

CURRICULUM VITAE



STUART HEATHER-CLARK

TECHNICAL DIRECTOR
AFRICA POWER SECTOR LEAD

Environmental Management Planning & Approvals,
Africa

QUALIFICATIONS

Masters	1996	Environmental Science
BSc (Hons)	1992	Civil Engineering

EXPERTISE

- Environmental and Social Impact Assessment
- Environmental Management Plans/Programmes
- Public Participation & Facilitation
- Environmental & Social Due Diligence
- Environmental & Social Screening & Site Selection
- Training and Capacity Building
- Strategic Environmental Assessment

Stuart has over 24 years of environmental and social consulting experience in Africa. Having worked on over 100 development projects in Africa, his key strength is identifying and managing ESG risks for major capital projects from the concept phase through to the pre-feasibility, feasibility and implementation phases.

Through leading Environmental & Social Screening Studies, Environmental & Social Impact Assessments and Environmental & Social Due Diligences for major capital project in over 13 African countries; Stuart has developed a deep appreciation of key sustainability challenges facing development in Africa. He has excellent project management skills with the ability to manage projects from the concept phase through to project completion.

Stuart has worked for and with a number of IFI's, DFI's and PE firms to identify and managing ESG risks of their investments in Africa. He has an integral knowledge of the Equator Principles and IFC Performance Standards and understands the expectations of lenders and financial institutions when it comes to managing ESG risks.

Stuart has worked across various sectors including O&G, mining, infrastructure and power. Over the past eight years he has focussed on the power sector leading projects for wind farms, solar PV plants, hydropower plants and gas to power plants. He has an integral understanding of the Independent Power Producers (IPP) process in South Africa and several other African countries.

PROJECTS

All projects

Environmental and Social Impact Assessment for a 20MW solar PV plant and transmission line, Gigawatt Global, Liberia, (2020)

Project Director for the ESIA a 20MW solar PV plant and associated transmission line. The ESIA includes biodiversity, social and heritage baseline studies, stakeholder engagement and compilation of an ESIA Report and ESMP. The ESIA will be aligned with the IFC Performance Standards.

ESIA for an 80-200 MW wind farm development, Mphepo Power, Zambia (2019-20)

Project Director for the ESIA for the development of a wind farm in Zambia. The ESIA included terrestrial and aquatic, social, heritage, noise and visual baseline studies, stakeholder engagement and compilation of an ESIA Report and ESMP. The ESIA was aligned with the IFC Performance Standards.

<p>Environmental and Social Impact Assessment for a Road Upgrade, QGMI, Ghana, (2019-20)</p>	<p>Project Director for 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. The project included additional visual impact assessment, air quality modelling and noise modelling. All work undertaken to IFC Performance Standards.</p>
<p>Environmental and Social Impact Assessment (ESIA) for the Gamsberg Mine Zinc Smelter, Black Mountain Mine (Vedanta), South Africa (2019-20)</p>	<p>Project Director for the ESIA for a new zinc smelter and associated infrastructure to beneficiate the 250 000 to 300 000 tpa of zinc concentrate produced at the Gamsberg Zinc Mine Phase-1 concentrator plant. The ESIA included extensive baseline studies including biodiversity, social, air quality, noise, visual, hydrology, geohydrology, and climate change. The process included extensive stakeholder engagement during the scoping and impact assessment phase.</p>
<p>ESIA Scoping Phase for the desalination plant and water carrier system, NamWater, Windhoek Namibia (2019-20)</p>	<p>Team member for the ESIA Scoping Phase for the proposed desalination plant and water carriage system to secure water supply to the central coast, Windhoek and en-route users. The Scoping Process included extensive stakeholder engagement and the Scoping Report was aligned with the KfW Sustainability Guidelines and World Bank Environmental and Social Standards.</p>
<p>Environmental & Social Due Diligence for 5MW solar PV plant, Confidential Client, Namibia (2019)</p>	<p>Project Director for an Environmental and Social (E&S) Due Diligence (Red Flags only) of a 5 MW solar PV facility located near Outapi, Namibia.</p>
<p>Environmental & Social Screening Study for 20MW solar PV plant, CIGenCo, Eswatini (2019)</p>	<p>Project Director for an Environmental and Social (E&S) Screening Study of two potential sites for development of solar PV projects as part of CIGenCo's bid as part of the Eswatini Independent Power Producers Policy (ESIPPP).</p>
<p>Permitting Strategy and Planning for the Rovuma LNG Project in Mozambique, ExxonMobil, Mozambique (2018-2019)</p>	<p>Team member supporting Exxon with the permitting strategy and plans for the Rovuma LNG Project in northern Mozambique.</p>
<p>Environmental and Social Impact Assessment (ESIA) Gap Analysis for a 50MW solar PV Plant, Volt Renewable, Zimbabwe (2018)</p>	<p>Environmental lead for the review of the locally approved EIA against the IFC Performance Standards. Gaps were identified and an Environmental and Social Action Plan (ESAP) developed to close the gaps.</p>
<p>Environmental and Social Impact Assessment (ESIA) Gap Analysis for a 5-star hotel development, Motal-Engil, Zimbabwe (2018)</p>	<p>Environmental lead for the review of the locally approved EIA against the IFC Performance Standards. Gaps were identified and an Environmental and Social Action Plan (ESAP) developed to close the gaps.</p>

<p>Environmental and Social Screening Study for a 100MW hybrid HFO and Solar PV Power Plant for a mine in Mali, Confidential client (2018)</p>	<p>Environmental lead for the screening of environmental and social risks for the development of a solar PV plant on a mine in Mali.</p>
<p>Environmental and Social Screening Study for 3 x 40MW solar PV plants, Confidential Client, GETFIT Zambia (2018)</p>	<p>Project Manager for an environmental and social screening study for 3 x solar PV sites in Zambia. The Screening Study included the review of desk top information and site visits to assess environmental and social risks. A comparative analysis was undertaken to select the site with the least environmental and social risks. This was combined with the technical analysis to select the preferred site to be taken into more detailed studies.</p>
<p>Environmental and Social Impact Assessment for a 40MW solar PV farm, Enel Green Power, South Africa (2017)</p>	<p>Project Director for an Environmental and Social Impact Assessment for a 40MW solar PV plant in South Africa. The study included scoping and stakeholder engagement, various specialist studies and the compilation of an ESIA Report and ESMP.</p>
<p>Environmental and Social Impact Assessment for 2 run-of-river Hydropower Plants and associated transmission lines in Northern Zambia, Globeleq, Zambia (2017)</p>	<p>Project Director for an Environmental and Social Impact Assessment for 2 run-of-river hydropower plants and associated transmission lines on the Kalungwishi River in Northern Zambia. The study included scoping and stakeholder engagement, various specialist studies including environmental flow, heritage, social, biodiversity, visual, noise and other studies. All work was undertaken to IFC Performance Standards. The project was put on hold after the baseline and Scoping Phase.</p>
<p>Environmental and Social Screening Study for an 212MW HFO Power Plant, Confidential Client, Angola (2017)</p>	<p>Project Director for an Environmental and Social Screening Study for a 212MW HFO Power Plant in Angola. The study included noise and air quality baseline sampling, soil and groundwater baseline sampling, community health screening, and the compilation of a detail legal register and compliance road map.</p>
<p>Environmental and Social Screening Study for a Hydropower Plant in Gabon, Confidential Client, Gabon (2017)</p>	<p>Environmental and Social Screening Study for a Hydropower Plant in Gabon, Confidential Client, Gabon, 2017</p>
<p>Environmental and Social Due Diligence (ESDD) for two Solar PV and two Wind Farm Projects South Africa, Confidential Client, South Africa (2017)</p>	<p>Project Director for the ESDD for two Solar PV and two Wind Farm Projects in South Africa.</p>
<p>Environmental, Health and Safety Risk assessment of four Solar PV sites in South Africa, Enel Green Power, South Africa (2017)</p>	<p>Project Director for the EHS Risk Assessments.</p>
<p>Environmental and Social Impact Assessment for a 100MW to 250MW solar PV Plant, Globeleq, Zambia (2016-17)</p>	<p>Project Director for an Environmental and Social Impact Assessment for a 100MW to 250MW solar PV plant in Zambia. The study included the analysis of key environmental and social impacts, compilation of an ESIA and ESMP reports and stakeholder engagement.</p>

Environmental and Social Screening Study for a solar PV Plant, Confidential client, Zambia (2016)	Project Director for an Environmental and Social Screening Study for the establishment of solar PV power plant in Zambia. The study included the analysis of key environmental and social risks including regulatory, biodiversity and social risks.
Environmental and Social Due Diligence, Six Solar PV Farms, Confidential Client, South Africa (2016)	Project Director for an ESDD for six solar pv farms in South Africa. The ESDD was undertaken against SA Legislation and Regulations and IFC Performance Standards.
Environmental and Social Impact Assessment for a CCGT Power Plant, ArcelorMittal, South Africa (2016)	Project Director for an Environmental and Social Impact Assessment study for the establishment of a CCGT power plant for ArcelorMittal in Saldanha Bay, South Africa. The ESIA includes detailed specialist studies including air emissions modelling, noise modelling, biodiversity and heritage assessment. Full stakeholder engagement is also part of the scope of work.
Environmental and Social Management Plans, Wind Farm Development, Confidential Client, Kenya (2016)	Project Director and involved in advising the client on various strategies including vantage point bird monitoring and management plan development.
Environmental and Social Screening Study of potential solar PV sites, Confidential Client, Ivory Coast (2016)	Environmental and Social Screening Study of potential solar PV sites, Confidential Client, Ivory Coast, 2016
Environmental and Social Impact Assessment for the Tete-Macuse Railway Line and Macuse Power Development, Italthai, Mozambique (2015-17)	Project Director for the 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 included the development of over 700km of railway line and a new port development.
Strategic Environmental Assessment for the supporting infrastructure for the Baynes Hydropower Project, Baynes PJTC, Namibia/Angola (2014-15)	Project Director for the Strategic Environmental Assessment of the associated infrastructure for the Baynes hydropower project. The SEA covered the assessment of access roads for construction, transmission lines routing in Angola and Namibia and locations of an airfield.
Cumulative Impact Assessment of the development of numerous hydropower plants on the Kwanza River, Odebrecht, Angola (2014-15)	Project Director for the Cumulative Impact Assessment of the development of a number of hydropower plants on the Cuanza River in Angola.
Environmental and Social Impact Assessment for the Batoka Gorge Hydropower Project, ZRA, Zambia/Zimbabwe (2014-15)	Advisor to the ESIA team undertaking the Environmental and Social Impact Assessment (ESIA) for the proposed Batoka Gorge Hydropower Plant on the Zambezi River below the Victoria Falls. The project includes the construction of a dam wall, hydropower plants, transmission lines and associated infrastructure. The ESIA is being conducted in alignment with the IFC Performance Standards and the World Bank Safeguard Policies.
Environmental and Social Impact Assessment for the Rehabilitation of the Kariba Dam Wall, ZRA, Zambia/Zimbabwe (2014-15)	Project Director for the Environmental and Social Impact Assessment (ESIA) for the proposed Kariba Dam Rehabilitation Project. The project includes the rehabilitation of the plunge pool and spillway of the dam wall. The project is being funded by the World Bank, African Development Bank and the EU.

<p>Environmental and Social Due Diligence (ESDD) for a 98 MW wind farm in South Africa, Confidential Client, South Africa (2015)</p>	<p>Project Director for the ESDD.</p>
<p>Environmental and Social Due Diligence (ESDD) for a 2 x 75 MW solar pv farm in South Africa, Confidential Client, South Africa (2015)</p>	<p>Project Director for the ESDD.</p>
<p>Environmental and Social Due Diligence (ESDD) for a 74 MW wind farm in South Africa, Confidential Client (2015)</p>	<p>Project Director for the ESDD.</p>
<p>Environmental and Social Screening Study for a CCGT Power Plant, Confidential Client, South Africa (2015)</p>	<p>Project Director for an Environmental and Social Screening study for the establishment of a gas power plant in Saldanha Bay, South Africa. The screening study outputs included a permitting strategy, environmental opportunities and constraints maps, and input into the site selection process.</p>
<p>Environmental and Social Impact Assessment for Floating Power Plants in the Port of Richards Bay, Department of Energy IPP Office, South Africa (2015-16)</p>	<p>Project Director for the ESIA for the establishment of Floating Power Plants in the Ports of Richards Bay in South Africa. The ESIA includes detailed specialist studies including marine outfall modelling, air emissions modelling and marine ecology studies. Full stakeholder engagement is also part of the scope of work.</p>
<p>Environmental and Social Impact Assessment for Floating Power Plants in the Port of Richards Bay, Department of Energy IPP Office, South Africa, (2015-16)</p>	<p>Project Director for the ESIA for the establishment of Floating Power Plants in the Ports of Saldanha in South Africa. The ESIA includes detailed specialist studies including marine outfall modelling, air emissions modelling and marine ecology studies. Full stakeholder engagement is also part of the scope of work.</p>
<p>Environmental and Social Impact Assessment for LNG Import Terminal in the Port Richards Bay for the Gas to Power Programme, Department of Energy IPP Office, South Africa (2015-16)</p>	<p>Project Director for the ESIA for the establishment of LNG Import Terminals as part of the DoE’s Gas to Power Programme in South Africa. The ESIA includes detailed specialist studies including marine outfall modelling, air emissions modelling and marine ecology studies. Full stakeholder engagement is also part of the scope of work.</p>
<p>Environmental and Social Impact Assessment for LNG Import Terminal in the Port Saldanha for the Gas to Power Programme, Department of Energy IPP Office, South Africa, (2015-16)</p>	<p>Project Director for the ESIA for the establishment of LNG Import Terminals as part of the DoE’s Gas to Power Programme in South Africa. The ESIA includes detailed specialist studies including marine outfall modelling, air emissions modelling and marine ecology studies. Full stakeholder engagement is also part of the scope of work.</p>
<p>Environmental and Social Screening study for the establishment of an CCGT power plant in the Ports of Richards Bay, Confidential client, South Africa (2015)</p>	<p>Project Director for an Environmental and Social Screening Study for the establishment of a CCGT power plant in Richards Bay, South Africa. The study included the analysis of key environmental and social risks including air emissions, effluent emissions, biodiversity (terrestrial and marine) and social issues. The assessment applies to the power plant site, transmission line routing and pipeline routing and compares the opportunities and constraints associated with the two locations.</p>

<p>Environmental and Social Screening study for the establishment of an CCGT power plant in the Port of Saldanha, Confidential client, South Africa (2015)</p>	<p>Project Director for an Environmental and Social Screening Study for the establishment of a CCGT power plant in Saldanha Bay, South Africa. The study included the analysis of key environmental and social risks including air emissions, effluent emissions, biodiversity (terrestrial and marine) and social issues. The assessment applies to the power plant site, transmission line routing and pipeline routing and compares the opportunities and constraints associated with the two locations.</p>
<p>Environmental and Social Screening study for the establishment of an SCGT power plant in the Ports of Saldanha, Confidential client, South Africa (2015)</p>	<p>Project Director for an Environmental and Social Screening Study for the establishment of an SCGT power plant in the Port of Saldanha. The study included the analysis of key environmental and social risks including air emissions, effluent emissions, biodiversity (terrestrial and marine) and social issues. The assessment applies to the power plant site, transmission line routing and pipeline routing.</p>
<p>Environmental and Social Impact Assessment for the Burgan Oil Fuel Storage Depot in the Port of Cape Town, Burgan Oil, South Africa (2014-15)</p>	<p>Project Director for the ESIA for the Burgan Oil Fuel Storage Depot in the Port of Cape Town.</p>
<p>Millennium Challenge Account – Malawi: Infrastructure Development Project – Energy Sector (hydropower plants, transmission and distribution lines and substations), MCC, Malawi (2014-15)</p>	<p>Environmental Lead for the Independent Engineer to review all the Contracting Engineers environmental and social studies associated with the Infrastructure Development Project. The project includes the upgrade and development of new power infrastructure including hydropower plants, transmission lines, distribution lines and substations.</p>
<p>Strategic Environmental Assessment of the New Town Integrated Development Zone, TFM Mining, Katanga Province, DRC (2014)</p>	<p>Project Director for the Strategic Environmental Assessment of the New Town Integrated Development Zone undertaken for Tenke Fungurume Mining (TFM) in Katanga Province, DRC.</p>
<p>Environmental and Social Impact Assessment (ESIA) for the Gamsberg Zinc Mine, South Africa, Black Mountain Mine (Vedanta) (2012-13)</p>	<p>Project Director for the Environmental and Social Impact Assessment for a new Zinc Mine in the Northern Cape Province in South Africa. The ESIA includes the assessment of the mine and all associated infrastructure including waste rock dumps, tailing dams, processing plant, transmission lines, a new township development, upgrade of a water pipeline and associated water treatment facilities, and transport options to the Port of Saldanha via both road and rail. The ESIA is being undertaken as an integrative process to meet various environmental legal requirements including National Environmental Management Act (NEMA): EIA Regulations, NEM: Waste Act, NEM: Air Quality Act, NEM: Biodiversity Act, National Heritage Resource Act, National Water Act and the Minerals Petroleum Resources Development Act. The process includes various specialist studies, full stakeholder engagement as well as integration with a Biodiversity Off-sets process.</p>
<p>Environmental and Social Impact Assessment for the Expansion of Transnet's existing Manganese Ore Export Railway Line and Associated Infrastructure, South Africa (2012)</p>	<p>Project Director for the ESIA for the Expansion of Transnet's existing Manganese Ore Export Railway Line and Associated Infrastructure in the Northern and Eastern Cape, South Africa.</p>

<p>Ore Line Expansion Project for the Sishen-Saldanha Ore Line and Port of Saldanha, various Mining Companies and Transnet, South Africa (2011-2012)</p>	<p>Project Director for the Environmental and Social Screening Study for the Pre-feasibility Phase of the Ore Line Expansion Project. This included compiling a detail Environmental and Social Design Criteria Report together with initial Stakeholder Engagement. A detailed multi-criteria assessment for various port and stockpile options was undertaken. The project included upgrading over a 1000 km of railway line and upgrading the port facilities including stockpiles, stacker-reclaimers, conveyors and ship loading facilities. The stakeholder engagement process was specifically designed to obtain buy-in from stakeholder who were strongly opposed some components of the port and rail expansion.</p>
<p>Strategic Environmental Assessment for the Mozambican Regional Gateway Programme, MRGP, Mozambique, Malawi, Zambia, Zimbabwe (2012)</p>	<p>Project Director for the SEA of the MRGP. The MRGP aims to support the improvement of the Southern African transport (roads, rail and ports), regional infrastructure network, which uses Mozambique as a gateway for international trade. The MRGP geographic scope encompasses the Beira and Nacala Transport Corridors and the respective links to the Maputo and Limpopo Corridors. The SEA identified environmental and social issues that need to be considered in the long terms planning an implementation of the rail and port infrastructure that makes up the Beira and Nacala Transport Corridors.</p>
<p>Strategic Environmental Assessment (SEA) for the coastline of Mozambique, MICOA, Mozambique (2012)</p>	<p>Adviser on the SEA for the coast of Mozambique. The SEA aims to identify potential conflicts between various uses of the coastal zone and to recommend strategic interventions to facilitate sustainable development within the coastal zone. Various users of the coastal zone that are being considered include off-shore oil and gas operations, coastal mining, tourism, conservation and artisanal and industrial fishing.</p>
<p>Environmental and Social Screening Study for port options in Pemba Bay, Anadarko, Mozambique (2012)</p>	<p>Project Lead for an Environmental and Social Screening Study for various port options in Pemba Bay. The screening study includes a multi-criteria assessment of various port locations taking into account marine and terrestrial ecology, social issues, land ownership, legal aspects and physical marine conditions.</p>
<p>Environmental and Social Impact Assessment for a LPG import and distribution facility, Sunrise Energy, South Africa (2011-2012)</p>	<p>Project Director for the Scoping/EIA for a LPG importation, storage and distribution facility which includes a marine offloading facility in Saldanha Bay, a pipeline and a storage facility. The environmental permitting process required the liaison with local and provincial environmental authorities, co-ordination of specialist studies, public participation and impact assessment.</p>
<p>Environmental and Social Screening Study for a Mine development in Angola, Confidential Client, Angola (2011-2012)</p>	<p>Project Director for the Environmental and Social Screening Study for the Concept Phase for a new mine development in Angola. The study included identifying environmental and social risks to the project and costing a full ESIA according to IFC Performance Standards and Equator Principles.</p>
<p>Equator Principles and IFC Performance Standards Training, Vedanta Resources Plc, Zambia (2012)</p>	<p>Lead facilitator of a 5-day training course on the implementation of the Equator Principles and IFC Performance Standards for a number of Vedanta's mining operations across Southern Africa, Europe and Australia.</p>
<p>Environmental and Social Impact Assessment for the upgrade of the Principe Airport, HBD, Principe (2011-2012)</p>	<p>Project Director for the Environmental and Social Impact Assessment for the upgrade of the airport in Principe.</p>
<p>EIA for a 380MW renewable energy facility north of Touwsrivier in the Western Cape (2010-2011)</p>	<p>Project Director for the Scoping/EIA for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.</p>

EIA for a 170MW renewable energy facility east of Touwsrivier in the Western Cape (2010-2011)	Project Director for the Scoping/EIA for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
EIA for a 670MW renewable energy facility south of Sutherland in the Western and Northern Cape (2010-2011)	Project Director for the Scoping/EIA for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process requires the liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
EIA for a 500MW renewable energy facility south of Beaufort West in the Western Cape (2010-2011)	Project Director for the Scoping/EIA for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
EIA for a 120MW renewable energy facility south east of Victoria West in the Northern Cape (2010-2011)	Project Director for the Scoping/EIA for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
EIA for a 225MW wind farm in the Richtersveld, Western Cape (2011)	Project Director for the Scoping/EIA for a proposed wind farm. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
EIA for a 750MW wind farm in the Roggeveld, Western Cape and Northern Cape (2011) Director	Project Director for the Scoping/EIA for a proposed wind farm. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
EIA for a 225MW renewable energy facility between Vredenburg and Velddrif in the Western Cape (2010-2011)	Project Director for the Scoping/EIA for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies, public participation and impact assessment.
Environmental and Social Impact Assessment for the Lesotho Highland 150 MW Wind Power Project, Breeze Power, Lesotho (2011)	Project Director for the Scoping Phase of the Environmental and Social Impact Assessment for a 150MW wind farm development in Lesotho. The Scoping Phase included the analysis of available information to identify key environmental and social risks associated with the siting of the wind farm.
Environmental Screening Study for a Wind Farm Development in the Southern Cape, South Africa (2011)	Project Director for the Environmental Screening Study for a wind farm development in the Southern Cape.
Environmental and Social Due Diligence for a Wind Farm Development in Coega, Electrawinds, South Africa (2011)	Project Director for the Environmental and Social Due Diligence for a wind farm development in the Coega.

<p>Environmental and Social Impact Assessment for Venetia Diamond Mine, De Beers, South Africa (2011)</p>	<p>Project Director for the Scoping and ESIA for the proposed new underground mine and EMP consolidation for existing mining activities. The ESIA was undertaken as an integrative process to meet various environmental legal requirements including National Environmental Management Act (NEMA): EIA Regulations, NEM: Waste Act, NEM: Air Quality Act, NEM: Biodiversity Act, National Heritage Resource Act, National Water Act and the Minerals Petroleum Resources Development Act.</p>
<p>Environmental and Social Impact Assessment for a river barging project on the Zambezi River, Riversdale Mining, Mozambique (2010-2011)</p>	<p>Project Director for the project which includes the assessment of environmental and social impacts associated with dredging over 500km of the Zambezi River. The project includes full stakeholder engagement, coordination of various specialist studies with extensive field work and the integration of all information into an ESIA report and ESMP.</p>
<p>EIA for two solar PV plant development, South Africa (2010)</p>	<p>Project Director of the EIA for the development of two solar PV plants in the Northern Cape and Free State Provinces of South Africa. ERM undertook the required studies to obtain environmental approval for these developments, including specialist studies such as landscape and visual and cultural heritage assessments, and stakeholder engagement.</p>
<p>Basic Assessment for the installation of wind measuring masts on six sites in the Western Cape and two sites in the Northern Cape (2010)</p>	<p>Project Director for the Basic Assessments to install wind measuring masts at eight sites in South Africa. The scope of work included the submission of the application, public participation, preparation of an EMP and submission of the Basic Assessment report.</p>
<p>EIA for a 100MW renewable energy facility north of Velddrif in the in the Western Cape (2010)</p>	<p>Project Director for the Scoping process for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required the liaison with local, provincial and national environmental authorities, co-ordination of specialist studies and public participation.</p>
<p>EIA for a 300MW renewable energy facility east of Lambert’s Bay in the Western Cape (2010)</p>	<p>Project Director for the Scoping process for a proposed renewable energy facility incorporating wind and photovoltaic power generating technologies. The environmental permitting process required liaison with local, provincial and national environmental authorities, co-ordination of specialist studies and public participation.</p>
<p>External adviser and reviewer for an ESIA for a wind farm development in the Eastern Cape, Confidential Client, South Africa (2010)</p>	<p>Adviser and reviewer for an EIA for the development of a wind farm in the Eastern Cape.</p>
<p>Environmental Advisor Environmental and Social Impact Assessment for the Mphanda Nkuwa Hydropower Project in Mozambique (2010)</p>	<p>Advisor for the ESIA for the Mphanda Nkuwa Hydropower Project in Mozambique. The core service was to advise the project team on international standards such as the IFC Performance Standards and World Commission on Dams.</p>
<p>Environmental Sensitivity Study of the Durban Airport Site Expansion Project , South Africa, Transnet (2010)</p>	<p>Project Director for the Environmental Sensitivity Study for the proposed dig-out port currently being considered by Transnet at the Durban International Airport Site. The aim of this assessment was to determine the biophysical, natural and social opportunities and constraints to the development of the dig-out port, as well as provide a strategic overview of the environmental context of the site. In addition, the sensitivity study provided strategic guidance in terms of the environmental due process and licensing requirements with respect to the National Environmental Management Act, and associated legislation.</p>

<p>ESIA for a new high voltage overhead transmission power line in Cameroon, AES Sonel, Cameroon (2007- 2009)</p>	<p>Project Director for the Environmental and Social Impact Assessment and a full Resettlement Action Plan for a new electricity distribution project, comprising a 113km overhead power line, for AES Sonel. As Project Director, Mr Heather-Clark was responsible for client liaison, quality control and final review of all reports.</p>
<p>Advisor to the Environmental and Social Impact Assessment for the Baynes Hydropower Project in Namibia and Angola (2009)</p>	<p>Project Advisor for the Environmental and Social Impact Assessment for the proposed Baynes Hydropower Project on the Kunene River. The ESHIA process is being conducted in accordance to the Angolan EIA Regulations, the Namibian EIA Regulations, the World Bank Safeguard Policies and the IFC performance standards.</p>
<p>Environmental and Social Impact Assessment for the upgrade of a 1100 km railway line in South Africa, Transnet (2008- 2009)</p>	<p>Project Director for the Environmental and Social Impact Assessment for the upgrade of a commodities railway line across South Africa. The project included a number of specialist studies, managing subcontractors, interfacing with the railway engineering team, report writing, managing an extensive stakeholder consultation process, client liaison and management of project finances.</p>
<p>Environmental and Social Impact Assessment for the services corridor associated with the development of a greenfield CTL Plant, Sasol, South Africa (2009)</p>	<p>Project Director for an ESIA of a services corridor to support the development of a greenfield CTL plant development in South Africa. The ESHIA process was conducted in accordance to the South African EIA Regulations and the IFC performance standards.</p>
<p>Environmental and Social Impact Assessment for 2D seismic exploration project in the Rovuma Basin, Petronas, Mozambique (2009)</p>	<p>Project Director for the ESIA for the offshore seismic exploration activities in Blocks 3 & 6, situated in the Rovuma Basin off the coast of Mozambique. The exploration activities comprise 2D seismic surveys in deepwater.</p>
<p>Environmental and Social Screening Study for a river barging project on the Zambezi River, Riversdale Mining, Mozambique (2009)</p>	<p>Project Director for the project which included the assessment of environmental and social risks associated with dredging over 500km of the Zambezi River. The project included reviewing existing information, mapping key sensitivities and facilitating a specialist workshop in order to develop Terms of Reference for detailed baseline studies that will be required should the project proceed to a full ESIA.</p>
<p>Equator Principled and IFC Performance Standards Review and Training, African Housing Solutions, South Africa (2009)</p>	<p>Lead reviewer for the ESIA and Resettlement Policy Framework, for a housing development in Nigeria, against the Equator Principles and IFC Performance Standards. Mr Heather-Clark was responsible for reviewing the ESIA Report and for presenting a 2 ½ day training course on the Equator Principles and IFC Performance Standards.</p>
<p>Environmental Assessment for the dredging and disposal of dredge spoil at the Port of Saldanha, Transnet, South Africa (2008)</p>	<p>Project Director for this project and was responsible for guidance of technical studies which included dredging studies and marine sediment contamination characterization. The study included the assessment of dredge spoil dumping alternatives. Stakeholder engagement included an important component of the project.</p>
<p>Environmental and Social Screening Study, Port of Saldanha, Transnet, South Africa (2008)</p>	<p>Project Director for the screening study which included an assessment of alternative berth options for the export of iron ore at the iron ore terminal at the Port of Saldanha, South Africa. The work included ongoing interaction with the port engineering and design teams, together with stakeholder engagement.</p>

<p>ESIA for an Early Production System (EPS) and Power Plant for Kaiso-Tonya Area, Exploration Area 2, Tullow Uganda Operations Pty Ltd, Uganda (2007-08)</p>	<p>Project Director for the project which included a full ESIA for an Early Production System and associated Power Plant in the Kaiso-Tonya area on the banks of Lake Albert, Uganda. The intent of the project is to produce oil (and small amounts of gas) which will be converted into electrical power and distillate products (kerosene and diesel) for consumption within Uganda. The electrical power will be fed into the main grid supplementing the Ugandan electrical power grid while the distilled products (diesel and kerosene) will be used to displace the currently imported fuels. The ESIA included a detailed assessment of alternative sites for the proposed EPS and power plant, together with various environmental and social baseline studies and stakeholder engagement.</p>
<p>ESIA monitoring studies for Sasol’s Off-shore gas exploration activities in Inhambane and Sofala Provinces, Mozambique, Sasol Petroleum Sofala & Empresa Nacional de Hidrocarbonetos (2007-08)</p>	<p>Project Director for an environmental monitoring survey programme for Sasol’s offshore hydrocarbon exploration activities. Monitoring studies included seismic noise modelling and monitoring, dugong surveys, artisanal fish catch monitoring, coral reef surveys and monitoring, sea turtle monitoring and tourism monitoring.</p>
<p>Strategic Environmental and Social Overview and ESIA’s for offshore exploration well drilling activities in Blocks 2 and 3A, Lake Albert, Uganda. Tullow Oil Plc and Heritage Oil and Gas Limited (2006- 2008)</p>	<p>Project Director for this project. The project involved undertaking a strategic overview study of Lake Albert that provided background information on the limnological (physical, chemical and biological) features of the lake as well as environmental and socio-economic resources (such as nature reserves, tourism nodes, prime fishing areas etc). It also presented areas of environmental risk and opportunity associated with oil explorations on, and immediately adjacent to, the lake. The strategic overview provided a framework within which ESIA’s were undertaken for the offshore drilling project. A site selection study was undertaken for onshore support infrastructure. Baseline studies included shoreline sensitivity mapping, oil spill modelling, water and sediment quality surveys, fish and fisheries surveys, socio-economic surveys and terrestrial ecology surveys. An extensive public participation process was undertaken as part of the ESIA’s.</p>
<p>Environmental and Social Baseline Assessment for a green fields coal mine and CTL plant development, Sasol, South Africa (2008)</p>	<p>Project Director the environmental and social baseline studies to support the evaluation of sites for potential development of a green field’s coal mine and associated CTL Plant in South Africa. Mr. Heather-Clark has assisted with review and quality control of the various baseline studies.</p>
<p>Development of guideline document for the integration of environmental and social issues into the project lifecycle for mine development, De Beers, South Africa (2008)</p>	<p>Team member of the project team that assisted the client in developing a detailed guideline document for the integration of social and environmental issues into mine planning. This included all phases of the planning process from Concept through to Pre-feasibility, Feasibility and Implementation. Mr Heather-Clark, as lead facilitator, presented a 2 day training course on these guidelines, to mine planners and engineers.</p>
<p>EIA for a Metal Recovery Plant and Slag Crushing, Screening and Weathering facility at Arcelor Mittal Saldanha Works, MultiServ, South Africa (2007 – 2008)</p>	<p>Project Director for the EIA, including a public consultation process and the following specialist studies: air quality, groundwater, noise impact assessment, botanical and archaeology studies and a traffic impact assessment. Mr Heather-Clark was responsible for client liaison, quality control and final review of all reports.</p>

Implementation of the Equator Principles for Standard Bank's Project Financing Processes, Standard Bank, South Africa (2008)	Lead facilitators for Equator Principles and IFC Performance Standards training to assist Standard Bank in adopting the Equator Principles. An assessment system (based on the IFC Performance Standards) to link with Standard Bank's project finance transaction life-cycle was developed. This involved the development of "tools" and guidance documents to form a system, together with training on the use of the system for all project finance staff.
Comparative review of EIAs undertaken by ERM globally for electricity utilities, Eskom, South Africa (2007)	Project Director for this project. The project included research to provide Eskom with an overview of different EIA governance systems and approaches to managing EIAs in other countries, as well as identifying trends in EIA practice.
Environmental and Social Screening and Qualitative Risk Assessment Western Ports and Rail Corridor, Transnet, South Africa (2007)	Project Director involved in identifying environmental and social risks associated with future port development in the Port of Saldanha, Port of Cape Town and Port of Mossel Bay. The scope of the study included the review of previous EIAs, SEAs and other planning documents to identify environmental and social drivers and assess their risk to future port planning, development and operations. As the environmental team, ERM interacted on a regular basis with the port engineering and design teams to develop a port development framework for a 30 year planning period.
Environmental and Social Screening and Qualitative Risk Assessment Central Ports and Rail Corridor, Transnet, South Africa (2007)	Project Director involved in identifying environmental and social risks associated with future port development in the Port of East London, Port of Port Elizabeth and Port of Ngqura. The scope of the study included the review of previous EIAs, SEAs and other planning documents to identify environmental and social drivers and assess their risk to future port planning, development and operations. As the environmental team, ERM interacted on a regular basis with the port engineering and design teams to develop a port development framework for a 30 year planning period.
Environmental and Social Screening and Qualitative Risk Assessment Eastern Ports and Rail Corridor, Transnet, South Africa (2007)	Project Director involved in identifying environmental and social risks associated with future port development in the Port of Durban and Port of Richards Bay. The scope of the study included the review of previous EIAs, SEAs and other planning documents to identify environmental and social drivers and assess their risk to future port planning, development and operations. As the environmental team, ERM interacted on a regular basis with the port engineering and design teams to develop a port development framework for a 30 year planning period.
EIA of the Moatize Coal Mine and associated railway line and deep water port infrastructure, CVRD, Tete Province, Mozambique (2006-2007)	Project Coordinator and Cost Controller on this project. ERM was commissioned by CVRD, a Brazilian Mining Company, to undertake environmental studies related to the green fields development of a coal mine in Tete Province, Mozambique. The project included the development of a power plant, railway line and port for the export of coal.
Corporate Social Responsibility Strategy development for a leading South African retailer, South Africa (2006)	Lead facilitator for this project. The project involved identifying and prioritising the company's sustainability issues and defining a strategy to address these issues. The process was driven by the need for the company to be listed on the Johannesburg Stock Exchanges SRI Index.
Research project on the effects of water scarcity on the fresh produce supply to a major South Africa retailer, South Africa (2006)	Project Leader coordinated a group of researchers to identify water scarce areas and to plot these against the location of fresh produce suppliers for a major retailer in South Africa. This researched form a core component of the companies Sustainability Strategy.
Independent Environmental Advisers to the Financing Parties of the Gautrain Rapid Rail Link project, Bowman Gilfillan (2006)	Independent Environmental Advisers to the Financing Parties, provided review and advisory services through Bowman Gilfillan on Environmental Management Plans for the Gautrain Rapid Link project.

ESIA for seismic surveys and exploration well drilling and testing in Blocks 16 and 19 off the coast of Mozambique, Sasol Petroleum Sofala & Empresa Nacional de Hidrocarbonetos (2005 – 2006)	Project Manager for the ESIA which involved undertaking an ESIA and compiling EMPs for offshore exploration activities in Blocks 16 & 19, situated to the east of the Bazaruto Archipelago National Park, off the coast of Mozambique. The exploration activities comprised 2D and 3D seismic surveys in deepwater and shallow water as well as exploration well drilling and testing activities.
EIA for the upgrade and expansion of the existing sinter plant at Vanderbijlpark, ArcelorMittal, South Africa (2006)	Project Director for the EIA and stakeholder engagement process to meet South African requirements. This included coordination of the technology review, air quality, health and waste management specialist studies and compilation of the integrated Scoping and EIA Report.
Review of Sustainability Report and Sustainability Management System, Confidential, South Africa (2004)	Lead reviewer of the Sustainability Report of a leading retailer in South Africa and providing adhoc advice on sustainability issues. This included compiling a monthly news letter to staff on relevant sustainability issues facing the retail industry in South Africa.
EIA of a proposed expansion of the Container Terminal Stacking area at the Port of Cape Town, National Ports Authority, South Africa (2003-2004)	Project Manager for this EIA. The project included the expansion of the Cape Town container terminal into the sea through dredging 1 million m3 of material for reclamation. The project included a detailed study on alternative sources for fill material and other studies which focused on marine archaeology, coastal erosion, marine hydrodynamics and water quality, visual, noise and traffic. The EIA included full stakeholder engagement throughout the EIA process.
Environmental Site Suitability Study for a manganese smelter, Asia Minerals Limited (2004)	Part of the project team that undertook a preliminary site selection process for a manganese smelter by identifying key environmental and social issues for potential sites within Southern Africa. Sites included the Belualane Industrial Park (Mozambique) and Richards Bay, the Coega Industrial Development Zone (IDZ) and Saldanha (South Africa).
DFID funded project to assess progress towards meeting the water related targets of the Millennium Development Goals, DIFD, Zambia (2004)	Country Coordinator for Zambia on this project. The project included detailed stakeholder surveys secondary data analysis to establish the countries progress towards meeting the Millennium Development Goals, specifically related to water supply and sanitation.
Roll-out of ISO14001 and OHSAS18001 management systems to 2 industrial sites in South Africa, Confidential, South Africa (2004)	Project Manager responsible for undertaking ISO14001 training at two industrial sites. The project formed part of a global initiative to have several industrial sites throughout Africa and Europe ISO14001 certified.
Strategic Environmental Assessment (SEA) for the Port of Cape Town, National Ports Authority of South Africa, South Africa (2003)	Project Manager for this project and played a lead role in directing the course and outcome of the SEA. The SEA focussed on key environmental and social opportunities and constraint to the future long term development of the Port of Cape Town. A Sustainability Framework was developed to address key opportunities and constraints and to set up long terms monitoring programs. A key component of this study was to understand the Port-City linkages and developing mechanisms to ensure that port planning was supported by city planning and visa-versa.
Strategic Environmental Assessment (SEA) for the Port of Richards Bay, National Ports Authority of South Africa, South Africa (2003)	Project Adviser for this project and played a lead role in directing the course and outcome of the SEA. The SEA focussed on key environmental and social opportunities and constraint to the future long term development of the Port of Cape Town. A Sustainability Framework was developed to address key opportunities and constraints and to set up long terms monitoring programs. A key component of this study was to understand the Port-City linkages and developing mechanisms to ensure that port

	planning was supported by city planning and visa-versa.
E&S Due Diligence of the Phase 2 Maputo Port Revitalisation and Rehabilitation Project, Standard Corporate Merchant Bank, Mozambique (2003)	Environmental Adviser to the Standard Corporate Merchant Bank for the review of the EIA and Risk Assessment studies undertaken for the Phase 2 Maputo Port Revitalisation and Rehabilitation Project. The EIA was reviewed against the Mozambican and International Best Practice guidelines and detailed recommendation made on how to manage the environmental risks associated with the revitalisation project.
National Oil Spill Contingency Plan for Cameroon, funded by the World Bank, Cameroon Government, Cameroon (2003)	Part of the team that compiled a comprehensive Oil Spill Contingency Plan for Cameroon (OSCP). The OSCP form a core component of the Chad Cameroon Pipeline and included contingency plans for both on land and marine based spills. The OSCP was compiled according to the IPEACA guidelines and was reviewed by the World Bank.
EIA/SEA Capacity Building, Environmental Public Authority (EPA), State of Kuwait (2003)	Lead facilitator for a 2 day training course on SEA and EIA for the Environmental Public Authority (EPA) of the State of Kuwait.
Training Workshop on Strategic Environmental Assessment for South Eastern Africa and the Western Indian Ocean Island States, SEACAM, Mozambique (2003)	Lead course facilitator for the SEA training course funded by SEACAM. The training course included the principles of SEA, SEA process and case studies of SEA's in Southern Africa.
Improving the Effectiveness of EIA and the Potential of SEA in Southern Africa: Case Study on SEA of the National Commercial Ports Policy and SEA for the Port of Cape Town, World Bank/SAIEA, Namibia (2003)	Presenter of two case studies on SEA at a regional workshop funded by the World Bank and SAIEA.
Environmental Impact Assessment for the Eskom SABRE-GEN wind turbine test facility, Eskom, South Africa (2002)	Project Manager for the EIA. The EIA included stakeholder engagement throughout the process and included the following specialist studies: visual assessment, bird strike modelling and noise assessment.
Strategic Environmental Assessment: Scoping Phase Port of Richards Bay, National Ports Authority of South Africa, South Africa (2002)	Project Leader and integrative writer for the Scoping Phase of the SEA for the Port of Richards Bay. This phase included detailed stakeholder consultation to identify opportunities and constraints to long term port development at the Port of Richards Bay.
White Paper on National Commercial Ports Policy, National Ports Authority, South Africa 2002	Lead reviewer of the White Paper on National Commercial Ports Policy for South Africa. The review focussed on the integration of environmental and social issues into the port planning process. Mr Heather-Clark made a formal submission and presentation to the Portfolio Committee on Transport in the South African Parliament.

<p>Environmental Liability and Risk Assessment for the Multi-Purpose Terminal at the Port of Saldanha, National Ports Operations, South Africa (2002)</p>	<p>Project Manager for the project. The purpose of the project was to identify key environmental risks associate with the material handling at the Multi-Purpose Terminal at the Port of Saldanha.</p>
<p>Environmental Overview of South Africa’s major ports with special reference to future container terminal development, National Ports Authority Container Terminal Strategy, National Ports Authority, South Africa (2002)</p>	<p>Project Manager for the comparative assessment of the relative environmental sensitivity of the seven commercial ports in South Africa with reference to future container terminal development. The study included a detail review of secondary environmental information of all the ports, the identification of specific environmental criteria and the use of these criteria to rank each port in terms of its sensitivity to future container terminal development.</p>
<p>Review of the EIA undertaken for the Maputo Port Privatisation and Rehabilitation Project, Development Bank of Southern Africa (DBSA), South Africa (2002)</p>	<p>Environmental Adviser to the Development Bank of Southern Africa to review the Phase 1 EIA for the Maputo Port Privatisation and Rehabilitation Project. The review was undertaken against the Mozambican EIA Regulations and International Best Practice.</p>
<p>Oil Spill Contingency Plan, Agip Angola oil operations, Angola, (2002)</p>	<p>Team member of the team to develop an oil spill contingency plan according to the IPEICA International Guidelines.</p>
<p>Ecologically Sustainable Industrial Development Programme, United Nations Industrial Development Organisation (UNIDO), Tanzania (2002)</p>	<p>Team member of the project team appointed to review the Industrial Development Strategy for Industrial Development in Tanzania. The focus of the project was to integrate environmental and social issues into the programme.</p>
<p>Environmental Audit and Assessment of the Socio-economic Impacts of the Trans-Kgalagadi Highway, Botswana, Development Bank of Southern Africa, Botswana (2002)</p>	<p>Lead reviewer of the EIA and EMP implementation for the Trans-Kalagadi corridor in Botswana. The review included site visits, detailed interviews and review of secondary data and records.</p>
<p>World Bank EIA Project Management Training Course, World Bank/SAIEA, Zambia (2002)</p>	<p>Lead facilitator for the 5 day EIA Project Management Training Course. The course was presented to 20 African delegates from southern Africa. The course focused on the practical aspects of EIA project management including budgeting and scheduling an EIA, contract negotiations with clients, managing specialist studies, managing the public participation phase and compiling an integrated EIA report. The course formed part of a Southern Africa capacity building initiative lead by the SAIEA.</p>
<p>Environmental screening study for the establishment of a deep-water port at Ponta Dobela, Confidential Client, Mozambique (2001)</p>	<p>Team member of the project team who undertook a screening study to identify environmental, social and economic issues and show stoppers associated with the development of a deep-water port on the coast on Mozambique.</p>
<p>ESIA of the proposed seismic survey in licence area 2814a on the continental shelf of Namibia, Shell Exploration and Production Namibia B.V., Namibia (2001)</p>	<p>Team member of the ESIA for the offshore seismic exploration project. The ESIA included all issues associated with seismic surveys including seismic noise impacts on marine mammals, oil spill modelling and general environmental management issues.</p>

<p>Environmental Impact Review for the abandonment of the Cuntala Well Protector Platform off the coast of Angola (Block 2), Texaco Panama Inc., Angola (2001)</p>	<p>Team member of the project team who developed a decommissioning plan for a well protector platform off the coast of Angola.</p>
<p>Legal, Technical and Economic Feasibility Study for the Commercialisation of the SSF Association Milnerton Tank Farm and its links to the Port of Cape Town, SFF, Cape Town (2001)</p>	<p>Project Manager for this project.</p>
<p>ESIA of the Phase 2 expansion of the Mozal Aluminium Smelter and Matola Port Terminal in Maputo, BHP Billiton, Mozambique (2000-2001)</p>	<p>Project Manager and integrative writer for this ESIA. The EIA included an assessment of the expansion of the port terminal at the Port of Matola and a review of the Phase 2 expansion of the aluminium smelter. All reports together with the EIA process were reviewed and approved by the International Finance Corporation (IFC).</p>
<p>Scoping Phase of the Environmental Impact Assessment for the expansion of the Container Terminal at the Port of Cape Town, Portnet, South Africa (2000)</p>	<p>Project Manager for the EIA for the expansion of the container terminal at the Port of Cape Town. The project included the dredging of 1 million m3 dredge material to provide fill for the expansion of the port. Specialist studies that were required included coastal dynamic modelling, hydrodynamic modelling to assess water quality issues associated with dredging, marine archaeological issues, marine ecology issues, traffic, visual and noise.</p>
<p>Strategic Integrated Port Planning, Port of Saldanha, Transnet (1998)</p>	<p>Project Manager for the Strategic Integrated Port Planning process for the Port of Saldanha. The process culminated in the first Port Development Framework for the Port of Saldanha which integrated environmental and social issues into the port planning process. It included the identification and inclusion of environmental and social opportunities and constraints into the future port planning and development.</p>
<p>Environmental Impact Assessment for the PPC Slag Grinding Mill within the Saldanha Steel Complex, PPC (1998)</p>	<p>Project Manager for the EIA for PPC slag grinding mill. The EIA included a number of specialist studies and comprehensive stakeholder engagement.</p>

MEMBERSHIPS	
CEAPSA	Certified as an Environmental Practitioner with the Interim Certification Board for Environmental Assessment Practitioners of South Africa (2006)
IAIAsa	Member of the International Association for Impact Assessment South Africa
IAIA International	Member of the International Association for Impact Assessment
PUBLICATIONS	
	Sep 2007: Co-author of case study for IIEDs 'User Guide' to effective tools and methods for integrating environment and development. South African case study: Role of environmental and social screening in informing the conceptual design and planning of large-scale projects in the pre-feasibility stage.
	Aug 2003: Author of a case study on the SEA for the Port of Cape Town, contained in "The Status and Potential of Strategic Environmental Assessment" by Barry Dalal-Clayton and Barry Saddler, DRAFT 17 September 2003.
	March 2002: Strategic Integrated Port Planning: Moving from EIA to SEA. International Conference on Coastal Zone Management and Development, Kuwait 18 to 20 March 2002.
	Nov 2000: Sustainable Port Development: Report on the preparatory seminar for Africa. 7th International Conference of the International Association for Cities and Ports, Marseilles – France.
	Mar 2000: The development of Strategic Environmental Assessment in South Africa: Journal of Impact Assessment and Project Appraisal, Vol 18, Number 3, pg 217-223. September 2000.
	April 1999: Integrating environmental opportunities and constraints into Port Planning, Development and Operation. 5th International Conference on Coastal and Port Engineering in Developing Countries, Cape Town, 19 to 23 April 1999.

EAPASA

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Environmental Assessment Practitioners Association of South Africa

Advancing environmental assessment practice in South Africa



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Mr Stuart Heather-Clark
22 Meadow Lane
Hout Bay
Cape Town
7806

Sent by email to: stuart.heatherclark@gmail.com

Dear Mr Heather-Clark

**Registered Environmental Assessment Practitioner: Number 2019/613
Stuart Andrew Heather-Clark : South African ID 6708095058089**

The Environmental Assessment Practitioners Association of South Africa (EAPASA) herewith certifies that Stuart Andrew Heather-Clark is a Registered Environmental Assessment Practitioner (EAP) in accordance with the prescribed criteria of Regulation 15.(1) of the Section 24H Registration Authority Regulations (Regulation No. 849, Gazette No. 40154 of 22 July 2016, of the National Environmental Management Act (NEMA), Act No. 107 of 1998, as amended).

Your registration is duly authorised by EAPASA as the single Registration Authority for EAPs in South Africa (appointed as per Regulation No. 104, Gazette No. 41434 of 8 February 2018, in terms of section 24H(3)(a) of the NEMA). Your status as a Registered EAP is displayed in the 'EAP Register' - please find your name and contact email address at

<https://registration.eapasa.org/registered-practitioners>

Your registration is effective for a period of five years from 24 January 2020, and expires on 24 January 2025. The renewal of your registration in 2025 will be contingent on you having met the requirements of EAPASA's Continuing Professional Development (CPD) policy during each year of registration.

As a Registered EAP you are required to uphold the EAPASA Code of Ethical Conduct and Practice in your professional endeavours, towards the goal of quality assurance in environmental assessment practice.

Please accept my congratulations on your registration.

Best regards

Dr Richard Hill
Registrar

Date: 24 January 2020

Board Members: Ms Snowy Makhudu (Chairperson), Mr Khangwelo Desmond Musetsho (Vice-Chairperson),
Mr Ntsako Baloyi, Mr Zama Dlamini, Mr Siyabonga Gqalangile, Ms Jacqui Hex, Ms Sibusisiwe Hlela,
Mr Malcolm Moses, Mr Phumudzo Nethwadzi, Mr Danie Neumann, Ms Keshni Rughoobeer.

Registrar: Dr Richard Hill
NPO Reg. No. 122-986

CURRICULUM VITAE



NICHOLAS ARNOTT

ENVIRONMENTAL CONSULTANT

Environmental Management, Planning and Approvals,
South Africa

QUALIFICATIONS

Pr.Sci.Nat.	2016	Professional Natural Scientist (Environmental Science) with the South African Council for Natural Scientific Professions
BSc (Hons)	2005	Earth and Geographical Sciences (Environmental Management)
BSc	2004	Earth and Geographical Sciences, Zoology

EXPERTISE

- Environmental Impact Assessment
- Environmental Management Programme
- Public Participation
- Environmental compliance & monitoring
- Management of specialists

During his time at SLR, Nicholas has been responsible for undertaking environmental assessment processes for various projects relating to the mining, oil & gas, roads and related infrastructure, housing and industrial sectors. He has been involved in a number of projects in South Africa and has experience working in the Democratic Republic of Congo (DRC), Zambia and Zimbabwe.

He has expertise in a wide range of environmental disciplines, including Environmental Impact Assessments (EIA), Environmental Management Plans / Programmes (EMP), Basic Assessment Reports, Maintenance Management Plans (MMP), Environmental Auditing & Monitoring, Section 24(G) Rectification Applications and Public Consultation & Facilitation.

PROJECTS

Mining and Minerals

Belton Park Trading 127 (Pty) Ltd – Prospecting Right application for Sea Concessions 13C, 15C, 16C, 17C & 18C, West Coast, South Africa (Current)	Environmental Impact Assessment (EIA) process for the proposed offshore prospecting operations in Sea Concessions 13C, 15C, 16C, 17C and 18C, off the West Coast of South Africa. Nicholas compiled the Scoping Report, undertook the required public participation process and managed the appointed specialists.
Belton Park Trading 127 (Pty) Ltd – Prospecting Right application for Sea Concessions 14B, 15B & 17B, West Coast, South Africa (Current)	Environmental Impact Assessment (EIA) process for the proposed offshore prospecting operations in Sea Concessions 14B, 15B and 17B, off the West Coast of South Africa. Nicholas compiled the Scoping Report, undertook the required public participation process and managed the appointed specialists.

<p>De Beers Marine (Pty) Ltd – Environmental Impact Assessment for Bulk Sampling Activities for Offshore Marine Diamonds, West Coast, South Africa (Current)</p>	<p>EIA process for the proposed offshore Bulk Sampling operations in the Sea Concession 6C, off the West Coast of South Africa. Nicholas is the project manager and is responsible for the compilation of the Scoping and Environmental Impact Reports, undertaking of the required public participation process and management of the appointed specialists.</p>
<p>Bilboes Holdings (Pvt) – Proposed Isabella, McCays and Bubi Sulphide Gold Project, Zimbabwe (2018 - 2020)</p>	<p>Environmental and Social Impact Assessment (ESIA) for the proposed expansion of an existing gold mine complex located in Zimbabwe. Nicholas is the project assistant and compiled the Scoping Report, assisted with the undertaking of the required public participation process and management of the appointed specialists.</p>
<p>Zevocept (Pty) Ltd – Development of a borrow pit, Western Cape, South Africa (2019 - 2020)</p>	<p>Basic Assessment process for the proposed development of a borrow pit on Farm Modder Rivier, Western Cape. Nicholas assisted in the compilation of the BAR, overseeing the required public participation process and the management of the appointed specialists.</p>
<p>De Beers Marine (Pty) Ltd – Pre-Scope Environmental Input for Offshore Geophysical Survey, Greenland (2019)</p>	<p>Undertake an initial evaluation of the anticipated impacts associated with planned geophysical surveys to be undertaken off the west coast of Greenland and compile environmental input to be included into a Pre-Scope submission to the Greenland Minerals Authority. Nicholas undertook the management of the appointed specialists.</p>
<p>Copper Tree Minerals – Proposed Kitwe Tailings Retreatment Project, Zambia (2017 - 2019)</p>	<p>ESIA for the proposed retreatment of historical tailings dumps located within the town of Kitwe, Zambia. Nicholas is the project manager for the ESIA phase and is responsible for the compilation of the ESIA Report, undertaking of the required public participation process and management of the appointed specialists.</p>
<p>De Beers Marine (Pty) Ltd – Prospecting Right application for offshore marine Diamonds in Sea Concession 6C, West Coast, South Africa (2018)</p>	<p>Basic Assessment process for the proposed offshore prospecting operations in the Sea Concession 6C, off the West Coast of South Africa. Nicholas compiled the Basic Assessment Report (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Velddrift Salt Company (Pty) Ltd – Salt mine, Velddrift, South Africa (2018)</p>	<p>Update the Financial Provision for the salt mine on Portion 69 of Farm 110 near Velddrift, Western Cape, South Africa. Nicholas undertook the update of the existing financial provision and prepared the assessment report.</p>
<p>Impala Platinum Limited Unincorporated Joint Venture – EMP Performance Assessment and Closure Liability Estimate for Prospecting Operations (2017)</p>	<p>EMP Performance Assessment and Closure Liability Estimate for the Klipgatkop 115-JQ prospecting operations. Nicholas was the project manager and compiled the EMP Performance Assessment and Closure Liability Estimate reports.</p>

<p>Belton Park Trading 127 (Pty) Ltd – Mining Right application for offshore marine Diamonds in Sea Concession 2C, West Coast, South Africa (2016 - 2017)</p>	<p>EIA process for the proposed offshore mining of marine diamonds in the Sea Concession 2C, off the West Coast of South Africa. Nicholas compiled the Scoping and EIA Reports (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Belton Park Trading 127 (Pty) Ltd – Marine Sediment Sampling Activities in Sea Concessions 2C – 5C, West Coast (2014 - 2015)</p>	<p>Basic Assessment process for the proposed drill and bulk sampling of marine sediments in Sea Concessions 2C, 3C, 4C and 5C, off the West Coast of South Africa. Nicholas compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Aquarius Platinum (SA) (Pty) Ltd – Prospecting rights application on the Farms Chieftains Plain 46-JT and Walhalla 1-JT (2014)</p>	<p>Environmental Management Programme (EMP) for the proposed prospecting activities to be undertaken on the Farm Chieftains Plain 46-JT and Walhalla 1-JT. Nicholas was the project manager and compiled the EMP for both projects.</p>
<p>Aquarius Platinum (SA) (Pty) Ltd – Proposed Extension of the K5 Upper Underground Mining Area (2014)</p>	<p>EIA amendment process for the existing K5 Upper Mining Right to provide for the extension of the K5 Upper underground mining area. Based on the strong public reaction to the project, AQPSA took the decision to place the project on hold. Nicholas was the project manager and undertook the initial public participation process.</p>
<p>Banro Corporation - Proposed Namoya Gold Mining Project, Maniema, DRC (2013)</p>	<p>ESIA for the proposed construction of a greenfield gold mine located in the DRC. Nicholas was the project manager and compiled the ESIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Aquarius Platinum (SA) (Pty) Ltd – Kroondal and Marikana EMP Consolidation (2013 - 2015)</p>	<p>Consolidation of the existing approved EMPs for the Kroondal and Marikana Platinum Mines, located in the North West Province. Nicholas was the project manager and compiled of the Consolidated EIA Report (including EMP) for each operation and managed the appointed specialists.</p>
<p>Aquarius Platinum (SA) (Pty) Ltd – WULA for the proposed extension of Everest Platinum Mine (2011 - 2012)</p>	<p>Water Use License Application (WULA) process for the proposed expansion of the Everest Platinum Mine, located in Mpumalanga. Nicholas assisted in the compilation of the necessary WULA documentation, including the Integrated Water and Waste Management Plan (IWWMP) for the project.</p>
<p>Aquarius Platinum (SA) (Pty) Ltd – Proposed Extension of Everest Platinum Mine (2011 - 2012)</p>	<p>EIA process for the proposed expansion of the Everest Platinum Mine, located in Mpumalanga. Nicholas was the project manager and compiled of the Scoping and EIA Reports (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Afplats (Pty) Ltd – EMP Performance Assessment for Prospecting Operations (2011)</p>	<p>EMP Performance Assessment for the Wolwekraal 408-JQ and Kareepoort 407-JQ prospecting operations. Nicholas was the project manager and compiled the EMP Performance Assessment reports.</p>

<p>Aquarius Platinum (SA) (Pty) Ltd – Re-assessment of the Financial Provision for Closure for Everest Platinum Mine (2011)</p>	<p>Annual re-assessment of the closure cost estimate for the Everest Platinum Mine. Nicholas was the project manager and compiled the annual review of the mines Financial Provision for Closure for 2011.</p>
<p>Leeuw Mining and Exploration (Pty) Ltd – Proposed Underground Coal Mine (2011)</p>	<p>EIA process for the proposed underground coal mine located near Utrecht, Kwa-Zulu Natal. Nicholas was the project manager and compiled of the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Oil and Gas</p>	
<p>Total E & P (SA) (Pty) Ltd - Proposed Seismic Surveys and Additional Exploration Activities in Block Deep Western Orange Basin off the West Coast of South Africa (Current)</p>	<p>EIA process for the proposed offshore exploration activities in the Block Deep Western Orange Basin, West Coast of South Africa. Nicholas is the project manager for the EIA Process and is responsible for compiling the Scoping and EIA Reports (including EMP), undertaking the required public participation process and managing the appointed specialists.</p>
<p>New Age Energy Algoa (Pty) Ltd – Environmental Audit Algoa-Gamtoos Block, East Coast of South Africa (2020)</p>	<p>Environmental Audit undertaken in compliance with Section 54 (A)(2) of the EIA Regulations, 2014 (as amended) for the exploration activities conducted in the Algoa-Gamtoos Block. Nicholas was the project manager and responsible for undertaking the required audit and compiling the audit report.</p>
<p>PGS Exploration (UK) Limited – Reconnaissance Permit Application for 2D and 3D seismic surveys offshore West Coast South Africa (2018)</p>	<p>EMP process for the proposal to undertake 2D and 3D speculative seismic surveys offshore of the West Coast, South Africa. Nicholas was the project manager and compiled the EMP report, undertook the required public participation process and managed the appointed specialists.</p>
<p>PGS Exploration (UK) Ltd – 2D and 3D seismic surveys compliance, South and East Coasts, South Africa (2015-2016)</p>	<p>EMP Compliance and audit services for speculative 2D and 3D seismic surveys off the South and East Coasts of South Africa. Nicholas’ role included managing the audit process and compiling the survey close-out reports, which outlined the implementation of the EMP (compliance) and highlighted any problems and non-compliance issues that arose during each survey.</p>
<p>PGS Exploration (UK) Limited – Reconnaissance Permit Application Amendment to undertake a 3D seismic survey offshore KwaZulu-Natal, South Africa (2018)</p>	<p>EMP Amendment process for the proposal to undertake a 3D speculative seismic survey offshore of KwaZulu-Natal, South Africa. Nicholas was the project manager and compiled the Amended EMP report, undertook the required public participation process and managed the appointed specialists.</p>
<p>PGS Exploration (UK) Limited – Reconnaissance Permit Application to undertake 2D and 3D seismic surveys, South Africa (2017)</p>	<p>EMP process for a Reconnaissance Permit Application to undertake 2D and 3D speculative seismic surveys of the East Coast, South Africa. Nicholas was the project manager and compiled the EMP report, undertook the required public participation process and managed the appointed specialists.</p>

<p>Rhino Oil & Gas Exploration South Africa (Pty) Ltd – Proposed Exploration Activities in offshore Licence Blocks 3617 and 3717, South-West coast of South Africa (2015 -2016)</p>	<p>EIA process for the proposed offshore exploration activities in Licence Blocks 3617 and 3717, South-West coast of South Africa. Nicholas assisted in the compilation of the Scoping and EIA Reports (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Rhino Oil & Gas Exploration South Africa (Pty) Ltd – Proposed Exploration Activities in Various Inshore Licence Blocks, South-West coast of South Africa (2015 -2016)</p>	<p>EIA process for the proposed exploration activities in various inshore Licence Blocks, South-West coast of South Africa. Nicholas assisted in the compilation of the Scoping and EIA Reports (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Total E & P (SA) (Pty) Ltd - Proposed bathymetry survey and seabed sediment sampling in Block 11B/12B (2014 -2015)</p>	<p>EMP Addendum for an application to undertake sonar surveys and seabed sediment sampling as part of the approved exploration programme for License Block 11B/12B. Nicholas was the project manager and compiled the EMP report, undertook the required public participation process and managed the appointed specialists.</p>
<p>Infrastructure – Roads</p>	
<p>Aurecon South Africa (Pty) Ltd for the South African National Roads Agency SOC Limited - Upgrade of N1/4 and development of borrow pits (Current)</p>	<p>Basic Assessment process for the proposed upgrade of a 17 km stretch of the N1 Section 4 from Monument River (km 46.00) to Doornfontein (km 63.00), including the improvement of the Matjiesfontein intersection and development of additional borrow pits. Nicholas is the project manager and responsible for the compilation of the Basic Assessment Report (BAR), undertaking the required public participation process and managing the appointed specialists.</p>
<p>AECOM SA for Western Cape Government (WCG): Department of Transport & Public Works - Upgrading of TR31/2 between Ashton and Montagu, Cogmanskloof Pass (2018 - 2019)</p>	<p>ECO services for the upgrading of Trunk Road 31 Section 2, Cogmanskloof Pass, between Ashton and Montagu, including the main roads through the two towns. Nicholas served as the ECO during the interim contract phase and provided monthly ECO audit reports.</p>
<p>GIBB (Pty) Ltd for WCG:DTPW – Construction of Erosion Protection Measures for the Swart River Bridge, South Africa (2016 - 2017)</p>	<p>Basic Assessment process for the proposed implementation of erosion protection measures along a section of the Swart River which is traversed by the TR 34, approximately 7 km north of Prince Albert. Nicholas was the project manager and compiled the Basic Assessment Report (BAR), undertook the required public participation process and managed the appointed specialist.</p>
<p>SMEC SA (Pty) Ltd for South African National Roads Agency SOC Ltd (SANRAL) - Proposed establishment of a Quarry, Eastern Cape (2016 - 2018)</p>	<p>EIA process for the proposed development of a quarry for the extraction of material for the construction of the Mthentu and Msikaba Bridges for the N2 Wild Coast Toll Highway. Nicholas compiled the Scoping and EIA Reports (including EMP), and project managed the required public participation process.</p>

<p>Hatch Goba (Pty) Ltd for WCG:DTPW- Maintenance Management Plan for flood damage repair of structures in the Ladismith West area (2016 - 2017)</p>	<p>Maintenance Management Plan (MMP) for the proposed repairs to road infrastructure at fourteen different sites that were damaged during flood events in the Ladismith West area situated between Ladismith and Montagu. Nicholas was the project manager and compiled the MMP, undertook the required public participation process and managed the appointed specialist.</p>
<p>ERO Engineers (Pty) Ltd for WCG:DTPW - Proposed Repair and Reseal of Main Road (MR) 233 to Langebaan (2015)</p>	<p>MMP for the proposed rehabilitation works of the MR 233 between the R 27 (km 6.80) and north of Langebaan (km 12.84). Nicholas was the project manager and compiled the MMP, undertook the required public participation process and managed the appointed specialist.</p>
<p>Ekurhuleni Metropolitan Municipality (Eastern Region) – Proposed Gauteng Road (P1894) (2007 - 2009)</p>	<p>EIA for the construction of a new road between Sam Smith Road (Tsakane) and Vlakfontein Road (Kwa-Thema), Ekurhuleni Metropolitan Municipality. Nicholas was the project manager and compiled the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Infrastructure – Water and Wastewater</p>	
<p>BVI Consulting Engineers WC (Pty) Ltd for the City of Cape Town: Transport for Cape Town – Proposed upgrade of the Bayside Canal (2015 -Ongoing)</p>	<p>Basic Assessment process for the upgrade of the Bayside Canal Outfall System located in Tableview, Cape Town. Nicholas is the project manager and is responsible for compiling the BAR, undertaking the required public participation process and managing the appointed specialists.</p>
<p>Meerenhof Properties (Pty) Ltd - Expansion of dams, South Africa (2017 – ongoing)</p>	<p>Construction and expansion of irrigation dams on Uitsig Farm, Constantia, Cape Town. Nicholas is fulfilling the role of ECO and provides monthly ECO audit reports.</p>
<p>Saldanha Bay Municipality - Maintenance Management Plans for the Bok and Mosselbank Rivers (2016 - 2017)</p>	<p>MMP for the proposed maintenance activities to be undertaken within the Bok and Mosselbank Rivers. Nicholas was the project manager, compiled the MMPs and undertook the required public participation process.</p>
<p>BVI Consulting Engineers WC (Pty) Ltd for the City of Cape Town: Transport for Cape Town – Proposed stormwater pipeline linking Sunningdale to the Big Bay stormwater outfall pipeline (2015 -2016)</p>	<p>Basic Assessment process for the construction of a new stormwater pipeline to route runoff from Sunningdale Phases 12A, 13 and 14 to the existing Big Bay Outfall pipeline located at the eastern boundary of the suburb of Big Bay. Nicholas was the project manager and compiled the BAR, undertook the required public participation process and managed the appointed specialists.</p>
<p>Arup - Proposed Sandspruit Rehabilitation for Stormwater Management of Melrose Arch, Sandton (2010)</p>	<p>Basic Assessment for the rehabilitation of the Sandspruit to facilitate the management of stormwater runoff emanating from the Melrose Arch precinct. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>

	Infrastructure – Solid Waste
Energy Omega Oils (Pty) Ltd – Audit of Blackheath Waste Storage Facility (2017)	External audit of the Blackheath Waste Storage Facility in terms of the National Norms and Standards for the Storage of Waste (Government Notice No. 926 of 29 November 2013). Nicholas undertook and compiled the audit report.
Impala Platinum (Pty) Ltd - Proposed Central Salvage Yard (2011 - 2012)	Basic Assessment process and Waste Management License application for the proposed construction of a salvage yard, and associated activities, located at Impala Platinum's Rustenburg operations. Nicholas compiled the BAR (including EMP), undertook the required public participation and waste management license application processes and managed the appointed specialists.
	Power - Solar
South Africa Mainstream Renewable Power Developments (Pty) Ltd – Proposed Scaffell Custer Photovoltaic Plants, Free State Province (Current)	Four separate EIA processes for the proposed construction of Photovoltaic Plants with a combined generating capacity of up to 475 MW, located in the Free State Province. Nicholas is the project manager and is responsible for the review and compilation of the Scoping and EIA Reports (including EMP) for all projects, undertaking the required public participation processes and managed the appointed specialists.
SolarReserve South Africa (Pty) Ltd – Proposed Kalkaar CSP and Photovoltaic Plants, Free State (2014 -2015)	EIA process for the proposed construction of a Concentrated Solar Thermal Plant (CSP) and a Photovoltaic Plant, located in the Free State Province. Nicholas was the project manager and compiled of the Scoping and EIA Reports (including EMP) for both projects, undertook the required public participation process and managed the appointed specialists.
	Built Environment – Residential
Luna Country Club Holdings - Proposed Subdivision of Erf 177476, St James (2017 – Ongoing)	Basic Assessment process for the subdivision of Erf 177476 into five separate portions with the intent to sell four of the subdivided portions to third-parties for residential use. Nicholas is the project manager and is responsible for compiling the BAR, undertaking the required public participation process and managing the appointed specialists.
Mountain View Estate Shareblock Company Limited - Proposed Mountain View Estate (2009 - 2010)	EIA for a residential and aviation estate on the Farm Simonsview 490-JQ, and various portions of the Farms Kalkheuwel 493-JQ, Rhenosterspruit 495-JQ and Riverside 497-JQ, Gauteng and North West Province. Nicholas was the project manager and compiled of the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.
Lead Wood Development Company (Pty) Ltd - Proposed Leadwood Nature Estate (2008)	EIA for a residential and game estate on the Remainder of Portion 2 of The Farm Happyland 241-KT, Hoedspruit, Limpopo. Nicholas was the project manager and compiled of the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.
Hayes Matkovich Developments (Pty) Ltd – Proposed Standerton Country Estate (2008)	EIA for a golf estate on the Portions of the Farms Grootverlangen 409-IS and Langerwyl 410-IS, Standerton, Mpumalanga. Nicholas was the project manager and compiled of the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.

<p>Sugar Creek Trading 33 (Pty) Ltd - Proposed Development of Zandspruit Estate (2007 -2008)</p>	<p>EIA for a residential, game and aviation estate on the Remainder of The Farm Happyland 241-KT, Hoedspruit, Limpopo. Nicholas was the project manager and compiled of the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>C.J.Irons CC - Taemane Residential Estate (2007)</p>	<p>Basic Assessment for the proposed residential estate located on a Part of the Remainder of Portion 52 of the Farm Garstfontein 374-JR, Pretoria, Gauteng. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Riverspray Lifestyle Estate (Pty) Ltd - Proposed Riverspray Lifestyle Estate (2006)</p>	<p>EIA for a residential and lifestyle estate on bank of the Vaal River in Vanderbijlpark, Gauteng. Nicholas was the project manager and compiled of the Scoping and EIA Report (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Built Environment – Recreation</p>	
<p>South African National Parks (SANParks) - Proposed Preekstoel Boardwalk Within the West Coast National Park (2009)</p>	<p>Basic Assessment for the establishment of boardwalks in the Preekstoel section of the West Coast National Park, (SANParks). Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>SANParks - Construction of a Walkway and Suspension Bridges in the Tsitsikamma National Park (2008)</p>	<p>Basic Assessment for the establishment of a walkway and additional suspension bridges in the Tsitsikamma National Park, South Africa. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Other</p>	
<p>Richmond Park Development Company (Pty) Ltd - Proposed establishment of a fuel station on Erf 38333, Milnerton, Cape Town (Current)</p>	<p>Basic Assessment for the establishment of a fuel station on Erf 38333, Milnerton, Cape Town. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>We Buy Cars Properties (Pty) Ltd – The construction of a warehouse, Brackenfell (2019)</p>	<p>ECO services for the construction of the We Buy Cars warehouse in Brackenfell, Western Cape. Nicholas acted as the [project manager and was responsible for reviewing the monthly ECO reports.</p>
<p>City of Tshwane Metropolitan Municipality - Proposed Expansion of the Winterveld Cemetery (2007 - 2010)</p>	<p>Basic Assessment for the expansion of the existing Winterveld Cemetery located within the City of Tshwane Metropolitan Municipality. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>

<p>City of Tshwane Metropolitan Municipality - Proposed Expansion of the Klipkruisfontein Cemetery (2007 - 2010)</p>	<p>Basic Assessment for the expansion of the existing Klipkruisfontein Cemetery located within the City of Tshwane Metropolitan Municipality. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Tolplan (Pty) Ltd for SANRAL – Proposed Central Operations Centre (COC), Midrand (2009)</p>	<p>Basic Assessment for the proposed construction of the SANRAL COC Building. Nicholas was the project manager and compiled the BAR (including EMP), undertook the required public participation process and managed the appointed specialists.</p>
<p>Erf5 Melrose Estate CC - Section 24G Rectification for a Roof Signboard (2008)</p>	<p>Rectification Application in terms of Section 24G (S24G) of the National Environmental Management Act, 1998 for the unlawful erection of a roof signboard on the corner of Juta and Eendracht Streets, Johannesburg. Nicholas was the project manager and compiled the Rectification Application (including EMP) and undertook the required public participation process.</p>
<p>Wideopen Leasing (Pty) Ltd – S24G Rectification for a Sky Sign, 78 Fox Street (2007)</p> <p>MEMBERSHIPS</p>	<p>Rectification Application in terms of S24G of the National Environmental Management Act, 1998 for the unlawful erection of a Sky Sign at 78 Fox Street, Johannesburg. Nicholas was the project manager and compiled the Rectification Application (including EMP) and undertook the required public participation process.</p>
<p>International Association for Impact Assessment – South Africa (IAIASa)</p>	<p>Western Cape Branch Committee Secretary (2019 – 2021).</p>



herewith certifies that
Nicholas David Arnott
Registration Number: 113939
is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003
(Act 27 of 2003)
in the following field(s) of practice (Schedule 1 of the Act)
Environmental Science (Professional Natural Scientist)

Effective 25 May 2016

Expires 31 March 2021



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Chairperson

A handwritten signature in black ink, positioned above a horizontal line.

Chief Executive Officer



CURRICULUM VITAE



REUBEN MAROGA

ENVIRONMENTAL CONSULTANT

Environmental Management Planning & Approvals,
South Africa

QUALIFICATIONS

BSc (Hons)	2016	Environmental Management
BSc	2015	Geology

EXPERTISE

- Environmental Permitting Process
- Water Use License Applications
- Public Participation Process
- Stakeholder Engagement

Reuben is an Environmental Consultant with SLR and has 3 years of experience within the environmental consulting field. In his 3 years of experience, Reuben has completed over 10 Basic Assessments as well as Amendment Applications undertaken in terms of the EIA Regulations, 2014. Prior to joining SLR, Reuben worked on environmental permitting processes of numerous large-scale renewable energy and infrastructure development projects, the majority of which are based in the Northern Cape and have been authorised by the relevant authorities.

PROJECTS

Lichtenburg Solar Energy Facilities (2020)

Undertook a Part 2 Amendment including report writing to include a Battery Energy Storage System (BESS) for three 100MW solar energy facilities near Lichtenburg, North West. Liaising with the commenting and competent authorities as well as stakeholders.

Sirius Solar PV Project Two (2020)

Undertook a Part 2 Amendment including report writing to include a Battery Energy Storage System (BESS) for the 75MW Sirius Solar PV Project Two near Upington, Northern Cape.

Geelstert Solar PV & Grid Connection Basic Assessments (2020)

Completed the Basic Assessment Reports as well as the Environmental Management Programmes (EMPr) for the two 125MW solar PV facilities and the grid connection of up to 220kV near Aggeneys, Northern Cape.

Richards Bay Gas-To-Power (2020)

Assisted in the compilation of the Motivation Report and Application for a Part 2 Amendment for a 450MW Gas-To-Power Facility near the Richards Bay Port, KwaZulu-Natal

Olifantshoek 132kV Power Line (2020)

Completed the Basic Assessment Process for the proposed Olifantshoek 132kV Power Line near Olifantshoek, Northern Cape.

Matla Power Station Reverse Osmosis Plant (2019 – 2020)

Completed the Basic Assessment Process for the construction, operation and decommissioning of a Reverse Osmosis Plant within the footprint of Matla Power Station near Kriel, Mpumalanga.

Naledi & Ngwedi (2019 – 2020)	Completed the Basic Assessment Process for two 100MW solar PV facilities near Upington, Northern Cape.
Khunab Solar Development (2019 – 2020)	Completed the Basic Assessment Process for four 75MW solar PV facilities near Upington, Northern Cape
Sirius Solar PV Project Three and Four (2019)	Completed the Basic Assessment Process for two 100MW solar PV facilities near Upington, Northern Cape
Wilmar Vegetable Oil Pipeline (2019 – 2020)	Completed the Basic Assessment Process (including the undertaking of the water use license application) for the construction and operation of a vegetable oil pipeline within the Richards Bay Port and Richards Bay Industrial Development Zone near Richards Bay, KwaZulu-Natal.
Decommissioning of Asbestos Landfill Site (2019 – 2020)	Completed the Basic Assessment Process (including the compilation of a Closure Plan) for a disused asbestos landfill site within the Kriel Power Station near Kriel, Mpumalanga.
Kriel Lime Plant Upgrade (2019 – 2020)	Completed the Basic Assessment Process for the construction and operation of a lime plant for Kriel Power Station near Kriel, Mpumalanga.
Aggeneys Solar Development (2019)	Completed the Basic Assessment Process for the two 100MW solar PV facilities and grid connection infrastructure for each PV facility near Aggeneys, Northern Cape