



Curriculum Vitae

Prashika Reddy

Smart Mobility

Senior Environmental Scientist

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Prashika is a Senior Environmental Scientist with 22 years' experience in various environmental fields. She has a successful track record in environmental licencing processes, managing specialists, project budgets, project management, project administration, interfacing with other disciplines and stakeholder and public participation processes.

She is/ has been part of numerous multi-faceted large-scale projects, including the establishment of linear developments (roads and powerlines), industrial plants, electricity generation plants and mixed-use developments.

She has led and contributed to EIAs for large multi-disciplinary projects and accomplished in producing sound scientific reports. Reports include: Scoping Reports; Environmental Impact Assessment Reports; Environmental Management Programmes; Status Quo reports and Environmental Screening Reports.

She is a Professional Natural Scientist with the South African Council for Natural Scientific Professions as well as a Registered EAP with EAPASA.

Years of experience

22

Years with Royal HaskoningDHV

16

Professional memberships

SA Council for Natural Scientific Professions, Pr Sci Nat
EAPASA, Registered EAP

Qualifications

1999: Bachelor of Science Honours: Botany, University of
KwaZulu-Natal

2006: Bachelor of Science Honours: Geography (with
distinction), University of Pretoria

Professional experience

Environmental Impact Assessment (EIA), Waste Management Licence and Integrated Water Use Licence for the Underground Coal Gasification (UCG) Project and associated infrastructure in support of co-firing of gas at the Majuba Power Station, Mpumalanga, South Africa, South Africa

Start Date: 2008 - 2015

Client Name: Eskom Holdings SOC Ltd

Project Value: R 5,900,000

Eskom Holdings (SOC) Ltd appointed Royal HaskoningDHV to undertake the integrated environmental authorisation process, as well as the integrated Water Use Licence, for the UCG pilot project and associated infrastructure in support of co-firing of gas at the Majuba Power Station. UCG is a process whereby coal is converted in situ into combustible gas that can be used for power generation and is one of the new clean coal technologies being developed for implementation by Eskom that intends to diversify Eskom's fuel supply.

Position: Project Manager

Assigned Tasks: Project management, client liaison, compilation of environmental reports, management of the specialist team, authority consultation and co-management of the public participation process

Integrated Environmental Authorisations for the proposed Concentrated Solar Power (CSP) Plants on the farm Sand Draai, Northern Cape Province

Start Date: 2014 - 2016

Client Name: Solafrika Energy (Pty) Ltd

Project Value: R 1,500,000

Solafrika appointed Royal HaskoningDHV to undertake the integrated environmental authorisation and waste licence processes for two CSP plants (central receiver and parabolic trough) with an electricity generation capacity of between 100 - 150MW to be constructed on the farm Sand Draai, Upington.

Position: Environmental Scientist

Assigned Tasks: Compilation of environmental reports

Environmental Impact Assessment for the Pumped Storage Power Generation Facility in the Steelpoort area, Mpumalanga and Limpopo Provinces

> Start Date: 2005 - 2007

> Client Name: Eskom Holdings SOC Ltd

> Project Value: R 1,300,000

As part of the increased electricity supply plan, Eskom will be constructing a Pumped Storage Scheme (PSS) in the Steelpoort area, Limpopo and Mpumalanga Provinces. It is planned that the scheme will have an installed capacity of approximately 1520MW. The proposed scheme consists of the following components: upper and lower reservoirs; underground power house complex and associated waterways that link the reservoirs; and ancillary works.

Position: Project Manager

Assigned Tasks: Completion of the EIA study and reports (EIA Report and EMP), project management, client liaison, management of the specialist team, authority consultation and co-management of the public participation process

Basic Assessment Study for Eight New PV Developments on the Farm Bokpoort, Groblershoop

Start Date: 2019

Client Name: ACWA Power Africa Holdings (Pty) Ltd

Project Value: R 966,123

Due to the changes in the Integrated Resource Plan published in October 2019, ACWA Power intend replacing the authorised CSP site with 8 new PV plants. The updated layout has been revised to incorporate the 8 new PV plants of 200MW each, covering a total of 1200ha (i.e. 150ha for each plant) on Remaining Extent of the Farm Bokpoort 390.

Position: Environmental Scientist and Project Manager

Assigned Tasks: Compilation of environmental reports and project management

Basic Assessment Study for Seven 9.9MW Internal Combustion Engines (ICE) at the Previously Authorised PV Developments on the Farm Bokpoort, Groblershoop

Start Date: 2020

Client Name: ACWA Power Africa Holdings (Pty) Ltd

Project Value: R 153 000

Recently, the Department of Mineral Resources and Energy issued a Request For Proposal (RFP) to which ACWA Power will be participating. A condition in the RFP requires Bidders to not tap into the national grid for power and requires that a reliability test be undertaken at specified generation rate and time. In meeting the RFP requirements, ACWA Power has decided to supplement their already authorised project infrastructure by the addition of ICE infrastructure in the projects to be bid.

Position: Environmental Scientist and Project Manager
Assigned Tasks: Compilation of environmental reports and project management

Environmental Screening Investigation for the Establishment of a Solar Based Electricity Generation System on a Build, Own, Operate and Maintain Basis – 118MW Photovoltaic Plant at the Tubatse Chrome Plant, Steelpoort, Limpopo

Start Date: 2020

Client Name: Samancor Chrome

Project Value: R 146 000

As part of the Transaction Advisory Services, Royal HaskoningDHV's Environmental Management and Planning (EM&P) Knowledge Group have been appointed to conduct a high-level desktop Environmental Screening Investigation (ESI) of twelve (12) sites to investigate the environmental sensitivities, opportunities and constraints associated with the proposed project for the proposed 118MW PV plant at the Tubatse Chrome Plant in the Steelpoort area, Limpopo Province.

Position: Environmental Scientist

Assigned Tasks: Compilation of environmental reports and project management

Environmental Impact Assessment for the Development of a 60MW Photovoltaic (PV) Plant associated with the Tubatse Ferrochrome (TFC) Smelter, Fetakgomo Tubatse Local Municipality

Start Date: 2021

The rising electricity tariffs in South Africa, combined with the increasingly severe load shedding patterns experienced across the country, has a negative impact on the production and revenue of Samancor Chrome business. This has motivated Samancor Chrome to consider renewable energy generation at their smelter plants. Samancor Chrome is therefore proposing the development of a PV plant with 60MW generation capacity over five potential sites adjacent to the TFC Smelter in Steelpoort.

Client Name: Samancor Chrome

Project Value: R 2,140,000

Position: Environmental Technical Leader

Assigned Tasks: Compilation of environmental reports, management of the specialist team and project management

Environmental Impact Assessment for the Development of a 40MW Photovoltaic (PV) Plant associated with the Tubatse Ferrochrome (TFC) Smelter, Fetakgomo Tubatse Local Municipality

Start Date: 2023

In 2021, a Special Purpose Vehicle, TFC Solar (Pty) Ltd proposed the development of a Solar PV facility of up to 100 Megawatt (MW) generation capacity over five (5) sites: 1, 2, 3, 4 and 5. These five sites were subject to an Environmental Impact Assessment (EIA) and an Environmental Authorisation (EA) was granted on 25 April 2022 from the Department of Forestry, Fisheries and the Environment.

A total of 60MW output can be achieved from the previously authorised Sites 2 – 5. Additionally, TFC Solar, propose the development of a 40MW Solar PV facility to be developed on Site 2B, 3B, 3C, 4B and 5B

Client Name: Samancor Chrome

Project Value: R 1,820,000

Position: Environmental Technical Leader

Assigned Tasks: Compilation of environmental reports, management of the specialist team and project management

Fatal Flaw Assessment and Environmental Impact Assessment for the Biesiesvlei Cluster of Wind Energy Facilities

Start Date: 2024

Royal HaskoningDHV has been appointed by South Africa Mainstream Renewable Power Developments (Pty) Ltd to provide a Phase A: Fatal Flaw Assessment and Phase B: Environmental Impact Assessment (EIA) proposal for the development of the Biesiesvlei Wind Energy Facilities (WEFs) and associated Grid Connection Infrastructure (Basic Assessments) and one EIA proposal associated with the 2 x 400kV 1-2km looping in and out of the existing line to a shared 132/400kV main transmission station. The proposed development is in the Free State Province and is called the Biesiesvlei Cluster of Projects.

Client Name:

Project Value: R 6,824,000

Position: Environmental Technical Leader

Assigned Tasks: Client and authority consultation, Compilation of environmental reports, management of the specialist team and project management

Environmental Scoping Study for the uMdloti and uMkhomazi Wastewater Treatment Plants PPP Project

Start Date: 2020 - 2021

Scoping assessment for the proposed 35Ml/day uMdloti Wastewater Treatment Works including Sludge handling and beneficiation plant, Biogas facility and Raw sewage transmission network

Client Name: International Finance Corporation

Project Value: R 2,000,000

Position: Environmental Scientist

Assigned Tasks: Assist with the compilation of the Scoping Report, risk identification, compliance with IFC Performance Standards, identify gaps between SA legislation and IFC Performance Standards and compilation of Terms of Reference for the Environmental and Social Impact Assessment

Environmental Screening Investigation as part of the Feasibility Study and Best Fit Specifications of an Inland Coal Terminal/s for Eskom, Mpumalanga

Start Date: 2022

Assessment of three sites for the development of an Inland Coal Terminal

Client Name: Eskom Holdings SOC Ltd

Project Value: R 3,000,000 (total appointment)

Position: Environmental Scientist

Assigned Tasks: Conduct Environmental Screening Investigation, compile ESI Report, provide input into the Feasibility Study

Basic Assessment for the Development of a 400kV Loop-In-Loop-Out (LILO) Powerline to the Existing Eskom Garona Substation and Expansion/Upgrade of the Eskom Garona Substation

Start Date: 2022

Assessment of a loop-in 400kV powerline to the existing Ferrum-Garona Substation and loop-out into the existing Garona-Nieuwehoop 400kV powerline from the Eskom Garona Substation as well as upgrade and expansion of the Garona substation

Client Name: Eskom Holdings SOC Ltd

Project Value: R 205,662

Position: Environmental Assessment Practitioner

Assigned Tasks: Compile BA Report, review specialist assessments, client liaison and project management

Environmental Screening Investigation for the Stormwater Harvesting and Water Re-Use PPP in the eThekweni Metropolitan Area

Start Date: 2020

Environmental screening investigation of various re-use options including indirect effluent re-use, indirect re-use ex-impoundment, indirect re-use from aquifers and direct re-use.

Client Name: eThekweni Municipality

Project Value: R 200,000

Position: Environmental Scientist

Assigned Tasks: Conduct Environmental Screening Investigation, compile ESI Report, provide input into the Feasibility Study

Proposed Glen Valley Wastewater Treatment and Re-use Project, Greater Gaborone Area, Botswana

Start Date: 2019

Scoping study of re-use options: direct potable water re-use and indirect water-use

Client Name: World Bank Group

Project Value: R 500,000

Position: Environmental Scientist

Assigned Tasks: Assist with the compilation of the Scoping Report

Environmental Impact Assessment (EIA), Waste Management Licence and Integrated Water Use Licence for the Matimba Power Station Ash Disposal Facility, South Africa

Start Date: 2012 - 2016

Client Name: Eskom Holdings SOC Ltd

Project Value: R 5,800,000

Approximately 4.8 million tons of ash is produced annually from the Matimba Power Station. This ash is currently being disposed by means of 'dry ashing' ~3km south of the power station. The proposed ash disposal facility will ensure that the power station is able to accommodate the 'ashing' requirements for the remaining life (approximately 44 years) of the Power Station.

Position: Environmental Scientist, Project Manager

Assigned Tasks: Compilation of environmental reports (EIA Report and EMPr), project management, management of the public participation process and specialist team

Charlie 1 Landfill Stormwater Management & Optimisation Project, Sasol Secunda, South Africa

Start Date: 2015 - 2016

Client Name: Sasol Chemical Industries (Pty) Ltd

Project Value: R 735,000

The Sasol Synfuels, Secunda, Charlie 1 landfill site was authorised in 1993 as a Class II Site, in terms of the Environmental Conservation Act (ECA) (Act No. 73 of 1989). Recent legislation changes such as the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and the new Waste Classification and Management Regulations, August 2013 (GN 634) have implications for the management of waste disposal sites.

The latest audits conducted at Charlie 1 landfill site highlighted that the water management is not in accordance with the permit requirements. Therefore, the Pollution Control Dam (PCD) of approximately 16000m³ will be constructed to ensure compliance with the existing permit requirements. It will be constructed to ensure effective management of leachate and stormwater.

Position: Project Manager

Assigned Tasks: Project management

Waste Management Licence for the BMW Waste Facility, South Africa

Start Date: 2010

Client Name: BMW SA (Pty) Ltd

Project Value: R 168,797

Position: Project Manager

Assigned Tasks: Project management, client management, authority consultation, report compilations and internal review of work

EIA and Water Use Authorisation for the Removal, Re-Instatement and Re-Positioning of Two High-Voltage Powerlines routed through the Devon Valley Landfill, Stellenbosch

Start Date: 2019

Client Name: Stellenbosch Municipality

Project Value: R 820,000

The Stellenbosch Municipality owns and operates the Stellenbosch Landfill situated off Devon Valley Road. The landfill comprises completed cells (cell 1 and 2) as well as an operating cell (cell 3). Cell 3 is separated from cells 1 and 2 by an area on the landfill property footprint that is used for access roads, entrance area and weighbridge, green waste chipping and rubble crushing and stockpiling

activities. This area is also traversed by two high voltage Eskom powerlines. The presence of these powerlines prevents the Municipality from engineering and operating the area between completed cells 1 and 2 and operating cell 3 as waste disposal cells.

Position: Project Manager and Environmental Scientist

Assigned Tasks: Project management, compilation of environmental reports, management of specialist team

Site Clearance: Planning and Design for Maintenance and/or Upgrade of the Patrol Roads and Fencing on the Borders between RSA, Swaziland and Mozambique

Start Date: 2016

Client Name: Department of Public Works

Project Value: R 2,598,000

Undertake the Basic Assessment study, mining permitting as well as Water Use Licencing application processes associated with the border patrol road and fence.

Position: Project Manager

Assigned Tasks: Project management

Basic Assessment and Water Use Licence for the rehabilitation of the existing P236 gravel road from km6.235 to km14.0 in Ubombo, KwaZulu-Natal

Start Date: 2016

Client Name: KwaZulu-Natal Department of Transport

Project Value: R 546,186

This project is a rehabilitation of a portion of the existing P236 road from km6.235 to km14.0, where the surfaced width will be increased by 2.5m and where there are climbing lanes; the surfaced width will increase by 5.6m. In areas where there will be horizontal curve widening, the width will be increased by 4.5m. Furthermore, existing culverts will be lengthened where required to accommodate the increase in the road bed width. A culvert at a stream crossing, is also planned to be replaced at km6.240 of the P236.

Position: Strategic Environmental Advisor

Assigned Tasks: Quality review of environmental reports and public participation documentation

Basic Assessment and Water Use Licence for the proposed bridge crossing over the uMfolozi River linking the Esiyembeni and Novunula areas within the Mtubatuba Local Municipality, KwaZulu-Natal

Start Date: 2016

Client Name: KwaZulu-Natal Department of Transport
Project Value: R 522,225

The KwaZulu-Natal Department of Transport (KZN DoT) is planning to construct a bridge over the uMfolozi River and associated link road that will serve to link the Esiyembeni and Novunula local communities situated on either side of the uMfolozi River which is currently impassable save for the existing N2 bridge crossing to the east near Mtubatuba.

Position: Strategic Environmental Advisor

Assigned Tasks: Quality review of environmental reports and public participation documentation

Basic Assessment for the construction of two 7km long 88kV Power Lines Grootpan / Brakfontein, South Africa

Start Date: 2015

Client Name: Eskom Holdings SOC Ltd

Project Value: R 458,021

The proposed project involves the construction of two (2) 7km 88kV power lines and dismantling of two (2) 88kV power lines from Grootpan to Brakfontein, south of Ogies in Mpumalanga.

Position: Project Principal

Assigned Tasks: Quality review and overall project management

Proposed Tinley Southbanks Beach Enhancement Project in the KwaDukuza Municipality, KwaZulu-Natal

Start Date: 2016

Client Name: Tongaat Hulett Developments (Pty) Ltd

Project Value: R 925,270

The Tinley Manor Southbanks development provides for the coastal resort, however, it does not provide for what is critical for the success of the resort and that is a safe swimming beach in close proximity to the resort. The lack of a safe swimming beach with public amenities adjacent the development was identified as a major constraint. This EIA is therefore targeted at dealing with this constraint and to enable the provision of a new beach resort that has all the requirements to be able to attract international investment, including specifically a safe, swimming beach.

Position: Strategic Environmental Advisor

Assigned Tasks: Provide strategic advice on project, review of environmental reports

Environmental Impact Assessment for the Cornubia Phase 2 Development, KwaZulu-Natal, South Africa

Start Date: 2012

Client Name: Tongaat Hulett Developments (Pty) Ltd

Project Value: R 989,660

Conduct a full Environmental Impact Assessment (EIA) for the proposed Cornubia Mixed Use Phased development - Phase 2 in Mount Edgecombe, KwaZulu-Natal.

Position: Strategic Environmental Advisor

Assigned Tasks: Provide strategic advice on project, review of environmental reports

Cornubia Retail Park - EIA, South Africa

Start Date: 2012

Client Name: Tongaat Hulett Developments (Pty) Ltd

Project Value: R 370,120

Undertaking the EIA, Public Participation Process (PPP), attending client progress meetings and providing environmental input into the planning of the proposed Phase 2 Retail Development.

Position: Strategic Environmental Advisor

Assigned Tasks: Environmental Scientist. Strategic project advice, quality review and approval of reports

Centurion Metropolitan Core Masterplan: Stormwater and Flooding, South Africa

Start Date: 2012

Client Name: City of Tshwane Metropolitan Municipality

Project Value: R 4,300,000

The City of Tshwane requires a multi-disciplinary project team to assist the Client with the Preparation of a Master Plan of the Centurion Metropolitan Core Study Area.

Position: Environmental Scientist

Assigned Tasks: Environmental Screening Investigation

Environmental Screening for the Commercial 125MW CSP, South Africa

Start Date: 2012

Client Name: Sasol Technology (Pty) Ltd

Project Value: R 185,000

Environmental Screening Investigation for the proposed 125MW commercial concentrated Solar Power Plant located in Upington.

Position: Project Principal

Assigned Tasks: Project Management, financial management, review of Environmental Screening Report

Route Determination and Environmental Screening Investigation of 14 K-routes, South Africa

Start Date: 2016-2019

Client Name: Gauteng Department of Roads and Transport

Project Value: R 5.6 Million

Route determination and ESI for routes K

Position: Environmental Scientist

Assigned Tasks: Environmental Screening Investigation and compilation of the ESI Report

City of Tshwane: Waste Transfer Facilities, South Africa

Start Date: 2014

Client Name: City of Tshwane Metropolitan Municipality

Project Value: R 150,000

Report on environmental and sustainability considerations in Waste to Energy (WtE) Plants when they are co-fired with Municipal Solid Waste. Concept designs and environmental screening of various waste transfer stations. Situational assessment of other closed landfill facilities.

Position: Environmental Scientist

Assigned Tasks: Advise the client on Environmental authorisation requirements

Basic Assessment for the Sasol C3 Expansion Project, Sasol Industrial Complex, South Africa

Start Date: 2013

Client Name: Sasol Polymers

Project Value: R 267,614

The C3 expansion project was initiated to address an estimated 105ktpa additional propylene that will be available in 2014 as a result of various optimisation projects on the upstream Sasol Synfuels facilities. An opportunity was identified for the additional propylene to be utilised as feed for the polypropylene (PP) plants, namely PP1 and PP2. The C3 expansion project involves upgrading and implementing changes to the existing PP1 and PP2 process equipment to accommodate the increase in throughput.

Position: Project Principal

Assigned Tasks: Strategic project advice, quality review and approval of reports

BA for the Sasol Iso-Octanol Long Term Phase II Project, Sasol Industrial Complex, South Africa

Start Date: 2012

Client Name: Sasol Technology (Pty) Ltd

Project Value: R 261,184

The Iso-octanol long-term phase 2 project involves a process whereby aldehydes are converted in the existing Iso-alcohol stream (in Octene Train III) by hydrogenation to its corresponding alcohols to achieve the desired product specification for the Iso-octanol product. A new reactor and a new distillation column with its associated equipment will be installed for this purpose. The expected Iso-octanol production will range between 7 and 9kt/annum. In addition, a storage tank with a capacity of approximately 400m³ and a loading pump will be installed to enable storage and loading of the final Iso-octanol product.

Position: Project Principal

Assigned Tasks: Strategic project advice, quality review and approval of reports

Environmental Impact Assessment for the C3 Stabilisation Project situated on the Sasol Secunda Site, South Africa

Start Date: 2010

Client Name: Sasol Technology (Pty) Ltd

Project Value: R 447,172.00

Environmental Impact Assessment for the C3 Stabilisation Project situated on the Sasol Secunda Site

Position: Project Manager

Assigned Tasks: Project Management, review and compilation of EIA documentation, management of public process, liaise with client and authorities

Environmental Impact Assessment for the proposed Biogas to Power Plant Project at Sasol Synfuels, South Africa

Start Date: 2009

Client Name: Sasol Technology (Pty) Ltd

Project Value: R 167,865

Basic assessment study for the Biogas to power plant project.

Position: Project Manager

Assigned Tasks: Project management, compilation of environmental reports

Environmental Impact Assessment for the proposed Sasol Bioworks upgrade, South Africa

Start Date: 2008

Client Name: Sasol Technology (Pty) Ltd

Project Value: R306,101 Sasol One Bioworks Expansion

Position: Project Manager

Assigned Tasks: Overall Project Management and quality control

EIA or the Amendment of Mining Right for the UCG Pilot Plant, South Africa

Start Date: 2008

Client Name: Sasol Technology (Pty) Ltd

Project Value: R 404,000

Environmental Impact Assessment and Mining Authorisation for the Underground Coal Gasification Pilot Project located in Secunda Mpumalanga Province.

Position: Project Manager

Assigned Tasks: Overall Project Management and quality control

Department of Public Works: ECO Work in Pretoria, South Africa

Start Date: 2010 - 2017

Client Name: Department of Public Works

Project Value: R 2,100,000

Environmental Control Officer and Occupational Health and Safety for the demolition activities associated with the HG de Witt Building in Pretoria.

Position: Project Manager

Assigned Tasks: Project Management and Environmental Control Officer (ECO) work

AEL OEMPr Compilation

Start Date: 2019

Client Name: AEL Africa

Project Value: R 100,000

Position: Senior Environmental Scientist

Assigned Tasks: Compilation of OEMPr for the ISAP and Nitrate Plant

Environmental Status Quo for the Scottsville Local Area Plan

Start Date: 2018

Client Name: Msunduzi Municipality

Project Value: R 2.5 million

Position: Environmental Scientist

Assigned Compilation of Environmental Status Quo chapter

White Mfolozi Bridge & Link Road, South Africa

Start Date: 2016

Client Name: Kwa-Zulu Natal Department of Transport

Project Value: R 0.8 million

Position: EAP

Assigned Tasks: Compilation of the Basic Assessment Report and EMPr in support of the necessary Environmental Authorisations and permits

Sundumbili Wastewater Treatment Works, South Africa

Start Date: 2015

Client Name: Ilembe Municipality

Project Value: R2 000 000

Position: EAP

Assigned Tasks: Environmental Screening and Environmental Impact Assessment

Rustenburg Integrated Rapid Public Transport Network (IRPTN), South Africa

Start Date: 2009

Client Name: Rustenburg Local Municipality

Project Value: R 3,000,000,000

Planning, design and implementation of the Rustenburg Rapid Transport project in Rustenburg.

The final system, which will consist of several phases, will comprise of approximately 900 busses, 600 kilometres (km), 50 bus routes, 35 km segregated bus lanes, 30 stations, 3 depots, 1 transport management centre, and zero compromise in public transport service quality. Royal HaskoningDHV are the project managers in charge of the Design and Construction, as well as the designers for the Intelligent Transportation Systems and Urban Traffic Control.

Position: Environmental Scientist

Assigned Tasks: Environmental Screening Investigation and Ad Hoc environmental advice

Previous Experience

2010 - 2012

SSI Engineers and Environmental Consultants (Pty) Ltd Associate

Prashika Reddy

2008 – 2010

SSI Engineers and Environmental Consultants (Pty) Ltd
formerly known as Bohlweki Environmental (Pty) Ltd
Senior Environmental Consultant

2006 – 2008

Bohlweki Environmental (Pty) Ltd
Junior Environmental Consultant

2001 – 2006

Department of Agriculture
Senior Plant and Quality Control Officer

Curriculum Vitae

Seshni Govender

Smart Mobility

Environmental Consultant



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Seshni Govender is an Environmental Consultant working on environmental and water related projects. Seshni has drafted applications for complex integrated licences that include components of National Environmental Management Act and National Water Act. She has been involved in the development of the Environmental Authorisation Processes for the N11-13X Mokpane Ring Road and the development of Photovoltaic Plants in the Northern Cape and Limpopo Provinces, Environment Outlook and Environmental Management Frameworks. This has exposed her to the intricate mechanisms of trying to integrate environmental impacts with mitigations measures that will be in line with the sustainable development principles.

As an Environmental Scientist Seshni contributes to projects through; report writing, data management and analysis, environmental impact analysis, policy review and public engagement/consultation.

Nationality

South African

Years of experience

12

Years with Royal HaskoningDHV

12

Professional Membership

South African Council for Natural Scientific Professions,
Professional Natural Scientist,

Environmental Assessment Practitioners Association of
South Africa, Environmental Assessment, Practitioner

Qualifications

2010 BSc (Hons) Environmental Science, University of
KwaZulu Natal, South Africa

2009 BSc Environmental Science, University of KwaZulu
Natal, South Africa

Professional experience

Environmental Impact Assessment and Water Use Authorisation for the Development of a Photovoltaic (PV) Plant up to 100MWp generation capacity associated with the Tubatse Ferrochrome (TFC) Smelter, Fetakgomo Tubatse Local Municipality

- > Samancor Chrome Pty Ltd
- > Sekhukhune District Municipality, Limpopo Province, 2021
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Compilation of scoping, Environmental Impact Assessment Reports, Environmental Management Programme, Water Use Licence Application and Facilitation of Public Participation Process
- > Project Duration: March 2021-May 2022
- > Project Value: R 2,140,000

The rising electricity tariffs in South Africa, combined with the increasingly severe load shedding patterns experienced across the country, has a negative impact on the production and revenue of Samancor Chrome business. Climate change is also a concern for Samancor Chrome referring to the emissions of greenhouse gases (GHG) in the use of fossil fuel electricity. This has motivated Samancor Chrome to consider renewable energy generation at their smelter plants. Implementing solar Photovoltaic (PV) generation will result in improved availability of supply and reduced utility bills as well as going 'green' in terms of environmental considerations.

Samancor Chrome proposed the development of a PV plant with up to 100 Megawatt peak (MWp) generation capacity over five potential sites adjacent to the TFC Smelter in Steelpoort, Fetakgomo Tubatse Local Municipality.

Part 2 Amendment of the Environmental Authorisation Issued for the Bokpoort 75MW Concentrating Solar Thermal Power Plant and Associated Infrastructure near Groblershoop, Northern Cape Province

- > ACWA Power Solafrica Bokpoort CSP Power Plant Pty Ltd (RF)
- > ZF Mgcawu District Municipality, Northern Cape Province, 2021
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Compilation of Environmental Assessment Report, Operations Environmental

Management Programme. Specialist co-ordination and Facilitation of Public Participation Process

- > Project Duration: March 2021-April 2022
- > Project Value: Unknown

ACWA Power Solafrica Bokpoort CSP Power Plant Pty Ltd (RF) (hereafter referred to as Bokpoort CSP) was issued with an Environmental Authorisation on the 14th of June 2011 for the development of a 75 MW Bokpoort Concentrating Solar Thermal Power Plant (CSP) near Groblershoop, Northern Cape Province.

Therefore, Bokpoort CSP proposed the following amendments described below:

- As part of the project infrastructure, Bokpoort CSP had proposed the use of a temporary labour accommodation camp which was to house workers during the construction phase of the project after which this accommodation was to be demolished. Since the start of the operational phase, Bokpoort CSP has had to reconsider the initial decision to demolish the camp, due to the proximity of the site to the nearest town and are now in the process of making an application to utilise this already built temporary infrastructure to house staff onsite on a 4 week rotational basis (4 weeks on, 2 weeks off) for the duration of the operational phase of the Bokpoort CSP. The project infrastructure components description as included in the EA is therefore proposed to be amended as follows:
 - Permanent Staff Accommodation;
 - Access control building;
 - Visitors centre;
 - Shades ports of approximately 12m high; and
 - Covid-19 isolation room.
- A second amendment is also proposed for the change of the technical description relating to the now authorised 9MW PV augmentation power plant (which was an amendment of the 14 June 2011 EA) from a fixed system to a tracking system.

Basic Assessment for the Proposed Development of Seven 9.9MW Internal Combustion Engines (ICE) on the Remaining Extent of Farm Bokpoort 390, Groblershoop, Northern Cape

- > ACWA Power Energy Africa (Pty) Ltd
- > ZF Mgcawu District Municipality, Northern Cape Province, 2021
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Compilation of Basic Assessment Report, Environmental Management Programme, and Facilitation of Public Participation Process
- > Project Duration: March 2020-September 2021
- > Project Value: R 153 000

ACWA Power Energy Africa (Pty) Ltd (hereafter referred to as ACWA Power) is proposing to develop seven individual 9.9MW Internal Combustion Engines (ICE) on the authorised 200MW Pedi, Venda, Zulu, Afrikaans, Ndebele, Swati and Sotho PV Plants on the Remaining Extent (RE) of the Farm Bokpoort 390, located 20km north-west of the town of Groblershoop within the !Kheis Local Municipality in the ZF Mgcawu District Municipality, Northern Cape Province.

ACWA Power participated in the Department of Mineral Resource and Energy's (DMRE) Risk Mitigation Independent Power Producer Procurement (PPP) programme and/ or Captive Power Projects through their authorised PV projects. The country is in dire need of electricity especially during peaking hours but like any other solar technology, PV can only generate electricity when the weather is favourable. In order to address this need, ACWA Power is proposing additional infrastructure (ICE) within their authorised plants to create the flexibility and efficiency within the plants which will enable electricity generation during unfavourable weather conditions.

Basic Assessment for the Proposed Developments of Ten (10) Photovoltaic (PV) plants at the Bokpoort farm near Groblershoop, Northern Cape

- > ACWA Power Energy Africa (Pty) Ltd
- > Northern Cape Province, 2019
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Compilation of Basic Assessment Report, Environmental Management Programme, and Facilitation of Public Participation Process
- > Project Duration: 2019-2021
- > Project Value: R 966,123

ACWA Power Energy Africa (Pty) Ltd (hereafter referred to as ACWA Power) is proposing to construct a solar energy facility (Bokpoort II) consisting of ten (10) photovoltaic (PV) plants on the north-eastern portion of the Remaining Extent (RE) of the Farm Bokpoort 390, located 20 km north-west of the town of Groblershoop within the !Kheis Local Municipality in the ZF Mgcawu District Municipality, Northern Cape Province.

On 21 October 2016, a 900 ha, 150 MW Concentrating Solar Power (CSP) plant was authorised by the Department of Environmental Affairs (DEA). Due to the changes in the Integrated Resource Plan (IRP) published in October 2019, ACWA Power intend replacing the authorised CSP site with eight (8) new PV plants. The updated layout has been revised to incorporate the 8 new PV plants of 250 MW each, covering a total of 1200 ha (i.e. 150 ha for each plant).

Two 250 ha 75 MW PV plants including ancillary infrastructure, were also authorised by the DEA on 24 October 2016. As the PV 1 and PV 2 plants are also approved on the Farm Bokpoort 390 RE, the footprints of these approved PV plants will undergo an amendment to accommodate the 8 new PV plants and ancillary infrastructure.

Basic Assessment and Water Use Authorisation for the removal, re-instatement and repositioning of two high voltage powerlines routed through the Stellenbosch Landfill off Devon Valley Road, Stellenbosch, Western Cape

- > Eskom Holdings SOC Ltd and Stellenbosch Municipality
- > Western Cape Province, 2020
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Facilitation and compilation of Water Use Licence Application and Public Participation Processes
- > Project Duration: 2019
- > Project Value: R 820,000

The Stellenbosch Municipality owns and operates the Stellenbosch Landfill situated off Devon Valley Road. The landfill comprises completed cells (cell 1 and 2) as well as an operating cell (cell 3). Cell 3 is separated from cells 1 and 2 by an area on the landfill property footprint that is used for access roads, entrance area and weighbridge, green waste chipping and rubble crushing and stockpiling activities. This area is also transversed by two high

voltage Eskom powerlines. The presence of these powerlines prevents the Municipality from engineering and operating the area between completed cells 1 and 2 and operating cell 3 as waste disposal cells.

Eskom Distribution (Western Cape Operating Unit) therefore proposes removing, re-instating and repositioning the two powerlines (132kV and 66kV) routed through the landfill. The 132kV powerline will be relocated to the northern and eastern boundary of the landfill, whilst the 66kV powerline will be relocated to the eastern and southern boundary. The proposed length of each of the deviated lines are approximately 1km. Two alternative pylon structures are currently being considered i.e. monopoles and lattice towers.

Basic Assessment and Environmental Management Programme for the Borrow Pit 5.5L associated with the N11 Section 13X (N11-13X), Mokopane Ring Road, Mogalakwena Local Municipality, Limpopo province

- > South African National Roads Agency Ltd
- > Limpopo Province, 2019
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Compilation of Basic Assessment Report, Environmental Management Programme, and Facilitation of Public Participation Process
- > Project Duration: 2018-2019
- > Project Value: Unknown

The South African National Roads Agency Ltd (SANRAL) has commissioned the Detail Design and the Construction Monitoring of the N11-13X Mokopane Ring Road to divert the heavy vehicle traffic that travels to and from the mines on the western side of Mokopane and to Botswana, from the already congested existing N11 section which passes through the existing villages and the Mahwelereng Township.

The N11-13X Mokopane Ring Road is a "greenfields" project where a new road will be constructed. The class of the new road will be Class 1. The new road to be constructed will typically have an overall width of 13.4 m where the initial carriageway will comprise a minimum 2.5 m outer shoulder, 2 x 3.7 m lanes, and 2.5 m inner shoulder. In general, the road reserve varies between 71 – 75 m but there are wider sections where there is a deep cutting or because of allowance for future interchanges.

A limited amount of gravel (G5 – G7 quality) will be available from cut widenings within the road reserve. The remainder of the gravel required for the proposed road construction (gravel layer works) will need to be sourced from borrow pits.

Basic Assessment for the Proposed Construction of a Bridge over the Rooisloot River, Various Culverts and Borrow Pits Associated With the National Route N11 Section 13x (N11-13x) (Mokopane Ring Road) in the Mokopane Area

- > South African National Roads Agency Ltd
- > Limpopo Province, 2018
- > Position: Environmental and Public Participation Consultant
- > Assigned Tasks: Compilation of Basic Assessment Report, Environmental Management Programme, and Facilitation of Public Participation Process
- > Project Duration: 2018
- > Project Value: Unknown

The South African National Roads Agency Ltd (SANRAL) has commissioned the Detail Design and the Construction Monitoring of the N11-13X Mokopane Ring Road. An Environmental Impact Assessment (EIA) study was previously conducted for the proposed re-routing of the N11-13X road. The Environmental Authorisation and subsequent approval of the Environmental Management Plan (EMP) was obtained in 2009. The subject of this Basic Assessment Process was therefore to address the infilling activities within the watercourses which pertain to the Rooisloot Bridge and the associated culverts. There were 5 Borrow Pits associated with this project that were also subject to Basic Assessment Processes.

Final Consultation Basic Assessment Report for the Dismantling of a portion of the existing double-circuit power line and the construction of two (2) 7 km long 88 kV power lines within a 2 km corridor between the Grootpan and Brakfontein Substations

- > Eskom Holdings SOC Ltd
- > Ogies, Mpumalanga, 2015
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Basic Assessment Report and Environmental Management Programme
- > Project Duration: 2015
- > Project Value: R 458,021

Eskom Holdings (SoC) Pty Ltd (Eskom Distribution – Mpumalanga Operating Unit) proposes to construct two

(2) 7 km 88 kV overhead power lines within a 2 km corridor between Grootpan and Brakfontein Substations near Ogies. The existing power lines are located on GlencoreXstrata mining property. The mine has requested that Eskom relocate the lines as they are within the operational footprint of the mine. The project also involves the dismantling of a portion of the existing 88 kV double-circuit mink power line approximately 5.2 km in length. The new power lines will ensure continuity of supply and access to electricity for the surrounding communities.

Development of Environmental Management Frameworks and Exclusion Standards for: John Taolo Gaetsewe and Watrberg District Municipality

- > The Department of Agriculture, Land Reform and Rural Development
- > John Taolo Gaetsewe District Municipality, Northern Cape Province and Waterberg District Municipality, Limpopo Province, 2022
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Status Quo, Desired State and Environmental Management Framework reports for the John Taolo Gaetsewe and Watrberg District Municipalities
- > Project Duration: March 2020 –Sept 2022
- > Project Value: R 2430 985.00

The Department of Agriculture, Land Reform and Rural Development (DALRRD) has initiated collaboration between itself the Department of Forestry, Fisheries and the Environment (DFFE), and the respective provincial environmental departments and district municipalities of the three (3) InvestSA prioritised district municipalities of which the John Taolo Gaetsewe District Municipality (JTGDM) and the Waterberg District Municipality were chosen. The aim was to have the EMF and their Listed Activities' Exclusion Standards gazetted as instruments to allow certain development activities to be streamlined insofar as environmental authorisations are concerned.

Most of the projects identified in the District Rural Development Plans are of medium to large scale in nature and they generally occur in sensitive environments and the South African environmental legislative context, they trigger the need for Environmental Authorisation under the Environmental Impact Assessment Regulations (EIA), 2014.

The intention was to conduct a pre-assessment of the environmental sensitivities and opportunities within these

three (3) districts to streamline environmental authorisations. The EMFs were developed through an extensive consultative process that includes all relevant sector departments, provinces and municipalities, as well as any other Interested and Affected Party (I&AP). The EMFs will be developed through the extensive use of spatial tools, positive and negative mapping of environmental attributes, sensitivity mapping and detailed assessment of potential impacts including cumulative impacts and risk assessments.

Environmental Compliance for the Longlakes Extension 2, Longlakes, Modderfontein

- > Capital Propfund (Pty) Ltd
- > City of Johannesburg, Gauteng Province, 2021
- > Position: Environmental Control Officer
- > Assigned Tasks: ECO site Audit and compilation of ECO reports
- > Project Duration: July 2021-September 2022
- > Project Value: Unknown

Capital Propfund (Pty) Ltd are constructing Longlakes Extension 2 at a site in Longlakes, Modderfontein, Johannesburg, Gauteng. The site is located on Erf 195, Longlakes Ext 2 Township off Marlboro Drive in Modderfontein .

The wider development entails the development of a Commercial, Residential and Light Industrial Township (excluding Maxwell Drive and K113 and the junctions associated with it) on portions of Longmeadow 296 IR IQ and Longmeadow 297IR IQ, and the construction of the K113 Road between D51 (K58) (Allandale Road) and P91-1K155) and associated infrastructure.

Royal HaskoningDHV (Pty) Ltd was appointed by Capital Propfund for the provision of Environmental Control Officer (ECO) services on a fortnightly basis for a period of twelve (12) months.

Bokamoso Solar Photovoltaic Park, North West, Environmental Control Officer

- > African Clean Energy Developments
- > Leeudoringstad, North West, 2020
- > Position: Environmental Control Officer (Temporary)
- > Assigned Tasks: ECO site Audit
- > Project Duration: May 2020
- > Project Value: Unknown

Royal HaskoningDHV has been appointed by African Clean Energy Developments, thereafter, referred to as

ACED, to undertake the Independent Environmental Control Officer (ECO) duties for the project in order to monitor compliance against the following Environmental Authorisations (EA) for the proposed Solar PV Park near Leeudoringstad, North West.

Waterloo Solar Photovoltaic Park, Environmental Control Officer

- > African Clean Energy Developments
- > Vryburg, North West, 2020
- > Position: Environmental Control Officer (Temporary)
- > Assigned Tasks: ECO site Audit
- > Project Duration: May 2020
- > Project Value: Unknown

Royal HaskoningDHV has been appointed by African Clean Energy Developments, thereafter referred to as ACED, to undertake the Independent Environmental Control Officer (ECO) duties for the project in order to monitor compliance against the following Environmental Authorisations (EA) for the proposed Solar PV Park near Vryburg, North West.

Environmental Control Officer for the Construction of the N11 Section 13 X (N11-13X) Mokopane Ring Road

- > South African National Roads Agency Ltd
- > Mokopane, Limpopo Province, 2019-Present
- > Position: Environmental Control Officer
- > Assigned Tasks: ECO site Audit and compilation of ECO reports
- > Project Duration: 2019-Present
- > Project Value: Unknown

The N11 Section 13X Mokopane Ring Road (hereafter referred to as the N11-13X) is a “greenfields” project consisting of the construction of a new road by the South African National Roads Agency SOC Limited (hereafter referred to as Sanral).

The class of the new road will be Class 1. The new road will typically have an overall width of 13.4m; where the carriageway will comprise a minimum 3.0m outer shoulder, 2 x 3.7m lanes, and 3.0m inner shoulder.

Royal HaskoningDHV have been appointed by Sanral to undertake the Independent Environmental Control Officer (ECO) duties for the project in order to monitor compliance against the Environmental Authorisation (and the amendment thereto), Environmental Management Programme and all other permits and licences associated with the project.

Environmental Screening Investigation: Route Determination for the K178 between the Gauteng Provincial Border and PWV1, Gauteng Province

- > Gauteng Department of Roads and Transport (GDRT)
- > Gauteng, 2018
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of ESI report and Spatial Planning assessment
- > Project Duration: January 2018 – May 2018
- > Project Value: Unknown

The purpose of the Gauteng Strategic Road Network (GSRN) conceived by the Gauteng Department of Roads and Transport (GDRT) some 40 years ago was to plan a robust road system, with the objective of preserving transportation corridors and serving as a guideline for the rapid development and urbanisation of Gauteng.

The route for the K178 is the section between the Gauteng Provincial Border (in the east) and the future PWV1 (in the west) with an approximate length of 18.8km. The alignment generally follows the previous planned GDRT route along the alignment of the existing R54.

In the context of integrated environmental management, screening determines whether a development proposal requires environmental assessment, and if so, what level of assessment is appropriate. Screening is thus a decision-making process that is initiated during the early stages of the development of a project.

The main purpose of the ESI was to determine at this stage of the road design whether there are aspects of the development proposal that have the potential to give rise to significant or unacceptable environmental consequences i.e. fatal flaws.

Route Determination and EIA for K86, K118, K181 K208, K217 and K219,

- > Gauteng Department of Roads and Transport
- > Gauteng Province, 2014
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Spatial Planning assessment
- > Project Duration: 2014
- > Project Value: R 1,251,730.09

Route Determination and Environmental Scan of K-routes in the Gauteng Province.

Water Use Licence Application for the ACWA Power Project DAO PV Solar Plants at Bokpoort Farm, Northern Cape

- > ACWA Power Project DAO (Pty) Ltd
- > ZF Mgcawu District Municipality, Northern Cape Province, 2021
- > Position: Environmental Consultant
- > Assigned Tasks: Facilitation and compilation of Water Use Application process
- > Project Duration: March 2021-February 2022
- > Project Value: R 275,120.25

ACWA Power Project DAO (Pty) Ltd (hereafter referred to as ACWA Power) is proposing to construct a solar energy facility consisting of ten (10) PV plants on the north-eastern portion of the Remaining Extent (RE) of the Farm Bokpoort 390, located 20 km north-west of the town of Groblershoop within the !Kheis Local Municipality in the ZF Mgcawu District Municipality, Northern Cape Province.

7 of the PV plants were bid in response to the Department of Mineral Resources and Energy's (DMRE's) Risk Mitigation Independent Power Producer Procurement Programme and on 19 March 2021, the project (Project No. RM-TA-0025-001), received preferred bidder status and has been subsequently designated as an Energy Strategic Integrated Project (SIP) No. 20, which was gazetted in Government Gazette 43547 on 24 July 2020 and is to be managed within the requirements as set out in the Infrastructure Development Act (Act No. 23 of 2014).

The new plants will have shared water provision infrastructure for personnel that will include abstraction from proposed boreholes, associated pipelines, and a septic tank sewerage system. The key activities being applied for in this Water Use Licence Application are the:

- Three (3) proposed water abstraction boreholes; and
- Four (4) proposed septic tank sewerage system.

Water Use Licence application for the Urania-Bronville Powerline Upgrade Project, Matjhabeng Local Municipality, Free State Province

- > Matjhabeng Local Municipality
- > Free State Province, 2019
- > Position: Environmental Consultant
- > Assigned Tasks: Facilitation and compilation of Water Use Application process
- > Project Duration: 2019
- > Project Value: Unknown

The construction of new overhead powerlines to replace the existing underground powerlines that are no longer operational. The works will comprise the supply, delivery, off-loading, installation, erection, commissioning and handing-over (in a proper working condition) of the following infrastructure.

The construction of a new approximately 3.3 km, 132 kV overhead line between the Welkom Main Intake Substation and Urania Substation.

The construction of a new approximately 5.5 km, 11 kV overhead line between the Industries Substation and Bronville Substation.

Water Use Licence for the Proposed Deviation of the 88kV Firnhem-Platrand Powerline near Standerton, Mpumalanga Province

- > Eskom Holdings SOC Limited
- > Mpumalanga Province, 2018
- > Position: Environmental Consultant
- > Assigned Tasks: Facilitation and compilation of Water Use Application process
- > Project Duration: 2018
- > Project Value: Unknown

Eskom Holdings Limited, a State-Owned Company (SoC) proposed a deviation of a portion of the existing 88kV Firnhem-Platrand Powerline from pole 157 to pole 180 within a servitude of 31m and a length of approximately 2km. The purpose of the deviation is to avoid a wetland in which these poles are currently located which poses a network stability risk as it is located within a wetland area. Firnhem Platrand is an interconnector between Standerton and Volksrust for network stability, the line supplies Transnet Traction Stations, should the line fail, the trains in the nearby tractions will not be able to move.

Water Use Licence Application for the Proposed Site Clearance for Planning and Design of a Border Barrier, Patrol Roads and Fencing between the Republic of South Africa (RSA), Swaziland and Mozambique, Phase 1 (KM 0.0 0 KM 54.0)

- > The National Department of Public Works (DPW) and KwaZulu-Natal Department of Transport (KZN DoT)
- > KwaZulu-Natal Province, 2018
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2018

> Project Value: Unknown

Proposed the upgrade of existing border control infrastructure, and development of new border control infrastructure along a portion of the South Africa (KwaZulu-Natal) - Mozambique Border in the north-eastern part of the KwaZulu-Natal (KZN) Province. This application is termed the 'Phase 1' application and forms a component of a wider project being undertaken by the DPW for the upgrading of border control infrastructure along the South Africa - Swaziland border and the southern part of the South Africa - Mozambique border (the Phase 2 Project). The Phase 1 alignment is comprised of the section of the international border with Mozambique from the high-water mark of the Indian Ocean (KM0.0) to the eastern boundary of the Ndumo Game Reserve (KM54.0).

Water Use Licence Application for the Proposed Site Clearance for Planning and Design of a Border Barrier, Patrol Roads and Fencing between the Republic of South Africa (RSA), Swaziland and Mozambique, Phase 2 (KM 54.0 0 KM 524.0)

- > The National Department of Public Works (DPW)
- > KwaZulu-Natal and Mpumalanga Provinces, 2018
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2018
- > Project Value: R 2,598,000

The National Department of Public Works (DPW) as the applicant, (in conjunction with the KwaZulu-Natal Department of Transport (KZN DoT) as an implementing agent) is proposing the upgrade of existing border control infrastructure, and development of new border control infrastructure along a portion of the South Africa–Mozambique-Swaziland Border in KwaZulu-Natal and Mpumalanga. This application was termed the 'Phase 2' application and forms a component of a wider project being undertaken by the DPW for the upgrading of border control infrastructure along the South Africa - Swaziland border and the southern part of the South Africa - Mozambique border. The Phase 1 alignment is comprised of the section of the international border with Mozambique from the high-water mark of the Indian Ocean (KM0.0) to the eastern boundary of the Ndumo Game Reserve (KM54.0), whilst this Application (Phase 2) is from KM54.0 to KM524.0.

The project is being undertaken by the DPW in conjunction with the Department of Agriculture Forestry

and Fisheries (DAFF) and the South African National Defence Force (SANDF), and Ezemvelo KZN Wildlife (EKZNW) and the iSimangaliso Wetland Park Authority (IWPA) as partner organs of state. The KZN DoT is an implementing agent for one of the infrastructure components (the border barrier structure).

The aim of the project is to stop the illegal trafficking of stolen vehicles and contraband across this section of the international border, as well as to prevent the illegal movement of people as well as livestock that could transmit disease. South Africa has approximately 4 800 km of land border and 2 800 km of coastline border which is required to be secured. South Africa is greatly affected and financial impacted by illegal imports, smuggling and other similar illegal activities which transpire over borders. In order to effectively respond to the range of security and control challenges that are being experienced by responsible organs of the State, it is important to assess the situation and to be able to incorporate a viable solution.

Integrated Water Use Licence Application for the Rehabilitation of the Existing P236 and Culvert from km 6.235 to km 14.0

- > KwaZulu-Natal Department of Transport
- > Ubombo,, KwaZulu-Natal, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2018
- > Project Value: R 546,186

The P236 is located north of Mkhuze and starts at km 0.0 at the intersection with P2-9 and ends at km 32.0, intersecting P449. The application, however, was only for the rehabilitation of km 6.235 to km 14.0 of the P236 as well as the replacement of a culvert at Km 6.240.

Water Use Licence Application for the Proposed Upgrade of Dango Bridge (B1372) and Bedlane Bridge (B1336) situated along P393 (R34) Road Between Nkwalini Pass (Km0,0) and Empangeni (Km24,0)

- > KwaZulu-Natal Department of Transport
- > Empangeni, KwaZulu-Natal, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2017
- > Project Value: Unknown

The KwaZulu-Natal Department of Transport (DoT) proposed to improve the Provincial road P393 (R34) from P47-4 at Nkwalini Pass (km 0.0) to P230 at Empangeni (km 24.0) within the King Cetshwayo District Municipality in KwaZulu-Natal Province. The project starts at the intersection of P47-4 (R66) with P393 (R34) at Nkwalini Pass (km 0.0) and ends at P230 (km 24.0) towards Empangeni. The Bedlane river bridge (B1334) is situated at km 2.6 from Nkwalini Pass and the Dango river bridge (B1372) is situated at km 3.9 from Nkwalini Pass. The existing P393 road is 8.8m wide and the proposed road geometry for the rehabilitation is 10.0m wide including shoulders.

Water Use Licence Application for the Proposed Culvert Rehabilitation along Provincial Road P230 from Km37.0 to Km47.0

- > KwaZulu-Natal Department of Transport
- > Umhlatuze Local Municipality, KwaZulu-Natal, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2017
- > Project Value: Unknown

This project formed part of the Empangeni Road Rehabilitation Programme and covers the rehabilitation of the provincial road P230 between km 37,0 and km 47,0 within the uMhlatuze Local Municipality which forms part of the King Cetshwayo District Municipality (DC28), KwaZulu-Natal. Provincial Road P230 from the intersection with P393 at km 37,0 to km 47,0 near Empangeni is defined as an undivided two lane road, and has been classified as a Class R1 Rural Arterial Road (in terms of the TRH26). The P230 forms part of the R34 long distance heavy haul freight route, which connects the harbour of Richards Bay and the surrounding industrial and commercial areas, with inland provinces.

Integrated Water Use Licence Application for the Canelands Extension Development, KwaZulu-Natal

- > Tongaat Hulett Developments
- > Kwadukuza Municipality, KwaZulu-Natal, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2017
- > Project Value: Unknown

Tongaath Hulett Development wishes to develop the site for industrial purposes. The site lies adjacent to the existing Canelands Industrial estate. Potential land uses may include general / industrial, logistics, warehousing and

distribution. These land uses will complement those of the existing Canelands Industrial Estate and will ensure that this land parcel reads as an extension to the existing development. It is proposed, due to the proximity of the floodplain and numerous other constraints located on-site, that a single platform covering an area of approximately 1.67 hectares (1.67 ha) is created. Both a servicing and traffic report has been completed, which details how this development will be accommodated by the existing bulk infrastructure within the region.

Environmental Impact Assessment and Integrated Water Use Licence Application for the Tinley Manor Southbanks Coastal Development, KwaZulu-Natal

- > Tongaat Hulett Developments
- > Kwadukuza Municipality, KwaZulu-Natal, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2017
- > Project Value: Unknown

Tongaath Hulett Developments proposes to develop the Tinley Manor Southbanks Coastal Development into a mixed-use coastal development including a large residential component. Tinley Manor Southbanks Coastal Development is an approximately 485 ha site, located between the coastal towns of Tinley Manor and Sheffield Beach within the KwaDukuza Municipality, KwaZulu-Natal.

The proposed Tinley Manor Southbanks Coastal Development is set to be the first phase of the development of Tongaat Hulett Developments' land holdings in Tinley Manor, which is situated to the south and north of the Umhlali River.

Cornubia Human Settlement - Integrated Water Use Licence Application, South Africa

- > Tongaat Hulett Developments (Pty) Ltd
- > Cornubia, KwaZulu-Natal, 2013
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Water Use Application
- > Project Duration: 2013-2015
- > Project Value: Unknown

Water Use Licence Application for the Cornubia Industrial and Business Estate, Phase 1-Retail Park, Cornubia Phase and Cornubia Bridge

Gauteng Province Environment Outlook Report

- > Gauteng Department of Agriculture and Rural Development
- > Gauteng, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Chapter Author
- > Project Duration: Aug 2016 –January 2018
- > Project Value: 1,063,524.00

State of the Environment Report (SoER) is a report card on the condition or quality of the environment. It provides information on how we affect the environment, how the environment affects us, and how this condition has changed over time. Environmental conditions are analysed through the use of environmental indicators which are proxies of environmental status, and which can be monitored over time and space. Reporting on the State of Environment (SoE) is therefore an important tool in identifying, assessing and setting priorities for environmental issues, as well as in determining whether environmental policies and actions are effective. Furthermore, the 'environment outlook' component attempts to describe or predict how environmental challenges will evolve in the near future, and what needs to be done to achieve a more sustainable state of living for all people in the province. The ultimate value of environmental outlook reporting lies in the degree to which that assessment can be used for adaptive environmental management to address anticipated future environmental conditions and pressures.

North West Environmental Outlook/State of the Environment Trend Analysis

- > North West Department of Rural, Environment and Agricultural Development
- > Mahikeng, 2017
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of Trend Analysis
- > Project Duration: 2017
- > Project Value: R 218,880

The *Environmental Trend Analysis Report* focused on the publications of the North West Province State of Environment and Environment Outlook Reports dated 1995, 2002, 2008 and 2013, in an effort to expand this trend reporting to fully cover the period 1995 to 2013. This exercise followed on from the 2013 Environment Outlook Report which reported on environmental trends and made related recommendations to guide the province towards a more sustainable future. As such, the following objectives were achieved:

- > The indicators for each chapter were tracked through the reporting period
- > Data Gaps Identified
- > the value of the indicator set determined

NW Environment Outlook, South Africa

- > North West Department of Rural, Environment and Agricultural Development
- > Mahikeng, 2018
- > Position: Environmental Consultant
- > Assigned Tasks: Chapter Author
- > Project Duration: Aug 2017–March 2020
- > Project Value: R1993799.00

Compilation of the water chapter as part of the publication of the North West Environment Outlook

Dube Tradeport State of the Environment Report

- > Dube Tradeport Corporation
- > KwaZulu-Natal, 2014
- > Position: Environmental Consultant
- > Assigned Tasks: Chapter Author
- > Project Duration: 2014
- > Project Value: R171,000.00

Compilation of the Dube Tradeport State of the Environment Report 2013/2014

State of Environment Report (SOER) for City of Johannesburg, South Africa

- > >South African Cities Network
- > City of Joburg, 2014
- > Position: Environmental Consultant
- > Assigned Tasks: Chapter Author
- > Project Duration: 2014
- > Project Value: Unknown

Compilation of the State of the Environment Report for the City of Johannesburg 2014

NW Environment Outlook, South Africa

- > North West Department of Economic Development, Environment, Conservation and Tourism
- > Mahikeng, 2013
- > Position: Environmental Consultant
- > Project Duration: 2013
- > Project Value: R1,303,344.00

Compilation and Publication of the North West Provincial

Update of the Dube Tradeport State of the Environment Report

- > Dube Tradeport Corporation

- > KwaZulu-Natal, 2015
 - > Position: Environmental Consultant
 - > Assigned Tasks: Chapter Author
 - > Project Duration: 2015
 - > Project Value: R 403424.34
- Compilation of the Dube Tradeport State of the Environment Report 2016/2017

Integrated Open Space Plan – Greater Khayalami and Ruimsig-Honeydew Sub-Regions, Johannesburg, South Africa

- > Client: City of Johannesburg, 2016
 - > Position: Environmental Consultant
 - > Assigned Tasks: Compilation of status quo, literature review and open space document
 - > Project Duration: 2016
 - > Project Value: 1,286,950 .00
- Development of two integrated open space plans for the Greater Khayalami and Ruimsig-Honeydew Sub-regions which aim to ensure that ecological goods and services are maintained and enhanced so as to contribute to spatial planning in the City of Johannesburg, and both economic and social development.

Integrated Open Space Plan - Linbro Park & Greater Bassonia, Johannesburg, South Africa

- > City of Johannesburg, 2015
 - > Position: Environmental Consultant
 - > Assigned Tasks: Compilation of status quo, literature review and open space document
 - > Project Duration: 2015
 - > Project Value: R1,314,695.00
- Development of two integrated open space plans for the Linbro Park and Greater Bassonia which aim to ensure that ecological goods and services are maintained and enhanced so as to contribute to spatial planning in the City of Johannesburg, and both economic and social development.

Integrated Open Space for the Greater Khayalami and Ruimsig/Honeydew Sub Regions

- > City of Joburg, 2017
- > Position: Environmental Consultant
- > Position: Environmental Consultant
- > Assigned Tasks: Compilation of status quo, literature review and open space document
- > Project Duration: 2017
- > Project Value: Unknown

Development of two integrated open space plans for the Greater Khayalami and Ruimsig-Honeydew Sub-regions which aim to ensure that ecological goods and services are maintained and enhanced so as to contribute to spatial planning in the City of Johannesburg, and both economic and social development.

Review and Update of the City of Windhoek's Environmental Policy

- > Consulting Services Africa (CSA)
 - > Windhoek, Namibia, 2014
 - > Position: Environmental Consultant
 - > Assigned Tasks: Literature Review
 - > Project Duration: 2014
 - > Project Value: R190,377.50
- Review the existing City of Windhoek Environmental Management Policy, 2004 and revise and improve the existing policy so that it may be approved, launched, and implemented by the Windhoek City Council.

Green existing by-laws and develop a set of new environmental by-laws or amend the existing by-laws,

- > Ekurhuleni Metropolitan Municipality
 - > Ekurhuleni, 2014
 - > Position: Environmental Consultant
 - > Assigned Tasks: Literature Review
 - > Project Duration: 2014
 - > Project Value: R1,511,140.00
- Review the existing Ekurhuleni by-laws by introducing environmental considerations and develop a set of new environmental by-laws if required.

Application for Postponement of Compliance Timeframes to achieve New Plant Standards at ArcelorMittal South Africa, Vanderbijlpark Works, Emfuleni Local Municipality

- > ArcelorMittal South Africa
- > Gauteng Province, 2019
- > Position: Environmental Consultant
- > Assigned Tasks: Project Manager and Facilitation of public participation process
- > Project Duration: 2019
- > Project Value: R87,100.00

In response to Section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No.39 of 2004) (as amended in 2018), ArcelorMittal applied for a postponement of the compliance timeframes to achieve

the new plant minimum emission standards, as well as alternative emission standards for certain plants at the Vanderbijlpark Works (AMSAVW), Emfuleni Local Municipality, Gauteng.

Application for an Alternative Plant Standard and Suspension Application for activities associated with the ArcelorMittal Pretoria Works, City of Tshwane, Gauteng.

- > ArcelorMittal South Africa
- > Gauteng Province, 2019
- > Position: Environmental Consultant
- > Assigned Tasks: Project Manager and Facilitation of public participation process
- > Project Duration: 2019
- > Project Value: R60,996.00

In response to Section 21 of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (as amended in 2018), ArcelorMittal intends to apply for an alternative plant standard and submit a suspension application of the compliance timeframes to achieve the new plant minimum emission standards for the Pretoria Works, City of Tshwane, Gauteng.