
- NGK Kiln Installation Air Emissions Project: Technical Report on Atmospheric Emissions and Dispersion Modelling for NGK Shuttle Kiln Project at Airport Industria.
- Vissershok Hazardous Waste Site: Air Pollution Emission and Dispersion Modelling Study. City of Cape Town.
- Bellville South Waste Disposal Site: Air Pollution and Odour Study. City of Cape Town.
- Emission Inventory and Dispersion Modelling for the Fugitive Emission from the ENGEN tanks in Milnerton.
- Air Pollution Dispersion Modelling for Emission Reduction Strategies at CALTEX Refinery.
- Helderberg Galvanizing Plant Emission and Air Pollution Impact Study.
- KRANZKOP Factory Acid Storage Accidental Release Study. Air Quality Impact Assessment.
- Atmospheric Dispersion of Gaseous Emissions from a Simulated Accident at a Propellant Storage Facility at SOMCHEM Factory, Somerset West.
- Noise Impact Assessment for the New PPC Cement Factory in Riebeek West.
- Noise Impact Assessment for the Proposed Bakhuis Bauxite Mine in Suriname.
- Noise Impact Assessment Study for the Proposed Cape Sawmills Renewable Energy Plant.
- Noise Impact Assessment for the Proposed Nelspruit Ring Road.
- Zevenview Estate Noise and Air Pollution Impact Assessment.
- N21 (R300) Cape Town Ring Toll Road: Noise Impact Assessment Study.
- Determination of the Current and Future Ambient Noise Levels Within and On the Perimeter of the Coega Industrial Development Zone (CIDZ). Coega Development Corporation. (3 years).
- Noise Barrier Design for the N.Erythrea high school. ERGON SA, Greece.

CURRICULUM VITAE Lourens Martinus du Plessis

MetroGIS (Pty) Ltd.

Director

SKILLS BASE AND CORE COMPETENCIES

- Data Sourcing and Acquisition
- Data Capture
- Data Evaluation
- Data Conversion and Transfer
- GIS Database Development, Implementation and Maintenance
- Spatial Analysis (Visibility, Slope, Aspect, etc.)
- Digital Elevation Modeling
- Terrain Evaluation
- Image Processing
- Visual Impact Assessment and Impact Management
- Environmental Management
- Decision Support Systems Interface Development
- Project Management
- Map Production, Display, Queries and Reporting
- Environmental Sciences Expertise
- Process Development
- Arc/Info, ArcGIS, ArcView and PlanetGIS software
- Various GIS support software packages
- Range of Microsoft standard applications

TERTIARY EDUCATION

Degree: BA (University of Pretoria) Geography and Anthropology (Majors), 1993

Other Subjects: Archaeology, Philosophy and Political Science

EMPLOYMENT HISTORY

GisLAB CC (Geographic Information Systems Laboratory - University of Pretoria)

Period: 4/1990 - 9/1997

Position: Member/Project Manager

GISBS (Geographic Information Systems Business Solutions - Q Data Consulting)

Period: 10/1997 - 10/1999 Position: Project Manager

MetroGIS (Pty) Ltd.

Period: 11/1999 - to date

Position: Director/Project Manager

- Proposed Atlantis Open Cycle Gas Turbine power station VIA
- Kynoch Gypsum Tailings dam extension VIA
- N1 Western Bypass Shell service station VIA
- Coega regional hazardous waste processing facility VIA
- Robinson Deep landfill extension VIA
- Hazardous waste blending platform VIA
- Mercury-Ferrum-Garona transmission line integration VIA
- Matimba B proposed coal-fired power station VIA
- Concentrating Solar Power (CSP) plant VIA
- Zeus to Mercury transmission line (comparative viewshed analyses)
- Mmamabula (Botswana) transmission line and power station viewshed analyses
- Petronet new multi-products pipeline VIA

CURRICULUM VITAE LIEZL COETZEE

Southern Hemisphere Senior Consultant

SKILLS BASE AND CORE COMPETENCIES

- social impact assessments
- community consultation
- workshop facilitation
- community social profiles

TERTIARY EDUCATION

Date	Institution	Course/ Degree
1994-1999	B.A. Degree (Humanities) (cum laude)	Rand Afrikaans University
1994-1999	B.Sc. Degree (Mathematical Sciences)	Rand Afrikaans University
1999	Introduction to ArcView	GIMS
2001	Social Impact Assessments	IAIA
2003	Introduction to Public Participation	IAP2
2003	Introduction to Corporate Social Responsibility	World Bank Institute
2006 - Current	MPhil Anthropology: Organisations & Public	University of Stellenbosch
	Cultures	

EMPLOYMENT HISTORY

Date	Organisation	Position	
October 2007 - current	Southern Hemisphere Consultants	Senior Consultant	
February 2005 – September 2007	Independent Consultant conducting social research		
September 2000 to	Golder Associates Africa (Pty) Ltd	Social Scientist/	
January 2004:	(Incorporated former WMB & LVA))	Consultant	
Sept - Nov 2003	Rand Afrikaans University (University of	Part Time Lecturer in	
	Johannesburg)	Development Studies	
March 2000 to Aug 2000	Alive magazine, Cairo, Egypt	Journalist	
Jan 1999 to Dec 1999	Rand Afrikaans University (University of	Tutor and assistant in	
	Johannesburg)	Development Studies	
Jan 1999 to Dec1999	1999 Temporary freelance consultation in development field.		

- **Eskom OCGT Plant:** Social Impact Assessment and recommendations on future consultation strategy with local communities on issues of employment and procurement opportunities. (Ninham Shand)
- Namdeb Sperrgebied: Assist with socio-economic baseline study, social impact assessment and social management plan for Namdeb Diamond Corporation 's landbased operations in the Sperrgebied. (Mine Social Sustainability)
- Wild Coast Toll Road: Social Screening Study of alternative alignments for a section of the proposed Wild Coast Toll Road between Mthata and Port Shepstone. (CCA Environmental)
- Ceres Golf Course Application: Social Scoping and SIA study for Ceres Golf Estate and Hotel Development. (Ninham Shand)
- Evaluation of Social Impacts of EPWP projects in SANParks: Desktop Evaluation of EPWP projects, including Poverty Alleviation and Coast care (DEAT), Working for Water (DWAF) and Working for Wetlands (SANBI) projects. (SANParks)
- Levendal SIA: Social Impact Assessment for Levendal Residential Development near Paarl. (SRK)

CURRICULUM VITAE NICHOLAS ALEXANDER HELME

Trading as : Nick Helme Botanical Surveys

Sole Proprietor

SKILLS BASE AND CORE COMPETENCIES

- 18 years of experience as a field botanist in the Western and Northern Cape
- Specialising in Fynbos, Renosterveld and Succulent Karoo biomes
- 10 years experience as a specialist botanical consultant
- Over 750 botanical assessments undertaken for sites ranging from the Orange River mouth to Plettenberg Bay
- Over 60 full Impact Assessments completed, for a portion of the above projects
- Contributing author to numerous key publications in the field, including the SA Vegetation Map (2006), SA Red Data Book of Plants (in prep); Fynbos Forum Ecosystem Guidelines for Environmental Assessment in the Western Cape (2005); Biodiversity Best Practice Guidelines for Potato farming in the Western Cape (2007).

TERTIARY EDUCATION

BSC (Hons) (Botany) - University of Cape Town; 1990

EMPLOYMENT HISTORY

Sole Proprietor of Nick Helme Botanical Surveys: 2001 - present

Botanical Specialist for Doug Jeffery Environmental Consultants: 1998 - 2001

Botanist for TREX (Bolivia; Cameroon, Madagascar): 1993 - 1997 Botanical Society of South Africa Conservation Researcher: 1990

- Scoping and Impact assessment for proposed 400km Eskom Kudu 400kV powerline from Alexander Bay to Vredendal (SEFSA 2006)
- Assessment of new Eskom OCGT Atlantis site (Eskom 2006)
- Scoping assessment for new Briers substation (Eskom 2006)
- Scoping and Impact Assessment of new Eskom OCGT Mossel Bay site (Ninham Shand 2005)
- Assessment for new Eskom powerline Swellendam Riviersonderend (SHE Cape 2006)
- Assessment for new Eskom powerline Bredasdorp Struisbaai (SHE Cape 2004)
- Eskom powerline assessment Botriver Hermanus (Eskom 2004)
- Assessment of expansion of Eskom Proteus substation (Eyethu Engineers 2004)
- Eskom powerline assessment Bredasdorp Struisbaai (CK Environmental 2004)
- Assessment for new Eskom Omega substation (Eyethu Engineers 2004)
- Vegetation survey of Bacchus substation extension for Eskom (Doug Jeffery Environmental Consultants 1999, and for Eyethu Engineers 2004)
- Vegetation survey for Eskom Cape Strengthening Program from Luckhoff to Cape Town (Doug Jeffery Environmental Consultants 2001).

CURRICULUM VITAE PROF P.LE F.N. MOUTON

University of Stellenbosch Associate Professor in Zoology

SKILLS BASE AND CORE COMPETENCIES

- Lecture in vertebrate ecology since 2001
- Comprehensive knowledge of South African Reptiles and Amphibians

TERTIARY EDUCATION

B.Sc. (Zoology & Botany) cum laude, 1977, University of Stellenbosch.

Honours (Zoology) cum laude, 1978, University of Stellenbosch.

M.Sc (Zoology) cum laude, 1980, University of Stellenbosch.

Ph.D. (Zoology), 1986, University of Stellenbosch.

EMPLOYMENT HISTORY

Senior Curator, J. Ellerman Museum, University of Stellenbosch, 1985-1996.

Senior Lecturer, Department of Zoology, University of Stellenbosch, 1997-1998.

Associate Professor, Department of Zoology, University of Stellenbosch, 1999-.

- To date, acted as supervisor/co-supervisor for 30 Honours, 23 MSc, and 6 PhD projects
- Author/co-author of 82 publications in peer-reviewed journals, and 17 scientific reports.
- Author/co-author of 21 contributions at international symposia and 74 at national symposia
- To date, conducted 18 environmental impact assessments, the most relevant of which are:
 - <u>1997</u>. Alpha Saldanha Cement Project, Environmental Impact Assessment. Fauna. Mark Wood Consultants.
 - <u>2002</u>. Specialist study on the potential impact of the proposed N1 N2 Winelands Toll Highway Project on the affected terrestrial fauna. Crowther Campbell & Associates.
 - <u>2002</u>. Proposed development of farm Trekoskraal no. 104, district Vredenburg: Reptile survey. Withers Environmental Consultants.
 - <u>2002</u>. Environmental Sensitivity Analysis of Erf 2, Gordon's Bay: Fauna. Crowther Campbell & Associates.
 - <u>2003</u>. Proposed extension of Namakwa Sands Mine Site at Brand se Baai: Faunal Survey. Crowther Campbell & Associates.
 - 2004. NDC Mining Company (Pty) Ltd proposed initial diamond mining in the Vredendal district: Reptile and small mammal impact assessment.
 - <u>2004</u>. Environmental Impact Assessment for a new Regional Landfill Site to service the City of Cape Town: Terrestrial Fauna Specialist Study. CCA Environmental (PTY) LTD.
 - <u>2007</u>. Proposed rezoning and subdivision of a portion of Erf 7133, Somerset West, for residential development: Terrestrial Fauna Specialist Study. CCA Environmental (PTY) LTD.
 - <u>2007</u>. Proposed Rocklands Eco Estate: Terrestrial Fauna Specialist Study. CCA Environmental (PTY) LTD.
 - <u>2007</u>. Proposed subdivision and rezoning of Erf 3410, Simon's Town: Fauna specialist study. CCA Environmental (PTY) LTD.
 - <u>2007</u>. Proposed Development of the Ibhubesi Gasfield and Associated Infrastructure: Terrestrial Fauna Specialist Study. CCA Environmental (PTY) LTD.

CURRICULUM VITAE ANDREW ROBERT JENKINS

Endangered Wildlife Trust Researcher & EIA Consultant, Power Lines Group

SKILLS BASE & CORE COMPETENCIES

A research biologist, specializing in raptor ecology and demography, with extensive experience of bird: power infrastructure interactions and avifaunal EIA work.

TERTIARY EDUCATION

1989-1998: MSc upgraded to PhD, Percy FitzPatrick Institute, University of Cape Town.

1988: BSc Hons in Zoology, University of Natal, Pietermaritzburg, with distinction.

1984-1987: BSc, University of Natal, Pietermaritzburg, majoring in Zoology and African & Experimental Zoology.

EMPLOYMENT HISTORY

- **September 2007:** Employed as research scientist by the Industries Partnership Programme of the Endangered Wildlife Trust. Specific brief is to consolidate and strengthen existing research, and initiate new research initiatives, in the field of wildlife/power line interactions.
- **March 2002-February 2007:** Employed as research scientist at FitzPatrick Institute, UCT, managing the *Western Cape Raptor Research Programme*, and overseeing various raptor-based projects, including a collaboration with Eskom to reduce the incidence of line faults associated with large eagle nests on transmission pylons in the Karoo.
- **November 1998–December 2000:** Employed as postgraduate research fellow at the FitzPatrick Institute, UCT, working on various projects concerning the biology of predation.

- **January 2003-Present:** Retained by various agencies to do EIA work for development projects in the Western Cape as an avian specialist, including at least one Eskom transmission line and five distribution lines.
- **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.
- **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.

CURRICULUM VITAE TIMOTHY HART

UCT Archaeology, Archaeology Contracts Office (ACO) Archaeologist and General Heritage Practitioner

SKILLS BASE AND CORE COMPETENCIES

- Twenty (20) ears experience in the archaeology and heritage specialist field
- Experienced in undertaking Archaeological assessments, Heritage Impact Assessments, Heritage Conservation Planning. ASAPA accredited for pre-colonial archaeology, colonial period, rock art, industrial archaeology, coastal archaeology, grave relocation
- Led and completed over 400 projects throughout the country ranging from minor assessments to participating as a specialist in a number of substantial EIA's as well as international research projects
- Professional member (no 50) Association of Southern African Professional Archaeologists (ASAPA)
- Principal Investigator, cultural resources management section (ASAPA)
- Professional member in specialist and generalist categories Association of Heritage Assessment Professionals
- Founder member of Association of Heritage Assessment Professionals
- Founder member and secretary CRM section ASAPA (1995)
- Council member (1995 2000) ASAPA
- Built environment and landscape committee member (2004-2007) Heritage Western Cape (provincial compliance authority for heritage)
- Honorary member of 2 historical associations.

TERTIARY EDUCATION

- Bachelor of Arts in Archaeology and Psychology
- BA Honours in archaeology
- MA in Archaeology

- Development of a heritage management plan and ongoing annual mitigation for the De Beers Namaqualand Mines Division
- Heritage management for Namakwa Sands and other west coast and Northern Cape mining firms
- Specialist Specialist consultant Eskom's Kudu Integration project (identifying transmission line routes across Namaqualand)
- Specialist consultant Eskom's Atantis Open Cycle Gas Turbine project
- Specialist consultant Nuclear 1
- Specialist consultant PBMR
- Contracted by University of Stanford to set up and participate in Duinefontein Archaeological Research project, Koeberg Nuclear Power Station
- Specialist consultant Department of Water Affairs raising of Clanwilliam Dam project
- Specialist consultant to De Beers Namaqualand Mines (multiple projects since 1995)

CURRICULUM VITAE JEREMY BLOOD

CCA ENVIRONMENTAL (PTY) LTD
SENIOR ENVIRONMENTAL SCIENTIST

SKILLS BASE AND CORE COMPETENCIES

Jeremy Blood has been working as an environmental assessment practitioner since 1999 and has project managed a number of large-scale projects covering a range of environmental disciplines, including Environmental Impact Assessments (EIA), Environmental Management Plans / Programmes, Environmental Auditing & Monitoring and Environmental Control Officer related work in South Africa, Mozambique and Kenya. He has expertise in a wide range of projects relating to mining (gas, heavy mineral mining and borrow pits), housing / industrial developments and infrastructure projects (e.g. roads, railway line, power lines, pipelines).

TERTIARY EDUCATION

- BSc Botany and Zoology, Rhodes University, 1992 1994
- BSc Honours Botany, Rhodes University, 1995
- MSc Conservation Ecology (Stellenbosch University), 2004 2006.
 Thesis: Monitoring rehabilitation success on Namakwa Sands heavy minerals mining operation, Namaqualand, South Africa.

EMPLOYMENT HISTORY

April 2004 – present Full time Environmental Consultant for CCA Environmental.

Apr 2003 – Apr 2004 Worked full time as an Environmental Consultant for Crowther Campbell Associates.

Jan 1999 – Mar 2003 Worked full time as an Environmental Consultant for Coastal & Environmental Services.

Jul 1997 - Dec 1998 Worked full time as a research assistant for the Department of Agriculture, Western Cape, on the Oudtshoorn Experimental Farm.

Nov 1996 - Jun 1997 Worked full time for the Royal Bank of Scotland, London, in the Stock Lending Department.

SELECTED RELEVANT PROJECT EXPERIENCE

Power lines

- Electricity Supply Corporation of Malawi. Scoping report for the Mozambique Malawi 220km interconnection 220 / 400kV power line, Malawi. 2003.
- Corridor Sands Limitada. Environmental Impact Assessment for the SMC Corridor Sands Power Line, Gaza Province, Mozambique. 2001 2002.
- Eskom. Scoping report for the construction and operation of the East London Industrial Development Zone power supply. 2002.
- Eskom. Scoping report for construction and operation of Eskom's Trollip scheme (22kV power line), Cape St. Francis. 2002.

General industries

- Eskom Holdings Limited. Environmental compliance audits for the Atlantis and Mossel Bay Open Cycle Gas Turbines. 2006 2008.
- Malan Quarries. Review Environmental Management Programme for the proposed Strandfontein 655, 659 661 Sand Mines. 2005.
- Velddrift Salt Company (Pty) Ltd. Audit of the Velddrift Salt Company's saltworks for the Department of Minerals and Energy. 2005.
- PetroSA. Environmental Impact Assessment for the conversion of the PetroSA Refinery for 100% Unleaded fuel production. 2003 2005.

• Coega Development Corporation. Coega Rezoning Environmental Impact Assessment: Environmental Impact Assessment for the Rezoning of the Core Development Area from Agriculture to Special Purposes. 1999 – 2000.

Housing developments

- City of Cape Town (Directorate: Human Settlements). Environmental Impact Assessment for the proposed rezoning and subdivision a portion of the Driftsands Nature Reserve to consolidate and upgrade the existing informal settlements of Green Park and Los Angeles. 2006 present.
- Target Shelf 151 cc Property Developers. Environmental Impact Assessment for the proposed rezoning and subdivision of Erf 1480, Hout Bay. 2005 2006.
- Ahmed Janahi Architects. Environmental Impact Assessment for the proposed rezoning and consolidation of Erf 1126, 1127 and 1128, Hout Bay. 2004 – 2005.
- Lezmin cc. Environmental Impact Assessment for the proposed rezoning and subdivision of Erf 1156, Hout Bay. 2003 - 2005.
- Bellemar Properties. Environmental Impact Assessment for the proposed rezoning of Erf 1127 and 1128, Hout Bay. 2003 2004.

Railways

• Corridor Sands Limitada. Environmental Impact Assessment for the Southern Mining Corporation's Corridor Sands Rail link, Gaza Province, Mozambique. 2002.

Oil & gas exploration and production / mining

- PetroSA (Pty) Ltd. Environmental Impact Assessment and Environmental Management Programme for PetroSA's proposed production wells in the FO field (eight wells) and in the Oribi/Oryx mining lease area (one well). 2008 – present.
- Forest Exploration International (SA) (Pty) Ltd. Scoping Study, Environmental Impact Assessment and Environmental Management Programme for the proposed development of the Ibhubesi Gas Field and associated infrastructure in License Block 2A off the west coast of South Africa. 2006 –2007.
- PetroSA (Pty) Ltd. Environmental Impact Assessment and Environmental Management Programme for PetroSA's South Coast Gas project in Petroleum License Block 9 off the south coast of South Africa. 2004 – 2006.
- Corridor Sand Limitada. Environmental Impact Assessment for the Southern Mining Corporation's Corridor Sands Heavy Mineral Mining Project, Gaza Province, Mozambique. 1999 2002.

Roads & related infrastructure

- BKS (Pty) Ltd for PGWC Roads Infrastructure Branch. Environmental Impact Assessment for the proposed upgrading of Trunk Road 22 Section 1 and Main Road 305 between Gouda and Wolseley. 2005 – 2006.
- Attfund Ltd. Environmental Impact Assessment Regulations compliance for the proposed widening
 of the existing Old Oak Road bridge over the Elsieskraal River, Tygervalley. 2006.
- BKS (Pty) Ltd for Provincial Government of the Western Cape: Roads Infrastructure Branch.
 Environmental Impact Assessment Regulations compliance for the proposed rehabilitation and upgrading of Trunk Road 23 Section 3 between Gouda and Porterville. 2006 present.