

**Environmental Impact Assessment for the
proposed Banna Ba Pifhu Wind Energy Project
near Humansdorp, Eastern Cape:
Final Environmental Impact Assessment Report**

APPENDICES

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**Environmental Impact Assessment for the
proposed Banna Ba Pifhu Wind Energy Project
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Final Environmental Impact Assessment Report**

APPENDIX A

**Curriculum vitae and
declaration of independence
of the project team members**

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Project Proponent Declaration (WKN Windcurrent SA Pty Ltd)

4. DECLARATIONS

4.1 The Applicant, Wind Energy (Pty) Ltd

I, **Mr Alan Wolfromm**, declare that I -


- am, or represent³, the applicant in this application;
- have appointed / ~~will appoint~~ (delete that which is not applicable) an environmental assessment practitioner to act as the independent environmental assessment practitioner for this application ~~will obtain exemption from the requirement to obtain an environmental assessment practitioner⁴~~;
- will provide the environmental assessment practitioner and the competent authority with access all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2010, including but not limited to –
 - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
 - costs incurred in respect of the undertaking of any process required in terms of the Regulations;
 - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
 - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
 - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EA complies with the Regulations;
- will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- will perform all other obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and

³ If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached.

⁴ If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

Appendix A, Curriculum vitae of project team members

- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.



Signature of the applicant⁴/ Signature on behalf of the applicant:

WKN-WINDCURRENT SA (PTY) LTD

Name of company (if applicable):

24/5/2011

Date:

⁴ If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority. An EAP may not sign on behalf of an applicant.

CSIR PROJECT DIRECTOR – PAUL LOCHNER

Curriculum Vitae

Paul Lochner

CSIR
Jan Cilliers Street
PO Box 320
Stellenbosch 7600
South Africa

Phone: +27 21 888 2400
Fax: +27 21 888 2693
Email: plochner@csir.co.za



Name of firm	CSIR
Name of staff	Paul Andrew Lochner
Profession	Environmental Assessment and Management
Position in firm	Project Director in Environmental Assessment & Management
Date of birth	13 June 1969
Years with firm	20 years
Nationality	South African

Biographical sketch Paul Lochner commenced work at CSIR in 1992, after completing a degree in Civil Engineering and a Masters in Environmental Science, both at the University of Cape Town. His initial work at CSIR focused on sediment dynamics and soft engineering applications in the coastal zone, in particular, beach and dune management. He conducted several shoreline erosion analyses and prepared coastal zone management plans for beaches. He also prepared wetland management plans.

As the market for environmental assessment work grew, he led Environmental Impact Assessments (EIAs), in particular for coastal resort developments and large-scale industrial developments located on the coast; and Environmental Management Plans (EMPs), in particular for wetlands, estuaries and coastal developments. He has also been involved in researching and applying higher-level approaches to environmental assessment and management, such as Strategic Environmental Assessment (SEA). In 1998 and 1999, he coordinated the SEA research programme within the CSIR, and was a lead author of the Guideline Document for SEA in South Africa, published jointly by CSIR and the national Department of Environmental Affairs and Tourism in February

2000.

In 1999 and 2000, he was the project manager for the legal, institutional, policy, financial and socio-economic component of the Cape Action Plan for the Environment (“CAPE”), a large-scale multi-disciplinary study to ensure the sustainable conservation of the Cape Floral Kingdom. This was funded by the Global Environmental Fund (GEF) and prepared for WWF-South Africa. The study required extensive stakeholder interaction, in particular with government institutions, leading to the development of a Strategy and Action Plan for regional conservation.

In July 2003, he was certified as an Environmental Assessment Practitioner by the Interim Certification Board for Environmental Assessment Practitioners of South Africa. In 2004 he was lead author of the *Overview of IEM* document in the updated Integrated Environmental Management (IEM) Information Series published by national Department of Environmental Affairs and Tourism (DEAT). In 2004-2005 he was project manager for an Environmental and Social Impact Assessment (ESIA) conducted for a bauxite mine and alumina refinery in the Komi Republic (Russia), prepared in accordance with World Bank and EU policies, guidelines and standards.

In 2004-2005, he was part of the CSIR team that coordinated the preparation of the series of *Guidelines for involving specialists in EIA processes* prepared for the Western Cape Department of Environmental Affairs and Development Planning (DEADP); and authored the *Guideline for Environmental Management Plans* published by the Western Cape government in 2005.

In 2009, he led the EIA for a desalination plant in Namibia, as well as several EIAs for wind energy facilities in South Africa.

Over the past 14 years has been closely involved with several environmental studies for industrial and port-related projects in Coega Industrial Development Zone (IDZ), near Port Elizabeth. This included the SEA for the establishment of the Coega IDZ in 1996/7, an EIA and EMP for a proposed aluminium smelter in 2002/3, and assistance with environmental permit applications for air, water and waste. At the Coega IDZ and port, he has also conducted environmental assessments for port development, LNG storage and a combined cycle gas turbine power plant, manganese export, rail development, and wind energy projects.

Education	1990	B.Sc. Civil Engineering (awarded with Honours)	University of Cape Town
	1992	M. Phil. Environmental Science	University of Cape Town

Employment record *January 1992 to June 1992:* Completed Masters thesis, working in conjunction with the Environmental Evaluation Unit at the University of Cape Town. The thesis investigated the potential future ecological and socio-economic impacts resulting from the closure of a large diamond mining operation, and developed actions to mitigate these impacts.

October 1992 to present: Employed by the CSIR in Stellenbosch. Involved in coastal engineering studies; and various forms of environmental assessment and management studies. (A track record of experience is listed below).

PROFESSIONAL INVOLVEMENT IN COMMITTEES:

1996/97:	Committee Member of the Western Cape Branch of the International Association for Impact Assessment (IAIA)
1997/98:	Chairperson of the Western Cape Branch of IAIA and member of the national IAIA committee
1998/99:	Committee Member of the Western Cape Branch of IAIA
1996 to present:	Chairperson of the Blouville Environmental Committee at Century City, Cape Town (This committee is tasked with overseeing the restoration and management of a wetland in the midst of a new mixed-use urban development)

Experience record The following table presents an abridged list of projects that Paul Lochner has been involved in, indicating his role in each project:

Completion Date	Project description	Role	Client
2011 - 2012	EIA for the 100 MW solar photovoltaic project proposed by Mainstream Renewable Power at Blocuso, near Keimoes in the Northern Cape	Project director	Mainstream Renewable Power
2011 – 2012	EIA for the 100 MW solar photovoltaic project proposed by Mainstream Renewable Power at Roode Kop Farm, near Douglas, in the Northern Cape	Project director	Mainstream Renewable Power
2011 – 2012	EIA for the 75 MW solar photovoltaic project proposed by Solaire Direct at GlenThorne , near Bloemfontein in the Free State	Project director	Solaire Direct
2011 – 2012	EIA for the 75 MW solar photovoltaic project proposed by SolaireDirect at Valleydora , near Springfontein in the Free State	Project director	Solaire Direct
2012 (in progress)	EIA for the 80 MW solar photovoltaic project by CAMAC on Farm O'Poort near postmasburg.	Project director	CAMAC International
2010-2011	More than 10 Basic Assessments (BAs) for solar photovoltaic projects in the western cape, Northern Cape, Eastern Cape and Free State	Project director	Various clients including Dutch, German, French and South African companies
2010/2011 (in progress)	EIA for the Langerfontein wind project near Darling, Western Cape.	Project director	Mr Herman Oelsner, Khwe Khoa

Appendix A, Curriculum vitae of project team members

Completion Date	Project description	Role	Client
2010/2011 (final report completed)	EIA for a 100 MW wind project at Zuurbron and a 50 MW wind project Broadlands in the Eastern Cape	Project director	WindCurrent SA (German-based company)
2010/2011 (final report completed)	EIA for the proposed 143 MW Biotherm wind energy project near Swellendam , Western Cape, South Africa	Project director	Biotherm South Africa (Pty) Ltd
2010/2011 (final report completed)	EIA for the proposed InnoWind wind energy projects near Swellendam, Heidelberg, Albertinia and Mossel Bay (totalling approx 210 MW) , Western Cape, South Africa	Project director	InnoWind South Africa (Pty) Ltd
2009/2010 (authorisation granted by DEA in Aug 2011)	EIA for the proposed Electrawinds wind energy facility of 45-75 MW capacity in the Coega IDZ, Eastern Cape	Project director	Electrawinds N.V. (Belgium)
2009/2010 (authorisation granted by DEA in April 2011)	EIA for proposed 180 MW Jeffreys Bay wind energy project , Eastern Cape	Project Director and co-author	Mainstream Renewable Power South Africa
2009/2010 (authorisation granted by DEA)	Basic Assessment for the national wind Atlas for South Africa	Project director	SANERI and SA Wind Energy Programme, Dept of Energy
2009/2010 (on hold)	EIA for the proposed Gecko soda plant , Otjivalunda and Arandis, Namibia	Project director	Gecko, Namibia
2009	EIA for the proposed desalination plant at Swakopmund, Namibia	Project director	NamWater, Namibia
2009	EMP for the Operational Phase of the Berg River Dam , Franschoek, South Africa	Project director and report co-author	TCTA, South Africa
2009/2010 (in progress)	EIA for the proposed crude oil refinery at Coega, South Africa	Project director and lead author	PetroSA, South Africa
2008	Environmental Risk Review for proposed LNG/CNG import to Mossel Bay, South Africa	Project director and lead author	PetroSA, South Africa
2008	Review of the Business Plan for catchment management for the Berg Water Dam Project, Franschoek, South Africa	Project reviewer and co-author	TCTA, South Africa
2007 – 2010 (in progress)	EIA for proposed Jacobsbaai Tortoise Reserve eco-development , Saldanha, Western Cape	Project Director and co-author	Jacobsbaai Tortoise Reserve (Pty) Ltd
2007 – 2010 (in progress)	Independent reviewer for the EIA proposed Amanzi lifestyle development, Port Elizabeth	Independent reviewer appointed to advise EAP	Public Process Consultants and Pam Golding
2007 – 2008	EIA for proposed 18 MW Kouga wind energy project , Eastern Cape	Project Director and co-author	Genesis Eco-Energy (Approved by DEDEA in March 2009)
2007	Review of EIA for the proposed Hanglip Eco-Development , Plettenberg Bay, Western Cape	Co-author of review of EIA, undertaken on behalf of DEADP	Dept of Environmental Affairs & Development Planning, Western Cape
2006-2007	Scoping phase for the EIA for the proposed Coega LNG-to-Power Project at the Port of Ngqura, Coega IDZ	Project Director and co-author	Eskom and iGas
2006-2007	Guideline for Scoping, Environmental Impact Assessment and Environmental Management Plans for mining in South	Project director and co-author	Dept of Minerals and Energy (DME), South Africa

Appendix A, Curriculum vitae of project team members

Completion Date	Project description	Role	Client
	Africa		
2006	Environmental Impact Assessment (EIA) for the extension of the Port of Ngqura, Eastern Cape	Project Director and co-author	Transnet
2006	Integrating Sustainability Into Strategy: Handbook (Version 1)	Project Director and co-author	CSIR (STEP research report)
2005	Technology Review for the proposed aluminium smelter at Coega, South Africa	Project Director and lead author	Alcan, Canada
2005	Environmental and Social Impact Assessment (ESIA) report for the proposed alumina refinery near Sosnogorsk, Komi Republic, Russia	Project manager and co-author	Komi Aluminium, Russia, IFC, EBRD
2005	Guideline for Environmental Management Plans (EMPs) for the Western Cape province, including conducting a training course for provincial government	Author	Dept of Environmental Affairs & Development Planning, Western Cape
2005	Guideline for the review of specialist studies undertaken as part of environmental assessments	Member of Steering Committee and project facilitator	Dept of Environmental Affairs & Development Planning, Western Cape
2004	Review of Strategic Management Plan for Table Mountain National Park (2001-2004)	Reviewer and co-author	South African National Parks
2004	Strategic Needs Assessment Process for mainstreaming sustainable development into business operations	Researcher and co-author	CSIR (internal research)
2004	Environmental Monitoring Committees booklet in the IEM Information Series for DEAT	Contributing author	Department of Environmental Affairs and Tourism (DEAT)
2004	Overview of Integrated Environmental Management (IEM) booklet in the IEM Information Series	Lead author and researcher	DEAT
2003	Environmental Screening Study for gas power station, South Africa	Project Manager and lead author	Eskom, iGas and Shell
2003	Environmental Management Programme (EMP) Framework for the proposed Coega Aluminium Smelter; and assistance with preparing permit and licence applications	Project Manager and lead author	Pechiney, France
2003	Environmental Management Plan for the Operational Phase of the wetlands and canals at Century City, Cape Town	Project director and lead author	Century City Property Owners' Association
2002	Environmental Impact Assessment for the proposed Pechiney aluminium smelter at Coega, South Africa	Project Manager and lead author	Pechiney, France
2002 - 2003	Research project: Ecological impact of large-scale groundwater abstraction on the Table Mountain Group aquifer	Project Manager	Water Research Commission
2002	Environmental Management Plan for the Eskom Wind Energy Demonstration Facility in the Western Cape	Co-author	Eskom
2001-2002	Environmental Impact Assessment for the Eskom Wind Energy Demonstration Facility in the Western Cape	Quality control & co-author	Eskom
2001	Environmental Due Diligence study of	Project manager and co-	SFF Association

Appendix A, Curriculum vitae of project team members

Completion Date	Project description	Role	Client
	four strategic oil storage facilities in South Africa	author	
2000	Cape Action Plan for the Environment: a biodiversity Strategy and Action Plan for the Cape Floral Kingdom - legal, institutional, policy, financial and socio-economic component	Project manager and contributing writer	World Wide Fund for Nature (WWF): South Africa
1999	Environmental Management Plan for the establishment phase of the wetlands and canals at Century City, Cape Town	Project manager and lead author	Monex Development Company
1999	Environmental Management Programme for the Thesen Islands development, Knysna	Process design and Co-author	Chris Mulder Associates Inc; Thesen and Co.
1999	Management Plan for the coastal zone between the Eerste and Lourens River, False Bay, South Africa	Project manager and lead author	Heartland Properties and Somchem (a Division of Denel)
1998	Environmental Assessment of the Mozal Matola Terminal Development proposed for the Port of Matola, Maputo, Mozambique	Project manager and author.	SNC-Lavalin-EMS
1998	Strategic Environmental Assessment (SEA) for the Somchem industrial complex at Krantzkop, South Africa	Project manager and co-author	Somchem, a Division of Denel
1997	Strategic Environmental Assessment (SEA) for the proposed Industrial Development Zone and Harbour at Coega, Port Elizabeth, South Africa	SEA project manager and report writer	Coega IDZ Initiative Section 21 Company
1996	Environmental Impact Assessment of Development Scenarios for Thesen Island, Knysna, South Africa	Project manager and report writer	Thesen and Co.
1996	Environmental Impact Assessment of the Management Options for the Bloulei wetlands, Cape Town	Project manager and report writer	Ilco Homes Ltd (now Monex Ltd)
1995	Environmental Impact Assessment for the Saldanha Steel Project, South Africa	Report writing and management of specialist studies	Saldanha Steel Project
1994	Environmental Impact Assessment for the upgrading of resort facilities on Frégate Island, Seychelles	Member of the project management team, co-author, process facilitator	Schneid Israelite and Partners
1994	Environmental Impact Assessment for exploration drilling in offshore Area 2815, Namibia	Project manager and co-author	Chevron Overseas (Namibia) Limited
1994	Management Plan for the Rietvlei Wetland Reserve, Cape Town	Project manager and lead author	Southern African Nature Foundation (now WWF-SA)
1993	Beach management plan for Stilbaai beachfront and dunes, South Africa	Project manager and lead author	Stilbaai Municipality
1993	Beach and dune management plan for Sedgfield for the beach east of the mouth of the Swartvlei estuary	Project manager and lead author	Nel and De Kock Planners, George
1993	Coastal Stability analysis and beach management plan for the Table View coastline north of Blaauwberg Road, Cape Town	Project manager and lead author	Milnerton Municipality

Publication record	<p>A comprehensive list of publications, book chapters and contract reports is available upon request, with a summary provided below.</p> <p><i>Publications in journals, peer reviewed conference proceedings and CSIR internal research reports:</i></p> <p>Weaver A, Pope J, Morrison-Saunders A & Lochner P, 2009, Contributing to sustainability as an environmental impact assessment practitioner, <i>Impact Assessment and Project Appraisal (IAPA)</i>, 26:2, 91-98. (This paper received the IAPA best paper award for 2009).</p> <p>Lochner P, 2009: Case study - The role of environmental and social screening in informing the conceptual design and planning of large-scale projects in the pre-feasibility phase, <i>in</i> DBSA, 2009, <i>What works for us – a South African Country report for tactics, Tools and Methods for Integrating Environment and Development (A South African Case study in partnership with the IIED)</i>, pp 37-38, Midrand, South Africa.</p> <p>Lochner P, Munster F and Burns M, 2006. Integrating Sustainability into Strategy (ISIS): a process to inform sustainability strategies and frameworks, <i>In: IAIA South Africa Annual Conference proceedings</i>, South Africa.</p> <p>Rossouw N and Lochner P, 2006. Environmental Monitoring Committees (EMCs): purpose, function and structure. <i>In: IAIA South Africa Annual Conference proceedings</i>, South Africa.</p> <p>Munster F and Lochner P, 2006, Integrating Sustainability Into Strategy: Handbook (Version 1) – describing a process to inform sustainability strategies, frameworks and reports, <i>CSIR Report ENV-S-1 2005-001</i>, ISBN 0-7988-5560-6, Stellenbosch.</p> <p>Van Zyl H, de Wit M, Munster F, Lochner P, Gerber G, 2005. Economics in Environmental Impact Assessment: demystifying the theory and practice, <i>In: Conference Proceedings of the IAIA South Africa 2005 Annual National Conference</i>. South Africa.</p> <p>Lochner P, Weaver A, Gelderblom C, Peart R, Sandwith T and Fowkes S, 2003. Aligning the diverse: the development of a biodiversity conservation strategy for the Cape Floristic Region. <i>Biological Conservation Vol. 112, ISSN: 0006-3207</i>.</p> <p>Lochner P, Münster F, Msutu M, Wren S, 2003. The role of stakeholder engagement in the EIA for the Coega Aluminium Smelter. <i>In: Conference Proceedings of the IAIA South Africa 2003 Annual National Conference</i>. ISBN 1-919891-04-8. South Africa.</p> <p>Lochner P, Brooks W, Pesch P & Münster M. 2003, Stakeholder engagement process in the EIA of an aluminium smelter, Published in <i>Light Metals 2003</i> (Ed. Paul Crepeau), Published by TMS (the Minerals, Metals & Materials Society), ISBN Number 0-87339-531-X, USA.</p> <p>Rossouw N, Audouin M, Lochner P, Heather-Clark S and Wiseman K, 2000. Development of strategic environmental assessment in South Africa. <i>Impact Assessment and Project Appraisal</i>. Vol 18, no. 3, pp 217-223. United Kingdom.</p> <p>Lochner P and Fowkes S, 2000. Building partnerships for the conservation of the biodiversity of the Cape Floral Kingdom: experiences and lessons learnt from the Cape Action Plan for the Environment. <i>In: IAIA-SA Conference Proceedings 2000</i>. South Africa.</p> <p>Lochner P and Rossouw N, 1997. The development of an Environmental Management Plan for incorporating a wetland into a large mixed use development: the Century City example. <i>In: IAIA-SA Conference Proceedings 1997</i>. South Africa.</p>
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Declaration of Independence (Paul Lochner)



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF EAP AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	12/12/20/
NEAS Reference Number:	DEAT/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

PROJECT TITLE

Windcurrent EIA and Environmental Management Plan for a proposed 50 MW wind energy project near Humansdorp in the Eastern Cape.

Environmental Assessment Practitioner (EAP): ¹	Paul Lochner		
Contact person:	Paul Lochner		
Postal address:	CSIR, P.O. Box 320, Stellenbosch		
Postal code:	7599	Cell:	084 442 3646
Telephone:	021 888 2661/2486	Fax:	021 888 2693
E-mail:	plochner@csir.co.za		
Professional affiliation(s) (if any)	IAIA-SA Certified Environmental Assessment Practitioner – SA (since July 2003)		
Project Consultant:	Windcurrent SA (Pty) Ltd		
Contact person:	Alan Wolfromm		
Postal address:	PO Box 762, Wilderness		
Postal code:	6560	Cell:	0844423646
Telephone:	044-877 0564	Fax:	011-367 4601
E-mail:	mrwolf@mweb.co.za		

4.2 The Environmental Assessment Practitioner

I, PAUL LOCHNER, declare that –

General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Appendix A, Curriculum vitae of project team members

Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;
- ~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~

~~_____~~
~~_____~~
~~_____~~
~~_____~~



Signature of the environmental assessment practitioner:

CSIR

Name of company:

7 June 2011

Date:

CSIR PROJECT MANAGER– MINNELISE LEVENDAL

Curriculum Vitae

Minnelise Levendal

Abbreviated Curriculum Vitae

CSIR
Jan Cilliers Street
PO Box 320
Stellenbosch 7600
South Africa

Phone: +27 21 888 2400
Fax: +27 21 888 2693
Email: mlevendal@csir.co.za



CONTACT DETAILS:

Postal Address: P O Box 320, Stellenbosch, 7599
Telephone Number: 021-888 2495/2661
Cell: 0833098159
Fax: 0865051341
e-mail: mlevendal@csir.co.za

EDUCATION

- | | | |
|--------------------------|--------------------------------|------|
| ▪ M.Sc. (Botany) | Stellenbosch University | 1998 |
| ▪ B.Sc. (Hons.) (Botany) | University of the Western Cape | 1994 |
| ▪ B.Sc. (Education) | University of the Western Cape | 1993 |

MEMBERSHIPS:

- International Association for Impact Assessment (IAIA), Western Cape (member of their steering committee from 2001-2003)
- IUCN Commission on Education and Communication (CEC); World Conservation Learning Network (WCLN)
- American Association for the Advancement of Science (AAAS)
- Society of Conservation Biology (SCB)

EMPLOYMENT RECORD:

- **1995:** Peninsula Technicon. Lecturer in the Horticulture Department.
- **1996:** University of the Western Cape. Lecturer in the Botany Department.
- **1999:** University of Stellenbosch. Research assistant in the Botany Department

Appendix A, Curriculum vitae of project team members

- (3 months)
- **1999:** Ben Gurion University (Israel). Research assistant (Working in the Arava valley, Negev – Israel; 2 months). Research undertaken was published (see first publication in publication list)
- **1999-2004:** Assistant Director at the Department of Environmental Affairs and Development Planning (DEA&DP). Work involved assessing Environmental Impact Assessments and Environmental Management Plans; promoting environmental management and sustainable development.
- **2004 to present:** Employed by the CSIR in Stellenbosch:
 - September 2004 – May 2008: Biodiversity and Ecosystems Services Group
 - May 2008 to present: Environmental Management Services Group (EMS)

PROJECT EXPERIENCE RECORD:

The following table presents a list of projects undertaken at the CSIR as well as the role played in each project:

Completion Date	Project description	Role	Client
2012 (in progress)	EIA for the proposed Swartberg and Withoogte wind energy project near Moorreesburg, Western Cape	Project Manager	Electrawinds
2012 (in progress)	BA for a solar PV project near Humansdorp, Eastern Cape	Project Manager	WKN Windcurrent SA (Pty) Ltd
2012 (in progress)	EIA for the proposed Banna ba pifhu wind energy project, Eastern Cape	Project Manager	WKN Windcurrent SA (Pty) Ltd
2012 (in progress)	BA for wetland crossings near Swellendam	Project Manager	BioTherm Energy (Pty) Ltd
2012 (complete)	EIA for the proposed Ubuntu wind energy project, Eastern Cape, South Africa	Project Manager	WKN Windcurrent SA (Pty) Ltd
2011 (complete)	EIA for the proposed Excelsior wind farm near Swellendam in the Western Cape	Project Manager	BioTherm Energy (Pty) Ltd
2010 (complete)	Basic Assessment for the erection of two wind monitoring masts near Swellendam and Bredasdorp in the Western Cape	Project Manager	BioTherm Energy (Pty) Ltd
2010 (complete)	EIA for the erection of two wind monitoring masts near Jeffrey's Bay in the Eastern Cape	Project Manager	Windcurrent (Pty) Ltd
2010 (complete)	Basic Assessment Process for the proposed erection of 10 wind monitoring masts as part of the national wind atlas project	Project Manager	Department of Energy and SANERI
2010 (complete)	South Africa's Second National Communication under the United Nations Framework Convention on Climate Change	Project Manager	SANBI
2009 (complete)	Environmental screening study for two wind farms near Humansdorp and Jeffrey's Bay in the Eastern Cape	Project Manager	WKN Windcurrent SA (Pty) Ltd
2009 (complete)	Basic Assessment Report for a proposed boundary wall at the Port of Port Elizabeth, Eastern Cape	Project Manager	Transnet Ltd
2008	Developing an Invasive Alien Plant Strategy for the Wild Coast, Eastern Cape,	Co-author	Eastern Cape Parks Board

Appendix A, Curriculum vitae of project team members

Completion Date	Project description	Role	Client
2006-2008	Monitoring and Evaluation of aspects of Biodiversity	Project Leader	Internal project awarded through the Young Researchers Fund
2006	Integrated veldfire management in South Africa. An assessment of current conditions and future approaches.	Co- author	Working on Fire
2004-2005	Biodiversity Strategy and Action Plan Wild Coast, Eastern Cape, SA	Co-author	Wilderness Foundation
2005	Western Cape State of the Environment Report: Biodiversity section. (Year One).	Co- author and Project Manager	Department of Environmental Affairs and Development Planning

PUBLICATIONS:

Bowie, M. (née Levendal) and Ward, D. (2004). Water status of the mistletoe *Plicosepalus acaciae* parasitic on isolated Negev Desert populations of *Acacia raddiana* differing in level of mortality. *Journal of Arid Environments* 56: 487-508.

Wand, S.J.E., Esler, K.J. and **Bowie, M.R.** (2001). Seasonal photosynthetic temperature responses and changes in ^{13}C under varying temperature regimes in leaf-succulent and drought-deciduous shrubs from the Succulent Karoo, South Africa. *South African Journal of Botany* 67:235-243.

Bowie, M.R., Wand, S.J.E. and Esler, K.J. (2000). Seasonal gas exchange responses under three different temperature treatments in a leaf-succulent and a drought-deciduous shrub from the Succulent Karoo. *South African Journal of Botany* 66:118-123.

Declaration of Independence

I, Minnelise Levendal, declare that I am an independent CSIR project manager and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed on behalf of CSIR in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Minnelise Levendal
(CSIR Project Manager)

Curriculum Vitae

Jamie Pote

Professional Profile: Mr. Jamie Pote

26 January 2012

BIOGRAPHY

Date of Birth: 15 May 1974, Age: 36

ID Number: 740515 5152 089; Passport Number: 469 8150 12

Current Occupation: Freelance Botanical, Environmental and GIS Specialist Consultant

Jamie Pote has wide experience (4 years part and 5 years full-time) in botanical specialist studies, biophysical site assessments, environmental impact specialist reports (botanical specialist reports), Environmental Management Plans and rehabilitation in South Africa (Eastern Cape, Western Cape & Northern Cape), Namibia, Mozambique and Democratic Republic of Congo. He has broad experience in all Eastern Cape vegetation types, particularly Fynbos, Subtropical Thicket, Forest, Grassland, Karroid, Riparian and Coastal Dune systems.

FIELDS OF COMPETENCE

- Biophysical and ecological site assessment;
- Botanical field surveys and vegetation description;
- Environmental Impact Report specialist botanical studies;
- Restoration and rehabilitation ecology;
- Alien Invasive Plant ecology (terrestrial);
- Riparian Vegetation Index and assessment;
- Environmental Management Plans;
- Environmental Control/Site Officer (ECO/ESO);
- Geographical Information Systems mapping and analysis;
- Basic Carbon credit assessments;



SERVICES OFFERED

Terrestrial Vegetation Assessments

- Overview and implications of regional planning models (VegSA, STEP and CAPE, etc), describing the dominant vegetation units that would naturally occur on the site. Implications of regional planning frameworks to addresses the requirements of the National Environmental Management: Biodiversity Act (No 10 of 2004);
- Site visit to map the on-site vegetation (including state of degradation/transformation, level of alien invasion and overall sensitivity);
- Compile comprehensive species list, including list of Species of Special Concern (SSC) - both declared Alien Invasive Plant species (according to the Conservation of Agricultural Resources Act 43 of 1983 (CARA) and the Conservation of Agricultural Resources Regulations) as well as endemic, threatened and protected plant species (as per National Forests Act 84 of 1998 (NFA); Western Cape Nature Conservation Laws Amendment Act (3 Of 2000); Provincial Nature Conservation Ordinance (PNCO) of 1974 and IUCN threatened species programme;
- Sensitivity assessment (criteria including relative conservation and ecological importance of the vegetation communities, presence of indigenous species of special concern (SSC's) and extent of invasion, as well as the degree to which successful rehabilitation can take place and any other relevant indicators);
- Assessment of any potential impacts and mitigation measures for EIA requirements;
- Recommendations regarding Open Space management, rehabilitation requirements and plans.

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Professional Profile: Mr. Jamie Pote

26 January 2012

Biophysical Site Assessments

- Combine own Terrestrial Vegetation Assessments with outsourced additional studies available from network of independent biophysical specialists;
- Compilation of a single biophysical report, inclusive of above terrestrial assessment in addition to the incorporation of additional specialist studies undertaken by network of specialists (includes faunal - avifauna, amphibians, reptiles and mammals; wetlands and rivers; geological; visual; hydrogeology; estuarine and saltmarsh; aquatic invertebrates; Ichthyofauna; Agricultural potential, etc.
- Heritage; paleontological and archaeological assessments

Riparian Vegetation Assessments

- Riparian Vegetation is assessed using Riparian **V**egetation **R**esponse **A**ssessment **I**ndex (VEGRAI).

Environmental Management Plans

- General EMP's (CEMP & OEMP);
- Vegetation management plans;
- Invasive alien vegetation clearing plans;
- Rehabilitation and landscaping plans;
- Fire management plans;
- Stormwater management plans;
- Faunal management plans;
- Flora Relocation plans;



GIS Mapping

- Aerial Photographs (dependant on availability);
- Digital Elevation Models (DEM's);
- Topographical/Geological Maps;
- Overlay of CAD (Engineering/Architectural) data;
- On-site vegetation community and sensitivity mapping;
- Regional Vegetation Planning Maps (VegSA, STEP, CAPE, etc);

Site screenings and Risk Assessments

- Identification and assessment of Environmental Risks associated with potential development sites (farm portions & erven);
- Recommendations regarding potential specialist input requirements (i.e. wetlands, rivers, archaeological, etc);

Rehabilitation/Revegetation Plans

- Post invasive alien vegetation clearing revegetation plans;
- Post construction rehabilitation plans;
- Open Space rehabilitation plans for developments

Professional Profile: Mr. Jamie Pote

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Alien vegetation clearing and rehabilitation plans

- Assessment and mapping of alien invaded areas;
- Assessment of alternative land-uses;
- Alien clearing plans and investigation of cost-effective alternatives;
- Post clearing rehabilitation plans;

Environmental Control/Site Officer (ECO/ESO) and Audit Services

- Environmental Control or Site Officer (ECO/ESO) for all types of developments (Eco-Estates, Golf Estates, Housing Estates, Residential);
- Flora relocation plans and permit applications;
- Site audits can be conducted to meet RoD obligations for any types of development;

TARGET CLIENTS

- Independent Environmental Practitioners;
- Private Sector - Property developers, Communication masts;
- Government/Municipal Sector - roads, power-lines, water pipelines, wind-farms;
- NGO's - agriculture, botanical related projects;
- Game farms, Agriculture Projects, Nurseries;
- Lifestyle Developments - Eco Estates, Golf Estates, Agri-Estates;
- Mining companies - Mining applications, rehabilitation plans, EMP's;

ACADEMIC QUALIFICATIONS

- BSc Rhodes University (Majors: Botany and Environmental Science): 2001
- BSc (Hons.) Rhodes University (Botany): 2002

PROFESSIONAL SKILLS

- Botanical specialist in Field Ecology; Vegetation Site Assessment; Restoration and Rehabilitation Ecology, Invasive Alien Plant Ecology, Carbon trading and vegetation mapping.
- Software proficiency: Microsoft Vista/7, Linux OS, Microsoft Office 2007/2010; Manifold GIS; Arc GIS; Statistica; Community Analysis Package (CAP and ECOM); Photoshop and CorelDraw.

RESEARCH EXPERIENCE

- Resource assessment of bark stripped trees in indigenous forests in Weza/Kokstad area (June 2000; Dr. C. Geldenhuis & Mr. M. Kaplin)
- Working for Water research project for indigenous trees for woodlots (December 2000/January 2001; Prof R.A. Lubke)
- Project co-ordinator and leader of the REFYN project - A BP conservation gold award: Conservation and Restoration of Grassy-Fynbos. A multidisciplinary project focussing on management, restoration and public awareness/education (2001 - 2002)
- Conservation Project Management Training Workshops: Royal Geographical Society, London 2001 - Fieldwork Techniques, Habitat Assessment, Biological Surveys, Project Planning, Public Relations and Communications, Risk Assessment, Conservation Education

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Professional Profile: Mr. Jamie Pote

26 January 2012

- Selection and availability of wood in Crossroads village, Eastern Cape, South Africa. Honours Research Project 2002. Supervisors: Prof. R.A. Lubke & Prof. C. Shackleton
- Floral Morphology, Pollination and Reproduction in *Cyphia* (LOBELIACEAE). Honours Research Project 2002. Supervisor: P. Phillipson
- Forestry resource assessment of bark-stripped species in Amatola District (December 2002; Prof R.A. Lubke)

SUMMARY OF KEY PROJECTS TO DATE

- **Powerlines/Pipelines:** Eskom Grassridge-Dedisa powerline (2006-2007; Savannah Environmental, Jo-Anne Thomas; 2006-2007, Dr P. Illgner; Ms. S. Boast, Eyethu Engineers, Durban); Albany-Kowie powerline (BESC, Terratest); Elandsriver to Port Elizabeth pipeline, Erasmuskloof pipeline and Motherwell pipeline upgrades, Port Elizabeth, Steytlerville (2006 - 2008, Anton Bok & Associates).
- **Mining:** various small to medium scale mining projects in the wider eastern Cape region (GES, 2005-2007, Mr M. Rynhoud); Kalukundi (Democratic Republic of Congo) Copper Cobalt Vegetation Assessment for ESIA (Envirovolution, 2008, Ms N. Khandhela); Elitheni Coal Mine Scoping and EIA Botanical Assessment, Indwe (Savannah Environmental, Ms K. Jodas), Baghana gold mining - EMP and general environmental management, Ghana (Baghana mining, 2011, Mr. D. Underwood & Mr. M. Gillie).
- **Wind Farms:** Mainstream SA Windfarm - Jeffreys Bay (2009-2010, CSIR, Mr P. Lochner); Elektrawinds Windfarm, Coega IDZ (2010, CSIR, Mr P. Lochner), Red Cap Investments Wind Farm, Kouga municipality (Arcus Gibb, Mr. N. Klages), INcA Windfarm - Vredendal, Burgersdorp & Queenstown (CSIR, 2011); Universal Wind windfarm, Coega IDZ (CSIR, 2011).
- **Riparian:** Riparian vegetation index for gauging weirs along the Vaal and Orange rivers, South Africa and Namibia (Bolhweki, 2005); Erasmuskloof pipeline (Anton Bok Aquatic Consultants, 2011).
- **Agriculture:** Congo Agriculture, Malola Farm, Dolise, Republic of Congo. GIS mapping and general environmental planning services (Mr Andre Bothe, Congo Agriculture)
- **Coega IDZ:** various botanical surveys, EMP's and vegetation assessments for the Coega Industrial Development Zone including Eskom Grassridge-Dedisa powerline (2006-2007; Savannah Environmental, Ms J. Thomas; 2006-2007, Dr P. Illgner; Sharon Boast, Eyethu Engineers, Durban); PetroSA Botanical Assessment (CSIR, Mr P. Lochner); Coega Colchester N2 road upgrade specialist study (2009, SRK Consulting, Mr R. Gardiner);
- **Port Elizabeth:** Madiba Bay Leisure Park - Botanical Assessment (2005-2007, CES; Ms. M. Griffiths); Arlington race course (2005; Dr P. Illgner); Colchester/Sundays River housing development (GES, 2005, Mr M. Rynhoud); Winterhoek Park Extension housing development, Uitenhage (Ms Sandy Wren, Public Process Consultants); PE Airport Extension (2006, CES, Dr. B. Coloty); Seaview Eco-estate (2006, Mr M. Rynhoud, GES); Motherwell Pipeline (2007, Anton Bok and Associates); Amanzi Ecoestate (2007 - 2008, Public Process Consultants); 2010 road upgrades (2007; Mazizi Msutu & Associates) and Bay West City Precinct (Mazizi Msutu and Associates & Impact Consulting); Chelsea-Redhouse Walker Drive extension road (Terratest
- **Plettenberg Bay and Garden Route:** Various housing and eco-estate developments (2006 - 2007; Wendy Floyd and Associates; Indigenous Gardens, Mr D. Underwood and Eco-Route Environmental Consultancy, Dr C. Ebersohn).

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Professional Profile: Mr. Jamie Pote

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- East London: Vegetation assessments at Glengarrif, Gonubie, Nahoon, Winterstrand Kidds Beach and Rockcliff for housing developments (BESC, 2005 - 2007, Dr M. Logie); East London Golf Course expansions; Woodlands, Rockcliff and Kidds Beach Golf estates (BESC, 2006-present, Dr M. Logie)
- Port Alfred: Municipal pipeline (2004, CES, Ms. M. Griffiths); Development on Cheese farm (2004; Dr. A. Wood); Trailees housing development (2005; CES, Prof. R.A. Lubke); Rosehill farm development (2005, CES, Prof. R.A. Lubke); Peninsular farm development, Kleinemonde (2005, CES, Prof. R.A. Lubke); Carpe Diem Eco-estate, Fish River Mouth (2005-2007, Dr P. Illgner & Chand Environmental);
- Eastern Cape Interior: *Eskom Powerline*, Steynsburg to Teebus (2004; CES, Mr. L. Bosman); Resolution game Farm (Fort Beaufort); Roydon Game farm Eco-estate, Queenstown (2006, Dr M. Logie, BESC); Vegetation Assessment for low cost housing, Humansdorp, Patensie & Hankey (Thibane Strydom & Assoc)
- Wild Coast and Montane: Tyalara - Wilo *Eskom powerline* (2006, CES, Mr L. Ngcosini); Port St Johns Road upgrade (2009, Flux Development Scientists) Tiffendell Ski Resort Detailed Botanical Assessment (2006 - 2007; Savannah Environmental).
- Environmental Management Plans and ECO: Seaview Gardens Eco-Estate EMP compilation and ECO (2009/2010, Mr J. Shamley); Sinati Golf Estate - East London; Impact Consulting, Mr M. Msutu); Bay West City (2008-2010, Impact Consulting, Mr M. Msutu); NMBM Cluster road and stormwater upgrades (2010, Public Process Consultants, Ms. S. Wren).
- General: Field assistant for vegetation assessment for Corridor Sands titanium mine powerline (January 2001) and mine haul road (January 2002, Mozambique) (CES; Prof. R.A. Lubke); Desktop study: Ecology of Alien Invasive plants research assessment for Working for Water (June 2002; Prof. C. Fabricius, Rhodes University); Chris Hani District Municipality State of the Environment Report (SoER) - Botanical Specialist Report (2003; CES, Dr. P. Illgner); State of the Environment report (Botanical Specialist Report, Forest rehabilitation and Carbon credit trading) for the Amahlati municipality (2006-2007, CES, Ms. M. Griffiths); Umthathi Africulture centre - Botanical specialist in planning and implementation of indigenous nursery and training centre (2004-2005, Umthathi, Grahamstown).

*client and year indicated in brackets

KEY CLIENTS TO DATE

Company/Consultant	Principle Contact
Anton Bok & Associates	Dr A. Bok
Biotechnology and Environmental Specialist Consultants (BESC)	Dr M. Logie
BKS (Port Elizabeth)	Mr K. Blignaut
Bluepebble (Plettenberg Bay)	Mr J. Kingwell
CEN (Port Elizabeth)	Dr M. Cohen
Chand Environmental (Cape Town)	Ms. E. Herschell
Clean Stream Environmental	Ms. A. Erasmus
Coastal and Environmental Services (CES)	Ms. M. Griffiths, Prof. R. Lubke
CSIR (Stellenbosch)	Mr P. Lochner
Doug Jeffries Consulting	Ms L. van Zyl

Professional Profile: Mr. Jamie Pote

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Company/Consultant	Principle Contact
Flux Development Scientists (East London)	Ms. N. Ntunzi
Geological and Environmental Services	Mr M. Rynhoud
Masande Consulting	Mr L. Ngcosini
Public Process Consulting (Port Elizabeth)	Ms. S. Wren
SRK Consulting (Port Elizabeth)	Dr R. Gardiner
SEC, Tokai	Ms C. McCreadie
Terratest (Port Elizabeth)	Mr D. Bokveldt
Thibane Strydom & Assoc.	Mr B. Thibane, Mr A. Strydom
Wendy Floyd & Associates (Plettenberg Bay)	Ms W. Floyd
Baghana mining (Ghana)	Mr. D. Underwood; Mr M. Gillie

CONFERENCES AND PUBLICATIONS

- Pote, J., Shackleton, C.M., Cocks, M. & Lubke, R. 2006. Fuelwood harvesting and selection in Valley Thicket, South Africa. *Journal of Arid Environments*, 67: 270-287.
- Pote, J., Cocks, M., Dold, T., Lubke, R.A. and Shackleton, C. 2004. The homegarden cultivation of indigenous medicinal plants in the Eastern Cape. *Indigenous Plant Use Forum*, 5 - 8 July 2004, Augsburg Agricultural School, Clanwilliam, Western Cape.
- Pote, J. & Lubke, R.A. 2003. The selection of indigenous species suitable for use as fuelwood and building materials as a replacement of invasive species that are currently used by the under-privileged in the Grahamstown commonage. Working for Water Inaugural Research Symposium 19 - 21 August 2003, Kirstenbosch. Poster presentation
- Pote, J. & Lubke, R.A. 2003. The screening of indigenous pioneer species for use as a substitute cover crop for rehabilitation after removal of woody alien species by WfW in the grassy fynbos biome in the Eastern Cape. Working for Water Inaugural Research Symposium 19 - 21 August 2003, Kirstenbosch, South Africa
- Pote, J. & Lubke, R.A. 2002. The screening of pioneer species for restoration of degraded forest and grassy fynbos (heath) following removal of invasive woody aliens, in the Eastern Cape South Africa. *South African Association of Botanists Conference, Grahamstown.*

CONTACT DETAILS

Phone: Cell: (+27) 083 743 9353, Fax: (+27) 0866 503 506;

Email: jamiépote@aerosat.co.za or jamiépote@gmail.com

Physical: 7 La Monate, Longwy Ave, Lorraine, Port Elizabeth, 6070

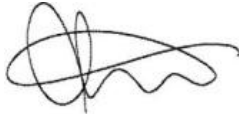
Postal: Postnet Suite 177; P. Bag X0002; The Fig Tree, Port Elizabeth, 6033; South Africa

LANGUAGES

Language	Speaking	Reading	Writing
English	Proficient	Proficient	Proficient
Afrikaans	Good	Proficient	Good

Declaration of Independence

I, Jamie Pote, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Mr Jamie Pote

Curriculum Vitae

Chris van Rooyen

DATE OF BIRTH: 30 April 1964

QUALIFICATIONS: BA Law (Rand Afrikaans University)
LLB (Rand Afrikaans University)

SPECIALIST FIELD Avifauna

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
- **November 2007 to present:** Consultant specialising in the impacts of industrial developments on avifauna.

CLIENTS

Industry

- Eskom Distribution Division
- Eskom Transmission Division
- Eskom Research (Resources and Strategy)
- Eskom Generation Division
- Botswana Power Company
- NamPower (Namibia)
- Debswana (Botswana)
- SAPPI
- Texas Utility Company (USA)
- TransPower (New Zealand)
- South African Roads Agency

Lead Consultants

- Bohlweki Environmental
- Strategic Environmental Focus
- Tswelopele Environmental
- Digby Wells Associates
- Iliso Consulting
- Savannah Environmental
- PBA International
- Arcus GIBB
- Landscape Dynamics
- BKS
- Naledzi Environmental
- Eyethu Engineers
- Ninham Shand

Appendix A, Curriculum vitae of project team members

- WSP Environmental
- Enviro Dynamics (Namibia)
- Eco Assessments
- Loci Environmental (Botswana)
- SRK
- Zitholele Consulting
- EcoPlan (Namibia)
- Groundwater Consultant Services – SA
- Synergestics
- Urgeneg

ENVIRONMENTAL IMPACT ASSESSMENT STUDIES, CONFERENCE PRESENTATIONS AND RESEARCH

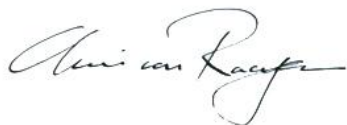
• New power lines:	109
• Power stations:	2
• Wind-powered generation facilities:	20
• Existing electricity infrastructure:	18
• Other industrial developments	22
• Papers and Conference Presentations:	16
• Research Reports:	9

AWARDS

- The Eskom-EWT Strategic Partnership won the Edison Electric Institute Common Goals Award in the USA for outstanding electric utility customer and community relations programmes in 1997, from a field of 61 international entries from 49 countries.
- The Eskom-EWT Strategic Partnership was a finalist in the 1998 and 2000 Green Trust Awards.
- Eskom Manager's Award in 1997 for the management of animal interactions.
- Eskom Manager's Award in 1999 for environmental management.
- Highly Commended Award in 2001 for Business Efficiency from Eskom Transmission Group.
- Nominated for Eskom Chairman's Award in 2001 in Environmental Category
- Runner-up: Eskom Resources and Strategy manager's award 2003
- Listed in Marqui's Who's Who in the World 2007 edition
- Northern Cape Raptor Conservationist of the Year: 2004

Declaration of Independence

I, Chris van Rooyen, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Mr Chris van Rooyen (Chris van Rooyen Consultants)

Curriculum Vitae

Kate MacEwan

Name: KATE LOUISE MacEWAN

Name of Firm: Natural Scientific Services CC

Position: Senior Environmental Scientist (Member)

Date of Birth: 28 April 1975

Nationality: United States of America (South Africa is Place of Birth and Permanent Residence)

Languages: English (mother tongue), Afrikaans

EDUCATIONAL QUALIFICATIONS

- ✚ M Sc (Zoology – Bat Conservation Biology) University of the Witwatersrand, Johannesburg (in progress)
- ✚ B Sc Hons (Zoology) University of the Witwatersrand, Johannesburg (1998)
- ✚ B Sc University of the Witwatersrand, Johannesburg (1997)

KEY EXPERIENCE

✚ Courses Completed:

- **2005 renewed in 2008:** SASS5 Accreditation with the National Department of Water Affairs and Forestry (DWAF)
- **2002:** University of the Witwatersrand Masters Courses successfully completed: Savannah Ecology, Environmental Management, and Biogeochemistry.
- **2001:** Foundation course in Environmental Auditing - IEMA approved

✚ Legal Environmental Processes:

Compiled numerous Scoping Reports, Environmental Impact Assessments, Basic Assessments, Environmental Management Programme Reports and Water Use Licence Applications as required by the Environment Conservation Act (Act 73 of 1989), National Environmental Management Act (Act 107 of 1998) EIA Regulation (April, 2006), Mineral and Petroleum Resources Development Act (Act No. 28 of 2002) and National Water Act (Act 36 of 1998).

✚ Specialist Assessments:

- Kate has over 13 years experience as a practicing zoologist in the conservation and consulting industries Numerous faunal assessments within the Gauteng, North West, Limpopo and Mpumalanga Provinces of South Africa, with the study of Mammals and Bats (Chiroptera) being a key speciality.
- Specialist Bat Assessments for various projects, e.g.
 - Bat impact assessment for the development of an automobile production factory near Bon Accord, Pretoria,

Appendix A, Curriculum vitae of project team members

- Bat assessment for the development of a Management and Action Plan for a cave on a Driefontein Gold Mine,
- Bat impact assessments for the development of 7 different Wind Farms in the Northern and Western Cape – under ERM.
- Bat impact assessments for the development of a Wind Farm in Namaqualand, Western Cape – under DJ Environmental Consultants
- Bat impact assessment for the mining through of old mine adits containing bats at Pilaesburg Platinum Mine, North West Province.
- Current long-term pre-construction monitoring at 13 Wind Farm sites in South Africa
- She is Fall Arrest certified to climb heights over 3m.
- She has served on the Gauteng & Northern Regions Bat Interest Group (GNorBIG) executive committee for over 10 years. Her duties have included bat scientific research and educational talks to the public.
- She is currently completing a Masters of Science degree with Wits University in Bat Conservation Biology.
- She has hand-reared over 25 individual bats over her career.
- She was also involved with EWT on bat conservation related projects

✚ Environmental Educational:

Has been actively involved in Environmental Education projects for organisations such as Delta Environmental Centre, Wits University, St Stithians College and Johannesburg Zoo

EMPLOYMENT EXPERIENCE

✚ Member: Natural Scientific Services, Johannesburg (October 2003-Present)

- Project management and fieldwork for numerous terrestrial and aquatic ecological assessments
- Specialist Bat Assessments for various projects
- Project management for various Environmental Impact Assessments, Environmental Programme Reports and Water Use Licence applications for the Conservation, Mining, Waste and Industrial sectors.
- Remediation audits within the industrial sector
- Tender and proposal compilation
- Administration
- Marketing
- Liaison with clients and government officials
- Environmental Education

✚ Environmental Scientist: Jones & Wagener Civil Engineers (March 2000-September 2003)

- Project management for various Environmental Impact Assessments, Environmental Programme Reports and Water Use Licence applications for the Mining, Waste and Industrial sectors
- Fieldwork for surface water quality and ecological assessments
- Tender and proposal compilation
- Liaison with clients and government officials

- ✚ **Area Manager (contract post): Working for Water – Kruger National Park (October 2000-January 2001)**
 - Management of Alien Plant Clearing operations
 - Project / Financial administration
 - People management

- ✚ **Zoo Keeper: Johannesburg Zoological Gardens (September 1998-March 2000)**
 - Husbandry of carnivores, pachyderms and ungulates.
 - Rearing of injured or orphaned animals of all kinds.
 - Environmental Education
 - Waste Management
 - People Management – employees and public

MEMBERSHIPS IN PROFESSIONAL SOCIETY

- ✚ Accredited with the Department of Water and Environmental Affairs (DWEA) for SASS5 aquatic assessments.
- ✚ South African Council for Natural Scientific Professions (PrSciNat) – Zoology and Environmental Science
- ✚ International Association for Impact Assessment (IAIA)
- ✚ Endangered Wildlife Trust (EWT)
- ✚ Gauteng & Northern Regions Bat Interest Group (GNorBIG) Research Committee Member
- ✚ Bat Conservation International (BCI)
- ✚ Free Me Wildlife Rehabilitation Centre

Declaration of Independence

BOX 7.1: DECLARATION OF INDEPENDENCE FOR BATS IMPACT ASSESSMENT

I Kate MacEwan declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed Banna Ba Pifhu Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Kate MacEwan

Curriculum Vitae

Henry Holland

Name of organisation:	Mapthis Trust
Profession:	GIS Consultant
Position in Firm:	Owner
Date of Birth:	26 December 1968
Years with Firm:	6

BIOGRAPHICAL SKETCH

Henry has been doing GIS related work since 1992 when he started his M.Sc. in Geology. Since finishing his Masters he worked in Angola establishing a GIS department for a diamond exploration company, after which he worked on a freelance basis for eight years doing GIS related work and computer programming. In 2005 he established the Mapthis Trust which provides geospatial services for a range of environmental and geological companies and projects. Henry has been involved in Visual Impact Assessments (VIAs) since 1997 doing visibility analyses for numerous power line EIA projects, and since 2006 he has completed a number of full VIA reports.

TERTIARY EDUCATION

1996	M. Sc. Geology/GIS	Rhodes University
1986	B.Sc. Hons	UOFS

KEY EXPERIENCE

The table below presents an abridged list of Henry's project experience relevant to this proposal:

Completion Date	Project description	Role	Client
2012	Hluhluwe WEF VIA	Author	CES
2012	Plan8 Grahamstown Wind Farm VIA, Eastern Cape	Author	CES
2012	Kipeto Wind Farm VIA, Kenya	Author	Galetech Energy Developments Ltd.
2011	Coega IDZ Zone 12 Wind Farm	Author	CSIR
2011	Haverfontein Wind Farm, Mpumalanga	Author	CES
2011	Middleton Wind Farm, Cookhouse	Author	CES
2011	Broadlands PV Plant, Humansdorp	Author	CSIR
2011	Ubuntu Wind Farm, Jeffrey's Bay	Author	CSIR
2011	Lushington Park Wind Farm, East	Author	CES

Appendix A, Curriculum vitae of project team members

Completion Date	Project description	Role	Client
	London		
2011	Chaba Wind Farm, Komga	Author	CES
2010	Thomas River Wind Farm and PV Park VIA, Stutterheim	Author	CES
2010	Eskom Power Line VIA, Kouga	Author	CES
2010	Laguna Bay Resort VIA	Author	CES
2010	Kouga Wind Farm VIA	Author	Arcus GIBB
2010	Electrawinds Coega Wind Farm VIA	Author	CSIR
2010	Innowind Coega Wind Farm VIA	Author	CES
2010	Jeffrey's Bay Wind Farm VIA, Jeffrey's Bay	Author	CSIR
2010	Cookhouse Wind Farm VIA, Cookhouse	Author	CES
2009	Waainek Wind Farm VIA, Grahamstown	Author	CES
2009	Coega Wind Turbine BA (Visual Input)	Author	CSIR
2009	Sierra Leone Ethanol Plant VIA	Author	CSIR
2009	NamWater Desalination Plant VIA, Swakopmund, Namibia	Author	CSIR
2009	Nooitgedagt/Coega Water Supply VIA, Motherwell	Author	SRK
2009	CDM Brewery VIA, Nampula, Mozambique	Author	CES
2009	TankaTara Preliminary Visibility Analysis, Addo	Author	CES
2008	Kouga Wind Energy Project VIA, Jeffrey's Bay	Author	CSIR
2008	Aston Bay VIA	Author	CES
2008	NPA Boundary Wall VIA, Port Elizabeth	Author	CSIR
2008	Elitheni Coal Mining VIA, Indwe	Author	Savannah Environmental (Pty) Ltd.
2008	Coegakamma Chicken Broiler Housing VIA	Author	Public Process Consultants
2008	Amanzi Country Lifestyle Estate VIA, Uitenhage	Author	Public Process Consultants
2008	Coegakammaskloof Chicken Broiler Housing VIA	Author	Public Process Consultants
2008	Ngqura Manganese Terminal Pre-Feasibility VIA	Specialist Input	CSIR
2007	Visual Impact Assessment for Stuytlerville Bulk Water Supply, Baviaanskloof	Author	Anton Bok and Associates
2007	Elitheni Coal Mining Scoping VIA	Author	Savannah Environmental (PTY) Ltd.
2007	Kouga Wind Farm and Pump Station VIA	Author	CSIR
2007	Boschfontein Chicken Broiler Housing VIA	Author	Public Process Consultants

Appendix A, Curriculum vitae of project team members

Completion Date	Project description	Role	Client
2006	Telkom Tower Replacement, Elarduspark, VIA	Author	Naledzi Environmental Consultants CC

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe my qualifications, my experience, and me, and that I am available to work on this project.



Date: 07/11/12

[Signature of staff member and authorized representative of the firm]

Day/Month/Year

Full name of staff member: Henry Holland

Declaration of Independence

BOX 8.1: DECLARATION OF INDEPENDENCE FOR VISUAL ASSESSMENT

I **Henry Holland** declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent Banna Ba Pifhu Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



HENRY HOLLAND

Curriculum Vitae

Brett Williams

Name of organisation:	Safetech
Profession:	Occupational Hygienist
Position in Firm:	Owner
Date of Birth:	21/04/1963
Years with Firm:	19
Nationality:	South African

MEMBERSHIP OF PROFESSIONAL BODY

Southern African Institute of Occupational Hygienists
Institute of Safety Management
Mine Ventilation Society
National Clean Air Association
TUV ISO 14001 Auditor

BIOGRAPHICAL SKETCH

Brett Williams has been involved in Health Safety and Environmental Management since 1987, and has been measuring noise related impacts since 1996. Brett is the owner of Safetech who have offices in Pretoria and Port Elizabeth. He has consulted to many different industries including, mining, chemical, automotive, food production etc. He is registered with the Department of Labour and Chamber of Mines to measure environmental stressors, which include chemical monitoring, noise and other physical stresses. He has also been trained by the United States Environmental Protection Agency on air pollution measurement and dispersion modelling. Brett has extensive ISO 14001 auditing experience, having audited for organisations such as Volkswagen South Africa, BMW South Africa, Continental Tyre etc.

DETAILED TASKS ASSIGNED

Brett Williams has been assigned to various projects to assess environmental noise impacts.

KEY QUALIFICATIONS

The table below presents an abridged list of Brett Williams' project experience relevant to this proposal (noise):

The list below presents an abridged list of Brett Williams' project experience relevant to this proposal:

- Arcus Gibb – Kouga Wind Energy Project
- CSIR – Walvis Bay Port Extension
- CSIR – Noise Impact Study of Namwater Desalination Plant
- CSIR - Kouga Wind Turbine Project – Background Noise Measurements
- CSIR - Kouga Wind Turbine Project
- CSIR Wind Current Wind Turbine Project
- CSIR – Coega IDZ Wind Turbine Project
- CES – Coega IDZ Wind Energy Project
- CES – Waainek Wind Energy Project
- CES - Ncora Wind Energy Project
- CES - Qunu Wind Energy Project
- CES - Nqamakwe Wind Energy Project
- Crown Chickens – The independent report review of a noise specialist report conducted as part of an EIA to establish a new broiler farm
- BMW – The evaluation of the impact of the Rosslyn production facilities on the surrounding community.
- Victory Race Track - Specialist noise report conducted as part of an EIA to establish a new stock car racing track.
- Continental Tyre - The evaluation of the impact of production facilities on the surrounding community.
- Media 24 – The measurement portion of an investigation on the impact of a printing press on a local community. The main study was conducted by the University of Stellenbosch.
- Zwarteboosh Quarry - Specialist noise report conducted as part of an EIA to establish a new quarry.
- Milo Granite - Specialist noise report conducted as part of an EIA to establish a new quarry.
- Dunlop Tyres - The evaluation of the impact of production facilities on the surrounding community.
- Sasol Secunda - Independent report review of a noise specialist report conducted to determine the impact of production facilities on the surrounding community.
- Barlow World Coatings - The evaluation of the impact of production facilities on the surrounding community.
- Western Platinum Refinery - The evaluation of the impact of production facilities on the surrounding community.

TERTIARY EDUCATION

- National Diploma Health & Safety Management
- Bachelor of Arts (UPE)

Appendix A, Curriculum vitae of project team members

- United States EPA Pollution Measurement course conducted at the University Of Cincinnati (EPA Training Centre)
- US EPA Air Dispersion Modelling Training Course
- Master of Business Administration (University of Wales) with dissertation on environmental reporting in South Africa.
- PhD - Currently registered at University of Pretoria. The thesis has been submitted for external examination and graduation is possible in 2012.
- Various Health & Safety Courses.
- Environmental Auditor (ISO 14001:2004)

LANGUAGES

Language	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Afrikaans	Good	Good	Fair

Declaration of Independence

BOX 9.1: DECLARATION OF INDEPENDENCE FOR NOISE IMPACT ASSESSMENT

I, Brett Williams, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed Wind Current Banna Ba Pifhu Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Brett Williams (Author)



Andrew Wade (Technical Reviewer)

Curriculum Vitae

Hugo van Zyl

Profession:	Economist
Present Occupation:	Independent researcher and consultant
Citizenship:	South African & Canadian
Born:	03/03/1972
Contact details:	Address: P.O. Box 1015 Green Point 8051, South Africa
	Tel: +27 (21) 4342659
	Fax: +27 866712638
	Mobile: +27 825784148
	E-mail: hugovz@mweb.co.za

Key Qualifications:

Economist with fourteen years experience focusing on the analysis of projects and policies with significant environmental and development implications. Has been involved in over 60 appraisals of infrastructure projects, industrial developments, mining, land use changes, conservation projects and eco-tourism initiatives throughout Southern Africa. Has lead, participated in and co-ordinated research in environmental resource economics, socio-economic impact assessment and project evaluation. Has provided economic inputs and guidance with regard to national water tariff, air pollution, biodiversity conservation, biofuels and climate change policy. Has had broad exposure to options for local economic development and their successful implementation. Maintains particular research interests in project/policy appraisal techniques, environmental resource economics and natural resource management's role in economic development. Clients have included UNEP, WWF, The World Bank, USAID, KPMG, SANParks, the South African Water Research Commission, the City of Cape Town and the CSIR.

Tertiary Education:

BSc. University of Cape Town, South Africa. 1992 – 1994.

Majors: Economics, Environmental and Geographical Science.

BCom. Honours (Economics). University of Cape Town, South Africa. 1995.

Subjects: Macro and Microeconomics, Environmental resource economics, Development economics, Regional economics, Integrated environmental management.

Mcom. (Economics). University of Cape Town, South Africa. 1996 - 1998

Thesis title: "Water Resource Decision Making in the Western Cape Systems Analysis"

PhD. (Economics). University of Cape Town, South Africa. 2005 - 2007

Thesis title: "Property Price Approaches to the Valuation of Urban Wetlands: Theoretical Considerations and Policy Implications"

Other Training

- Teaching Workshop in Environmental Economics held by the Beijer International Institute of Ecological Economics (Sweden) in Cape Town (1996).
- Natural resource economics short-course presented by the United States Bureau of Reclamation in Cape Town (2000).

Employment Record:

- Freelance economic researcher and consultant in Cape Town, South Africa (part time from 1995 to 1997 and full time from Jan. 1998 to Mar. 1999).
- Founder and head researcher of Independent Economic Researchers in Cape Town, South Africa (Apr.1999 – present).
- Resource Economics Co-ordinator for Cape Action for People and the Environment (C.A.P.E) – a World Bank funded biodiversity conservation programme housed at the South African National Biodiversity Institute. Main responsibilities include conceptualising and planning the environmental resource economics programme of work, liaison with donors and partners, drawing up ToRs for consultants and managing their inputs, formulating policy implications (on a contract basis from Apr. 2007 – Dec. 2010).

Consulting Project Experience Details (major projects):

2011

Cost-benefit analysis of Biodiversity Offset options for Transnet's inland fuel terminal near Heidelberg, Gauteng.

Socio-economic assessment of impacts on surrounding farmers associated with mine dewatering at Sishen iron ore mine, Northern Cape.

Business plan and sustainable financing strategy for the Dorob National Park, Namibia.

Economic specialist studies forming part of the environmental impact assessments (EIAs) for the Windcurrent Wind Projects near Jeffrey's Bay, Barinor, Langezandt and Richmond park mixed-use developments.

2010

Economic specialist studies forming part of the environmental impact assessments (EIAs) for the Mainstream Jeffrey's Bay Wind Project, Thupela solar energy project, InnoWind Mossel Bay Wind Farm, Musina Ring Road, De Plaat residential estate and Bloubos local road project.

Lead author of a Strategic Environmental Assessment (SEA) of the potential production of biofuels based on Jatropha in the Kavango and Caprivi regions of Namibia.

2009

Part of team that completed a 'business case' for investment in the natural capital of the City of Cape Town for the City's Environmental Management Department. The study focused on quantifying the economic value of the City's natural capital / ecosystem services and comparison with expenditure on its enhancement and maintenance.

Economic specialist studies forming part of the environmental impact assessments (EIAs) for the Garden Route Dam mixed use development, Dutton's Cove Estate, Burnstone gold mine expansion and N1/N9 intersection upgrade at Colesberg.

2008

Economic specialist studies forming part of the environmental impact assessments (EIAs) for the Garden Route Dam Residential and Mixed Use development, expansion of the PPC facility at Riebeeck West, Petroline petrol pipeline between Maputo and Gauteng, Helderberg Solid Waste Transfer Station in Cape Town and the Anandale mixed use development in Cape Town.

Resource Economics specialist study to form part of the Environmental Management Framework for the Albert Luthuli and Msukaligwa municipalities in Mpumalanga.

2007

Economic specialist studies forming part of the environmental impact assessments (EIAs) for the Levendal residential estate and agricultural empowerment initiative (Paarl), the Altona mixed use development (Worcester), and the Muldersvlei water treatment plant and reservoir (Klapmuts). Economic inputs to feasibility study for proposed hotel and casino in Lagos, Nigeria for Southern Sun.

Part of study team that formulated guidelines for the Western Cape Provincial Government on the use of biodiversity offsets.

2006

Economic impact assessment of the proposed Eden Island residential and tourism development in the Seychelles. Project included measuring likely contribution to the local economy and liaison with senior government officials, the IMF Country Assessment team and the Standard&Poors rating team.

Economic specialist studies forming part of the EIAs for the new regional landfill site to service the City of Cape Town, Carpe Diem Eco Estate, the Green Point World Cup Soccer Stadium, Schalkenbosch Golf Estate, Le Grand Golf Estate and Ceres Golf Estate.

2005

Lead author of the Western Cape Provincial Government guidelines on economic specialist inputs into EIAs.

Conducted economic research to inform the Environmental Goods and Services Industry strategy for the National Department of Trade and Industry. Work focused on analysing the size and composition of the industry in South Africa.

Economic specialist studies forming part of the EIAs for the proposed tolling of the R30 between Bloemfontein and Brandfort, the upgrading of the intersection between the R310 and Annandale Road (near Stellenbosch), and the Clanwilliam Golf Estate.

2004

Head researcher on a World Bank commissioned study aimed at determining (1) the current and potential future value of coastal resources in Namibia, (2) current government and donor funding for coastal resource management and (3) potential alternative mechanisms for the financing of coastal management. Also developed outcome indicators to measure the impacts of the World Bank funded Namib Coast Conservation and Management (NACOMA) Project.

Part of a four person research team assessing the environmental economic value and financial spin-offs from the Table Mountain National Park in Cape Town.

2003

Head researcher on a Gauteng Provincial Department of Agriculture, Conservation, Environment and Land Use project to evaluate the implications of the proposed development of a highly conservation worthy site for housing. Responsibilities included comparing indicative environmental values associated with conservation versus development in a cost-benefit framework and investigating the strategic importance of the site in a conserved state.

Part of a four person research team analysing the costs and benefits of air pollution abatement measures in the industrial, household, electricity generation and transport sectors throughout South Africa for the national consultative forum for the government, business and labour sectors. Responsibilities include assisting with structuring the model for the analysis, assessing the availability of data and report writing.

2002

Head researcher on a USAID sponsored project to estimate the value of carbon and non-carbon benefits (mainly ecosystem services such as reduced erosion, improved water flow, improved water quality & increased sustainable harvesting) associated with the rehabilitation of woodlands bordering on the Kruger National Park. Responsibilities included sub contracting and co-ordinating the inputs of four other specialists needed to analyse the biophysical impacts of rehabilitation as well as attaching values to these impacts for inclusion in a cost-benefit analysis.

Economic impact assessments of the extension of the Vissershok landfill site near Cape Town and the proposed tolling of the N1, N2 and R300 roads in the vicinity of Cape Town to form part of environmental impact studies of these projects.

2001

Part of a four person research team that assessed the financial sustainability of various conservation projects forming part of the Cape Action Plan for the Environment (CAPE). The project was done for the Worldwide Fund for Nature South Africa to assist them in their application for World Bank Global Environmental Facility funding. Responsibilities centred around the assessment of the degree of financial self-sufficiency achievable for proposed conservation areas.

Head researcher in a team of three researchers on a Water Research Commission project aimed at the formulation of an economic evaluation framework for the evaluation of water demand management and water conservation measures. Roles included providing strategic direction to the study and co-ordinating the inputs of the other researchers.

Part of a four person research team that investigated the potential for, and institutional constraints to, the sustainable commercialisation of natural products that rely on local biodiversity for the National Department of Environmental Affairs and Tourism (project sponsored by USAID).

2000

Conducted a broad cost benefit analysis of a proposed zinc mine and processing plant at the Gamsberg, Northern Cape for Anglo American, in association with KPMG environmental unit. This project entailed a broad level consideration of the likely externalities associated with the mine and possible impacts on tourism in the area.

Evaluated the socio-economic impacts of Consolidated Municipal Infrastructure Programme funded infrastructure developments for the Western Cape provincial government in association with the Institute for Development Services. The socio-economic impacts of storm water, sewage and road infrastructure projects were evaluated using guidelines agreed on with the provincial government.

1999

Head researcher on two World Wide Fund for Nature studies aimed at estimating the external environmental costs associated with coal mining and water supply and use. These projects involved investigating the environmental impacts associated with the sectors concerned and attaching values to the externalities they generate based on desk top research of the available information.

1998

Head consultant in a team of four consultants commissioned by the Cape Metropolitan Council to conduct a study on economic and social impact assessment methods focusing on their basic workings, strengths, weaknesses, areas of optimal application and the resources needed for their application. Role included providing strategic direction to the study and co-ordinating the inputs of the other researchers.

1997

Associate consultant on an economic impact study of the proposed Coega Industrial Development Zone and harbour in association with KPMG Management Consulting. Conducted a study on possible developmental measures (tendering, human resource development, SMME development, etc.) that could be instituted as part of the Coega development. Assisted KPMG in the compilation of a cost-benefit analysis for the project.

Project Experience Details (other smaller projects):

2004

- Scoping level economic impact assessment of The Lakes Eco and Golf estate in Wilderness.
- Financial and economic review of the Ukuvuka Fire-stop Campaign aimed at preventing unwanted fires in Cape Town.
- Review of the validity of financial arguments in favour of the preferred technological option for the production of low sulphur diesel at the Caltex refinery in Cape Town.
- Economic specialist study forming part of the environmental impact assessment of the proposed development of a multi-use private golf estate on Remainder Farm 681, Stellenbosch.
- Part of University of Cape Town Graduate School of Business study for the Airports Company of South Africa to examine the economic impacts associated with Cape Town International Airport.
- Part of University of Cape Town Graduate School of Business study for the South African National Roads Agency to examine the economic impacts associated with the proposed R30 toll road in the Free State Province

2003

- Part of a CSIR team that conducted environmental economic assessments of the impacts of alternative route alignment of the proposed Gautrain rapid rail link.
- Part of UCT Graduate School of Business study of the economic benefits associated with the Joint Marketing Initiative aimed at the consolidation of the marketing of the City of Cape Town and the Western Cape.
- Head researcher on a macro-economic impact assessment of the proposed Tata Steel ferrochrome smelter in Richards Bay to form part of a CSIR environmental impact study.

2002

- Part of a research team on a Water Research Commission sponsored project aimed at determining the value of the ecosystem services provided by wetlands in the Upper Olifants catchment in Mpumalanga.

2001

- Part of USAID sponsored team that formulated a cost-benefit evaluation framework for the assessment of Working for Water alien vegetation clearing projects.
- Part of a four person research team that estimated the monetary values associated with open spaces/green belts in Cape Town and the implications of these values for land use decision-making for the City of Cape Town. Main responsibilities were study conceptualisation and calculation of the influence of open space on property prices using hedonic analysis.
- Part of research team in a National Department of Environmental Affairs and Tourism projects sponsored by USAID investigating the Clean Development Mechanism and emissions trading as options for meeting climate change goals in South Africa.
- Economic impact assessment of the impacts of changing road configurations on Hospital Bend (Cape Town) on road users and local businesses forming part of a Crowther Campbell and Associates environmental impact assessment.
- Health cost valuation input into investigation of the viability and benefits of substituting conventional coal with low smoke coal for household use conducted by the Energy for Development Research Centre for a National Department of Minerals and Energy.
- Head consultant on an economic impact assessment of the proposed conversion of the Sasol Chemical Industries plant in Sasolburg from a coal based to a natural gas based plant.
- Assessment of the values associated with coastal resources in Cape Town for the CSIR

Appendix A, Curriculum vitae of project team members

2000

- Economic evaluation input on a Cape Metropolitan Council project aimed at developing a decision making framework for the evaluation of mega projects in the Cape Metro area.
- Expert reviewer for the National Department of Water Affairs and Forestry Wastewater Charges Strategy project.
- Researched the costs (mainly in terms of the costs of air pollution as reflected in property values) and benefits of the nearby Mossop Western Leathers tannery on the town of Wellington for Crowther, Campbell & Associates as part of an environmental impact assessment.
- Development of guidelines for the cost-benefit analysis of water projects and policies in the Western Cape for the Palmer Development Group.
- Socio-economic impact assessment of the proposed iron ore terminal expansion at Saldanha Bay forming part of a SRK Consulting Engineers environmental impact assessment.

1999

- Revised the original KPMG Economic Benefits Study results for the second Caledon Casino license bid for The Caledon Casino Bid Co.
- Investigated the financial viability and economic impacts of a proposed eco-tourism and education centre at Reitvlei, Milnerton as part of a CSIR environmental impact assessment.
- Co-author of a chapter on water resource economics in an IUCN/SADC sponsored book dealing with water resource management in southern Africa.

1998

- Conducted the specialist environmental resource economics study forming part of the scoping level environmental impact study of the proposed new toll road section on the N3 over De Beer's Pass for Cave, Klapwijk & Associates.
- Assessed the local economic implications and externalities associated with various future development scenarios for a Somchem explosives plant near Wellington as part of a Council for Scientific and Industrial Research (CSIR) strategic environmental assessment.

1997

- Economic specialist study for the CSIR on the costs, possible sources of funding and impacts on property prices of a proposed coastal conservation zone on Somchem/AECI land near Strand.
- Part of an Applied Fiscal Research Centre review of the national energy white paper.
- Economic impact assessment of the proposed East London Industrial Development Zone, in association with KPMG.

1996

- Assisted African Environmental Solutions with environmental economics input for their work on a sustainability framework for the National Water Tariff Policy Review.
- Economic specialist study for the CSIR on the economic implications of the establishment of an Export Processing Zone at Coega, Port Elizabeth.
- Cost-benefit analysis of two wastewater treatment options for East London forming part of a strategic environmental assessment conducted by the CSIR.
- Assisted KPMG in the compilation of an impact study assessing the economic impacts of moving parliament away from Cape Town.
- Economic impact assessment of the proposed Skuifraam dam near Franschoek for Ninham Shand.
- Assisted the Cape Town Olympic Bid Company with the initial co-ordination of a socio-economic impact assessment of The Games commissioned by The South African Cabinet.
- Compiled a case study analysis for an UNEP Environmental Economics Unit book on the application of environmental & natural resource valuation methodologies in Africa as part of a three person research team.

1995

- Specialist economic input for a UN Conference on Trade and Development project dealing with environmental cost internalisation in the South African coal mining industry.

Publications:

Leiman, A., Standish, B., Boting, A. & van Zyl, H.W. 2007. Reducing the Healthcare Costs of Urban Air Pollution: The South African Experience. *Journal of Environmental Management*, Vol. 84, pg. 27-37.

Standish, B. & van Zyl, H.W. 2007. Assessing the Economic Impact of Roads Passing Through Ecologically Sensitive Areas: A Case Study in Cape Town, South Africa. *Impact Assessment and Project Appraisal*, Vol. 25, number 2.

Leiman, A. & van Zyl, H.W. 2004. A Small-sample Approach to Hedonic Valuation of the Environment: A Case Study at Zandvlei, Cape Town. In: Blignaut, J & de Wit, M. (Eds) *Sustainable Options: Development Lessons from Applied Environmental Economics*. UCT Press, Cape Town.

De Wit, M., van Zyl, H.W. & King, N. 2004. The Cost of Noise Pollution. In: Blignaut, J & de Wit, M (Eds). *Sustainable Options: Development Lessons from Applied Environmental Economics*. UCT Press, Cape Town.

Leiman, A. & van Zyl, H.W. 2004. Economics in Impact Assessment: The role of Environmental and Resource Economics. In: Blignaut, J & de Wit, M (Eds). *Sustainable Options: Development Lessons from Applied Environmental Economics*. UCT Press, Cape Town.

Turpie, J.K. & van Zyl, H.W. 2002. Valuing the Environment in Water Resources Management. Pp 85-110, in: Hirji, R., Johnson, P., Maro, P. & Matiza Chiuta, T. (eds) *Defining and mainstreaming environmental sustainability in water resources management in southern Africa*. SADC, IUCN, SARDC, World Bank: Maseru/Harare/Washington DC.

Van Zyl, H.W. & Leiman, A. 2002. Hedonic Approaches to Estimating the Impacts of Open Spaces: A Case Study in the Cape. *South African Journal of Economics and Management Science*, Vol. 5(2). June.

Van Zyl, H.W., Store, T. & Leiman, A. 2000. Africa Region Case Studies. Chapter In: Rietbergen-McCracken, J. & Abaza, H. (Eds) *Environmental Valuation: A Worldwide Compendium of Case Studies*. Earthscan, London.

Teaching:

- Resource person on two regional capacity building workshops for ministries in the Middle East and Sub-Saharan Africa presented by The Economics of Ecology and Biodiversity (TEEB) in collaboration with the UN Convention on Biodiversity (2012).
- Co-presenter of one week introduction to environmental resource economics course for the Namibian Coastal Conservation and Management Project (2009).
- Presenter on three day Payments for Ecosystem Services (PES), Forests, and Climate Change course presented to USAID staff in Africa and organised by CIFOR, Forest Trends and the Katoomba Group (2009).
- Lecturer for Rhodes University on annual course focused on the application of environmental economics and economic specialist inputs to EIAs (2005, 2006, 2007).
- Presented two day courses on the theory and application of environmental economics for the environment departments of the Gauteng and Western Cape provincial governments (2004).
- Co-presented course on environmental economics and its practical application to National Department of Water Affairs and Forestry staff (2003).

Language Ability:

	<u>speak</u>	<u>write</u>	<u>read</u>
English	excellent	excellent	excellent
Afrikaans (similar to Dutch)	excellent	good	excellent
Danish	basic	basic	basic

References:

Anthony Leiman
Senior Lecturer
School of Economics, University of Cape Town
Private bag, Rondebosch, 7700, South Africa
E-mail: tony.leiman@uct.ac.za, tel: (+27) (21) 650 2723

Dr. Martin de Wit
De Wit Sustainable Options (Pty) Ltd
PO Box 546
Brackenfell
7561, South Africa
E-mail: martin@sustainableoptions.co.za, tel: (+27) (21) 982 7862

Barry Standish
Senior Lecturer
Graduate School of Business, University of Cape Town
Breakwater campus
Waterfront, Cape Town, 8000, South Africa
E-mail: standish@gsb.uct.ac.za, tel: (+27) (21) 406 1095

Declaration of Independence

I, Dr Hugo van Zyl, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Dr Hugo van Zyl
(Independent Economic Researchers)

Curriculum Vitae

Johan Binneman

NAME: Johannes Nicolaas Francois Binneman
DATE OF BIRTH: 31 October 1953
NATIONALITY: South African
ID. No.: 531031 5127 08 2

COMPANY ADDRESS: Department of Archaeology, Albany Museum
Somerset Street, Grahamstown, 6139
Tel.: 046 62 22312
Fax.: 046 62 22398
email: J.Binneman@ru.ac.za

COMPANY POSITION: Head of the Department of Archaeology

QUALIFICATIONS: M.A. - Archaeology from the University of Stellenbosch (1982)
D.Phil - Archaeology from the University of the Witwatersrand (1996).

RESEARCH EXPERIENCE: 27 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 some 50 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 - CLIENTS INCLUDE:

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, Coega IDZ, Many other small companies and land developers

Declaration of Independence

BOX 11.1: DECLARATION OF INDEPENDENCE FOR ARCHAEOLOGY IMPACT ASSESSMENT

I **Johan Binneman** declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed Banna Ba Pifhu Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Johan Binneman

Curriculum Vitae

John Almond

QUALIFICATIONS & EXPERIENCE OF THE AUTHOR

Dr John Almond has an Honours Degree in Natural Sciences (Zoology) as well as a PhD in Palaeontology from the University of Cambridge, UK. He has been awarded post-doctoral research fellowships at Cambridge University and in Germany, and has carried out palaeontological research in Europe, North America, the Middle East as well as North and South Africa. For eight years he was a scientific officer (palaeontologist) for the Geological Survey / Council for Geoscience in the RSA. His current palaeontological research focuses on fossil record of the Precambrian - Cambrian boundary and the Cape Supergroup of South Africa. He has recently written palaeontological reviews for several 1: 250 000 geological maps published by the Council for Geoscience and has contributed educational material on fossils and evolution for new school textbooks in the RSA.

Since 2002 Dr Almond has also carried out palaeontological impact assessments for developments and conservation areas in the Western, Eastern and Northern Cape under the aegis of his Cape Town-based company *Natura Viva* cc. He is a long-standing member of the Archaeology, Palaeontology and Meteorites Committee for Heritage Western Cape (HWC) and an advisor on palaeontological conservation and management issues for the Palaeontological Society of South Africa (PSSA), HWC and SAHRA. He is currently compiling technical reports on the provincial palaeontological heritage of Western, Northern and Eastern Cape for SAHRA and HWC. Dr Almond is an accredited member of PSSA and APHAP (Association of Professional Heritage Assessment Practitioners – Western Cape).

Declaration of Independence

I, John E. Almond, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed wind energy project, application or appeal in respect of which I was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Curriculum Vitae

Brian Colloty

Profession: Ecologist & Environmental Assessment Practitioner (Pr. Sci. Nat. 400268/07 & EAPSA certified)
Specialisation: Ecology and conservation importance rating of inland habitats, wetlands, rivers & estuaries
Years experience: 16 years

SKILLS BASE AND CORE COMPETENCIES

- 16 years experience in environmental sensitivity and conservation assessment of aquatic and terrestrial systems inclusive of Index of Habitat Integrity (IHI), WET Tools, Riparian Vegetation Response Assessment Index (VEGRAI) and wetland delineation throughout Africa. Experience also includes biodiversity and ecological assessments with regard sensitive terrestrial fauna and flora, within the marine, coastal and inland environments.
- 10 years experience in the coordination and management of multi-disciplinary teams, such as specialist teams for large scale EIAs and environmental monitoring programmes, throughout Africa and inclusive of marine, coastal and inland systems.
- GIS mapping and sensitivity analysis

TERTIARY EDUCATION

- 1994: B Sc Degree (Botany & Zoology) - NMMU
- 1995: B Sc Hon (Zoology) - NMMU
- 1996: M Sc (Botany) - NMMU
- 2000: Ph D (Botany) – NMMU

EMPLOYMENT HISTORY

- 1996 – 2000 Researcher at Nelson Mandela Metropolitan University – SAB institute for Coastal Research & Management.
- 2001 – January 2003 Training development officer AVK SA
- February 2003- June 2005 Project manager & Ecologist for Strategic Environmental Focus
- July 2005 – June 2009 Principal Environmental Consultant Coastal & Environmental Services
- June 2009 – present Member of Scherman Colloty & Associates cc

SELECTED RELEVANT PROJECT EXPERIENCE

- Wetland and riverine assessment for Addax Biofeuls Sierra Leone, Makeni for Coastal & Environmental Services: 2009
- Wetland and riverine assessment for Grown Energy Biofeuls Zambeze, Mozambique for Coastal & Environmental Services: 2008
- Aquatic sensitivity assessment for Savannah Environmental on behalf of Abengoa Solar & Ilangaletu Solar Power for the proposed concentrated solar power stations in Pofadder (1) and Upington (2): 2010 & 2011
- VEGRAI & IHI assessment of 5 river crossings for the Wild Coast Meander near Coffee Bay for Terreco Engineers: 2010
- Developed a terrestrial and aquatic Environmental Management Plan for AURECON Pty Ltd on behalf

Appendix A, Curriculum vitae of project team members

- of Eskom for the Eros (Harding) – Neptune (East London) 400kV transmission line: 2010
- Wetland Impact Assessment for Nu-Way Housing Coega Ridge for SRK Engineers and Scientists: 2010
- Terrestrial and aquatic sensitivity assessment for the Eskom Imbewu – Usundu transmission line from Howick to Empangeni for Aurecon: 2011
- Terrestrial and aquatic sensitivity assessment for the Eskom Kriel Power Station new ash dam facility for Aurecon: 2011
- Terrestrial ecology assessment and EMP for the Fibre Optic Data Cable Project - FIDEC routes (Bloemfontein to East London, Aliwal North to Middelburg, Middelburg to PE, PE to George and Graaff Reinet to Colesburg) for SRK Engineers: 2011
- Lusikisiki waste water reticulation and treatment project, wetland assessment on behalf of the OR Tambo District Municipality for EIMS: 2011
- Various wetland assessment for the Coega Development Corporation on behalf of SRK, CSIR and CES, 1996, 2006, 2009, 2010, 2011 and 2012
- Port Alfred Reverse Osmosis Plant long term marine and estuarine monitoring plan (project manager and scientist) for Ndlambe Water Board (Water service provider for the central Eastern Cape Province).
- Project manager long-term, marine monitoring phase with regards the dredge works required in Luanda bay, Angola. Monitoring includes water quality and biological changes in the bay and offshore disposal 2005 – 2011
- Colluli Potash South Boulder, Eritrea, SEIA marine baseline and hydrodynamic surveys co-ordinator and coastal vegetation specialist (coastal and marine) (on-going).
- Jachtlakke Housing Precinct, NMBM baseline ecological assessment (February, 2012)

Declaration of Independence

I, Dr Brian Colloty, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Dr Brian Colloty
Scherman Colloty & Associates

Curriculum Vitae

Johann Lanz

Education

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

Professional work experience

I fulfil the requirements for registration as a Professional Natural Scientist and my registration is currently being processed.

Soil Science Consultant Self employed 2002 - present

I run a soil science consulting business, servicing clients in both the environmental and agricultural industries. Typical consulting projects involve:

- Soil specialist study inputs to EIA's, SEA's and EMPR's. These have focused on impact assessments and rehabilitation on agricultural land, rehabilitation and re-vegetation of mining and industrially disturbed and contaminated soils, as well as more general aspects of soil resource management. Recent clients include: CSIR; BioTherm Energy; MBB Consulting Engineers; WKN Windcurrent; Corobrik; Western Cape Provincial *Department of Environmental Affairs* and Development Planning; Alcan aluminium smelter (Coega); Namaqualand Restoration Initiative; AECI; Afrimat; Tiptrans.
- Soil resource evaluations and mapping for agricultural land use planning and management. Recent clients include: Thelema Mountain Vineyards; Delaire Wine estate; Newton-Johnson Wines; Spier Estate; Colors; Kaarsten Boerdery; Amanzi Country Estate (Port Elizabeth); Rudera Wines; Flagstone; Cob Creek Estate (Jeffreys Bay); Solms Delta Wines; Dornier Wines.
- I have conducted several recent research projects focused on conservation farming, soil health and carbon sequestration.

Soil Science Consultant Agricultural Consultants 1998 - end 2001 **International (Tinie du Preez)**

Responsible for providing all aspects of a soil science technical consulting service directly to clients in the wine, fruit and environmental industries all over South Africa, and in Chile, South America.

Contracting Soil Scientist De Beers Namaqualand Mines July 1997 - Jan 1998
Completed a contract to make recommendations on soil rehabilitation and re-vegetation of mined areas.

Publications

- ♣ Lanz, J. in press. Soil: sustaining Stellenbosch's roots. In: M Swilling & B Sebitosi (eds). *Sustainable Stellenbosch 2030*. Stellenbosch: SunMedia.
- ♣ Lanz, J. 2010. Soil health indicators: physical and chemical. *South African Fruit Journal*, April / May 2010 issue.
- ♣ Lanz, J. 2009. Soil health constraints. *South African Fruit Journal*, August / September 2009 issue.
- ♣ Lanz, J. 2009. Soil carbon research. *AgriProbe*, Department of Agriculture.
- ♣ Lanz, J. 2009. Report of the soil carbon research project. Department of Agriculture: LandCare.
- ♣ Lanz, J. 2005. Special Report: Soils and wine quality. *Wineland Magazine*.

Declaration of Independence

I, Johann Lanz, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Mr Johann Lanz

Curriculum Vitae

Sandy Wren

Name of Firm:	Public Process Consultants cc.
Name of Staff:	Sandy Jane Wren
Position:	Sole Member (100% ownership)
Profession:	Public Participation Process Specialist and Environmental Impact Assessment Management
Specialisation:	Public participation process design and management for Strategic Environmental Assessments (SEA), Environmental Impact Assessments (EIA's), Policy Development Processes. Client, community liaison and report writing. Environmental Impact Assessment Management.
Languages:	English, excellent speaking, reading, and writing Afrikaans, good speaking, reading and writing

KEY QUALIFICATIONS

- Sandy Wren is a graduate from the University of Port Elizabeth (UPE) majoring in Political Science, Sociology and Industrial and Organisational Psychology.
 - Sandy has an Honours Degree in Development Theory which includes courses in Environmental Management and Impact Assessment for which she obtained distinctions.
 - Project Management for Local Government co-sponsored by the Economic Development Institute of the World Bank.
 - Training and Facilitation through Idasa Eastern Cape
 - Group Dynamics Training
 - Communication Skills and Training
 - Management by Objectives
-

PROFESSIONAL EXPERIENCE

Vehicle Sales, Avis Rent a Car

Responsible for the sale of vehicles to trade and the public as they were retired as rental vehicles

Sales, Pierre's Diamonds, St Thomas, US Virgin Islands, Caribbean

Responsible for the design and sale of precious stones to passing trade.

Regional Coordinator, Idasa Eastern Cape

Appendix A, Curriculum vitae of project team members

Responsible for project planning, budgeting, coordination of conferences, meetings and events. Main focus of activity bringing about non-racial local authorities, first non-racial local authority established in Port Elizabeth. Voter education and training for the first democratic elections and coordination of observers.

1995 Regional Director, Idasa Eastern Cape

As Regional Director of IDASA Sandy gained extensive experience in project management, co-ordination, training and facilitation of various interest groups, levels of government, community organisations, and other structures within civil society. Sandy while at Idasa covered the following projects:

- *Facilitation of the establishment of non-racial local government structures in the Eastern Cape*
- *Administrative co-ordination of the development of a regional economic development plan*
- *Conference co-ordination*
- *Voter Education Training and Co-ordination*
- *Community Courts Conference Co-ordination*
- *Community facilitation for Local Government Structure Plans*
- *Public Participation process design and management*
- *Public participation for Strategic and Environmental Impact Assessments*

May 1997- April 2000 Public Process Consultants

In May 1997 Sandy Wren opened public process consultants, which specialises in Public Participation Processes for EIA's and SEA's. In order to meet the requirements for Black Economic Empowerment Sandy Wren established Sandy and Mazizi Consulting with her former employee Mazizi Msutu. This provided Mr Msutu with a 50% equal share holding in the business. The services formerly provided by Public Process Consultants continued to be provided by Sandy and Mazizi Consulting cc.

May 2000 to June 2004 Sandy & Mazizi Consulting cc.

The main focus of the company continues to be in the area of social involvement in the various stages of development with its majority expertise in public participation in EIA's, SEA's, and policy development processes. During this period Sandy developed experience and expertise in the management of Environmental Impact Assessments.

*July 2004 to **PRESENT** Public Process Consultants*

Sandy Wren continues to provide the professional service she has always provided under the banner of Public Process Consultants. The expertise provided by the company includes the management of Environmental Impact Assessments, Basic Assessments, Strategic Environmental Assessments, Environmental Management Programmes and Environmental Control Office Services. PPC offers specialist expertise in the area of Public Participation for Integrated Environmental Management. Public Process Consultants is a balanced team offering extensive experience in the management of Integrated Environmental Management processes with a sensitivity towards the biophysical environment coupled with the needs of the formerly disadvantaged community in addition to above average report writing, communication and administration skills.

CONSULTING EXPERIENCE

Scoping and EIA Experience

The following provides an overview of Scoping and EIA processes managed by Sandy Wren:

- Service Station at Humeral, Port Elizabeth
- Morton Bay, Humeral, Port Elizabeth, a multi-purpose commercial property development
- Brookes Hill Caravan Park, Humewood Port Elizabeth
- Quarter Mile Oval Racing Track, Schoenmakerskop Sports Centre (stock car racing track)
- Expansion and upgrading of Smart Stone, Victoria Drive, Port Elizabeth
- Construction of a Wedding Venue on the Sardinia Bay Road
- Residential development of Arlington Race Course, Victoria Drive
- Residential development of varying densities, Walmer Heights, Port Elizabeth
- Proposed Amanzi Country Estate (Lifestyle and eco estate) consisting of a golf course, hotel, residential units (approx 900), equestrian facilities, cricket field and various heritage components
- Proposed Coega Ridge Development consisting of low to high density housing as well as light industrial, commercial and retail facilities
- Upgrade of Sewer Pump Station No 1 and construction of a new 1500 meter pipeline, Hankey Extension 3
- Winterhoek Park Ext, Uitenhage (residential development)
- Zeekoei River residential and mixed use development, Humansdorp
- EIA for a new residential development at Goedemoedsfontein, Seaview, Port Elizabeth
- EIA for the upgrading of Matanzima and Mel Brooks Road, Uitenhage
- EIA for a Residential and Mixed Use Development, Fairview Port Elizabeth
- EIA for SA Breweries, Biogas Storage Facility, NMBM
- EIA for a residential development, Willow Tree Country Estate, Sunlands
- EIA for NiRoVe Paint Stripping, Perseverance, NMBM
- EIA for the Weston Waste Water Treatment Works, Weston, Hankey
- EIA for Landdrost, clearing of agricultural land, Kirkwood

Basic Assessment Experience

The following provides an overview of the Basic Assessment Processes managed by Sandy Wren:

- Residential and mixed use development of Erf 1846, Perridgevale
- Borehole, water pipeline and power line, Glenconner
- Installation of additional Nitrogen tanks at Umicore, Port Elizabeth
- Theesecombe erf 235, new residential development
- the Upgrading of Bulk Stormwater Infrastructure, a Portion of Macon Road Lorraine
- Upgrading of Bulk Stormwater Infrastructure, Summerstrand, NMBM
- Installation of minor stormwater infrastructure, Cluster H, Kwanobuhle, Uitenhage, Cluster B, Kuyga, Cluster A, Wells Estate and Khayamnandi.
- Citrus Packhouse, Blinkwater, Fort Beauford
- Above Ground Fuel Storage Facilities, Rocklands Factory, Uitenhage
- Various Basic Assessments for the establishment of new Broiler House facilities for Rocklands Poultry (Loerie, Nooidgedacht, Kirkwood, Boshfontein, Accurate, Lakeside and Altona)
- Residential Development, Arcadia, Humansdorp, Kouga Municipality
- Residential Development, Weston, Hankey, Kouga Municipality
- Residential Development, Erf 722, Theesecombe
- Residential Development, erf 2377, Theesecombe
- Photovoltaic Solar Energy Project, Graff Reinet
- Installation of Water Supply, Glenconner
- Agricultural Development, Logan Braes, Addo

Public Participation Experience

The following provides an overview of the specialist public participation services managed by Sandy Wren:

- Kouga Wind Energy Project (Mainstream), Jeffreys Bay
- Electrawinds Wind Energy Project, Coega IDZ
- Universal Wind Energy Project, Coega IDZ
- Ubuntu Wind Energy Project, Jeffreys Bay
- Broadlands Photovoltaic Solar Energy Project, Humansdorp
- Expansion of the Addo Elephant National Park
- Wild Coast Biodiversity Strategic Plan
- Establishment of a Marine Protected Area for Addo
- Liquid Natural Gas to Power Project, Coega IDZ
- Coega Aluminium Smelter
- Coega IDZ and Port of Ngqura including Mining of Coega Kop Quarry
- Audit Report for SANParks Resettlement Action Plan
- Establishment of a Marine Pipeline Servitude in the Coega IDZ
- Business Plan for a Desalination Facility for the Nelson Mandela Bay Municipality
- National Coastal Policy for SA (Fish River to Heidelberg)
- Comprehensive Urban Plan for Port Elizabeth
- Integrated Structure Plan for Walmer
- Integrated Waste Management Plan for the Nelson Mandela Metropolitan Municipality
- Algoa Bay Management Plan Review
- Strategic Plan for the development of a Seabird and Marine Animal Rehabilitation Centre
- Identification of Users of Algoa Bay and their needs
- Relocation Policy and Plan Greater Addo Elephant National Park
- Biodiversity Conservation Assessment and Action Plan for the Wild Coast
- Regional General and Hazardous Waste Processing facility for the Nelson Mandela Bay Region

Declaration of Independence

I, Sandy Wren, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed WKN Windcurrent SA (Pty) Ltd Wind Energy Project, application or appeal in respect of which I was appointed, other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Ms Sandy Wren
(Public Process Consultants)