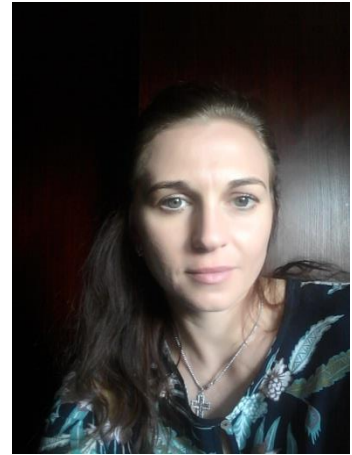


CURRICULUM VITAE OF MARISSA ILSE BOTHA

PERSONAL INFORMATION

Firm: Naledzi Environmental Consultants Pty Ltd
Name: Marissa Ilse Botha (Pr.Sci.Nat)
Position in Firm: Senior Environmental Assessment Practitioner,
Project Manager
Nationality: South African
Gender: Female
Date of Birth: 2 June 1985
Years' Experience: 14 Years
Years with firm: 12 Years



Professional Membership/s:

Registered Environmental Scientist in South Africa under SACNASP
SACNASP Registration number: 117526

Driver License: Code B/08

Language: Afrikaans, English

Contact: +2784 226 5584

Email: botham@naledzi.co.za

Address: Naledzi Satellite Office, 1 Oudekraal Estate, 95 Hamerkop Street, Thabazimbi, 0387

Postal: P O Box 2199, Thabazimbi, 0380

SUMMARY OF FIELDS

Project Management
Water Use License Application Procedures
Mining Applications
Environmental Impact Assessment and Environmental Management Programmes
GIS (Environmental Sensitivity Mapping, buffer zones, no go zones)
Public Participation Programmes
Ecological Screening Reports

KEY QUALIFICATIONS

15 Years' experience in:

- Integrated Environmental Management
 - Project management of minor to large scale projects
 - Working knowledge of environmental legislation and regulations
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REGISTRATION / ACCREDITATION / CERTIFICATES / TRAINING

Registered Natural Scientist / Environmental Scientist: South African Council for Natural Scientific Professions. SACNASP Registration: 117526 (Recognition of Prior Learning)

Certificate in Introduction to Wetland Delineation, Department of Water & Sanitation (former Water Affairs) in 2004

Certificate in Geographic Information Systems (GIS), Planet GIS, Lynnwood Pretoria in 2008

EMPLOYMENT RECORD

2007 – Present: Naledzi Environmental Consultants Pty Ltd (Junior, Senior Environmental Assessment Practitioner – Rustenburg, Thabazimbi, Polokwane)

2005 – 2007: Enpact Environmental Consultants CC (Junior Environmental Assessment Practitioner – Assistant to Senior Practitioner - Nelspruit)

2004 – 2005: Ecotechnik Environmental Consultants CC (Administrative Assistant to Senior Environmental Assessment Practitioner - Nelspruit)

PROJECTS RECORD

➤ **Strategic Projects**

- 2018-2019: Proposed expansion of the Lephalale Railway Yard from a 100 to a 200 wagon train yard with associated infrastructure along the existing Thabazimbi-Lephalale railway track at Lephalale, , Waterberg District of Limpopo – Transnet SOC Limited. This is a SIP 1 to unlock the northern mineral belt of the Waterberg as a catalyst by creating rail capacity to Mpumalanga and Richards Bay. Responsible for managing the EIA Process and WULA, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation and managing the project programme.
- 2017 – 2018 (Current_no decision issued to date): Application for the Postponement of the Minimum Emission Standards (MES) for Eskom’s Tutuka power station at Standerton within Gert Sibande District in Mpumalanga Province. Responsible for management of project programme, public participation programme, preparation of Public Participation Chapter, updating and finalisation of application, submission of Application and Atmospheric Impact Report to DEA for decision making.
- 2018 – 2019 (Current_no decision issued to date): Application for the Postponement of the Minimum Emission Standards (MES) for Eskom’s coal and liquid fuel-fired power stations located in the Vaal - and Mpumalanga Highveld Region. – Eskom Holdings SOC Limited. Responsible to manage and conduct the public participation programme, liaise with specialists, finalise and submit applications to DEA for decision making.

➤ **Scoping and Environmental Impact Assessment (S&EIR) Applications**

- 2018: Proposed Prospecting Right with Bulk Sampling on unsurveyed stated land located west of the Kruger National Park at Gumbu, Musina District of Limpopo – Samin Group Pty Ltd. Responsible for managing the EIA Process and WULA from start to finish, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation and managing the project programme.
- 2015-2017: Integrated EIA and Waste Management License Application for the proposed Geluk Mine, an iron and vanadium ore surface mine, over farms Geluk 512KS, Geluk Oos 513KS and Ironstone 847KS at Maphopha in Sekhukhune District of Limpopo – Rakhoma Mining Resources Pty Ltd (aka Vanchem Vanadium Products). Responsible for managing the EIA Process from start to finish, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation and managing the project programme.
- 2007 – 2008: Proposed Soweto Integration Project involving the construction of a 30km, 400kV power line from Etna Substation at Lenasia South to Quattro Substation at Soweto in Gauteng –

Eskom Holdings SOC Limited. Responsible for managing the EIA Process from start to finish, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation and managing the project programme.

- 2007 – 2008: Proposed construction of the Lebone II College in Phokeng, Rustenburg of North West Province – Royal Bafokeng. Responsibilities included execution of the EIA process from start to end, manage project programme and obtaining the Environmental Authorisation. Certain budget, management aspects of this project were dealt with by Naledzi Environmental Consultants CC MD Desmond Musetsho.
- 2013 – 2015: Proposed establishment of a subsidized residential development on approximately 378 hectares at Palm Ridge in Ekurhuleni, East Rand region of Gauteng Province – Gauteng Department of Local Government and Housing. Responsibilities included managing the EIA Process, manage the specialists. The project proceeded to the preparation of the draft EIR however was stalled before the draft EIR was made available for public review due to the applicant's lack of land tenure.
- 2005 – 2006: Proposed development of Mountain View Residential Estate at Nelspruit, in the Ehlanzeni District Municipality of Mpumalanga Province – Pierre Zondach / aka Drumrock Country Estate. Responsible for managing the EIA Process from start to finish, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation. Some project management aspects (budget) were handled by Senior EAP at the time Mr. Heinrich Kammeyer from Enpact CC.
- 2006 – 2007: Proposed Shandon Heights Phase 4 upmarket residential estate and associated access road at Nelspruit, Mbombela Local Municipality within the Ehlanzeni District of Mpumalanga Province - Civicon Engineers Pty Ltd. Responsible for managing the EIA Process from start to finish, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation. Some project management aspects (budget) were handled by Senior EAP at Enpact CC.
- 2006-2007: Proposed Karino Urban Development on 500 hectares of mixed bushveld and previously cultivated agriculture land at Karino outside Nelspruit, Mbombela Local Municipality, Ehlanzeni District, Mpumalanga Province - Belton Park Trading 27 (Pty) Ltd aka Laeveld Trust. Responsible for managing the EIA Process from start to finish, to manage the specialists, to complete the S&EIR process to obtain Environmental Authorisation. Including reviewing project documentation. Some project management aspects (incl. budget) were handled by Senior EAP at Enpact CC.
- 2005 – 2006: Proposed refurbishment and upgrade of the Sabie Waste Water Treatment Works on the banks of the Sabie River outside the town of Sabie, Thaba Chweu Local Municipality, Ehlanzeni District, Mpumalanga Province - Thaba Chweu Local Municipality. Responsible for managing the EIA Process, public participation programme, prepare environmental reports, obtain Environmental Authorisation and submit application for a CAPCO permit for the proposed installation of an Incinerator at Sabie Waste Water Treatment Works including obtaining CAPCO License. Enpact CC Senior EAP Mr. Heinrich Kammeyer handled some project management aspects.
- 2004 – 2005: Proposed construction of the Masibekela bulk water pipeline, reservoir and reticulation system at Masibekela village, along the R571 close to the Swaziland Mananga Border Post, Komatipoort area, Mpumalanga Province – Nkomazi Local Municipality. Responsible for assisting in managing the public participation process, drafting environmental impact reports.
- 2006-2007: Proposed construction of the Matsulu to N4 Highway bypass route, flyover to N4 and bridge crossing over Crocodile River, Nkomazi/ Mbombela, Mpumalanga Province – South African National Roads Agency. Responsible for public participation process, preparing environmental reports. Overall project management was handled by Enpact CC Senior EAP Mr Heinrich Kammeyer.

▪ **Basic Assessment (BA) Process Application**

- 2018-current: Proposed development of new 500 bed Dr Yusuf Dadoo Hospital at Monument Ext. 1 in Krugersdorp East, West Rand District of Gauteng - iPDSA on behalf of the Gauteng Department of Infrastructure Development (GDID). Responsible for managing the BA Process to obtain Environmental Authorisation including reviewing project documentation and managing the project programme. This project is currently on halt.
- 2005-2007: Proposed development of the 10 hectare Maggiesdal Residential Extension south of Stonehenge residential area, magisterial district of Nelspruit, Mbombela, Ehlanzeni District Municipality, Mpumalanga Province. Responsibilities included managing the EIA Process, the specialists, to complete the environmental report and obtain Environmental Authorisation. Some project management aspects (budget) were handled by Senior EAP Mr. Heinrich Kammeyer from Enpact CC.
- 2014: Mining Permit application for proposed borrow pit on a Portion of Erf 12, Karino Township 10km east of Nelspruit in the area of Karino, Magisterial District of Nelspruit in Mpumalanga Province - Belton Park Trading 27 Pty Ltd. Responsible for preparing the Environmental Management Programme.
- 2014: Mining Permit application for proposed borrow pit on a Remaining extent of Portion 5, farm De Rust 12 JU 2km south east of Hazyview central business district, Magisterial district of White River in Mpumalanga Province - Pinzari Limited. Responsible for preparing the Environmental Management Programme.
- 2015: Proposed development of Gembokfontein Filling Station on a Portion of Portion 1 of the farm Gembokfontein 199JR next to the R 573 Moloto / Marble Hall road in the settlement of Mabhoko Ext 1, 3km south of Kwaggafontein in Thembisile Hani Local Municipality within Nkangala District Municipality, Mpumalanga Province - Bidfuel Pty Ltd. Responsible for preparing the Basic Assessment Report and Environmental Management Programme and MDARDLEA site inspection.
- 2015 – 2016: Proposed establishment of a cemetery and construction of a waste transfer station on Portion 22 Rietspruit 395JQ 11km west of Magaliesburg in Mogale City Local Municipality, West Rand District Municipality in Gauteng Province – Mogale City Local Municipality. Responsible for managing the BA Process from start to finish, manage specialists, project programme and obtain Environmental Authorisation.
- 2011 – 2012: Proposed construction of a 15km, 132kV power line from Erasmus (Bronkhorstpruit) substation to Bonamanzi (Bronkhorstpruit Dam) substation in the Bronkhorstpruit area, Gauteng Province – Eskom Distribution. Responsibilities included conducting the public participation process, preparing environmental reports, managing specialists, site visits, field work and obtaining Environmental Authorisation.
- 2011 – 2012: Proposed construction of a 12km, 132kV power line from Rayton substation to Bynes substation in the Rayton area, east of Pretoria, Gauteng Province – Eskom Distribution. Responsibilities included preparation of the Basic Assessment Report and Environmental Management Programme, public participation process and obtaining the Environmental Authorisation.
- 2012-2013: Proposed construction of a 40km, 132kV power line from Spitskop (Northam) substation to Mamba (Koedoeskop) substation in the Northam/Koedoeskop area, Waterberg District, Limpopo Province – Eskom Distribution. Responsible for managing the BA Process, specialists, project programme and obtaining Environmental Authorisation.
- 2007 - 2008: Proposed construction of a 20km, 132kV power line from Moedwil (Moedwil farming area, outside Rustenburg) substation to Swartruggens substation – Eskom Distribution. Responsible for managing the BA Process, specialists, project programme and obtaining Environmental Authorisation.
- 2009: Proposed upgrade/resurfacing of the Madikwe Game Reserve/Derdepoort Border Post

gravel road, South Africa and Botswana periphery, Limpopo Province - Limpopo Department of Roads and Transport. Responsible for managing the BA Process, specialists, project programme and obtaining Environmental Authorisation.

- 2013-2014: Proposed construction of a 30km, 132kV power line from the existing Merensky Substation to the proposed 2 new substations at Kennedy's Vale and Kalkfontein, between the Steelpoort and Roosenekal area, Limpopo Province – Eskom Distribution. Responsibilities included preparation of amended Basic Assessment Report and Environmental Management Programme based on DEA's request to revise the route plan for power line including public participation and obtaining Environmental Authorisation.
- 2011 – 2012: Proposed state of the art Commercial Malt Production Plant in Ritchie, Frances Baard District, Northern Cape Province - Cape Malting House (FABCOS). Responsible for managing the BA Process, specialists, project programme and obtaining Environmental Authorisation.
- 2007: Proposed construction of Royal Bafokeng Sports Palace in Phokeng in preparation for 2010 World Cup Soccer Tournament in Rustenburg, North West Province - Royal Bafokeng Administration. Responsible for managing the BA Process, review of specialist studies, preparation of Basic Assessment Report and obtain Environmental Authorisation.
- 2006-2007: Construction of 3 SAPS radar masts to expand a wide-ranging radar system to monitor the N4 Highway Nelspruit to Maputo corridor and other important transport routes. All three masts were located within the Mpumalanga Province. Positions of the 3 radar masts included; Mauchberg (Graskop); mountain west of Kwena Dam (west of R36), Gustav Klingbiel Nature Reserve (Lydenburg) - South African Police Service (Nelspruit Office). Responsible for BA Processes, public participation process, obtaining Environmental Authorisation and registering the masts with the Civil Aviation Authority (due to height of structure and potential risks to aircraft).
- 2013: Proposed Prospecting Right Application for iron ore at Koedoeskop / Nooitgedacht area, Thabazimbi Local Municipality, Limpopo Province - Bakwena Ba Phalane Traditional Community and Mantra Mineral Development. Responsible for public participation process and to develop the Environmental Management Plan (EMP).
- 2012: Proposed Prospecting Right for coal north of Louis Trichardt and also north of the Soutpansberge just east of the N1 National Toll Road in the magisterial district of Makhado in the Limpopo Province - Thanduko Minerals Pty Ltd. Responsible for conducting the public participation process and development the prospecting Environmental Management Plan (EMP).
- 2014: Proposed Prospecting Right Application for the prospecting of Limestone in the Kalkbank area located halfway between Dendron and Polokwane in the magisterial district of Aganang in the Limpopo Province - Thanduko Minerals Pty Ltd. Responsible for the public participation process and to development of the prospecting Environmental Management Plan (EMP).
- 2014: Prospecting Right Application for the prospecting of Coal, Iron ore and Copper north east of Alldays on the farms Polton, Salton and Hosselappe in the magisterial district of Musina in the Limpopo Province - Naledzi Environmental Consultants CC. Completed this project in my personal capacity and was responsible to undertake the public participation process and development of the prospecting Environmental Management Plan (EMP).
- 2012 – 2013: Proposed construction of a 25km 132kV power line from Rayton Substation to a proposed new Rhinosterfontein substation with associated feeder lines at Rayton in Gauteng Province. Responsible for managing the BA Process, specialists and project programme and extensive public consultation. Although prepared the final BAR was not submitted for approval to DEA due to continuous public resistance to power line routes considered.
- 2005: Proposed Katoen Industrial Development at Rocky's Drift, north of Nelspruit, Mpumalanga Province. Responsibilities included verify concerns from competent authority, revise environmental report and EMP, respond to CA concerns and obtain Environmental Authorisation.
- 2006: Proposed 12 hectare upmarket residential expansion north of Colts Hill suburb in northern outskirts of White River town, (accessed from Oaks Road) Mbombela Local Municipality, Ehlanzeni District, Mpumalanga Province . Responsible for managing the BA Process, public participation process and obtaining Environmental Authorisation. Some project management aspects were done by Enpact CC Senior EAP, Mr Heinrich Kammeyer.

▪ **Water Use License Applications**

- 2018-2020: WULA for proposed Geluk Mine surface operation at Maphopha, Sekhukhune District, Limpopo Province – Rakhoma Mining Resources Pty Ltd. Responsible for managing the specialists, complete the WULA process in order to obtain a Water Use License. Including review of project information, project programme.
- 2018-Current: WULA for the proposed expansion of the Lephalale Railway Yard at Lephalale, Waterberg District of Limpopo – Transnet SOC Limited. Responsible for managing the specialists, complete the WULA process in order to obtain a Water Use License. Including review of project information, project programme. This process is in Technical Report submission stage.
- 2018-current: WULA for the proposed development of new 500 bed Dr Yusuf Dadoo Hospital at Monument Ext. 1 in Krugersdorp East, West Rand District of Gauteng - iPDSA on behalf of the Gauteng Department of Infrastructure Development (GDID). Responsible for managing the specialists, complete the WULA process in order to obtain a Water Use License. Including review of project information, project programme. This process has been halted until further instruction from iPDSA.

▪ **Section 24G Rectification Applications**

- 2013: Section 24G Rectification Application for the Sasol Tshilidzini Filling Station located along the Punda Maria Road in the Thohoyandou area, Limpopo Province -Tshumisano Trading CC. Responsibility included the public participation process, preparation of the Environmental Report and associated Environmental Management Plan (EMP) and submission to LEDET to obtain Environmental Authorisation.

▪ **Environmental Authorisation Amendment Applications**

- 2017: Amendment of the Environmental Authorisation for the Lethaba-Resinga 66kV power line due to route deviations at Nkowankowa village close to Letsitele in Greater Tzaneen Municipality, Mopani District of Limpopo Province. – Eskom Distribution: Northern Region. Responsible for conducting the public participation process and obtaining specialist statements, project management and budget management.

▪ **Monitoring Reports and other**

- 2019: Prepare Vanchem Vanadium Products Water Use License and Waste Management License Ground and Surface Water Quality Monitoring Requirements Report for Vanchem's new Slimes and Calcine Disposal Facility situated in Ferrobank, Emalahleni in the Mpumalanga Province.
- 2010: Facilitate the consultation of landowners on 7 different farms (various farm portions) identified as possible locations for a proposed Tailings Dam for Rasimone Mine (Royal Bafokeng Platinum) as part of the new Styldrift Phase 1 project in the Rustenburg area - Royal Bafokeng Platinum. This consultation served to seek consent from landowners to undertake a Geotechnical Investigation on each farm portion forming part of the 7 site options considered. This consultation assisted to select the optimum site alternative and opened further discussions with other mines for procure of land. This project was located in the Phokeng and Boshhoek area, Rustenburg, North West Province.

Atmospheric Emission License Applications/ Renewals/ Variations and associated Public Participation Programmes

- 2006: Application for CAPCO Permit for the proposed installation of an Incinerator at Sabie Waste Water Treatment Works at Sabie, Thaba Chweu Local Municipality, Ehlanzeni District, Mpumalanga Province – Thaba Chweu Local Municipality. Responsible for preparation of application, submission, authority site inspection to obtain permit.
- 2019: Conduct public participation process in support of applications for renewal of the Atmospheric Emission Licenses for several of Eskom’s power stations namely Acacia (Cape Town), Port Rex (East London), Ankerlig (Atlantis), Camden (Ermelo), Grootvlei (Balfour), Majuba (Amersfoort) and Tutuka (Standerton) – Eskom Holdings SOC Limited.
- 2018: Appointed by Eskom Holdings SOC Limited to conduct the public participation process in support of an application for renewal of the Atmospheric Emission License for Gourikwa power station located 13km west of Mossel Bay in the Western Cape Province.
- 2018: Appointed by Eskom SOC Limited to conduct a public participation process in support of an Atmospheric Emission License variation request for Gourikwa power station.
- 2017: Appointed by Eskom Holdings SOC Limited to conduct a public participation process in support of an Atmospheric Emission License variation request for Medupi power station south west of Lephalale town in the Limpopo Province.
- 2017: Appointed by Eskom SOC Limited to conduct a public participation process in support an Atmospheric Emission License variation request for Ankerlig power station situated in Atlantis Industrial, Cape Town in the Western Cape Province.

Waste Management License Applications/ Renewals/ and associated Public Participation Programmes

- 2015: Luipaardsvlei Landfill Site Expansion Area Waste Management License Renewal - Mogale City Local Municipality. The process involved bringing the application to the attention of any affected parties/public; submitting the status quo of the landfill site conditions and records of adherence to the standing waste management license through an Application for WML Renewal to GDARD. The project area is located south of Krugersdorp East in the area of Wentworth Park. It is east of Paardekraal Road (M13) and south of Windsor Road (R28) in the jurisdiction of Mogale City Local Municipality in Gauteng Province. Responsibilities included conducting a public participation process.

Ecological Site Scans

- 2018: Preparation of Ecological Sensitivity Scan for proposed Pam Brink Water Connection Feeder Pipe from Pam Brink Reservoir to Geduld water reticulation network in Springs within Ekurhuleni Metropolitan Municipality of Gauteng Province - Tholoana Sustainable Development and Environmental Consultants.

Environmental Management Programmes

- 2010: Final Walkthrough (field survey) and preparation of a final Environmental Management Programme for the Etna-Glockner 30km, 400kV power line from Glockner (near Vaal Triangle) substation to Etna (near Soweto) substation in the Gauteng Province - Eskom Holdings SOC Limited. Responsible to manage the project, specialists, conduct fieldwork, preparation of the final Environmental Management Programme and obtaining approval from DEA.

▪ **Review of Environmental Impact Reports**

- 2015: Review Environmental Impact Report and conduct EIR public participation meeting for the construction the 72 000 metric ton Magareng Grain Storage Silos and Collection Facility of 30 hectares in extent at Warrenton in Magareng Local Municipality of the Francis Baard District in the Northern Cape Province - BPC Capital.

▪ **Land Tenure Upgrade**

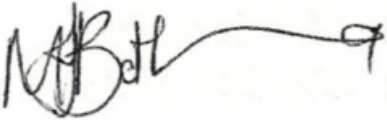
- 2005: Survey and capture all stand details within the Thulani Section of Matsulu, as well as document details of current occupants for registration of title deeds 27km east of Nelspruit in Mbombela Local Municipality of Mpumalanga Province. Entailed excessive public consultation, community liaison and field work. Assisted in the consultation, community liaison and field work.

REFERENCES

Available on request.

CERTIFICATION

I, the undersigned, certify that to the best of my knowledge, this data correctly describes my work experience and professional registration.

A handwritten signature in black ink, appearing to read 'M. B. de V.' with a long horizontal flourish extending to the right.

25 September 2020



DEPARTMENT OF WATER AFFAIRS AND FORESTRY


This certifies that

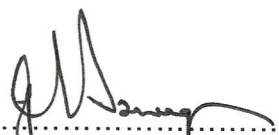
M Steenkamp

has attended a course in

Introduction To Wetland Delineation

on 19 October 2004


.....
J M Lizamore
Course Leader


.....
J M Van Aswegen
Regional Director: Mpumalanga

Viva water pure and clean! Viva forests rich and green!

herewith certifies that

Marissa Ilse Botha

Registration Number: 117526

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 **24 January 2018**

Expires **31 March 2021**



Botha

Chairperson

M. J. ...

Chief Executive Officer

