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### **CURRICULUM VITAE OF KAREN JODAS**

Profession: Environmental Management and Compliance Consultant; Environmental Assessment

Practitioner. Professional Natural Scientist: Environmental Science since 1999.

**Specialisation:** Strategic environmental assessment and advice; development of plans and guidelines;

environmental compliance advise and monitoring; Environmental Impact Assessment; environmental management; project management and co-ordination of environmental projects; peer review; policy, strategy and guideline formulation; renewable energy

projects; water resources management.

### **VOCATIONAL EXPERIENCE**

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

Excellent working knowledge of environmental legislation, strategies, guidelines and policies. Compilation of the reports for environmental studies are in accordance with the all relevant environmental legislation under the National Environmental Management Act. Due consideration of Equator Principles and compliance with IFC performance standards is now a part of all projects.

#### **SKILLS BASE AND CORE COMPETENCIES**

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

Excellent working knowledge of environmental legislation, strategies, guidelines and policies. Compilation of the reports for environmental studies are in accordance with the all relevant environmental legislation

under the National Environmental Management Act. Due consideration of Equator Principles and compliance with IFC performance standards is now a part of all projects.

### **SKILLS BASE AND CORE COMPETENCIES**

- Twenty years (20) of experience in the environmental management, impact assessment and compliance fields
- Eighteen (18) years of experience in Project Management Project management of large environmental assessment and management projects
- Strategic and compliance advise for all aspects of environmental assessment and management
- External and peer review of environmental assessment and compliance reporting as well as EIA processes
- Working knowledge of environmental planning policies, regulatory frameworks and legislation

- Input and review of Environmental Management Plans and Programmes, including Invasive Species Monitoring,
   Control and Eradication Plans
- Identification and assessment of potential environmental impacts and benefits
- Development of practical and achievable mitigation measures and management plans and evaluation of risk to project execution
- Experienced in environmental compliance advise, monitoring and reporting for construction projects
- Compilation and review of the reports in accordance with all relevant environmental legislation
- Public participation/involvement and stakeholder consultation
- Environmental strategy, policy and guidelines development
- Experienced in assessments for both linear developments and nodal developments
- Key experience in the assessment of impacts associated with renewable energy projects
- Wide range of experience for public and private sector projects
- Experienced consultant in projects in Sub-Saharan Africa.

#### **EDUCATION AND PROFESSIONAL STATUS**

#### Degrees:

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

#### **Short Courses:**

- Environmental and Social Risk Management (ESRM), International Finance Corporation, 2018
- Integrated Water Resource Management, the National Water Act, and Water Use Authorisations, CSBSS, 2017
- WindFarmer Wind Farm Design course, Garrad Hassan, 2009
- Environmental Law Course, Aldo Leopold Institute, 2002
- Water Quality Management, Potchefstroom University, 1998

#### **Professional Society Affiliations:**

- Registered with the South African Council for Natural Scientific Professions as a Professional Natural Scientist: Environmental Science (400106/99)
- Registered with the International Associated for Impact Assessment South Africa (IAIAsa): 5888

#### Other Relevant Skills:

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

#### **EMPLOYMENT**

Date	Company	Roles and Responsibilities	
2006 - Current:	Savannah Environmental (Pty) Ltd	Director	
		Independent specialist environmental consultant,	
		Environmental Assessment Practitioner (EAP) and	
		advisor	
1997 – 2005:	Bohlweki Environmental (Pty) Ltd	Associate	
		Environmental Management Unit: Manager;	
		Principle Environmental Scientist focussing on	
		Environmental Management and Project	
		Management	

## PROJECT EXPERIENCE

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

## RENEWABLE POWER GENERATION PROJECTS: PHOTOVOLTAIC SOLAR ENERGY FACILITIES

Project Name & Location	Client Name	Role
Aggeneys PV Plant, Northern Cape	Solar Capital	Project Manager & EAP
Blackwood PV SEF, Free State	VentuSA Energy	Project Manager & EAP
Bloemsmond PV 1 & PV 2 SEF's, Northern Cape	Atlantic Energy Partners	Project Manager & EAP
Bosjesmansberg PV SEF, Northern Cape	Networx	Project Manager & EAP
Boundary PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Buffels PV 1 & PV 2 SEF's, North West	Kabi Energy	Project Manager & EAP
Do Acir DV/CFF North over Coins	African Clean Energy	Drain at Managary 9 FAD
De Aar PV SEF, Northern Cape	Developments (ACED)	Project Manager & EAP
De Aar PV Solar Energy Plant, Northern Cape	Solar Capital	Project Manager & EAP
Gihon& Kison PV SEF's, Limpopo	Networx	Project Manager & EAP
Gunstfontein PV SEF, Northern Cape	Networx / Prana Energy	Project Manager & EAP
Harmony Eland, Nyala & Tshepong PV SEF's, Free	BEEEntropie Renewable	Drain at Managaer 9 EAD
State	Innovation	Project Manager & EAP
Hibernia SEF, North West	EA Energy	Project Manager & EAP
Iziko PV SEF, Mpumalanga	VentuSA Energy	Project Manager & EAP
Kabi Kimberley PV Facility at DeBeers, Northern Cape	Kabi Solar	Project Manager & EAP
Karoo Renewables PV SEF, Northern Cape	SARGE	Project Manager & EAP
Kheis Phase 1, 2 & 3 PV SEF, Northern Cape	GeStamp Solar	Project Manager & EAP
Klipgat PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
Loeriesfontein/Helios PV SEF, Northern Cape	Solar Capital	Project Manager & EAP
Naauwpoort PV SEF , Northern Cape	Terra Solar	Project Manager & EAP
Orkney PV SEF, North West	Genesis Eco-Energy	Project Manager & EAP
Pofadder SEF, Northern Cape	Mainstream Renewable	Project Manager & EAP
Prieska North PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Prieska PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Ritchie PV SEF, Northern Cape	Solar Capital	Project Manager & EAP
San Solar PV SEF, Northern Cape	VentuSA Energy	Project Manager & EAP
Sirius (Tungston Lodge) PV Solar Plants (x2, Northern Cape	Aurora Power Solutions	Project Manager & EAP
Sol Invictus x4 PV Developments, Northern Cape	Building Energy	Project Manager & EAP
Solar Plant at Kathu (Wincanton), Northern Cape	REISA	Project Manager & EAP
Solar Plant at Sishen (Wincanton), Northern Cape	VentuSA Energy	Project Manager & EAP
Solar Plant at Sishen (Wincanton), Northern Cape	VentuSA Energy	Project Manager & EAP
SolarReserve Kotulo Tsatsi PV1 SEF, Northern Cape	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
SolarReserve Kotulo Tsatsi PV2 Facility, Northern Cape province	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
Stormberg Solar PV SEF, Eastern Cape	Networx / Prana Energy	Project Manager & EAP
Tewa Isitha (Grootdrink/Albany) PV SEF, Northern Cape	Africoast Engineers	Project Manager & EAP

Project Name & Location	Client Name	Role
Tiger Kloof PV SEF near Vryburg, North West	Kabi Energy	Project Manager & EAP
Tiger Solar PV SEF, Northern Cape	Kabi Energy	Project Manager & EAP
Vaalkop and Witkop PV SEF's, North West	Kabi Solar	Project Manager & EAP
Wagnbietjiespan PV SEF, Free State	VentuSA	Project Manager & EAP
Wolmaransstad Municipality PV SEF, North West	BlueWave	Project Manager & EAP
Woodhouse PV 1 & PV 2 SEF's, North West	Genesis Eco-Energy	Project Manager & EAP
Zuurwater PV SEF's (x4), Northern Cape	Solafrica / BlueWave	Project Manager & EAP
Three PV SEF facilities in Lichtenburg, North West	Atlantic Energy Partners	Project Manager & EAP

## **Basic Assessments**

Project Name & Location	Client Name	Role
Amandla Welanga & Dida PV SEF's near Noupoort,	Terra Solar	Project Manager & EAP
Northern Cape		
Carolusberg PV SEF, Northern Cape	Ilio Energy (SARGE)	Project Manager & EAP
Gosforth Park and Kynoch Rooftop PV SEF's Northern	Building Energy	Project Manager & EAP
Cape	BI W	5 : 111
Hennenman PV SEF, Free State	BlueWave	Project Manager & EAP
Hibernia PV SEF near Lichtenburg, North West	EA Energy	Project Manager & EAP
Inkulukelo PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
Kabi Kimberley PV SEF, Northern Cape	Kabi Energy	Project Manager & EAP
Kokerboom & Boabab PV Solar Energy Plants,	Draw Co even	Drain at Maria gray 9 FAD
Northern Cape	Brax Energy	Project Manager & EAP
A A included by the DV/ CEE. A Area transfer and	African Clean Energy	Drain at Maria gray 9, EAD
Middelburg PV SEF, Mpumalanga	Developments (ACED)	Project Manager & EAP
Nigramoep PV Solar Energy Plant, Northern Cape	SARGE	Project Manager & EAP
Noupoort (Kleinfontein and Toitdale) CPV, Northern	Tamas Davisas	Due:
Cape	Terra Power	Project Manager & EAP
O'Kiep 1 PV Solar Energy Plant, Northern Cape	Ilio Energy (SARGE)	Project Manager & EAP
O'Kiep 2 PV Solar Energy Plant, Northern Cape	BluePort Trade 118 (SARGE)	Project Manager & EAP
O'Kiep 3 PV Solar Energy Plant, Northern Cape	Ilio Energy (SARGE)	Project Manager & EAP
Rodicon PV SEF, Mpumalanga	VentuSA Energy	
Slurry PV SEF, North West	PPC	Project Manager & EAP
Small projects for PV SEF's, North West	BlueWave	Project Manager & EAP
Son Sitrus Rooftop PV Installation, Eastern Cape	Building Energy	Project Manager & EAP
Tollie PV SEF, Northern Cape	Terra Solar	Project Manager & EAP
x2 Southern Farms PV Solar Energy Plants, Northern Cape	Southern Farms	Project Manager & EAP

## **Screening Studies**

Project Name & Location	Client Name	Role
Allemans, Wonderheuwel, Damfontein & Dida PV SEF's, Northern Cape	Terra Solar	Project Manager & EAP
Amandla Welang, Gillmer & Inkululeko PV SEF's, Northern Cape	GeoSolar/TerraSolar	Project Manager & EAP
Blouputs PV, Onseepkans PV, Hoogelegen PV & Boegoeberg PV projects, Northern Cape	Engineering Development Industrial Projects (EDIP)	Project Manager & EAP
Bobididi PV SEF, Limpopo	Root 60Four Energy	Project Manager & EAP
Boshof-Les Marais / Buitenfontein SEF, Free State	Bluewave Capital	Project Manager & EAP
Bosjesmansberg PV SEF, Northern Cape	Networx	Project Manager & EAP

Project Name & Location	Client Name	Role
Class 2 & Class 3 Road Networks in the vicinity of the	SMEC South Africa (on behalf	
proposed Tambo Springs Freight Hub, Gauteng	of Gauteng Department of	Project Manager & EAP
proposed rattibo spiritgs treight flob, Gabierig	Roads & Transport)	
Hibernia SEF, North West	EA Energy	Project Manager & EAP
Lephalale PV SEF, Limpopo	Exxaro	Project Manager & EAP
Prieska PV SEF, Northern Cape	Terra SOlar	Project Manager & EAP
Proposed Solar Project near Hotazel, Northern Cape	ABO Wind	Project Manager & EAP
province	ABO WING	
Proposed Solar Project near Beaufort West, Western	ABO Wind	Project Manager & EAP
Cape	ABO WING	
Proposed Solar Project near Lichtenburg, North West	ABO Wind	Project Manager & EAP
province	ABO WING	
PV SEF's (x15) for the projects for the REIPP small scale	Puilding Energy	Project Manager & EAR
BID, Nationwide	Building Energy	Project Manager & EAP
Senekal 1 & 2, Pongola & Newcastle PV SEF's, Kwa-	Building Energy	Project Manager & EAP
Zulu-Natal	boliding Energy	Flojeci Mariager & EAF
Small scale PV SEF project - 2nd Stage One	Bluewave Capital	Project Manager & EAP
Small scale PV SEF project - 2nd Stage One	Building Energy	Project Manager & EAP
Stella Helpmekaar SEF, North West	Bluewave Capital	Project Manager & EAP
Wolmaransstad Municipality SEF, North West	Bluewave Capital	Project Manager & EAP
Solar Project near Beaufort West, Western Cape	ABO Wind	Project Manager & EAP
Solar Project near Lichtenburg, Western Cape	ABO Wind	Project Manager & EAP
Solar Project near Hotazel, Western Cape	ABO Wind	Project Manager & EAP

Project Name & Location	Client Name	Role
ECO for the Contraction of the De Aar & Prieska PV	GeStamp	Project Manager
Facilities, Northern Cape		
ECO for the Construction of the Kathu PV Facility,	REISA / Building Energy	Project Manager
Northern Cape		

# Compliance Advice and ESAP Reporting

Project Name & Location	Client Name	Role
ACWA Power SolarReserve Redstone Solar Plant,	SolarReserve	Environmental Advisor
Northern Cape	30idi Kesei ve	
Bokpoort PV SEF, Northern Cape	Solafrica	Environmental Advisor
Boshof PV SEF, Free State	BlueWave	Environmental Advisor
Hennenman PV SEF, Free State	BlueWave	Environmental Advisor
Kathu II SEF, Northern Cape	Building Energy	Environmental Advisor
Kathu PV SEF, Northern Cape	Building Energy / REISA	Environmental Advisor
Prieska PV SEF, Northern Cape	VentuSA	Environmental Advisor
San Solar SEF, Northern Cape	VentuSA / Acciona	Environmental Advisor
Sishen PV SEF Phase 1, Northern Cape	Aveng / Acciona	Environmental Advisor
Wolmaransstad Municipality Solar PV SEF, North West	BlueWave	Environmental Advisor
ESAP reporting for the opertaion phase of the Mulilo	Mulilo and X-Elio	Environmental Advisor
Solar PV De Aar and Mililo Solar PV Prieska	MUIIIO GITA X-EIIO	LITVITOTITIETTICI ACVISOI

## **Due Diligence Reporting**

Project Name & Location	Client Name	Role
Kabi Kimberley PV Plant, Northern Cape	Enertis Solar	Environmental Advisor

Project Name & Location	Client Name	Role
Sishen Solar Farm, Northern Cape	Acciona (Windfall 59	Environmental Advisor
	Properties)	
Vaal River Solar 1 PV plant, North West	Enertis Solar	Environmental Advisor

## **Environmental Permitting & Water Use License (WUL) Applications**

Project Name & Location	Client Name	Role
Permitting for the Kathu PV SEF, Northern Cape	Abengoa Solar	Project Manager & EAP
S53 application for Kabi Kimberley De Beers PV	Kabi Energy	Project Manager & EAD
Plant, Northern Cape	Kabi Lileigy	Project Manager & EAP
\$53 application for the Blackwood PV SEF, Free State	VentuSA Energy	Project Manager & EAP
\$53 application for the Boundary PV SEF, Northern	VentuSA Energy	Project Manager & EAP
Cape	veniusA Energy	Project Manager & EAP
S53 application for Vaalkop & Witkop PV SEF's, North	Kabi Energy	Project Manager & EAP
West	Kubi Lileigy	Hojeci Managei & LAi
\$53 applications for various projects (Amandla		
Welang, Didar, Inkululeko, Kleinfontein, Klip Gat,	Terra Solar	Project Manager & EAP
Naau Poort, Toitdale & Tollie PV SEF's), Northern	Terra solar	Troject Manager & LAI
Cape		
WUL application for the Woodhouse PV1 & PV2	Genesis Eco-Energy	Project Manager & EAP
SEF's, North West	Genesis Eco-Linergy	i Hojeci Managei & LAi

## RENEWABLE POWER GENERATION PROJECTS: CONCENTRATED SOLAR FACILITIES (CSP)

## **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
De Aar CSP Energy facility, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Khi Solar One CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Noupoort CSP facility, Northern Cape	Cresco	Project Manager & EAP
Paulputs CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Pofadder & Upington CSP facilities, Northern Cape	Abengoa Solar	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP facility, Northern Cape province	SolarReserve	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP1 facility, Northern	Kotulo Tsatsi Energy and	Project Manager & EAP
Cape	SolarReserve South Africa	Troject Mariager & E/ (
SolarReserve Kotulo Tsatsi CSP2 facility, Northern Cape	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
SolarReserve Kotulo Tsatsi CSP3 facility, Northern Cape	Kotulo Tsatsi Energy and SolarReserve South Africa	Project Manager & EAP
Upington 2 CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Upington 3 CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP
Xina Solar One CSP facility, Northern Cape	Abengoa Solar	Project Manager & EAP

## Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
KaXu Solar One facility, Northern Cape	Abengoa Solar	Project Manager
Khi Solar One facility, Northern Cape	Abengoa Solar	Project Manager
Xina Solar One facility, Northern Cape	Abengoa Solar	Project Manager

## **Screening Studies**

Project Name & Location	Client Name	Role
Site Identification Tool for Proposed CSP Projects,	Exxaro	Environmental Advisor
Limpopo		

## **Compliance Advice and ESAP reporting**

Project Name & Location	Client Name	Role
Kaxu Solar One CSP facility, Northern Cape	Abengoa Solar	Environmental Advisor
Khi Solar One CSP facility, Northern Cape	Abengoa Solar	Environmental Advisor
SolarReserve Kotulo Tsatsi CSP facility, Northern	SolarReserve	Environmental Advisor
Cape province	Soldikeserve	LITVITOTITIETTIGI AGVISOI
Xina One CSP facility, Northern Cape	Abengoa Solar	Environmental Advisor

## RENEWABLE POWER GENERATION PROJECTS: WIND ENERGY FACILITIES

Project Name & Location	Client Name	Role
ABs WEF near Indwe, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Amakhala Emoyeni WEF, Eastern Cape	Windlab Developments	Project Manager & EAP
Amatole (2 phases) WEF, Eastern Cape	Genesis ECO-Energy	Project Manager & EAP
Boulders Wind Farm, Western Cape	IPD Power	Project Manager & EAP
Britannia Bay WEF, Western Cape	Terra Power Solutions	Project Manager & EAP
Castle WEF in De Aar, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Cookhouse WEF, Eastern Cape	African Clean Energy Developments (ACED) & Tertia Waters	Project Manager & EAP
Deep River Wind Energy Facility, Eastern Cape	VentuSA Energy	Project Manager & EAP
Dorper Phase 1 WEF, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Elliot WEF, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Garob WEF, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Gouda WEF, Western Cape	VentuSA Energy	Project Manager & EAP
Great Karoo WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Gunstfontein WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Happy Valley WEF, Eastern Cape	REISA	Project Manager & EAP
Hidden Valley WEF, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
Hopefield WEF, Western Cape	Umoya Energy	Project Manager & EAP
Karoo Renewable Energy Facility, Northern & Western Cape	SARGE	Project Manager & EAP
Karreebosch Wind Farm (Roggeveld Phase 2), Northern Cape & Western Cape	G7 Renewable Energies	Project Manager & EAP
Karusa Wind Farm, Northern Cape	African Clean Energy Development	Project Manager & EAP
Klipheuwel / Dassiesfontein WEF, Western Cape	BioTherm Energy	Project Manager & EAP
Nojoli WEF , Eastern Cape	African Clean Energy Developments	Project Manager & EAP
Nxuba WEF , Eastern Cape	African Clean Energy Developments	Project Manager & EAP
Olifants River WEF, Western Cape	SARGE	Project Manager & EAP

Project Name & Location	Client Name	Role
Oyster Bay WEF, Eastern Cape	RES	Environmental Advisor
Pofadder x3 WEF's, Northern Cape	Mainstream Renewable	Project Manager & EAP
Project Blue WEF, Northern Cape	Windy World	Project Manager & EAP
Rheboksfontein WEF, Western Cape	Moyeng Energy	Project Manager & EAP
Riverbank WEF near Wesley, Eastern Cape	Just Energy	Project Manager & EAP
Sere WEF, Western Cape	Eskom Generation	Project Manager & EAP
Soetwater Wind Farm, Northern Cape	African Clean Energy	Project Manager & EAP
30erwarer wind raim, Normem Cape	Development	110ject Mariager & LAI
Springfontein WEF, Northern Cape	Mainstream Renewable	Project Manager & EAP
Stormberg WEF, Eastern Cape	Networx / Prana Energy	Project Manager & EAP
Suurplaat WEF, Western & Northern Cape	Moyneg Energy	Project Manager & EAP
Uiekraal WEF, Western Cape	Crenersol	Project Manager & EAP
West Coast One WEF, Western Cape	Moyeng Energy	Project Manager & EAP
West Coast WEF, Western Cape	Exxaro	Project Manager & EAP
Zen WEF near Gouda, Western Cape	VentuSA Energy	Project Manager & EAP

# Basic Assessments

Project Name & Location	Client Name	Role
Britannia Bay Wind Monitoring Mast, Western Cape	Terra Power Solutions	Project Manager & EAP
Caledon, Worcester & Tulbach Wind Monitoring Masts, Western Cape	SAGIT	Project Manager & EAP
Deep River Wind monitoring Mast, Eastern Cape	VentuSA Energy	Project Manager & EAP
Denhami Wind Farm, Western Cape	Richard Young	Project Manager & EAP
Dorper, Abs & Dobos Wind Monitoring Masts, Eastern Cape	Rainmaker Energy	Project Manager & EAP
Hopefield Wind Monitoring Mast, Western Cape	Umoya Energy	Project Manager & EAP
Klawer Wind Energy Facility, Western Cape	Vendiwell	Project Manager & EAP
Klipheuwel / Dassiesfontein Wind Monitoring Mast, Western Cape	BioTherm Energy	Project Manager & EAP
Riverbank Wind Monitoring Mast, Eastern Cape	Just Energy	Project Manager & EAP
Wind Monitoring Masts near Suurplaat, Western Cape	Investec Bank	Project Manager & EAP
Wind Monitoring Masts on the West Coast & Darling, Western Cape	Investec Bank	Project Manager & EAP

## **Screening Studies**

Project Name & Location	Client Name	Role
Cookhouse WEF, Eastern Cape	African Clean Energy	Project Manager & EAP
Cookhoose Well, Eastern Cape	Developments (ACED)	Troject Mariager & LAI
De Aar WEF, Northern Cape	African Clean Energy	Project Manager & EAP
De Adi Wer, Normeni Cape	Developments (ACED)	Froject Manager & EAF
Developments within identified areas in the	BioTherm Energy	Project Manager & EAP
Overberg, Western Cape	Biomeim Lifeigy	Project Manager & EAP
Hanafield WEE Western Cana	African Clean Energy	Project Manager & EAP
Hopefield WEF, Western Cape	Developments (ACED)	Troject Manager & EAR
Juno WEF, Western Cape	AMDA Developments	Project Manager & EAP
Lambert's Bat WEF, Western Cape	Vaayu Energy SA	Project Manager & EAP
Prospect Sites for various WEF's	Thabo Consulting (on behalf	Project Manager & EAP
Trospect sites for various WELL's	of Eskom Holdings)	Troject Mariager & EAI
Struis Baai area WEF, Western Cape	Richards Young	Project Manager & EAP
Suurplat WEF, Western Cape	Investec Bank	Project Manager & EAP
Theewaterskloof Municipality WEF, Western Cape	Theewaterskloof Municipality	Project Manager & EAP

Project Name & Location	Client Name	Role
WEF's on x2 site on the West Coast, Western Cape	Investec Bank	Project Manager & EAP
	Department of Environmental	
Various WEF's in the Western Cape	Affairs & Development	Project Manager & EAP
	Planning (DEA&DP)	
Van Reenens WEF, Kwa-Zulu Natal & Free State	4GREEN Development Africa	Project Manager & EAP
WEF Development within the Sandveld area,	Kovacs Investments (Nick	Project Manager & EAP
Western Cape	Prium)	110ject Munager & EAF

Project Name & Location	Client Name	Role
ECO for the Construction of the Dorper Phase 1 WEF,	Rainmaker Energy	Project Manager
Eastern Cape		
ECO for the Construction of the Gouda Wind Farm,	Blue Falcon Trading	Project Manager
Western Cape		
EO for the Construction of the Dassiesklip WEF,	Group Five	Project Manager
Western Cape		

## Compliance Advice & ESAP Reporting

Project Name & Location	Client Name	Role
Amakhala Emoyeni WEF, Eastern Cape	Windlab Developments	Environmental Advisor
Cookhouse II WEF, Eastern Cape	African Clean Energy	Environmental Advisor
Cooknoose II WEF, Eastern Cape	Developments	
Cookhouse WEF, Eastern Cape	African Clean Energy	Environmental Advisor
Cookhoose WLL, Lastern Cape	Developments	
Dorper Phase 1 WEF, Eastern Cape	Rainmaker Energy	Environmental Advisor
Garob WEF, Northern Cape	Juwi Renewable Energies	Environmental Advisor
Gouda WEF, Western Cape	Aveng / Acciona	Environmental Advisor
Happy Valley WEF, Eastern Cape	VentuSA Energy / EDPR	Environmental Advisor
Hidden Valley WEF, Northern Cape	African Clean Energy	Environmental Advisor
niaderi valley WEF, Normerri Cape	Developments (ACED)	
Hopefield WEF, Western Cape	Umoya Energy	Environmental Advisor
Karusa Wind Farm, Northern Cape	African Clean Energy	Environmental Advisor
Karosa Willa Faith, Northern Cape	Development	
Loperberg WEF, Eastern Cape	Rainmaker Energy	Environmental Advisor
Nobelsfontein WEF, Northern Cape	Coria / SARGE	Environmental Advisor
Nojoli WEF , Eastern Cape	African Clean Energy	Environmental Advisor
Nojoli WEI , Easieiti Cape	Developments (ACED)	
Nxuba WEF , Eastern Cape	African Clean Energy	Environmental Advisor
14x0bd WEI , Edsiein Cape	Developments	
Oyster Bay WEF, Eastern Cape	RES	Environmental Advisor
Riverbank Wind WEF, Eastern Cape	InnoWind	Environmental Advisor
Roggeveld Phase 1 WEF, Northern Cape	Building Energy	Environmental Advisor
Soetwater Wind Farm, Northern Cape	African Clean Energy	Environmental Advisor
зовтичны типт, поппет сире	Development	
Springfontein WEF, Northern Cape	Mainstream Renewable	Environmental Advisor
Zen WEF, Western Cape	VentuSA Energy	Environmental Advisor

# Due Diligence Reporting

Project Name & Location	Client Name	Role
Gouda WEF, Western Cape	Blue Falcon Trading	Environmental Advisor

Project Name & Location	Client Name	Role
Loeriesfontein, Khobab & Noupoort WEF's, Northern Cape	Actis	Environmental Advisor
Roggeveld Wind Farm, Northern Cape	Building Energy	Environmental Advisor

## **Environmental Permitting & WUL Applications**

Project Name & Location	Client Name	Role
Permitting for the Cookhouse WEF, Eastern Cape	African Clean Energy	Project Manager & EAP
Terrining for the Cookhoose WLL, Lastern Cape	Developments (ACED)	110ject Manager & EAI
Permitting for the Karusa Wind Farm, Northern Cape	African Clean Energy	Drain at Managar 9 FAD
remining for the karosa wina rami, Normem cape	Development	Project Manager & EAP
Permitting for the Sere WEF, Western Cape	Eskom	Project Manager & EAP
Permitting for the Soetwater Wind Farm, Northern	African Clean Energy	Project Manager & EAP
Cape	Development	Project Manager & EAP
Permitting Riverbank WEF, Eastern Cape	Electrawinds	Project Manager & EAP
S24G for the Klipheuwel / Dassiesfontein WEF,		Project Manager & EAP
Western Cape		Project Manager & EAP
\$53 application for the Nxuba Wind Farm, Eastern	African Clean Energy	Project Manager & EAP
Cape	Developments (ACED)	Troject Manager & LAI
S53 Application for the Zen WEF, Western Cape	VentuSA Energy	Project Manager & EAP
WUL application for the Oyster Bay WEF, Eastern	RES	Project Manager & EAD
Cape	INLS	Project Manager & EAP

## **CONVENTIONAL POWER GENERATION PROJECTS (COAL)**

## **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
H2 Energy Power Station, Mpumalanga	H2 Energy	Project Manager & EAP

#### **Screening Studies**

Project Name & Location	Client Name	Role
Coal fired power station in the Bethal area,	ISS Global	Project Manager & EAP
Mpumalanga	133 Global	Troject Manager & LA
Indwe Power Station, Eastern Cape	IPSA	Project Manager & EAP
IPP Base Load Power Station Development in	Exxaro	Project Manager & EAP
Lephalale, Limpopo	EXXCIO	Froject Manager & EAF

## **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
ISO 14001:2015 Audit for the Hendrina Power Station,	Eskom Holdings	Project Manager
Mpumalanga		

## **CONVENTIONAL POWER GENERATION PROJECTS (GAS)**

Project Name & Location	Client Name	Role
Ankerlig OCGT to CCGT Conversion project & the	Eskom Generation	Project Manager & EAP
Transmission Power Line between Ankerlig and the		
Omega Substation, Western Cape		
Gourikwa OCGT to CCGT Conversion project & the	Eskom Generation	Project Manager & EAP
Transmission Power Line between Gourikwa and the		
Proteus Substation, Western Cape		

Neopak Combined Heat and Power (CHP) Plant,	Neopak	Project Manager & EAP
Rosslyn, Gauteng		
Richards Bay Combined Cycle Gas Turbine (CCGT)	Eskom	Project Manager & EAP
Power Plant, Kwa-Zulu Natal		

## **Screening Studies**

Project Name & Location	Client Name	Role
Environmental Analysis for gas transmission pipelines	Eskom Holdings	Project Manager
in the Clayville, Nigel, and Wadeville areas,		
Gauteng		

# GRID INFRASTRUCTURE PROJECTS

# Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Kyalami/Midrand Substation and 3 Transmission Lines, Gauteng	Eskom Transmission	Project Manager & EAP
Steelpoort Integration Project, Limpopo	Eskom Transmission	Project Manager & EAP

### **Basic Assessments**

Project Name & Location	Client Name	Role
Amakhala Emoyeni Power Line & Kopleegte Substation, Eastern Cape	Cennergi	Project Manager & EAP
Bon Espirange Substation & Overhead Power Line for	Building Energy (G7	Project Manager & EAP
the Roggeveld Wind Farm, Northern Cape	Renewable Energies)	Troject Manager & EAI
Castle WEF Powerline, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Cuprum-Burchell; Burchell-Mooidraai Power Line, Nothern Cape	Eskom	Project Manager & EAP
Expansion of the Komsberg Main Transmission Substation, Northern Cape	Enel Green Power	Project Manager & EAP
Garob-Kronos Power Line, Northern Cape	Juwi Renewable Energies	Project Manager & EAP
Golden Valley Dx-Poseidon Power Line Substation & Golden Valley-Kopleegte Power Line, Eastern Cape	BioTherm Energy	Project Manager & EAP
Gunstfontein Switching Station, Power Line & Ancillary Infrastructure, Northern Cape	African Clean Energy Developments (ACED)	Project Manager & EAP
llanga Lethemba-Hydra, Northern Cape	Solar Capital	Project Manager & EAP
Iziduli Emoyeni WEF on-site substation, Power Line & Switching station, Access Roads & Watercourse Crossings, Eastern Cape	Windlab	Project Manager & EAP
Khai-Ma WEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Korana WEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Korana SEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Nobelsfontein WEF Power Line & Substation, Northern Cape	Coria / SARGE	Project Manager & EAP
Nojoli WEF Substation & Power Line Grid Connection,	African Clean Energy	Drain at Managary 9 FAD
Eastern Cape	Developments (ACED)	Project Manager & EAP
Olifantshoek Substation & Powerline, Northern Cape	Eskom Holdings	Project Manager & EAP
Poortjies WEF Power Line, Northern Cape	Mainstream Renewable	Project Manager & EAP
Power Line & Substation for the Blackwood WEF, Northern Cape	VentuSA Energy	Project Manager & EAP

Power Line & Substation for the Khobab WEF in Loeriesfontein, Northern Cape	Mainstream Renewable	Project Manager & EAP
Power Line Connecting the Sishen SEF to the Ferrum MTS-UMTU Klip Kop Power Line, Northern Cape	Acciona (Windfall 59 Properties)	Project Manager & EAP
Power Line for the Grid Connection of the 2 SEF's near Kath and Dibeng, Northern Cape	VentuSA Energy	Project Manager & EAP
Power Line for the Rheboksfontein WEF, Western Cape	Moyeng Energy	Project Manager & EAP
Power Line from Aggeneys Solar One to Aggeneis MTS Substation, Northern Cape	BlueWave	Project Manager & EAP
Re-alignment of 3 Eskom Power Line Servitudes within the Hopefield WEF, Western Cape	Umoya Energy	Project Manager & EAP
Re-alignment of the Power Line & Watercourse Crossings for the Loeriesfontein 2 WEF, Northern Cape	Mainstream Renewable	Project Manager & EAP
Re-alignment of the Power Line from Loeriesfontein 1 WEF to the Helios Substation, Northern Cape	Mainstream Renewable	Project Manager & EAP
Re-alignment of the Power Line from Loeriesfontein 3 WEF to the Helios Substation, Northern Cape	Mainstream Renewable	Project Manager & EAP
Substation for the Aggeneys PV SEF, Northern Cape	BioTherm Energy	Project Manager & EAP
Substation, Power Line & Watercourse Crossings for the Springfontein WEF, Free State	Mainstream Renewable	Project Manager & EAP
Wesley-Peddie (Riverbank Phase 2) Power Line for the Uncedo Lwethu WEF, Eastern Cape	Just Energy	Project Manager & EAP

Project Name & Location	Client Name	Role
EO for the construction of the Neptune-Vuyani	Trans-Africa Projects on behalf	Project Manager
Transmission Line, Western Cape	of Eskom	

## INFRASTRUCTURE DEVELOPMENT PROJECTS (BRIDGES, PIPELINES, ROADS, WATER RESOURCES, STORAGE, ETC)

## **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Afguns Road Realignment Project, Limpopo	Eskom Holdings	Project Manager & EAP
Expansion of the existing Welgedacht Water Care Works, Gauteng	ERWAT	Project Manager & EAP
Industrial Metals Cluster, Northern Cape	Northern Cape Department of Economic Development and Tourism	Project Manager & EAP
Modification of the existing Hartebeestfontein Water Care Works, Gauteng	ERWAT	Project Manager & EAP

### **Basic Assessments**

Project Name & Location	Client Name	Role	
New Raw Water Reservoir & Pipeline for the Medupi	Eskom Holdings	Project Manager & EAP	
Power Station, Limpopo			
Msenge Emoyeni WEF Watercourse Crossings, Eastern	Windlab	Project Manager & EAP	
Cape			
Dilokong Transport Facility, Limpopo	South African National Roads	Project Manager & EAP	
	Agency Limited (SANRAL)		
Neopak Water Tratment Plant, Gauteng	Neopak	Project Manager & EAP	

Project Name & Location	Client Name	Role
Realignment of MR73 Road for the Construction of	Abengoa Solar	Project Manager & EAP
the Paulputs CSP Facility, Northern Cape		
Biomass Storage Area in Support of the Mkuze	Building Energy	Project Manager & EAP
Biomass Power Station, KwaZulu-Natal		
Wastewater Dam & Pipeline in Support of the Mkuze	Building Energy	Project Manager & EAP
Biomass Power Station, Kwa-Zulu Natal		
Watercourse Crossings for the Klawer Wind Energy	Vendiwell	Project Manager & EAP
Facility, Western Cape		

Project Name & Location	Client Name	Role
ECO for the Construction of the Tiffindell Ski Resort,	Tiffindell Ski	ECO
Eastern Cape		
ECO for the Distribution centre & warehouse at Lords	Oliver & Partners	Project Manager
View Industrial Estate, Gauteng		
ECO for the Upgrade of the Waterval Wastewater	BCP Palace (on behalf of	Project Manager
Treatment Works, Gauteng	ERWAT)	

## **Compliance Advice and reporting**

Project Name & Location	Client Name	Role	
Mkuze Biomass Plant, Kwa-Zulu Natal	Building Energy	Environmental Advisor	
Tiffindell Ski, Eastern Cape	Tiffindell Ski	Environmental Advisor	

# **Environmental Permitting & WUL Applications**

Project Name & Location	Client Name	Role	
Permitting, S53 & WULA for the Mkuze Biomass Plant,	Building Energy	Project Manager & EAP	
Kwa-Zulu Natal			
WULA for the Visserhok Waste Tyre Depot, Western	REDISA	Project Manager & EAP	
Cape			
WULA for the Witbank Waste Tyre Depot,	REDISA	Project Manager & EAP	
Mpumalanga			

## **MINING**

## Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
Compliance Audit for the Palesa Coal Mine WML,	HCI Coal	Project Manager
Mpumalanga province		
Compliance Audit Waste Use Licene for the Mbali	HCI Coal	Project Manager
Coal Mine, Mpumalanga province		

## **ENVIRONMENTAL MANAGEMENT TOOLS**

Project Name & Location	Client Name	Role	
Review the effectiveness *& efficiency of the	National Department of	Environmental Advisor	
environmental impact management (EIA) system in	Environmental Affairs		
South Africa, and formulate an environmental			
impact management strategy and action plan			
Drafting a Position Paper: Project Financing and	Standard Bank Group	Environmental Advisor	
Environmental Risk Management (considering IFC			



DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

### PROJECT TITLE

Allepad PV Four, 100MW photovoltaic (PV) solar energy generation facility and associated infrastructure near Upington, Northern Cape Province

### Kindly note the following:

- 1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- 2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
- 3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- 4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

### **Departmental Details**

#### Postal address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Private Bag X447

Pretoria 0001

### Physical address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Environment House 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

### 1. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

EAP Company Name:	Savannah Environmental (Pty)	) Ltd		
B-BBEE	Contribution level (indicate 1		Percentage	
	to 8 or non-compliant)	Level 2	Procurement	125%
	to o or non-compliant)		recognition	
EAP name:	Karen Jodas			
EAP Qualifications:	» M.Sc in Geography (Geor	norphology), R	Rhodes University, (	Grahamstown (1996)
	» B.Sc Honours in Geograp	hy, Rhodes Ur	niversity, Grahamst	own (1994)
	» B.Sc in Earth Sciences, R	hodes Univers	sity, Grahamstown (	(1993)
Professional	Professional Natural Scientist (Pr.Sci.Nat): Environmental Scientist (400106/99)			
affiliation/registration:	Fiolessional Natural Scientist	(FI.SCI.Nat). E	IIVIIOIIIIIEIIIAI SCIEI	11151 (400 100/33)
Physical address:	082 655 1935			
Postal address:	086 684 0547			
Postal code:	2157	Cell:		
Telephone:	011 656 3237	Fax:		
E-mail:	karen@savannahsa.com			

The appointed EAP must meet the requirements of Regulation 13 of GN R982 of 04 December 2014, as amended.

2	DECL	<b>ARA</b>	LIUN	RY	THE	FΔP
Z.	DLGL	MINM		DТ		LAF

l,	Karen Jodas	, declare that –
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- I act as the independent environmental assessment practitioner in this application;
- 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 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 will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulations when preparing the application and any report relating to the application;
- 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, unless access to that information is protected by law, in which case it will be indicated that such information exists and will be provided to the Competent Authority;
- I will perform all obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act.

# Disclosure of Vested Interest (delete whichever is not applicable)

activity proceeding other than remuneration for work	performed in terms of the Regulations;	
I have a vested interest in the proposed activity proc	eeding, such vested interest being:	
-	<del></del>	ž.
		3
Signature of the Environmental Assessment Practitioner		
Savannah Environmental		
Name of Company:		
10/10/18		
Date		
3. UNDERTAKING UNDER OATH/ AFFIRMATIO	N	
L Koron Joseph	des eath / office that all the information on	L
I, <u>koren Jodos</u> , swear un submitted for the purposes of this application is true and		omitted or to be
Signature of the Environmental Assessment Practitioner		
- Grant of the Environmental recognition ( recognition		
Savannah Environmental		
Name of Company		
10/10/18		
Date '		
Signature of the Commissioner of Oaths	CERTIFIED ATRUE COPY	
11 14 2010	ROBERTO SMALL  ROBERTO SMALL  AMASHABA ATTORNEYS	
Date Date	BUILDING BLOCK A, GROOND LEG	
	AR WOODLANDS & WESTERN SERVICE	
Details of EAP, Declaration and Undertaking Under Oath	COMMISSIONER OF OATHS LA	Page 3 of 3
	PRACTISING ATTORNEY R.S.A.	i ago o oi o

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed



1st Floor, Block 2, 5 Woodlands Drive Office Park Woodlands Drive, Woodmead Johannesburg, South Africa

> Email: shaun@savannahsa.com Tel: +27 (11) 656 3237

### **CURRICULUM VITAE OF SHAUN TAYLOR**

**Profession:** Environmental and Permitting Lead Consultant

Specialisation: Environmental Impact Assessments; Strategic Environmental Assessments; Environmental

permitting compliance, advice & assurance; Water Use Licenses; Project Management;

Wetland Assessments.

Work Experience: Eleven (11) years' experience in the environmental field

### **OCATIONAL EXPERIENCE**

Shaun's highest qualification is a Master of Science Degree in Aquatic Health. Shaun has an in-depth understanding of environmental and water related South African legislation. Applicable legislation includes the National Environmental Management Act, 1998 (Act No. 107 of 1998), the Environmental Impact Assessment (EIA) Regulations (2006, 2010 and 2014, as amended) and the National Water Act, 1998 (Act No. 36 of 1998). Over and above a number of other projects, Shaun has successfully conducted and obtained environmental approvals for numerous renewable energy (wind and solar) developments as well as for infrastructure (roads, water pipeline and power line) related projects. Shaun has excellent experience in dealing with the entire environmental authorization (EA) process from beginning to end i.e. submission of applications, undertaking Environmental Impact Assessments and Basic Assessments (BAs), conducting EA amendments, extension applications and compiling Draft and Final Environmental Management Programmes (EMPrs). Shaun is well acquainted and experienced in dealing with the key provincial and national environmental authorities, other organs of state as well as any other key stakeholders.

Within the water field, Shaun has completed numerous water use license applications (WULAs), General Authorisations (GAs), Risk Assessments and WULA compliance monitoring for various developments. Shaun is also specialised in wetland ecology and operates as a wetland specialist. Shaun has undertaken and completed numerous wetland and riparian assessments for renewable energy, linear projects as well as site specific projects. Shaun has also undertaken a wetland offset plan and several wetland rehabilitation plans for various developments.

### **SKILLS BASE AND CORE COMPETENCIES**

- Environmental Project Management
- Environmental Impact Assessments and Basic Assessments
- Environmental Management Programmes
- Environmental Compliance Monitoring
- Environmental Amendments
- Strategic Environmental Assessments
- Environmental Management
- Public and Stakeholder Engagement
- Water Use License Applications
- General Authorisations

- Risk Assessment Matrix
- Wetland Delineation, Functional and Impact Assessments
- Geographic Information Systems (GIS)

### **EDUCATION AND PROFESSIONAL STATUS**

#### Degrees:

- M.Sc. Aquatic Health, University of Johannesburg, Johannesburg (2011)
- B.Sc (Hons) Geography and Environmental Studies, University of Witwatersrand, Johannesburg (2010)
- B.A Geography and Environmental Science, Monash University, Johannesburg (2008)

#### **Short Courses:**

- National Training and Development Buffer Zone Workshop, Eco-pulse (2015)
- Integrated Water Resources Management (IWRM), the National Water Act (NWA), and Water Use Authorisations, focusing on Water Use License Applications – Procedures, Guidelines, Integrated Water and Waste Management Plan (IWWMP), Carin Bosman Sustainable Solutions (2014)
- Grass identification short course, Bushveld Eco Services (2010)
- Wildflower identification short course, Bushveld Eco Services (2010)
- Veld management short course, Bushveld Eco Services (2010)
- Short course and certification in Wetland Delineation and Rehabilitation Training Course from the School of Continuing Education, University of Pretoria (2008)

#### **Professional Society Affiliations:**

- Member of the South African Wetland Society (SAWS) (Current)
- Registration pending with the South African Council for Natural Scientific Professions as a Professional Natural Scientist: Environmental Scientist (Current)

#### Other Relevant Skills:

Project Management Course, SiVEST (2017)

### **EMPLOYMENT**

Date	Company	Roles and Responsibilities
June 2018 - Current:	Savannah Environmental (Pty) Ltd	Environmental and Permitting Lead Consultant
		Tasks include: undertaking strategic
		environmental assessments, environmental
		impact assessments, basic assessments,
		environmental management programmes
		(EMPrs), environmental amendments,
		environmental screening and due diligence
		assessments, water use license applications,
		wetland assessments and rehabilitation plans.
		Ensuring environmental compliance on
		permitting processes. Client liaison and
		relationship management.
November 2010 – May	SiVEST South Africa (Pty) Ltd	Environmental Scientist
2018		Tasks included: conducting environmental
		impact assessments, basic assessments and
		water use license application processes,
		undertaking amendment and exemption

Date	Company	Roles and Responsibilities
		applications, general project management,
		report writing, marketing and proposal writing,
		client liaison and relationship management,
		invoicing, conducting specialist riparian/wetland
		delineation and functional assessments,
		environmental and water related compliance
		monitoring and auditing.
October 2009 – March	Envirokey cc	Junior Environmental Consultant and GIS support
2010		Tasks included: being responsible for managing
		basic assessments, report writing, conducting
		specialist wetland assessments, auditing
		procedures and GIS mapping.
August 2007 –	Holgate Meyer and Associates	Junior Environmental Consultant
September 2009	Environmental	Tasks included: being responsible for managing
	Management Services	basic assessments, report writing, conducting
		specialist wetland assessments, environmental
		auditing procedures and GIS mapping.

### **PROJECT EXPERIENCE**

Project experience includes environmental approvals for numerous renewable energy (wind and solar) developments as well as for infrastructure (roads, water pipeline and power line) related projects. Within the water field, project experience includes numerous water use license applications, general authorisations, risk assessments and compliance monitoring for various developments. In terms of wetland assessments, project experience includes numerous wetland and riparian delineation, functional and impact assessments for renewable energy, linear projects and site-specific projects. The wetland experience also includes a wetland offset plan and several wetland rehabilitation plans (various types of developments).

### **RENEWABLE POWER GENERATION PROJECTS: SOLAR ENERGY FACILITIES**

Project Name & Location	Client Name	Role
Loeriesfontein Photovoltaic (PV) Plant, Northern	Mainstream Renewable	Environmental consultant,
Cape Province	Power South Africa	public participation,
		wetland specialist
Renosterberg PV Plant near De Aar, Northern Cape	Renosterberg Wind Energy	Environmental consultant,
Province	Corporation (RWEC) &	public participation,
	Industrial Development	wetland specialist
	Corporation (IDC) of South	
	Africa	
Droogfontein II - 70MW Solar Photovoltaic Power	Mainstream Renewable	Environmental consultant,
Plant near Kimberley, Northern Cape Province	Power South Africa	wetland specialist
Construction of a Concentrated PV/ PV Plant in De	Mainstream Renewable	Environmental consultant,
Aar, Northern Cape	Power South Africa	wetland specialist

### **Basic Assessments**

Project Name & Location	Client Name	Role
Proposed development of a 19MW Photovoltaic	SolarReserve South Africa	Environmental consultant,
Solar Power Plant near Kimberley, Northern Cape	(Pty) Ltd	public participation,
Province		wetland specialist
Proposed development of a 19MW Photovoltaic	SolarReserve South Africa	Environmental consultant,
Solar Power Plant near Danielskuil, Northern Cape	(Pty) Ltd	public participation,
Province		wetland specialist
Loeriesfontein 70MW PV Plant, Northern Cape	Biotherm Energy	Environmental consultant
Province		
Droogfontein II - 70MW Solar Photovoltaic Power	SunEdison	Project leader,
Plant near Kimberley, Northern Cape Province		environmental consultant

### Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Integrated Water Use License Application for the	Mainstream Renewable	Environmental consultant,
Construction of a Concentrated PV/ PV Plant in De	Power South Africa	wetland specialist
Aar, Northern Cape Province		
Proposed Construction of the De Wildt Solar	SunEdison	Project leader,
Photovoltaic Power Plant, General Authorisation and		environmental consultant,
Risk Assessment, Gauteng Province		wetland specialist
Loeriesfontein Photovoltaic (PV) Plant Vegetation	Mainstream Renewable	Environmental consultant
Permits, Northern Cape Province	Power South Africa	
Droogfontein II 70MW Solar Photovoltaic Power Plant	SunEdison	Environmental consultant
near Kimberley Vegetation Permits, Northern Cape		
Province		

## RENEWABLE POWER GENERATION PROJECTS: WIND ENERGY FACILITIES

Project Name & Location	Client Name	Role
Noupoort Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental consultant &
	Power South Africa	public participation
Loeriesfontein Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental consultant,
	Power South Africa	public participation,
		wetland specialist
Khobab Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental consultant,
	Power South Africa	public participation,
		wetland specialist
Renosterberg Wind Farm near De Aar, Northern	Renosterberg Wind Energy	Environmental consultant,
Cape Province	Corporation (RWEC) &	public participation,
	Industrial Development	wetland specialist
	Corporation (IDC) of South	
	Africa	
Ithemba Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental consultant,
	Power South Africa	public participation,
		wetland specialist
Harte Beeste Leegte Wind Farm, Northern Cape	Mainstream Renewable	Environmental consultant,
Province	Power South Africa	public participation,
		wetland specialist

Gras Koppies Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental consultant,
	Power South Africa	public participation,
		wetland specialist
Xha! Boom Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental consultant,
	Power South Africa	public participation,
		wetland specialist

## **Screening Studies**

Project Name & Location	Client Name	Role
Environmental Constraints Analysis Report for the	Mainstream Renewable	Environmental consultant,
establishment of four Wind Farms in the Northern	Power South Africa	wetland specialist
and Eastern Cape Provinces		

### **Compliance Advice and ESAP reporting**

Project Name & Location	Client Name	Role
Noupoort Wind Farm, Northern Cape Province	Mainstream Renewable	Environmental advisor
	Power South Africa	

## Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Water Use License for the Dwarsrug Wind Farm,	Mainstream Renewable	Environmental consultant,
Northern Cape Province	Power South Africa	wetland specialist
Water Use License for the Victoria West Wind Farm,	Mainstream Renewable	Environmental consultant,
Northern Cape Province	Power South Africa	wetland specialist
Khobab Wind Farm Vegetation Permits, Northern	Mainstream Renewable	Environmental consultant
Cape Province	Power South Africa	
Loeriesfontein Wind Farm Vegetation Permits,	Mainstream Renewable	Environmental consultant
Northern Cape Province	Power South Africa	

### RENEWABLE POWER GENERATION PROJECTS: CONCENTRATED SOLAR FACILITIES (CSP)

## Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Integrated Water Use License Application for the	Mainstream Renewable	Environmental consultant,
Construction of a CPV/ PV Plant in De Aar, Northern	Power South Africa	wetland specialist
Cape Province of South Africa		
Water Use License for the Rooipunt Concentrated	SolarReserve South Africa	Environmental consultant,
Solar Power Project, Northern Cape Province	(Pty) Ltd	wetland specialist
Water Use License for the Limestone Concentrated	SolarReserve South Africa	Environmental consultant,
Solar Power Project, Northern Cape Province	(Pty) Ltd	wetland specialist

### **CONVENTIONAL POWER GENERATION PROJECTS (COAL)**

### **Basic Assessments**

Project Name & Location	Client Name	Role
Proposed Installation of a 500m³ Bulk Storage Fuel Oil	Eskom Generation	Environmental consultant,
Tank at Grootvlei Power Station, Mpumalanga		wetland specialist
Province		

Project Name & Location	Client Name	Role
Water Use License Compliance Auditing for	Eskom Generation	Project leader,
Grootvlei Power Station, Mpumalanga Province,		environmental auditor,
South Africa		wetland specialist
Kusile Power Station Armcor Water Use License	Eskom Generation	Project leader,
Compliance Audit, Mpumalanga Province		environmental auditor,
		wetland specialist
Kusile Power Station Ash Dump Water Use License	Eskom Generation	Project leader,
Compliance Audit, Mpumalanga Province		environmental auditor,
		wetland specialist
Kusile Power Station Pollution Dams Water Use	Eskom Generation	Project leader,
License Compliance Audit, Mpumalanga Province		environmental auditor,
		wetland specialist
Kusile Power Station Stream Diversion and Water	Eskom Generation	Project leader,
Pipeline Crossings Water Use License Compliance		environmental auditor,
Audit, Mpumalanga Province		wetland specialist
Kusile Power Station Geotechnical Water Use	Eskom Generation	Project leader,
License Compliance Audit, Mpumalanga Province		environmental auditor,
		wetland specialist

## **GRID INFRASTRUCTURE PROJECTS**

## **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Mookodi Integration Project Environmental Impact	Eskom Distribution	Environmental consultant,
Assessment, North West Province		wetland specialist
Eskom Thyspunt Nuclear Integration Project –	Eskom Transmission	Environmental consultant,
Transmission and Substation Infrastructure (Northern		wetland specialist
and Southern Corridor), Eastern Cape Province		

### **Basic Assessments**

Project Name & Location	Client Name	Role
Frankfort Strengthening Project: 88kV Power Line	Eskom Distribution	Project leader,
from Heilbron (via Frankfort) to Villiers, Free State		environmental consultant,
Province		wetland specialist
Wilger 132kV Overhead Distribution Power Line,	SolarReserve South Africa	Project leader,
Northern Cape Province	(Pty) Ltd	environmental consultant,
		wetland specialist
Limestone 1 – 132kV Overhead Distribution Power	SolarReserve South Africa	Environmental consultant,
Line, Northern Cape Province	(Pty) Ltd	wetland specialist
Limestone 2 – 132kV Overhead Distribution Power	SolarReserve South Africa	Environmental consultant,
Line, Northern Cape Province	(Pty) Ltd	wetland specialist
Proposed Tweespruit to Welroux Power Line and	Eskom Distribution	Project leader,
Substations, Free State Province		environmental consultant,
		wetland specialist
Proposed Construction of a 132kV Power Line and	SolarReserve South Africa	Project leader,
Associated Infrastructure for the evacuation of	(Pty) Ltd	environmental consultant,
power from the proposed 200MW Concentrated		wetland specialist

Solar Power (CSP) Plant on the Farm Rooipunt		
Number 617 near Upington, Northern Cape Province		
Loeriesfontein 132kV Power Line, Northern Cape	Biotherm Energy	Project leader,
Province		environmental consultant,
		wetland specialist
Proposed Construction of a 132kV Power Line and	SolarReserve South Africa	Project leader,
Associated Infrastructure for the evacuation of	(Pty) Ltd	environmental consultant,
power from the Kalkaar Concentrating Solar Thermal		wetland specialist
Power Project on the Remainder of Portion 1 of the		
Farm Kalkaar 389 near Jacobsdal, Free State and		
Northern Cape Provinces		
Droogfontein II – 132kV power line and substation	SunEdison	Project leader,
near Kimberley, Northern Cape Province		environmental consultant
Mookodi Integration Project II – 132kV Power Line,	Eskom Distribution	Project leader,
Havelock Loop-in/Loop-out, Ganyesa Substation,		environmental consultant,
North West Province		wetland specialist

Project Name & Location	Client Name	Role
Environmental Compliance Auditing for the Nigel	Eskom Distribution	Environmental auditor
Substation to Jameson Park (Inland Terminal 2) 88kV		
power lines		
Ga-rankuwa 11kV Underground Power Cable Water	Eskom Distribution	Project leader,
Use License Compliance Audit, Gauteng Province		environmental auditor

## Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Water Use License / General Authorisation for Ga-	Eskom Distribution	Project leader,
rankuwa Substation, Gauteng Province		environmental consultant,
		wetland specialist
Water Use License / General Authorisation for	Eskom Distribution	Project leader,
Klevebank to Dalkieth 88kV Power Line, Gauteng		environmental consultant,
Province		wetland specialist
Water Use License Application for the Frankfort	Eskom Distribution	Project leader,
Strengthening Project: 88kV Power Line from Heilbron		environmental consultant,
(via Frankfort) to Villiers, Free State Province		wetland specialist
Water Use License / General Authorisation Proposed	Eskom Distribution	Project leader,
Tweespruit to Welroux Power Line and Substations,		environmental consultant,
Free State Province		wetland specialist

## **MINING SECTOR PROJECTS**

Project Name & Location	Client Name	Role
Karowe Diamond Mine Environmental Management	Karowe Diamond Mine	Environmental consultant
Plan Review and Update, Boteti District, Botswana		/

Project Name & Location	Client Name	Role
Post-rehabilitation Assessment of Three Wetland	Chemwes (Pty) Ltd	Environmental auditor
Crossing Sites for the Re-working of a Tailings Dam		
Project near Stilfontein, North West Province		

### **TRANSPORT SECTOR PROJECTS**

### **Basic Assessments**

Project Name & Location	Client Name	Role
Polokwane Integrated Rapid Public Transport	City of Polokwane	Environmental consultant,
Network, Limpopo Province		wetland specialist

## **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
Transnet Rail Water Use License Compliance Audit,	Hatch-Goba / Transnet	Environmental auditor
Northern Cape Province		

## Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Water Use Licensing for the Polokwane Integrated	City of Polokwane	Environmental consultant,
Rapid Public Transport Network, Limpopo Province		wetland specialist
General Authorisation for the proposed eThekwini	Nako Iliso	Environmental consultant,
Integrated Rapid Public Transport Network (IRPTN) -		wetland specialist
BRT Phase 1: Route C1A, General Authorisation and		
Risk Assessment, Kwa-Zulu Natal Province		

# INFRASTRUCTURE DEVELOPMENT PROJECTS (BRIDGES, PIPELINES, ROADS, WATER RESOURCES, STORAGE, ETC)

### **Basic Assessments**

Project Name & Location	Client Name	Role
Sir Lowry's Pass River Flood Alleviation Project,	City of Cape Town	Environmental consultant
Western Cape Province		

### **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
Wetland Post-rehabilitation Assessment of the Inland	Transnet SOC Ltd	Wetland specialist
New Multi-Purpose Pipeline in the Mpumalanga and		
Gauteng Provinces		

### **HOUSING AND URBAN PROJECTS**

## **Screening Studies**

Project Name & Location	Client Name	Role
Social Housing Projects in Sasolburg and Secunda,	Provincial Department of	Environmental consultant,
Gauteng Province	Human Settlements	wetland specialist

## **INDUSTRIAL PROJECTS**

### **Basic Assessments**

Project Name & Location	Client Name	Role
SPAR Distribution Centre, Port Elizabeth, Eastern	SPAR Group Ltd	Project leader,
Cape Province		environmental consultant,
		wetland specialist

## **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
Environmental Compliance Auditing for the	Meadow Feeds	Environmental consultant,
Meadow Feeds Standerton Broiler Feed Mill,		wetland specialist
Mpumalanga Province		

## Environmental Permitting, S53, Water Use Licence (WUL), Waste Management Licence (WML) & Other Applications

Project Name & Location	Client Name	Role
Water Use License for the SPAR Distribution Centre,	SPAR Group Ltd	Project leader,
Port Elizabeth, Eastern Cape Province		environmental consultant,
		wetland specialist
Water Use License for the Proposed Tissue	Twinsaver Group	Project leader,
Manufacturing Capacity at the Kliprivier Operations		environmental consultant,
Base, General Authorisation and Risk Assessment,		wetland specialist
Gauteng Province		

## **ENVIRONMENTAL MANAGEMENT TOOLS**

## **Strategic Environmental Assessments**

Project Name & Location	Client Name	Role
Molemole Local Municipality Strategic	Capricorn District Municipality	Environmental consultant,
Environmental Assessment, Limpopo Province		wetland specialist
Blouberg Local Municipality Strategic Environmental	Capricorn District Municipality	Environmental consultant,
Assessment, Limpopo Province		wetland specialist

### **SPECIALIST STUDIES**

## Wetland and Riparian Delineation, Functional and Impact Assessments

Project Name & Location	Client Name	Role
Surface Water Assessment for the Construction of a	Mainstream Renewable	Wetland specialist
Wind Farm in Prieska, Northern Cape Province	Power South Africa	
Surface Water Assessment for the Construction of a	Mainstream Renewable	Wetland specialist
Wind Farm in Loeriesfontein, Northern Cape Province	Power South Africa	
Surface Water Assessment for the Construction of a	Eskom Distribution	Wetland specialist
132KV Distribution Line from the Kudu Substation to		
Dorstfontein Substation in Mpumalanga Province		
EIA for the Thyspunt Transmission Lines Integration	Eskom Transmission	Wetland specialist
Project: Surface Water Impact Assessment Report –		
EIA – Northern Corridor: Eastern Cape Province		
EIA for the Thyspunt Transmission Lines Integration	Eskom Transmission	Wetland specialist
Project: Surface Water Impact Assessment Report –		
EIA – Southern Corridor: Eastern Cape Province		

Curtain Mater Assessment for the Countries of a	Mainstraging Danguarhla	Matternal and a initiat
Surface Water Assessment for the Construction of a	Mainstream Renewable	Wetland specialist
CSP and a CPV/ PV Plant in De Aar, Northern Cape	Power South Africa	
Province		
Environmental Management Framework for the	Mogale City	Wetland specialist
Mogale City Local Municipality Surface Water		
Report – Desired State Report: Gauteng Province		
Surface Water Assessment for the Proposed	Steve Tshwete Local	Wetland specialist
Township Development on the Remainder of Portion	Municipality	
27 of the Farm Middelburg and Townsland 287 JS,		
Mpumalanga Province		
Surface Water Assessment for the Construction of a	Mainstream Renewable	Wetland specialist
CSP and a CPV/ PV Plant in De Aar, Northern Cape	Power South Africa	
Province		
Surface Water Assessment for the Construction of a	Mainstream Renewable	Wetland specialist
CSP and a CPV/ PV Plant in Kimberley, Northern	Power South Africa	
Cape Province, South Africa		
Surface Water Assessment for the Westrand	Eskom Distribution	Wetland specialist
Strengthening Project from Westgate Substation to		
Hera Substation and Westgate Substation Extension,		
Gauteng Province		
Mookodi Integration Project 2 Basic Assessment	Eskom Distribution	Wetland specialist
Surface Water Impact Assessment, North West		·
Province		
Surface Water Assessment for the Construction of a	Eskom Distribution	Wetland specialist
Gabion Structure at Waterval Substation in the		,
Midrand Area, Gauteng Province		
Surface Water Assessment for the Proposed	Eskom Transmission	Wetland specialist
Construction of a Single 400kV Power Line from		
Borutho to Nzhlele, North West Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of an 88kv Power Line at Palmridge in	Eskern Bismberien	Trenana specialisi
the Ekurhuleni Metropolitan Municipality, Gauteng		
Province		
Surface Water Assessment for the Proposed	SolarReserve South Africa	Wetland specialist
Construction of a 19MW Photovoltaic Solar Power	(Pty) Ltd	Wellaria specialisi
Plant near Danielskuil, Northern Cape Province	(1 Ty) ETG	
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Rebuilding of an 88kV Power Line from Henneman	LOVOLLI DISTILIDUTIOLI	welland specialist
_		
Substation to Serfontein Substation near Kroonstad,		
Free State Province	Faka na Diahila dia a	We then done = = = :=!!!!
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Deconstruction and Construction of an 11kV Power		
Line near Delmas, Mpumalanga Province	1 2 1 1 2 2 2	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Surface Water Assessment for the Proposed	Renosterberg Wind Energy	Wetland specialist
Construction of a Solar Photovoltaic Power Plant	Corporation (RWEC) &	
near De Aar, Northern Cape Province, South Africa	Industrial Development	4
	Corporation (IDC) of South	
	Africa	
Surface Water Assessment for the Proposed	Renosterberg Wind Energy	Wetland specialist
Construction of a Wind Farm near De Aar, Northern	Corporation (RWEC) &	
Cape Province	Industrial Development	

	Corporation (IDC) of South	
	Africa	
Surface Water Assessment for the Proposed	Makole Property	Wetland specialist
Construction of a Low-Cost Housing Development in	Development	Wellaria specialisi
the Soutpan area of Tshwane, Gauteng Province	Bevelopmen	
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of a 132kV Power Line near Kimberley,	ESKOTT DISTRIBUTION	Wellaria specialisi
Northern Cape Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Extension of Delmas Substation and Associated	ESKOTT DISTRIBUTION	Wendra specialisi
Power Lines, Mpumalanga Province, South Africa		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of a Substation in the Midrand area of	ESKOTT DISTRIBUTION	Wellaria specialisi
Gauteng Province		
Surface Water Assessment for the Construction of an	Eskom Distribution	Wetland specialist
88kV Power Line at Lochyaal Kudu in the Emfuleni	ESKOTT DISTRIBUTION	Wendra specialisi
Municipality, Gauteng Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
construction of an 88kV Power Line from Klevebank		enana specialisi
Substation to Dalkeith Substation, Gauteng Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of an 88kV Power Line from Heilbron	Eskerr Bismeener	Wendra specialisi
Substation to Villiers Substation, Free State Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of a 132kV Power Line, Substation and	Eskerr Bismeener	Wendra specialisi
the Extension of Homestead Substation Associated		
with the 75MW Concentrating Photovoltaic (CPV) /		
Photovoltaic (PV) Plant (PV 3) on the Farm		
Droogfontein in Kimberley, Northern Cape Province		
Surface Water Assessment for the Moddershaft	Eskom Distribution	Wetland specialist
Underground to Overhead Cable Replacement of		
an 11kV Power Line from Moddershaft Substation to		
a Minisub near Anzac, Gauteng Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of an 11kV Underground Power Cable		
from Civic Centre to Zola Substation, Gauteng		
Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of a Substation on Portion 265		·
Randjesfontein 405-JR, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Mathibestad Danhauser 33kV		·
Power Line Network, North West Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Mathibestad-		
Danhauser Power Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Mothutlung North		
Power Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Mothutlung South		
Power Line Network, Gauteng Province		

Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Nonyane Madidi		
North Power Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Nonyane Swartdam		
Power Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Rebuild	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Pelly Klipdrift		·
Network, Gauteng and North West Provinces		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Zonderwater Kraal		· ·
Power Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Hammanskraal		
Lusthof Power Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of a Section of the Existing 33kV Klipgat Circle Power		Signal op a signal
Line Network, Gauteng Province		
Surface Water Assessment for the Proposed Re-build	Eskom Distribution	Wetland specialist
of Sections of the Existing 33kV Erasmus Aviva Power		Trana specialist
Line Network, Gauteng Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction of an 11kV Underground Power Cable	ESKOTT DISTINUTION	wellaria specialisi
at the Ga-Rankuwa Substation, Gauteng Province		
Surface Water Assessment for the Mamatwan	Groundwater Consulting	Wetland specialist
	Services (Pty) Ltd	welland specialisi
Manganese Mine, Northern Cape Province	Mainstream Renewable	Watland specialist
Surface Water Assessment for the Dwarsrug Wind	Power South Africa	Wetland specialist
Farm, Northern Cape Province		NA/- Have all are a similar
Surface Water Assessment for the Manzimtoti Sewer	Environmental Planning and	Wetland specialist
Line Project, Kwa-Zulu Natal Province	Design cc	NA/- Have all are a similar
Surface Water Assessment for the Compensation	Tongaat Hulett	Wetland specialist
Flats Development, Kwa-Zulu Natal Province	T	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Surface Water Assessment for the Tinley Manor South	Tongaat Hulett	Wetland specialist
Road Development, Kwa-Zulu Natal Province		
Surface Water Assessment for the Ntuzuma Sewer	Environmental Planning and	Wetland specialist
Line Project, Kwa-Zulu Natal Province	Design cc	
Surface Water Assessment for the Esphiva Sewer Line	Environmental Planning and	Wetland specialist
Project, Kwa-Zulu Natal Province	Design cc	
Frankfort 132kV Power Line Wetland Walk-down	Eskom Distribution	Wetland specialist
Assessment, Free State Province		
Surface Water Assessment for the Proposed	Environmental Planning and	Wetland specialist
Construction of the Esphiva Water Pipeline near	Design cc	
Ulundi, KwaZulu-Natal Province		
Surface Water Assessment for the Grootvlei Power	Eskom Generation	Wetland specialist
Station, Mpumalanga Province		
Surface Water Assessment for the Proposed	Nzingwe Consultancy	Wetland specialist
Construction of the Embangweni and Bhekabantu		
Irrigation Schemes, KwaZulu-Natal Province		
Surface Water Assessment for the Proposed	Nzingwe Consultancy	Wetland specialist
Construction of the Nondabuya and Khwehle		/ ///

Primary Agriculture Schemes, KwaZulu-Natal		
Province		
	Nain and Canada tanada	Waterdanasistist
Surface Water Assessment for the Proposed	Nzingwe Consultancy	Wetland specialist
Expansion of the Makhathini Irrigation Scheme,		
KwaZulu-Natal Province		
Surface Water Assessment for the Proposed	Nzingwe Consultancy	Wetland specialist
Construction of the Mbaliyezwe Irrigation Schemes,		
KwaZulu-Natal Province		
Surface Water Assessment for the Proposed Mixed	Steve Tshwete Local	Wetland specialist
Use Development on the Remainder of Portion 27 of	Municipality	
the Farm Middelburg Town and Townlands 287 JS,		
Steve Tshwete Local Municipality in the		
Mpumalanga Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of Two Power Lines and Two	Power South Africa	
Substations for the Mainstream Wind Facilities near		
Beaufort West, Western Cape Province		
Surface Water Assessment for the Proposed	Nako Iliso	Wetland specialist
eThekwini Integrated Rapid Transport Network		
(IRPTN) – Bus Rapid Transport (BRT) Phase 1: Route		
C1A, KwaZulu-Natal Province		
Surface Water Assessment for the Proposed Coal	Canyon Coal	Wetland specialist
Railway Siding at the Welbedacht Marshalling Yard	,	'
and associated Milder Road Upgrade near Springs,		
Gauteng Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Development of a 22kV Medium Voltage Power Line		The married operation
in Mofofutso, North West Province		
Wetland Walk-down Assessment for the Mookodi	Eskom Distribution	Wetland specialist
Integration Power Line Project, North West Province		The married operation
Surface Water Assessment for the Proposed	Canyon Coal	Wetland specialist
Construction of a Coal Loading Facility within the	Carryon Coar	Wendra specialist
existing Bronkhorstspruit Railway Siding near		
Bronkhorstspruit, Gauteng Province		
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
•	Biomerm Energy	wellaria specialisi
Construction of the Two 75MW Tlisitseng Solar		
Photovoltaic Energy Facilities near Lichtenburg,		
North West Province	D'. II	Well and a second for
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Two 75MW Sendawo Solar		
Photovoltaic Energy Facilities near Lichtenburg,		
North West Province		
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Sendawo Solar Substation and		
associated 400kV Power Line near Lichtenburg,		
North West Province		
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Helena 1, 2 & 3 Photovoltaic		
Energy Facilities near Copperton, Northern Cape		
Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of a 70MW Photovoltaic Facility and	Power South Africa	

132kV Power Line near Loeriesfontein, Northern		
Cape Province		
Surface Water Assessment for the Proposed	Twinsaver Group	Wetland specialist
Expansion of the Tissue Manufacturing Capacity at		, s. a. a. sp. s. a. a.
the Kliprivier Operations Base, Gauteng Province		
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Eureka West 140MW Wind Farm	Biomerm Energy	Welland specialist
near Copperton, Northern Cape Province		
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Eureka East 140MW Wind Farm	Biomerm Energy	wellaria specialisi
near Copperton, Northern Cape Province		
	Piothorm Engrav	Watland an acidist
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Eureka 132kV Power Line near		
Copperton, Northern Cape Province	5: 4/ 5	
Surface Water Assessment for the Proposed	Biotherm Energy	Wetland specialist
Construction of the Aletta 140MW Wind Farm near		
Copperton, Northern Cape Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Ithemba Wind Farm, Northern	Power South Africa	
Cape Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Harte Beeste Leegte Wind Farm,	Power South Africa	
Northern Cape Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Gras Koppies Wind Farm,	Power South Africa	
Northern Cape Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Xha! Boom Wind Farm, Northern	Power South Africa	
Cape Province		
Surface Water Assessment for the Proposed	Shangoni Management	Wetland specialist
Expansion of the Mountain Valley "A" Grade	Services (Pty) Ltd	
Chicken Abattoir on the Remainder of Subdivision of		
Portion 17 (of 16) of the Farm Leeuw Poort 1120 FT,		
KwaZulu-Natal Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of a Linking Station, Power Lines and	Power South Africa	,
Substations for the Mainstream Wind Energy Facilities		
near Beaufort West, Western Cape Province		
Surface Water Assessment for the Proposed	Eskom Distribution	Wetland specialist
Construction 132kV Power Lines and a Substation for		
Tsakane Ext 10 and 22, Gauteng Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Harte Beeste Leegte Wind Farm,	Power South Africa	Trendina specialisi
Northern Cape Province	, swel soom Amed	
	Mainstream Renewable	Watland specialist
Surface Water Assessment for the Proposed		Wetland specialist
Construction of the Ithemba Wind Farm, Northern	Power South Africa	
Cape Province	Atainaka aus Deus 111	Mothers days a significant
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Gras Koppies Wind Farm,	Power South Africa	
Northern Cape Province		

Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of the Xha! Boom Wind Farm, Northern	Power South Africa	
Cape Province		
Surface Water Assessment for the Proposed	SPAR Group Ltd	Wetland specialist
Construction of the SPAR Distribution Centre, Port		
Elizabeth, Eastern Cape Province		
Surface Water Assessment for the Proposed	Mainstream Renewable	Wetland specialist
Construction of a 140MW Wind Farm and Associated	Power South Africa	
Infrastructure near Hutchison, Northern Cape		
Province		
Surface Water Assessment for the Proposed	Gedezar Consulting	Wetland specialist
Maintenance of the Water Pipeline in Parys,		
Ngwathe Local Municipality, Free State Province		
Surface Water Assessment for the Proposed	Canyon Coal	Wetland specialist
Construction of the Rietkuil Coal Railway Siding near		
Bronkhorstspruit, Gauteng Province		
Surface Water Assessment for the Proposed	Nokukhanya Energy (Pty) Ltd	Wetland specialist
Construction of a 75MW Solar Photovoltaic Power		
Plant near Dennilton, Limpopo Province		
Surface Water Assessment for the Proposed	Leeudoringstad Solar Plant	Wetland specialist
Construction of a 9.9 MW Solar Photovoltaic (PV)	(Pty) Ltd	
Energy Facility on the Farm Wildebeestkuil near		
Leeudoringstad, North West Province		
Surface Water Assessment for the Proposed	Leeudoringstad Solar Plant	Wetland specialist
Construction of up to a 5MW Solar Photovoltaic (PV)	(Pty) Ltd	
Energy Facility on Portion 37 of the Farm		
Leeuwbosch No. 44 near Leeudoringstad, North		
West Province		
Surface Water Assessment for the Proposed	SunEdison	Wetland specialist
Construction of the De Wildt Solar Photovoltaic		
Power Plant, Gauteng Province		

# Wetland and Riparian Rehabilitation Plans

Project Name & Location	Client Name	Role
Wetland and River Rehabilitation Plan for the	Eskom Distribution	Wetland specialist
Fourways 22kV Feeder Cable, Gauteng Province		
Wetland and Riparian Rehabilitation Plan for the	eThekwini Metropolitan	Wetland specialist
Proposed eThekwini Integrated Rapid Transport	Municipality	
Network (IRPTN) – Bus Rapid Transport (BRT) Phase 1:		
Route C1A, KwaZulu-Natal Province		
Wetland Rehabilitation Plan for the Delmas	Canyon Coal	Wetland specialist
Pedestrian Bridge, Mpumalanga Province		
Wetland Remediation Plan for the Graspan Colliery	GiBB	Wetland specialist
Extension on the Remaining Extent of Portion 31 on		
the Farm Elandspruit 291 JS, Mpumalanga Province		

## **Wetland Offset Plans**

Project Name & Location	Client Name	Role

Wetland Offset Plan for the Proposed Construction	SPAR Group Ltd	Wetland specialist
of the SPAR Distribution Centre, Port Elizabeth,		
Eastern Cape Province		

Performance Standards & Equator Principles)		
EMP for the Phase 1 of the Elitheni Coal Mine	Elitheni Coal	Environmental Advisor
Project, Eastern Cape		
Gap Analysis of Environmental Management	Venture Diversified Products	Environmental Advisor
Systems (EMS) with ISO 14001:2004		
Development of Provincial Guidelines for 4x4 routes	Western Cape Department of	Environmental Advisor
	Environmental Affairs &	
	Development Planning	
Permitting Study on the Status of Renewable Energy	E.ON	Environmental Advisor
Projects in South Africa		
Practical review of EGI SEA	CSIR	Environmental Advisor
Development & Implementation of the	UBS AG	Environmental Advisor
Environmental Management Systems (EMS) with ISO		
14001:2004 for the UBS Office in Sandton, Gauteng		
Resource & Efficiency Plans for the operation phase	Mulilo and X-Elio	Environmental Advisor
of the Mulilo Solar PV De Aar and Mililo Solar PV		
Prieska		

# **TRAINING**

Project Name & Location	Client Name	Role
Hendrina Power Station Environmental Law Training	Eskom Holding	Project Manager
Radar Training for NCC Biologists	EchoTracks	Project Manager



1st Floor, Block 2, 5 Woodlands Drive Office Park Woodlands Drive, Woodmead Johannesburg, South Africa

> Email: gabriele@savannahsa.com Tel: +27 (11) 656 3237

### **CURRICULUM VITAE OF NICOLENE VENTER**

**Profession:** Public Participation and Social Consultant

**Specialisation:** Public participation process; stakeholder engagement; facilitation (workshops, focus

group and public meetings; public open days; steering committees); monitoring and

evaluation of public participation and stakeholder engagement processes

Work Experience: 21 years' experience as a Public Participation Practitioner and Stakeholder Consultant

#### **VOCATIONAL EXPERIENCE**

Over the past 21 years Nicolene established herself as an experienced and well recognised public participation practitioner, facilitator and strategic reviewer of public participation processes. She has experience in managing public participation projects and awareness creation programmes. Her experience includes designing and managing countrywide public participation and awareness creation projects, managing multi-project schedules, budgets and achieving project goals. She has successfully undertaken several public participation processes for EIA, BA and WULA projects. The EIA and BA process include linear projects such as the NMPP, Eskom Transmission and Distribution power lines as well as site specific developments such as renewable energy projects i.e. solar, photo voltaic and wind farms. She also successfully managed stakeholder engagement projects which were required to be in line with the Equator Principles.

### **SKILLS BASE AND CORE COMPETENCIES**

- Project Management
- Public Participation, Stakeholder Engagement and Awareness Creation
- Public Speaking and Presentation Skills
- Facilitation (workshops, focus group meetings, public meetings, public open days, working groups and committees)
- Social Assessments (Stakeholder Analysis / Stakeholder Mapping)
- Monitoring and Evaluation of Public Participation and Stakeholder Engagement Processes
- Community Liaison
- IFC Performance Standards
- Equator Principles
- Minute taking, issues mapping, report writing and quality control

### **EDUCATION AND PROFESSIONAL STATUS**

### Degrees:

Higher Secretarial Certificate, Pretoria Technicon (1970)

### **Short Courses:**

- Techniques for Effective Public Participation, International Association for Public Participation (IAP2) (2008)
- Foundations of Public Participation (Planning and Communication for Effective Public Participation, IAP2 (2009)
- Certificate in Public Relations, Public Relation Institute of South Africa (Damelin Management School (1989)

### **Professional Society Affiliations:**

Board Member of International Association for Public Participation (IAP2): Southern Africa

## **EMPLOYMENT**

Date	Company	Roles and Responsibilities
2016 – Current	Independent Consultant Imaginative Africa (Pty) Ltd	Consulting to various Environmental Assessment Practitioners for Public Participation and Stakeholder Engagements: Tasks include: Drafting of a Public Participation Plan with key deliverable dates and methodology to be followed, Background Information Document, Letters to Stakeholders and Interested and/or Affected Parties (I&APs) inclusive of key project deliverables and responses to questions / concerns raised; Stakeholder identification; facilitating stakeholder workshops, focus group and public meetings; conduct one-on-one consultation with Community Leaders, Tribal Chiefs, affected landowners, etc.
		Managing interaction between Stakeholders and Team Members, liaising with National, Provincial and Local Authorities, managing community consultation and communications in project affected areas, attend to the level of technical information communicated to and consultation with all level of stakeholders involved Clients:  SiVEST Environmental, Savannah Environmental, Baagi Environmental; Royal Haskoning DHV (previously SSI)
2013 - 2016	Senior Public Participation Practitioner Zitholele Consulting	Project Manager Project managed public participation process for EIA/BA/WULA/EAL projects. Manages two Public Participation Administrators. Public Participation

Date	Company	Roles and Responsibilities
		tasks as outlined as above and including financial
		management of public participation processes.
2011 - 2013	Independent Consultant Imaginative Africa (Pty) Ltd	Consulting to various Environmental Assessment Practitioners for Public Participation and Stakeholder Engagements: Tasks include: Drafting of a Public Participation Plan with key deliverable dates and methodology to be followed, Background Information Document, Letters to Stakeholders and Interested and/or Affected Parties (I&APs) inclusive of key project deliverables and responses to questions / concerns raised; Stakeholder identification; facilitating stakeholder workshops, focus group and public meetings; conduct one-on-one consultation with Community Leaders, Tribal Chiefs, affected landowners, etc.
		Managing interaction between Stakeholders and Team Members, liaising with National, Provincial and Local Authorities, managing community consultation and communications in project affected areas, attend to the level of technical information communicated to and consultation with all level of stakeholders involved Clients:  Bohlweki Environmental, Bembani Sustainability (Pty) Ltd; Naledzi Environmental
2007 – 2011	Unit Manager: Public Participation	Unit Manager
2007 2011	Practitioner SiVEST SA (Pty) Ltd	Project managed public participation process for EIA/BA projects. Manages two Junior Public Participation Practitioners. Public Participation tasks as outlined as above and including financial management of public participation processes.
2005 - 2006	Independent Consultant Imaginative Africa (Pty) Ltd	Public Participation and Stakeholder Engagement Practitioner. Tasks include: Drafting of a Public Participation Plan with key deliverable dates and methodology to be followed, Background Information Document, Letters to Stakeholders and Interested and/or Affected Parties (I&APs) inclusive of key project deliverables and responses to questions / concerns raised; Stakeholder identification; facilitating stakeholder workshops, focus group and public meetings; conduct one-on-one consultation with Community Leaders, Tribal Chiefs, affected landowners, etc.  Managing interaction between Stakeholders and Team Members, liaising with National, Provincial and Local Authorities, managing community consultation and communications in project affected areas, attend to the level of technical

Date	Company	Roles and Responsibilities
		information communicated to and consultation with all level of stakeholders involved. <u>Clients:</u> Manyaka-Greyling-Meiring (previously Greyling Liaison and currently Golder Associates)
2004 – 2005	Personal Assistant National Intelligence Agency	Responsibilities:  Upkeep of diary; Review and ensure Submissions are compliant to Regulations; Travel arrangements (domestic & international); Compilation of travel reports
1997 - 2004	Independent Consultant Imaginative Africa (Pty) Ltd	Public Participation Practitioner. Tasks include: Drafting of a Public Participation Plan with key deliverable dates and methodology to be followed, Background Information Document, Letters to Stakeholders and Interested and/or Affected Parties (I&APs) inclusive of key project deliverables and responses to questions / concerns raised; Stakeholder identification; facilitating stakeholder workshops, focus group and public meetings; conduct one-on-one consultation with Community Leaders, affected landowners, etc.
		Managing interaction between Stakeholders and Team Members, liaising with National, Provincial Local Authorities, managing community consultation and communications in project affected areas, attend to the level of technical information communicated to and consultation with all level of stakeholders involved.  Clients:  Greyling Liaison (currently Golder Associates); Bembani Sustainability (Pty) Ltd; Lidwala Environmental; Naledzi Environmental

### PROJECT EXPERIENCE

### Renewable Power Generation Projects: Solar Energy Facilities

### Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Tlisitseng PV, Substations & Power Lines,	BioTherm Energy (Pty) Ltd	Public Participation,
Lichtenburg, North West Province	EAP: SIVEST	Landowner and
Sendawo PVs, Substations & Power Lines, Vryburg,	7	Community
North West Province		Consultation
Helena Solar 1, 2 and 3 PVs, Copperton, Northern	7	
Cape Province		
Farm Spes Bona 23552 Solar PV Plants,	Surya Power (Pty) Ltd	Public Participation,
Bloemfontein, Free State Province	EAP: SIVEST	Landowner and

		Community
		Consultation
De Aar Solar Energy Facility, De Aar, Northern	South Africa Mainstream	Public Participation,
Cape Province	Renewable Power	Landowner and
Droogfontein Solar Energy Facility, Kimberley,	Developments (Pty) Ltd	Community
Northern Cape Province	EAP: SIVEST	Consultation
Kaalspruit Solar Energy Facility, Loeriesfontein,		
Northern Cape Province		
Platsjambok East PV, Prieska, Northern Cape		
Province		
Renosterburg PV, De Aar, Northern Cape Province	Renosterberg Wind Energy	Public Participation,
	Company (Pty) Ltd	Landowner and
	EAP: SIVEST	Community
		Consultation
19MW Solar Power Plant on Farm 198 (Slypklip),	Solar Reserve South Africa (Pty)	Public Participation,
Danielskuil, Northern Cape Province	Ltd	Landowner and
	EAP: SIVEST	Community
		Consultation

#### Renewable Power Generation Projects: Wind Energy Facilities

#### **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Aletta Wind Farm, Copperton, Northern Cape	BioTherm Energy (Pty) Ltd	Public Participation
Province	EAP: SIVEST	
Eureka Wind Farm, Copperton, Northern Cape		
Province		
Loeriesfontein Wind Farm, Loeriesfontein, Northern	South Africa Mainstream	Public Participation
Cape Province	Renewable Power	
Droogfontein Wind Farm, Loeriesfontein, Northern	Developments (Pty) Ltd	
Cape Province	EAP: SIVEST	
Four Leeuwberg Wind Farms, Loeriesfontein,		
Northern Cape Province		
Noupoort Wind Farm, Noupoort, Northern Cape		
Province		
Mierdam PV & Wind Farm, Prieska, Northern Cape		
Province		
Platsjambok West Wind Farm & PV, Prieska,		
Northern Cape Province		

### Renewable Power Generation Projects: Concentrated Solar Facilities (CSP)

### **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Upington Concentrating Solar Plant and	Eskom Holdings SOC Ltd	Public Participation
associated Infrastructures	EAP: Bohlweki Environmental	

#### **Grid Infrastructure Projects**

#### **Environmental Impact Assessments and Environmental Management Programmes**

,	Project Name & Location	Client Name	Role
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Pluto-Mahikeng Main Transmission Substation and	Eskom Holdings SOC Ltd	
400kV Power Line (Carletonville to Mahikeng),	Baagi Environmental	
Gauteng and North West Provinces		
Thyspunt Transmission Lines Integration Project,	Eskom Holdings SOC Ltd	Public Participation,
Eastern Cape Province	EAP: SIVEST	Landowner and
		Community Consultation
Westrand Strengthening Project, Gauteng Province		
Mookodi Integration Project, North-West Province		Public Participation,
Transnet Coallink, Mpumalanga and KwaZulu-Natal		Toblic Famelpallon,
Provinces		
Delarey-Kopela-Phahameng Distribution power line		
and newly proposed Substations, North-West		Public Participation,
Province		Landowner and
Invubu-Theta 400kV Eskom Transmission Power Line,	Eskom Holding SOC Ltd	Community Consultation
KwaZulu-Natal Province	EAP: Bembani Environmental	

### Basic Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role
Melkhout-Kudu-Grassridge 132kV Power Line	Eskom Holdings SOC Ltd	Public Participation,
Project (project not submitted to DEA), Eastern	EAP: SIVEST	Landowner and
Cape Province		Community Consultation
Tweespruit-Welroux-Driedorp-Wepener 132Kv		Public Participation,
Power Line, Free State Province		Landowner and
		Community Consultation
Kuruman 132Kv Power Line Upgrade, Northern	Eskom Holdings SOC Ltd	Public Participation,
Cape Province	EAP: Zitholele	Landowner and
		Community Consultation
Vaalbank 132Kv Power Line, Free State Province		Public Participation,
		Landowner and
		Community Consultation
Pongola-Candover-Golela 132kV Power Line		Public Participation,
(Impact Phase), KwaZulu-Natal Province		Landowner and
		Community Consultation
Ndumo-Geziza 132kV Power Line, KwaZulu-Natal		Public Participation,
Province		Landowner and
		Community Consultation

### **Power Generation Sector Projects**

Project Name & Location	Client Name	Role
Medupi Flue Gas Desulphurisation Project (up to	Eskom Holdings SOC Ltd	Public Participation,
completion of Scoping Phase), Limpopo Province	EAP: Zitholele Consulting	Landowner and
Kendal 30-year Ash Disposal Facility, Mpumalanga		Community Consultation
Province		
Kusile 60-year Ash Disposal Facility		
Camden Power Station Ash Disposal Facility,		
Mpumalanga Province		/
Tutuka Fabric Filter Retrofit and Dust Handling Plant	Eskom Holdings SOC Ltd	Public Participation,
Projects, Mpumalanga Province	Lidwala Environmental	Landowner and
		Community Consultation

Eskom's Majuba and Tutuka Ash Dump Expansion,	Public Participation,
Mpumalanga Province	Landowner and
	Community Consultation
Hendrina Ash Dam Expansion, Mpumalanga	Public Participation,
Province	Landowner and
	Community Consultation

### **Basic Assessments**

Project Name & Location	Client Name	Role
Proposed Realignment of the Bulshoek Dam Weir	Applicant: Dept of Water and	Public Participation
near Klawer and the Doring River Weir near	Sanitation	
Clanwilliam, Western Cape Province	EAP: Zitholele	

### **Environmental Authorisation Amendments**

Project Name & Location	Client Name	Role
Proposed Beaufort West 280MW Wind Farm into two	South Africa Mainstream	Public Participation
140MW Trakas and Beaufort West Wind Farms,	Renewable Power	
Western Cape Province	Developments (Pty) Ltd	
	EAP: SIVEST	

### Infrastructure Development Projects (bridges, pipelines, roads, etc)

### **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
Transnet's New Multi-Products Pipeline	Transnet	Public Participation
	DEAP: Bohlweki	
	Environmental	

### **Screening Studies**

Project Name & Location	Client Name	Role
Environmental Screening Study for potential power	Nelson Mandela Bay	Social Assessment
line alternatives from Humansdorp to Port Elizabeth,	Municipality	
Eastern Cape Province	EAP: SIVEST	

#### **Mining Sector**

### Environmental Impact Assessment and Environmental Management Programme

Project Name & Location	Client Name	Role
Koffiefontein Slimes Dam	Petra Diamond Mines	Public Participation
	EAP: Zitholele	
Baobab Project: Ethenol Plant, Chimbanje, Middle	Applicant: Green Fuel	Public Participation &
Sabie, Zimbabwe	(Private) Limited	Community Consultation
	EAP: SIVEST	
BHP Billiton Energy Coal SA's Middelburg Water	BHP Billiton Group	Public Participation
Treatment Plant, Mpumalanga Province	EAP: Jones & Wagener	

### **Facilitation**

Project Name & Location	Client Name	Meeting Type
Bloemfontein Strengthening Project	Eskom Holdings SOC Ltd	Public Meetings
	EAP: Baagi Environmental	
Mooidraai-Smitkloof 132kV Power Line and	Eskom Holdings SOC Ltd	Focus Group Meetings
Substation, Northern Cape Province	EAP: SSI	
Thabametsi IPP Power Station, Limpopo Province	Thabametsi Power Company	Focus Group Meeting &
	Proprietary Limited	Public Meeting
	EAP: Savannah Environmental	
Aggeneis-Oranjemond 400kV Eskom Transmission	Eskom Holdings SOC Ltd	Focus Group Meetings &
Power Line, Northern Cape Province	EAP: Savannah Environmental	Public Meetings
Ariadne-Eros 400kV/132kV Multi-Circuit Transmission	Eskom Holdings SOC Ltd	Public Meetings
Power Line (Public Meetings)	EAP: ACER Africa	
Majuba-Venus 765kV Transmission Power Lines		Public Meetings
SmancorCR Chemical Plant (Public Meeting)	Samancor Chrome (Pty) Ltd	Public Meeting
	EAP: Environment al Science	
	Associates	

### Stakeholder Engagement

Project Name & Location	Client Name	Role
Determination, Review and Implementation	Department of Water and	Secretarial Services
of the Reserve in the Olifants/Letaba System	Sanitation	
Orange River Bulk Water Supply System	Golder Associates	
Levuvu-Letaba Resources Quality Objectives		

### Short CV/Summary of Expertise - Simon Todd



Simon Todd Pr.Sci.Nat
Director & Principle Scientist
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O: 021 782 0377
Simon.Todd@3foxes.co.za

60 Forrest Way Glencairn 7975 eople & the Environm

Simon Todd is Director and principal scientist at 3Foxes Biodiversity Solutions Pty Ltd (Reg. 2016/467883/07) and has over 20 years of experience in biodiversity measurement, management and assessment. He has provided specialist ecological input on more than 200 different developments distributed widely across the country, but with a focus on the three Cape provinces. This includes input on the Wind and Solar SEA (REDZ) as well as the Eskom Grid Infrastructure (EGI) SEA and Karoo Shale Gas SEA. He is on the National Vegetation Map Committee as representative of the Nama and Succulent Karoo Biomes. Simon Todd is a recognised ecological expert and is a past chairman and current deputy chair of the Arid-Zone Ecology Forum. Simon Todd is registered with the South African Council for Natural Scientific Professions (No. 400425/11).

#### **Abbreviated CV:**

- Profession: Independent Ecological Consultant Pr.Sci.Nat 400425/11
- Specialisation: Plant & Animal Ecology
- Years of Experience: 20 Years

#### Skills & Primary Competencies

- Research & description of ecological patterns & processes in Nama Karoo, Succulent Karoo,
   Thicket, Arid Grassland, Fynbos and Savannah Ecosystems.
- Ecological Impacts of land use on biodiversity
- Vegetation surveys & degradation assessment & mapping
- Long-term vegetation monitoring
- Faunal surveys & assessment.
- GIS & remote sensing

#### *Tertiary Education:*

- 1992-1994 BSc (Botany & Zoology), University of Cape Town
- 1995 BSc Hons, Cum Laude (Zoology) University of Natal
- 1996-1997- MSc, Cum Laude (Conservation Biology) University of Cape Tow

#### **Employment History**

- 2010-Present Self-employed as consultant and sole proprietor of Simon Todd Consulting, which provides ecological specialist services for conservation, research, management and development projects. This has recently been upgraded to a fully registered and compliant company, 3Foxes Biodiversity Solutions.
- 2007-Present Senior Scientist (Associate) Plant Conservation Unit, Department of Botany, University of Cape Town.
- 2004-2007 Senior Scientist (Contract) Plant Conservation Unit, Department of Botany,
   University of Cape Town
- 2000-2004 Specialist Scientist (Contract ) South African National Biodiversity Institute
- 1997 1999 Research Scientist (Contract) South African National Biodiversity Institute

#### General Experience & Expertise

- Conducted a large number of fauna and flora specialist assessments distributed widely across South Africa. Projects have ranged in extent from <50 ha to more than 50 000 ha.
- Widely-recognized arid ecology specialist. Published numerous peer-reviewed scientific publications based on various ecological studies across the country. Past chairman of the Arid Zone Ecology Forum and current executive committee member.
- Extensive experience in the field and exceptional level of technical expertise, particularly with regards to GIS capabilities which is essential with regards to producing high-quality sensitivity maps for use in the design of final project layouts.
- Strong research background which has proved invaluable when working on several ecologically sensitive and potentially controversial sites containing some of the most threatened fauna in South Africa.
- Published numerous research reports as well as two book chapters and a large number of papers in leading scientific journals dealing primarily with human impacts on the vegetation and ecology of the arid and semi-arid parts of South Africa.
- Maintain several long-term vegetation monitoring projects distributed across Namaqualand and the karoo.
- Guest lecturer at two universities and have also served as an external examiner.
- Reviewed papers for more than 10 international ecological journals.
- Past chairman and current committee member of the Arid Zone Ecological Forum.
- SACNASP registered as a Professional Natural Scientist, (Ecology) No. 400425/11.

A selection of recent work is as follows:

#### Specialist Assessments:

### **Strategic Environmental Assessments**

Co-Author. Chapter 7 - Biodiversity & Ecosystems - Shale Gas SEA. CSIR 2016.

Co-Author. Chapter 1 Scenarios and Activities – Shale Gas SEA. CSIR 2016.

Co-Author – Ecological Chapter – Wind and Solar SEA. CSIR 2014.

Co-Author – Ecological Chapter – Eskom Grid Infrastructure SEA. CSIR 2015.

Contributor – Ecological & Conservation components to SKA SEA. CSIR 2017.

Specialist Fauna and Flora Assessments:

#### **Electrical Transmission Infrastructure**

Vryheid Grid Strengthening Project, near Swellendam. Nsovo Environmental Consultants. 2016.

Juno-Gromis 400kV Power Line. Ecological Walk-Through study for EMPr. Nsovo Environmental Consultants. 2017.

Proposed Weskusfleur Substation at Koeberg. Lidwala Consulting Engineers. 2015.

- Proposed Juno-Aurora 765kV Power Line in the Western Cape: Fauna & Flora Specialist Report for Impact Assessment. Nzumbulolo Heritage Solutions 2015.
- The proposed Mookodi Integration Phase 2 132kV Power Lines and Ganyesa Substation near Vryburg, North West Province: Fauna & Flora Specialist Basic Assessment Report. Sivest 2014.
- Basic Assessment Process for the Proposed Construction of the Transnet 7km 50 kV Power Line from Eskom Juno Substation to the proposed new Transnet Juno Traction Feeder Substation. Nsovo Environmental Consulting. 2014.
- Basic Assessment Process for the Proposed Construction of the Transnet 5km 50 kV Power Line from Eskom Aries Substation to the proposed new Transnet Aries Traction Feeder Substation. Nsovo Environmental Consulting. 2014.
- Basic Assessment Process for the Proposed Construction of the Transnet 15km 50 kV Power Line from Eskom Helios Substation to the proposed new Transnet Helios Traction Feeder Substation. Nsovo Environmental Consulting. 2014.
- Burchell-Caprum-Mooidraai 132kV Power Line Fauna & Flora Specialist Report for Basic Assessment.

  Savannah Environmental 2014.
- Proposed Re-Alignment Of The Koeberg Ankerlig VPower Line: Fauna & Flora Specialist Report For Basic Assessment. Savannah Environmental 2014.
- Grid Connection for Redstone Solar Thermal Energy Plant- Redstone Solar Thermal to Olien Mts: Fauna & Flora Specialist Basic Assessment Report. SiVest 2014.
- Grid Connection for Mainstream South Africa Perdekraal Wind Energy Facility. Fauna & Flora Specialist Report for Basic Assessment. ERM 2014.
- Karoshoek Grid Integration Infrastructure. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.
- Garob to Kronos Power Line Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.
- Loeriesfontein Wind Energy Facility Substation & Grid Connection. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.

- Gouda Wind Energy Facility Grid Connection. Walk-Through of Overhead Power Line Gouda WEF to Eskom Windmill Substation. Specialist Report for Savannah Environmental. 2012.
- Proposed Kappa-Omega 765 kV Transmission Line. Fauna, Flora & Ecology Walk-Through Report. Specialist Report for ACER Africa. 2013.

#### **Infrastructure & Mining Developments:**

- Environmental Impact Assessment for the Proposed Putsberg Open Cast Mine Near Pofadder, Northern Cape. Fauna & Flora Specialist Report for EIA. Ecopartners 2013.
- Proposed Establishment of the Gamsberg Zinc Mine, Concentrator Plant and Associated Infrastructure near the Town of Aggeneys, Northern Cape. Fauna & Flora Specialist Report For ESIA. ERM 2013.
- Pella Water Board Infrastructure Upgrade. Fauna & Flora Specialist Report for Basic Assessment. Environmental Resources Management 2012.
- Transnet Manganese Ore Line Upgrade. Fauna & Flora Specialist Report for Basic Assessment. Environmental Resources Management 2012.
- Proposed Vryburg Wastewater Treatment Works: Terrestrial Fauna & Flora Specialist Study for Basic Assessment. Endemic Vision 2013.
- Proposed Mamatwane Compilation Yard, Northern Cape: Fauna & Flora Specialist Report for Impact Assessment. Environmental Resources Management 2013.
- Rare Earth Separation Plant Near Vredendal, Western Cape Province. Fauna & Flora Specialist Report for Basic Assessment. Savannah Environmental 2012.
- Proposed Mocke Poultry Farm: Fauna & Flora Specialist Report for Basic Assessment. Enviroworks 2015.
- Basic Assessment for proposed Neotel Fibre Optic Cable Route 1 from George to Oudtshoorn. Fauna & Flora Specialist Report for Basic Assessment. Enviroworks 2015.
- Basic Assessment for proposed Neotel Route 2 Fibre Optic Cables from Prince Albert Road to Oudtshoorn via the N12. Enviroworks 2015.
- Basic Assessment for proposed Neotel Route 3 Fibre Optic Cables from Oudtshoorn to George via R328 and R102. Enviroworks 2015.
- Basic Assessment for proposed Neotel Route 4 Fibre Optic Cables from Laingsburg to Oudtshoorn via Ladismith along the R323 and R62. Enviroworks 2015.
- Improvements to the Ou Kaapse Weg / Silvermine Road Intersection. Specialist Faunal Study For Basic Assessment. Khula Environmental Consultants, 2012.
- Upgrading of Tourism Facilities at Goegap Nature Reserve. Specialist Ecological Assesment. Van Zyl Environmental Consultants. 2012.
- Plant Sweeps on Portion 2 of the Farm Demaneng 546, Kuruman District, Northern Cape Province for SA Manganese. 2011.

#### **Solar Energy Developments:**

Sol Invictus PV-1-4 Power Plants, near Aggeneys. Fauna and Flora Assessment. Savannah Environmental 2016.

- Illanga Karoshoek CSP 1-5 near Upington. Fauna and Flora Assessment. Savannah Environmental 2016.
- Mogobe, Legoko & Kathu 75MW Solar PV Plants, near Kathu, Northern Cape. Fauna and Flora Assessment. Cape EAPrac. 2015.
- Environmental Impact Assessment for the Proposed Wolmarransstad Solar Energy Facility North West Province. Fauna & Flora Specialist Report for EIA. Savannah Environmental 2015
- Environmental Impact Assessment for the proposed Humansrus Solar PV Energy Facility 1 Near Copperton, Northern Cape: Fauna & Flora Specialist Report for EIA. CapeEAPrac 2015.
- Environmental Impact Assessment for the proposed Humansrus Solar PV Energy Facility 2 Near Copperton, Northern Cape: Fauna & Flora Specialist Report for EIA. CapeEAPrac 2015.
- Environmental Impact Assessment for the proposed Dyasonsklip Solar Energy Facility 1 Near Upington, Northern Cape: Fauna & Flora Specialist Report for EIA. CapeEAPrac 2015.
- Environmental Impact Assessment for the proposed Postmasburg Solar PV Energy Facility 2 and Associated Grid Connection Infrastructure, Postmasburg, Northern Cape. Fauna & Flora Specialist Report for EIA. CapeEAPrac 2015.
- Environmental Impact Assessment for the proposed Joram Solar Vryheid PV Project, Northern Cape. Fauna & Flora Specialist Report for EIA. CapeEAPrac 2015.
- Environmental Impact Assessment for the proposed Richtersveld Solar Farm and Associated Grid Connection Infrastructure. Fauna & Flora Specialist Report for EIA. CapeEAPrac 2015.
- Environmental Impact Assessment for the Proposed Re Capital 3 Solar Energy Facility and Associated Grid Connection Infrastructure, Dyason's Klip, Northern Cape. Fauna & Flora Specialist Report for EIA. CapeEAPrac 2013.
- Environmental Impact Assessment for the Proposed Richtersveld Solar Farm and Associated Grid Connection Infrastructure. Fauna & Flora Specialist Report for EIA. CapeEAPrac 2014.
- Environmental Impact Assessment for the Proposed Bosjesmansberg Solar Energy Facility East of Copperton, Northern Cape Province. Fauna & Flora Specialist Report for EIA. Savannah Environmental 2013.
- Specialist Vegetation Assessment for EIA. The Proposed Commercial Concentrated Solar Power Tower Facility and Concentrated Photovoltaic Facility at Van Roois Vley Near Upington. WSP 2012.
- Proposed Les Marais \ Buitenfontein 5MW Solar Energy Facility in the Free State: Terrestrial Fauna & Flora Specialist Study for Basic Assessment. Savannah Environmental 2013.
- Proposed Stella Helpmekaar Solar Energy Facility in the North West Province: Terrestrial Fauna & Flora Specialist Study for Basic Assessment. Savannah Environmental 2013.
- Proposed Wolmaransstad Municipality 5MW Solar Energy Facility in the North West Province: Terrestrial Fauna & Flora Specialist Study for Basic Assessment. Savannah Environmental 2013.
- Proposed Heuningspruit PV1 and PV2 Solar Energy Facilities Near Koppies, Free State Province: Terrestrial Fauna & Flora Specialist Study for Basic Assessment. Savannah Environmental 2013.
- Proposed Hibernia PV Solar Energy Facility near Lichtenburg: Terrestrial Fauna & Flora Specialist Study For Basic Assessment. Savannah Environmental 2013.

- Proposed Steynsrus PV1 And PV2 Solar Energy Facilities: Terrestrial Fauna & Flora Specialist Study for Basic Assessment. Savannah Environmental 2013.
- Proposed Photovoltaic Solar Energy Facility on Konkoonsies, Northern Cape: Fauna & Flora Specialist Report for Impact Assessment. EScience Associates 2012.
- Proposed Padrooi 13 Photovoltaic Solar Energy Facility, Northern Cape: Fauna & Flora Specialist Report for Impact Assessment. EScience Associates 2012.
- Adams Photovoltaic Solar Energy Facility, Northern Cape: Fauna & Flora Specialist Report for Impact Assessment. EScience Associates 2012.
- Proposed Photovoltaic Solar Energy Facility on Klein Swart Bast, Northern Cape: Fauna & Flora Specialist Report for Impact Assessment. EScience Associates 2012.
- Proposed Khoi-Sun Solar Facility. Fauna & Flora Specialist Report for Impact Assessment. Cape EAPrac 2012.
- Suurwater 62, Boesmanland 75mw Solar Farm, Aggeneys. Fauna & Flora Specialist Report for Impact Assessment. Cape EAPrac 2012.
- Karoshoek Solar Valley Development, Upington: Fauna & Flora Specialist Impact Assessment Report. Savannah Environmental. 2012.
- O'Kiep 3 PV Solar Energy Facility on a Site In O'kiep Near Springbok, Northern Cape Province. Fauna & Flora Specialist Report for Basic Assessment. Savannah Environmental 2012.
- Photovoltaic Solar Energy Facility on Voëlklip, South of Springbok. Fauna & Flora Specialist Report for Basic Assessment. Savannah Environmental 2012.
- Namaqua Photovoltaic Solar Energy Facility on a Site North of Kamieskroon. Fauna & Flora Specialist Report for Basic Assessment. Savannah Environmental 2012.
- Inca Graafwater Photovoltaic Solar Energy Facility, Graafwater, Western Cape Province. Faunal Ecology Specialist Report for Impact Assessment. Savannah Environmental 2012.
- Aberdeen Solar Facility. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.
- Venetia Solar Facility. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.
- Southern Cross Solar Energy Facility: Southern Farm 425. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.
- Tutwa Solar Energy Facility: Portion 4 of Narries 7. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Savannah Environmental. 2012.
- Valleydora Photovolataic Solar Power Plant, Free State. Fauna & Flora Specialist Report. CSIR, 2012.
- Reddersburg Solar Facility Fauna & Flora Specialist Assessment. CSIR, 2012.
- Melkvlei Photovolataic Solar Power Plant. Fauna & Flora Specialist Report for Basic Assessment. Specialist report for ERM. 2012.
- Ruinte Photovolataic Solar Power Plant. Fauna & Flora Specialist Report for Basic Assessment. Specialist report for ERM. 2012.
- Genoegsaam Solar Park. Fauna & Flora Specialist Report for Basic Assessment. Specialist report for ERM. 2012.

- Genoegsaam Solar Park. Fauna & Flora Specialist EIA Report. Specialist report for ERM. 2012.
- Graspan Solar Facility. Fauna & Flora Specialist Report for Impact Assessment. Specialist report for ERM. 2012.
- Olyven Kolk Solar Power Plant, Northern Cape: Botanical and Faunal Specialist Assessment. Specialist Report for Environmental Resources Management (ERM). 2011.
- Skuitdrift Solar Facility. Fauna & Flora Specialist Report for Basic Assessment. Specialist Report for Cape EAPrac. 2012.
- Beaufort West Solar Facility, Erf 7388 Fauna & Flora Specialist Assessment. Specialist Report for Cape EAPrac. 2012.
- Khoi-Sun Solar Facility. Fauna & Flora Specialist Scoping Report. Specialist Report for Cape EAPrac. 2012.
- Boesmanland Solar Farm. Fauna & Flora Specialist Scoping Study. Specialist Report for Cape EAPrac. 2012.
- Bitterfontein Solar Plant Fauna & Flora Specialist Assessment. Specialist Report for Cape EAPrac. 2012.

#### Wind Farm Developments:

- Environmental Impact Assessment for the Proposed Komsberg East and Komsberg West Wind Farms and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment Report. Arcus 2014.
- Proposed Rietkloof Wind Farm and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment Report. EOH 2016.
- Proposed Brandvallei Wind Farm and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment Report. EOH 2016.
- Proposed Gunstfontein Wind Farm and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Impact Assessment Report. Savannah Environmental 2016.
- Mainstream South Africa Dwarsrug Wind Energy Facility: Fauna & Flora Specialist Impact Assessment Report. Sivest 2014.
- Proposed Spitskop Wind Energy Facility near Cookhouse: Fauna & Flora Specialist Study for Impact Assessment. Savannah Environmental 2013.
- Environmental Impact Assessment for the Proposed Roggeveld Wind Energy Facility and Associated Grid Connection Infrastructure: Fauna & Flora Specialist Report for EIA. Savannah Environmental 2013.
- Proposed Mainstream South Africa Springfontein Wind Energy Facility: Terrestrial Fauna & Flora Specialist Study for EIA. Savannah Environmental 2012.
- Environmental Impact Assessment for the Establishment of the Wolseley Wind Farm, Western Cape Province. Fauna & Flora Specialist Report. Arcus Gibb 2012.
- Proposed Eskom 300MW Kleinsee Wind Energy Facility. Fauna Specialist Report For Impact Assessment. Savannah Environmental 2012.

- Proposed Inca Energy Swellendam Wind Energy Facility: Fauna Specialist Report For Impact Assessment. Savannah Environmental 2012.
- Proposed Hartebeest Wind Energy Facility: Fauna & Flora Specialist EIA Report For Impact Assessment. Savannah Environmental 2016.
- Terrestrial Ecology Specialist Study for the Proposed Establishment of a Renewable Energy Facility near Sutherland, Western and Northern Cape Provinces. Environmental Resources Management (ERM) 2011.
- Roggeveld Wind Farm: Ecological and Biodiversity Assessment: Terrestrial Vertebrate Fauna & Botanical Specialist Study. Specialist Report for Environmental Resources Management (ERM). 2011.
- Zen Wind Energy Facility. Fauna & Flora Specialist Impact Assessment Report. Savannah Environmental. 2012.
- Proposed Project Blue Wind and Solar Energy Facility, Near Kleinsee. Fauna Specialist Report For Impact Assessment. Savannah Environmental 2012.
- Garob Wind Farm: Fauna & Flora Specialist Report for Impact Assessment. Savannah Environmental 2012.
- Loeriesfontein Wind Energy Facility Substation & Grid Connection. Fauna & Flora Specialist Report for Basic Assessment. Savannah Environmental 2012.
- Noblesfontein Wind Energy Facility, Victoria West. Ecological Walk-Through Report. Savannah Environmental 2012.
- Gouda Wind Energy Facility. Fauna And Flora Walk Through Report. Savannah Environmental 2012.
- Klawer Wind Farm: Ecological and Biodiversity Assessment: Terrestrial Vertebrate Fauna & Botanical Specialist Study. Specialist Report for Environmental Resources Management. 2011.
- Lambert's Bay Wind Farm: Ecological and Biodiversity Assessment: Terrestrial Vertebrate Fauna & Botanical Specialist Study. Specialist Report for Environmental Resources Management. 2011.
- Richtersveld Wind Farm: Ecological and Biodiversity Assessment: Terrestrial Vertebrate Fauna & Botanical Specialist Study. Specialist Report for Environmental Resources Management (ERM). 2011.
- Witberg Wind Farm: Ecological and Biodiversity Assessment: Terrestrial Vertebrate Fauna & Botanical Specialist Study. Specialist Report for Environmental Resources Management (ERM). 2011.



#### DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

#### PROJECT TITLE

Allepad PV Four, 100MW photovoltaic (PV) solar energy generation facility and associated infrastructure near Upington, Northern Cape Province

#### Kindly note the following:

- 1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- 2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
- 3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- 4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

#### **Departmental Details**

#### Postal address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Private Bag X447

Pretoria 0001

### Physical address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Environment House 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

#### 1. SPECIALIST INFORMATION

Specialist Company Name:	: 3Foxes Biodiversity Solutions				
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	4	Percenta Procurer recogniti	ment	100%
Specialist name:	Simon Todd		· -		
Specialist Qualifications:	MSc (Cons. Biol.)				
Professional	SACNASP Pr.Sci.Nat 400425/11				
affiliation/registration:					
Physical address:	60 Forrest Way, Glencairn	60 Forrest Way, Glencairn			
Postal address:	60 Forrest Way, Glencairn				
Postal code:	7975		Cell:	082332650	2
Telephone:	021 7820377		Fax:		
E-mail:	Simon.Todd@3foxes.co.za				·

#### 2. DECLARATION BY THE SPECIALIST

I,Simon Todd	, declare that -
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- I act as the independent specialist 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 the specialist report relevant to this application, 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 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;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

			/
	re	/	da
-	_		-

Signature of the Specialist

3Foxes Biodiversity Solutions

Name of Company:

11 October 2018

Date

Details of Specialist, Declaration and Undertaking Under Oath

### CURRICULUM VITAE: D G Paterson

SURNAME: PATERSON Pavid Garry

KNOWN AS: Garry

**DATE OF BIRTH:** 25-08-1959 in Bellshill, Scotland

**NATIONALITY:** South African 5908255258088

**LANGUAGE PROFICIENCY:** English, Afrikaans (both fluent), French (poor)

MARITAL STATUS: Married, one son

**ADDRESS:** ARC-Institute for Soil, Climate and Water **TEL.:** 012 310 2601(w)

Private Bag X79 012 333 0829 (h)
Pretoria 0001 083 556 2458 (cell)
Republic of South Africa FAX: 012 323 1157

E-MAIL ADDRESS: garry@arc.agric.za

### **ACADEMIC QUALIFICATIONS:**

Matriculated: 1976, Dalziel High School, Motherwell, Scotland

- BSc (Hons) Geography, 1980, University of Strathclyde, Glasgow, Scotland
- MSc (Soil Science) cum laude, 1998, University of Pretoria
- PhD (Soil Science), 2014, University of Pretoria

#### **PROFESSIONAL CAREER:**

- 1981-1987: Soil Scientist: Soil and Irrigation Research Institute, Pretoria
- 1987-1992: Senior Soil Scientist: Soil and Irrigation Research Institute, Pretoria
- 1992-2017: Senior Soil Scientist: ARC-Soil, Climate & Water, Pretoria
- 2017- : Research Team Manager (Soil Science): ARC-Soil, Climate & Water

#### FIELDS OF SPECIALITY AND COMPETENCE:

- Soil classification and mapping
- Soil interpretations
- Soil conservation, including biotextiles
- Soil rehabilitation (especially coal mine soils)
- Soil survey project management
- Environmental assessment and land evaluation
- Soil survey and land capability course presentation
- Ground penetrating radar

#### **PUBLICATIONS** (see attached list):

- Fifteen refereed articles
- Nine Congress papers/posters
- Two book chapter contributions
- S.A. Soil Classification (1991 and 2018 editions) (Member of working group)
- Five 1:250 000 Land Type Maps
- Three Land Type Memoirs
- More than 250 soil survey reports and/or maps

#### **COURSES COMPLETED:**

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

#### **PROFESSIONAL STATUS:**

- ➤ Registered Natural Scientist: Soil Science (SA National Council for Natural Scientific Professions) registration number 400463/04
- ➤ Member of South African Soil Classification Working Group, 1990-present
- ➤ Convenor of South African Soil Classification Working Group, 2013-2015
- ➤ Member of Soil Science Society of South Africa (1982-present)
- ➤ President of Soil Science Society of South Africa (2005-2007)
- ➤ Member of South African Soil Survey Organisation (2000-present)
- ➤ Council Member of South African Soil Survey Organisation (2002-2003)
- ➤ Member of International Erosion Control Association
- > Scientific Referee, S.A. Journal for Plant and Soil
- ➤ External Examiner: University of Pretoria, University of Witwatersrand, University of Venda, University of the Free State

#### **AWARDS:**

Best article on Soil Science, South African Journal for Plant and Soil, 2011

#### **MISCELLANEOUS:**

- ➤ Editor, Soil Science Society newsletter, 1993-present
- ➤ Member, Clapham High School (Pretoria) Governing Body, 1998-2002
- ➤ Member, Northern Gauteng Football Referee's Association, 2000-2002
- ➤ Committee Member, Rosslyn Golf Club (Club Champion 2002 and 2007)

#### **INTERESTS:**

Sport, especially golf and soccer; wildlife; reading; music

#### **PUBLICATIONS LIST:**

#### Refereed Articles:

**BüHMANN, C., KIRSTEN, W.F.A., PATERSON, D.G. & SOBCZYK, M.E.**, 1993. Pedogenic differences between two adjacent basalt-derived profiles. 1. Textural and chemical characteristics. *S. Afr. J. Plant & Soil*, 10: 155-161

**BüHMANN, C., KIRSTEN, W.F.A., PATERSON, D.G. & SOBCZYK, M.E.**, 1994. Pedogenic differences between two adjacent basalt-derived profiles. 2. Mineralogical characteristics. *S. Afr. J. Plant & Soil*, 11: 5-11

**PATERSON, D.G. & LAKER, M.C.**, 1999. Using ground penetrating radar to investigate spoil layers in rehabilitated mine soils. *S. Afr. J. Plant & Soil*, 16:131-134.

**PATERSON, D.G., BÜHMANN, C., PIENAAR, G.M.E. & BARNARD, R.O.,** 2011. Beneficial effects of palm geotextiles on inter-rill erosion in South African soils and mine dam tailings: a rainfall simulator study. *S. Afr. J. Plant & Soil*, 28: 181-189.

**PATERSON, D.G. & BARNARD, R.O.,** 2011. Beneficial effect of palm geotextiles on inter-rill erosion in South African soils . *S. Afr. J. Plant & Soil*, 28: 190-197.

BHATTACHARRYA, R., FULLEN, M.A., BOOTH, C.A., KERTESZ, A., TOTH, A., SZALAI, Z., JAKAB, G., KOZMA, K., JANKAUSKAS, B., JANKAUSKIENE, G., BÜHMANN, C., PATERSON, D.G., MULIBANA, N.E., NELL, J.P., VAN DER MERWE, G.M.E., GUERRA, A.J.T., MENDONCA, J.K.S., GUERRA, T.T., SATHLER, R., BEZERRA, J.F.R., PERES, S.M., ZHENG YI, LI YONGMEI, TANG LI, PANOMTARANICHAGUL, M., PEUKRAI, S., THU, D.C., CUONG, T.H., TOAN, T.T., 2011. Effectiveness of biological geotextiles for soil and water conservation in different agro-environments. *Land Degradation and Development*, 22: 495-504.

FULLEN, M.A., SUBEDI, M., BOOTH, C.A., SARSBY, R.W., DAVIES, K., BHATTACHARRYA, R., KUGAN, R., LUCKHURST, D.A., CHAN, K., BLACK, A.W., TOWNROW, D., JAMES, T., POESEN, J., SMETS, T., KERTESZ, A., TOTH, A., SZALAI, Z., JAKAB, G., JANKAUSKAS, B., JANKAUSKIENE, G., BÜHMANN, C., PATERSON, D.G., MULIBANA, N.E., NELL, J.P., VAN DER MERWE, G.M.E., GUERRA, A.J.T., MENDONCA, J.K.S., GUERRA, T.T., SATHLER, R., BEZERRA, J.F.R., PERES, S.M., ZHENG YI, LI YONGMEI, TANG LI, PANOMTARANICHAGUL, M., PEUKRAI, S., THU, D.C., CUONG, T.H., TOAN, T.T., JONSYN-ELLIS, F., SYLVA, J.T., COLE, A., MULHOLLAND, B., DERALOVE, M., CORKILL, C. & TOMLINSON, P., 2011. Utilising biological geotextiles: introduction to the Borassus Project and global perspectives. *Land Degradation and Development*, 22: 453-462.

SMETS, T., POESEN, J., BHATTACHARRYA, R., FULLEN, M.A., SUBEDI, M., BOOTH, C.A., KERTESZ, A., SZALAI, Z., TOTH, A., JANKAUSKAS, B., JANKAUSKIENE, G., GUERRA, A.J.T., BEZERRA, J.F.R., ZHENG YI, PANOMTARANICHAGUL, M., BÜHMANN, C. & PATERSON, D.G., 2011. Evaluation of biological geotextiles for reducing runoff and soil loss under various environmental conditions using laboratory and field data. *Land Degradation and Development*, 22: 480-494.

**NETHONONDA. L.O., ODHIAMBO, J.J.O. & PATERSON, D.G.,** 2012. Indigenous knowledge of climatic conditions for sustainable crop production under resource-poor farming conditions using participatory techniques. *Sustainable Agriculture Research*, 2 (1), 26-31.

**NETHONONDA, L.O., ODHIAMBO, J.J.O. & PATERSON, D.G.,** 2012. Assessment of spatial variability of selected soil chemical properties in a communal irrigation scheme under resource-poor farming conditions in Vhembe District of Limpopo Province, South Africa. *African J. Agric. Res.* 7 (39), 5445-5492.

**NETHONONDA, L.O., ODHIAMBO, J.J.O. & PATERSON, D.G.,** 2013. Spatial variability of soil penetrability and distribution of compacted layer as affected by long-term ploughing at shallow depth in Rambuda irrigation scheme in Vhembe district, South Africa. *Bulgarian Journal of Agricultural Science*, 19 (2): 248-254.

SUBEDI, M., FULLEN, M.A., BOOTH, C.A., THU, D.C., CUONG, T.H, TOAN, T.T., JONSYN-ELLIS, F., COLE, A., GUERRA, A.J.T., BEZERRA, J.F.R., YI. Z., LI, T., BÜHMANN, C. & PATERSON, D.G., 2012. Contribution of biogeotextiles to soil conservation and socio-economic development. *Outlook on Agriculture*, 41(3).

**PATERSON, D.G., SMITH. H.J. & VAN GREUNEN, A.,** 2013. Evaluation of soil conservation measures on a highly erodible soil in the Free State province, South Africa. *S. Afr. J. Plant & Soil*, 30: 213-217.

**PATERSON, D.G., TURNER, D.P., WIESE, L.D., VAN ZIJL, G.M., CLARKE, C.E. & VAN TOL, J.**, 2015. Spatial soil information in South Africa – situational analysis, limitations and challenges. *S. Afr. J. Science* 111 (5/6). Art. #2014-0178, 7 pages. http://dx.doi.org/10.17159/sajs.2015/20140178.

**PATERSON, D.G., MUSHIA, N.M. & MKULA, S.D.,** 2018. Effects of stockpiling on selected properties of opencast coalmine soils. *S. Afr. J. Plant & Soil*, 35. https://doi.org/10.1080/02571862.2018.1493161

#### **Books:**

**PATERSON, D.G. & MUSHIA, N.M.,** 2012. Chapter 32. Soil databases in Africa. *In: Handbook of Soil Science: Resource Management and Environmental Impacts (2<sup>nd</sup> Edn). Eds. P.M. Huang, Y Li & M.E. Sumner.* CRC Press, Boca Raton FL.

ZGŁOBICKI, W., POESEN, J., DANIELS, M., DEL MONTE, M. GUERRA, A.J.T., JOSHI, V., PATERSON, D.G., SHELLBERG, J., SOLÉ-BENET, A. & ZHENG'AN SU, 2018. Chapter 9. Geotouristic value of Badlands. *In: Badland dynamics in the context of global change. Eds. E. Nadal-Romero, J.F. Martinez-Murillo, N.J. Kuhn.* Elsevier, Amsterdam.

**SOIL CLASSIFICATION WORKING GROUP\***, 1991. Soil classification. A taxonomic system for South Africa. ARC-Institute for Soil, Climate & Water, Pretoria.

**SOIL CLASSIFICATION WORKING GROUP\***, 2018. Soil classification. A natural and anthropogenic system for South Africa. ARC-Institute for Soil, Climate & Water, Pretoria

\* Co-author as member of Working Group

#### Theses:

**PATERSON, D.G.,** 1998. The use of ground penetrating radar to investigate subsurface features in selected South African soils. Unpublished MSc Thesis, University of Pretoria.

**PATERSON, D.G.**, 2014. The use of palm leaf mats in soil erosion control. Unpublished PhD Thesis, University of Pretoria.

#### **Congress Papers:**

**PATERSON, D.G.**, 1987. The relationship between geology and soil type in the northern Kruger National Park. 14<sup>th</sup> Congress of the Soil Science Society of S.A. Nelspruit, 14-17 July 1987.

**PATERSON, D.G.,** 1990. A study of black and red clay soils on basalt in the northern Kruger National Park. 16<sup>th</sup> Congress of the Soil Science Society of S.A. Pretoria, 9-12 July 1990.

**PATERSON, D.G.**, 1992. The potential of ground penetrating radar as an aid to soil investigation. 17<sup>th</sup> Congress of the Soil Science Society of S.A. Stellenbosch, 28-30 January 1992.

**PATERSON, D.G.**, 1995. The complex soil mantle of South Africa. ARC Wise Land Use Symposium, Pretoria, 26-27 October 1995

**PATERSON, D.G. & LAKER, M.C.**, 1998. Locating subsoil features with ground penetrating radar. 21<sup>st</sup> Congress of the Soil Science Society of S.A. Alpine Heath, 20-22 January 1998.

**PATERSON, D.G.**, 2000. Mapping rehabilitated coal mine soils in South Africa using ground penetrating radar. Eighth International Conference on Ground Penetrating Radar, Gold Coast, Australia, 23-26 May 2000.

**PATERSON, D.G. & VAN DER WALT, M.**, 2003. The soils of South Africa from the Land Type Survey. 24<sup>th</sup> Congress of the Soil Science Society of S.A., Stellenbosch, 20-24 January 2003.

**PATERSON, D.G.,** 2015. Geotextiles – applications for soil conservation. Congress of the Soil Science Society of S.A., George, 19-22 January 2015.

#### Land Type Maps:

**PATERSON, D.G.,** 1990. 1:250 000 scale land type map 2230 Messina. Dept. Agriculture, Pretoria.

**PATERSON, D.G. & HAARHOFF, D.,** 1989. 1:250 000 scale land type map 2326 Ellisras. Dept. Agriculture, Pretoria.

**PATERSON, D.G., PLATH, B.L. & SMITH, H.W.,** 1987. 1:250 000 scale land type map 2428 Nylstroom. Dept. Agriculture, Pretoria.

**PATERSON, D.G. & ROSS, P.G.,** 1989. 1:250 000 scale land type map 2330 Tzaneen. Dept. Agriculture, Pretoria.

**PLATH, B.L. & PATERSON, D.G.**, 1987. 1:250 000 scale land type map 2426 Thabazimbi. Dept. Agriculture, Pretoria.

### Land Type Memoirs:

**PATERSON, D.G., PLATH, B.L. & SMITH, H.W.,** 1988. Field Investigation. In: *Land types of the maps 2426 Thabazimbi & 2428 Nylstroom. Mem. Agric. Nat. Res. S. Afr.* No. 10. Dept. Agriculture, Pretoria.

**PATERSON, D.G., SCHOEMAN, J.L., TURNER, D.P., GEERS, B.C. & ROSS, P.G.,** 1989. Field Investigation. In: *Land types of the maps 2330 Tzaneen & 2430 Pilgrim's Rest. Mem. Agric. Nat. Res. S. Afr.* No. 12. Dept. Agriculture, Pretoria.

**PATERSON, D.G.,** 1999. 1:250 000 land type survey of the former Ciskei (Unpublished). ISCW Report GW/A/99/24.

#### Also:

**PATERSON, D.G.,** 1992. Ground penetrating radar applications in USA and South Africa. Report on an official study tour to USA, 13-29 July, 1991. ISCW Report GW/A/92/8.

**PATERSON, D.G.,** 2000. Report on official overseas visit to GPR2000 Conference, Broadbeach, Australia, 23-26 May, 2000. ISCW Report GW/A/2000/40.

**Plus**: numerous ARC-ISCW Reports on soil surveys, soil interpretations, environmental impact assessments, soil suitability studies.



#### DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

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File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

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#### **Departmental Details**

#### Postal address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Private Bag X447

Pretoria 0001

#### Physical address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Environment House 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

#### 1. SPECIALIST INFORMATION

Specialist Company Name:	Agricultural Research Council-Soil, Climate and Water			
B-BBEE	Contribution level (indicate 1	Level 6	Percentage	Unknown
	to 8 or non-compliant)		Procurement	
	·		recognition	
Specialist name:	DG Paterson			
Specialist Qualifications:	PhD (Soil Science)			
Professional	SACNASP Registration (Soil Science): 400463/04			
affiliation/registration:	,	,		
Physical address:	600 Belvedere Street, Arcadia	, Pretoria 0083	}	
Postal address:	Private Bag X79, Pretoria			
Postal code:	0001	Cell:	083 556	2458
Telephone:	012 310 2601	Fax:	012 323	1157
E-mail:	garry@arc.agric.za			

#### 2. DECLARATION BY THE SPECIALIST

I, DG Paterson, declare that -

- I act as the independent specialist 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 the specialist report relevant to this application, 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 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;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



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Signature	or the	Specia	IIST

ARC-Soil, Climate and Water

Name of Company:

11th October 2018

Date

#### **CURRICULUM VITAE**

#### Jenna Lavin

Tel: 083 619 0854 (c) E-mail address: jenna.lavin@gmail.com ID number: 8512050014089

Address: 7 Carey Street, Woodstock, cape Town

#### **EDUCATION:**

Tertiary	
2014	M.Phil in Conservation of the Built Environment (University of Cape Town)
	- Not completed as of 2017
2011	Continued Professional Development Course in Urban Conservation
	Management (University of Cape Town) Part I and Part II
2010	M.Sc. with Distinction in Archaeology (University of Cape Town)
	Title: Palaeoecology of the KBS member of the Koobi Fora Formation: Implications for
	Pleistocene Hominin Behaviour.
2007	B.Sc. Honours in Archaeology (University of Cape Town)
	Title: The Lost Tribes of the Peninsula: An Investigation into the historical distribution of
	Chacma baboons ( <u>Papio ursinus</u> ) at the Cape Peninsula, South Africa.
	Koobi Fora Field School, Rutgers University (U.S.A.)/ National Museums of Kenya
2006	B.Sc. Archaeology (University of Cape Town)
	B.Sc. Environmental and Geographic Science (University of Cape Town)

#### Secondary

1999-2003 Rustenburg High School for Girls

Firsts in English, Afrikaans, Mathematics HG, Biology HG, History HG, Entrepreneurship.

#### **EMPLOYMENT HISTORY:**

# PROFESSIONAL DEVELOPMENT Environmental and Heritage Management:

• Director: Heritage for CTS heritage and member of OpenHeritage NPC.

July 2016 to present

I am a member of the senior management of the company. I am responsible for project management and quality control on all of our heritage-related projects. I provide specialist heritage expertise when required and assist with the drafting of management plans, impact assessments and other specialist reports. I liaise with clients, authorities and other specialists to ensure the highest quality product from CTS Heritage. I manage the budgets and financial compliance for all our projects and for the business in general. In addition, I manage a specialist team of two archaeologists. We have recently been involved in developing the online map for the National Resistance and Liberation Heritage Route with DAC.

Through OpenHeritage, I have been intimately involved with the development, and successful implementation of, of a digital heritage objects management system for the National Museum in Kenya as well as Tristan da Cuhna.

• Assistant Director for Policy, Research and Planning at Heritage Western Cape (HWC).

August 2014 to June 2016

As a member of the management structure of HWC, I was responsible for the drafting of new heritage related policy, the grading and declaration of Provincial Heritage Sites, the development of Conservation Management Plans, facilitating the development of inventories of heritage resources through local authorities as well as managing the development of the Western Cape's Heritage Information Management System (HIMS). I was also responsible for managing the project to nominate the Modern Human Origins proposed World Heritage Site.

I performed the role of Acting Deputy Director for HWC from April to December 2015, including financial management responsibilities, problem solving and the training of new staff.

• Heritage Officer for Palaeontology and for the Mpumalanga Province at the South African Heritage Resources Agency (SAHRA).

January 2013 to June 2014

Responsibilities include managing palaeontological permit applications in terms of Section 35 of the NHRA and development applications in terms of Section 38 of the NHRA. Projects included the development of a National Palaeotechnic Report identifying significant palaeontological deposits throughout SA, as well as developing professional relationships between SAHRA and the Palaeontological Society of South Africa (PSSA) and the Geological Society of South Africa (GSSA). During this time, I was part of the team that developed the digitised National Palaeontological Sensitvity Map, the first of its kind in the world.

• Heritage Officer for Archaeology, Palaeontology and Meteorites at Heritage Western Cape (HWC).

September 2010 to December 2012

HWC is a Public Entity that forms part of the Heritage Resource Management Component of the Provincial Governments' Department of Cultural Affairs and Sport (DCAS). Projects included the declaration of Pinnacle Point and the West Coast Fossil Park as Provincial Heritage Sites (PHSs), the management of the development of the Baboon Point PHS Conservation Management Plan as well as an educational outreach program as part of the DCAS MOD Centre Project.

• Heritage Officer for the Archaeology, Palaeontology and Meteorites Unit of the South African Heritage Resources Agency (SAHRA) as part of a three month contract.

January 2010 to March 2010

Environmental Control Officer, Amathemba Environmental Management Consulting

Part time: 2007 to 2009

### Field Work Experience:

2008-2009	Field Assistant, Dr. D. Braun, Elandsfontein Excavation Locality, University of Cape Town
	(UCT)
	Field Assistant, Dr. D. Braun, Koobi Fora Research Project (Kenya), Rutgers University, New
	Jersey
2006	Field Assistant, Damiana Ravasi (PhD), Zoology Department, University of Cape Town.
2005	Research Assistant, Dr. Becky Ackerman, Archaeology Department, University of Cape
	Town
2004	Field Assistant, Prestwich Place Excavation Locality, Archaeology Contracts Office, UCT

Teaching Posi	tions:				
2017	Guest Lecturer, South African Heritage Legislation, George Washington University				
Heritage Management Field School					
2016	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,				
	University of Cape Town				
2015	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,				
	University of Cape Town				
2014	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,				
	University of Cape Town				
2013	Guest Lecturer, South African Heritage Legislation, Archaeology Honours Course,				
	University of Cape Town				
2010	Teaching Assistant, Langebaanweg Field School, Arizona State University				
2009	Demonstrator, Archaeology in Practice, University of Cape Town (AGE3013H)  Demonstrator, Introduction to Geography, Earth and Environmental Science, University				
	Cape Town (GEO1009F)				
	Teaching Assistant, Koobi Fora Field School (Kenya), Rutgers University, New Jersey Lecturer, Introduction to Geography, Earth and Environmental Science: Suppleme				
Course, University of Cape Town (EGS1004S)					
	Demonstrator, Elandsfontein Honours Field School, University of Cape Town (AGE4000W)				
2008	Demonstrator, Introduction to Geography, Earth and Environmental Science, University of				
	Cape Town (ERT1000F)				
	Demonstrator, Elandsfontein Honours Field School, University of Cape Town (AGE4000W)				
	Teaching Assistant, Koobi Fora Field School (Kenya), Rutgers University, New Jersey				

### **Conferences and Papers**

	- and - aport
2017	ASAPA, Pretoria, RSA: "Using Heritage Data to Guide Responsible Development: Tools to ensure high quality recording of heritage sites"
	ICAHM, Bagomoyo, Tanzania: "OpenHeritage: Development and implementation of
	national heritage management systems - Lessons from South Africa, Namibia and Kenya"
2016	ICAHM, Salalah, Oman: "Straight to the (Baboon) Point: A look at the Conservation of
	Archaeological Landscapes in South Africa using Baboon Point as a Case Study"
2015	Leakey Foundation, Sonoma County, San Fransisco, USA: ""Straight to the (Baboon) Point:
	A look at the Conservation of Archaeological Landscapes in South Africa using Baboon
	Point as a Case Study"
2012	PSSA, Johannesburg, RSA: "SAHRIS Palaeosensitivity Map - Methodology and
	Implementation"

#### Other

In 2013 I was asked to join the panel of judges for the Ministerial awards for Heritage in the Western Cape. From 2013 to July 2014, I was a member of the Heritage Western Cape Archaeology, Palaeontology and Meteorites Committee and I currently sit on the Heritage Western Cape Inventories, Gradings and Interpretations Committee.

In November 2013, I was awarded a bursary from the Department of Arts and Culture to complete a Masters in Philosophy in Conservation of the Built Environment through the UCT Faculty of Engineering and the Built Environment in 2014 and 2015. I was in the process of finalising this degree in 2017, however the arrival of my son has temporarily halted my progress.

I am a paid up member of the Association for Southern African Professional Archaeologists (ASAPA), the Association of Professional Heritage Practitioners (APHP) and I have been a member of the Executive Council of APHP since 2014.

In June 2017, I was selected as Chair of APHP. I am a member of the Palaeontological Society of South Africa (PSSA) and ICOMOS South Africa, for which I am Vice-President of the Board. I am also a member of the International Committee for Archaeological Heritage Management (ICAHM), a committee of UNESCO.

I am an active participant in a not-for-profit company called OpenHeritage which is dedicated to opening access to heritage resources through digital innovation. To this end, we have been involved in a number of projects including Wikipeadia Training with Africa Centre, the development and implementation of a Collections Management System for the National Museums of Kenya and the development of a digital Inventory of the Vernacular Architecture of the Eastern Cape.

#### Referees

Mary Leslie mleslie.za@gmail.com
082 733 2611

Janette Deacon janette@conjunction.co.za 082 491 5067

Laura Robinson <u>ctht@hertage.org.za</u> 083 463 4765

Andrew Hall
<a href="mailto:waitabout191@gmail.com">waitabout191@gmail.com</a>
(Currently based in Oman)

Wendy Black
wblack@iziko.org.za
021 481 3883

PROJECT	PROJECT DESCRIPTION	DURATION
SKA Scoping Project	Provision of Heritage Specialist Assessment Services for SKA Scoping Phase	09/2015 - 09/2016
National Liberation & Khoisan Heritage Routes	Development of online mapping interface to promote national liberation and Khoisan heritage routes	02/2017 - present
Western Cape Coastal Access Strategy	Heritage statements describing changing utilisation of Western Cape coast through time	01/2016 - 02/2017
Robben Island PV Facility	Heritage survey, Heritage Impact Assessment, monitoring, mapping, report writing	01/2016 - 02/2017
Stawelklip Rock Art Conservation Management Plan	Site documentation, stakeholder consultation, CMP compilation, development of signage	10/2015 - 01/2016
Phillipskop Rock Art Conservation Management Plan	Site documentation, stakeholder consultation, CMP compilation, development of signage	04/2016 - 08/2016
Cape Winelands Heritage Inventory	Data processing, heritage management and mapping services	08/2016 - 09/2017

### CTS Heritage Impact Assessments

HIA Title	Date Completed
HIA: Brakke Kuyl Sand Mine	05/12/2016
HIA: Gouritz Abalone Farm	28/10/2016
HIA: Malmesbury Granite Quarry	28/11/2016
HIA: Expansion of Jacobsbaai Abalone Farm	26/08/2016
HIA: Mutsho Power Project near Makhado	02/02/2017
HIA: Vanrhynsdorp Prospecting	06/03/2017
HIA: Spitskop Power Lines	02/03/2007
Desktop HIA Namakwa Prospecting	21/06/2017
HIA: San Miguel Citrus	26/04/2017
HIA : Ash River Hydro	In process
HIA: 22kv Powerlines Eastern Cape	22/08/2017
HIA: Langa Telecommunications Mast	18/08/2017
HIA: Ouwerf HF Radar Wave Monitoring Antennae	In process



#### DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

### PROJECT TITLE

Allepad PV Four, 100MW photovoltaic (PV) solar energy generation facility and associated infrastructure near Upington, Northern Cape Province

#### Kindly note the following:

- 1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment
  Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the
  Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/
  documents/forms.
- 3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- 4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

#### Departmental Details

#### Postal address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Private Bag X447

Pretoria 0001

#### Physical address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Environment House 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

## 1. SPECIALIST INFORMATION

Specialist Company Name:	CTS Heritage				
B-BBEE	Contribution level (indicate	4	Pe	ercentage	
	1 to 8 or non-compliant)		Pr	ocurement	
			red	cognition	
Specialist name:	Jenna Lavin				
Specialist Qualifications:	MSc Archaeology, MPhil Conservation of BE (incomplete)				
Professional	ASAPA, APHP				
affiliation/registration:					
Physical address:	34 Harries Street, Plumstead				
Postal address:	34 Harries Street, Plumstead				
Postal code:	7801		Cell:	083 619 0854	
Telephone:	087 073 5739		Fax:		
E-mail:	Jenna.lavin@ctsheritage.com				
			United to the same		

CLARATION	RY THE	SPECIAL	IST
	CLARATION	CLARATION BY THE	CLARATION BY THE SPECIAL

,Jenna Lavin,	declare that -
---------------	----------------

- I act as the independent specialist 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 the specialist report relevant to this application, 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 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;
- · all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.

dami	e .
Signature of the Specialist	
CTS Heritage	
Name of Company:	
10 October 2018	
Date	

### Lourens du Plessis

### **Professional GISc Practitioner**



#### **Personal Information:**

Date of Birth: 1969-11-13
Marital Status: Married
Nationality: South African
Contact no: 082 922 9019
Email: lou.dp@outlook.com

#### **Years of Industry Experience**

28 years'

#### **Countries of Experience**

 South Africa; Lesotho; Swaziland; Mozambique; Botswana; Zimbabwe; Namibia; Angola; Guinea; Ghana; Uganda

#### **Qualifications and Memberships**

- BA (University of Pretoria)
   Geography and Anthropology (Majors), 1993
- Professional Geo-Information Sciences (GISc) Practitioner registered with the South African Geomatics Council (SAGC). Membership no. PGP0147
- Member: GISSA

#### **Key Skills and Competencies**

- Arc/Info and ArcGIS
- Arcview
- QGIS
- Postflight Terra 3D
- PlanetGIS
- Vistapro
- Various GIS support applications
- Microsoft (Word/Excel/Access)

#### **Professional Overview**

Lourens provides professional Geographical Information Systems (GIS) services to a wide range of clients that require the processing, analysis and presentation of geospatial data. His overarching function is the application of GIS in environmental management and planning, impact assessments and spatial modelling, but his services often extend to a much broader range of business sectors. These include the application of GIS in:

- Agriculture
- Bulk service providers and utilities
- The renewable energy sector
- Electricity generation and distribution
- Mining and exploration
- Urban and rural development planning
- Conservation and tourism
- Strategic integrated planning
- Environmental education and social awareness
- Engineering, transport and infrastructure development

Lourens has a multi-disciplinary approach to projects and therefore specialises in creating synergy between planning professionals and project specialists (regardless of the type of project) in order to provide uniform, quality spatial data products, solutions and services.

#### **Experience and expertise**

- Data sourcing and acquisition
- Data capture and processing
- Data evaluation, conversion and transfer
- Geodatabase development/implementation/maintenance
- System design and development
- Spatial analysis/modelling (visibility, slope, aspect, etc.)
- Digital terrain modeling
- Terrain evaluation and site screening
- Image processing and analysis
- Impact assessment and impact management
- Environmental management
- GIS-based decision support systems development
- Project management and report writing
- Map production, display, queries and reporting
- Environmental sciences expertise
- Process development
- Visual impact assessment
- GPS fieldwork and aerial surveys
- Drone data processing

#### **Project Experience**

**General projects** (A brief description of some prominent and relevant projects)

GIS mapping and database for Black Eagle habitats and flight patterns in the Karoo National Park

Environmental planning and development control schemes for the Drakensberg Babangibone, Cathkin Peak and Garden Castle development nodes

Goukou River (Stilbaai) Environmental Structure Plan

Conservation and open space proposals for the Umhlanga Forest

Grootvlei mine water pumping operation (Blesbokspruit sub-catchment)

GIS services for the Saldanha steel plant

ENPAT Provincial (1:250,000 scale GIS decision support systems) based on an inventory of environmental and socio-economic geographic data

- ENPAT Northern Province (Limpopo Province)
- ENPAT Mpumalanga
- ENPAT North-West

ENPAT Metropolitan (1:50,000 scale GIS decision support systems) containing environmental and socioeconomic geographic data that were evaluated for conservation opportunities, development constraints and agricultural constraints

- ENPAT Gauteng
- ENPAT Cape Town
- ENPAT Durban Functional Region (DFR)
- ENPAT Bloemfontein/Botshabello
- ENPAT Port Elizabeth

ENPAT National (1:1,000,000 scale GIS decision support system) and ENPAT publication

Environmental Management Frameworks (EMF). Frameworks of spatially represented information connected to environmental management parameters designed to aid in the pro-active identification of potential conflict between development proposals and critical and/or sensitive environments

- EMF Northern Province (Limpopo Province)
- EMF Mpumalanga
- EMF North-West

Spatial Development Initiatives (SDI). The fast tracking of the EMF concept for priority SDI's

- Lubombo Corridor SDI
- Coega Industrial Development Zone (IDZ)
- Wild Coast SDI
- West Coast Investment Initiative

Sigma colliery: North-West strip operation

Development masterplan for the Tswaing Crater Museum

Conservation plan for the Rietvlei Nature Reserve

GIS services for the planning and management of the Chobe National Park (Botswana)

GIS services for an environmental overview of South Africa

Demarcation/delineation of regions in South Africa

Orange-Vaal (ORVAAL) transfer scheme - Caledon cascades scheme

ENPAT Provincial (1:250,000 scale GIS decision support systems) based on an inventory of environmental and socio-economic geographic data

- ENPAT Eastern Cape
- ENPAT Free State
- ENPAT Kwa-Zulu Natal

Environmental Management Frameworks (EMF). Frameworks of spatially represented information connected to environmental management parameters designed to aid in the pro-active identification of potential conflict between development proposals and critical and/or sensitive environments

- EMF Eastern Cape
- EMF Free State
- EMF Kwa-Zulu Natal

Hennops River EMF (environmental inventory and management proposals in Centurion)

The Important Bird Areas (IBA) of South Africa map and database

Centurion Metropolitan Substructure Environmental Management Framework (EMF)

Alexandra renewal project EMF

Carbon Sinks and Sequestration - Eastern Cape Wild Coast. Information maps for the "Carbon Sinks - A Rehabilitation Option for South Africa's Natural Environment" report

Prince Edward and Marion Islands. Maps for the World Heritage Site (WHS) bid document

Theewaterskloof and Genadendal - Integrated spatial data management system

Gauteng Communication Network Strategy (GAUCONS). Environmental zones for the control of the construction of telecommunication structures

Gauteng Industries Buffer Zones. The mapping of industrial and mining activities, the creation of buffer control zones and the development of a GIS-based decision support system for the Gauteng Province

Limpopo National Park (LNP) Mozambique. Base maps for fieldwork and planning

Schmidtsdrift Environmental Management Program Report (EMPR)

Loch Vaal Environmental Management Framework (EMF)

Rustenburg - Strategic Environmental Assessment (SEA). The creation of environmental control zones, a GIS-based decision support system and information poster

Faerie Glen Nature Reserve Strategic Environmental Assessment (SEA)

Willow Quarries - Environmental Impact Assessment (EIA). Modeling of mining expansion plan and the potential impact on Golden Mole habitats

Ekurhuleni Metropolitan Municipality (EMM) Environmental Management Framework (EMF)

Limpopo - State of the Environment Report (SoER)

Windhoek (Namibia) - Environmental Structure Plan (ESP)

Gauteng Supplementation and Implementation of EIA Regulations Project (EIA SIP)

Siyanda District Municipality Environmental Management Framework (EMF)

Olifants and Letaba River Catchments Environmental Management Framework (EMF)

Barberton Nature Reserve environmental sensitivity mapping and land use zoning plan

#### **Regional Strategic Environmental Assessments (Regional Assessments)**

Regional assessment for the Eskom Wind Energy Facility (Sere) in the Western Cape

Regional assessments for the Eskom Wind Integration Project (WIP)

- Area 1: West Coast (Saldanha to Garies)
- Area 2: Overberg Region
- Area 3: Beaufort West region
- Area 4: Eastern Cape (Tsitsikamma to Port Elizabeth)
- Area 5: Northern Cape (Hondeklipbaai to Port Nolloth)

Sandveld wind energy Regional Assessment

West Coast National Park (Saldanha area) Regional Assessment

Regional Assessment for the Theewaterskloof Municipal area

Brand-se-Baai (Exxaro) wind energy regional assessment

Overberg (BioTherm) wind energy regional assessments

- Area 1: Gordons Bay to Pearly Beach)
- Area 2: Napier RA (Agulhas NP/Swellendal region)

Suurplaat/Sutherland (Investec Wind Energy Development) Regional Assessment

Waterberg (Limpopo) Concentrating Solar Power (CSP) Regional Assessment (Exxaro)

Western Cape Province Regional SEA for Wind Energy facility developments

ISS Global Mining Regional SEA for Power Station Developments in Mpumalanga Province

Northern Cape Province Regional SEA for Wind Energy facility developments

Etc. (a comprehensive list of general projects can be provided upon request)

#### Visual Impact Assessments (VIA), viewshed analyses and visual assessments

Some recent or current projects include:

- Coal strip mining in Zimbabwe viewshed analyses
- Viewshed analyses and sensitivity mapping for telecommunication masts in the northern provinces (Limpopo, Mpumalanga and North-West)
- Siemens 3rd license cellular communications infrastructure EIAs. Viewshed analyses and sensitivity mapping for over 4,000 telecommunication mast sites in all major metropolitan areas of South Africa.
- CSIR high mast viewshed analysis and sensitivity mapping
- Atlantis Open Cycle Gas Turbine power station VIA
- Kynoch Gypsum Tailings dam extension VIA
- N1 Western Bypass Shell service station VIA
- Coega regional hazardous waste processing facility VIA
- Robinson Deep landfill extension VIA
- Hazardous waste blending platform VIA
- Mercury-Ferrum-Garona transmission line integration VIA
- Matimba B (Medupi) coal-fired power station VIA
- Concentrating Solar Power (CSP) plant in Upington VIA
- Zeus to Mercury transmission line (comparative viewshed analyses)
- Mmamabula (Botswana) transmission line and power station viewshed analyses
- Petronet new multi-products pipeline VIA
- Wind energy facility (Sere) in the Western Cape province VIA
- Ankerlig power station conversion and transmission line VIA
- Gourikwa power station conversion and transmission line VIA
- Kyalami strengthening project VIA
- Steelpoort integration project VIA
- Medupi reservoir and telecommunication mast VIA
- VIA's for Basic Assessment Reports (wind monitoring masts)
  - Cookhouse, Hopefield, Amakhala, Caledon, Worcester, Tulbach, Overberg, Britannia Bay, Brand-se-Baai, Deep River, Happy Valley, River Bank, Uiekraal, Beaufort West, Laingsburg, Rheboksfontein, Suurplaat and West Coast
- Cookhouse wind energy facility VIA
- Hopefield wind energy facility VIA
- Mokopane Integration Project VIA
- Cradle of Humankind World Heritage Site (WHS) viewshed protection zone, visual character assessment and visual zonation plan
- Indwe wind energy facility VIA
- Amakhala wind energy facility VIA
- Boontjieskraal wind energy facility VIA
- Britannia Bay wind energy facility VIA
- Brand-se-Baai wind energy facility VIA
- Upington and Pofadder solar thermal facilities VIAs

- Dorper wind energy facility VIA
- Flagging Trees wind energy facility VIA
- Rheboksfontein, Suurplaat and West Coast wind energy facilities VIAs
- Riverbank wind energy facility VIA
- Waterberg photovoltaic plant VIA
- Eskom wind intergration projects VIAs
- Welgedacht water care works VIA
- Aberdeen wind energy facility
- Aggeneis-Oranjemund power line intergration
- Project Blue wind energy facility
- Inca De Aar solar energy facility
- Aced De Aar solar energy facility
- Exxaro Lephalale solar energy facility
- Happy Valley wind energy facility
- Hendrina power station ash dam extension
- Hidden Valley wind energy facility
- Kakamas photovoltaic plant
- Karoo renewable energy facility
- Ilanga (Karoskraal) solar thermal power plant
- Keimoes photovoltaic plants (Sonnenberg, Ofir and Geelkop)
- Kimberley photovoltaic solar plant
- Kleinbegin photovoltaic plant
- Kleinzee wind energy facility
- Koingnaas wind energy facility
- Oyster Bay wind energy facility
- Ilanga Lethemba (Paardevlei) PV solar energy facility
- Upington photovoltaic solar facility
- Ramphele (Ritchie) PV solar energy facility
- Ruukie (Mpumalanga) coal fired power station
- Saldanha Steel wind energy facility
- Spitskop wind energy facility
- Tsitsikamma community wind energy facility
- Uyekraal wind energy facility
- Veldrift and Saldanha wind energy facilities
- Vredendal photovoltaic solar energy facility
- Wag'nBiekiespan solar energy facility
- Walker Bay wind energy facility
- Etc. (a comprehensive list can be provided upon request)

#### **Professional History**

**4/2017:** Professional GISc Practitioner (sole proprietor/self employed)

1/2016 - 3/2017: SMEC South Africa, Pretoria - Technical Specialist

11/1999 - 12/2015: MetroGIS (Pty) Ltd, Pretoria - Director

10/1997 - 10/1999: GISBS (GIS Business Solutions - Q Data Consulting) - Project Manager

4/1990 - 9/1997: GisLAB CC (GIS Laboratory - University of Pretoria) - Member / Project Manager

#### **Courses & Conferences attended**

1997 ESRI International User Conference – United States of America

#### **Publications & Papers presented**

Name: Gateway to Kruger Map and Guide

Authors: Andy Tinker Photography

**Publisher:** ATP Publishing

**Date: 2010** 

Name: Kruger National Park Map and Photographic Guide

**Authors:** Andy Tinker Photography

**Publisher:** ATP Publishing

**Date: 2007** 

Name: Lowveld and Kruger Guide Authors: High Branching Team Publisher: Jacana Media (Pty) Ltd

**Date: 2004** 

Name: Heights to Homes to Oceans (H2O) Water Wise information poster

Authors: Rand Water Publisher: Rand Water

**Date: 2004** 

Name: Garden Route - Still Bay to Storms River (Discover the Magic)

Authors: Jacana

Publisher: Jacana Media (Pty) Ltd

**Date: 2003** 

Name: KwaZulu-Natal - A celebration of biodiversity

Authors: Jacana

Publisher: Jacana Media (Pty) Ltd

**Date: 2001** 

Name: Pilanesberg Official Map and Park Guide

Authors: North-West Parks & Tourism Board and Jacana

Publisher: Jacana Media (Pty) Ltd

**Date: 2001** 

Name: ESRI Map Book (Volume 13)

**Authors:** Various

Publisher: Environmental Systems Research Institute (ESRI)

**Date:** 1998

Name: Environmental Potential Atlas for South Africa

Authors: W. van Riet, J. van Rensburg, P. Claassen, L. du Plessis and T. van Viegen

Publisher: J.L. van Schaik

**Date: 1997** 

Award: Best South African Environmental Technical Paper

Awarded for: National Environmental Potential Atlas (ENPAT National)

Awarded by: Environmental Planning Professions Interdisciplinary Committee (EPPIC)

**Date:** 1995

**Award:** Map Gallery Most Analytical Competition - 3rd Place **Awarded for:** Environmental Potential Atlas for South Africa **Awarded by:** Environmental Systems Research Institute (ESRI)

Date: 1997 International ESRI User Conference

Award: Best Cartographic Map Gallery Competition - 3rd Place

Awarded for: Environmental Potential Atlas for South Africa (Publication)

Awarded by: Environmental Systems Research Institute (ESRI)

Date: 1998 International ESRI User Conference

Award: QDC Performance Award Awarded for: ENPAT Development Awarded by: Q Data Consulting

**Date:** 1998

Award: Best South African Environmental Technical Paper

Awarded for: Environmental Potential Atlas for South Africa (Publication)

Awarded by: Environmental Planning Professions Interdisciplinary Committee (EPPIC)

**Date**: 1998

#### **Language Skills**

**Mother Tongue:** Afrikaans

LanguagesSpeakReadWriteEnglishGoodGoodGoodAfrikaansGoodGoodGood



# DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number: NEAS Reference Number: Date Received:	DEA/EIA/

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

### PROJECT TITLE

Allepad PV Four, 100MW photovoltaic (PV) solar energy generation facility and associated infrastructure near Upington, Northern Cape Province

# Kindly note the following:

- 1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
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- 5. All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

#### **Departmental Details**

#### Postal address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Private Bag X447

Pretoria

0001

#### Physical address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

**Environment House** 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

#### SPECIALIST INFORMATION 1.

Charielist Company Name:	Lourens du Plessis t/a LOGIS				
Specialist Company Name: B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	Exempt	Percenta Procuren recognition	nent	
Specialist name:	Lourens du Plessis				
Specialist Qualifications:	BA Control of the Con				
Professional	Professional GISc Practitioner (PGP0147) registered with the South African Geomatics				
affiliation/registration:	Council (SAGC)				
Physical address:	531A Witogie Str. Die Wilgers, Pretoria				
Postal address:	PO Box 384, La Montagne				
Postal code:	0184		Cell:	082 922 90	)19
Telephone:			Fax:		
E-mail:	lourens@logis.co.za				

#### **DECLARATION BY THE SPECIALIST** 2.

I, Lourens du Plessis, declare that -

- I act as the independent specialist 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 the specialist report relevant to this application, 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 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;
- all the particulars furnished by me in this form are true and correct; and

_	0.17
•	I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F or
	the Act.

Signature of the Specialist Lourens du Plessis t/a LOGIS Name of Company: 2018/10/10

Date



1st Floor, Block 2, 5 Woodlands Drive Office Park Woodlands Drive, Woodmead Johannesburg, South Africa

> Email: sarah@savannahsa.com Tel: +27 (11) 656 3237

#### **CURRICULUM VITAE OF SARAH WATSON**

**Profession:** Environnemental Consultant

Specialisation: Environmental Impact Assessment, Environmental Management, Environmental

Compliance and Due Diligence, and Compilation of Reports for projects in the

infrastructure sector.

Work Experience: Eight (8) years in the environmental field

#### **VOCATIONAL EXPERIENCE**

Sarah has a Bachelor of Social Science (B.Soc.Sci.) Honours Degree in Geography and Environmental Management from the University of KwaZulu-Natal (UKZN), and eight (8) years of experience as an Environmental Consultant in the field of Environmental Impact Assessment and Environmental Management. She has experience working on a range of projects, specifically within the telecommunications; residential; industrial; bulk infrastructure; rural development; and energy sectors.

#### **SKILLS BASE AND CORE COMPETENCIES**

- Environmental Assessment
- Environmental Management
- Environmental Compliance Monitoring
- Geographic Information System (GIS)
- Stakeholder Engagement

#### **EDUCATION AND PROFESSIONAL STATUS**

#### Degrees:

- B.Soc.Sci. Honours in Geography and Environmental Management, University of KwaZulu-Natal, 2007
- B.Soc.Sci. Geography and Environmental Management, University of KwaZulu-Natal, 2006

#### Short Courses:

Environmental and Social Risk Management (ESRM), International Finance Corporation (IFC), 2018

#### **Professional Society Affiliations:**

- Member of the South African affiliate of the International Association for Impact Assessment (IAIAsa)
- Member of the Society of South African Geographers (SSAG).

# **EMPLOYMENT**

Date	Company	Roles and Responsibilities	
October 2016 – Current	Savannah Environmental (Pty) Ltd	Environmental Consultant	
		Tasks included: Executing Environmental Impact	
		Assessment (EIA) processes, GIS Work,	
		Environmental Screening, Environmental Due	
		Diligence, Social Impact Assessment and	
		Environmental Management and auditing.	
December 2013 –	Golder Associates Africa (Pty) Ltd	Environmental Consultant	
December 2014		Tasks included: Executing Environmental Impact	
		Assessment (EIA) and Basic Assessment (BA)	
		processes, and GIS work.	
January 2011 –	Scientific and Industrial Research	Environmental Consultant	
November 2013	(CSIR)	Tasks included: Executing Environmental Impact	
		Assessment (EIA) and Basic Assessment (BA)	
		processes, GIS work, Public Participation and	
		Stakeholder Engagement, Social Impact	
		Assessment, Environmental Screening, and	
		Environmental Management.	
April 2008 – December	K2M Environmental (Pty) Ltd	Environmental Consultant	
2010		Tasks included: Executing Basic Assessment (BA)	
		processes, GIS work, Public Participation and	
		Stakeholder Engagement, Preliminary	
		Environmental Screening, and Environmental	
		Management and auditing.	

# PROJECT EXPERIENCE

# Renewable Power Generation Projects: Solar Energy Facilities

# **Environmental Impact Assessments and Environmental Management Programmes**

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Project Name & Location	Client Name	Role	
Lichtenburg 1, a PV facility and associated	ABO Wind Lichtenburg 1 PV	Environmental, GIS and Social	
infrastructure proposed on a site near Lichtenburg,	(Pty) Ltd	Consultant (Scoping Phase)	
in the North West Province			
Lichtenburg 2, a PV facility and associated	ABO Wind Lichtenburg 2 PV	Environmental, GIS and Social	
infrastructure proposed on a site near Lichtenburg,	(Pty) Ltd	Consultant (Scoping Phase)	
in the North West Province			
Lichtenburg 3, a PV facility and associated	ABO Wind Lichtenburg 3 PV	Environmental, GIS and Social	
infrastructure proposed on a site near Lichtenburg,	(Pty) Ltd	Consultant (Scoping Phase)	
in the North West Province			
Combined EIA for the Betelgeuse PV Solar Projects	Aurora Power Solutions (Pty)	Environmental, GIS and Public	
1, 2, 3 and 4; between Murraysburg and Victoria	Ltd	Participation Consultant	
West, Western Cape Province.		(Scoping Phase)	
EIA for the 75 MW Glen Thorne PV Solar Facility, near	SolaireDirect	Author of the draft Scoping	
Bloemfontein, Free State Province.		Report (SR)	

#### **Basic Assessments**

Project Name & Location	Client Name	Role
BA for the PV Power Project on Kennilworth Farm,	Biotherm Energy	Author of the draft Basic
Northern Cape.		Assessment Report (BAR)

### **Screening Studies**

Project Name & Location	Client Name	Role		
Environmental Site Screening Assessment For Solar	H1 Holdings (Pty) Ltd	Environmental	and	GIS
PV Energy Facilities proposed at Salima, Lilongwe		Consultant		
and Golomoti, Central Region, Malawi.				

# **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
2017 Annual Environmental Compliance Evaluation	Mulilo Renewable Energy	Auditor
with the Equator Principles and Environmental and	Solar PV De Aar (Pty) Ltd	
Social Action Plan for the Mulilo Solar PV De Aar		
Photovoltaic Solar Energy Facility, Northern Cape		
Province		
2017 Annual Environmental Compliance Evaluation	Mulilo Renewable Energy	Auditor
with the Equator Principles and Environmental and	Solar PV Prieska (Pty) Ltd	
Social Action Plan for the Mulilo Solar PV Prieska		
Photovoltaic Solar Energy Facility, Northern Cape		
Province		
Biannual Environmental Compliance Audit of the	Limarco 77(Pty) Ltd	Auditor
Konkoonsies 10MW Photovoltaic (PV) Solar Energy		
Facility near Pofadder, Northern Cape Province		
Biannual Environmental Compliance Audit of the	Sevenstones 159 (Pty) Ltd	Auditor
Aries 10MW Photovoltaic (PV) Solar Energy Facility		
near Kenhardt, Northern Cape Province		
Final Environmental Compliance Audit for the Xina	Xina Solar One RF (Pty) Ltd	Auditor
Solar One Thermal Plant, near Pofadder, Northern		
Cape Province		

### Renewable Power Generation Projects: Wind Energy Facilities

# Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role		
Combined EIA for the Ishwati Emoyeni Wind Energy	Windlab Developments South	Environmental,	GIS,	and
Facility and associated Eskom Grid Connection	Africa (Pty) Ltd (WDSA)	Public	Particip	ation
Infrastructure, near Murraysburg, Western Cape		Consultant (Sco	ping Pho	rse)
Province.				
EIA for the proposed Universal Wind Energy Project	Universal Wind	Environmental C	Consultar	nt
in the Coega IDZ, Eastern Cape Province.				

#### **Screening Studies**

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Project Name & Location	Client Name	Role		
Pre-Feasibility Desktop Screening and Consideration	Philco Green Energy (Pty) Ltd	Environmental	and	GIS
of Single Turbine Wind Sites Near Victoria West,		Consultant		
Northern Cape Province.				
Environmental Screening Study (ESS) of Sites being	Confidential	Environmental	and	GIS
Investigated for Potential Wind Energy Projects, in		Consultant		

Project Name & Location	Client Name	Role
the Northern Cape, Eastern Cape, Western Cape;		
and KwaZulu-Natal Provinces.		

### **Due Diligence Reporting**

Project Name & Location	Client Name	Role
Environmental Compliance Checklists for the	Roggeveld Wind Power (Pty)	Environmental Consultant
Roggeveld Wind Farm in the Northern and Western	Ltd	
Cape Province.		
Environmental and Social Compliance Report:	Amakhala Emoyeni RE Project	Environmental Consultant
Evaluation of Compliance with the Equator	1 (RF) (Pty) Ltd	
Principles (EPs), International Finance Corporation		
(IFC) Performance Standards (PSs) and		
Environmental and Social Action Plan (ESAP) for the		
Amakhala Emoyeni Wind Energy Facility		
Environmental and Social Due Diligence Report for	Building Energy South Africa	Environmental Consultant
the Roggeveld Wind Farm in the Northern and	(Pty) Ltd	
Western Cape Province.		

#### Renewable Power Generation Projects: Hydroelectric Energy Facilities

### **Due Diligence Reporting**

Project Name & Location	Client Name	Role
Environmental Compliance Checklists for the	Zevobuzz (Pty) Ltd	Environmental Consultant
Kruisvallei Hydroelectric Power Generation Scheme,		
Free State Province		

### **Conventional Power Generation Projects (Coal)**

### **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
H2 Energy Power Station and associated	H2 Clean Energy (Pty) Ltd	Environmental and GIS
infrastructure near KwaMhlanga, Mpumalanga		Consultant
Province.		
Mutsho Power Project and Associated Infrastructure	Mutsho Power (Pty) Ltd	Environmental and GIS
on a site near Makhado (Louis Trichardt), Limpopo		Consultant
Province.		

#### **Screening Studies**

Project Name & Location	Client Name	Role	
Environmental Site Screening Assessment for a new	Confidential	Environmental and	GIS
coal-fired power station near Makhado (Louis		Consultant	
Trichardt), Limpopo Province.			

### **Mining Sector Projects**

### Environmental Impact Assessments and Environmental Management Programmes

Project Name & Location	Client Name	Role	
ESIA for a proposed Iron Ore Mine near Melmoth,	Jindal Mining (Pty) Ltd	Environmental	Consultant
Northern KwaZulu-Natal.		(Scoping Phase)	

ESIA for a proposed Iron Ore Processing Site near	Jindal Processing (Pty) Ltd	Environmental	Consultant
Melmoth, KwaZulu-Natal Province.		(Scoping Phase)	

# **Environmental Compliance, Auditing and ECO**

Project Name & Location	Client Name	Role
Independent External Compliance audit of Palesa	HCI Coal	Auditor
Mine's Integrated Water Use License (IWUL), near		
KwaMhlanga, Mpumalanga Province		
Independent External Compliance audit of Palesa	HCI Coal	Auditor
Mine's Waste Management License (WML), near		
KwaMhlanga, Mpumalanga Province		
Independent External Compliance audit of Mbali	HCI Coal	Auditor
Mine's Integrated Water Use License (IWUL), near		
Ogies, Mpumalanga Province		

# <u>Infrastructure Development Projects (bridges, pipelines, roads, etc.)</u>

# **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
EIA for the proposed Vopak-Reatile Terminal	Vopak South Africa	Environmental Consultant
Richards Bay Bulk Liquid Storage and Handling	Developments (Pty) Ltd.	(Scoping Phase)
Facility, Richards Bay, KwaZulu-Natal Province.		
EIA for a proposed Common User Marine Servitude	Coega Development	Environmental Consultant
and Pipelines	Corporation (CDC)	(Scoping Phase)

#### **Basic Assessments**

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Project Name & Location	Client Name	Role
BA for site clearing and site preparation activities on	Vopak South Africa	Environmental Consultant
Lots 4 and 5 of Portion 3 of Erf 11478 in the South	Developments (Pty) Ltd.	
Dunes Precinct of the Port of Richards Bay, KwaZulu-		
Natal Province.		
BA for the proposed Hlabisa Bulk Water Supply	Mhlathuze Water	Environmental, GIS and
Scheme, Hlabisa, KwaZulu-Natal Province.		Public Participation
		Consultant
BA for the proposed construction of a Bulk Sewage	City of uMhlathuze Local	Environmental, GIS and
Rising Main, City of uMhlathuze, KwaZulu-Natal	Municipality.	Public Participation
Province.		Consultant
BA for the proposed Rita Light Industrial Park	Daisy Wheel Investments (Pty)	Environmental, GIS and
Development, near Camperdown, KwaZulu-Natal	Ltd	Public Participation
Province.		Consultant
BA for the development of a Light Industrial Park on	Daisy Wheel Investments (Pty)	Environmental, GIS and
Portion 10 of the Farm Balgowrie, Camperdown,	Ltd	Public Participation
KwaZulu-Natal.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Richards Bay, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station at Felixton, near Empangeni, KwaZulu-Natal		Consultant
Province.		

Project Name & Location	Client Name	Role
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Ballito, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Howick, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Richmond, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station in Durban, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Kokstad, KwaZulu-Natal Province.	Willia	Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Richmond, KwaZulu-Natal Province.	WIIN	Consultant
	DCO lists we set a set of a least of	
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Mkondeni, Pietermaritzburg, KwaZulu-		Consultant
Natal Province.		
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station in Pietermaritzburg, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station in Bulwer, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Camperdown, KwaZulu-Natal		Consultant
Province.		
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Underberg, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station in Cowies Hill, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station in Phoenix, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Kokstad, Eastern Cape Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Vulindlela, KwaZulu-Natal Province.		Consultant
BA for the construction of a MTN	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	MTN	Public Participation
Station near Mpendle, KwaZulu-Natal Province.		Consultant
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Project Name & Location	Client Name	Role
BA for the construction of a MultiChoice Water	BSO International on behalf of	Environmental, GIS and
Tower Transmission Installations and associated Base	MultiChoice	Public Participation
Stations in Isipingo, KwaZulu-Natal Province		Consultant
BA for the construction of a MultiChoice Water	BSO International on behalf of	Environmental, GIS and
Tower Transmission Installations and associated Base	MultiChoice	Public Participation
Stations in Umlazi, KwaZulu-Natal Province		Consultant
BA for the construction of a MultiChoice Rooftop	BSO International on behalf of	Environmental, GIS and
Transmission Installation and associated Base	MultiChoice	Public Participation
Station in Reservoir Hills, KwaZulu-Natal Province.		Consultant
BA for the construction of a MultiChoice Rooftop	BSO International on behalf of	Environmental, GIS and
Transmission Installation and associated Base	MultiChoice	Public Participation
Station in Wentworth, KwaZulu-Natal Province.		Consultant
BA for the construction of a MultiChoice Rooftop	BSO International on behalf of	Environmental, GIS and
Transmission Installation and associated Base	MultiChoice	Public Participation
Station in Queensburgh, KwaZulu-Natal Province.		Consultant
BA for the construction of a MultiChoice Rooftop	BSO International on behalf of	Environmental, GIS and
Transmission Installation and associated Base	MultiChoice	Public Participation
Station at the University of KwaZulu-Natal (UKZN),		Consultant
KwaZulu-Natal Province.		
BA for the construction of a MultiChoice Rooftop	BSO International on behalf of	Environmental, GIS and
Transmission Installation and associated Base	MultiChoice	Public Participation
Station in Amanzimtoti, KwaZulu-Natal Province.		Consultant
BA for the construction of an iBurst	BSO International on behalf of	Environmental, GIS and
Telecommunication Mast and associated Base	iBurst	Public Participation
Station in Kloof, KwaZulu-Natal Province		Consultant

# **Screening Studies**

Project Name & Location	Client Name	Role
Consideration of environmental authorisation,	Energy Group	Environmental Consultant
licensing and permitting requirements for gas		
transmission pipelines in the Clayville, Nigel, and		
Wadeville areas, Ekurhuleni Metropolitan		
Municipality, Gauteng		
ESS for the proposed Development of Pier 1 Phase 2	Transnet Capital Projects	Environmental Consultant
Container Terminal in the Port of Durban, KwaZulu-	(TCP).	and co-author
Natal Province.		

# Environmental Compliance, Auditing and ECO

Project Name & Location	Client Name	Role
Construction of a New Distribution Centre and	Olivier & Partners on behalf of	Environmental Control
Warehouse on Erf 5539 and 5540 (Chloorkop X74),	ARB Holdings (Pty) Ltd	Officer (ECO)
Lords View Industrial Park, Gauteng Province		
Gap Analysis of Venture Diversified Product (VDP)	Venture Diversified Product	Auditor
Rosslyn Facility's EMS, in Rosslyn, Gauteng Province	(VDP) Rosslyn	
Construction of the Hlabisa Bulk Water Supply	Mhlathuze Water	Environmental Control
Scheme, in Hlabisa, KwaZulu-Natal Province		Officer (ECO)

# Training

Project Name & Location	Client Name	Role
Capacity Building Workshop on Amended	Transnet	Assistant Environmental
Environmental Impact Assessment Regulations and		Consultant and
Associated Legislation, Durban, KwaZulu-Natal		Researcher

# **Housing and Urban Projects**

# **Environmental Impact Assessments and Environmental Management Programmes**

Project Name & Location	Client Name	Role
EMP for the Makhasaneni Rural Subsidised Housing	Stedone Developments and	Environmental and GIS
Development, in Mthonjaneni (Ward 5), KwaZulu-	Bigen Africa on behalf of the	Consultant
Natal Province.	Mthonjaneni Local	
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	
EMP for the Ntembisweni Rural Subsidised Housing	Stedone Developments and	Environmental and GIS
Development in the Ntembisweni Traditional	Bigen Africa on behalf of the	Consultant
Authority Area near Greytown, KwaZulu-Natal	Umvoti Local Municipality,	
Province.	and the KwaZulu-Natal	
	Department of Housing.	
EMP for the Sikhonyane Rural Subsidised Housing	Stedone Developments and	Environmental and GIS
Development, in the Sikhonyane Traditional	Bigen Africa on behalf of the	Consultant
Authority area, KwaZulu-Natal Province.	Mandeni Local Municipality,	
	and the KwaZulu-Natal	
	Department of Housing.	
EMP for the Umzumbe Cluster A Rural Subsidised	Stedone Developments and	Environmental and GIS
Housing Development, near Umzumbe, KwaZulu-	Bigen Africa on behalf of the	Consultant
Natal Province.	Umzumbe Local Municipality,	
	and the KwaZulu-Natal	
	Department of Housing.	
EMP for the Applebosch Rural Subsidised Housing	Stedone Developments and	Environmental and GIS
Development near Ndwedwe, KwaZulu-Natal	Bigen Africa on behalf of the	Consultant
Province.	Msunduzi Local Municipality,	
	and the KwaZulu-Natal	
	Department of Housing.	

### **Basic Assessments**

Basic Assessments		
Project Name & Location	Client Name	Role
BA for the proposed Loch-Sloy Rural Subsidised	Imbabazane Local	Environmental, GIS and
Housing Development, near Estcourt, KwaZulu-	Municipality	Public Participation
Natal Province.		Consultant
BA for the proposed "Living in THE PARK" Residential	J.H.K Developers	Environmental, GIS and
Development, near Albert Falls, KwaZulu-Natal		Public Participation
Province.		Consultant
BA for the proposed Residential Development on	Princes Grant	Environmental, GIS and
the Remainder of Erf 215, Prince's Grant, KwaZulu-		Public Participation
Natal Province.		Consultant
BA for the proposed Greenmeadow Lane	Rodney Blake Jolly on behalf	Environmental, GIS and
Retirement Village, KwaZulu-Natal Province.	of Georgies Avenue	Public Participation
	Investments (Pty) Ltd	Consultant

# **Screening Studies**

Project Name & Location	Client Name	Role		
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, in the	Bigen Africa on behalf of the	Consultant		
Ntembisweni Traditional Authority area near	Umvoti Local Municipality,			
Greytown, KwaZulu-Natal Province.	and the KwaZulu-Natal			
	Department of Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, in the Mkhwanazi	Bigen Africa on behalf of the	Consultant	ana	013
Traditional Authority area, KwaZulu-Natal Province.	City of uMhlathuze Local	Consolidin		
iradilional Authority died, kwazolo-natai i tovince.	-			
	Municipality, and the			
	KwaZulu-Natal Department of			
	Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, at Makhasaneni	Bigen Africa on behalf of the	Consultant		
in Ward 5 of the Mthonjaneni Local Municipality,	Mthonjaneni Local			
KwaZulu-Natal Province.	Municipality, and the			
	KwaZulu-Natal Department of			
	Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, at the	Bigen Africa on behalf of the	Consultant		
Sikhonyane Traditional Authority area, KwaZulu-	Mandeni Local Municipality,			
Natal Province.	and the KwaZulu-Natal			
	Department of Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
•	Bigen Africa on behalf of the	Consultant	ana	013
Subsidised Housing Development, near Nawedwe,		Consultani		
KwaZulu-Natal Province.	Msunduzi Local Municipality,			
	and the KwaZulu-Natal			
	Department of Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, at Nxamalala	Bigen Africa on behalf of the	Consultant		
Traditional Authority area, KwaZulu-Natal Province.	Impendle Local Municipality,			
	and the KwaZulu-Natal			
	Department of Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, KwaZulu-Natal	Bigen Africa on behalf of the	Consultant		
Province.	Local Municipality, and the			
	KwaZulu-Natal Department of			
	Housing.			
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, at KwaDolo	Bigen Africa on behalf of the	Consultant		٥.٠
Traditional Authority area, KwaZulu-Natal Province.	Msinga Local Municipality,			
Traditional Tollion, area, Kwazolo Natari Toville.	and the KwaZulu-Natal			
	Department of Housing.			
Proliminary Environmental Assessment for a Dural	· -	Environmental	and	CIC
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental	and	GIS
Subsidised Housing Development, at Ndlangubo	Bigen Africa on behalf of the	Consultant		
Traditional Authority area, KwaZulu-Natal Province.	uMlalazi Local Municipality,			
	and the KwaZulu-Natal			
	Department of Housing.			

Project Name & Location	Client Name	Role
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental and GIS
Subsidised Housing Development, at the Embo	Bigen Africa on behalf of the	Consultant
Traditional Authority area, KwaZulu-Natal Province.	Maphumulo Local	
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	
Preliminary Environmental Assessment for a Rural	Stedone Developments and	Environmental and GIS
Subsidised Housing Development, at Mthandeni	Bigen Africa on behalf of the	Consultant
Traditional Authority area, KwaZulu-Natal Province.	Maphumulo Local	
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	
Preliminary Environmental Assessment for the	Stedone Developments and	Environmental and GIS
Highflats Slum Clearance Housing Project near	Bigen Africa on behalf of the	Consultant
Ixopo, KwaZulu-Natal Province.	Ubuhlebezwe Local	
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	

# **Environmental Permitting & WUL Applications**

Project Name & Location	Client Name	Role
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Kwamavundla Rural Subsidised Housing	Bigen Africa on behalf of the	assistant Environmental
Development in the Kwamavundla Traditional	Hibiscus Coast Local	Consultant
Authority area, KwaZulu-Natal Province.	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Ngolokodo Rural Subsidised Housing Development,	Bigen Africa on behalf of the	assistant Environmental
near Nquthu KwaZulu-Natal Province.	Ubuhlebezwe Local	Consultant
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Mdletshe Traditional Authority Rural Subsidised	Bigen Africa on behalf of the	assistant Environmental
Housing Development, KwaZulu-Natal Province.	Hlabisa Local Municipality,	Consultant
	and the KwaZulu-Natal	
	Department of Housing.	
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Makhasaneni Rural Subsidised Housing	Bigen Africa on behalf of the	assistant Environmental
Development, KwaZulu-Natal Province.	Mthonjaneni Local	Consultant
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Njomelwane Rural Subsidised Housing	Bigen Africa on behalf of the	assistant Environmental
Development, KwaZulu-Natal Province.	Ntambanana Local	Consultant
	Municipality, and the	
	KwaZulu-Natal Department of	
	Housing.	

Project Name & Location	Client Name	Role
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Umzumbe Cluster A Rural Subsidised Housing	Bigen Africa on behalf of the	assistant Environmental
Development, KwaZulu-Natal Province.	Umzumbe Local Municipality,	Consultant
	and the KwaZulu-Natal	
	Department of Housing.	
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Ntanzi Rural Subsidised Housing Development,	Bigen Africa on behalf of the	assistant Environmental
KwaZulu-Natal Province.	Nongoma Local Municipality,	Consultant
	and the KwaZulu-Natal	
	Department of Housing.	
Application for Planning Consent for the proposed	Stedone Developments and	GIS Consultant and
Abakwahlabisa Rural Subsidised Housing	Bigen Africa on behalf of the	assistant Environmental
Development, KwaZulu-Natal Province.	Hlabisa Local Municipality,	Consultant
	and the KwaZulu-Natal	
	Department of Housing.	

# **Environmental Management Tools**

# **Screening Studies**

Project Name	& Location	on		Client Name		Role
Umzinyathi	District	Municipality's	Strategic	Umzinyathi	District	Assistant GIS Consultant
Environmento	al Assessme	ent (July 2009).		Municipality		

# **Specialist Studies**

# **Social Impact Assessments**

Project Name & Location	Client Name	Role
Social Impact Assessment in support of the	ILEnergy Development (Pty)	Social Consultant
Environmental Impact Assessment for Allepad PV	Ltd	
One		
Social Impact Assessment in support of the	ILEnergy Development (Pty)	Social Consultant
Environmental Impact Assessment for Allepad PV	Ltd	
Two		
Social Impact Assessment in support of the	ILEnergy Development (Pty)	Social Consultant
Environmental Impact Assessment for Allepad PV	Ltd	
Three		
Social Impact Assessment in support of the	ILEnergy Development (Pty)	Social Consultant
Environmental Impact Assessment for Allepad PV	Ltd	
Four		
Social Impact Assessment in support of the	Hyperion Solar Development 1	Social Consultant
Environmental Impact Assessment for Hyperion Solar	(Pty) Ltd	
Development 1		
Social Impact Assessment in support of the	Hyperion Solar Development 2	Social Consultant
Environmental Impact Assessment for Hyperion Solar	(Pty) Ltd	
Development 2		
Social Impact Assessment in support of the	Hyperion Solar Development 3	Social Consultant
Environmental Impact Assessment for Hyperion Solar	(Pty) Ltd	/
Development 3		
Social Impact Assessment in support of the	Hyperion Solar Development 4	Social Consultant
Environmental Impact Assessment for Hyperion Solar	(Pty) Ltd	
Development 4		

Social Impact Assessment in support of the	ABO Wind Lichtenburg 1 PV	Social Consultant
Environmental Impact Assessment for Lichtenburg 1	(Pty) Ltd	
Social Impact Assessment in support of the	ABO Wind Lichtenburg 2 PV	Social Consultant
Environmental Impact Assessment for Lichtenburg 2	(Pty) Ltd	
Social Impact Assessment in support of the	ABO Wind Lichtenburg 3 PV	Social Consultant
Environmental Impact Assessment for Lichtenburg 3	(Pty) Ltd	
Social Impact Assessment in support of the	ABO Wind Hotazel PV (Pty) Ltd	Social Consultant
Environmental Impact Assessment for Hotazel Solar		
Social Impact Assessment in support of the Basic	Zevobuzz (Pty) Ltd	Social Consultant
Assessment for the Kruisvallei Hydroelectric Power		
Generation Scheme, Free State Province		
Review and update of Social Assessment for the	City of uMhlathuze	Social Consultant
Lake Management Plan for Lake Mzingazi, Richards		
Bay, KwaZulu-Natal Province		



# DETAILS OF THE SPECIALIST, DECLARATION OF INTEREST AND UNDERTAKING UNDER OATH

	(For official use only)
File Reference Number:	
NEAS Reference Number:	DEA/EIA/
Date Received:	

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

#### **PROJECT TITLE**

Allepad PV Four, 100MW photovoltaic (PV) solar energy generation facility and associated infrastructure near Upington, Northern Cape Province

# Kindly note the following:

- This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- 2. This form is current as of 01 September 2018. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
- 3. A copy of this form containing original signatures must be appended to all Draft and Final Reports submitted to the department for consideration.
- 4. All documentation delivered to the physical address contained in this form must be delivered during the official Departmental Officer Hours which is visible on the Departmental gate.
- All EIA related documents (includes application forms, reports or any EIA related submissions) that are faxed; emailed; delivered to Security or placed in the Departmental Tender Box will not be accepted, only hardcopy submissions are accepted.

#### Departmental Details

#### Postal address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Private Bag X447

Pretoria

0001

#### Physical address:

Department of Environmental Affairs

Attention: Chief Director: Integrated Environmental Authorisations

Environment House 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

#### 1. SPECIALIST INFORMATION

Specialist Company Name: Savannah Environmental (Pty) Ltd **B-BBEE** Percentage Contribution level (indicate 1 Level 2 **Procurement** 125% to 8 or non-compliant) recognition Specialist name: Sarah Watson Specialist Qualifications: B.Soc.Sci Honours in Geography and Environmental Management (2007) B.Soc.Sci in Geography and Environmental Management (2006) Professional N/A affiliation/registration: Physical address: First Floor, Block 2, 5 Woodlands Drive Office Park Woodlands Drive, Woodmead Postal address: P.O. Box 148 Sunninghill Postal code: 2157 Cell: 074 417 9694 Telephone: 011 656 3237 Fax: 086 684 0547 E-mail: sarah@savannahsa.com

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•	111-1-1	$\Lambda \cup \Lambda \cap \Pi \cap M$	DV IDE	<b>SPECIALIST</b>

l,	Sarah Watson	, declare that -

- I act as the independent specialist 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 the specialist report relevant to this application, 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 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;
- all the particulars furnished by me in this form are true and correct; and

•	realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of he Act.		
e	White son		
Sig	eture of the Specialist		
Sav	annah Environmental (Pty) Ltd		
Nan	ne of Company:		
10	-10 - 2018		

Date