

# Environmental Management Assistance (Pty) Ltd Company History and Location

Environmental Management Assistance (Pty) Ltd (Registration No 2013/154475/07) is a wholly woman-owned (HDI) specialist environmental consulting company established in May 2013. The company benefits from the pooled resources, diverse skills and experience in the environmental field held by its team (refer to Appendix B for the Company profile). Environmental Management Assistance (Pty) Ltd was established for the purposes of providing holistic and professional environmental management assistance and service to public and private sector clients. Environmental consulting services include:

## Environmental:

- » Planning, and assessing risk
- » Advising
- » Compliance with the Legislation
- » Auditing
- » Training
- » Rehabilitation



## Ownership and size of company

Environmental Management Assistance (Pty) Ltd is an independent environmental consultancy who is able to provide environmental services in accordance with the requirements of relevant environmental legislation. The company is **wholly owned by HDIs (i.e. females)**. Environmental Management Assistance (Pty) Ltd is not a subsidiary of an engineering firm.

Environmental Management Assistance (Pty) Ltd turnover is less than R5 million and is therefore classified as an Exempt Micro Enterprise. Environmental management Assistance (Pty) Ltd is not required to obtain a BBBEE Certificate, as the company is automatically classified as a level 4 BBBEE contributor<sup>1</sup>. We regard the skills and experience of the Project Team to be more than fully compliant with the skills requirements.

## Team Members

**Project Leader:** Anandi Alers (EAP)

Professional Natural Scientist, registration no: 400015/17

Registered EAP, EAPASA no. 2019/1514

**Reviewers:** Taryn Bigwood (Company director)

Professional Natural Scientist, registration no:

# Expertise of EMA team members

## 1. Anandi Alers (EAP)

### Personal Information

**Name and Surname:** Anandi Alers  
**Identity No:** 8801010046087  
**Residential and postal address:** 4479 Seringa Street, The Heads, Lydenburg  
 Postnet suite #153  
 Private Bag X20097  
 Lydenburg  
 1120  
**Contact Numbers:** +27 (0) 72 604 0455  
**Date of Birth:** 01 January 1988  
**Gender:** Female  
**E-mail address:** anandi.alers@emassistance.co.za  
**Nationality:** South African  
**Marital Status:** Married  
**Languages:** Afrikaans, English

### Expertise

**Professional Qualifications, Memberships & Registrations**  
**2017:** Professional Natural Scientist, registration no: 400015/17  
**2014:** Professional member of the International Association for Impact Assessment, South Africa (IAIAsa)  
**2019:** Registered EAP, EAPASA no. 2019/1514

### Educational Qualifications

#### Tertiary Education:

**Name of Institution:** North West University, Potchefstroom  
**Course of study:** B.Sc. – Geography, Tourism, and Zoology  
**Duration of study:** 3 years  
**Main subjects:**

- Geography
- Tourism
- Zoology

#### Post Graduate Studies:

**Name of Institution:** North West University, Potchefstroom  
**Course of study:** HON.B.Sc. – Environmental Science  
**Duration of study:** 1 Year  
**Main subjects:**

- OMBO 611 - Introduction to Environmental Management
- OMBO 614 - Applied GIS (Geographic information system)
- OMBO 621 – Hydrology

- OMBE 672 – Reviewing of Environmental Impact Reports (EIRs)
- OMBO 674 – Environmental Management (Including introduction to ISO 14001 and environmental management systems; environmental legislation)
- OMBO 675 – Environmental Analysis (EIAs)

**Name of Institution:** North West University, Potchefstroom  
**Course of study:** M.Sc. in Geography and Environmental Management  
**Duration of study:** 3 years (Part time)  
**Main subjects:** GGFN 871 - Dissertation

#### Short Courses:

- LexisNexis: Advanced Environmental Management Systems Course
- IRCA: RCAT (Root Cause Analysis Techniques)
- IRCA: Construction Safety Training Course
- Reptile Ventures: Snake Handling Course
- CEM-02.1 Environmental Law for Environmental Managers
- Growth-Link: Frontline Leadership Development Programme

#### Summary of research projects during Post Graduate Studies

**Topic 1 (Hon.B.S.c) *Exploring the influence of the Environmental Impact Report (EIR) quality review***

***on the effectiveness of the EIA process in South Africa***

**Abstract**

The EIR quality review package developed by Lee and Colley was adapted and used to review the quality of 10 BARs and 10 Scoping reports in the research paper. Results showed that 85% of the EIRs were of satisfactory quality, but some areas did not perform as well.

**Topic 2 (Hon.B.S.c) *Determining hydrological characteristics from a Digital Elevation Model (DEM) in ESRI ArgGIS™***

**Abstract**

The purpose of this study was to create a process model based on raster or grid data structures to extract and determine hydrological characteristics. Hydrologic features of a terrain were determined from a DEM (digital elevation model) using standard functions included in commercially available geographic information system (GIS) software and Spatial Analyst in ESRI ArgGIS™ that operates on raster terrain data. In this study a number of geo-processes were performed to determine hydrological characteristics like the slope, watershed/catchment and stream networks of the associating study area.

**Topic 3 (M.S.c dissertation) *A review package for South African EIA follow-up performance***

**Abstract**

Over the last decades the EIA process has grown to be an important tool for environmental management. However, EIA follow-up, widely considered as a critical step in the process, is neglected globally. To improve the success of EIA follow-up, 17 International Best Practice Principles (IBPP) for follow-up

have been developed. In this study, the provisions made in the South African mandatory requirements, regulations, and guidelines as well as the successful implementation of follow-up in selected case studies under the ECA, NEMA 2006, and NEMA 2010 EIA regulations were appraised according to the 17 IBPP. In order to appraise the selected case studies under these three regulatory regimes, a review package for follow-up was developed, with review topics based on the 17 IBPP, and the package designed on the same basis as the Lee-Colley review package. Six projects were selected under the ECA regulatory regime and seven under the NEMA 2006 regime, but for the NEMA 2010 regime only two case studies were available. The selected case studies included wastewater management facilities, housing, recreational facilities, tourism facilities, and infrastructure development projects such as pipelines, solar plants, filling stations and roads. The competent authority in these instances ranged from National to Provincial (mainly Mpumalanga, Limpopo and Northern Cape) government. The results indicated that the overall performance of follow-up in terms of the 17 IBPP was satisfactory under all three the regulatory regimes, with best performance under the NEMA 2006 regime. A number of areas of strength and a few areas of weaknesses were observed. The strengths included well-defined follow-up outcomes, objectives, targets clear performance criteria ; good commitment to follow-up activities; provision for timely, adaptive and action orientated follow-up programmes in both the pre-decision and post decision EIA phases; proponent and regulator accountability for implementing EIA follow-up; and provision of adequate resources. Weakness included poor description of objectives and goals, a lack of communicating and providing feedback on EIA follow-up outcomes, a shortage of genuine opportunities to involve the community in follow-up activities, and failure to address sustainability issues beyond a project level. Therefore, despite the weaknesses, it appears that in terms of the criteria of this study, follow-up in South Africa is relatively well performed. The results suggest that the roles of the EAP, the ECO and competent authority are important contributing factors to the successful implementation of the 17 IBPP for follow-up. These results are good news in terms of EIA follow-up in the South African context, however further research in follow-up is required covering more provinces, sectors and EIA regimes. It is recommended that the areas of weakness observed be addressed in future EIA practice, including better involvement of the community in follow-up activities; improving requirements on communicating follow-up outcomes; addressing sustainable issues beyond project level; clearly defining follow-up objectives and goals; and clearly defining the role of the EAP, the ECO, and the competent authority with regards to addressing follow-up principles.

### Summary of past experience

**Appointed Environmental Officer and Contractors Assistant to Environmental Manager:**

**5**

APPOINTED EAP TO MANAGE THE INTEGRATED SCOPING AND EIA APPLICATION FOR THE LISTED ACTIVITIES IN TERMS OF NEMA ASSOCIATED WITH THE PROPOSED BCR COAL VLAKFONTEIN MINE  
APPLICANT: BCR COAL(PTY)LTD

**Assistant to Environmental Manager**

Project: Construction of 132 kV Eskom transmission line, Mamelodi

- Design and development of electronic databases and reporting systems for the purposes of measuring the environmental performance for the projects and the company.
- Development of Impact Aspect registers for a contract and for the plant and yard department of the company.
- Responsible for developing baseline Environmental Management System procedures which were then reviewed and improved by the Environmental Manager.
- Review of environmental legislation and linking to the impact aspect register for the creation of a site-specific legal register.
- Development of activity and site-specific environmental method statements.
- Assisting with environmental legal and management plan compliance audits.
- Environmental monitoring, reporting and investigations of environmental incidents/non-conformances.
- General administrative work for the environmental department.
- Development of training material and training posters aimed at raising the environmental awareness of general workers.

**Contracts Environmental Officer:**

- Ensuring compliance of the contract with all Environmental Legislation i.e. obtaining of water use permits, way leaves, bush clearing permits.
- Ensuring that the company Environmental Management Systems are implemented on the contract.
- Environmental awareness inductions and environmental training of all site staff.
- Implementation of contract-specific Environmental Management Plan.
- Early identification and reporting of significant site-specific environmental risks.
- Environmental control of site activities.
- Development and implementation of rehabilitation plans.
- Maintenance of all site environmental records.
- Liaison with site management and client with regard environmental issues.
- Ensuring that activities on Site comply with Environmental legislation.
- Monitoring and verifying that the environmental specifications are adhered to at all times and taking action if the specifications are not followed.
- Monitoring and verifying that environmental impacts are kept to a minimum and taking action to address any environmental degradation.
- Compiling the requisite Method Statements for review by the Environmental Control Officer (ECO) and Client EO.

**Appointed contractors Environmental Officer**

Project: Extension and construction of the ESKOM Garona Substation & Construction of the ESKOM Lewensaar Substation

- Proactively developing environmentally responsible solutions to problems.
- Giving a report back on the environmental issues at the monthly Site meetings and other meetings that may be called regarding environmental matters.
- Keeping records of all activities / incidents concerning the environment on Site.
- Inspecting the Site and surrounding areas regularly with regard to compliance with the environmental specifications.
- Maintaining a register of complaints, ensuring that all complaints are appropriately recorded and addressed and notifying the ECO of each complaint and how it was resolved.
- Undertaking the requisite environmental induction for all new personnel coming onto site, as well as any refresher or *ad hoc* induction that might be required during the Contract.
- Completing the requisite environmental reporting, namely a daily compliance checklist, a record of staff induction and incident reports, for submission to the ECO.
- Keeping a photographic record of progress on Site from an environmental perspective.
- Development and implementation of an on-site waste management plan.
- Site Inspection of three civil projects identifying non-compliance/compliance with environmental legislation.
- Gap analysis with regards to overall Environmental Management.
- Generating progress reports for the three projects.
- Assisting in the development, implementation, establishment, maintenance and monitoring of the Basil Read Environmental management system/strategies/policies in accordance with ISO 14001;
- Reporting on environmental and sustainability as per international best practice (as per requirements of King 111 and the GRI) to Basil Read SHEQ department thereby ensuring legal compliance of the Olifant's River Resources Development Project (Phase 2 C);
- Ensuring that activities on Site comply with the project EMP, EA, Environmental legislation and client specifications;
- Monitoring and verifying that the environmental specifications are adhered to at all times and taking action if the specifications are not followed;
- Monitoring and verifying that environmental impacts are kept to a minimum and taking action to address any environmental degradation;
- Compiling the requisite site specific Method Statements;

### Environmental Consulting

### Contractors Site Environmental Manager

Project: TCTA Olifant's River Resources Development Project-Phase 2C. (Water Pipeline Project)

- Proactively developing environmentally responsible solutions to problems;
- Giving a report back on the environmental issues at the monthly Site meetings and other meetings that may be called regarding environmental matters;
- Ensuring effective communication in respect of environmental aspects to all stakeholders;
- Setting of targets and deadlines to meet the project programme and avoid complications;
- Reporting, investigating and recording of environmental incidents;
- Auditing, analysing and reporting environmental performance to all relevant stakeholders including regulatory bodies;
- Inspecting the Site and surrounding areas regularly with regard to compliance with the environmental specifications and legislation;
- Communicate sustainability performance in monthly reports;
- Ensure timeous upward/downward communication with relevant stakeholders as and when required;
- Ensure measures are in place to effectively record required information to determine the project Carbon Footprint;
- Develop, implement and maintain an on-site Awareness training matrix;
- Undertaking the requisite environmental induction or training for all new personnel coming onto site, as well as any refresher or *ad hoc* induction or training that might be required during the Contract; and
- Development, implementation and monitoring the project specific integrated Waste management plan and ensuring legal storage, handling, transporting and/or disposal of all waste streams.

### Environmental auditing

Project: : !Kaxu Thermal Solar Plant  
(Phase 1 Pofadder Thermal Solar Plant)

Conducting and compilation of independent audit as per the EA

### Environmental Officer

Project: Glencore Lydenburg  
Smelter

- The development, implementation, establishment, maintenance and monitoring of the environmental management system/strategies/policies in accordance with ISO 14001;
- Reporting on environmental and sustainability ;
- Ensuring that activities on site comply with the EMPr, EA, WUL, WML, and AEL.
- Monitoring and verifying that the environmental specifications are adhered to at all times and taking action if the specifications are not followed;



- Monitoring and verifying that environmental impacts are kept to a minimum and taking action to address any environmental degradation;
- Proactively developing environmentally responsible solutions to problems;
- Giving a report back on the environmental issues at the monthly meetings and other meetings that may be called regarding environmental matters;
- Ensuring effective communication in respect of environmental aspects to all stakeholders;
- Setting of targets and deadlines to meet the project programme and avoid complications;
- Reporting, investigating and recording of environmental incidents;
- Auditing, analysing and reporting environmental performance to all relevant stakeholders including regulatory bodies;
- Inspecting the operation and surrounding areas regularly with regard to compliance with the environmental specifications and legislation;
- Communicate sustainability performance in monthly reports;
- Ensure timeous upward/downward communication with relevant stakeholders as and when required;
- Ensure measures are in place to effectively record required information to determine the project Carbon Footprint;
- Develop, implement and maintain an on-site awareness training matrix;
- Managing licence applications and renewals;
- Development, implementation and monitoring the project specific integrated Waste management plan and ensuring legal storage, handling, transporting and/or disposal of all waste streams.

#### Senior Environmental Consultant & EAP

- Project management: Management of EIA projects and specialists associated to EIA studies; and
- Managing water/waste/air/biodiversity permits/licence's processes.
- Reviewing environmental application processes;
- Environmental compliance audits: ISO14001 EMS gap audits;
- Regulation 34 audits;
- Waste Management Licence audits; and
- Water Use Licence audits.

## 2. Taryn Bigwood (EMA director)

### Personal Information

9

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 APPLICANT: BCR COAL(PTY)LTD

**Name and Surname:** Taryn  
Bigwood  
**Identity No:** 7712170026085  
**Residential and postal address:** P.O. Box 386, Sundra, 2200  
**Contact Numbers:** +27 (0) 76 398 2391  
**Date of Birth:** 17 January 1977  
**Gender:** Female  
**E-mail address:** Taryn.bigwood@emassistance.co.za  
**Nationality:** South African  
**Marital Status:** Single  
**Languages:** English and Afrikaans (Fluent), isiZula and German (Basic)

### Expertise

**Professional Qualifications, Memberships & Registrations:** Member of the Southern African Association of Geomorphologists (SAAG), South African Association of Geographers SAGG & Member of the International Association of Impact Assessments (IAIA) South Africa

### Educational Qualifications

#### Tertiary Education:

**Name of Institution:** University of Kwa-Zulu Natal (South Africa)  
**Course of study:** Bachelors of Social Science Environmental Management and Geography  
**Duration of study:** 3 years

#### Post Graduate Studies:

**Name of Institution:** University of Pretoria (South Africa)  
**Course of study:** Honours in Social Science Geography  
**Duration of study:** 1 Year

**Name of Institution:** University of Pretoria (South Africa)  
**Course of study:** Masters of Arts (Research) Geography  
**Duration of study:** 3 years (Part time)  
**Thesis:** Geomorphic impact of *Loxodonta Africana* (African Elephant) in Tembe Elephant Park

#### Short Courses:

**Name of institution:** Department of Environmental Affairs  
**Qualification:** Environmental Management Inspector (worked as a grade 2 EMI)

### Summary of research projects during Post Graduate Studies

**Topic 1** ***Geomorphic impact of Loxodonta Africana (African Elephant) in Tembe Elephant Park***

#### Abstract

This study analyses the geomorphic and environmental impact of African elephants (*Loxodonta Africana*) on Tembe Elephant Park, so that the changes they cause to the landscape may be quantified. To conduct this research four sites were chosen:

an area where elephants had been excluded for twenty-five years, where excluded for five years, where elephants exist at present and where elephants wallow. Three of the four study sites were classed as sand forest (twenty-five-years exclusion, five-years exclusion and where elephants exist). The sites were analysed and compared to determine the similarities and differences in climate, microclimate, vegetation and the soil's physical and chemical properties. The wallow site was not compared to any other study site, but was observed and mapped to quantify the geomorphic impact of elephants wallowing by quantifying sediment removal rate by elephants.

### Summary of past experience

<b>Director and owner: Environmental Management Assistance (Pty) Ltd</b>	<p><b>Basic and Extended Duties:</b></p> <ul style="list-style-type: none"> <li>• Managing EM Assistance and undertaking all administrative roles</li> <li>• Managing projects and staff</li> <li>• Managing and training Environmental Control Officers (ECO's) and Environmental Officers (EO's)</li> <li>• Advising clients on Environmental Management and compliance matters</li> <li>• Writing (Environmental Management Programs) EMP's for operation and construction</li> <li>• Rehabilitation Planning</li> <li>• Managing and overseeing rehabilitation projects</li> <li>• Managing and overseeing construction projects (from an environmental perspective)</li> </ul>
<b>Environmental consultant and Soil Erosion and compliance specialist</b>	<p><b>Basic and Extended Duties:</b></p> <ul style="list-style-type: none"> <li>• Environmental consulting</li> <li>• Professional execution of specialist consulting services</li> <li>• Managing projects</li> <li>• Waste advisor</li> <li>• Compliance of management plans</li> <li>• Compliance monitoring</li> <li>• Audit reporting</li> <li>• In house compliance and awareness training to on-site personnel.</li> <li>• Managing ECO's</li> <li>• Drafting basic assessment</li> <li>• Managing specialists</li> <li>• Assisting with budgets and tenders</li> <li>• Writing Environmental Management Plans, Basic assessments, Erosion management Plans</li> <li>• Bird and Bat monitoring using radar and acoustic telemetry</li> </ul>
<b>Environmental Management officer (designated Grade II environmental management inspector)</b>	<p><b>Basic and Extended Duties:</b></p> <p><b>Waste and pollution Management</b></p> <ul style="list-style-type: none"> <li>• Developed waste management plans.</li> <li>• Coordinated waste management programs in the iSimangaliso Wetland Park.</li> <li>• Created and coordinate a waste management workshop with all stake holders (local and district municipalities, EZEMVELO KZN Wildlife and</li> </ul>

iSimangaliso wetland Park authority).

- Investigated any waste or pollution related complaints or reports received.
- Wrote remediation and rehabilitation plans for environmental waste spills.
- Was involved and coordinated relevant stakeholders and government bodies to solve non-compliance problems with regards to waste management.
- Report back on investigations relation to waste or pollution to all relevant stakeholders and iSimangaliso wetland park authority senior conservation compliance management.
- Drafted compliance letters relating to waste and pollution on request by the senior conservation compliance management and the CEO.
- Issued compliance letters on waste and pollution.
- Audited all facilities within the park through the green audits system (including waste, infrastructure, concession operators activities, contractors activities and infrastructure in the process of development)
- Wrote reports were necessary on waste related issues.

#### **Greening**

- Developed a green audit field audit system for approval by the senior conservation compliance manager.
- Conducted green audits.
- Monitored compliance of all environmental management plans.
- Assisted in launch site audits.
- Leased with the relevant stakeholders to prepare for green audits.
- Notified stakeholders of Non compliances in the green audit (1 week verbal notice was given for non-compliances to be rectified).
- If non-compliance issues were not rectified after the 1 week warning, drafting of a non-compliance letter.
- Delivered non-compliance letters to the relevant non complying parties.
- Reported on all green audits at the end of financial year to senior conservation Compliance manager (to assess trends in non-compliances and identify focus areas within the isimangaliso wetland park).
- Wrote green audit reports.
- Conduct internal scoping reports on request.
- Assessed potential rehabilitation sites with other compliance staff and EZEMVELO KZN Wildlife.
- Developed demolition and rehabilitation plans.
- Implemented the rehabilitation plans and managed the projects (including organising all the logistics and finances to conduct the rehabilitation).
- Was the environmental manager for the compliance unit responsible for compliance monitoring in the iSimangaliso wetland park.
- Attend public participation meetings for development in the buffer zone on request form the Senior Conservation compliance manager.

#### **General areas of responsibility which cross cut**

- Assisted with compliance related issues in the buffer zone on the senior conservation compliance management's request.
- Assisted the buffer zone environmental management officer.
- Leased with officials from EZEMVELO KZN WILDLIFE, Department of

**Chief Research technician and acting ecologist for North West and East Zululand.**

Agriculture, Department of Environmental affairs and municipalities on compliance related issues.

- Assisted in managing compliance equipment assets.
- Conducted general compliance investigation on management's request.
- Attended and was involved in planning for COP 17

**Basic and extended duties:**

- Managed and collection of Biological data for Ithala Game Reserve (IGR), Vreyheid hill Nature Reserve (VH), Pongola Bush Nature Reserve (PB) and the district which comprises of many land owners and game farms.
- Managed the budget for Eco Advice North West Zulu-land
- Ran the research office and all the data for all the protected areas mentioned.
- Advised management of ecologically sound principles and aid them to work out logistics to improve management in all areas (Rhino management and monitoring, vegetation monitoring and coordinating all research program and projects).
- Aided the protected areas in achieve their biodiversity goals.
- Conducted Veld assessments and game count evaluations (10 step point method, disc pasture meter, distance sampling, road strip counts, known individuals and aerial counts)
- Aided in Project Management and Project Report writing.
- Assisted in writing the EMP (Elephant management plan) for IGR.
- Proficient ArcGIS 9.1-6 (Mapped, fire maps, vegetation maps (IGR) Fuel load maps to assess where burning is required etc.
- Assisted in championing and promoting researchers (Have aided in a number of researchers to facilitate their projects (Grazing research, bush encroachment and gully erosion indicators of climate change)
- Assessed and evaluated private and government land for development and aid private land owners to ensure they are conforming to EZEMVELO norms and standards and the provincial legislation and get the areas gazetted. (example aiding by advising land owners in the development of a small antelope breeding center and rehabilitation center and assessing sites to reintroduce monkeys on according to the legislation)
- Was a member of management teams to make conservation decisions.
- Helped wherever I could, hosted the Zululand eco advice forum (ZAAF), moving, collaring and contraception lions on TEP and still help out in north east Zululand to ensure that the data management is still continuing.

**Applied geomorphology lecturer and assistant cartographer**

**Basic and extended duties:**

- Worked par-time for the Cartographic unit aiding students in collecting geographic data, creating maps, digitizing and extrapolating data for projects and dissertations. Within this role I was asked to help run a GIS workshop for medical students for 2 years in a row and completed many maps and completed all the vegetation maps for the Kariga area for Professor William Ferguson.
- In April 2008 I assisted Professor Paul Sumner on a field trip to Northern

Zululand for his honours geomorphology course to explain the dynamics of estuarine systems to the students.

- I lectured a section of the applied geomorphology course (361 and 362) to the 3<sup>rd</sup> years focusing of zoo geomorphology and was appointed one of the lecturers for the course by Professor Ian Mickeljohn. In addition to lecturing I performed all the roles a lecturer plays in a course (setting tests and exams, marking, supervising field work and coordination).

## Project Experience

### Compliance

#### Water Resource Development

- **Oliphant's River water Resource Development Project (TCTA) for Water Affairs contracted to Aurecon**
  - Environmental Monitoring Team Leader
  - Managing and planning rehabilitation
  - Rehabilitation coordination and planning Advising construction on best practice
  - Assist in planning and development on site to ensure environmental compliance
  - Environmental compliance training
  - Issuing the contractor all the site instructions related to environment.
  - Managing a team of Environmental monitors
  - Ensuring the Environmental Officer team are undertaking their roles adequately in accordance with the relevant authorisations, permits, EMP and method statement
  - Environmental auditing
  - Assisted in developing and implementation of the environmental and Health and Safety Campaign
  - Assisted the contractor in developing an environmental exam for all staff to improve compliance with the EMP, method statement and specification.
  - Coordinated compliance with the shutdown plan over December
  - Undertook non-compliance investigations of major Environmental non-compliance.
  - Reviewing and Approval of Method statements
  - Advise the Senior Resident Engineer on compliance matters
  - Review weekly compliance reports and issue them to the contractor
  - Review application of permitting for plants etc
  - Writing reports and letters on behalf of the project to the contractor to improve compliance.
  - Writing reports for the client to understand the environmental compliance on site
  - Leasing with the client and keeping them informed of all environmental compliance related information on site
  - Contributing a section in the CRE report on Environmental compliance with the specification, EMP and the authorisation

#### Renewable wind and solar energy projects:

- **SARGE Nobelsfontein Karoo Renewables project**
  - Evaluated and amended the EMP (Environmental Management Plan) to ensure compliance.
  - Assisted in the drafting of the Vegetation Management Plan.
- **Ventusa Zen Wind Energy Facility**
  - Coordinated the Radar and Acoustic bird and bat monitoring
- **Ventusa Sishen Solar Energy Facility**
  - Updated the EMP for Construction

- Compiled an erosion management plan for Construction
- **Ventusa Gouda wind Energy Facility**
- Updated the EMP for Construction
- Compiled an erosion management plan for Construction
- **Kabi Energy Witkop and Vaalkop PV facilities - AGA sites near Orkney**
- Evaluated the wetland boundaries.
- **ACED Cookhouse WEF (Wind Energy Facility)**
- Evaluated compliances for pre-construction.
- Evaluated and amended the EMP to ensure compliance in the operational phase.
- Compiled the soil erosion Management plan.
- **Cennergy Tsitsikamma WEFs**
- Advised the project on compliance with regards to an ECO (Environmental Control officer) appointment.
- Evaluated and amended the EMP to ensure compliance in the operational phase.
- Compiled the soil erosion management Plan
- BAR for power lines to connect the farm to the Eskom Grid
- Compiled the soil Erosion management Plan for construction
- **Cennergy Amakhala Emoyeni RE Project 1 WEFs**
- Advised the project on compliance with regards to an ECO appointment.
- Evaluated and amended the EMP to ensure compliance in the operational phase.
- Compiled the soil erosion management Plan
- BAR for power lines to connect the farm to the Eskom Grid
- Assisted in resolving non – compliances
- **Assisted ECO in drafting non – compliance letters and audit reports.**
- **Moyeng Energy West Coast One WEFs**
- Advised the project on compliance with regards to an ECO appointment.
- Evaluated and amended the EMP to ensure compliance in the operational phase.
- **Biotherm Energy Golden Valley**
- Compilation of 3 basic assessments for power lines and substations
- **Abengoa Solar Pofadder and Upington CSP (Celestial Solar Power plant), Northern Cape**
- Drafted a method statement.
- Advised the contractors on compliance.
- Evaluated ECO reports and submit to DEA
- Close out Audit to meet final environmental requirements of the EA
- Offer support services to the ECO
- **Mainstream Renewable Energy Developers Loeriesfontein**
- 4 BAR's for powerlines crossing 4 renewable energy facilities
- Training of Environmental Control Officers (ECO) and Environmental Officers (EO)
- **Support services to ECO's and EO's**
- Training ECO's and EO's on the roles and responsibilities and the environmental legislation
- Developing a training manual for ECO's
- **Waste management**
- Advising clients on the waste act and waste management activities
- **iSimangaliso Wetland Park Authority**
- Environmental audited approximately 60 infrastructure nodes in the iSimangaliso Wetland Park annually in the iSimangaliso Wetland Park.

- Conducted approximately 8 investigations and approximately 20 inspections in the iSimangaliso Wetland Park and in the buffer zone.
- Issued 6 iSimangaliso Wetland Park authority pre - compliance notices.
- Coordinated Sodwana Bay compliance over holiday seasons
- Attended 2 working group forums on behalf of iSimangaliso wetland park authority
- **iSimangaliso Wetland Park Authority**
- Scoping for the construction of viewing decks.
- Scoping for the removal of Caserina Trees on the St Lucia beach front.
- Scoping for the removal of Caserina Trees on the Cape Vidal beach front.
- Scoping for the removal of old water reservoirs in the iSimangaliso Wetland Park.
- Demolishing and Rehabilitation plans and implementation for 5 illegal developments sites in the iSimangaliso Wetland Park.
- Wrote the removal and transplanting plans and protocol for trees on Western and Eastern Shores and uMkuzi of the iSimangaliso wetland park.
- Waste management protocol for the iSimangaliso Wetland park.

### Scoping and Ecological Reports

#### EZEMVELO KZN Wildlife

- The scoping report for the construction of ablutions and launching slipways in the Pongola Nature Reserve.
- Updated and managed the animal population data base for Tembe Elephant park, Ndumo Game Reserve, Pongola Nature Reserve, Seleza Nature Reserve Pongola Bush Nature Reserve, Ithala Game Reserve and Vryheid hill nature reserve.
- Collecting biological data from the field and from the field rangers, analysing it and reporting on the findings through the APMP system and reporting.
- Game count reports for Ithala game reserve and Ndumo Game reserve (using distance sampling)
- Veld evaluation reports (including burn recommendations) for Tembe Elephant park, Ndumo game Reserve, Pongola Nature reserve, Ithala Game Reserve, Sileza Nature Reserve and the Gumbi tribal area.
- Contributions to the Integrated management Plans for Tembe Elephant Park, Ithala game reserve, Pongola nature reserve, Ndumo Nature reserve
- Contributed to the Elephant management plan for ithala game reserve.
- Assisted in the stewardship program in North Western Zululand as the ecological evaluator.



# Appointed Specialist

The following independent appointed specialists' forms part of the project team:

NAME	COMPANY	DESIGNATION	PROF. REG. /ACCREDITATION	YRS' EXPERIENCE	QUALIFICATIONS
SOIL AND AGRICULTURE					
<b>Tshiamo Setsipane</b>	Zimpande Research Collaborative (Pty) Ltd	Soil Scientist	SACNASP Reg. No.	> 5 years	M.Sc Soil Science
<b>Braveman Mzila</b>		Wetland Ecologist and Soil Scientist	SACNASP Reg. No.	> 5 years	B.Sc. Hon. Environmental Hydrology B/Sc. Hydrology and Soil Science
<b>Stephan van Staden</b>		Group CEO	SACNASP Reg. No.	> 20 years	M.Sc. Environmental Management B.Sc. Hon. Zoology (Aquatic) B.Sc. Zoology, Geography and Environmental Management
HERITAGE SCOPING REPORT					
<b>Jaco van der Walt</b>	Beyond Heritage	Archaeologist	Accredited CRM Archaeologist with SAHRA Accredited CRM Archaeologist with AMAFA	> 20 years	Phd (Archaeology)(in progress) MA (Archaeology) BA. Hon. (Archaeology) BA (Archaeology)
TERRESTRIAL BIODIVERSITY					
<b>Antoinette Eyssell-Knox</b>	Dimela Eco Consulting	Vegetation Scientist	Pri. Sci. Nat. (400019/11: Ecological Science) Member of the Botanical Society of Southern Africa since 2013	> 11 years	MSc Environmental Science B. Sc (Hons) Horticulture B. Sc (Agriculture) Horticulture

NAME	COMPANY	DESIGNATION	PROF. REG. /ACCREDITATION	YRS' EXPERIENCE	QUALIFICATIONS
<b>Dr. Barbara Kasl</b>	Independent	Faunal Ecologist	Pri. Sci. Nat. (400257/09: Ecological Science)	> 18 years	PhD in Animal, Plant and Environmental Sciences B.Sc. Hon. (Zoology and Botany) B.Sc. (Zoology and Botany)
AQUATIC BIODIVERSITY					
<b>Stephan van Staden</b>	Scientific Aquatic Services (Pty) Ltd	Group CEO	SACNASP	> 20 years	M.Sc. Environmental Management B.Sc. Hon. Zoology (Aquatic) B.Sc. Zoology, Geography and Environmental Management
<b>Paul Da Cruz</b>		Aquatic Scientist	SACNASP	> 20 years	BA Geography BA.Hon Geography and Environmental Science
HYDROLOGY					
<b>Nicolas Davis</b>	Isikhungusethu Environmental Services (Pty) Ltd	Hydrologist	-	> 10 years	M.Sc. Hydrology
<b>Dr. Bruce Scott-Shaw</b>			Pri.Cand.Sci. (118673)	> 10 years	PhD Hydrology
NOISE					
<b>Morne De Jager</b>	Enviro-Acoustic Research CC	Noise scientist	-	> 15 years	B.Eng. (Chem eng.)