

# CURRICULUM VITAE



## ELOISE COSTANDIUS

### SENIOR ENVIRONMENTAL CONSULTANT

Environmental Management, Planning & Approvals,  
South Africa

## QUALIFICATIONS

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| Pr.Sci.Nat. | 2010 | Professional Natural Scientist (Environmental Science) with the South African Council for Natural Scientific Professions |
| MSc         | 2005 | Ecological Assessment  |
| BSc (Hons)  | 2002 | Zoology  |
| BSc         | 2001 | Biodiversity and Ecology, Botany, Zoology  |

## EXPERTISE

- Environmental Impact Assessment
- Public Participation
- Environmental Auditing
- Terrestrial Fauna Assessment

Eloise has worked as an environmental assessment practitioner since 2005 and has been involved in a number of projects covering a range of environmental disciplines, including Basic Assessments, Environmental Impact Assessments, Environmental Management Programmes, Maintenance Management Plans, Environmental Control Officer services and Public Consultation and Facilitation. In her 12 years as a consultant, she has gained experience in projects relating to oil and gas exploration, road infrastructure, renewable energy and housing and industrial developments. The majority of her work has been based in South Africa, but she also has experience working in Namibia and Mauritius. In addition, she has also undertaken a number of terrestrial fauna assessments as part of EIA specialist teams.

## PROJECTS

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|  |  | <b>Oil and Gas</b>  |
| <b>Spectrum Geo Ltd – Proposed 2D Speculative Seismic Survey off the South-West and South Coast, South Africa (2018)</b> |  | EMP process for a Reconnaissance Permit Application to acquire 2D seismic data in a large area off the South-West and South coast of South Africa. Eloise was the project manager and compiled the EMP report, undertook the required public participation process and managed the appointed specialists.             |
| <b>Spectrum Geo Ltd - Proposed 2D Speculative Seismic Survey off the East and Southwest Coast, South Africa (2016)</b>   |  | EMP process for a Reconnaissance Permit Application to acquire 2D seismic data within a large offshore area off the South and Southwest coast of South Africa. Eloise was the project manager and compiled the EMP report, undertook the required public participation process and managed the appointed specialists. |

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| <p><b>Spectrum ASA - 2D Speculative Seismic Survey in the Orange Basin, South Africa (2013-2015)</b></p>  | <p>EMP process for a Reconnaissance Permit Application to undertake a 2D speculative seismic survey in the Orange Basin off the Northwest coast of South Africa. EMP compliance monitoring services were also provided during the survey operations and a Close-out Report produced. Eloise served as the project consultant, compiled the EMP, undertook the required public participation process, managed the appointed specialists, liaised with the appointed Marine Mammal Observer (MMO) and compiled the Close-out Report.</p> |
| <p><b>Spectrum ASA - 2D Speculative Seismic Survey in the Orange Basin, Namibia (2013-2015)</b></p>   | <p>EIA process for a 2D speculative seismic survey in the Orange Basin off the Southwest coast of Namibia. EIA and EMP compliance monitoring services were also provided during the survey operations and a Close-out Report produced. Eloise served as the project consultant, compiled the EIA Report and EMP, undertook the required public participation process, managed the appointed specialists, liaised with the appointed MMO and compiled the Close-out Report.</p>   |
| <p><b>Petroleum Geo-Services ASA - Proposed speculative seismic survey off the South Coast of South Africa (2014)</b></p>                         | <p>EMP process as part of a Reconnaissance Permit application for undertaking a speculative seismic survey of the South Coast of South Africa. Eloise was the project consultant and compiled the EMP report, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>OK Energy Ltd - Proposed exploration programme in the Northern Cape Ultra-deep Licence Area, Orange Basin, South Africa (2014)</b></p>      | <p>EMP process as part of an Exploration Right application for undertaking an exploration programme (i.e. seismic survey, tensor gravity and magnetics, bathymetry survey, seabed sampling) in the Northern Cape Ultra-deep Licence Area in the Orange Basin off the Northwest Coast of South Africa. Eloise was the project consultant, compiled the EMP, undertook the required public participation process and managed the appointed specialists.</p>  |
| <p><b>CGG Services SA - Proposed 2D speculative seismic survey in the Durban Basin, East Coast, South Africa (2013)</b></p>                       | <p>EMP process as part of a Reconnaissance Permit application for undertaking a speculative 2D seismic survey in the Durban Basin off the East Coast of South Africa. Eloise served as the project consultant, compiled the EMP report, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Alumni Trading 234 (Pty) Ltd - Proposed exploration activities to the South of Burgersfort, Limpopo, South Africa (2013-2017)</b></p>       | <p>EMP process as part of an Exploration Right application for undertaking soil sampling and exploration well drilling for hydrocarbons in an area to the south of Burgersfort in the Limpopo province of South Africa. Eloise served as the project manager and produced the EMP, undertook the required public participation process and produced the Closure Application documentation at the end of the Exploration Right validity period.</p>   |
| <p><b>GeoPartners Ltd - Proposed 2D seismic survey in the Lüderitz Basin, Namibia (2012)</b></p>  | <p>EIA process for a speculative 2D seismic survey in the Lüderitz Basin off the Southwest coast of Namibia. Eloise served as the project consultant, compiled the EIA Reports, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Total E and P South Africa (Pty) Ltd - Proposed Exploration Programme in the Outeniqua South Area, South Coast, South Africa (2012)</b></p> | <p>EMP process as part of an Exploration Right application for undertaking an exploration programme (2D seismic survey, sonar bathymetry, drop core sampling) in the Outeniqua South Area off the South Coast of South Africa. Eloise served as the project consultant, compiled the EMP, undertook the required public participation process and managed the appointed specialists.</p>   |

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| <p><b>CGGVeritas - Proposed 2D Speculative seismic survey off the East Coast of South Africa (2012)</b></p>  | <p>EMP process as part of a Reconnaissance Permit application for undertaking a 2D speculative seismic survey off the East Coast of South Africa. Eloise served as the project consultant, compiled the EMP, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Signet Petroleum Ltd - Proposed 2D and 3D seismic survey programme in Block 2914B, Namibia (2011)</b></p>  | <p>EIA process for a 2D and 3D seismic survey programme in Block 2914B off the coast of Namibia. Eloise served as project consultant, compiled the EIA Report, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Chariot Oil &amp; Gas - Proposed seismic survey off the coast of Namibia (2011)</b></p>  | <p>EIA process for a seismic survey off the coast of Namibia. EIA and EMP compliance monitoring services were also provided during the survey operations and a Close-out Report produced. Eloise served as the project consultant, compiled the EIA Report and EMP, undertook the required public participation process, managed the appointed specialists, liaised with the appointed MMO and compiled the Close-out Report.</p> |
| <p><b>Forest Exploration International South Africa (Pty) Ltd - Proposed Ibhubesi Power Plant Project, Northern Cape, South Africa (2006-2008 &amp; 2011)</b></p>  | <p>Scoping and EIA process for the development of the Ibhubesi Power Plant Project in the Northern Cape (offshore and onshore components) province of South Africa. Eloise assisted with report writing and served as public participation facilitator.</p>   |
| <p><b>Riverwalk Trading 154 (Pty) Ltd - Proposed exploration boreholes in Lydenburg, Mpumalanga, South Africa (2011)</b></p>                                       | <p>EMP Addendum process for the drilling of two exploration boreholes on Farm 30 Potloodspruit, Plot 106 to the north of Lydenburg in the Mpumalanga province of South Africa. Eloise served as the project consultant, compiled the EMP Addendum and undertook the required public participation process.</p>  |
| <p><b>QVD (South Africa) Ltd - Proposed 3D seismic survey in Block 2B, West Coast, South Africa (2008-2009)</b></p>  | <p>EMP process for a 3D seismic survey in Block 2B off the West Coast of South Africa. Eloise served as the project consultant, compiled the EMP, undertook the required public participation process and managed the appointed specialists.</p>  |
| <p><b>Enigma Oil and Gas Company - Proposed 2D and 3D seismic surveys in three areas off the coast of Namibia (2008 - 2009)</b></p>                                | <p>EIA process for a proposed 2D and 3D seismic surveys in three areas off the coast of Namibia. Eloise served as project consultant, produced the EIA Report, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Alumni Trading 234 (Pty) Ltd - Proposed prospect geochemical surveying in Mpumalanga, South Africa (2008)</b></p>  | <p>EMP process for conducting prospect geochemical surveying in the Waterval-Boven, Machadodorp area in the Mpumalanga province, South Africa. Eloise served as the project manager, reviewed the EMP and undertook the required public participation process.</p>  |
| <p><b>Ferromarine Africa - Oil and Gas Service Hub in the Port of Cape Town and Fabrication Yard for Oil and Gas Structures in the Port of Saldanha (2006)</b></p> | <p>Construction and Operational EMPs for two Ferromarine facilities for the servicing and fabrication of oil and gas structures, i.e. an oil and gas service hub at A Berth in the Port of Cape Town and an oil and gas structures fabrication yard in the Port of Saldanha. Eloise served as the project consultant and compiled the EMPs.</p>   |

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| <p><b>Riverwalk Trading cc -<br/>Geochemical surveying for oil<br/>in an area north of Lydenburg,<br/>Mpumalanga, South Africa<br/>(2005-2006)</b></p>   | <p>EMP process as part of an Exploration Right application for geochemical surveying in an area to the north of Lydenburg in the Mpumalanga province of South Africa. Eloise served as the project consultant, compiled the EMP and undertook the required public participation process.</p>  |
| <p><b>Roads and related infrastructure</b></p>   |   |
| <p><b>SMEC SA (Pty) Ltd for Saldanha<br/>Bay IDZ Licencing Company<br/>(SOC) Ltd - Proposed new<br/>access roads to the Saldanha<br/>Bay IDZ (2016-2017)</b></p>   | <p>Basic Assessment for the construction of two new access roads linked to the back of port area of the Saldanha Bay IDZ. Eloise was the project manager and reviewed the Basic Assessment Report (BAR) and EMP.</p>  |
| <p><b>GIBB (Pty) Ltd for City of Cape<br/>Town - Replacement of the<br/>Westlake Culvert, Lakeside,<br/>Cape Town (2016-ongoing)</b></p>   | <p>Maintenance Management Plan (MMP) for the proposed replacement of the Westlake Culvert in the Lakeside area of Cape Town. SLR also provided the Environmental Control Officer (ECO) services for the duration of the construction period. Eloise was the project manager and provided review services for the MMP and ECO reports.</p>   |
| <p><b>AECOM SA for Western Cape<br/>Government (WCG):<br/>Department of Transport and<br/>Public Works (DTPW) -<br/>Emergency fill slope repairs<br/>along Akkedisberg Pass,<br/>Overstrand Municipal Area<br/>(2015-2016)</b></p> | <p>MMP for the emergency fill slope repairs at two storm damaged sites along the Akkedisberg Pass between Caledon and Stanford in the Overstrand Municipal area. Eloise was the project consultant, compiled the MMP, undertook the required public participation process and managed the appointed specialist.</p>   |
| <p><b>AECOM SA for WCG:DTPW -<br/>Upgrading of TR31/2 between<br/>Ashton and Montagu,<br/>Cogmanskloof Pass (2015-<br/>ongoing)</b></p>  | <p>ECO services for the three-year construction phase for the upgrading of Trunk Road 31 Section 2, Cogmanskloof Pass, between Ashton and Montagu, including the main roads through the two towns. Eloise is serving as the ECO for the duration of the construction period and producing monthly ECO audit reports.</p>  |
| <p><b>Aurecon (Pty) Ltd for<br/>WCG:DTPW - Development of<br/>11 strategic borrowpits in the<br/>Bitterfontein-Nuwerus area,<br/>South Africa (2014-ongoing)</b></p>   | <p>Basic Assessment and planning application process for the development of 11 strategic borrowpits in the Bitterfontein-Nuwerus area along the West Coast of South Africa. Eloise was the project manager, compiled the reports, reviewed the planning application documentation and undertook the required public participation process.</p>  |
| <p><b>AECOM SA for WCG:DTPW -<br/>Upgrading of TR85/1 between<br/>the R27 and Jacobsbaai<br/>Intersection, Saldanha Bay<br/>Municipal area (2013-2015)</b></p>   | <p>Basic Assessment for the upgrading of Trunk Road 85 Section 1 between the R27 and the Jacobsbaai Intersection to a designated freight route, including new grade-separated interchanges, in the Saldanha Bay Municipal area. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p> |

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| <p><b>UWP Consulting (Pty) Ltd for WCG: DTPW - Regravelling of sections of Divisional Roads DR2187, DR2192, DR2193 and DR2195 in the Graafwater area, South Africa (2013-2015)</b></p> | <p>ECO services for the duration of the 2-year construction period for the regravelling of divisional roads in the Graafwater area, Western Cape, South Africa, including the development of five borrowpits. Eloise served as the ECO and produced monthly ECO audit reports.</p>  |
| <p><b>Gibb (Pty) Ltd for WCG:DTPW: Proposed changes to the proclaimed road network affected by the raising of the Clanwilliam Dam wall (2013-ongoing)</b></p>                          | <p>Environmental input and facilitation of the public participation process for the proposed changes to the proclaimed secondary road network to be affected by the raising of the Clanwilliam Dam wall. Eloise served as the project manager, produced the required environmental reports, facilitated the public participation process and managed the appointed specialists.</p> |
| <p><b>SPP Project Solutions (Pty) Ltd for Road Development Authority, Mauritius. Proposed Road Decongestion Programme, Mauritius (2012-2014)</b></p>                                   | <p>Environmental and Social Impact Assessment process for the proposed road decongestion programme in and around Port Louis, Mauritius. Eloise served as a project consultant and assisted with project deliverables and report writing.</p>  |
| <p><b>ERO Engineers (Pty) Ltd for South African National Roads Agency (SOC) Limited (SANRAL): Rehabilitation of N1/8 between Nelspoort and Three Sisters (2012-2014)</b></p>           | <p>ECO services for the duration of the 2-year construction period for the rehabilitation of Section 8 of National Route 1 between Nelspoort and Three Sisters in the Western Cape, South Africa. Eloise served as the ECO, produced monthly ECO audit reports, a final project audit report and a borrowpit closure application.</p>   |
| <p><b>AECOM SA for WCG:DTPW: New road link between the R27 and R45, including intersections improvements, Saldanha Municipal Area (2012-2015)</b></p>                                  | <p>Scoping and EIA process for a new road link between the R27 and R45, including intersection improvements, to serve as a future designated freight route in the Saldanha Municipal area. Eloise was the project consultant, compiled the reports, facilitated the public participation process and managed the appointed specialists.</p>   |
| <p><b>Aurecon (Pty) Ltd for WCG:DTPW: - Proposed new Provincial Weighbridge near Gouda, Drakenstein Municipal Area (2012-2015)</b></p>   | <p>Basic Assessment for the development of a new provincial weighbridge near Gouda in the Drakenstein Municipal area, Western Cape, South Africa. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Jeffares &amp; Green (Pty) Ltd for WCG:DTPW - Replacement of the failed structure at the MR531 Crossing of the Verlorenvlei, Elands Bay (2011-2013)</b></p>                      | <p>Basic Assessment for the replacement of the failed bridge/culvert structure at the MR531 crossing of the Verlorenvlei at Elands Bay in the Western Cape, South Africa. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>Goba Consulting (Pty) Ltd for SANRAL - New community access roads at Thombo, Eastern Cape (2011-2012)</b></p>  | <p>Basic Assessment for the construction of new community access roads and consolidation of intersections at Thombo in the Eastern Cape, South Africa. Eloise served as project consultant and assisted with report writing.</p>  |

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| <p><b>BKS Consulting (Pty) Ltd for WCG:DTPW - Borrowpit Screening Process and EMP for two borrow pits for the upgrading of TR23/3 between Gouda and Porterville (2011-2013)</b></p>              | <p>Borrowpit screening process and EMP for a borrowpit to source material for the upgrading of Section 3 of Trunk Road 23 between Gouda and Porterville. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>BKS Consulting (Pty) Ltd for WCG:DTPW - Upgrading of TR31/2 between Ashton and Montagu (2010-2013)</b></p>   | <p>Basic Assessment for the upgrading of Section 2 of Trunk Road 31, Cogmanskloof Pass, between Ashton and Montagu, Western Cape, South Africa. Eloise was the project consultant, compiled the reports, undertook the required public participation process and borrowpit screening process, and managed the appointed specialists.</p>   |
| <p><b>Arcus Gibb (Pty) Ltd for SANRAL - Extension of the Baviaans Krants Quarry, Laingsburg (2010-2013)</b></p>  | <p>EMP for the extension of the Baviaans Krants Quarry outside of Laingsburg for the sourcing of material for the rehabilitation of a section of the N1 to the north of Laingsburg and ECO services. Eloise was the project consultant, compiled the EMP, undertook the required public participation process, managed the appointed specialists and served as the ECO for the duration of the construction period.</p>                                    |
| <p><b>BKS Consulting (Pty) Ltd for WCG:DTPW - Development of a borrow area on Remainder of Farm 223 (Grootvlei), Tulbagh (2010-2011)</b></p>   | <p>EMP for the development of a borrow area on Remainder of Farm 223 (Grootvlei), Tulbagh, for the sourcing of road-building material. Eloise was the project consultant, compiled the EMP, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>UWP Consulting (Pty) Ltd for SANRAL - Rehabilitation of N9/7 from Wolwefontein to Colesberg including a new N1/N9 access interchange at Colesberg and eight borrowpits (2008-2011)</b></p> | <p>Basic Assessment for the rehabilitation of Section 7 of National Route 9 between Wolwefontein and Colesberg, including a new grade separated N1/N9 access interchange at Colesberg, Northern Cape. The project also included an EMP for the extension of eight existing borrowpits in the area. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p> |
| <p><b>BKS Consulting (Pty) Ltd for WCG:DTPW - Upgrading of the M5 between the M5 Viaduct and Black River Parkway Interchange, Cape Town (2007-2013)</b></p>                                      | <p>Basic Assessment for the upgrading of the M5 between the M5 Viaduct and Black River Parkway Interchange, Cape Town and ECO services. Eloise was the project consultant, compiled the reports, undertook the required public participation process, managed the appointed specialists and served as ECO for the duration of the two-phased construction period between 2009 and 2013.</p>  |
| <p><b>Jeffares &amp; Green (Pty) Ltd for WCG:DTPW - Upgrading of MR531 and regravelling of MR534 in the Redelinghuys area (2006-2009)</b></p>  | <p>Basic Assessment for the upgrading of Main Road 531 between Piketberg and Elands Bay and the regravelling of MR534 between Redelinghuys and Aurora in the Western Cape, South Africa. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>   |

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|   | <p><b>Landfill sites and waste water treatment works</b></p>   |
| <p><b>City of Cape Town - Community waste drop-off facility at the Swartklip Refuse Transfer Station, Mitchell's Plain, Cape Town (2012-2014)</b></p> | <p>Basic Assessment as part of a Waste Licence Application for a new community waste drop-off facility at the Swartklip Refuse Transfer Station in Mitchell's Plain, Cape Town. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>  |
| <p><b>City of Cape Town - Community waste drop-off facility at the former Faure Landfill Site, Cape Town (2012-2014)</b></p>                          | <p>Basic Assessment as part of a Waste Licence Application for a new community waste drop-off facility at the former Faure Landfill Site, Cape Town. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>   |
| <p><b>City of Cape Town - Upgrading of wastewater treatment infrastructure in the Blaauwberg Area, Cape Town (2007-2008)</b></p>                      | <p>Scoping and EIA process for the upgrading of wastewater treatment infrastructure, including plant and pipelines, in the Blaauwberg area, Cape Town. Eloise was the project consultant and assisted with report writing.</p>   |
|   | <p><b>Water and sewage pipelines</b></p>   |
| <p><b>Jeffares &amp; Green (Pty) Ltd for Overberg Water - Refurbishment of the Rûensveld-East Rising Main, Swellendam (2010-2011)</b></p>             | <p>Basic Assessment for the refurbishment of the Rûensveld-East Rising Main in the Swellendam area. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>  |
|   | <p><b>Rivers, stormwater and pipelines</b></p>   |
| <p><b>Trans-Caledon Tunnel Authority (TCTA) - Construction of the Berg Water Project (2005-2008)</b></p>  | <p>ECO services for the duration of the four-year construction period of the Berg Water Project. Eloise served as assistant ECO and produced the monthly ECO audit reports.</p>  |
|   | <p><b>Housing developments</b></p>   |
| <p><b>Ongegend Trust - Proposed residential development of Ongegend Phase 2 on Farms 1177 and 618, Riebeeck Valley (2010-2015)</b></p>                | <p>Scoping and EIA process for the development of the Ongegend Phase 2 residential estate on Farms 1177 and 618 at Ongegend in the Riebeeck Valley. The project was halted after completion of the Scoping phase and specialist studies. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p> |
| <p><b>Nationwide Mortgage Centre - Proposed Woodgreen Housing Development, Mitchell's Plain, Cape Town (2005-2006)</b></p>                            | <p>Environmental compliance services for the development of the proposed Woodgreen Housing Development in Mitchell's Plain, Cape Town. Eloise was the project consultant, compiled the reports, undertook the required public participation process and managed the appointed specialists.</p>   |

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|   | <b>Renewable Energy</b>  |
| <b>Solarhybrid AG, Germany - Proposed development of the Skeyfontein Photovoltaic Power Plant and power lines near Postmasburg, Northern Cape (2011-2012)</b> | Scoping and EIA process for the proposed development of the Skeyfontein Photovoltaic Power Plant and related infrastructure near Postmasburg in the Northern Cape, South Africa. The project was halted after completion of the Scoping phase and baseline specialist studies. Eloise was the project consultant, assisted with report writing and facilitated the public participation process. |
| <b>Business Venture Investments 1421 (Pty) Ltd - Development of the De Aar Solar One Photovoltaic Power Project, Northern Cape (2011-2012)</b>                | Scoping and EIA process for the proposed development of the De Aar Solar One Photovoltaic Power Project near De Aar in the Northern Cape, South Africa. Eloise was the project consultant, assisted with report writing and facilitated the public participation process.  |
| <b>Finavera Renewables Ltd. - Proposed wave energy project off the Western Cape coast (2007)</b>  | Environmental input for the compilation of a Site Pre-Selection Report for the establishment of a wave energy project off the Western Cape coast of South Africa. Eloise served as the project consultant, compiled the report and facilitated negotiations with authorities.  |
|   | <b>General industries</b>  |
| <b>Pindulo VDM (Pty) Ltd – Atmospheric Emissions Licence Application Process for Storage and Handling of Ore (2018)</b>                                       | Atmospheric Emissions Licence application process for the storage and handling of ore at Pindulo VDM’s Saldanha Bay truck depot and storage facility. Eloise was the project manager, completed the AEL application document, undertook the required public participation process and managed the appointed air quality specialist.  |
| <b>Saldanha Bay IDZ Licencing Company (SOC) Ltd. - Proposed storage of hazardous substances at the Saldanha Bay IDZ (2017-ongoing)</b>                        | Scoping and EIA process for fuel bunkering at the oil and gas offshore service complex within the Saldanha Bay IDZ. Eloise is the project manager, will compile the reports, undertake the required public participation process and manage the appointed specialists.   |
| <b>Dundee Precious Metals Tsumeb - Proposed Tsumeb Smelter Upgrade and Optimisation Project (2016-ongoing)</b>  | Environmental and Social Impact Assessment Amendment process for the proposed Tsumeb Copper Smelter Upgrade and Optimisation Project in Tsumeb, Northern Namibia. Eloise is the project manager, compiling reports, undertaking the required public participation process and managing appointed specialists.  |
| <b>Saldanha Bay IDZ Licencing Company (SOC) Ltd. - Oil and gas offshore service complex at the Saldanha Bay IDZ (2013-2015)</b>                               | Scoping and EIA process for the establishment of an Oil and Gas Offshore Service Complex at the Saldanha Bay IDZ within the Port of Saldanha. Eloise was the project manager, compiled the reports, undertook the required public participation process and managed the appointed specialists.   |
| <b>SAB Maltings - Steep Water Treatment Plant at SAB’s Maltings Plant in Caledon (2009-2013)</b>  | Scoping and EIA process as part of a Waster Licence Application process for the establishment of a Steep water Treatment Plant at SAB’s Maltings Plant in Caledon, Western Cape, South Africa. Eloise was the project manager, compiled the reports, undertook the required public participation process and managed the appointed specialists.  |



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| <p><b>Yachtport SA (Pty) Ltd - Marine Lift Facility in the Small Craft Harbour, Port of Saldanha (2009-2010)</b></p>                     | <p>Basic Assessment for the construction and operation of a marine lift facility in the Small Craft Harbour of the Port of Saldanha and ECO services for the duration of the 1-year construction period. Eloise was the project consultant, compiled the reports, undertook the required public participation process, managed the appointed specialists and provided the ECO services.</p> |
|  | <p><b>Other</b></p>   |
| <p><b>Grinaker LTA (Pty) Ltd - Saldanha Oil and Gas Fabrication Yard, Port of Saldanha (2011)</b></p>                                    | <p>Operational Phase EMP and legislative compliance review for an oil and gas fabrication yard in the Port of Saldanha. Eloise was the project consultant and compiled the EMP.</p>   |
| <p><b>Municipal Planning Solutions for City of Cape Town - Proposed development of the Melkbosstrand CBD (2009-2010)</b></p>             | <p>Environmental scan and Screening Report for the proposed development of the Melkbosstrand Central Business District area. Eloise was the project consultant, compiled the Screening Report and managed the appointed specialists.</p>  |
| <p><b>Mini-Cape Developments - Relocation of the Old Oak Bowling Club to Erf 48-2225, Bellville (2005-2007)</b></p>                      | <p>EIA compliance process for the relocation of the Old Oak Bowling Club to Erf 48-2225 along Old Oak Road in Bellville. Eloise was the project consultant, compiled the EIA Scoping Checklist and undertook the required public participation process.</p>   |
| <p><b>Department of Public Works - Repair work of the main breakwater pier in the Yzerfontein Harbour (2005-2006)</b></p>                | <p>EIA compliance process for the repair of the damaged main breakwater pier in the Yzerfontein Harbour. Eloise was the project consultant, compiled the EIA Scoping Checklist and undertook the required public participation process.</p>   |
|  | <p><b>Faunal Specialist Studies</b></p>   |
| <p><b>Sunbird Energy - Proposed development of the Ibhubesi Gas Project (2015)</b></p>   | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the development of the Ibhubesi Gas Project along the West Coast of South Africa. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the specialist report for input into the EIA Report.</p>  |
| <p><b>AECOM SA for WCG:DTPW - Proposed Worcester Eastern Bypass, Western Cape (2013)</b></p>   | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the construction of the Worcester Eastern Bypass from National Route 1, Worcester, Western Cape. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the specialist report for input into the EIA Report.</p>                                 |
| <p><b>Solarhybrid SA - Proposed development of the Skeyfontein Photovoltaic Power Project near Postmasburg, Northern Cape (2011)</b></p> | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the development of the Skeyfontein Photovoltaic Power Project near Postmasburg in the Northern Cape, South Africa. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the baseline specialist report for input into the Scoping Report.</p>  |

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| <p><b>Business Venture Investments 1421 (Pty) Ltd - Development of the De Aar Solar One Photovoltaic Power Project, Northern Cape (2011)</b></p> | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the development of the De Aar Solar One Photovoltaic Power Project near De Aar, Northern Cape, South Africa. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the specialist report for input into the EIA Report.</p>  |
| <p><b>Forest Exploration International (South Africa (Pty) Ltd - Ibhubesi Power Plant Project, Northern Cape, South Africa (2011)</b></p>        | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the development of the Ibhubesi Power Plant Project, Northern Cape, South Africa. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the specialist report for input into the EIA Report.</p>   |
| <p><b>City of Cape Town - Upgrading of waste water treatment infrastructure in the Blaauwberg Area (2007)</b></p>                                | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the upgrading of waste water treatment infrastructure in the Blaauwberg area, Cape Town. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the specialist report for input into the EIA Report.</p>  |
| <p><b>CapeNature - Second hiking route on the Whale Trail, De Hoop Nature Reserve (2007)</b></p>   | <p>Terrestrial fauna specialist study as part of the Scoping and EIA process for the development of the second hiking route and related infrastructure on the Whale Trail in the De Hoop Nature Reserve, Western Cape, South Africa. Eloise was appointed as the terrestrial fauna specialist, undertook the specialist study assessment and compiled the specialist report for input into the EIA Report.</p> |
| <p><b>CCA Environmental (Pty) Ltd. - Upgrading of the Gansbaai to Bredasdorp Road to surfaced road standard (2004)</b></p>                       | <p>As a Masters student, Eloise assisted with the specialist terrestrial fauna assessment as part of the Scoping and EIA process for the upgrading of the Gansbaai to Bredasdorp Road to surfaced standard.</p>  |
| <p><b>CCA Environmental (Pty) Ltd. - Proposed new regional landfill site for the Cape Metropolitan Area (2004 and 2010)</b></p>                  | <p>As a Masters student, Eloise assisted with the specialist terrestrial fauna assessment as part of the Scoping and EIA process for the establishment of a new regional landfill site for the City of Cape Town. After being appointed as an environmental consultant, she compiled an addendum to the original specialist assessment.</p>  |
| <p><b>SRK Consulting – Initial diamond mining by NDC Mining Company LTD. in the Vredendal district (2004)</b></p>                                | <p>As a Masters student, Eloise assisted with the specialist terrestrial fauna assessment as part of the Scoping and EIA process for proposed diamond mining in the Vredendal district along the West Coast of South Africa.</p>   |
| <p><b>Withers Environmental Consultants - Development of Farm Trekoskraal no. 104, District Vredenburg (2002)</b></p>                            | <p>As an Honours student, Eloise assisted with the specialist terrestrial fauna assessment as part of the Scoping and EIA process for the resort development of Farm Trekoskraal in the Vredenburg area along the West Coast of South Africa.</p>  |
| <p><b>Transhex – Richtersveld mining (2000)</b></p>  | <p>As a BSc student, Eloise assisted with the specialist terrestrial fauna assessment for Transhex’s proposed mining operations in the Richtersveld area in the Northern Cape, South Africa.</p>   |

## MEMBERSHIPS

Herpetological Association of Africa (HAA)

Member

## PUBLICATIONS

Costandius, E., Mouton, P.le F.N. & Boucher, C. 2004. Conservation status of the Dwarf Crag Lizard, *Pseudocordylus nebulosus*, from the Hottentots Holland Mountains, South Africa. Herpetological Association of Africa Symposium, Port Elizabeth.

Costandius, E., Mouton, P.le F.N., & Boucher, C. 2006. Conservation status of the Dwarf Crag Lizard, *Pseudocordylus nebulosus*, from the Hottentots Holland Mountains, South Africa. *South African Journal of Wildlife Research* 36(2): 123-132.

Costandius, E. & Mouton, P.le F.N. 2006 Sexual Size Dimorphism in Montane Cordylid Lizards: a case study of the Dwarf Crag Lizard, *Pseudocordylus nebulosus*. *African Zoology* 41 (1): 103-112.

Costandius, E., Mouton, P.le F.N. and Flemming, A.F. 2006. The Effect of Intergroup Distance on Group Fidelity in the Group-living Lizard, *Cordylus cataphractus*. *African Journal of Herpetology* 55 (1): 61-68.

### Qualifications

|        |      |                          |
|--------|------|--------------------------|
| B.Eng. | 1995 | Civil                    |
| M.Sc   | 2004 | Environmental Management |

### Key Areas of Expertise

Key areas of Werner's expertise are summarised below.

|  |   |
|--|---|
| Environmental Management                             | <ul style="list-style-type: none"> <li>- Project Management</li> <li>- Environmental Coordinator, Manager and – specialist at various organisations focusing on implementation of EIAs, EMP, and EMSs</li> <li>- Coordination and review of EIA teams and EIA work</li> <li>- Environmental compliance</li> </ul> |
| Environmental (and social) Impact Assessments (EIAs) | <ul style="list-style-type: none"> <li>- Conducting and managing various small to large scale EIAs</li> <li>- Compiling EIA reports &amp; EMPs</li> <li>- Coordinate and review specialists studies</li> <li>- Review EIA Reports</li> </ul>  |
| Environmental feasibility studies                    | <ul style="list-style-type: none"> <li>- Environmental pre-feasibility and feasibility studies</li> </ul>   |
| Stakeholder Management                               | <ul style="list-style-type: none"> <li>- Stakeholder engagement strategies and facilitation of public participation processes</li> <li>- Liaison with project teams, government and non-government organisations and the public</li> </ul>  |
| Environmental Management systems (EMS)               | <ul style="list-style-type: none"> <li>- Development and implementation of environmental management systems</li> </ul>  |
| Environmental Auditing                               | <ul style="list-style-type: none"> <li>- Conducting various Environmental related audits and compile audit reports</li> </ul>   |
| Environmental Training and capacity building         | <ul style="list-style-type: none"> <li>- Development and conducting various environmental related training and capacity building programmes</li> </ul>  |
| Mine Closure   | <ul style="list-style-type: none"> <li>- Develop and implement Mine Closure Strategies and Plans</li> </ul>   |

### Summary of Experience and Capability

Werner has over 20 years of work experience. His first three years were as an engineer (civil) but already became involved with environmental related projects. The following 17 years (+) he has worked in the environmental management field with experience in Environmental Impact Assessments (EIAs), general environmental management and implementation, environmental management systems

(EMS), waste management, environmental compliance, training, stakeholder engagement and capacity building, mine closure and rehabilitation, environmental auditing and monitoring as well as due diligence.

His experience is based on work conducted as a consultant (current position) as well as working for industry (i.e. implementing environmental requirements, etc.).

Sectors of experience include: exploration or production phases of large mining projects, power generation including renewable power initiatives and hybrid power plants, transmission lines, water supply & sanitation, petrochemical industry, linear infrastructure including roads and rail, port related projects, chemical handling and storage, large irrigation projects, etc.

Werner manages the Environmental Assessment Team and associated activities in Namibia.

### Recent Project Experience

Key aspects of Werner's recent project experience are summarised below.

| Project  | Date      | Werner's Role  |
|--|-----------|--|
| NRE holds the EPL at Lofdal located west of Khorixas, exploring for rare earth. They wish to apply for a mining license in 2016, for which an EIA would be required.   | 2015-2016 | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |
| Impacts of the TSF and related dust dispersion on biota and desert ecology.  | 2015-2016 | Managing the process and coordinating various specialists for input into the study (i.e. vegetation, air quality, biological soil crust, invertebrates and hyperspectral work). Compiling consolidated report summarising all the findings.  |
| Feasibility study for a railway line between Windhoek and Katutura.<br>Feasibility study for a railway line between Windhoek and Okahandja.  | 2015-2016 | Lead Environmental Assessment Practitioner managing the environmental Screening process (including limited stakeholder engagement, managing specialists, etc.) and compiling reports.<br>Lead Environmental Assessment Practitioner managing the environmental Screening process (including limited stakeholder engagement, managing specialists, etc.) and compiling reports. |
| Swakop Uranium is developing the Husab Mine in the Erongo Region of Namibia (70 km north-east of the Walvis Bay port). The reagents and chemicals that will be used in the processing plant will be imported through the port of Walvis Bay. It will be sourced in advance and stored in Manica warehouse facility (on a temporary basis – "phase 1 project") and container yard in the industrial area of Walvis Bay. | 2015      | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |

| <b>Project</b>   | <b>Date</b> | <b>Werner's Role</b>   |
|--|-------------|--|
| The members of the Sand Miners Association have been mining sand from the Swakop River, within the Swakopmund Municipal boundaries, for many years. The sand they mine supplies Swakopmund, Long Beach and Walvis Bay with sand for construction purposes. The Sand Miners Association has had to look for an alternate source of sand for construction activities in their area and EIA had to be done. | 2015        | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |
| Swakop Uranium is developing the Husab Mine in the Erongo Region of Namibia (70 km north-east of the Walvis Bay port). The reagents and chemicals that will be used in the processing plant will be imported through the port of Walvis Bay. It will be sourced in advance and stored in a warehouse facility within the boundaries of NamPort's harbour area (long term – "phase 2" project).           | 2015        | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |
| NRE holds the EPL at Lofdalen located west of Khorixas, exploring for rare earth. They wish to apply for a mining license in 2016, for which an EIA would be required. The baseline environment needs to be described in detail to feed into such an EIA process.  | 2015        | Compile the environmental baseline project plan. Manage specialists and develop Baseline data/report with input from various specialists.  |
| Swakop Uranium is developing the Husab Mine in the Erongo Region of Namibia (70 km north-east of the Walvis Bay port). The EMP needs to be implemented during construction Swakop Uranium and their contractors. It further needs to be rolled out into a management system for operations.  | 2015        | Lead Environmental Assessment Practitioner managing the various EIA processes and compiling reports. Provide guidance and support to Environmental Control Officer(s), training to ECOs and contractors. Develop EMS procedures and other relevant documentation.  |
| B2Gold is developing the Otjikoto (gold mine) Project, located approximately 70 km north-east of Otjiwarongo in the Otjozondjupa Region of Namibia. B2 Gold proposed to develop a landfill site (waste disposal facility) on site to cater for non-hazardous waste. They also proposed to construct and operate an on-site (heavy fuel oil) Power Plant.   | 2013-2014   | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |
| B2Gold applied for Mining Licence (ML 169) to developed the Otjikoto (gold mine) Project, located approximately 70 km north-east of Otjiwarongo in the Otjozondjupa Region of Namibia. As part of the ML application process, a detail EIA process needs to be conducted.  | 2012-2013   | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports. The Scoping phase was already completed by another company. SLR (in corporation with the other company) completed the EIA process – i.e. assessment phase. Develop Mine Closure Framework. |
| Arandis Power proposed to construct and operate a 'hybrid' thermal/PV plant with the maximum output capacity of 120 MW.  | 2014        | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |

| <b>Project</b>   | <b>Date</b> | <b>Werner's Role</b>  |
|--|-------------|---|
| Various exploration companies planning to conduct exploration activities on the EPLs they hold. Prior the activities commencing, and EIA process needs to be conducted.  | 2013 - 2015 | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports. Also review of reports.   |
| Development of the proposed Commissiekraal Coal Mine including services and associated infrastructure.   | 2015        | Compile EIA Scoping Report.   |
| Various Mining and exploration companies across Namibia  | 2012-2015   | Provide various services and support to various mining and exploration companies, including amongst others external audits, training, rehabilitation planning, compiling EMS procedures and other relevant documents, compile environmental performance reports, etc.   |
| Various Mining and exploration projects as well as infrastructure projects across Namibia  | 2012-2015   | Review process and reports for various projects managed by other SLR environmental practitioners, including amongst others rail sidings; Nanomill which will produce 150,000 tons rebar's and billets per year from scrap steel; Okorusu Fluorspar Mine expansion; Offshore exploration drilling (Murphy); water and waste water treatment facilities EIA and EMPs; Dundee Precious Metal Tsumeb Hazardous Waste Site expansion; Walvis Bay Salt Holdings Expansion; etc. |
| Mining Pietersite (gemstone) on Mining License (ML) 57 in the Kunene Region, north-central Namibia   | 2013        | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.   |
| TransNamib plans to transport sulphuric by rail from Dundee Precious Metals (Tsumeb) to Rössing Uranium Mine and to Walvis Bay   | 2014        | Lead Environmental Assessment Practitioner managing the EIA processes and compiling reports.  |
| It is envisaged that the Z20 uranium deposit would be mined as a satellite open pit as it contains uranium bearing alaskite rocks, utilising conventional blast, load and haul methodology. An infrastructure corridor would need to be established to link the Z20 site to the existing Rössing Uranium Mine across the Khan River. | 2012-2014   | Managing the EIA processes and compiling reports in a 'joint venture' with Aurecon.   |
| A new Desalination Plant (located approximately 6 km north of Swakopmund, at the premises of the existing Swakopmund Salt Works.) to supply water to the for Rössing Uranium Mine. The plant will have a design capacity of 8,800 m3/day.  | 2014        | Managing the SEIA processes and compiling reports in a 'joint venture' with Aurecon.  |
| Environmental Screening/ fatal flaw analysis for the proposed expansion of coal at the Walvis Bay Harbour.   | 2012        | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.   |

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| <b>Project</b>   | <b>Date</b> | <b>Werner's Role</b>  |
|--|-------------|---|
| Arandis Power proposes to develop an independent power generation plant east of the town of Arandis, located in the Erongo Region, Namibia. Arandis Power is proposing a power station with a nominal output capacity of approximately 120MW which utilises reciprocating engines. Arandis Power will utilise a residual fuel known as heavy fuel oil (HFO) and recycled oil from a waste oil recycling plant. | 2012        | Lead Environmental Assessment Practitioner managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.   |
| Operational Uranium Mine in Namibia Naukluft National Park   | 2009 - 2012 | Specialist environmental support to ensure EIAs for expansion projects are correctly managed and implemented. Also to provide provide support, guidance and management in terms of environmental management implementation at the mine i.e. EMS development and implementation; mine closure and restoration strategy; environmental training; etc.). |
| Port expansions and development (Port Elizabeth, Coega and Richards Bay);  | 2008-2009   | Project Environmental Manager - managing the EIA process (including stakeholder engagement, managing specialists, etc.) and compiling reports.  |
| Gautrain Rapid Rail Link   | 2006-2007   | Appointed (on contract basis) to provide specialist input into the very challenging EIA processes and EMP development for the project. Also appointed as the Environmental Manager for the Bombela Turnkey Contractor, the managing contractor, for the Gautrain Rapid Rail Link Project.   |

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## **Publications**

Paper on the integration of the EIA process with the project execution model through the University of Pretoria.



**Immanuel Katali**  
Environmental Assessment Practitioner



## Curriculum Vitae

### Qualifications

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|                  |                                     |
|------------------|-------------------------------------|
| BArts(Hons) 2015 | Geography and Environmental studies |
|------------------|-------------------------------------|

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### Key Areas of Expertise

Key areas of Immanuel's expertise are summarised below.

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|   |  |
|---|--|
| Environmental Impact Assessments          | Countrywide for wide variety of minerals and infrastructure developments |
| Environmental Management Plan development | Countrywide for wide variety of minerals and infrastructure developments |
| Public Participation                      | Countrywide for wide variety of minerals and infrastructure developments |
| Socio-economic studies                    | Countrywide for wide variety of minerals and infrastructure developments |

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### Summary of Experience and Capability

Immanuel has recently joined SLR as an Environmental Assessment Practitioner. He has two years' experience in the Environmental Management industry which has enabled him to develop a full understanding of the legislation and procedures that embody and govern the preparation of environmental impact assessments and environmental management plans and compliance.

Prior to joining SLR in 2016, Immanuel had the opportunity to apply the theoretical knowledge gained during his studies in an Environmental Consulting position at Risk-Based Solutions cc. His role was to provide project assistance in Environmental Impact Assessment projects, developing Environmental Management Plans, compilation of socio-economic studies and conducting public participation. This platform provided him with a well-rounded knowledge on the principles that underpin real life environmental issues

## Recent Project Experience

Key aspects of Immanuel's recent project experience are summarised below.

| <b>Date</b>         | <b>Project</b>   | <b>Immanuel's Role</b>  | <b>Description of project</b>   |
|---------------------|--|---|---|
| <b>2016-current</b> | <i>EIA for a new Meatco Feedlot in Kombat town</i>                   | <b>Project assistance in compiling the Environmental Impact Assessment report</b> | EIA for the proposed meatco feedlot in kombat town near Otaviand Grootfontein |
| <b>2016-current</b> | <i>Swakop Uranium environmental bi-annual report (Jan-July 2016)</i> | <b>Co-Author</b>  | Swakop Uranium Bi-annual report for Jan-July reporting period                 |
| <b>2016</b>         | <i>Oshikoto Power (PTY) Ltd</i>                                      | <b>Project Assistance and socio-economic report</b>                               | EIA for Oshikoto 3MW solar power plant in Tsumeb                              |
| <b>2015</b>         | <i>Acrep onshore oil and gas exploration (seismic survey)</i>        | <b>Project Assistance</b>   | Onshore oil and gas exploration study, seismic survey phase in Nkurenkuru     |
| <b>2015</b>         | <i>Impact offshore oil and Gas exploration</i>                       | <b>Project Assistance</b>   | Proposed Impact Oil and gas offshore exploration in Luderitz town             |
| <b>2015</b>         | <i>270-ton sea</i>   | <b>Socio-economic</b>   | Proposed 270-ton sea cucumber farm 15 km                                      |

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| <b>Date</b> | <b>Project</b>                  | <b>Immanuel's Role</b>    | <b>Description of project</b>   |
|-------------|---------------------------------|---------------------------|---|
|             | <i>cucumber farm</i>            | <b>study</b>              | out of Walvis Bay   |
| <b>2015</b> | <i>InnoSun wind energy farm</i> | <b>Project assistance</b> | InnoSun wind energy project in the town of luderitz to produce electricity for the town of luderitz using wind turbines |

# CURRICULUM VITAE



## ANDREW BRADBURY

### TECHNICAL DIRECTOR

#### Africa Oil and Gas and Power Sector Lead

### QUALIFICATIONS

|            |      |   |
|------------|------|---|
| MSc        | 1993 | Environmental Assessment and Management |
| BSc (Hons) | 1990 | Earth and Life Studies                  |

### EXPERTISE

- Environmental and Social Due Diligence (ESDD)
- Environmental and Social Impact Assessment (ESIA)
- Environmental Planning
- Environmental Management Plans/Systems
- Environmental Compliance

Andrew is a Technical Director at SLR and leads both the Oil & Gas and Power sectors for SLR in Africa. Andrew is an environmental professional with over 24 years of consulting experience in the oil and gas, power (conventional, hydro, and renewable), finance & legal, chemical, infrastructure and built environment sectors.

Andrew has worked on projects in South Africa, Mozambique, Namibia, Tanzania, Uganda, Kenya, Angola, Gabon, Ghana, Equatorial Guinea, Botswana, Gambia, Ethiopia, Nigeria, the United Kingdom, Bangladesh, Uzbekistan, Qatar, Kuwait, Dubai, St Vincent and the Grenadines, Commonwealth of Dominica and Saint Lucia.

His areas of experience covers: Environmental and Social Due Diligence, Environmental and Social Impact Assessment, Environmental and Social Planning and Management, Compliance, Training and Capacity Building and Policy work. He has worked on some of the largest Impact Assessment and due diligence projects in Southern Africa.

### PROJECTS

#### Power

|   |  |
|---|--|
| <b>Confidential Client (Investment Company)</b><br>(2018) | ESDD for an operating 30 MW Tracking Solar Voltaic Power Plant solar power plant in Limpopo Province South Africa. Andrew led the ESDD on behalf of a multi sector investment company considering investment. The work identified a number of regulatory non compliances and operational risks relating to environmental, social and health and safety. The projects alignment against applicable international standards (IFC PS and EHS Guidelines) was reviewed and an ESAP developed to close identified gaps. The Socio Economic and Economic Development initiatives were also reviewed and a number of recommendations made in order to improve the impact of these initiatives. A number of potential ESG value adds were identified as part of the work and communicated to the client. |
| <b>Confidential Client (Private Equity)</b><br>(2018)     | ESDD for a solar power plant in the Northern Cape, South Africa. Andrew led the ESDD for an operating 50 MW Solar Voltaic Power Plant in the Northern Cape on behalf of a Private Equity fund. The work identified regulatory non compliances and gaps in the plants performance in relation to international standards. A detailed ESAP was developed. A number of recommendations made in relation to the ongoing Socio Economic and Economic Development initiatives in order to improve the impact of these initiatives. Some ESG value added items were identified for exploration by the investor should they invest.  |

|   |   |
|---|---|
| <p><b>Confidential Client<br/>(Private Equity)<br/>(2018)</b></p>   | <p>ESDD for a greenfield Wind Farm project in the Northern Cape, South Africa. Andrew led the ESDD for a green field Wind Power Plant in the Northern Cape on behalf of a Private Equity fund. The work reviewed available environmental, social and health and safety studies and identified a number of gaps to be closed in order for ensure compliance with international standards. A detailed ESAP was developed.</p>   |
| <p><b>Globeleq, 247 MW Kalunqwishi hydro power, Environmental and Social Due Diligence including review of ESIA and Gap Analysis plus Transmission Line Routing Study, Zambia<br/>(2016-2017)</b></p> | <p>Andrew led an Environmental and Social Due Diligence on a 247 MW hydropower project planned in Northern Zambia. The client was considering investing into the Zambian project company. Andrew led a team reviewing the project’s environmental and social risk as part of a due diligence to international standards and that included review of the ESIA. A number of ‘red flag issues’ were identified and gaps in the ESIA highlighted. Scopes of work for an improved ESIA including additional studies on biodiversity, environmental flows, downstream impacts on people were developed as part of a program of work to close the gaps in the ESIA and make the project bankable. At the same time Andrew lead another team reviewing the environmental and social impacts of the various transmission routes to identify the optimum route in terms of environmental and social impacts. The study used remote sensing as the core of the work.</p> |
| <p><b>Private Equity Power Portfolio Review – Solar PV, Hydropower, Geothermal, Wind in Tanzania, Burundi, Namibia and Kenya (2017)</b></p>   | <p>Andrew lead a review of the environmental and social risks associated with a portfolio of power projects in Africa for a Private Equity company. The projects included a wind farm, a 5 MW run of river hydro project, a solar PV project and a geothermal project. The countries included Tanzania, Burundi, Kenya and Namibia. The work revealed gaps in the ESIA are prepared for the projects and other material risks around physical and economic resettlement. One project was identified as being a category A project with significant biodiversity issues.</p>   |
| <p><b>Enel Greenpower, Project Environmental and Social Impact Review and Shared Value Proposition Development 100mw Solar PV, Ethiopia<br/>(2016)</b></p>  | <p>Andrew led an environmental and social impact study looking at the risks associated with Enel Green Power building 100MW Solar PV project in Ethiopia. The study considered environmental, social, permitting and security risks for a solar PV project and associated transmission lines and also included the development of a shared value proposition for Enel’s bidding.</p>  |
| <p><b>Consolidated Infrastructure Croup, Ethiopia Transmission Lines ESIA and Financing Advisory Support, Ethiopia.<br/>(2016-2017)</b></p>   | <p>Andrew led the team appointed to conduct an Environmental and Social Impact Assessment (ESIA) for three transmission line projects in urban Addis. The scope covered Environmental and Social Impact Assessment, Environmental and Social Management Planning and resettlement planning. The projects are being financed by a group of lenders including the Swedish Export Credit Guarantee Agency EKN. Consolidated Infrastructure Group was seeking finance for this program transmission line networks. Andrew led a team who undertook an Environmental and Social Impact Assessment to international standards to meet the requirements of Standard Bank and EKN.</p>  |
| <p><b>Various CCGT Power Project ESIA’s</b></p>   | <p>Andrew has undertaken ESIA’s for a number of combined cycle gas turbine stations both in the UK and overseas. The last project was a CCGT project in Qatar which included desalination and complex water abstraction and discharge issues. Andrew has led the impact assessment process for four major CCGT stations.</p>  |

|  | <b>Oil and Gas</b>  |
|--|---|
| <p><b>Dangote Industries Limited Refinery ESIA review and gap analysis; Nigeria.</b><br/>(2017- 2018)</p>  | <p>Andrew is leading a review and gap analysis of an ESIA produced for a 650,000 bpd refinery proposed for the Lekki Peninsular in Nigeria. The works scope is to review the ESIA, identify gaps working with Dangote and the local consultant to fill the gaps in order to get the ESIA ready for submission to the Department of Petroleum Resources for permitting.</p>  |
| <p><b>Shell Namibia Upstream BV – Application for deep water exploration well drilling, Namibia.</b><br/>(2017)</p>  | <p>Provided project management and quality review during the Scoping SLR was appointed to conduct an Environmental and Social Impact Assessment (ESIA) for an offshore well drilling programme in Namibia. The project involved potential drilling of up to two deep water exploration wells in Petroleum Exploration Licence 39 off the southern coast. Andrew joined SLR part way through project and took over from an existing senior staff member who was going on sabbatical for three months. Andrew was responsible leading the SLR team, interacting with the client on key issues, reviewing reports and overall quality control.</p>   |
| <p><b>DEG Investment into South Africa Oil Storage Terminal</b><br/>(2017)</p>   | <p>Andrew led the ESDD for DEG’s potential investment into a South African oil storage terminal.</p>  |
| <p><b>Dangote and Standard Chartered, Bank’s Independent Environmental and Social Consultant (IESC), Environmental and Social Due Diligence (including review and gap analysis of the ESIA) of Dangote Refinery Project, Lekki Free Trade Zone, Nigeria.</b><br/>(2016-2017)</p> | <p>Standard Chartered is Lead financier to Dangote to build Africa’s largest oil refinery (650,000bpd) working with the Italian and UK export credit agencies. Andrew was part of a core team of four people acting as Independent Environmental and Social Consultant to the banks. Andrew led day to day project execution: he visited the site, undertook management interviews on site and at Dangote Headquarters, and was primary author of the Environmental and Social Due Diligence report and Environmental and Social Action Plan. Andrew reviewed the projects ESIA and identified gaps and a plan to close these, he reviewed compliance with Applicable Standards including Nigeria laws, regulation and permitting requirements plus relevant international obligations, the IFC Performance Standards, relevant IFC Sector and EHS Guidelines and the requirements in Equator Principles III. A number of non-compliances were identified and a comprehensive Environmental and Social Action Plan was developed to close these gaps during the loan disbursement process. The project included on and offshore elements including pipelines and SPM.</p> |
| <p><b>Halliburton/Baker Hughes, Environmental and Social Due Diligence and Permit Planning, Angola, Gabon, Ghana, Equatorial Guinea, Nigeria and Tanzania</b><br/>(2015-2016)</p>  | <p>Andrew was part of the team appointed to work on one of the largest energy transactions in recent years; the merger of oil field services businesses Halliburton and Baker Hughes. The work scope was to consider the environmental and social liabilities of the transfer of facilities in Africa as part of the deal. The work identified numerous compliance gaps and developed plans to close these.</p>   |

|   |   |
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| <p><b>Anadarko, Environmental Social Health Impact Assessment, Environmental and Social Management Plan and associated permitting plans for Anadarko’s new LNG terminal in northern Mozambique.</b><br/>(2011-2016)</p> | <p>Andrew led a global consulting team to prepare the Environmental Social Health Impact Assessment, Environmental and Social Management Plan and associated permitting plans for Anadarko’s new LNG terminal in northern Mozambique; one of the biggest Oil and Gas developments in the region. The project included offshore elements, coastal elements and land based components. The area is remote and undeveloped. There were a number of sensitive marine issues including potential impact on coral and coastal sediment transport. Social, settlement and influx management issues were also a key part of the work. The work was undertaken in line with Mozambican regulations and the International Finance Corporation’s (IFC) environmental and social standards as external financing was being sought. A species new to science was found and recorded. This was an extremely large and complex consulting project involving teams from around the world. The reports were delivered in English and Portuguese. The ESIA is available here: <a href="http://www.mzlng.com/Responsibility/Environmental-Social-Management/Environmental-Impact-Assessment/">http://www.mzlng.com/Responsibility/Environmental-Social-Management/Environmental-Impact-Assessment/</a></p> |
| <p><b>Confidential Oil Major, Environmental and Social Due Diligence and Permit Planning, Kenya.</b><br/>(2014)</p>   | <p>Andrew led the team appointed to provide environmental and social due diligence services in relation to the potential entry of a major oil and gas company into Kenya through acquisition of some existing infrastructure plus exploration licenses. The project scope covered existing assets but considered the environmental and social risks associated with the field development plan. Land access and resettlement were major issues and those, combined with the permitting schedule, meant the client decided not to invest. Andrew’s team was the only external advisor in this highly commercial sensitive deal working as part of the client deal team.</p>  |
| <p><b>Shell International BV, New Country Entry Environmental and Social Due Diligence, Namibia.</b><br/>(2014)</p>   | <p>Andrew was part of a team appointed to provide environmental and social due diligence services in relation to the potential re-entry of Shell into Namibia through acquisition of exploration licenses. Shell decided to re-enter Namibia to explore.</p> <p>Andrew led the work and interacted with the client explaining the environmental and social risks both associated with the company’s return into Namibia generally but associated with the development of a particular exploration project and, in particular, its potential for impact on a sensitive marine area.</p>  |
| <p><b>Shell, New Country Entry Risk Assessments/Due Diligence, Various Sub Saharan African countries.</b><br/>(2013 – 2016)</p>   | <p>Andrew either led or contributed to new country entry risk reviews undertaken for Shell for numerous African countries. This included review of the environmental and social risks including review of impact assessments where available. The work contributed to Shell’s decision to pursue and investment or not.</p>   |
| <p><b>Sasol, Gas to Liquids Project ESIA and Gas to Liquids Site Selection, Uzbekistan.</b><br/>(2011 and 2014)</p>   | <p>Andrew has worked on two GTL projects; one in Mozambique and the other in Uzbekistan. The work in Mozambique was a site selection study based on environmental, social and technical factors and was focused on northern Mozambique. The work in Uzbekistan was a full ESIA for a GTL plant. Andrew led both projects and was responsible for quality, client liaison and ESIA team leadership.</p>  |
| <p><b>Confidential Client, GTL Site Selection Study, Mozambique.</b><br/>( 2014)</p>  | <p>Andrew worked on a proposed GTL project in Mozambique. The work was a site selection study based on environmental, social and technical factors and was focused on northern Mozambique. Andrew led the project and was responsible for quality, client liaison and ESIA team leadership.</p>   |

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| <p><b>Total and Tullow Oil, Environmental and Social Impact Assessment for Seismic Survey in Murchison Falls National Park in Uganda (2011-2012)</b></p> | <p>Andrew led an ESIA team preparing an ESIA for a seismic survey in a very sensitive part of Uganda in the Murchison Falls National Park. The work had complex biodiversity and social issues to consider and mitigate.</p>  |
|  | <p><b>Infrastructure</b></p>  |
| <p><b>ItalThai Railway Environmental and Social Impact Assessment and Management Plans (2015-2017)</b></p>   | <p>Part of a consulting team appointed to conduct an Environmental and Social Impact Assessment (ESIA) for the proposed Tete-Macuse railway line and Macuse Port development for the export of coal from Tete Province in Mozambique. The project includes the development of over 700km of railway line and a new port development. The assignment scope included the development of Environmental and Social Management Plan to mitigate and manage the environmental impacts.</p> <p>Andrew took over part way through the project as Partner in Charge and was responsible for project leadership, team management, project management, quality control, technical review of specialist studies, integration and report writing and client liaison.</p> |
| <p><b>MEMBERSHIPS</b></p>  |   |
| <p><b>Pr.Sci.Nat.</b></p>  | <p>Registered as a Professional Natural Scientist - Environmental Scientist, South Africa (Reg. no. 116729)</p>   |
| <p><b>IoDSA</b></p>  | <p>Institute of Directors Southern Africa</p>   |
| <p><b>FRGS</b></p>   | <p>Fellow of the Royal Geographical Society</p>   |
| <p><b>PUBLICATIONS</b></p>   |   |
|  | <p>A Step Ahead of the Game – Site Selection and Constraints Mapping through Geographical Information Systems (GIS). Africa Energy Yearbook 2015.</p>   |
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# CURRICULUM VITAE



## CONROY VAN DER RIET

### SENIOR ENVIRONMENTAL CONSULTANT

Environmental Management, Planning & Approvals,  
South Africa

### QUALIFICATIONS

|            |      |                         |
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| BSc (Hons) | 2006 | Environmental Geography |
| BSc        | 2005 | Zoology and Geography   |

### EXPERTISE

- EHS Compliance and Support
- Environmental and Social Due Diligence Assessments
- Environmental Site Assessments
- Environmental and Social Impact Assessments
- Management Plans/Programmes
- ISO 14001, OHSAS 18001 and ISO 45001 Management Systems
- International Finance Corporation (IFC) management systems, reviews and audits

Conroy has more than twelve years of experience as an Environmental, Health and Safety (EHS) consultant in the following areas: Environmental & Social Management Systems (IFC Performance Standards), ISO 14001 and ISO 45001 management systems, Environmental and Social Due Diligence assessments (ESDDs), Environmental, Health and Safety (EHS) auditing and compliance support, Environmental and Social Impact Assessments (ESIAs), Environmental Site Assessments (ESAs), Management Plans/Programmes and project management across a wide range of projects, with focus on the renewable energy, agricultural, oil & gas, mining, power, food & beverage and manufacturing sectors. Conroy has formed part of and led multi-disciplinary teams on projects all over Sub-Saharan Africa, including South Africa, Angola, Botswana, Burundi, Egypt, Ghana, Kenya, Mali, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

### PROJECTS

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|  | <b>Oil and Gas</b>  |
| <b>Seplat Petroleum Development Company Plc, Integrated Management System Development, Nigeria, (2018)</b> | Lead Developer to develop an integrated environmental, health and safety management system for Seplat Petroleum Development Company Plc based on the requirements of ISO14001:2015 and ISO45001:2017.   |
| <b>Confidential Client, Environmental &amp; Social Due Diligence, Nigeria, (2017 and 2018)</b>             | Conroy was part of team appointed to conduct an Environmental and Social (E&S) Due Diligence assessment of an oil and gas company located in the Niger Delta during 2017 and 2018. This included an assessment of a gas production facility and associated pipelines (upstream and downstream). |

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| <p><b>Chevron, Safety Performance Improvement, South Africa (2013)</b></p>   | <p>Conroy was part of the team commissioned by Chevron to undertake a Safety Transformation Programme at the refinery located in Cape Town, South Africa. Duties consisted mainly of Leadership Alignment Diagnostic Assessments, Safety Leadership Training and Hazard Recognition and Effective Interventions. The Diagnostic Assessments involved working with the refinery leadership team to assess how they are managing safety in the field. Safety Leadership Training involved highly motivational training sessions for leaders, which create a strong imperative for action by focusing on the absolute criticality of their role in directing the behaviours of their people. Hazard Recognition and Effective Interventions in the Field for Leaders involved sessions with leaders to provide strong motivation at all levels to spend more time in the field and to transform the value they (and the organisation) derive from the time they spend there. The sessions consisted of classroom and field activities.</p> |
| <p><b>Chevron Marketing and Retail, EHS Compliance, Angola, Botswana &amp; South Africa (2012-2014)</b></p>              | <p>Conroy was part of the team development of a complete legal compliance register with verification controls to assist the management team ensure the sustainability of compliance at downstream facilities located in Angola, Botswana and South Africa.</p>  |
| <p><b>Odebrecht Due Diligence Assessment, Ghana (2014)</b></p>   | <p>Lead Assessor commissioned by Odebrecht to conduct a due diligence assessment of a site located in Ghana. The assessment consisted of a desktop review of a potential site to be acquired by Odebrecht.</p>  |
| <p><b>Goodyear SA, Installation of Underground Storage Vessels, South Africa (2007)</b></p>                              | <p>Conroy was a project manager for Management of the EIA process for the proposed installation of underground storage vessels at the Goodyear SA factory in Uitenhage, Eastern Cape</p>  |
| <p><b>Pragma Africa (Pty) Ltd Removal of Underground Storage Vessels, South Africa (2007)</b></p>                        | <p>Conroy was a project manager for Management of the EIA process for the removal of underground storage vessels.</p>   |
|  | <p>Power</p>  |
| <p><b>Mphepo Power Limited, Unika Wind Farm (Phase 1), Environmental and Social Impact Assessment, Zambia (2019)</b></p> | <p>Conroy is currently leading the Environmental and Social Impact Assessment Process for the Unika Wind Farm (Phase 1) Project in Zambia (in collaboration with local consultants DH Engineering Consultants Ltd). This Project involves the proposed development of one of the first major wind farms in Zambia and will have a capacity of up to 200 MW (for Phase 1).</p>   |
| <p><b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2019)</b></p>                         | <p>Lead Auditor appointed to conduct an Environmental and Social (E&amp;S) Due Diligence assessment of a renewable energy holding company involved in a pipeline of hydro-electricity and rooftop solar projects throughout South Africa.</p>   |
| <p><b>Globeleq, Environmental and Social Management Plan, Zambia (2019)</b></p>  | <p>Conroy developed an Environmental and Social Management Plan (ESMP) in line with the IFC Performance Standards for the Aurora Solar One Solar PV Plant located near Kafue, Zambia.</p>   |
| <p><b>Confidential Client, Environmental &amp; Social Due Diligence, Burundi (2018)</b></p>                              | <p>Lead Auditor appointed to conduct an Environmental and Social (E&amp;S) Due Diligence assessment of a solar PV project located in Burundi.</p>   |

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| <b>Enel Green Power, Baseline EHS Risk Assessments, South Africa (2018)</b>                                       | Conroy was a lead auditor appointed by Enel Green Power to conduct baseline EHS risk assessments at a number of solar and wind power facilities located throughout South Africa.   |
| <b>Enel Green Power IFC Environmental and Social Management System, Zambia (2018)</b>                             | Conroy was part of the team appointed to develop an ESMS in line with IFC Performance Standards for the Ngonye solar project located in Zambia. This also include the development of some operational management plans including, but not limited to, an environmental and social management plan, external grievance mechanism, storm water management plan, waste management plan, security management plan, traffic management plan and stakeholder engagement plan |
| <b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2017)</b>                         | Lead Auditor was appointed to conduct an Environmental and Social (E&S) Due Diligence assessment of three run-of-river hydropower projects located in South Africa   |
| <b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2017)</b>                         | Lead Auditor to conduct an Environmental and Social (E&S) Due Diligence assessment of an operational solar PV project located in the Northern Cape, South Africa.  |
| <b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2017)</b>                         | Lead Auditor to conduct an Environmental and Social (E&S) Due Diligence assessment of a proposed solar PV project located in South Africa. The main purpose was to assess compliance of the assets' environmental and social management with the client's requirements, and to identify and assess E&S risks associated with the opportunities that may pose a liability or risk.  |
| <b>Globeleq, IFC Environmental and Social Management System, Nigeria (2017)</b>                                   | Conroy was a developer to develop an ESMS in line with IFC Performance Standards for the Bauchi solar project located in Nigeria. This also include the development of operational management plans including, but not limited to, an environmental and social management plan, health and safety plan, waste management plan, water resources and waste water management plan, labour management plan, traffic management plan and stakeholder engagement plan.       |
| <b>Confidential Client, Environmental and Social Monitoring, South Africa (2017)</b>                              | Conroy was part of a team appointed to act as an independent third party reviewer of the annual environmental and social monitoring reports compiled for the Medupi and Kusile power stations on behalf of an investor.  |
| <b>Confidential Client, IFC Environmental and Social Management System, South Africa (2016)</b>                   | Developer appointed to develop an Environmental and Social Management System (ESMS) in line with IFC Performance Standards for two solar photovoltaic (PV) plants located in South Africa. Elements of ISO14001 and OHSAS18001 were also incorporated into the ESMS. The project also included the development of Stakeholder Engagement Plans and training on the ESMS.   |
| <b>ENCO, Environmental &amp; Social Due Diligence, South Africa Koeberg Nuclear Power Plant (2016 &amp; 2017)</b> | Conroy was part of the team appointed by ENCO to conduct an Environmental and Social (E&S) Due Diligence assessment of a project related to the Koeberg Nuclear Power Plant.   |
| <b>Investment Managers, IFC Environmental and Social Management System, Kenya, African Infrastructure (2015)</b>  | Developer appointed to develop an ESMS in line with IFC Performance Standards for the Kipeto Wind Energy project located in Kenya. Elements of ISO14001 and OHSAS18001 were also incorporated into the ESMS.   |

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| <p><b>Confidential Client, IFC Review, Burundi, Kenya, Namibia &amp; Tanzania (2016)</b></p>                  | <p>Conroy was part of the team appointed to conduct a review of the four renewable energy projects in order to assess alignment with the IFC Performance Standards, and to inform the Project Categorisation in terms of the Equator Principles and the IFC Performance Standards.</p>   |
| <p><b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2016)</b></p>              | <p>Conroy was part of the team appointed to conduct an Environmental and Social (E&amp;S) Due Diligence assessment of six renewables assets (solar PV plants) located in South Africa. The main purpose was to assess compliance of the assets' environmental and social management with the client's requirements, and to identify and assess E&amp;S risks associated with the opportunities which may pose a liability or risk.</p> |
| <p><b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2016)</b></p>              | <p>Conroy was part of the team appointed to conduct an E&amp;S Due Diligence assessment against the IFC performance Standards for a Concentrated Solar Plant (CSP) project located in the Northern Cape, South Africa.</p>   |
| <p><b>Avon &amp; Dedisa Peaking Power, ISO 14001 Environmental Management System, South Africa (2015)</b></p> | <p>Developer appointed to develop an Environmental Management System in accordance with ISO 14001 for two peaking power plants located in South Africa.</p>  |
| <p><b>CEC, Development of Environmental and Social Management System, Zambia and Nigeria (2014)</b></p>       | <p>Conroy was part of the team commissioned to assist Copperbelt Energy Company (CEC) in developing Environmental and Social Management System in line with the IFC Performance Standards, focussing on hydropower generation projects in Zambia and Nigeria, and electricity distribution projects in Nigeria.</p>  |
|   | <p>Mining</p>  |
| <p><b>Dundee Precious Metals, Tsumeb, Environmental and Social Impact Assessment, Namibia (2019)</b></p>      | <p>Conroy assisted in updating the Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP) and various specialist reports for the proposed expansions project for the Tsumeb mine in Namibia. The main objective was to align the reports with the European Bank for Reconstruction and Development (EBRD) Performance Requirements.</p>  |
| <p><b>Confidential Client, Environmental &amp; Social Due Diligence, Mali (2019)</b></p>                      | <p>Conroy conduct a high level desk top based Environmental and Social (E&amp;S) Due Diligence of a gold mine where the client wanted to develop a solar project to provide power to the mine.</p>   |
| <p><b>Debswana, Feasibility Studies and Management Plans, Botswana (2018)</b></p>                             | <p>Conroy was part of the team to develop various feasibility studies and management plans for the proposed expansion of the Jwaneng diamond mine located in Botswana. Conroy was specifically responsible for developing the waste management plan, hydrocarbon management plan, hazardous substance management plan and a contractor SHE plan.</p>   |
| <p><b>Confidential Client, Environmental &amp; Social Due Diligence, South Africa (2016)</b></p>              | <p>Conroy was part of the team appointed to conduct an E&amp;S Due Diligence assessment of a coal mine.</p>  |

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| <p><b>BASF Supplier (Mine), Third Party Audit Programme, South Africa (2015 &amp; 2017)</b></p>                          | <p>Assessor appointed to conduct a supplier audit based on BASF’s Together for Sustainability (TfS) Audit Programme at a major platinum mine located in South Africa. The purpose of the audit was to assess the operation’s sustainability practices, incorporating environment, health and safety, social (including labour and human rights) and governance issues.</p>  |
| <p><b>Konkola Copper Mines, EHS Management Systems Gap Analyses and Alignment, Zambia (2014)</b></p>                     | <p>Conroy was part of the team appointed to Conducted gap analyses of EHS Management System to align with corporate (Vedanta Resources) standards.</p>  |
| <p><b>Msobo Coal, Environmental Compliance, South Africa (2012)</b></p>  | <p>Conroy was part of the team that involved the review of compliance against several Environmental Management Programmes at various coal mines located in South Africa.</p>  |
| <p><b>Xstrata, EHS Sustainability, South Africa (2012)</b></p>   | <p>Conroy was part of the team that involved the review of EHS management of various mines in order to assess compliance against Xstrata’s Sustainable Development standards.</p>   |
| <p><b>Confidential Client, IFC and Review, Tanzania (2015)</b></p>   | <p>Conroy was part of the team appointed to review of a goldmine’s operations and ESIA’s against the IFC standards primarily to raise funding for the proposed expansion of the mining activities.</p>  |
|  | <p><b>Environmental Health &amp; Safety</b></p>   |
| <p><b>Chevron, EHS Compliance Audits, South Africa (2018)</b></p>  | <p>Lead Auditor to conduct compliance audits against the environmental authorisation for the Sandvik Pastillator Plant and the Waste Management License for the hazardous waste storage area.</p>   |
| <p><b>Confidential Client, Environmental, Health, Safety and Social Assessment, South Africa &amp; Zambia (2017)</b></p> | <p>Lead auditor to conduct an environmental, health and social assessment of a fertiliser company operating in South Africa and Zambia. The principal objectives of the assessment were to (1) characterise the environmental setting, current surrounding land use, historical land use (on &amp; off-site) of the Assets and related issues concerning the environmental context of the Site; (2) evaluate current and past operational activities and related practices at the Site in order to establish known or potential sources of material soil, groundwater and/or surface water impact; and (3) indicate whether further work is recommended in order to assess the issues identified, for example any further investigation of possible soil/ groundwater impact, drainage surveys, asbestos surveys, boundary noise monitoring, etc.</p> |
| <p><b>LSG Lufthansa Service Holding AG, EHS Compliance Audits, Multiple Countries (2015-2016)</b></p>                    | <p>Conroy was part of the team appointed by Lufthansa Service Holding AG to conduct EHS compliance audits at their catering facilities located in India, South Africa, Switzerland, Turkey, Tanzania, Russia and the United States of America.</p>  |

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| <p><b>ABF, Assurance Programme &amp; Health, Safety and Environmental Compliance, Malawi, Mozambique, South Africa, Swaziland &amp; Tanzania (2012-2017)</b></p> | <p>Lead Auditor &amp; Team Member for the review of EHS management at sugar estates (including manufacturing and agricultural operations) in Malawi, Mozambique, South Africa and Swaziland.</p>  |
| <p><b>Cobham, EHS Legal and SHE Corporate Standards Audits, South Africa (2017)</b></p>  | <p>Conroy was part of the team appointed supporting Cobham their SHE Management System Assurance Programme for a number of years globally. This involved Conroy being part of the Cobham Corporate Team who conducted the audits.</p>   |
| <p><b>Ingersoll Rand, EHS Compliance Audits, South Africa (2016 &amp; 2017)</b></p>  | <p>Lead Auditor appointed by Ingersoll Rand to conduct EHS compliance audits of their manufacturing facilities located in North and South America, Africa, and Europe.</p>  |
| <p><b>Roche Tissue Diagnostics, EHS Due Diligence Assessment, South Africa (2018)</b></p>  | <p>Project Manager and Assessor to conduct a Health, Safety and Environmental (EHS) Due Diligence assessment of a property located in Cape Town, South Africa.</p>  |
| <p><b>Confidential Client, Environmental Health &amp; Safety Reasonable Prudent Operator (RPO) Assessment, South Africa (2014)</b></p>                           | <p>Conroy was part of the team commissioned to conduct an EHS RPO Assessment of a traditional sorghum beer brewing and distribution business headquartered in South Africa. The objectives were to: (1) establish the current status of core sites through assessment, survey, review, investigation with regards to their ability to comply with South African EHS legislation, (2) to clarify the gaps between the operating capability and the permitted operating parameters and (3) to define the level of capital expenditure that will be required to bring the sites up to the defined requirements of the South African EHS legislative standards, and in the absence of local legislation, relevant EU or industry standards.</p> |
| <p><b>Goodyear, EHS Compliance Assessment, South Africa (2012)</b></p>   | <p>Conroy was a Lead Auditor for an assessment of EHS compliance of a tyre manufacturing facility in South Africa.</p>  |
| <p><b>Terex, EHS Compliance, South Africa (2012)</b></p>   | <p>Conroy was a Lead Auditor for an assessment of EHS compliance of a crane manufacturing facility in South Africa.</p>   |
| <p><b>Parsons Brinckerhoff, Health, Safety and Environmental Compliance, South Africa (2012)</b></p>   | <p>Project managed the compilation of a legal register that covers health, safety and environmental (HSE) requirements with regards to national, regional and local legislation.</p>  |
| <p><b>African Century Group, Environmental &amp; Social Management System, Mozambique, Uganda Zambia and Zimbabwe (2015)</b></p>                                 | <p>Lead Assessor appointed to review the client’s ESMS in order to understand the conformance of the ESMS to IFC Performance Standard 1 (Assessment and Management of Environmental and Social Risks and Impacts), and to assess the level of on-site implementation of the business level ESMS across four businesses located in Mozambique, Uganda, Zambia and Zimbabwe.</p>  |
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|  | <p><b>Infrastructure</b></p>  |

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| <p><b>QGMI, Road Upgrade Project in Accra, Environmental and Social Impact Assessment, Ghana (2019)</b></p>                           | <p>Conroy led the Scoping Phase of the Environmental and Social Impact Assessment process for the proposed Winneba Obetsebi-Lamptey Flyover (Phase 2) project in Accra, Ghana in collaboration with local consultants SAL Consult Limited.</p>  |
| <p><b>Pindulo, Fugitive Emissions Management Plan, South Africa (2019)</b></p>  | <p>Conroy developed a Fugitive Emissions Management Plan for Pindulo as required in terms of their Provisional Air Emissions License for their bulk ore storage and handling facility located in Saldanha, South Africa.</p>  |
| <p><b>Mota-Engil, Streamwalk Project, Harare, Zimbabwe (2019)</b></p>   | <p>Conroy was part of the team appointed to develop various environmental, health and safety management plans, and lead the review of the ESMS for a hotel development project in Harare, Zimbabwe.</p>   |
| <p><b>Department of Roads and Public Works, Utilisation of Borrow Pits for Road Upgrades, South Africa (2010-2011)</b></p>            | <p>Project manager in excess of 100 mining permit applications for borrow pits utilised in road maintenance/re-gravelling projects throughout the entire Eastern Cape Province (urban and rural).</p>   |
| <p><b>South African National Roads Agency Limited (SANRAL), Upgrading of National Route 2, Section 18, South Africa (2010)</b></p>    | <p>Project manager and ECO for both the environmental authorisation process for the proposed improvement of National Route 2, Section 18 for the South African National Roads Agency Limited, as well as the mining permit applications of the borrow pits for the proposed road improvement.</p>   |
| <p><b>Chris Hani District Municipality, Rathwick Bulk Services and Water Supply Backlog: Cluster 02, South Africa (2009-2011)</b></p> | <p>Conroy managed environmental authorisation and waste license application process for the proposed upgrading of the bulk services for the proposed Rathwick Development, Queenstown, inclusive of the waste water treatment works, water treatment works, storm water and associated infrastructure. Management of the environmental authorization process for four major regional water supply backlog projects in the Cluster 2 area of the Chris Hani District Municipality, Eastern Cape.</p> |
| <p><b>Buffalo City Municipality, Settlement Planning &amp; Formalisation (2007-2010)</b></p>  | <p>Conroy managed the environmental authorization for various settlement planning &amp; formalization projects in the Amathole district.</p>  |
| <p><b>Other</b></p>   | <p></p>   |
| <p><b>Johnson &amp; Johnson, Phase I Environmental Site Assessment, Mauritius (2015)</b></p>  | <p>Project Manager and Assessor commissioned to conduct a Phase I Environmental Site Assessment in accordance with the American Society for Testing and Materials (ASTM) standards for a manufacturing site located in Mauritius.</p>   |
| <p><b>Confidential Client, Phase I Environmental Site Assessment, Egypt &amp; Nigeria (2015)</b></p>                                  | <p>Project Manager commissioned to conduct a Phase I Environmental Site Assessment in general accordance with the ASTM standards for various sites located in Egypt and Nigeria.</p>  |
| <p><b>JTI, ISO14001 &amp; OHSAS18001 Certification Audit, Malawi (2012-2014)</b></p>  | <p>Conroy was part of the team appointed for a certification audit of a tobacco processing facility in Malawi for the implementation and certification of an ISO14001 &amp; OHSAS18001 Management System.</p>   |

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| <p><b>East London Industrial Development Zone, Auditing of the East London Industrial Development Zone (EL IDZ) Environmental Management System and Review of the EL IDZ Environmental Management Framework, South Africa (2011)</b></p> | <p>Management and team member of the revision of the Environmental Management Framework and assistance in the auditing of the Environmental Management System of the EL IDZ.</p>   |
| <p><b>Transnet National Ports Authority, Soil Contamination Assessment and Listed Invasive and Protected Plant Species Survey, South Africa (2011)</b></p>   | <p>Management of the soil contamination assessment (inclusive of soil sampling and rehabilitation measures) for the Port of East London. Also included the management of the Listed Invasive and Protected Plant Species Survey for the Port of East London.</p>   |
| <p><b>Kraft Foods, Phase I Environmental Site Assessment and Environmental Management System, South Africa (2009)</b></p>  | <p>Conroy managed and was part of the team Conducting a Phase I Environmental Site Assessment in accordance with the ASTM standards, and assisted in the preparation of an environmental aspects register, inclusive of significance assessment and proposed mitigation/management strategies for all the Kraft Foods SA – Tunney Plant’s activities for purposes of implementation of an environmental management system.</p> |
| <p><b>PG Bison, Development and Implementation of an ISO 14001 Environmental Management System, South Africa (2008)</b></p>  | <p>Conroy was a team member that Assisted in the preparation of an environmental aspects register, inclusive of significance assessment and proposed mitigation/management strategies for all the PG Bison activities at the particle board plant in Ugie, Eastern Cape, for purposes of implementation of an environmental management system.</p>   |
| <p><b>Buffalo City Municipality, Auditing of the Roundhill Waste Disposal Site, South Africa (2008)</b></p>  | <p>Conroy Assisted in the environmental audit process of the Buffalo City Regional Waste Disposal Site, focusing on issues such as construction, operations and air-quality monitoring.</p>  |
| <p><b>Bigen Africa (Pty) Ltd &amp; Ndlambe Local Municipality, Port Alfred Waste Water Treatment Works, South Africa (2009)</b></p>  | <p>Conroy managed the environmental authorization process for the proposed Port Alfred Waste Water Treatment Works upgrade project. Conroy has also been appointed to act as the Environmental Control Officer for the implementation of the project.</p>  |
| <p><b>Uhambiso, Tsolo Waste Water Treatment Works, South Africa (2008)</b></p>   | <p>Conroy managed the environmental authorization and Waste License Application process for the proposed Tsolo Waste Water Treatment Works upgrade project</p>   |
| <p><b>Alvitex 103 (Pty) Ltd, Kidds Beach Golf Estate, South Africa (2008-2009)</b></p>   | <p>Conroy managed the environmental authorization process for a proposed golfing estate development and assisted in the environmental authorization for the sewage works servicing the proposed resort developments.</p>   |
| <p><b>African Dune Investments, Golf Estate, South Africa (2008)</b></p>   | <p>Conroy assisted in the environmental authorization for the proposed golf estate development.</p>  |



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| <p><b>East London Golf Club, Golf Course, South Africa, 2008</b></p>                                  | <p>Conroy managed the EIA Process and prepared the rehabilitation management plan for the proposed realignment of the 6th fairway &amp; minor upgrades in order to upgrade the East London Golf Club (ELGC).</p>                                      |
| <p><b>Thynk Property Partners (Pty) Ltd, Retail &amp; Residential Development (2007)</b></p>          | <p>Conroy managed the environmental authorization process for the proposed retail &amp; residential development located in East London.</p>   |
| <p><b>Eskom, Qumbu Substation, South Africa (2010)</b></p>  | <p>Conroy managed the environmental authorization process for the proposed upgrading of the Qumbu Substation and associated infrastructure.</p>   |
| <p><b>The Diocese of Grahamstown, Rezoning &amp; Development, South Africa (2007)</b></p>             | <p>Conroy managed the environmental authorization for the proposed rezoning and residential development of the St Lukes Mission Land.</p>   |
| <p><b>Bunker Hills Investments (Pty) Ltd, EMP, South Africa (2008-2009)</b></p>                       | <p>Conroy managed the environmental management plan for the proposed residential development.</p>   |
| <p><b>Rakel (Pty) Ltd, Development &amp; Desalination Plant, South Africa (2009)</b></p>              | <p>Conroy assisted in managing the environmental authorization for the proposed residential development and assisted in the environmental impact assessment for the proposed desalination plant servicing the proposed residential development.</p>   |
| <p><b>Rapitrade (Pty) Ltd, Residential Development, South Africa (2008)</b></p>                       | <p>Conroy assisted in managing the environmental management plan for the proposed residential development and managed the applications to the South African Heritage Resources Agency (SAHRA) and the Department of Water Affairs &amp; Forestry.</p> |
| <p><b>Beautiful Connections (Pty) Ltd, Developments, South Africa (2008)</b></p>                      | <p>Conroy managed the environmental authorization for a proposed wildlife resort in the Queenstown area and the proposed development of Eco-Type chalets in the East London area</p>  |
| <p><b>Riverleigh VII cc, Warehousing Development, South Africa (2007)</b></p>                         | <p>Conroy managed the environmental authorization process for the proposed warehousing and light industrial manufacturing processes developments.</p>   |
| <p><b>Purple Moss 29 (Pty) Ltd, Rehabilitation, South Africa (2010)</b></p>                           | <p>Conroy managed the rehabilitation of the Quenera River bank on the site and the environmental authorization process for the proposed township establishment consisting of business, mixed use and residential areas.</p>                           |
| <p><b>Silicon Smelters (Pty) Ltd (FerroAtlantica), Charcoal Burners, South Africa (2007-2009)</b></p> | <p>Conroy managed the environmental impact assessment process and CAPCO permit applications for various charcoal burners in the East Cape, West Cape, Free State, North-West, Limpopo and Gauteng Provinces.</p>                                      |
| <p><b>Wild Coast Fishing Co-operative, Fish Works Factory, South Africa (2010)</b></p>                | <p>Conroy assisted in the environmental authorization for the proposed fish works factory.</p>  |
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**PUBLICATIONS**

None

**MEMBERSHIPS**

South African Council of  
Natural Scientific Professions  
(SACNASP)

Registered as a Professional Natural Scientist (Environmental Scientist) with the South African Council of Natural Scientific Professions (SACNASP)