

Terrestrial Biodiversity Site Sensitivity Verification

Kranshoek Portions 7 & 8

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Terrestrial Biodiversity Site Sensitivity Verification

Kranshoek Portions 7 & 8

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Compiled for: Sharples Environmental Services

Date of report: 26/06/2024

First Draft Report

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Revisions

Report/Revision Version	Date:	Approved by:
First Draft	17/08/2023	Jamie Pote
Revisions/Comments	29/09/2023	Madeleine Knoetze
Final Draft	26/06/2024	Jamie Pote
IAP comments		
Final		

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1 Introduction & Background

1.1 Background

Sharples Environmental Services cc (SES) has been appointed as the independent Environmental Assessment Practitioner (EAP) to conduct the Environmental Assessments for the Proposed mixed use housing development on Ptn 7 and Ptn 8 of Farm Kranshoek, Western Cape. (Figure 1). As part of this application, a Terrestrial Biodiversity & Plant Specialist Assessment is required. As per the specialist reporting guidelines, a component of this assessment includes a Site Sensitivity Verification (SSV) Report.

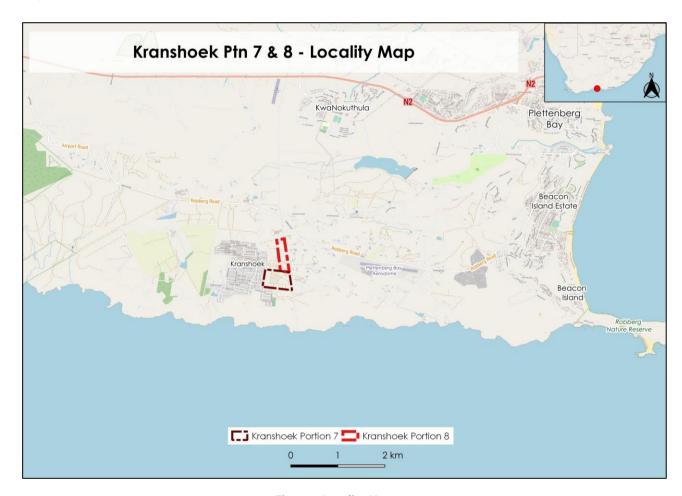


Figure 1: Locality Map.

1.2 Project Description

The proposed project is located to the west of Plettenberg Bay in the Western Cape, in the Kranshoek area. The proposed development consists of a mixed-use housing development on Portions 7 and 8 of Farm 432 (Kranshoek) as depicted in Figure 2.

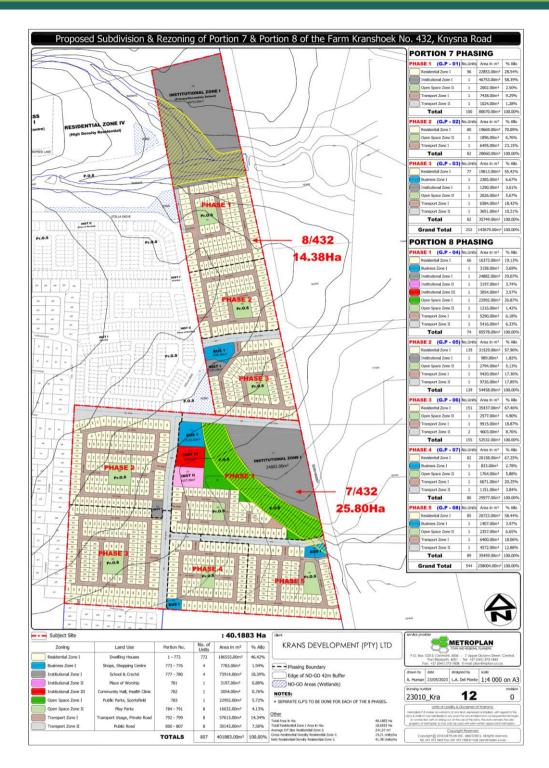


Figure 2: Proposed Mixed Use housing development layout plan.

1.3 Purpose of Report

The "Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of sections 24 (5) (a) and (h) and 44 of the Act, when applying for Environmental Authorisation", as published on 20 March, 2020 in National Gazette, No. 43110 in terms of NEMA (Act 107 of 1998) sections 24(5)(a), (h) and 44, lists protocols and minimum report requirements for environmental impacts on terrestrial biodiversity and provides the criteria for the assessment and reporting of impacts on terrestrial biodiversity for activities requiring environmental authorisation. The

assessment and minimum reporting requirements of this protocol are associated with a level of environmental sensitivity identified by the National web based Environmental Screening Tool. Prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration, identified by the screening tool, must be confirmed by undertaking a **site sensitivity verification**, which must include the following.

- 1. The site sensitivity verification must be undertaken by an environmental assessment practitioner or a specialist.
- 2. The site sensitivity verification must be undertaken through the use of:
 - a. a desk top analysis, using satellite imagery.
 - b. a preliminary on -site inspection; and
 - c. any other available and relevant information.
- 3. The outcome of the site sensitivity verification must be recorded in the form of a report that:
 - a. confirms or disputes the current use of the land and environmental sensitivity as identified by the screening tool.
 - b. contains a motivation and evidence of either the verified or different use of the land and environmental sensitivity; and
 - c. is submitted together with the relevant assessment report prepared in accordance with the requirements of the Environmental Impact Assessment Regulations.

The National Web Based Screening Tool was used to generate the potential environmental sensitivity of the site which has then been compared to various online and other databases and information sources in order to verify and confirm the validity of the screening tool findings. This was further supported with on-site observations and analysis of most recent aerial photography.

This terrestrial biodiversity site verification has been undertaken as per the requirements of the Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for environmental authorisation (GN 320, 20 March 2020).

1.4 Data sources and references

Data sources that were utilised for this report include the following:

- National (DFFE) Web Based Screening Tool to generate the sites potential environmental sensitivity.
- National Vegetation Map 2018 (NVM, 2018), Mucina & Rutherford (2006) and National Biodiversity Assessment (NBA, 2019) – description of vegetation types, species (including endemic) and vegetation unit conservation status.
- National and Regional Legislation including Provincial Nature Conservation Ordinance (P.N.C.O). NEM:BA Threatened or Protected Species (ToPS).
- Botanical Database of Southern Africa (BODATSA) and New Plants of Southern Africa (POSA)
 lists of plant species and potential species of concern found in the general area (SANBI.)
- International Union for Conservation of Nature (IUCN) Red List of Threatened Species.
- Animal Demography Unit Virtual Museum (VM) potential faunal species.
- Global Biodiversity Information Facility (GBIF) potential faunal species.
- Southern African Bird Atlas Project 2 (SABAP2) for bird species records.
- National Red Books and Lists mammals, reptiles, frogs, dragonflies & butterflies.
- National Freshwater Ecosystem Priority Areas assessment (NFEPA, 2011) important catchments.
- National Protected Areas Expansion Strategy (NPAES, 2018) and South Africa Protected Area database (2020) protected area information.
- SANBI BGIS All other biodiversity GIS datasets.

- Western Cape Biodiversity Spatial Plan (2017).
- The Garden Route Biodiversity Sector Plan for the George, Knysna and Bitou Municipalities (2010).
- Aerial Imagery Google Earth, ESRI, Chief Surveyor General (http://csg.dla.gov.za).
- Cadastral and other topographical country data Chief Surveyor General (http://csg.dla.gov.za).
- Other sources include peer-reviewed journals, regional and local assessments, and studies in the general location of the project and its area of influence, landscape prioritization schemes (Key Biodiversity Areas), systematic conservation planning assessments and plans (as above), and any pertinent masters and doctoral theses, among others.

1.5 Site visit

A site visit was conducted on 15 August 2023 during late winter. The site falls within a winter rainfall area and for the purposes of this report, based on favourable seasonal rainfall and on-site observations, the site visit is deemed to be adequate. A follow up site visit will be conducted at a late stage in the Scoping and EIA phase in order to supplement the species list. The site visit and assessment were undertaken by Mr Jamie Pote, SACNASP registered ecological scientist with a BSc (Hons) degree in Botany and a BSc degree in Botany and environmental Science, with nearly 20 years' experience undertaking ecological and terrestrial biodiversity assessments.

1.6 Assumptions, Uncertainties and Gaps in Knowledge

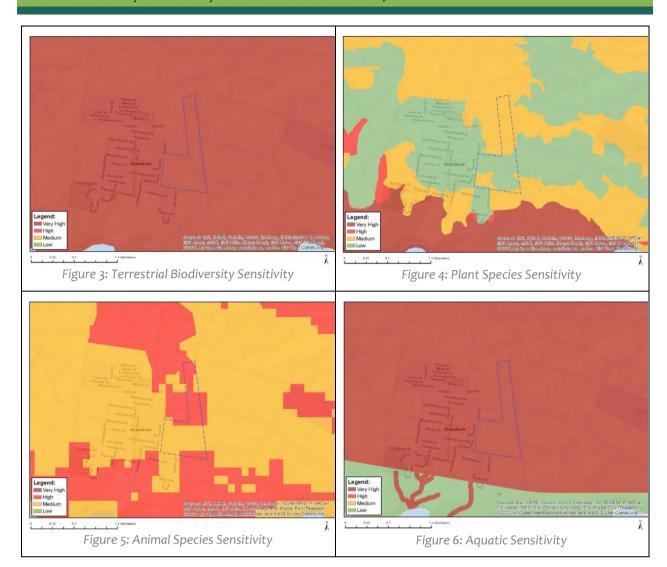
The findings and recommendations of this report may be susceptible to the following uncertainties and limitation:

- No assessment has been made of aquatic aspects relating to any wetlands, pans and rivers/seeps and/or estuaries outside of the scope of a terrestrial biodiversity report and have been undertaken by an aquatic specialist.
- No specific faunal assessment has been undertaken, but animals have been assessed in term of the terrestrial Biodiversity Assessment requirements.
- Any flora surveys based upon a limited sampling time-period, may not reflect the actual species composition of the site due to seasonal variations in flowering times.
- As far as possible, site collected data has been supplemented with desktop and databasecentred distribution data as well as previous studies undertaken in the area.

1.6.1 National Environmental Screening Tool

The DEA Screening Tool indicates the following:

- Terrestrial Biodiversity is Very High (Figure 3).
- Plant species sensitivity is **Moderate & Low** (Figure 4).
- Animal Species sensitivity is High & Moderate (Figure 5).
- Aquatic Sensitivity is Very High (Figure 6).



Townstrial Consitivity	Footure(c) in provimity	
Terrestrial Sensitivity	Feature(s) in proximity	
Very High	ESA 1 & 2, FEPA sub catchment, SANParks (Buffer) – Garden Route National	
	Park, SWSA (Outeniqua)	
High	None	
Medium	None	
Low	None	
Plant Sensitivity	Feature(s) in proximity	
Very High	None	
High	None	
	Aspalathus bowieana, Sensitive species 131, Leucospermum glabrum, Mimetes	
A 4 12	pauciflorus, Erica glandulosa subsp. Fourcadei, Pterygodium newdigateae,	
Medium	Osteospermum pterigoideum, Acmadenia alternifolia, Muraltia knysnaensis,	
	Erica glumiflora, Pterygodium cleistogamum	
Low	Present	
Animal Sensitivity	Feature(s) in proximity	
Very High	None	
High	Circus ranivorus, Neotis denhami, Bradypterus sylvaticus	
A.A	Afrixalus knysnae, Neotis denhami, Bradypterus sylvaticus, Aloeides thyra	
Medium	orientis, Chlorotalpa duthieae, Sensitive species 8, Aneuryphymus montanus	
Low	None	
Aquatic Sensitivity	Feature(s) in proximity	
Very High	ESA 1: Aquatic, FEPA sub catchment, SWSA (Outeniqua)	

Terrestrial Sensitivity	Feature(s) in proximity
High	None
Medium	None
Low	None

The site assessment will physically screen for the presence of these, and other possible species or sensitivities that are not identified in the screening tool. Not all features are directly affected, but being in proximity, the risks associated with the activity will be investigated further and addressed in the report.

The following is deduced from the DFFE National Environmental Screening Tool:

- As apparent from the National Environmental Screening Tool, the terrestrial biodiversity theme is <u>Very-High</u> due to portions of the site being designated ESA 1 & 2 (along watercourses) as well as falling within FEPA sub catchment, SANParks (Buffer) – Garden Route National Park, SWSA (Outeniqua).
- Several flora (plant) species regarded as being of concern are flagged and will be assessed further
 in the report, however none were found to be present during the site visit and are furthermore not
 deemed likely to be present due to the disturbed and/or transformed nature of the site.
- Several fauna (animal) species regarded as being of concern are flagged and will be assessed further in the report, however none were found to be present during the site visit and are furthermore not deemed likely to be present due to the disturbed and/or transformed nature of the site.
- The aquatic sensitivity is High due to falling within a designated FEPA sub catchment and SWSA (Outeniqua). Watercourse that are present include only 2 small non-perennial watercourses.
- The terrestrial flora and fauna impacts are assessed further in the relevant report sections for flora and fauna in the accompanying report.

The site assessment has physically screened for the presence of any species as listed in the National Environmental Screening Tool, as well as other possible species or sensitivities that are not identified in the screening tool. Not all features are directly affected, but being in proximity, the risks associated with the activity will be investigated further and addressed in the report.

1.6.2 Findings, Outcomes and Recommendations

Terrestrial Biodiversity

Site verification of the Terrestrial Biodiversity sensitivities is summarised in Table 1 and depicted in Figure 7, where ESA 1 is dark blue and ESA 2 is light. Bothe ESA 1 & 2 are associated with watercourses.

Table 1: Terrestrial Biodiversity Features.

Feature		COMMENT
Ecological Support Area 1	Present	Associated with watercourse on portion 8. Excluded from development plan as open space.
Ecological Support Area 2	Present	Associated with watercourse on portion 7. Intact portion is excluded from development plan as open space.

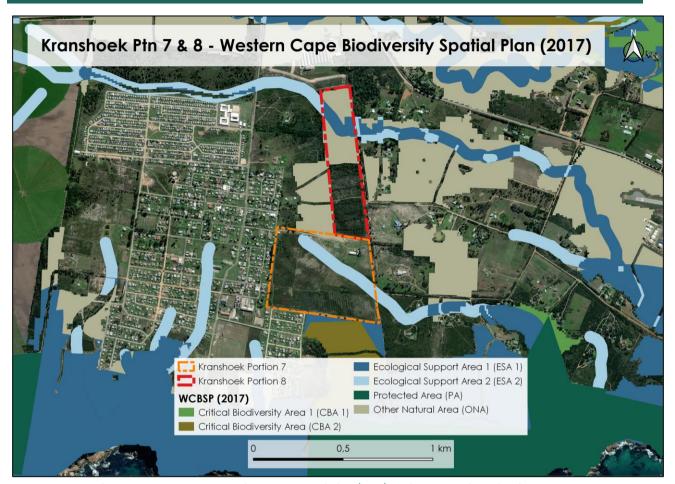


Figure 7: Map indicating Western Cape Biodiversity Spatial Plan (2017) and Rivers and Wetlands.

Plant Species (Flora)

National Environmental Screening Tool flagged several flora species. Further screening of species on the site concluded that no species of conservation concern having an elevated status and/or limited distribution range are confirmed present.

Animal Species (Fauna)

National Environmental Screening Tool flagged several fauna species. Further screening of species on the site concluded that no fauna species of conservation concern having an elevated status and/or limited distribution range are likely to be significant and directly affected. Refer to separate faunal assessment.

<u>Aquatic</u>

Wetland and River features are present in the broader area, including non-perennial watercourses traversing the site. These are generally modified.

1.6.3 Conclusions

The site verification thus confirms that the site falls within the terrestrial biodiversity screening tool designated Ecological Support Area 1 and 2. These designations of a buffer around watercourses are standard in the WC BSP across the western cape province and represent important ecological corridors.

1.7 Appendix A: Declaration, Specialist Profile and Registration

DECLARATION OF THE SPECIALIST
Note: Duplicate this section where there is more than one specialist.
1 Jame Pote , as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:
 In terms of the general requirement to be independent: other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
 am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);
 In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
 I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and
aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.
22/08/2023
Signature of the EAP: Date:
N/A
Name of company (if applicable):



Jamie Pote

SENIOR ECOLOGIST AND ENVIRONMENTAL SCIENTIST

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- Linkedin.com
- Jamiepote
- % Bluesky-SA

EDUCATION

Bachelor of Science

Rhodes University
2001 (Botany & Environmental Science)

Bachelor of Science (Honours)

Rhodes University

Professional Natural Scientist SACNASP

2016

SERVICES

Terrestrial Biodiversity/Ecological Assessments
Environmental & Ecological Risk-Assessments
Bioremediation, Restoration & Rehabilitation Plans
Environmental Management Plans & Programmes
GIS Mapping & Analysis & Web maps
Alien Invasive Management (Terrestrial)
Environmental Auditing & Monitoring (ECO)
Flora Search & Rescue & Relocation
Independent Environmental & Ecological review
Permit and License applications
Environmental & Mining Applications

ABOUT ME

16 years broad professional experience in Biodiversity, Ecological and Vegetation Assessments on over 220 projects in southern, western and central Africa. Senior Environmental Consultant and EAP on over 50 projects in the mining, infrastructure, housing and agricultural sectors. Environmental monitoring and auditing on over 50 civil infrastructure and construction projects. Have managed all aspects of projects from inception through to implementation. GIS mapping and analytics.

EXPERIENCE AND CLIENTS

Key Sectors

- Wind, Solar Energy Facilities
- Infrastructure and Housing
- Agriculture and Forestry
- Mining and Industrial

Key Projects

- Over 220 independent Biodiversity/Ecological Assessments throughout southern, western and central Africa.
- Mining applications and construction auditing on over 40 projects and more than 300 gravel borrow pits for the Eastern Cape Department of Roads and Public Works, Department of Transport and the South African National Roads Agency (SANRAL) throughout the Eastern Cape.
- South-End Precinct Mixed Use Development for Mandela Bay Development Agency - Environmental application, Ecological assessments and Construction monitoring.
- Coega Development Corporation IDZ projects Ecological assessments,
 Flora search & rescue and Construction monitoring.
- Environmental applications, construction monitoring and auditing for a wide range of projects, including infrastructure and housing for various clients including the Department of Transport and SANRAL.
- Various agricultural expansion and infrastructure projects.
- Various wind and solar energy and associated infrastructure projects.
- Numerous infrastructure projects including electrical, water and roads.
- Various Environmental Management and Rehabilitation Plans.



herewith certifies that Jamie Robert Claude Pote

Registration Number: 115233

is a registered scientist

in terms of section 20(3) of the Natural Scientific Professions Act, 2003 (Act 27 of 2003)

in the following fields(s) of practice (Schedule 1 of the Act)

Ecological Science (Professional Natural Scientist)

Effective 20 July 2016

Expires 31 March 2024





Chairperson

Lesuns

Chief Executive Officer



To verify this certificate scan this code

MR JAMIE POTE BSC (HONS) PR. SCI. NAT.

PROJECT EXPERIENCE

PERFORMANCE STANDARD BIODIVERSITY AND CRITICAL HABITAT ASSESSMENTS	
Critical Habitat & Biodiversity Assessment - Roggeveld Wind Energy Project	2020
Bio diversity Assessment for Kalukundi Copper/Cobalt Mine, Democratic Republic of Congo	2008
WIND FARM AND PHOTOVOLTAIC INFRASTRUCTURE PROJECTS	
 Ecological Assessment for Windcurrent Wind Farm, Eastern Cape 	2012
 Ecological Assessment for Universal Windfarm, NMB 	2011
 Ecological Assessment for Inca Energy Windfarm, Northern Cape 	2011
 Ecological Assessment for Broadlands Photovoltaic Farm, Eastern Cape 	201
 Botanical Assessment for Electrawinds Windfarm Coega, NMB 	2010
 Botanical Assessment and Open Space Management Plan for Mainstream WEF Phase 2, Eastern Cape 	2010
SPECIALISED ECOLOGICAL REPORTS	
 Rehabilitation Plan for Hitgeheim Farm (Farm 960), Sunland, Eastern Cape 	2017
 Green Star Rating Ecological Assessment for SANRAL office, Bay West City, NMBM 	2015
 Section 24G Assessment and Rehabilitation Plan for Bingo Farm, Eastern Cape 	2014
 Mapping and Ecological services for Congo Agriculture, Republic of Congo 	2013
 Rehabilitation Plan for Nieu Bethesda, Eastern Cape 	2011
Mapping of pipeline for Kenton Water Board, Eastern Cape	2010
 Rehabilitation Plan for N2 Upgrade - Coega to Colchester, NMB 	2010
Representative for landowner group for Seaview burial Park, NMB	2010
Botanical Sensitivity Analysis for LSDF, Greenbushes-Hunters Retreat, NMB Forest Rehabilitation Assessment Report for Analysis for LSDF, Greenbushes-Hunters Retreat, NMB The sense of the Analysis for LSDF, Greenbushes-Hunters Retreat, NMB The sense of the Analysis for LSDF, Greenbushes-Hunters Retreat, NMB The sense of	2008
Forestry Rehabilitation Assessment Report for Amahlathi Forest Rehabilitation, Eastern Cape Pataginal & Binarian Assessment for Orange Binar Weige Board by Day and D	2007
 Botanical & Riparian Assessment for Orange River Weirs-Boegoeberg, Douglas Dam and Sendelingsdrif, Northern Cape 	2006
 Botanical Assessment for State of the Environment Report for Chris Hani District Municipality SoER, Eastern Cape 	2003
GENERAL INFRASTRUCTURE DEVELOPMENT PROJECTS	
 Ecological Assessment for Vermaak Boerdery Hydro Turbine (Cookhouse), Eastern Cape 	2020
 Ecological Assessment for Amalinda crossing, BCM, Eastern Cape 	2019
 Ecological Assessment for Cookhouse Bridge rehabilitation and temporary deviation, Eastern Cape 	2019
 Ecological Assessment for Nelson Mandela University Access Road, NMB 	2019
 Botanical Assessment for Zachtevlei Dam (Lady Grey), Eastern Cape 	2017
Botanical Assessment for Gcebula River bridge (Peddie), Eastern Cape	2017
Botanical Assessment for Kouga Dam wall upgrade, Eastern Cape Batanical Assessment for Issuer illustration for for Issuer illustr	2012
 Botanical Assessment for Jansenville Cemetery, Eastern Cape Botanical Assessment for Radar Mast construction for South African Weather Service – BCM & 	2009
NMB	
 Botanical Assessment and GIS mapping for golf course realignment for East London Golf Course, BCM, Eastern Cape 	2007
 Botanical Assessment for PE Airport Extention, NMB 	2006
 Botanical Assessment for Kidd's Beach Desalination Plant, BCM, Eastern Cape 	2006
ROAD AND RAILWAY INFRASTRUCTURE PROJECTS	
 Ecological Assessment for CDC IDZ Mn Terminal, conveyor and railway line, NMB 	2013

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•	Ecological Assessment Review for Penhoek Road widening, Eastern Cape	2012
•	Ecological Assessment for R61 road widening, Eastern Cape	2012
•	Botanical Assessment for Chelsea RD - Walker Drive Ext., NMB	2010
	Botanical Assessment for Motherwell - Blue Water Bay Road, NMB	2010
	Ecological Assessment for Port St John Road, Eastern Cape	2010
•	Botanical Basic Assessment for Bholani Village Rd, Port St Johns, Eastern Cape	2009
	Botanical Report, EMP and Rehab Plan for Coega-Colchester N2 Upgrade, NMB	2009
	Botanical Assessment for Manganese Conveyor Screening Report, NMB	2008
•	Ecological Assessment for Road Layout for Whiskey Creek- Kenton, Eastern Cape	2006
MIN	IING PROJECTS	
•	Ecological Assessment for Bochum Borrow Pits, Limpopo	2013
•	Ecological Assessment and Mining and Rehabilitation Plan for Greater Soutpansberg Mining Project, Limpopo (3 proposed Mines)	2013
•	Ecological Assessment for Thulwe Road Borrow Pits, Limpopo	2013
•	Ecological Assessment and Mining and Rehabilitation Plan for Baghana Mining, Ghana	2010
•	Botanical Assessment for Zwartenbosch Quarry, Eastern Cape	2008
•	Botanical description & map production for Quarry - Rudman Quarry, Eastern Cape	2008
•	Botanical Basic Assessment, Rehab Plan & Maps for Borrow Pit - Rocklands/Patensie, Eastern Cape	2008
•	Botanical Assessment & Maps for Sandman Sand Gravel Mine, Eastern Cape	2008
•	Botanical Assessment & GIS maps for Shamwari Borrow Pit, Eastern Cape	2008
•	Detailed Botanical Assessment, EMP and Rehab Plan for Kalukundi Copper/Cobalt Mine, Democratic Republic of Congo	2008
•	Botanical Assessment, Rehab Plan & Maps for Borrow Pit Humansdorp/Oyster Bay, Eastern Cape	2008
	Botanical Assessment, Rehab Plan & Maps for AWRM - Cala, Eastern Cape	2008
	Botanical Assessment, Rehab Plan & Maps for AWRM - Camdeboo, Eastern Cape	2008
	Botanical Assessment, Rehab Plan & Maps for AWRM - Somerset East, Eastern Cape	2008
	Botanical Assessment, Rehab Plan & Maps for AWRM - Nkonkobe, Eastern Cape	2008
	Botanical Assessment, Rehab Plan & Maps for AWRM - Ndlambe, Eastern Cape	2008
•	Botanical Assessment, Rehab Plan & Maps for AWRM - Blue Crane Route, Eastern Cape	2008
	Botanical Assessment, EMP and Rehabilitation Plan for AWRM - Cathcart, Eastern Cape	2008
	Botanical Assessment, GIS maps and Rehab Plan for Mthatha Prospecting, Eastern Cape	2008
	Regional Botanical Map for mining prospecting permit, Welkom	2008
•	Botanical Assessment for Scoping Report and Detailed Botanical Assessment and Rehab Plan for Elitheni Coal Mine, Eastern Cape	2007
•	Botanical Assessment, Rehab Plan & Maps for Borrow Pit - Oyster Bay, Eastern Cape	2007
•	Botanical Assessment, Rehab Plan & Maps for Borrow Pit - Bathurst/GHT, Eastern Cape	2007
•	Botanical Assessment, Rehab Plan & Maps for Borrow Pit – Jeffreys Bay, Eastern Cape	2007
•	Botanical Assessment, Rehab Plan & Maps for Borrow Pit - Storms river/Kareedouw, Eastern Cape	2007
	Biophysical Assessment for Humansdorp Quarry, Eastern Cape	2006
•	Botanical Assessment, Rehab Plan & Maps for Quarry-Cathcart & Somerset East, Eastern Cape	2006
•	Botanical Assessment, Rehab Plan & Maps for Quarry - Despatch Quarry, NMB	2006
•	GIS Mapping & Botanical Assessment and Rehab Plan for Quarry - JBay Crushers, Eastern Cape	2006
•	Botanical Assessment, EMP and Rehabilitation Plan for Polokwane Silicon Smelter, Limpopo	2006
•	Application for Mining Permit for Bruce Howarth Quarry, Eastern Cape	2006
POV	VERLINE INFRASTRUCTURE PROJECTS	
•	Ecological Assessment: Dieprivier-Karreedouw 132kV Powerline realignment, Kouga LM	2016
•	Eskom Ecological Walkdown: Dieprivier-Karreedouw 132 kV Powerline, Kouga LM	2016
•	Eskom Solar one Ecological Walkdown: Nieuwehoop 400 kV powerline	2015
•	Rehabilitation Plan and Auditing for Grassridge-Poseidon Powerline Rehab, Eastern Cape	2013
•	Ecological Assessment for Dieprivier Karreedouw 132kV Powerline, Eastern Cape	2012

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•	Flora and Fauna search and Rescue plan for Van Stadens Windfarm Powerline, NMB	2012
•	Botanical Assessment for Dedisa-Grassridge Powerline, Eastern Cape	2010
•	Ecological Assessment for Grahamstown-Kowie Powerline, Eastern Cape	2010
•	Species of Special Concern Mapping Transmission Line for San Souci to Nivens Drift 132kV powerline, NMB	2009
•	Botanical Assessment for Eskom Powerline - Albany-Kowie, Eastern Cape	2009
•	Botanical Assessment for Eskom 132 kV Dedisa Grassridge Power line-Coega, NMB	2006
•	Botanical Assessment for Eskom Power line – Tyalara-Wilo, Eastern Cape	2006
•	Botanical Assessment for Steynsburg - Teebus 132 kV powerline, Eastern Cape	2004
PIP	ELINE INFRASTRUCTURE PROJECTS	
•	Terrestrial Biodiversity Assessment for Thornhill Phase 2 Sanitation Link, Ndlambe, Eastern Cape	2020
•	Botanical Assessment for Ngqamakhwe Regional Water Supply Scheme (Phase 3)	2018
•	Ecological Assessment for Butterworth Emergency Bulk Water Supply Scheme	2017
•	Ecological Assessment for Karringmelkspruit Emergency Bulk Water Supply (Lady Grey)	2017
•	Ecological Assessment for Wanhoop-Willowmore Bulk Water Supply, Eastern Cape	2016
•	Ecological Assessment for Steytlerville Bulk Water Supply, Eastern Cape (Phase 4)	2013
•	Ecological Assessment for Steytlerville Bulk Water Supply, Eastern Cape (Phase 5)	2013
•	Detailed Ecological Assessment for Suikerbos Pipeline, Gauteng	2012
•	Basic Botanical Assessment for Wanhoop farm pipeline, Eastern Cape	2010
•	Basic Botanical Assessment for Chatty Sewer, NMB	2010
•	Species of Special Concern Mapping for Seaview Pipeline, NMB	2009
•	Species of Special Concern Mapping for Chelsea Bulk Water Pipeline, NMB	2009
•	Map Production for Russell Rd Stormwater, NMB	2008
•	Basic Botanical Assessment for Albany Pipeline, Eastern Cape	2008
•	Environmental Risk Assessment for Elands River pipeline, Eastern Cape	2007
•	Detailed Botanical Assessment for Motherwell Pipeline, NMB	2007
•	Detailed Botanical Assessment, GIS maps for Erasmuskloof Pipeline, Eastern Cape	2007
•	Botanical & Floristic Report for Hankey pipeline, Eastern Cape	2006
•	Detailed Botanical Assessment for Port Alfred water pipeline, Eastern Cape	2004
НО	USING DEVELOPMENT PROJECTS	
•	Terrestrial Biodiversity Assessment for Erf 1820 Mthatha, KSDM, Eastern Cape	2020
•	Ecological Assessment for Erf 599 Walmer Mixed Use Development, Nelson Mandela Bay	2019
•	Ecological Assessment for erf 14, Kabega, Port Elizabeth	2017
•	Ecological Assessment for Fairwest Rental Housing, Port Elizabeth	2017
•	Ecological Assessment for Hankey Housing, Kouga District Municipality	2015
•	Ecological Assessment for Lebowakgoma Housing, Limpopo	2013
•	Ecological Assessment for Giyani Development, Limpopo	2013
•	Ecological Assessment for Palmietfontein Development, Limpopo	2013
•	Ecological Assessment for Seshego Development, Limpopo	2013
•	Botanical Assessment for Sheerness Road, BCM, Eastern Cape	2013
•	Ecological Assessment for Ethembeni Housing, NMB	2012
•	Ecological Assessment for Pelana Housing, Limpopo	2012
•	Flora Search and Rescue Plan for Kwanobuhle Housing, Western Cape	2011
•	Botanical Assessment for The Crags 288/03, Western Cape	2010
•	Ecological Assessment Revision Report for Fairview Housing, NMB	2010
•	Botanical Assessment, EMP and Open Space Management Plan for Hornlee Housing Development,	2010
2	Western Cape Retarrical Assessment for Little Ladwused Western Cape	20.00
•	Botanical Assessment for Little Ladywood, Western Cape	2010
•	Botanical Assessment and Open Space Management Plan for Motherwell NU31, NMB	2010
•	Botanical Assessment and Open Space Management Plan for Plett 443/07, Western Cape	2010

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•	Botanical Assessment for Willow Tree Farm, NMB	2010
•	Botanical Assessment for Kouga RDP Housing, Eastern Cape	2009
•	Botanical Assessment for Fairview Erf 1226 (Wonderwonings), NMB	2009
•	Species List Compilation for Zeekoerivier Humansdorp, Eastern Cape	2009
•	Botanical Assessment for Woodlands Golf Estate (Farm 858), BCM, Eastern Cape	2009
•	Botanical Assessment for Plettenberg Bay - 438/4, Western Cape	2009
•	Vegetation Assessment for Kwanokuthula RDP housing project, Western Cape	2008
•	Site screening assessment for Greenbushes Site screening, NMB	2008
•	Botanical Assessment for Fairfax development, Eastern Cape	2008
•	Botanical Assessment for Plettenberg Bay Brakkloof 50&51, Western Cape	2008
•	Botanical Assessment, GIS mapping for Theescombe Erf 325, NMB	2008
•	Site Screening for Mount Road, NMB	2008
•	Botanical Assessment for Greenbushes Farm 40 Swinburne 404, NMB	2008
•	Botanical Assessment for Greenbushes 130, NMB	2008
٠	Botanical Assessment for Greenbushes Kuyga no. 10, NMB	2008
•	Botanical Assessment for Plettenberg Bay - 438/24, Western Cape	2007
•	Botanical Assessment for Plettenberg Bay - Olive Hills 438/7, Western Cape	2007
•	Botanical Assessment for Gonubie Portion 809/9, BCM, Eastern Cape	2006
•	Botanical Assessment for Glengariff Farm 723, BCM, Eastern Cape	2006
•	Botanical Assessment for Gonubie Portion 809/10, BCM, Eastern Cape	2006
•	Botanical Assessment for Gonubie Portion 809/4 & 5, BCM, Eastern Cape	2006
•	Botanical Assessment for Plettenberg bay - Ladywood 438/1&3, Western Cape	2006
•	Botanical Assessment and Rehab Plan for Winterstrand Desalination Plant, BCM	2006
•	Botanical Assessment for Bosch Hoogte, NMB	2006
•	Botanical Assessment for Plettenberg bay Farm 444/38, Western Cape	2006
•	Botanical Assessment for Plettenberg Bay - 444/27, Western Cape	2006
•	Botanical Assessment for Leisure Homes, BCM, Eastern Cape	2006
•	Botanical Basic Assessment for Trailees Wetland Assessment, Eastern Cape	2005
•	Botanical Assessment and Rehab Plan for Arlington Racecourse - PE, NMB	2005
•	Botanical Assessment for Smart Stone, NMB	2005
•	Botanical Assessment for Peninsular Farm (Port Alfred), Eastern Cape	2005
•	Botanical Assessment for Mount Pleasant - Bathurst, Eastern Cape Botanical Assessment and BoD amendments for Calchester Even 4647 8 4648 (Biverside) NAB	2005
•	Botanical Assessment and RoD amendments for Colchester Erven 1617 & 1618 (Riverside), NMB	2005
•	Basic Botanical Assessment for Parsonsvlei 3/4, Eastern Cape	2005
•	Botanical Assessment for Bridgemead – Malabar PE, NMB	2002
AG	RICULTURAL PROJECTS	
•	Ecological Assessment for Citrus expansion on Hitgeheim Farm, Sunland, Eastern Cape	2015
•	Ecological Assessment for Doornkraal Pivot (Hankey), Eastern Cape	2014
•	Ecological Assessment for Citrus expansion on Farm 960, Patensie	2014
•	Ecological Assessment for Tzaneen Chicken Farm, Limpopo	2013
•	Botanical Assessment and Open Space Management Plan for Kudukloof, NMB	2010
٠	Botanical Assessment and Open Space Management Plan for Landros Veeplaats, NMB	2010
•	Botanical Assessment and Flora Relocation Plan for Wildemans Plaas, NMB	2006
GO	LF ESTATE AND RESORT DEVELOPMENT PROJECTS	
•	Species List& Comments Report for Kidds Beach Golf Course, BCM, Eastern Cape	2009
•	Botanical Assessment for Plettenberg Bay -Farm 288/03, Western Cape	2009
•	Botanical Assessment for Rockcliff Golf Course, BCM, Eastern Cape	2008
•	Botanical Assessment for Rockcliff Resort Development, BCM, Eastern Cape	2007
•	Botanical Assessment, EMP and Rehabilitation Plan for Tiffendel Ski Resort, Eastern Cape	2006

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MIXED USE DEVELOPMENT PROJECTS	
Ecological Assessment for South-End Precinct Mixed Use Development, Nelson Mandela Bay	2018
 Botanical Assessment, EMP and Open Space Management Plan for Bay West City, NMB 	2010
 Botanical Assessment, GIS maps, Open Space and Rehab Plans for Fairview Erf 1082, NMB 	2009
 Botanical Assessment and GIS maps for Utopia Estate PE, NMB 	2008
 Botanical Assessment and GIS mapping for Madiba Bay Leisure Park, NMB 	2007
 Botanical Assessment and GIS mapping for Madiba Bay Leisure Park, NMB 	2007
 Botanical Basic Assessment for Cuyler Manor (Farm 320), Uitenhage, NMB 	2007
BUSINESS AND INDUSTRIAL DEVELOPMENT PROJECTS	
 Ecological Assessment for Parsonsvlei Erf 984 & 1134 Parsonsvlei, NMB 	2020
 Ecological Assessment for Walmer Erf 11667 - Bidfood Warehousing Development, NMB 	2020
 Ecological Assessment for Portion 87 of the Farm Little Chelsea No 10, NMB 	2020
 Ecological Assessment for Bay West City ENGEN Service Station, NMB 	2015
 Ecological Assessment for Green Star grading for SANRAL, NMB 	2014
Ecological Assessment for OTGC Tank Farm, NMB	2012
 Botanical Assessment and Open Space Management Plan for Petro SA Refinery, Coega IDZ, NME 	2010
 Botanical Assessment for Bluewater Bay Erf 805, NMB 	2009
Ecological Assessment for Bay West City, NMB	2007
Botanical Assessment for Kenton Petrol Station, Eastern Cape	2005
 Botanical Assessment and RoD amendments for Colchester Petrol Station, NMB 	2005
ECO-ESTATE DEVELOPMENT PROJECTS	
 Botanical Re-Assessment of Swanlake Eco Estate, Aston Bay, Eastern Cape 	2018
 Detailed Botanical Assessment and Open Space Management Plan for Olive Hills, Western Cape 	2010
 Botanical Assessment and EMP for Zwartenbosch Road, Eastern Cape 	2010
 Botanical Assessment - Poultry Farm for Coega Kammaskloof Farm 191, NMB 	2008
 Botanical Assessment - Housing development for Coega Ridge, NMB 	2008
 Botanical Assessment, Rehabilitation Plan, EMP and GIS maps for Amanzi Estate, NMB, 	2008
Botanical Assessment for Roydon Game farm, Queenstown, Eastern Cape	2007
Botanical Assessment for Winterstrand Estate (Farm 1008), BCM, Eastern Cape Description of the Control	2007
Botanical Assessment for Homeleigh Farm 820, BCM, Eastern Cape	2007
Botanical Basic Assessment, Rehab Plan & Maps for Candlewood, Tsitsikamma, Western Cape	2007
Botanical Assessment, EMP and Rehab Plan for Carpe Diem Eco development, Eastern Cape	2007
Botanical Assessment, EMP and Rehabilitation Plan for Seaview Eco-estate, NMB	2006
Botanical Assessment for Kidd's Beach portion 1076, BCM, Eastern Cape	2006
Botanical Assessment for Palm Springs, Kidds Beach East London, BCM, Eastern Cape Patracial Assessment for Palm Springs, Kidds Beach East London, BCM, Eastern Cape Patracial Assessment for Palm Springs, Kidds Beach East London, BCM, Eastern Cape	2006
Botanical Assessment for Nahoon Farm 29082, BCM, Eastern Cape Batanical Assessment for Resolvill Farm Factors Cape Batanical Assessment for Resolvill Farm Factors Cape Batanical Assessment for Resolvill Farm Factors Cape Batanical Assessment for Nahoon Farm 29082, BCM, Eastern Cape Batanical Assessment for Nahoon Farm 29082, BCM, Eas	2006
Botanical Assessment for Rosehill Farm, Eastern Cape Detailed Assessment for Rosehill Farm, Eastern Cape On the Company of the Company	2005
Botanical Assessment for Resolution Game Farm, Eastern Cape Returned Assessment for Capable Parties 200/14 PCM Factors Capable Return Capable Parties 200/14 PCM Factors Capable PCM Factors Ca	2005
Botanical Assessment for Gonubie Portion 809/11, BCM, Eastern Cape Batanical Assessment for Kidd's Boards and State Company Company	2005
 Botanical Assessment for Kidd's Beach portion 1075, BCM, Eastern Cape 	2005
FLORA AND FAUNA RELOCATION PLANS, PERMITS AND IMPLEMENTATION	
 Flora Search and Rescue for Nelson Mandela University Phase 2 & 3 Residences, Eastern Cape 	2020
 Flora Search and Rescue for Fairwest Housing Estate, Nelson Mandela Bay, Eastern Cape 	2019
 Flora Search and Rescue for Utopia Estate, Nelson Mandela Bay, Eastern Cape 	2019
 Flora Search and Rescue for Citrus expansion on Boschkraal Citrus Farm, Sunland, Eastern Cape 	2018
 Flora Search and Rescue for Wanhoop pipeline, Willowmore, Eastern Cape 	2018
 Flora Search and Rescue for Citrus expansion on Hitgeheim Farm (Farm 960), Sunland, Easter Cape 	n 2017

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Flo	ora Search and Rescue for Steytlerville Bulk Water Supply, Eastern Cape (Phase 5)	2016
• Flo	ora Search and Rescue for Citrus expansion on Farm 960, Patensie (AIN du Preez Boerdery)	2016
• Flo	ora Search and Rescue for Steytlerville Bulk Water Supply & WTW, Eastern Cape (Phase 4)	2015
• Flo	ora and Fauna Search and Rescue for Riversbend Citrus Farm, NMB	2014
• Flo	ora and Fauna Search and Rescue for Mainstream Windfarm, Eastern Cape	2013
 Flo 	ora Search and Rescue for Steytlerville Bulk Water Supply, Eastern Cape (Phase 1, 2 & 3)	2013
 Flo 	ora and Fauna Search and Rescue for OTGC Tank Farm, Coega IDZ, NMB	2013
• Flo	ora and Fauna Search and Rescue for Jeffreys Bay School, Eastern Cape	2013
• Flo	ora Search and Rescue Plan for Red Cap Wind Farm, Eastern Cape	2012
Flo	ora Relocation for Disco Poultry Farm, NMB	2010
• Flo	ora Relocation for Mainstream Windfarm, Eastern Cape	2010
ENVIRO	NMENTAL MANAGEMENT PLANS	
	nal Environmental Management Programme (EMPr) and Maintenance Management Plan for uth End Precinct Mixed Use Zone, Nelson Mandala Bay Municipality	2020
Dev	nal Environmental Management Programme (EMPr) for Coega Land-Based Aquaculture evelopment Zone (ADZ), Coega Industrial Development Zone (IDZ), Nelson Mandela Bay unicipality	2019
 Bas 	sic Botanical Assessment for Kromensee EMP (Jeffries Bay), Eastern Cape	2010
 We 	etland Management Plan for NMB Portnet, NMB	2010
	seline Botanical Study, Vegetation mapping and EMP for Local Nature Reserve for Plettenberg y Lookout LNA, Western Cape	2009
	odiversity & Ecological Processes for Bathurst-Commonage, Eastern Cape	2006
 EM 	1P for Kromensee EMP (Jeffries Bay), Eastern Cape	2006
 Flor 	oral Survey for Mbotyi Conservation Assessment, Eastern Cape	2005
 Ide 	entifying and Assessment on Aquatic Weeds for Pumba Private Game Reserve, Eastern Cape	2005
ENVIRO	NMENTAL MANAGEMENT, AUDITING, COMPLIANCE AND MONITORING PROJECTS	
 ECC 	O for DRPW IRM Road Maintenance projects, Baviaans LM	2019
	O for DRPW IRM Road Maintenance projects, Sengu LM	2019
 ECC 	O for DRPW IRM Road Maintenance projects, Kouga/Koukamma LM	2019
 ECC 	O for DRPW IRM Road Maintenance projects, Sakhisizwe/Engcobo LM	2019
 ECC 	O for DRPW IRM Road Maintenance projects, Elundini LM	2019
 ECC 	O for DRPW IRM Road Maintenance projects, Emalahleni/Intsika Yethu LM	2019
 ECC 	O for Construction of Fairwest Village Housing Project	2019
 ECC 	O for Construction of Utopia Estate	2019
 ECC 	O for Construction of NMU West End Student Residences Phases 1 & 3	2019
	O for DRPW IRM Road Maintenance projects, Raymond Mahlaba LM	2018
 ECC 	O for DRPW IRM Road Maintenance projects, Inkwanca (Enoch Mgijima) LM	2018
 ECC 	O for Citrus expansion on Farm 960, Patensie (AIN du Preez Boerdery)	2017
	O for Citrus expansion on Hitgeheim Farm (Farm 960), Sunland, Eastern Cape	2017
	O for improvement of national route R67 section 5 from Whittlesea (km 0.00) to Swart Kei river	2017
	n 15.40) – Murray & Roberts	
	O for SANRAL RRP Road Maintenance projects, Mbizana LM	2017
Far	O and Botanical Specialist for the special maintenance of national route R61 Section 2 from Elinus rm (km 42.2) to N10 (km 85.0) (SANRAL)	2016
• Fm	vironmental Control Officer (ECO): Construction of NSRI Slipway - Port Elizabeth Harbour	2016
- LIIV	O for SANRAL RRP Road Maintenance projects, Mbashe LM	2016
• ECC	O for SANRAL RRP Road Maintenance projects, Nkonkobe LM	2016
ECCECC	O for SANRAL RRP Road Maintenance projects, Nkonkobe LM O for SANRAL RRP Road Maintenance projects, Mbizana LM	2016 2016
 ECC ECC ECC 	O for SANRAL RRP Road Maintenance projects, Nkonkobe LM	

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•	ECO and Environmental Management for closure of Bushmans River Landfill site	2016
•	ECO for DRPW IRM Road Maintenance projects, Amahlathi Municipality	2015
	ECO for DRPW IRM Road Maintenance projects, Makana/Ndlambe Municipality	2015
	ECO for DRPW IRM Road Maintenance projects, Mbashe/Mqume Municipality	2015
	ECO for DRPW IRM Road Maintenance projects, Port St Johns, Mbizana, Ingquza Hill LM's	2015
	ECO for Riversbend Citrus Farm, NMB	2014
•	ECO for Alfred Nzo DM Road resurfacing - DRo8071, DRo8649, DRo8092, DRo8418, DRo8452,	2014
	DR08015, DR08085, DR08639 & DR08073, Eastern Cape - MSBA	
•	ECO Audits for Koukamma Flood Damage Road Repairs – Hatch Goba	2014
•	EMP and ECO for Utopia Estate, NMB	2013
•	Final EMP submission for Seaview Garden Estate, NMB	2012
•	ECO audits for NMB Road surfacing, NMB (multiple contacts)	2011
•	EMP submission and ECO for Seaview Garden Estate, NMB	2010
•	ECO for Mainstream Windfarm wind monitoring mast installation, Eastern Cape	2010
•	EMP and ECO for Sinati Golf Estate EMP, BCM, Eastern Cape	2009
•	Flora Relocation Plan and Permit application for Wildemans Plaas, NMB	2006
BAS	SIC ASSESSMENT APPLICATION PROJECTS (DEDEAT)	
•	Basic Assessment Application for Parsonsvlei Erf 984 & 1134 Parsonsvlei	2020
•	Basic Assessment Application for Vermaak Boerdery Hydro Turbine (Cookhouse)	2020
•	Basic Assessment Application for Walmer Erf 11667 Bidfood Warehousing Development	2020
•	Basic Assessment Application for Portion 87 of the Farm Little Chelsea No 10	2020
•	Basic Assessment Application for Nelson Mandela University Access Road, NMB	2019
•	Basic Assessment Application for Erf 599 Walmer Mixed Use Development, Nelson Mandela Bay	2019
•	Basic Assessment Application for Cookhouse Bridge rehabilitation and temporary deviation	2019
•	Basic Assessment Application for Erf 14 Kabega, NMBM	2017
•	Basic Assessment Application for Hankey Housing, Kouga District Municipality	2017
•	Basic Assessment Application for Fairwest Rental Housing, Nelson Mandela Bay	2017
•	Basic Assessment Application for Citrus expansion on Hitgeheim Farm, Sunland, Eastern Cape	2015
•	Basic Assessment Application for Hankey Housing, Kouga District Municipality	2015
•	Basic Assessment Application for Citrus expansion on farm 960, Patensie (AIN du Preez Boerdery) Basic Assessment Application for South-End Precinct Mixed Use Development, Nelson Mandela Bay 2018	2014
ENV	/IRONMENTAL SCREENING PROJECTS	
•	Environmental Screening Report for Proposed Life Hospital parking expansion, NMB	2019
•	Environmental Screening Report for Erf 984 & 1134 development, Parsonsvlei, NMB	2019
•	Environmental Screening Report for proposed Khayalethu School, Buffalo City	2018
•	Environmental Screening Report for Proposed Housing Development of Erf 8700, Kabega Park, NMB	2017
•	Environmental Screening Report for Proposed Housing Development of Erf 14, Kabega Park, NMB	2017
•	Environmental Screening Report for Proposed Fairwest Social Housing project, Fairview, NMB	2016
•	Environmental Screening Report for Development of Little Chelsea No 25, NMB	2016
•	Terrestrial Vegetation Risk Assessment for proposed Skietnek Citrus Farm development (Kirkwood)	2015
•	Preliminary Environmental Risk Assessment: NSRI Slipway Port Elizabeth	2015
•	Environmental Screening Report for Proposed Development of a Dwelling on Erf 899, Theescombe	2015
•	Environmental Screening Report for Proposed Development on Erf 559, Walmer, Port Elizabeth	2015
•	Environmental Screening Report for Proposed Housing Scheme Development of Erf 8709, Wells Estate	2015
•	Environmental Screening Report for Development of Portion 10 of Little Chelsea No 87, NMB	2015

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MINING PERMIT/ENVIRONMENTAL MANAGEMENT PROGRAMME APPLICATIONS (DMR) Mining BAR/EMP's for Blue Crane Route LM Borrow Pits - (DoT) 2019 2018 Mining BAR/EMP's for 24 Borrow Pits in 6 districts within the Eastern Cape- (SANRAL) Mining BAR/EMP's for Ingguza Hill LM Borrow Pits - (SANRAL) 2017 Mining BAR/EMP's for Baviaans LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Sengu LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Kouga/Koukamma LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Inkwanca (Enoch Mgijima) LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Kouga/Koukamma LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Sakhisizwe/Engcobo LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Raymond Mahlaba LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Camdeboo LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Elundini LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Emalahleni/Intsika Yethu LM Borrow Pits - (DRPW) 2017 Mining BAR/EMP's for Nkonkobe LM Borrow Pits - (SANRAL) 2016 Mining BAR/EMP's for Mbhashe LM Borrow Pits - (SANRAL) 2016 Mining BAR/EMP's for Mbizana LM Borrow Pits - (SANRAL) 2016 Mining BAR/EMP's for Sengu LM Borrow Pits - (SANRAL) 2016 Mining BAR/EMP's for Elundini LM Borrow Pits - (SANRAL) 2016 Mining BAR/EMP's for Emalahleni LM Borrow Pits - (SANRAL) 2016 Mining BAR/EMP's for Emalahleni LM Borrow Pits - (DRPW) 2016 Mining BAR/EMP's for Ikwezi/Baviaans LM Borrow Pits - (DRPW) Mining BAR/EMP's for Chris Hani DM Borrow Pits - MR00716 (Tarkastad) (DRPW) 2015 Mining BAR/EMP's for Chris Hani DM Borrow Pits - Intsika Yethu and Emalahleni (DRPW) 2015 Mining BAR/EMP's for Joe Gqabi DM Borrow Pits - Sengu (DRPW) 2015 Mining BAR/EMP's for Makana/Ndlambe LM Borrow Pits - Sarah Baartman (DRPW) 2015 Mining BAR/EMP's for Amahlathi LM Borrow Pits - Amatole (DRPW) 2015 Mining BAR/EMP's for Mbashe/Mqume LM Borrow Pits - Amatole (DRPW) 2015 Mining BAR/EMP's for Sundays River Valley LM Borrow Pits - Sarah Baartman (DRPW) 2015 Mining BAR/EMP's for Kouga LM Borrow Pits - Sarah Baartman (DRPW) 2015 Mining BAR/EMP's for Chris Hani DM Borrow Pits - MR00716 (DRPW) 2014 Mining BAR/EMP's for Chris Hani DM Borrow Pits - DR02581 (DRPW) 2014 Mining BAR/EMP's for Chris Hani DM Borrow Pits - DR08041, DR08247, DR08248 & DR08504 2014 (DRPW) Mining BAR/EMP's for Chris Hani DM Borrow Pits - DR08599, DR08601 & DR08570 (DRPW) 2014 Mining BAR/EMP's for Chris Hani DM Borrow Pits - DR08235, DR08551 & DR08038 (DRPW) 2014 Mining BAR/EMP's for Alfred Nzo DM Borrow Pits - DR08092, DR08093 & DR08649 (DRPW) 2014 Mining BAR/EMP's for Alfred Nzo DM Borrow Pits - DR08090, DR08412, DR08425, DR08129, DR08109, DR08106, DR08104 & DR08099 - Matatiele (DRPW) SECTION 24G APPLICATIONS 12 000 ML Dam constructed on farm 960, Patensie (MGM Trust) 2015 Illegal clearing of 20 Ha of lands on Hitgeheim Farm, Sunland, Eastern Cape 2015 GIS AND IT DEVELOPMENT Development of iAuditor Environmental Audit templates (DRPW audits) 2014 Landsat Image classification and analysis (Congo Agriculture) 2010 2008 Development of GIS databases and mapping tools for Manifold GIS software

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CONFERENCES AND PUBLICATIONS

- Pote, J., Shackleton, C.M., Cocks, M. & Lubke, R. 2006. Fuelwood harvesting and selection in Valley Thicket, South Africa. <u>Journal of Arid Environments</u>, 67: 270-287.
- Pote, J., Cocks, M., Dold, T., Lubke, R.A. and Shackleton, C. 2004. The homegarden cultivation of indigenous medicinal plants in the Eastern Cape. <u>Indigenous Plant Use Forum</u>, 5 - 8 July 2004, Augsburg Agricultural School, Clanwilliam, Western Cape.
- Pote, J. & Lubke, R.A. 2003. The selection of indigenous species suitable for use as fuelwood and building
 materials as a replacement of invasive species that are currently used by the under-privileged in the
 Grahamstown commonage. <u>Working for Water Inaugural Research Symposium</u> 19 21 August 2003,
 Kirstenbosch. Poster presentation.
- Pote, J. & Lubke, R.A. 2003. The screening of indigenous pioneer species for use as a substitute cover crop for rehabilitation after removal of woody alien species by WfW in the grassy fynbos biome in the Eastern Cape. Working for Water Inaugural Research Symposium 19 - 21 August 2003, Kirstenbosch, South Africa.

OTHER RESEARCH EXPERIENCE

- Resource assessment of bark stripped trees in indigenous forests in Weza/Kokstad area (June 2000; Dr C. Geldenhuis & Mr. M. Kaplin).
- Working for Water research project for indigenous trees for woodlots (December 2000/January 2001; Prof R.A. Lubke, Rhodes University).
- Project coordinator and leader of the REFYN project A BP conservation gold award: Conservation and Restoration of Grassy-Fynbos. A multidisciplinary project focusing on management, restoration and public awareness/education (2001 – 2002).
- Conservation Project Management Training Workshops: Royal Geographical Society, London 2001 Fieldwork Techniques, Habitat Assessment, Biological Surveys, Project Planning, Public Relations and Communications, Risk Assessment, Conservation Education
- Selection and availability of wood in Crossroads village, Eastern Cape, South Africa. Honours Research Project 2002. Supervisors: Prof. R.A. Lubke & Prof. C. Shackleton.
- Floral Morphology, Pollination and Reproduction in Cyphia (LOBELIACEAE). Honours Research Project 2002.
 Supervisor: Mr. P. Phillipson.
- Forestry resource assessment of bark-stripped species in Amatola District (December 2002; Prof R.A. Lubke).
- Homegarden Cultivation of Medicinal Plants in the Amathole area. Postgraduate Research Project (2003-2005; Prof R.A. Lubke, Prof C.M. Shackleton and Ms C.M., Cocks).

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