

CURRICULUM VITAE



MAGNUS VAN ROOYEN

NAME OF FIRM : JEFFARES & GREEN (PTY) LTD
NAME OF PERSON : MAGNUS VAN ROOYEN
NATIONALITY : SOUTH AFRICAN
DATE OF BIRTH : 1976-09-04
CONTACT DETAILS : 084 249 2365
PROFESSION : ENVIRONMENTAL SCIENTIST
POSITION IN FIRM : EXECUTIVE ASSOCIATE
QUALIFICATION : BSc, BSc (Hons), MPhil. (Environmental Management),
SPECIALISATION IN : ENVIRONMENTAL IMPACT ASSESSMENTS, SCOPING
REPORTS, PRELIMINARY ENVIRONMENTAL ASSESSMENT,
MINING RIGHT AND PERMIT APPLICATIONS, ENVIRONMENTAL
CONTROL OFFICER DUTIES; ENVIRONMENTAL MANAGEMENT
PROGRAMMES, STRATEGIC ENVIRONMENTAL ASSESSMENTS,
WILDLIFE MANAGEMENT PLANS, ENVIRONMENTAL
EDUCATION PROGRAMS AND AGRICULTURAL DEVELOPMENT
PLANS.
YEARS OF EXPERIENCE: 12
YEARS WITH FIRM : 9

QUALIFICATIONS

Mr van Rooyen is currently an Executive Associate and the Regional Head of the Environmental Division of a National Consulting Engineering Firm in South Africa. He is located in Pietermaritzburg, KwaZulu-Natal.

In addition to holding a Masters degree in Environmental Management, he also holds a BSc degree in Botany and Zoology, a Honors Degree in Botany and a Post Graduate Certificate in Education. He has 12 years' experience in projects involving Environmental Impact Assessments in various developmental sectors (Mining Sector, National Roads, Pipelines, Dams, and Residential Developments), conducting of Specialist Biodiversity Assessments associated with Environmental Impact Assessments and Project Feasibility Studies. He has experience in the compilation of Resettlement Policy Framework Plans associated with infrastructure development projects. Mr van Rooyen has experience in working on various private and public sectors as well as rural and urban environments in various countries.

Mr van Rooyen's expertise lies within the mining sector where he has gained extensive exposure to all the aspects of mining projects from the pre-feasibility, prospecting, environmental impact assessment and implementation and monitoring stages. In addition he has conducted Due Diligence Assessments as well as Environmental Compliance Monitoring and Management of a variety of mining sites.

Education:

<i>Date (from – to):</i>	1995-1998
<i>Degree/Institution</i> :	BSc – Botany & Zoology (Stellenbosch University)
<i>Date (from – to):</i>	1999
<i>Degree/Institution</i>	Special Student - Department of Agriculture (Stellenbosch)

:	University)
<i>Date (from – to):</i>	2001
<i>Degree/Institution</i>	B.Sc Honnours – Botany (Stellenbosch University)
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<i>Date (from – to):</i>	2002
<i>Degree/Institution</i>	Post Graduate Diploma in Teaching (Stellenbosch University)
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<i>Date (from – to)</i>	2003 - 2005
<i>Degree/Institution</i>	Masters Degree in Environmental Management (Stellenbosch University)
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Other Training: 2008 – 2009 Jeffares and Green Consulting Engineers and Environmental Consultants Accelerated Development Programme

Society Membership: International Association of Impact Assessors – South Africa Suite, membership number 1839
: South African Council for Natural Scientific Professions (SACNASP) (Pr.Sci.Nat)

Language Skills:

<i>Language</i>	<i>reading</i>	<i>speaking</i>	<i>writing</i>
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Excellent	Excellent
German	Fair	Fair	Poor
Dutch	Fair	Fair	Poor
Zulu	Poor	Communication	Poor

Employment Record:

Date (from – to) **1999**

Location Witley Bay, Northumberland, United Kingdom

Employer Marden Bridge Middle School

Position(s) Physical Education Teacher

Description Physical Educator associated with the Marden Bridge Middle School Sport Centre.

Date (from – to) **2000**

Location Bradenton, Florida, USA

Employer Gene's Citrus Ranch

Position(s) Farm Manager

Description Management of the day to day operations of an export citrus farm operation.

Date (from – to) **2001 – 2002**

Location Stellenbosch, Western Cape, South Africa

Employer Paul Roos Gymnasium

Position(s) Biology Teacher

Description Teaching the South African Biology curriculum to high school pupils.

Date (from – to) **2002 – 2005**

Location Stellenbosch, Western Cape, South Africa

Employer Department of Botany and Zoology, Stellenbosch University

Position(s) Junior Lecturer in Botany

Description Lectured the Botany practical component of the first year Natural Science Degree.

Date (from – to) **2002 – 2005**

Location Stellenbosch, Western Cape, South Africa

Employer Department of Conservation Ecology, University of Stellenbosch

Position(s) Biodiversity Researcher

Description Conducted field work, sampling, laboratory work and logistics associated with two projects within the Conservation Ecology Department

Date (from – to) **2006 – 2007**

Location Pietermaritzburg, KwaZulu-Natal, South Africa

Employer Jeffares and Green Consulting Engineers and Environmental Consultants

Position(s) Environmental Scientist

Description Conducted a wide range of infrastructure related Environmental Impact Assessments.

Date (from – to) **2007 - present**

Location Pietermaritzburg, KwaZulu-Natal, South Africa

Employer Jeffares and Green Consulting Engineers and Environmental Consultants

Position(s) Project Manager, Senior Environmental Specialist

Description Project Management of an environmental contingent of 4 people and conducting Environmental Impact Assessments.

Recent Project Experience:

Biodiversity Assessment Projects

<i>Project Name</i>	<i>Description of Works</i>
Nacala Dam Project	Riparian Vegetation Study for the Ecological Reserve Determination Specialist Study for the Environmental Impact Assessment for the Nacala Dam Project in Mozambique.
National Route N8	Vegetation Specialist Study for the Environmental Impact Assessment for the National Route N8.
National Route N2 uMgeni Interchange improvements	Environmental Impact Assessment for proposed improvements to the uMgeni Road Interchange and the National Route N2. The project included an extensive public participation process within the city of Durban, KwaZulu-Natal during the process.
Qudeni Link Road	Vegetation Specialist Study for the Environmental Impact Assessment for the Qudeni Rural Link Road.
Municipal Landfill	Negative mapping and ground truthing for the options analysis for the

Site Identification	identification of a District Municipality Landfill Site.
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Conservation Management Plans

<i>Project Name</i>	<i>Description of Works</i>
Ndumo Game Reserve Management Plan	Compilation of the Management Plan for the KwaZulu-Natal Wildlife Ndumo Game Reserve in northern KwaZulu-Natal. The compilation was conducted in accordance to the National Environmental Management: Protected Areas Act (No 57 of 2003).

Port Related Work

<i>Project Name</i>	<i>Description of Works</i>
Pier 1 Phase 2 expansion	Environmental Impact Assessment for proposed expansions to Pier 1 within the Durban Harbour.
Locomotive Turning Table in the Port of Richards Bay	Environmental Impact Assessment for proposed Locomotive Turn Table in within the Port of Richards Bay.
Rail line construction in the Port of Richards Bay	Environmental Impact Assessment for proposed additional rail line into the Richards Bay Coal Terminal in the Port of Richards Bay.
Environmental Monitoring – RME Projects Durban Harbour	Environmental Monitoring Duties for all the RME construction projects within the Durban harbour.
Ore Loading Facility at Kalia in Guinea	Environmental Impact Assessment for the proposed Ore Loading Facility in Kalia in Guinea, West Africa.

Water Projects

Nacala Dam project in Mozambique for the Millennium Challenge Corporation	Environmental and Social Impact Assessment for the Nacala Dam project in Nacala, Mozambique. The study included the management of a range of specialist studies which included; biodiversity (fauna and flora) assessments, health impact assessments, social impact assessments, a hydrocensus, geotechnical investigation and an ecological flow requirement assessment. The project was conducted under the auspices of the Millennium Challenge Corporation.
Mpofana Bulk Water Supply Scheme	Environmental Impact Assessment for the Bulk Water Supply Scheme which included an extensive public facilitation process with affected landowners and other specialist studies.
KwaHlokoHloko Rural Water Supply Scheme	Environmental Impact Assessment for the Rural Water Supply Scheme which included an extensive public facilitation process with the rural landowners and tribal leaders.

Roads Projects

<i>Project Name</i>	<i>Description of Works</i>
National Route N2 uMgeni	Environmental Impact Assessment for proposed improvements to the uMgeni Road Interchange and the National Route N2. The project included

Interchange improvements	an extensive public participation process with a range of public and private sector stakeholders.
National Route N11 upgrade	Environmental Impact Assessment for proposed upgrade of the National Route N11. The project included a public participation process with a range of public and private sector stakeholders as well as specialist studies associated with the river crossings.
National Route N2 improvement and upgrade	Environmental Impact Assessment for proposed upgrade of the National Route N2. The project included a public participation process with a range of public and private sector stakeholders as well as specialist studies associated with the river crossings.
National Route N3 Chota Motala Interchange Environmental Audits	Environmental Monitoring for the construction of the Chota Motala Interchange on the National Route N3.
National Route R30 Environmental Audits	Environmental Monitoring for the construction of the National Route R30.

Mining Projects

<i>Project Name</i>	<i>Description of Works</i>
Uithoek Colliery for Miranda Mineral Holdings	Environmental Impact Assessment for the establishment of the Uithoek Colliery including the management of a range of specialist studies which included a hydrological and geohydrological assessment, a biodiversity assessment, a social and heritage assessment and a repatriation plan for residents on the site.
Burnside Colliery for Miranda Mineral Holdings	Environmental Impact Assessment for the establishment of the Burnside Colliery including the management of a range of specialist studies which included a hydrological and geohydrological assessment, a biodiversity assessment, a social and heritage assessment and a repatriation plan for residents on the site.
Ultimate Goal Colliery for Corobrik (Pty) Ltd	Environmental Impact Assessment for the establishment of the Ultimate Goal Colliery including the management of a range of specialist studies which included a hydrological and geohydrological assessment, a biodiversity assessment, a social and heritage assessment and a repatriation plan for residents on the site.
Klipwaal Gold Mine for Miranda Mineral Holdings	Environmental Due Diligence assessment on the Klipwaal Gold Mine which included an assessment of completed and required rehabilitation, a contaminated land liability assessment and an evaluation of the structure and the possible impact of the slurry dams.
Afrimat Quarries Compliance Audits	Compliance audits and Due Diligence assessments of the Afrimat Quarry operations in South Africa. These audits are conducted on a two yearly basis.

Private and Public Sector Development Projects

<i>Project Name</i>	<i>Description of Works</i>
Provincial Legislature Precinct	Environmental and Social Impact Assessment for the proposed Provincial Legislature Precinct. This study consisted of a large public facilitation component and extensive engagement with private and public sector stakeholders.

Camps Drift Canal Mixed Use Development	Environmental Impact Assessment for proposed improvements to the uMgeni Road Interchange and the National Route N2. The project included an extensive public participation process within the city of Durban, KwaZulu-Natal during the process.
Tiger Lodge Development	Environmental Impact Assessment for the proposed Tiger Lodge Tourism Development.
Paradise Lodge Development	Environmental Impact Assessment for the proposed Paradise Lodge Tourism Development.

A full list of projects managed and studies conducted as well as contact details of of references can be supplied on request.

CURRICULUM VITAE



JOHN RICHARDSON

NAME OF FIRM : *TERRATEST (Pty) Ltd*

NAME OF PERSON : *JOHN RICHARDSON*

NATIONALITY : *SOUTH AFRICAN*

DATE OF BIRTH : *1979/06/18*

PROFESSION : *ENVIRONMENTAL ASSESSMENT PRACTITIONER*

POSITION IN FIRM : *ENVIRONMENTAL SCIENTIST*

QUALIFICATION : *BSc HONOURS (GEOGRAPHY AND ENVIRONMENTAL MANAGEMENT)*

SPECIALISATION IN FIRM : *ENVIRONMENTAL IMPACT ASSESSMENT*

YEARS OF EXPERIENCE : *6.5*

YEARS WITH FIRM : *2 YEARS*

SUMMARY OF EXPERIENCE

Mr Richardson graduated from the School of Applied Environmental Sciences at the University of KwaZulu-Natal, Pietermaritzburg. After completing a BSc undergraduate degree in Geographical Sciences, a post-graduate BSc honours degree in Geography and Environmental Management was obtained. The latter is a multidisciplinary degree and included courses in Natural Resource Management and Sustainable Land Use, Applied Geomorphology, Environmental Modelling and Management, Advanced Remote Sensing and Geographic Information Systems (GIS). Mr Richardson's research project involved an investigation into the use of aerial photography and geographic information systems to study coastal forest loss along the KwaZulu-Natal north coast, for which he received an award for outstanding academic achievement.

On completion of his postgraduate degree Mr Richardson was employed by Afzelia Environmental Consultants in the capacity of Environmental Scientist, specialising in the field of Geographic Information Systems. He has approximately six and a half years' professional experience as an environmental scientist and GIS specialist in a range of environmental and strategic planning projects, processes and applications for private, government and commercial clients. Mr Richardson has experience in conducting both Basic Assessment and Scoping and Full Environmental Impact Assessment process under the 2006 and 2010 National Environmental Management: Environmental Impact Assessment Regulations, his experience includes Environmental Control Officer (ECO) duties and management of the GIS mapping requirements for several Biodiversity Sector Plans, Strategic Environmental Assessments, and Strategic Environmental Management Plans.

Mr Richardson prescribes to the International Association for Impact Assessment South Africa (IAIASa) code of conduct and has since 2009 been a committee member of the KwaZulu-Natal branch. He was in August 2013 voted in as the IAIAsa KZN Branch Vice Chairman. He has been employed by Terratest since June 2012 in the position of environmental scientist.

SOCIETY MEMBERSHIP

IAIAsa KZN Branch Committee Member (Vice Chairman)

EDUCATION

1996 : **Matric** – Alexandra High School, Pietermaritzburg
2006 : **BSc (Geographical Science)** – University of KwaZulu-Natal
2007: **BSc Hons (Geography and Environmental Management)** – University of
KwaZulu-Natal

SPECIFIC CONSULTING EXPERIENCE

AMENDMENT APPLICATIONS & POST AUTHORISATION REQUIREMENTS

Name of Project: **Blackhurst Manor Estate, UMngeni Local Municipality, KwaZulu-Natal (South Africa)**
Client: Blackhurst Manor (Pty) Ltd
Project duration/date: September 2012 – Present
Job Title and Duties: Environmental Assessment Practitioner
Assisting the project team with the amendment to Environmental Authorisation and post decision requirements.

Name of Project: **Stockowners Business Park Amendment to Environmental Authorisation Application, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)**
Client: ET Properties
Project duration/date: January 2014 - Present
Job Title and Duties: Environmental Assessment Practitioner
Preparation and submission of amendment to Environmental Authorisation Application, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans.

ENVIRONMENTAL SCREENING & SCOPING ASSESSMENTS

Name of Project: **Environmental investigations for Winston House Office Development, Gillitts, KwaZulu-Natal (South Africa)**
Client Mrs. S. Kramer
Project duration/date: January 2008 – June 2008
Job Title and Duties: Environmental Assessment Practitioner
Preparation of locality maps, the preparation of an Environmental Scoping Report and Environmental Management Plan.

Name of Project: **Treasure Cove Housing Development, Hilton, KwaZulu-Natal (South Africa)**
Client Treasure Cove Trust
Project duration/date: December 2007 – October 2008
Job Title and Duties: Environmental Assessment Practitioner and GIS Specialist
Undertaking of the EIA process, including extensive site investigations, liaison with specialists, the preparation of locality maps, layout plans and wetland

and forest delineation zone maps.

Name of Project: **Morton Haven Waterfront Residential and Recreational Resort, Midmar Dam, Umgeni Municipality**
Client: Bruce Peattie, Confluence Property Company
Project duration/date: February 2008
Job Title and Duties: GIS Specialist
Contouring, slope and aspect analysis, and the preparation of a TIN terrain model and 3-D fly-over.

Name of Project: **Ngwenya Sand Winning Project, Eston, KwaZulu-Natal (South Africa)**
Client: Ngwenya Sand
Project duration/date: April 2008
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of environmental investigations for the preparation of an Environmental Management Plan for submission to the Department of Minerals and Energy, including extensive site investigations, public participation, and the preparation of locality maps.

Name of Project: **Cato Ridge Mixed Use Development, Cato Ridge, KwaZulu-Natal (South Africa)**
Client: Andrew Barnes, Barnes Property
Project duration/date: August 2008
Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening and general environmental mapping of the development site.

Name of Project: **Corndene Lakeside Resort, uMshwati Local Municipality, KwaZulu-Natal (South Africa)**
Project duration/date: May 2008
Job Title and Duties: GIS Specialist
GIS analysis and mapping for the Visual Impact Assessment study.

Name of Project: **Nondela Powerline Project, Tugela Valley, KwaZulu-Natal (South Africa)**
Project duration/date: April 2008
Job Title and Duties: GIS Specialist
Preparation of route maps and Ezemvelo KZN Wildlife (EZKZNW) Conservation Plan (C-Plan) Evaluation and vegetation zone assessment maps.

Name of Project: **Old Halliwell, Howick, KwaZulu-Natal (South Africa)**
Client: SSI Engineers and Environmental Consultants on behalf of the Developer
Project duration/date: March 2011 – April 2011
Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening and general environmental mapping of the proposed development site.

Name of Project: **Willowfontein Road, Msunduzi Local Municipality, KwaZulu-Natal (South Africa)**
Client: TLS Engineers and Project Managers
Project duration/date: June 2012
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of and environmental screening process, including the preparation of a site specific Environmental Management Plan and

motivational letter to the DAEA.

Name of Project: Kinira Dam desktop Environmental Screening Report, Eastern Cape (South Africa)

Client: Jeffares and Green (Internal Assessment)

Project duration/date: September 2012

Job Title and Duties: Environmental Assessment Practitioner
Desktop Environmental Screening Assessment, general environmental mapping of the development site and alternatives.

Name of Project: Relocation Action Plan for the establishment of a port at the village of Konta, Guinea, West Africa

Client: Bellzone

Project duration/date: June 2013

Job Title and Duties: Environmental and Social Impact Assessor
Undertaking of the RAP process, including site investigations, public consultation, GIS analysis, property and compensation valuations and preparation of the RAP report.

Name of Project: Environmental and Social Impact Assessment for the 200km of haul road from Kalia to Yomboveli in Guinea, West Africa

Client: Bellzone

Project duration/date: October 2013

Job Title and Duties: Environmental and Social Impact Assessor
Undertaking of the preliminary ESIA process and environmental management requirements for a Greenfields 200km mining haulage road.

Name of Project: Manguzi Emergency Intervention Water Supply Project, uMkhanyakude District Municipality, KwaZulu-Natal (South Africa)

Client: uMkhanyakude District Municipality

Project duration/date: January 2014 - March 2014

Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening Assessment (iSimangaliso Wetland Park Reporting Standard), general environmental mapping of the development site, and the preparation of a maintenance Environmental Management Plan.

Name of Project: Midmar Houseboat (Lady Sharon) Environmental Screening and Management Plan Environmental, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Tristan Taylor

Project duration/date: January 2013

Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening and Impact Assessment of boat route and mooring point, general environmental mapping of the boating route, and the preparation of an Environmental Management Plan.

Name of Project: Elandskloof Irrigation Pipeline Environmental Screening Assessment, Theewaterskloof Local Municipality, Western Cape (South Africa)

Client: Dihlase Consulting Engineers

Project duration/date: May 2014

Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening Assessment, including site investigations & general environmental mapping of the site.

Name of Project: NCF Church Environmental Screening Assessment, UMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: NCF Church
Project duration/date: January 2014
Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening Assessment, including site investigations & general environmental mapping of the site.

Name of Project: Environmental Screening Assessment on Portion 33/8 Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Kim Declercq
Project duration/date: February 2014
Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening Assessment, including site investigations & general environmental mapping of the site.

SECTION 24G / NON-COMPLIANCE ASSESSMENTS

Name of Project: Angels Way Airstrip and Skydiving Club, Eston, KwaZulu-Natal (South Africa)

Client: Howick Retirement Villages (Pty) Ltd
Project duration/date: January 2010 – May 2012
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the Section 24G process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Section 24G Report and Environmental Management Plan.

Name of Project: Environmental Non-Compliance requirements for Ptn 39 of Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Rob le Sueur
Project duration/date: November 2013
Job Title and Duties: Environmental Assessment Practitioner
Section 24G application and compliance assessments, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of an Impact Assessment Report including EMPr and mitigation requirements.

Name of Project: Environmental Non-Compliance requirements for Ptn 38 of Mt Verde Estate, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Simon Dix
Project duration/date: December 2013
Job Title and Duties: Environmental Assessment Practitioner
Section 24G application and compliance assessments, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of an Impact Assessment Report including EMPr and mitigation requirements.

Name of Project: Environmental Non-Compliance Investigations and Reporting Requirements for on Portion 5 Farm Hooper 14147 Hibberdene, Ugu District Municipality, KwaZulu-Natal (South Africa)

Client: Gerry Vermeulen
Project duration/date: April 2013

Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening and compliance assessments, including site investigations, liaison with specialists, preparation of locality maps and layout plans, and the preparation of response report submission to the Department Agriculture and Environmental Affairs.

Name of Project: Environmental Non-Compliance Investigations and Reporting Requirements for on the Remainder of Erf 970 Port Edward, Ugu District Municipality, KwaZulu-Natal (South Africa)

Client: Craig Robertson

Project duration/date: September 2013

Job Title and Duties: Environmental Assessment Practitioner
Environmental Screening and compliance assessments, including site investigations, liaison with specialists, preparation of locality maps and layout plans, and the preparation of response report submission to the Department Agriculture and Environmental Affairs.

Name of Project: Environmental Non-Compliance requirements for a dam constructed on Ptn 1, 2 and 3 of the Farm Riverholm in Nottingham Road, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Clive Garlic

Project duration/date: December 2013 - Present

Job Title and Duties: Environmental Assessment Practitioner
Section 24G application and compliance assessments, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of an Impact Assessment Report including EMPr and mitigation requirements.

Name of Project: Environmental Non-Compliance requirements on Voscham Stud for construction actives within a wetland and on the banks of the Mooi River in Nottingham Road, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Chris Vos

Project duration/date: December 2013 - Present

Job Title and Duties: Environmental Assessment Practitioner
Section 24G application and compliance assessments, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of an Impact Assessment Report including EMPr and mitigation requirements.

STRATEGIC ENVIRONMENTAL MANAGEMENT PROJECTS

Name of Project: uThukela Biodiversity Sector Plan, uThukela District Municipality, KwaZulu-Natal (South Africa)

Client: Ezemvelo KZN Wildlife

Project duration/date: July 2008 – January 2009

Job Title and Duties: GIS Specialist

Assisting the project team as the GIS specialist in the preparation of a biodiversity sector plan which involved the gathering and management of digital data from a variety of public and private sources, assessment of various environmental aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: **Zululand Biodiversity Sector Plan, Zululand District Municipality, KwaZulu-Natal (South Africa)**
Client: Ezemvelo KZN Wildlife
Project duration/date: December 2008 – June 2010
Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of a biodiversity sector plan which involved the gathering and management of digital data from a variety of public and private sources, assessment of various environmental aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: **Impendle Strategic Environmental Management Plan, Impendle Local Municipality**
Client: Impendle Local Municipality
Project duration/date: August 2009 – February 2010
Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of the SEMP which involves the gathering and management of digital data from a variety of public and private sources, assessment of various environmental and planning aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: **Umdoni Strategic Environmental Assessment (SEA), Umdoni Local Municipality**
Client: Umdoni Local Municipality
Project duration/date: October 2010 – May 2012
Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of the SEA which involves the gathering and management of digital data from a variety of public and private sources, assessment of various environmental and planning aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: **UMgungundlovu Strategic Environmental Assessment (SEA)**
Client: UMgungundlovu District Municipality
Project duration/date: June 2011 – June 2012
Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of the SEA which involves the gathering and management of digital data from a variety of public and private sources, assessment of various environmental and planning aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: **Ugu Biodiversity Sector Plan, Ugu District Municipality**
Client: Ezemvelo KZN Wildlife
Project duration/date: August 2011 – May 2013
Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of the Biodiversity Sector Plan which involves the gathering and management of digital data from a variety of public and private sources, assessment of various environmental and planning aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: **Umzumbe SDF, Ugu District Municipality**
Client: Thorn-ex on behalf of the Umzumbe Local Municipality
Project duration/date: January 2012 – March 2012

Job Title and Duties: GIS Specialist
Assisting Thorn-ex as the GIS specialist in the preparation and review of the SDF GIS mapping analysis and outputs.

Name of Project: Ugu Environmental Management Framework (Biodiversity Report), Ugu District Municipality

Client: Mott MacDonald

Project duration/date: March 2013 – May 2013

Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of the Biodiversity component of the EMF which involves the gathering and management of digital data from a variety of public and private sources, assessment of various environmental and planning aspects of the project, preparation of relevant data, mapping and GIS analysis.

Name of Project: Newcastle Environmental Management Framework, Newcastle Local Municipality

Client: Isibuko Development Planners, for Newcastle Local Municipality

Project duration/date: May 2013 – Present

Job Title and Duties: GIS Specialist
Assisting the project team as the GIS specialist in the preparation of the EMF which involves the gathering and management of digital data from a variety of public and private sources, assessment of various environmental and planning aspects of the project, preparation of relevant data, mapping and GIS analysis.

ENVIRONMENTAL CONTROL OFFICER DUTIES

Name of Project: Cobblers Hill Housing Development, Nottingham Road, KwaZulu-Natal (South Africa)

Client: Mr. Basil Mayne

Project duration/date: June 2007

Job Title and Duties: Environmental Control Officer
Assisted in the preparation of, and auditing compliance with, an Environmental Management Plan.

Name of Project: D1130 Road Upgrade, Pietermaritzburg, KwaZulu-Natal (South Africa)

Client: SNA Engineers (Pty) Ltd

Project duration/date: December 2008 – September 2009

Job Title and Duties: Environmental Control Officer
Preparation of a construction phase Environmental Management Plan and auditing compliance for the construction phase of development.
Preparation of monthly Audit Reports for the client.

Name of Project: Installation of a Sodium Hypochlorite (NaOCL) Bleach Plant, Cato Ridge, KwaZulu-Natal (South Africa)

Client: NCP Chlorchem (Pty) Ltd

Project duration/date: December 2008 – January 2010

Job Title and Duties: Environmental Control Officer
Auditing compliance with an Environmental Management Plan for the construction phase of development, and producing monthly Audit Reports for the competent authority (DAEA).

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- Name of Project:** **Willowfontain Stream Rehabilitation Works , Pietermaritzburg, KwaZulu-Natal (South Africa)**
Client: Msunduzi Local Municipality
Project duration/date: March 2009 – Present
Job Title and Duties: Environmental Control Officer
Preparation of a construction phase Environmental Management and Rehabilitation Plan and auditing compliance during rehabilitation works.
Preparation of monthly Audit Reports for the competent authorities (DAEA and the Department of Water Affairs and Forestry).
- Name of Project:** **Wembezi Highway Interchange, Estcourt, KwaZulu-Natal (South Africa)**
Client: Stedone for SANRAL
Project duration/date: September 2009 – June 2010
Job Title and Duties: Environmental Control Officer
Monthly auditing of compliance during construction works. Preparation of quarterly Audit Reports for the competent authority (DEAT).
- Name of Project:** **Ohlanga Pump station and Rising Main, eThekwini, KwaZulu-Natal (South Africa)**
Client: Aurecon Group for eThekwini Municipality
Project duration/date: September 2009 – May 2012
Job Title and Duties: Environmental Control Officer
Bi monthly auditing of compliance during construction works. Preparation of quarterly Audit Reports for the competent authority (DAEARD).
- Name of Project:** **Moss Kolnick Interchange Upgrade, eThekwini, KwaZulu-Natal (South Africa)**
Client: SSI Engineers and Environmental Consultants for SANRAL
Project duration/date: March 2010 – May 2012
Job Title and Duties: Environmental Control Officer
Monthly auditing of compliance during construction works. Preparation of monthly Audit Reports for the competent authority (DAEARD).
- Name of Project:** **Freightpak Warehouse Expansion, eThekwini, KwaZulu-Natal (South Africa)**
Client: Freightpak (Pty) Ltd
Project duration/date: February 2011 – May 2012
Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the construction phase of the project and auditing compliance during construction works. Preparation of monthly Audit Reports for submission to the competent authority (DAEARD).
- Name of Project:** **KwaMashu Waste Water Treatment Works Incinerator, eThekwini, KwaZulu-Natal (South Africa)**
Client: Coal and Waste Utilisation (Pty) Ltd for eThekwini Water and Sanitation
Project duration/date: March 2011
Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the facility, undertaking of a once off site and process audit of the operational phase of the Incinerator Plant.
- Name of Project:** **Bulk Connections Island View Coal Terminal, eThekwini, KwaZulu-Natal (South Africa)**
Client: Bulk Connections (Pty) Ltd
-

Project duration/date: March 2011 – October 2011
Job Title and Duties: Environmental Control Officer
Preparation of a construction phase Environmental Management and Rehabilitation Plan and auditing compliance during construction works.
Preparation of monthly Audit Reports for the client.

Name of Project: **Bulk Service Installation for the Gates at Hilton Residential Development, Hilton, KwaZulu-Natal (South Africa)**

Client: Gwens Stream Estate (Pty) Ltd for Hilton College School

Project duration/date: June 2012 – March 2013

Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the construction phase of the project and auditing compliance during construction works. Preparation of monthly Audit Reports for submission to the competent authority (DAEARD)

Name of Project: **P368 Road Upgrade, Muden, KwaZulu-Natal (South Africa)**

Client: Royal HaskoningDHV for DoT

Project duration/date: June 2012 – Present

Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the construction phase of the project and auditing compliance during construction works. Preparation of monthly Audit Reports for submission to the competent authority (DAEARD)

Name of Project: **Construction for the Qudeni Link Road, Qudeni, KwaZulu-Natal (South Africa)**

Client: Royal HaskoningDHV for DoT

Project duration/date: June 2012 – Present

Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the construction phase of the project and auditing compliance during construction works. Preparation of monthly Audit Reports for submission to the competent authority (DAEARD)

Name of Project: **Upgrading of the Nsuze River Bridge, Qudeni, KwaZulu-Natal (South Africa)**

Client: Royal HaskoningDHV for DoT

Project duration/date: June 2013 – Present

Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the construction phase of the project and auditing compliance during construction works. Preparation of bi-weekly Audit Reports for submission to the competent authority (DAEARD)

Name of Project: **Ndumo Access Road Upgrade, Josini, KwaZulu-Natal (South Africa)**

Client: Royal HaskoningDHV for DoT

Project duration/date: June 2012 – Present

Job Title and Duties: Environmental Control Officer
Developing a suitable Audit Report Form for the construction phase of the project and auditing compliance during construction works. Preparation of monthly Audit Reports for submission to the competent authority (DAEARD)

SCOPING & FULL EIA APPLICATIONS

Name of Project: **Emberton Estate, Gillitts, KwaZulu-Natal (South Africa)**
Project duration/date: June 2008 – January 2011
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Scoping Report, Environmental Impact Report and Environmental Management Plan.

Name of Project: **Blackhurst Manor Residential Development, Midmar, KwaZulu-Natal (South Africa)**
Client: Bruce Peattie, Blackhurst Manor Estate (Pty) Ltd
Project duration/date: January 2009 – October 2012
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Scoping and Environmental Impact Report and Environmental Management Plan.

Name of Project: **Kingussie Land Cultivation Application, Nottingham Road, KwaZulu-Natal (South Africa)**
Client: Turner Farming (Pty) Ltd
Project duration/date: March 2009 – January 2010
Job Title and Duties: Environmental Assessment Practitioner and GIS Specialist
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Scoping and Environmental Impact Report and Environmental Management Plan.

Name of Project: **N3 Key Ridge Viaduct Bypass, eThekweni Municipality, KwaZulu-Natal (South Africa)**
Client: SANRAL
Project duration/date: December 2012 - Present
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Scoping Report, full Environmental Impact Report and Environmental Management Plan.

Name of Project: **Langeberg / Bayhead New Arterial Road from Back of Port to N2 , eThekweni Municipality, KwaZulu-Natal (South Africa)**
Client: EThekweni Transport Authority
Project duration/date: January 2014 - Present
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Scoping Report, full Environmental Impact Report and Environmental Management Plan.

BASIC ASSESSMENT APPLICATIONS

Name of Project: Msenga Office Park, Gillitts, KwaZulu-Natal (South Africa)
Client: Msenga Developments Pty (Ltd)
Project: January 2008 – August 2008
duration/date:
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including extensive site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of Basic Assessment Report and Environmental Management Plan.

Name of Project: Hamilton Office Park, Gillitts, KwaZulu-Natal (South Africa)
Client: Whiteoaks Trading Pty (Ltd)
Project: January 2008 – February 2009
duration/date:
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including extensive site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of Basic Assessment Report and Environmental Management Plan.

Name of Project: Macambini Water Pipeline Project, Tugela Valley, KwaZulu-Natal (South Africa)
Client: Goba Consulting Engineers (Pty) Ltd
Project: January 2008 – September 2008
duration/date:
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including extensive site investigations using GPS and liaison with specialists.

Name of Project: Zuiwergoud Cultivation Project, Nottingham Road, KwaZulu-Natal (South Africa)
Client: J.J. van de Velde
Project: December 2007 – March 2009
duration/date:
Job Title and Duties: Environmental Assessment Practitioner and GIS Specialist
Undertaking of the EIA process, including extensive site investigations, public participation, liaison with specialists, the preparation of locality maps, layout plans, preparation of Background Information Documents, the preparation of Basic Assessment Report and Environmental Management Plan.

Name of Project: Umlazi Urban Framework Development Plan Upgrade, eThekweni Metropolitan Municipality, KwaZulu-Natal (South Africa)
Client: eThekweni Municipality Strategic Projects Department
Project: November 2008 – June 2009
duration/date:
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Amber Valley Retirement Village Extension, Howick, KwaZulu-Natal (South Africa)
Client: Howick Retirement Villages (Pty) Ltd

Project duration/date: December 2008 – February 2009
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Willowfountain Stream Rehabilitation Works , Pietermaritzburg, KwaZulu-Natal (South Africa)

Client: Msunduzi Local Municipality
Project duration/date: March 2009 – April 2009
Job Title and Duties: Environmental Control Officer
Preparation of a construction phase Environmental Management and Rehabilitation Plan and auditing compliance during rehabilitation works. Preparation of monthly Audit Reports for the competent authorities (DAEA and the Department of Water Affairs and Forestry).

Name of Project: Ndumo Road Upgrade, Jozini Local Municipality

Client: SSI Engineers
Project duration/date: July 2009 – July 2010
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Burger Street Upgrade and Extension, Pietermaritzburg, KwaZulu-Natal (South Africa)

Client: Msunduzi Local Municipality
Project duration/date: October 2009 – January 2011
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Ballito Interchange Upgrade, Ballito, KwaZulu-Natal (South Africa)

Client: Vela VKE Engineers on behalf of the South African National Roads Agency Limited (SANRAL)
Project duration/date: December 2009 – January 2011
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: N2 Flood Protection Works, Riverhorse Valley EThekweni Metro, KwaZulu-Natal (South Africa)

Client: UWP Consulting Engineers on behalf of the South African National Roads Agency Limited (SANRAL)
Project duration/date: December 2009
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Willowfountain Gravel Road Upgrade, Edendale, KwaZulu-Natal (South Africa)

Client: Msunduzi Local Municipality

Project duration/date: December 2009 – March 2011

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: N11 Interchange Upgrade, Ladysmith, KwaZulu-Natal (South Africa)

Client: SSI Engineers and Environmental Consultants on behalf of the South African National Roads Agency Limited (SANRAL)

Project duration/date: January 2010 – March 2011

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Amber Ridge Residential Estate, Howick, KwaZulu-Natal (South Africa)

Client: Dr Vaughn Armstrong

Project duration/date: December 2010 – March 2011

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Umlaas Road Warehousing, Camperdown KwaZulu-Natal (South Africa)

Client: Collins Property Group

Project duration/date: January 2012 – May 2012

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a draft Basic Assessment Report and Environmental Management Plan.

Name of Project: Makhabeleni Bulk Water Supply Project, uMzinyathi District Municipality KwaZulu-Natal (South Africa)

Client: MSW Consulting Engineers

Project duration/date: January 2012 – May 2012

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Sundumbili Bulk Water Supply Project, Mandeni Local Municipality, KwaZulu-Natal (South Africa)

Client: SSI Engineers and Environmental Consultants

Project duration/date: January 2012 – May 2012

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental

Management Plan.

Name of Project: **Umgeni Tented Camp, UMngeni Local Municipality, KwaZulu-Natal (South Africa)**

Client: Hi Zone

Project duration/date: July 2012 – January 2013

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: **Spioenkop-Ladysmith Regional Bulk Water Supply, uThukela District Municipality, KwaZulu-Natal (South Africa)**

Client: WMN Consultancy (Pty) Ltd

Project duration/date: September 2012 – Present

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: **Hlabisa Rural Road Upgrade, Hlabisa Local Municipality, KwaZulu-Natal (South Africa)**

Client: Mzansi Africa Civils

Project duration/date: September 2012 – January 2014

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: **Ashdown Stream Bank Rehabilitation, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)**

Client: Msunduzi Municipality

Project duration/date: January 2014 - Present

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: **Stockowners Business Park Water and Sewage Supply Basic Assessment Application, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)**

Client: ET Properties

Project duration/date: January 2014 - Present

Job Title and Duties: Environmental Assessment Practitioner

Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: **Ndumo Project 3 Road Upgrade from Ndumo to Ekuhlehleni (D1841, D1842, D1884), uMkhanyakude District Municipality, KwaZulu-Natal (South Africa)**

Client: Department of Transport
Project duration/date: March 2014 - Present
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

Name of Project: Woodhouse Road Pedestrian Bridge, uMgungundlovu District Municipality, KwaZulu-Natal (South Africa)

Client: Msunduzi Municipality
Project duration/date: May 2014 - Present
Job Title and Duties: Environmental Assessment Practitioner
Undertaking of the EIA process, including site investigations, public participation, liaison with specialists, preparation of locality maps and layout plans, and the preparation of a Basic Assessment Report and Environmental Management Plan.

LANGUAGES

English : *Very Good*
Afrikaans : *Fair*

CURRICULUM VITAE



LIZ DRALLE

NAME OF FIRM : *TERRATEST (PTY) LTD*

NAME OF PERSON : *LIZ DRALLE*

NATIONALITY : *SOUTH AFRICAN*

DATE OF BIRTH : *1981/07/02*

PROFESSION : *ENVIRONMENTAL ASSESSMENT PRACTITIONER*

QUALIFICATION : *BSc. HONS (ENVIRONMENTAL MANAGEMENT)*

POSITION IN FIRM : *ENVIRONMENTAL SCIENTIST*

SPECIALISATION IN FIRM : *ENVIRONMENTAL IMPACT ASSESSMENT*

YEARS OF EXPERIENCE : *09 YEARS*

YEARS WITH FIRM : *1 YEAR*

SUMMARY OF EXPERIENCE

Liz Dralle graduated from the University of KwaZulu-Natal, Pietermaritzburg, with a BSc. Honours (*cum laude*) degree in Environmental Management. The focus of her studies included Geographical Information Systems (GIS), Environmental Impact Assessments (EIA), Geomorphology, Coastal Geomorphology, Biogeography, Natural Resource Management, Sustainable Land Use, Climate Change and City Planning. Her Honours dissertation project involved an investigation into the possible benefits of Vetiver Grass as a soil erosion control medium.

On completion of her degree, Liz was employed by Afzelia Environmental Consultants cc. in the capacity of Environmental Consultant, specializing in agricultural and linear Basic Assessments. She was based in Nottingham Road, KZN Midlands. After one year at Afzelia Environmental Consultants, Liz moved to Durban, where was employed in the capacity of Environmental Scientist with SRK Consulting (Pty) Ltd. At SRK Consulting (Pty) Ltd, Liz was involved in a multitude of Environmental Impact Assessments (EIAs), focusing mainly on Industrial EIAs. The most high profile of which was the EIA involved in landing the SEACOM/NEOTEL Telecommunications Cable at Mtunzini, KZN North Coast. Liz was also involved in several Equator Principle projects and also undertook the role as Environmental Control Officer (ECO) for several monitoring projects.

In 2010, Liz was approached by Environmental Impact Management Services (Pty) Ltd, to act as full time ECO for the Transnet New Multi-Purpose Pipeline (NMPP) Project, running from the Port of Durban to Johannesburg. Liz's role was to undertake daily Environmental Site Audits of her designated area, which started from Ashburton, just outside of Pietermaritzburg, to the Tugela River crossing on the N3. In total, a length of 151km. Further responsibilities included borrow pit identification, Public Participation in the form of monthly Community Liaison Forums, one-to-one interaction with affected landowners, as well as designated Land Liaison Officers. Contractor interaction was required on a daily basis, as well as Specialist interaction, specific to the rehabilitation of wetlands, post construction.

After a year on the NMPP Project, Liz joined JEC Environmental Services cc in the capacity of Environmental Consultant. Here Liz undertook several EIAs, focusing mainly on the agricultural sector in the form of piggery and cultivation of virgin land applications, as well as biogas installations. Liz also

undertook several Waste Licence Applications and Mining Right and Mining Permit Applications. Liz has been employed by Terratest (Pty) Ltd since May 2014 in the position of Environmental Scientist.

Liz is an IEMA certified Environmental Auditor. She also prescribes to the International Association for Impact Assessment South Africa (IAIASa) code of conduct and has been a member since 2007. She has also served on the KZN branch committee.

SOCIETY MEMBERSHIP

IAIASa International Association of Impact Assessors South Africa (Membership No. 2154).

EDUCATION

1999 : **Matric Exemption** – Pietermaritzburg Girls' High School
2000 : **Diploma in Business Computing** – Varsity College, Pietermaritzburg
2005 : **BSc (Environmental Management)** – University of KwaZulu-Natal
2006 : **BSc Hons (Environmental Management)** *Cum laude* - University of KwaZulu-Natal

APPOINTMENTS

2006 – 2007 : Afzelia Environmental Consultants cc
2007 – 2010 : SRK Consulting South Africa (Pty) Ltd
2010 – 2011 : Environmental Impact Management Services (Pty) Ltd
2011 – 2014 : JEC Environmental Services cc
2014 – current : Terratest (Pty) Ltd

SPECIFIC CONSULTING EXPERIENCE

Environmental (Basic Assessments & Full EIA and Scoping)

- Proposed construction of three footpaths, Ward 53: Zimbabwe Community, Amaoti area, KwaMashu, EThekweni Municipality, KwaZulu-Natal – Nankoo Engineers (Pty) Ltd;
- Proposed construction of the Woodhouse Road pedestrian bridge, Scottsville, Pietermaritzburg – Henwood & Nxumalo (Pty) Ltd;
- Proposed upgrade of the Ndumo Ring Road, Ndumo, Northern KZN – RHDHV (Pty) Ltd.;
- Proposed construction of the Ladysmith Ring Road, KwaZulu-Natal – SANRAL;
- Amendment to the proposed Greater Mpofana Bulk Water Supply Scheme, UMgungundlovu District Municipality: Realignment of a portion of the authorised pipeline – Umgeni Water;
- Proposed construction of a 160 sow piggery on Erf 189, Weenen – Agribusiness Development Agency;
- Proposed Tourism Development on the Farm Allendale, Umgeni Local Municipality, Umgungundlovu District Municipality, KwaZulu-Natal – Mr F. Reardon;
- Proposed Mixed Use Development on Cranburn Farm, Mandeni Municipality, iLembe District, KwaZulu-Natal – Dr Peter Arlington;
- Proposed Relocation of Existing Wood Pole Turning and CCA Treatment Plant from Schroeders to Cramond, Umshwathi Municipality – F.A.R. Timbers cc;
- Merrivale Compost Waste Management Licence - Nutrex Earth Matters;
- Proposed clearance of 40 hectares of indigenous grassland ('veld') for cultivation, KwaSani Local Municipality, KwaZulu-Natal - Flemmington Farming;
- Proposed clearance of 35 hectares of indigenous grassland ('veld') for the cultivation of annual crops such as radishes and maize, KwaSani Local Municipality, KwaZulu-Natal - Clowes Farming;

- Proposed construction of a new Water Reservoir and Water Reticulation infrastructure, Thendele Community, Mpofana Local Municipality, KwaZulu-Natal – Jeffares & Green (Pty) Ltd.;
- Proposed establishment of an Effluent Treatment Plant, 14 Oldfield Road, Mkondeni, Msunduzi Local Municipality, Umgungundlovu District Municipality - Ramsay Engineering (Pty) Ltd.;
- Proposed construction of the Acaciavale – eZakheni Link Road, Ladysmith, Emnambithi Municipality - EVN Africa Consulting Services (Pty) Ltd.;
- Proposed construction of a Biogas Facility at Baynesfield Estate Piggery, Richmond Municipality - Joseph Baynes Estate.;
- Proposed Expansion of Piggery Operations on Portion 21 Hardig and Rem of Farm Rhenosterpoort 455, Modimolle Municipality, Waterberg District, Limpopo Province - Greyling Vark Bordery (Pty) Ltd.;
- Proposed Construction of Housing at Mpola Phase 3, Pinetown South, KwaZulu-Natal – Ethekewini Municipality.;
- Proposed Construction of the Sisonke Farmers Market, Ixopo, KwaZulu-Natal – Sisonke District Municipality.;
- Proposed incorporation of Flyash into NPC-Cimpor products, Newcastle, KwaZulu-Natal - Natal Portland Cement (Pty) Ltd.;
- Proposed Construction and Operation of a Second Cement Mill at NPC – Cimpor, Simuma Facility, near Port Shepstone, KwaZulu-Natal - Natal Portland Cement (Pty) Ltd.;
- Proposed Storage and Utilisation of Alternative Fuels and Resources at Natal Portland Cement's Simuma Facility, Port Shepstone, KwaZulu-Natal - Natal Portland Cement (Pty) Ltd.;
- Proposed establishment of a flood attenuation facility in the Palmiet River catchment, Padfield Park, Pinetown, KwaZulu-Natal - EThekewini Municipality.;
- Construction and Operation of a Calciner at Foskor and a Rapidwall Plant at ERF1906, Alton, Richards Bay, KwaZulu-Natal - Foskor Limited.;
- Environmental Management Plan for the Mondi Odour Abatement project – Mondi.;
- Proposed development of a Shell Petrol Filling Station, Waterfall, KwaZulu-Natal – Shell Petroleum South Africa.;
- Proposed Installation of Underground Storage Tanks at the Car Rental Facilities at the King Shaka Airport, La Mercy, KwaZulu-Natal – Natural Resources Institute.;
- Proposed Decommissioning of MSMA Plant, Dow AgroSciences, Verulam - Dow Chemicals.;
- Proposed Installation of the SEA Cable System, KwaZulu-Natal North Coast, South Africa - SEACOM / NEOTEL.;
- Proposed Establishment of a 132kV Power Line and Associated 20MVA Substation, Ndwedwe, KwaZulu-Natal – Ndwedwe Municipality.;
- Proposed Installation of an Underground Storage Tank for “Non-Aromatic” White Spirits, Pinetown, KwaZulu-Natal - Sara Lee (Pty) Ltd.;
- Proposed Construction of the Wembezi Interchange at National Route 3 and Main Road 29, Wembezi / Estcourt, KwaZulu-Natal – Jeffares & Green (Pty) Ltd.;
- Proposed construction of Kwezi Hostel on Rem of Erf 1248, Portion 7 of Erf 1247 and Rem of Erf 1092 Estcourt, Msthezi Local Municipality, KwaZulu-Natal.;
- Proposed “Baronberg Estate” on the Farm Blair Atholl No. 15735, Mooi Mpofana Municipality, KwaZulu-Natal - Baronberg cc.;
- Proposed “Heritage Ridge” comprising 20 new residential / holiday home opportunities and associated infrastructure on Portion 7 (of 1) of Lot H 105 No. 13359, Big Five False Bay Municipality, KwaZulu-Natal.;
- Proposed development of a Nutrex KZN (Pty) Ltd Animal Feed Mill on Portion 401 (of 6) of the Farm Allermans Drift No. 950, Tweedie, uMngeni Municipality, KwaZulu-Natal – Nutrex (Pty) Ltd.;
- Proposed “Valley View” Residential Development on portion 72 (of 71) of the Farm Camperdown No. 1330, Camperdown, KwaZulu-Natal – Valley View.;
- Proposed Cleopatra Extension – Cleopatra.;
- Proposed construction of Chicken Houses on Hanbury Farms (Pty) Ltd, Farm No 4, Ashley Grange, D174, Merrivale / Mpophomeni, KwaZulu-Natal - Hanbury Chickens.;

- Proposed eSikheshini community access road upgrade, Ingwe Local Municipality, Sisonke District Municipality, KwaZulu-Natal - Ingwe Local Municipality;
- Proposed “Hillside” development on the Remainder of Portion 99 m(of 25) of the Farm Gowrie No. 1930, Nottingham Road, uMngeni Local Municipality, KwaZulu-Natal – Rawdons Country Estate;
- Proposed development of a water pipeline from Sundumbili reticulation reservoir A to Mandeni Bulk Gravity Main and on to Rocky Ridge Reservoir; including an additional pipeline to the Tugela Water Treatment Works, Mandeni, Ilembe Municipality, KwaZulu-Natal – SSI (Pty) Ltd;
- Proposed Resort and Spa Development on the North Bank of the Thukela Mouth, Portion 1 of Ayinkindaba No. 11678, Portion 5 of 3 of Ayinkindaba No. 11678, and Portion 2 and 3 of Reserve No. 7A No. 15826. Mandeni Local Municipality, KwaZulu-Natal;
- Proposed “Tugela Tides” resort on the North Bank of the Thukela Mouth, on remainder of portion 3 of Ayinkindaba No 11678, and portion 4 of 3 of the farm Ayinkindaba No 15826. Mandeni Local Municipality, KwaZulu-Natal;
- Proposed upgrading of the Umzimkhulu pedestrian bridge, Sisonke District Municipality, KwaZulu-Natal;
- Proposed development of a poultry enterprise on the Remainder of Wilde Perde Vlei no. 1004, Winterton, uThukela Municipality, KwaZulu-Natal.

Waste Management Licence Applications

- Proposed decommissioning of the Goswell Developments Landfill Site, Cato Ridge, EThekweni Municipality, KwaZulu-Natal – Goswell Developments;
- Proposed Waste Management Licence for Tongaat Hulett’s Amatikulu Mill, KwaZulu-Natal - Tongaat Hulett’s Ltd;
- Proposed construction of a 160 sow piggery on Erf 189, Weenen – Agribusiness Development Agency;
- Proposed construction of a Biogas Facility at Baynesfield Estate Piggery, Richmond Municipality - Joseph Baynes Estate;
- Waste Management License application for the existing Mfolozi Waste Transfer Station in KwaMbonambi, Mfolozi (previously Mbonambi) Local Municipality, northern KwaZulu-Natal - Mfolozi Local Municipality;
- Proposed Expansion of Piggery Operations on Portion 21 Hardig and Rem of Farm Rhenosterpoort 455, Modimolle Municipality, Waterberg District, Limpopo Province - Greyling Vark Bordery (Pty) Ltd.

Environmental Auditing

- Environmental Audit for the construction of the Eteza Interchange – Worsley Parsons (Pty) Ltd;
- Environmental Audit for the upgrade and construction of Bhekuzulu/Epangweni Community Water Supply Scheme, Kwazulu-Natal – Sukuma (Pty) Ltd;
- Daily Environmental Control Officer duties for the construction and installation of the New Multi-Purpose Pipeline (NMPP) – Transet Limited;
- Post-construction auditing of the various cable stations constructed for the use of the SEACOM telecommunications cable, as well as a vessel audit of the Tyco Cable Laying Vessel of the SEA Cable System - SEACOM / NEOTEL;
- Environmental Compliance Audit for the Installation of Aboveground Storage Tanks, Phoenix, KwaZulu-Natal – ABI (Pty) Ltd;
- Environmental Due Diligence Assessment for the Belgie Breeder Facility located near Bloemfontein, Free State – Sovereign Foods (Pty) Ltd;
- Environmental Due Diligence Assessment for the Belgie Hatchery Facility located near Bloemfontein, Free State – Sovereign Foods (Pty) Ltd;
- Environmental Due Diligence Assessment for the Botshabelo Abattoir and Rendering Plant located near Bloemfontein, Free State – Sovereign Foods (Pty) Ltd;

- Environmental Due Diligence Assessment for the Kelly's View Breeder Facility located near Bloemfontein, Free State – Sovereign Foods (Pty) Ltd;
- Environmental Due Diligence Assessment for the Nutri-feeds Mill located near Bloemfontein, Free State – Sovereign Foods (Pty) Ltd.

Environmental Screening

- Site Assessment on Portion 405/885 of the Farms Vaalkop and Dadelfontein No. 885, for the proposed development of a Light Industrial Park, Umlaas Road, KwaZulu-Natal - AquaTrans;
- Environmental Screening Assessment for the proposed upgrading of footpaths and roads, Ward 59: Moscow, EThekwini Metropolitan, KwaZulu-Natal – Nankoo Engineers (Pty) Ltd.;
- Environmental Screening Assessment for the proposed upgrading of footpaths and roads,, Ward 60: Ivy Close, EThekwini Metropolitan, KwaZulu-Natal – Nankoo Engineers (Pty) Ltd.;
- Environmental Screening Assessment for the proposed upgrading of footpaths and roads,, Ward 62: Jan Roz, EThekwini Metropolitan, KwaZulu-Natal – Nankoo Engineers (Pty) Ltd.;
- Environmental Screening Assessment for the proposed upgrading of footpaths and roads,, Ward 58: Lungelani, La Mercy, EThekwini Metropolitan, KwaZulu-Natal – Nankoo Engineers (Pty) Ltd.;
- Environmental Screening Assessment for the proposed upgrading of footpaths and roads,, Ward 61: Ndliyomlilo, Tongaat, EThekwini Metropolitan, KwaZulu-Natal – Nankoo Engineers (Pty) Ltd.

Mining

- Proposed Sand Mining on the Banks on the Tugela River, on Remainder of Portion 2 and Remainder of Portion 3 of the Farm Wan Hoop No. 1278, Okhahlamba Local Municipality, Kwazulu-Natal - Madinka 76 cc;
- Environmental Management Plan for Kulucrete Mining, Quarry – Kulucrete Mining;
- Prospecting Right for Midmar Crushers, Remainder of Lot 51 No. 1794, UMgungundlovu District Municipality – Midmar Crushers cc.;
- Proposed Umgeni Sand Mining on the northern bank of Nagel Dam, KwaZulu-Natal

LANGUAGES

English : Excellent
Afrikaans : Fair