

CURRICULUM VITAE

KAREN JODAS (nee KÜCK)

SAVANNAH ENVIRONMENTAL (PTY) LTD

Profession : Environmental Consultant

Specialisation : Strategic environmental assessment and advice; project management and co-ordination of environmental projects; environmental compliance monitoring; Environmental Impact Assessment; environmental management; peer review; policy, strategy and guideline formulation; renewable energy projects, hydrology and water management

Work experience : Twelve (12) years in the environmental field

VOCATIONAL EXPERIENCE

Provide technical input for projects in the environmental management field, specialising in strategic evaluation, Environmental Impact Assessment studies, Environmental Management Plans, integrated environmental management, environmental compliance monitoring (ECO role); peer review of EIA reports and processes, strategy and guideline development, and public participation. Key focus on overall Project Management, integration of environmental studies and environmental processes into larger engineering-based projects, strategic assessment, and the identification of environmental management solutions and mitigation/risk minimising measures.

Undertaking studies requiring all environmental-related disciplines has allowed for considerable experience to be gained in the environmental assessment and management fields. A specialist area of focus is on management and assessment of multi-faceted projects, including electricity generation and transmission projects (with a strong focus in renewable energies), linear developments (roads and powerlines), bulk infrastructure and supply (e.g. WTWs, pipelines, landfills), the mining industry, urban, rural and township developments, environmental aspects of IDPs, EMFs, SoERs, as well as environmental planning, development and management.

Working knowledge of environmental legislation, strategies, guidelines and policies. Compilation of the reports for environmental studies are in accordance with the all relevant environmental legislation, including the National Environmental Management Act, EIA Regulations and the Minerals and Petroleum Resources Development Act.

SKILLS BASE AND CORE COMPETENCIES

- Eleven years experience in the environmental management and impact assessment field
- Nine 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 processes, policies, regulatory frameworks and legislation
- Experienced in the identification and assessment of potential environmental impacts & benefits
- Experienced in the development of practical and achievable mitigation measures and management plans and evaluation of risk
- Experienced in environmental compliance 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 more than 70 environmental projects for a wide variety of Clients
- Completed projects in all nine Provinces of South Africa, as well as Zambia and Lesotho

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- 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

Short Courses:

Water Quality Management, *Potchefstroom University*, 1998

Environmental Law Course, *Aldo Leopold Institute*, 2002

WindFarmer Wind Farm Design course , *Garrad Hassan*, 2009

Professional Society Affiliations:

Registered with the South African Council for Natural Scientific Professions as a Professional

Natural Scientist: *Environmental Scientist (400106/99)*

Other Relevant Skills:

Xtrack Extreme – Advanced Off-Road Driving Course (2003)

EMPLOYMENT

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 focussing on Environmental Management and Project Management.

PROJECT EXPERIENCE

Experience includes projects associated with property development, electricity generation and transmission, wastewater treatment facilities, mining and prospecting activities, and national roads, as well as strategy and guidelines development. Current and recently concluded projects include:

Strategic Advice

- Review the effectiveness and efficiency of the environmental impact management (EIA) system in South Africa, and formulate an environmental impact management strategy and action plan for National DEAT
- Drafting a Position Paper: Project Financing and Environmental Risk Management (considering IFC Performance Standards & Equator Principles) for Standard Bank Group Limited
- Advice regarding environmental compliance of existing and future development at Tiffindell Ski, Eastern Cape Province (for Tiffindell Ski (Pty) Ltd)
- Advice regarding environmental compliance for operations at Salberg Concrete Products factory, Gauteng (for Salberg Concrete Products)

Peer/external EIA review

- Review of 13 EIAs submitted in terms of the ECA for the Northern Cape Department of Tourism, Environment and Conservation (for DEAT) – acting as an agent for Northern Cape DTEC
- Peer Review of EIA process and reporting for the Malelane Substation and Komatipoort-Marathon 275kV Transmission Line turn-in (for SIVEST / Eskom Transmission)

Environmental Management Tools

- Compilation of a comprehensive site-specific Environmental Management Plan (EMP) for the

construction and operation of the Eskom Braamhoek Integration Project, Free State and KwaZulu-Natal Provinces (for Eskom Transmission)

- Development of an Environmental Impact Management System for Water Services-related projects for Limpopo Province (for DWAF Limpopo Province)
- Environmental Risk Analysis for Salbro-owned properties, Gauteng (for Salbro Property Holdings)
- Compilation of Provincial Guidelines for off-road routes in the Western Cape (for WC DEA&DP)
- Project integration and compilation of a Strategy for Sustainable Development for Gauteng Province (for GDACE)

Energy Sector Projects

Renewable power generation projects

- Environmental Impact Assessment and Environmental Management Plan for the proposed Wind Energy Facility in the Western Cape (for Eskom Generation)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Wind Energy Facility at Hopefield, Western Cape (for Umoya Energy)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Wind Energy Facility at Cookhouse, Eastern Cape (for African Clean Energy Developments)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Flagging Trees Wind Energy Facility at Middelburg, Eastern Cape (for African Clean Energy Developments)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Wind Energy Facility on the West Coast, Western Cape (for Moyeng Energy)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Wind Energy Facility near Sutherland, Northern and Western Cape (for Moyeng Energy)
- Basic Assessments for wind monitoring masts at various sites and locations in the Western and Northern Cape Provinces (for AIIM and Investec Bank Limited)
- Regional Assessments for several wind energy Developers across the Western and Northern Cape
- Regional Assessment as a siting tool for CSP projects in Limpopo Province

Power generation projects

- Environmental Impact Assessment and Environmental Management Plan for the proposed Ankerlig OCGT to CCGT Conversion project, and the associated 400 kV transmission power line between Ankerlig and the Omega Substation, Western Cape (for Eskom Generation)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Gourikwa OCGT to CCGT Conversion project, and the associated 400 kV transmission power line between Gourikwa and the Proteus Substation, Mossel Bay (for Eskom Generation)
- Basic Assessment for a new raw water reservoir and pipeline for the Medupi Power Station, Limpopo Province (for Eskom Generation)

Transmission line projects

- Environmental Impact Assessment and Environmental Management Plan for the proposed Steelpoort Integration Project, Limpopo Province (for Eskom Transmission)
- Environmental Impact Assessment and Environmental Management Plan for the proposed Kyalami/Midrand Substation and 3 Transmission lines, Gauteng (for Eskom Transmission)

Site Development and Construction Projects

- Environmental Impact Assessment and Environmental Management Plan for the proposed Groot Letaba River Water Resource Development Project (EIA drafting team for Iliso Consulting)
- Basic Assessment for the proposed Stormwater Outfall from Zones 1 and 2 of the Coega IDZ, Eastern Cape Province (for Coega Development Corporation)
- Environmental risk analysis and compliance advice for Leopard's View guest lodge, Mpumalanga

Compliance Monitoring

- ECO compliance monitoring for the construction of the De Hoop Dam (ORWRDP) as well as the diversion of the R555, Limpopo Province (5-year contract for DWAF)
- Environmental Management Plan and ECO for existing and future development at Tiffindell Ski, Eastern Cape Province (for Tiffindell Ski (Pty) Ltd)
- Environmental Management Plan and ECO for construction for the upgrade of Prince Alfred Park Stadium, Nelson Mandela Bay, Eastern Cape (for Nelson Mandela Metropolitan Municipality)

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 (for Elitheni Coal)

Projects listed below include those projects undertaken at when employed at *Bohlweki Environmental*.

Electricity Sector projects

Power Generation Projects

- Project Manager for the environmental impact assessment for the site selection for a new coal-fired power station (Matimba B) in the Limpopo Province
- Project Manager for the Public Participation Process for the proposed Return-to-Service of the Komati Power Station, Mpumalanga Province
- Project Manager for the Public Participation Process for the proposed Return-to-Service of the Grootvlei Power Station, Mpumalanga Province
- Project Manager for the Detailed Environmental Scoping Study for the proposed Capacity Increase Project at Arnot Power Station, Mpumalanga Province

- Project Manager for the Public Participation Process for the proposed Return-to-Service of the Camden Power Station, Mpumalanga Province
- Project Manager for the Environmental Pre-Scoping Study for the proposed Solar Thermal Power Plant, in the Northern Cape Province

Electricity Transmission Projects

- Project Director for the EIA for the proposed 765kV Transmission Powerline between Hydra Substation (near De Aar) and the proposed Gamma Substation (near Victoria West), Northern Cape Province
- Project Manager for the Environmental Impact Assessment for the 3rd 400 kV Transmission line between the Poseidon and Grassridge Substations in the Eastern Cape Province
- Project Manager for the Environmental Impact Assessment for the proposed new 400 kV Transmission line between Matimba and Witkop Substations, Limpopo Province
- Project Manager for the Environmental Impact Assessment for the proposed new Ikaros Substation and associated 400 kV Transmission line infrastructure, North West Province
- Project Manager for the Detailed Environmental Scoping Study for the Redhill Strengthening Project: proposed new Redhill Substation and associated new 132 kV Distribution line
- Project Manager for the Detailed Environmental Scoping Study for the Breyten Strengthening Project: proposed new Breyten Substation and associated 88 kV Distribution line
- Project Manager for the Environmental Impact Assessment for nine new 132 kV powerlines between the Grassridge Substation and the Coega Industrial Development Zone, Eastern Cape
- Project Manager for the Environmental Impact Assessment and Environmental Management Plan for the proposed Eiland Rural Substation, and the associated 132 kV distribution line, North West Province
- Project Manager for the detailed Environmental Scoping Study and EMP for the proposed Everest Substation, and the 132 kV powerline between Simpron and Everest Substations, Mpumalanga
- Environmental scoping study and environmental management plan for the proposed establishment of Eskom infrastructure for the C-Cut Project at Premier Mine, Cullinan
- Project Manager for the Environmental Impact Assessment for the proposed Eskom 2nd 400 kV Transmission line between Grassridge and Poseidon Substations, Eastern Cape

Specialist projects

- Development of an Integrated Environmental Policy for the City of Tshwane Metropolitan Municipality (CTMM)
- Ad hoc advice to ERWAT regarding the implementation of Module 4 at the Waterval Wastewater Treatment Works, Gauteng Province.
- Review of the State of the Environment Report for the North West Province
- Development of a Flood Warning System and Flood Notification Procedures for No 7 Dam at Premier Mine, Cullinan for De Beers.

- Detailed specialist environmental impact assessment of water supply and liquid waste disposal infrastructure options associated with a proposed hotel development site at the Victoria Falls, Zambia for Sun International
- Contributing to the drafting of the draft White Paper on Integrated Pollution Control and Waste Management for the Department of Environment Affairs and Tourism (DEAT) and the Department of Water Affairs and Forestry (DWAF), as well as being Project Committee Secretary for the project
- Acting as Project Committee Secretary for the inception phase of the formulation of the National Waste Management Strategy funded by DANCED
- Preparation of a summary document for a Ministerial Briefing for the rehabilitation of the Pomfret Military Base areas polluted by Asbestos
- Monitoring landfill gas at Pretoria-North landfill for final rehabilitation of the site

Environmental Management Plans

- Environmental Management Plan for the proposed N2 Wild Coast Toll Road between East London (Eastern Cape) and Durban (KwaZulu-Natal)
- Environmental Management Plan for repairs of portions of the N3 and N1, Gauteng
- Environmental Management Plan for the Proposed C-Cut Development at Premier Mine, Cullinan
- Environmental Management Plans for various Eskom Distribution powerlines within South Africa

Property development projects

- Environmental Scoping Study for upgrading and extensions at Tiffindell Ski Resort, Eastern Cape
- Exemption application for the establishment of a township development at Eden Park, for Alberton Town Council
- Detailed Environmental Scoping Study for the Thaba ya Batswana Development on portions of the Farm Rietvlei 101 IR, Gauteng

EIAs for Technology projects

- Project Manager for the Environmental Impact Assessment for the proposed Alternative Fuels and Resources Project at the Holcim South Africa Plant in Dudfield, North West Province
- Project Manager for the Environmental Impact Assessment for the establishment of a Waste Blending Platform within the Gauteng Province to produce alternative fuels for use by cement kilns (a Holcim South Africa and EnviroServ Joint Venture)
- Project Manager for the Environmental Impact Assessment for the proposed Alternative Fuels and Resources Project at the Holcim South Africa Ulco Plant near Kimberley in the Northern Cape Province

Water Resources projects

- Project Manager for the Environmental Impact Assessment for the establishment of three new DWAF gauging weirs at 1 site on the Vaal River and 2 sites on the Orange River, Northern Cape Province
- Environmental exemption application for the construction of an emergency water supply pipeline from Mamelodi to Ekandustria via Cullinan, Gauteng Province for Rand Water
- Environmental Scoping Report for the construction of a water reclamation plant at Southern Wastewater Treatment Works, Durban for OTV France
- 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)
- Environmental impact assessment of the old Klipspruit and Goudkoppies Wastewater Treatment Works and the Goudkoppies Landfill Site for the Greater Johannesburg Metropolitan Council
- Environmental evaluation of six preferred wastewater disposal options for Durban Metropolitan Council Wastewater Management Department, as well as contributing to the integrated assessment of these preferred options
- Department of Water Affairs & Forestry Water License Applications for operations at the Holcim South Africa Dudfield Plant, North West Province
- Preparation of a Water Quality Management Report (WQMR) and an Environmental Scoping Assessment for the proposed extension to Dassenhoek Wastewater Treatment Works, Durban
- Assisting in the final preparation of the Water Management Plan for the Free State Goldfields and Lower Vet River Catchment for DWAF

Mining sector projects

- Mining license application and EMPR for the Majuba Power Station underground coal gasification site, Mpumalanga Province for Eskom TSI
- Project Manager for a Social Impact Assessment for Kimberley Mines, for De Beers
- Environmental Management Programme Report (EMPR) for the proposed formalisation of small-scale clay mining for a brick-making enterprise pilot project in QwaQwa, Free State Province for Mintek
- Environmental Management Programme Reports (EMPR) for the proposed formalisation of seven small-scale sandstone mining sites in QwaQwa, Free State Province for Mintek
- Environmental Management Programme Report (EMPR) for prospecting activities within the Premier Mine Game Farm, Cullinan for De Beers Consolidated Mines Limited
- Project Manager for the environmental studies for the C-Cut Development at Premier Mine, Cullinan for De Beers Consolidated Mines Limited: Environmental Scoping Report (ESS); Environmental Impact Assessment (EIA); Environmental Management Plan (EMP); and Environmental Management Programme Report (EMPR)

Transportation projects

- Project Manager for the Environmental Impact Assessment and Environmental Management Plan for the proposed N2 Wild Coast Toll Road between East London (Eastern Cape) and Durban (KwaZulu-Natal) (approximately 550km)
- Environmental Impact Assessment for the proposed Platinum Highway from Warmbaths via Pretoria to Skilpadhek (on the South Africa-Botswana border), including the application for all relevant permits, for the Bakwena Consortium
- Environmental Management Plan for repairs of portions of the N3 and N1, Gauteng
- Environmental Opportunities and Constraints Assessment for the Wonderboom Airport
- Considerations of environmental aspects for the Denneboom Local Integrated Transport Plan

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
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- 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
RAVISHA AJODHAPERSADH

Profession : Environmental Consultant
Specialisation : Environmental Management
Years experience : Three

KEY RESPONSIBILITIES

- Providing consulting services to clients for Environmental-related matters.
- Conducting Environmental Impact Assessment (EIA) processes.
- Preparation of EIA reports.

SKILLS BASE AND CORE COMPETENCIES

- Report Writing
- Site Investigation
- Environmental Auditing
- Co-ordination and management of project teams
- Co-ordinating and conducting Public Involvement processes.
- Preparing maps (using GIS)
- Administrative tasks (minutes of meetings)
- Research

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- B Soc Sci (Environmental Management) obtained from the University of Natal in 2005.
- (Hons) (BSc) (Environmental Management) obtained from the University of South Africa in 2010.

Courses:

- Attended an EIA training course conducted by Dekra Norisko in 2008.
- Attended a Wetlands Course by the WESSA and the Department of Water Affairs and Forestry in 2008.

Professional Society Affiliations:

None

EMPLOYMENT

1. June 2007 – April 2009

Name of Employer: Nemai Consulting

Position: Environmental Consultant

2. May 2009 – August 2009

Name of Employer: Environmental Impact Management Services

Position: Environmental Control Officer

3. September 2009 – Present

Name of Employer: Savannah Environmental

Position: Environmental Consultant

PROJECT EXPERIENCE

1. Undertook the Basic Assessment Process for the Proposed Wind Monitoring Mast, near Britannia Bay, Western Cape Province.
2. Undertook the Basic Assessment Process for the Proposed Amakhala Emoyeni Wind Monitoring Masts, between Bedford and Cookhouse, Eastern Cape Province.
3. Undertook the Basic Assessment Process for the Proposed Wind Monitoring Masts, near Vredenburg, Western Cape Province.
4. Prepared **Scoping Report** for the Proposed Flagging Trees Wind Energy Facility, near Middelburg, Eastern Cape Province.
5. Prepared **EIA** for the Proposed Suurplaat Wind Energy Facility, near Sutherland Western and Northern Cape Provinces.
6. Prepared **EIA** for the Proposed West Coast One Wind Energy Facility, near Vredenburg Western Cape Province.
7. Prepared **EIA** for the Proposed Rheboksfontein Wind Energy Facility, near Darling Western Cape Province.
8. Prepared Scoping Report for the Proposed Uyekraal Wind Energy Facility, near Vredenburg Western Cape Province.
9. **Environmental Control Officer** undertaking environmental monitoring for the Waterval Water Care Works on behalf of ERWAT.
10. **Environmental Control Officer** for Transnet's New Multi-Product Pipeline, duties include environmental auditing, preparing daily reports, weekly reports and monthly reports.
11. Prepared EIA reports on the Bus Rapid Transit System, for the City of Johannesburg (2008-2009).
3. Prepared **Environmental Management Plans** (EMP) for road upgrades in the Inner City and Soweto, for the Johannesburg Development Agency (2008 – 2009).
4. Assisted in conducting the EIA for the Neptune-Poseidon 300KV Transmission Lines, for Eskom (2008-2009).
5. Conducted the **public participation process** for the Fischer-Tropsch Wax Expansion

Project, for Sasol (Ltd) (2007-2008).

6. Implemented and managed the Klipspruit River and Wetlands Cleanup, for the Gauteng Department of Agriculture Conservation and Environment. Responsibilities included managing 87 employees, preparation of annual, quarterly and monthly reports, and hosting monthly community and stakeholder meetings (2007 – 2008).
7. Implemented and managed the Bertrams Environmental Education Programme, for the Johannesburg Development Agency. Responsible for the project operations, report writing, event co-ordination, training and capacity building of employees, conducting waste audits and stakeholder engagement (2007- 2008).
8. Implemented and managed the Rehabilitation of illegal dumpsites: **Waste Education Programme** in Soweto, for Pikitup. Duties entailed training and managing the waste awareness team, conducting site visits, dumpsite rehabilitation monitoring and mapping on GIS (2009).
9. Conducted a **feasibility study** for the development of a recycling centre in Alexandra, Jhb for Pikitup. Duties entailed extensive research, conducting a survey, waste audit, analyzing social and environmental dimension of the proposed project and compiling the report. (2008-2009).
10. Assisted in the **Development and Implementation of the Integrated Environmental Management Series**, for the Department of Water Affairs and Forestry (DWAF). Project included developing training manuals, user friendly documents, presentations and launching an environmental decision support system for DWAF (2007- 2009).
11. Undertook the **public participation** for the Sasol's Integrated Waste Management Programme (2008). Key responsibilities included co-ordination of an Open day event, preparation of presentations, invitations, minute taking and technical aspects of the events and compiling a Public Participation report (2007).

CURRICULUM VITAE

BONGANI DARRYL KHUPE

Profession : *Environmental Consultant*

Years experience : *5 years in the environmental field*

KEY RESPONSIBILITIES

Professional execution of consulting services.

EIA Reporting for a variety of projects.

Environmental Compliance Officer.

COMPUTER SKILLS

Computer literate in Microsoft packages including but not limited to: Word, EXEL, Power Point, Outlook, Propac and the internet.

EDUCATION AND PROFESSIONAL STATUS

Degrees:

- BSc Honours Applied Environmental Science (Degree class 2.1)
INSTITUTION: University Of Zimbabwe (2001– 2004)

EMPLOYMENT HISTORY

- **ENVIRONMENTAL IMPACT MANAGEMENT SERVICES (PTY) LTD**
Period: 24/08/2009 to August 2010
Position: **Environmental Control Officer (Transnet Pipelines: New Multi-Products Pipeline)**
Duties:
 - Educating the construction team about the management measures of the EMP and Environmental Authorisation.
 - Liaison with the Construction Environmental Manager (contractor's environmental manager), Environmental Officers (appointed by the contractor) and Environmental Manager (Transnet Representative).
 - Implementing the EMP and Environmental Authorisation compliance monitoring and recommending corrective action for any non-compliance incidents on the construction site.
 - Monitoring the daily construction operation, recording (in writing and photographically) any non-compliances/ incidents and areas of concern with respect to the Environmental Authorisation and related documentation.
 - Submitting concise environmental compliance daily reports, via email, to all relevant parties.
 - Providing ad hoc advice, liaison and clarification on compliance issues and environmental issues to the contractor, Project Manager, Resident Engineer, and Authorities.
 - Attending daily and weekly construction meetings.
 - Conducting Pre-Construction surveys along the alignment route of the pipeline to identify and peg sensitive environments (Wetlands, rivers, red data species, etc) and areas of cultural significance (heritage areas).

- Recommending on route re-alignment based on findings of the Pre-Construction Survey to protect sensitive environments as well as protected fauna and flora.
- Keeping photographic record of Pre-Construction Survey so as to aid in rehabilitation of the pipeline after construction.
- Monitoring reinstatement of the pipeline Right of Way.

- **ENVIRO-AFRIK (PTY) LTD**

Period: 03/03/2008 to 21/08/2009

Position: Senior Environmental Consultant

Duties: Conducting Environmental Impact Assessments e.g.

- Housing Developments
- Rail Infrastructure
- Linear developments
- Conducting Basic Assessments
- Compiling Environmental Management Plans
- Compiling Waste Management Plans
- Environmental Control Officer:
 - Eskom power lines
 - Various Housing Developments
 - Roads and storm water projects
- Giving input and assisting in Public Participation projects
- Conducting Feasibility Studies
- Sourcing and managing external specialist
- Pre-Project consultation
- Client and Authority Liaison
- Conducting/Attending project meetings
- Head of Cleaner Production division
- Marketing Environmental Division and new project procurement

- **ENVIRO-AFRIK (PTY) LTD**

Period: 05/02/2007 to 29/02/2008

Position: Environmental Consultant

Duties: Conducting Environmental Impact Assessments

- Conducting Basic assessments
- Formulating Integrated Waste Management Plans
- Development of new land fill sites
- Compiling Environmental Management Plans
- Conducting Environmental Audits (Environmental Control officer)
- Conducting the Public Participation Process
- Attending project meetings and site visits
- Conducting Health and Safety Risk assessments (for construction)
- Formulating Health and Safety Plans (for construction)
- Coordinating Health and Safety Audits (for construction)
- Conducting Strategic Environmental assessments
- Conducting Feasibility Studies (for construction)
- Coordinating Cleaner production projects
- Compiling provincial heritage authority permit applications.

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KAY ENVIRONMENTAL SERVICES

Period: 03/04/2006 to 31/01/2007

Position: Environmental Consultant

Duties: Conducting Environmental Impact Assessments

- Conducting Basic assessments
- Formulating Environmental Management Plans
- Conducting Environmental Audits
- Conducting Public Participation programme
- Making and placing Site Notices and Adverts
- Client and authority liaison
- Conducting feasibility studies.
- Attending project meetings and site visits

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INDUSTRIAL ATTACHMENT: Bulawayo City Council

Period: 02/09/2004 to 31/08/2005

Position: Cleansing officer (Waste Management and Pollution control)

Duties: Monitoring waste collection service

- Supervising waste collectors
- Responding to complaints from residents
- Management and Monitoring of land fill activities
- Rehabilitation of a closed landfill and employment of methods to prevent pollution
- Monitoring leachate ponds so as to prevent contamination of surrounding water bodies
- Hazard assessment and risk assessment of various pollutants

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

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

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

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.Ing (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 Mooinooi 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

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
JOHAN VAN DER WAALS

SKILLS BASE AND CORE COMPETENCIES

Soil Scientist

HIGHER EDUCATION

BSc Soil Science and Botany Cum Laude, 1995, Potchefstroom University for CHE

BSc Honours Soil Science and Plant Nutrition, 1999, University of Pretoria

MSc Soil Science and Plant Nutrition, 2001, University of Pretoria

PhD Soil Science, 2006, University of Pretoria

PROFESSIONAL REGISTRATION

Soil Science Society of South Africa (SSSSA) – Member

South African Soil Surveyors Organisation (SASSO) – Accredited Member

South African Council for Natural Scientific Professions – Reg. no. 400160/08

EMPLOYMENT HISTORY

Johan Van Der Waals was a staff member in the department of Plant Production and Soil Science of the University of Pretoria from 1999 to 2007 and presented 13 courses of which many were self developed. His strongest course was Soil Classification in which the students were intensively exposed to the South African Taxonomic System as well as to the World Reference Base for Soil Resources (WRB) of the Food and Agriculture Organisation (FAO) of the United Nations (UN) and the United States Department of Agriculture's (USDA) Soil Taxonomy. During his tenure at the University of Pretoria he was actively involved in research on soils. Since the establishment of Terra Soil Science CC, Johan has been involved in a range of soil consulting services. The bulk of the contribution to the industry entails soil surveys for EIAs as well as soil management plans and soil based wetland surveys and delineations. The recent focus on wetland conservation in SA led to a range of surveys to determine the status and extent wetlands that have had some form of human impact.

SELECTED RELAVANT EXPERIENCE

Peer Reviewed Journal Publications

- Van der Waals, J.H., & Claassens, A.S. 2002. Accurate lime recommendations under South African conditions. *Commun. Soil Sci. Plant Anal.*, 33(15-18), p 3059-3074.
- Van der Waals, J.H., Snyman, H.G. & Claassens A.S. 2005. Increase in metal extractability after liming of sacrificial sewage sludge disposal soils. *Water SA* 31(2) p. 271-273.
- Jackson, C.R., Lubbe, N.R., Robertson, M.P., Setsaas, T.H., Van der Waals, J. & Bennett, N.C. 2008. Soil properties and the distribution of the endangered Juliana's Golden Mole. *Journal of Zoology* 274(2008) 13-17.

Conference Proceedings Publications

- Van der Waals, J.H., Van der Merwe, C. & Erdmann, R. 2007. Detail assessment of metal distribution in polluted soil – a South African case study. In Fourie, A., Tibbett, M. & Wiertz, J. (Eds.), *Proceedings of the Second International Seminar on Mine Closure, Santiago, Chile, 16-*

19 October, 2007. pp 8 5-820.

Technical Reports

Snyman, H.G. & van der Waals, J.H. 2004. Laboratory and field scale evaluation of agricultural use of sewage sludge. WRC Report No. 1210/1/04. ISBN: 1- 77005-230-5, Water Research Commission, Pretoria.

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

JOHAN BINNEMAN

Head of the Department of Archaeology

QUALIFICATIONS

M.A in Archaeology from the University of Stellenbosch (1982)

D.Phil in Archaeology from the University of the Witwatersrand (1996).

RESEARCH EXPERIENCE

28 Years of archaeological research in the Eastern Cape. This include the fields of Middle Stone Age, Later Stone Age, Iron Age, Rock Art and Historical Archaeology.

PUBLICATIONS:

Include 40 academic and popular articles.

OTHER

Co-editor of the Southern African Field Archaeology (accredited)

Member of Kwa-Zulu Natal Heritage Permit Committee

MEMBER OF: Association of South African Professional Archaeologists

South African Society for Archaeologists

Society for Africanist Archaeologists

CONSULTANCY EXPERIENCE

25 Years

CONSULTANT PROJECTS

Cape Provincial Administration (pre 1994)

Atomic Energy Board

South African National Roads Agency

Pretoria Portland Cement

Blue Circle Cement

Eastern Cape Nature Conservation (pre April 2004)

Department of Water Affairs

Department of Environmental Affairs

National Parks Board (now SANparks)

Wilderness Foundation

Gencor

Portnet

ESKOM

SELECTED PROJECTS

Eskom Poseidon - Grassridge proposed powerline: survey of cultural heritage resources.

Archaeological historical heritage impact assessment of the proposed phase 2 development of the Chintsa River Golf Course, Chintsa, Great Kei Municipality, Eastern Cape

Archaeological investigation of exposed and in situ archaeological heritage features at borrow pit 1 next to trunk road 57/3 between Alice and Middledrift, Eastern Cape.

Archaeological heritage impact assessment for the proposed new entrance gate with associated infrastructure and the construction and upgrade of roads in the Mountain Zebra National Park, Cradock District.

Archaeological heritage impact assessment of the proposed Amanzi Country Estate, Uitenhage District, Nelson Mandela Bay Metropolitan, Eastern Cape.

Archaeological heritage impact assessment for the proposed construction of an overhead powerline

to Ikcf001 (frs 143) on the Farm Samekoms 392, Cradock District.

Archaeological heritage impact assessment for the proposed Gqunubie valley golf estate.

Archaeological heritage impact assessment for the proposed Carpe Diem coastal eco-estate development, Great Fish Point: coastal foreland survey.

ACADEMIC PUBLICATIONS (peer review published in accredited journals), past 8 years:

Carrion, J.S., Brink, J.S., Scott, L. & Binneman, J.N.F. 2000. Palynology and palaeoenvironment of Pleistocene coprolites from an open-air site at Oyster Bay, Eastern Cape coast. *South African Journal of Science* 96: 449-453.

Binneman, J.N.F. 2000. Results from two test excavations in the Baviaanskloof Mountains, Eastern Cape Province. *Southern African Field Archaeology* 9: 81-92.

Binneman, J.N.F. 2001. An introduction to the Later Stone Age research project along the southeastern

Cape coast. *Southern African Field Archaeology* 10: 75-87.

Binneman, J.N.F. 2004/5. Archaeological research along the south-eastern Cape coast Part 1: open-air shell middens. *Southern African Field Archaeology* 13/14: 49-77.

Steyn, M., Binneman, J.N.F. & Loots, M. 2007. The Kouga Mummified remains. *South African Archaeological Bulletin* 65: 3-8.

Binneman, J.N.F. 2006/7. Archaeological research along the south-eastern Cape coast Part 2, caves and shelters: Kabeljous River Shelter 1. *Southern African Field Archaeology* 15/16: 57-74.

CURRICULUM VITAE

CHRIS VAN ROOYEN

SPECIALIST FIELD: Avifauna

EDUCATION

My formal training is in the legal sciences. I studied at the Rand Afrikaans University where I obtained my LLB in 1990, and I was admitted as an advocate in 1994. However, my interest and passion has always been for the natural sciences, particularly the study of birds. I therefore had no regrets when I abandoned my legal career to pursue a career in conservation in 1996.

I started my formal employment in the conservation field at the Endangered Wildlife Trust (EWT) in April 1996. Prior to that I was a volunteer and member of the management committees of the Raptor Conservation Group and Vulture Study Group (now amalgamated under the Birds of Prey Working Group of the Endangered Wildlife Trust). I was offered the position of working group manager in April 1996, then Director of the EWT, and my brief was to develop a strategic partnership with Eskom, aimed at reducing the conflicts between electricity infrastructure and wildlife, particularly birds.

RELEVANT WORK EXPERIENCE

- 1991-1995: Volunteer for the Endangered Wildlife Trust's Raptor Conservation Group and Vulture Study Group.
- 1996-2007: Specialist Consultant with the Endangered Wildlife Trust. Duties entailed the overall co-ordination and management of the Endangered Wildlife Trust's national programme to eliminate negative wildlife interactions with electrical utility structures in southern Africa
- Since November 2007 to present: Environmental Consultant specialising in Bird Impact Assessment Studies

Bird Impact Assessment Studies for wind-powered generation facilities:

1. Klipheuwel Experimental Wind Power Facility
2. Kouga Wind Facility Western Cape
3. Biotherm Environmental Impact Assessment Report (Excelsior – Swellendam)
4. Biotherm Environmental Screening Report (Matjiesfontien – Napier)
5. Windcurrent SA Environmental Screening Report (Jeffery's Bay)
6. Genesys Bird Impact Scoping Study (Caledon)
7. Basic Assessment for five wind mast sites in the Western Cape (InnoWind)
8. Oyster Bay Wind Energy Facility
9. Darling Wind Energy Facility (Kerriefontein)

CURRICULUM VITAE

PHILIP KING

Senior Technical Analyst at RES Group

SKILLS BASE AND CORE COMPETENCIES

- 10years experience of wind turbine acoustic impact assessment
- Management of RES Group Acoustic team
- Environmental Impact Assessment chapter preparation
- Project Technical Co-ordinator
- Assessment and communication of technical aspects of wind farm development
- IT skills

TERTIARY EDUCATION

1st Class BEng (Hons), University of Strathclyde, Glasgow, Scotland

EMPLOYMENT HISTORY

- RES Group 2000-2010

SELECTED RELEVANT PROJECT EXPERIENCE

- Responsible for the assessment of acoustic impact in >30 wind farm projects within the UK, Ireland & Sweden.
- Responsible for the preparation of 6 acoustic chapters for environmental impact assessments of wind farm projects in the UK 2010 alone. (Glenchamber (Scotland), Altaveedan (Northern Ireland), Bryn Llewlyn (Wales), Woolley Hill (England), Turncole (England), Jacks Lane (England))
- Assistance in the acoustic session of public inquiries into the following wind farms within last 2 years: Den Brook, Wadlow Farm, Roos, Wryde Croft (England)
- Representative for NIRIG (industry body) for noise related issues in Northern Ireland.

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)
-

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).