

Kate Steyn

Principal Environmental Consultant



Profession	Environmental Scientist
Education	MSc (Botany), Rhodes University, 1997 BSc (Hons), (Botany), Rhodes University, 1995 BSc, Rhodes University, 1994
Registrations/ Affiliations	Member International Association of Impact Assessment (IAIAsa)
Awards	SRK Chairman's Award, 2004

Specialisation	Environmental and social impact assessments, integrated environmental management and strategic planning, including environmental management frameworks, public consultation, project management, environmental management plans and programmes and environmental reviews.
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Expertise	<ul style="list-style-type: none"> conducting and managing a broad range of environmentally based projects, with a particular emphasis on ESIA's and Environmental and Social Due Diligence; co-ordinating multi-disciplinary teams and integrating and balancing ecological, physical and socio-economic factors in development planning.
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Employment

2023 – present	SRK Consulting (Pty) Ltd, Principal Environmental Consultant, Cape Town
2015 - 2022	Flourish Gardens Advisory, Owner, Cape Town
2012 – 2014	Botanical Society of South Africa, Manager, Kirstenbosch Branch, Cape Town
2003 – 2011	SRK Consulting (Pty) Ltd, Principal Environmental Consultant, Cape Town
2001 – 2003	Crowther Campbell & Associates, Environmental Consultant, Cape Town
2000 – 2001	Projectlink plc, Marketing Manager, London
1998 – 2000	Coastal & Environmental Services, Environmental Consultant, Grahamstown
Jan - Nov 1998	Rhodes University (part-time), Academic Development Programme Tutor for the Botany Department, Grahamstown

Publications	<ol style="list-style-type: none"> BORDENAVE, B.B., DE GRANVILLE, J-J, AND STEYN, C.F. (in press) New tools to set local-scale botanical conservation priorities in a Guianan Rainforest: an example from the Bakhuis Mountains, Suriname. Submitted to: Botanical Journal of the Linnean Society. PHILLIPSON, P.B. AND STEYN, C.F. (2008). <i>Tetradenia</i>. (Lamiaceae) in Africa: new species and new combinations. <i>Adansonia</i> 30(1): 177-196. LOMBARD, A.T., JOHNSON, C.F., COWLING, R.M., PRESSEY, R.L. (2001). Protecting Plants from Elephants: botanical reserve scenarios within the Addo Elephant National Park, South Africa. <i>Biological Conservation</i> 102: 191-203. JOHNSON, C.F. AND PHILLIPSON, P.B. (2000). Reproductive Biology of <i>Tetradenia</i> Benth. (Labiatae). Proceedings of the 1997 AETFAT Congress, Harare. JOHNSON, C.F., COWLING, R.M., PHILLIPSON, P.B. (1999). The flora of the Addo Elephant National Park, South Africa: are threatened species vulnerable to elephant damage? <i>Biodiversity and Conservation</i> 8: 1447-1456. JOHNSON, C.F., COWLING, R.M. AND LOMBARD, A.T. (1999). Protecting Plants from Pachyderms. Succulent thicket under threat at Addo. <i>Veld and Flora (Journal of the Botanical Society of South Africa)</i> 85(3): 126-127.
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7. DOLD, T. AND JOHNSON, C.F. (1997). Concern for Coega Kop. Veld and Flora (Journal of the Botanical Society of South Africa) 83(2): 40-41.
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Languages

English – read, write, speak (Excellent)
Afrikaans – read, write, speak (Fair)

Environmental (and Social) Impact Assessments (EIA or ESIA)

- Mainstream Renewable Power, 19 EIAs for the proposed 1 350 MW Stilfontein Cluster Solar Photovoltaic Project and associated infrastructure, South Africa, Project Manager, – ongoing, R2.1 million
 - Vale, Phosphate Processing Plant, Environmental Scoping Study (EPDA), Undertaking Scoping Study and Production of Critical Issues Report in association with local (Mozambique) consultants - Consultec, 2011, Project Manager, US \$ 130 000
 - Van Rhynsdorp, Western Cape, Environmental Impact Assessment, plus associated Waste Management and Air Quality License Applications, compilation of Environmental component of Feasibility Study, all environmental, social and heritage aspects of the EIA, public consultation and authority liaison, reporting, client liaison and strategy, 2010, Project Co-ordinator, US \$ 35 million
 - Vale, Evate Phosphate Mine, Environmental Scoping Study (EPDA), undertaking scoping study and production of critical issues report, in association with local (Mozambique) consultants - Consultec, 2010, Project Director, US \$ 130 000
 - Mondi, Phase 1 of the Mondi Mill Expansion, Environmental Impact Assessment, encompassing Waste Management and Air Quality licence applications, review of all project documentation generated by the team, strategic direction and quality, 2009, Project Reviewer, R650 000
 - National Scrap Metal, Proposed Installation of a Steel Shredder, Basic Assessment and 24G Application, client and authority liaison, EIA process, specialist management and review, 2009, Project Director, R250 000
 - Western Cape Provincial Administration: Department of Transport and Public Works, Road Infrastructure Branch, proposed upgrading of the R310 between the N2 and the MR177, Environmental Screening, Scoping and Impact Assessment, Public Consultation and Environmental Management, client and authority liaison, EIA process, specialist management and review, 2009, Project Director, R550 000
 - Nampak, Development of Proposed Beverage Can Manufacturing Facility, Environmental Impact Assessment, client liaison, EIA strategy and process, management of specialists, review and integration of specialist input, compilation of EIS, 2009, Project Manager, R500 000
 - Chevron Refinery, Installation and operation of proposed Octane Enhancement Plant, Basic Assessment and public consultation, client and authority liaison, EIA process and review, 2009, Project Director, R420 000
 - NV BHP Billiton Suriname (BMS), ESIA for the proposed Bakhuis Bauxite Mining Project, Environmental and Social Impact Assessment and Public Consultation, Environmental Management and Monitoring, Conceptual Closure and Rehabilitation Planning, Community Engagement Planning, client liaison, EIA process and strategy, compilation of EIA reports,
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specialist management and review of all specialist studies, public consultation and stakeholder interaction, 2004 – 2008, Project Manager, US \$4,500 000

- NV BHP Billiton Suriname (BMS), BHP Billiton Suriname Successor Mines project, Environmental Impact Assessment, field co-ordination and client liaison, specialist management and review, compilation of EIS, 2004, Project co-ordinator/ Consultation Manager, US \$500 000
 - AttPower Developments, Development of a public walkway along the Mossel Bay Beachfront, Environmental Impact Assessment, client & authority liaison, project planning strategy & EIA, 2004, Project Manager, R150 000
 - AttPower Developments, Redevelopment of several municipally owned precincts near the Mossel Bay Beachfront, Environmental Impact Assessments for the redevelopment of land parcels at Dias Strand and De Bakke/Santos beaches, client and authority liaison, Project planning and strategy, EIA process, 2004, Project Manager, R600 000
 - Joao Da Nova Beleggings, Proposed Rezoning and Development of the Remainder of Vyf-Brakkefontein No. 220, Hartenbos Heuwels, Mossel Bay, Environmental Impact Assessment (Scoping Study), Environmental Management Plans, client & authority liaison, project planning strategy, EIA process, 2004 – 2008, Project Manager, R200 000
 - Joao Da Nova Beleggings, Proposed Rezoning and subdivision of a portion of the Remainder 249 of Vyf-Brakkefontein No. 220, Kwanonqaba, Mossel Bay, Environmental Impact Assessments (Scoping Study), Environmental Management Plans, client & authority liaison, project planning & strategy, EIA process, 2004- 2008, Project Manager, R200 000
 - SANParks, Development of an Environmental Experiential Centre at Bordjiesrif, Environmental Impact Assessment, client and authority liaison, EIA process, report reviews, 2004, Project Manager, R240 000
 - Intels, Intels hazardous landfill, Environmental Impact Assessment, EIA process, management of specialists, review and integration of specialist input, compilation of EIS, 2004, Project Manager, US\$65 000
 - Intels, Intels Total Waste Management Facility, Environmental Impact Assessment, client liaison, EIA strategy and process, management of specialists, review and integration of specialist input, compilation of EIS, 2004, Project Manager, US\$60 000
 - Vodacom, Installation of a cellular communications base station at Kendal Road Waterworks, EIA application and initial public consultation, EIA process, public participation, and report compilation, 2004, Project Manager, R10 000
 - Private client, Rezoning and subdivision of Erf 1, Simonstown, EIA in terms of NEMA, EIA process, public participation and report compilation, 2003, Project Manager, R40 000
 - Saldanha Steel, Extension of an existing raw materials stockyard at Saldanha Steel, Scoping Report, client and authority liaison, management of specialists, review and integration of specialist input, compilation of Scoping Report and public consultation, 2003, Project Manager, R110 000
 - Saldanha Steel, Extension of existing brine evaporation ponds at Saldanha Steel, Scoping Report, client and authority liaison, management of specialists, review and integration of specialist input, compilation of Scoping Report and public consultation, 2003, Project Manager, R30 000
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- RPP Developments, Rezoning of Erf 22945, Tygerberg Business Park, Scoping Report, client and authority liaison, compilation of Scoping Report and public consultation 2002 – 2003, Project Manager, R30 000
 - City of Cape Town, Upgrading of the N2 between Rhodes Drive interchange and Hospital Bend, Environmental Impact Assessment, client and authority liaison, EIA process and reporting, public consultation, 2001- 2003, Project Manager, R250 000
 - South Peninsula Municipality, Construction of a silt and litter trap and associated upgrading of the Diep River, Diep River, Cape Town, client and authority liaison, EIA process and reporting, public consultation, 2002, Project Manager, R60 000
 - City of Cape Town, Proposed extension of Brackenfell Boulevard, Scoping Report, client and authority liaison, EIA process, public consultation, 2002, Project Manager, R55 000
 - ASLA, Construction of a bulk water supply pipeline, EIA application, client and authority liaison, EIA process and reporting, public consultation, 2002, Project Manager, R10 000
 - Southern Mining plc, Feasibility phase assessment of Corridor Sands heavy mineral sands, Environmental Impact Assessment, management of specialists and review of specialist reports, 2000, Project Co- Ordinator, n/a
 - Coega Development Corporation, Rezoning of the core development area at the Coega Industrial development Zone from agricultural to special purposes, EIA, client and authority liaison, EIA process and reporting, 2000, Project Manager, n/a
 - Tiomin, Tiomin Heavy Mineral Sands project: Key issue reports, Environmental Impact Assessment, specialist management and review of specialist reports, 1999, Project Manager, n/a
 - BHP, Moma Heavy Mineral Sands, Environmental Impact Assessment, specialist management and review of specialist reports, 1999, Project Co-ordinator, n/a
 - Billiton, TiGen Mineral Sands Mining, Environmental Impact Assessment, Project Co-ordinator: specialist management and review of specialist reports, 1998, Project Co-ordinator, n/a
 - Private client, Proposed development of winery at Lorraine Farm, Scoping Report, EIA process, report compilation and public consultation, 1999, Project Manager, n/a
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Environmental and Social Management

- NV BHP Billiton Suriname (BMS), Bakhuis Bauxite Mining Project, Conceptual Closure Plan, 2007 – 2008, Report Reviewer, US \$200,000
 - NV BHP Billiton Suriname (BMS), Bakhuis Bauxite Mining Project, Indigenous Peoples' Development Plan, 2007 – 2008, Report Reviewer, US \$200,000
 - NV BHP Billiton Suriname (BMS), Bakhuis Bauxite Mining Project, Environmental Management and Monitoring Plan, 2007 – 2008, Report Reviewer, US \$200,000
 - Atterbury Cape, Construction of Kenridge Lifestyle Centre, Environmental Management Plan, 2003, Project Manager, R20 000
 - Private client, Construction of Willowbridge Lifestyle Centre, Environmental Management Plan, 2003, Project Manager, R170 000
 - SASOL, Natural gas drilling operations in Temane and Pande Blocks, Update of EMP, 2003, Project Manager, R80 000
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Environmental Auditing and Due Diligence

- Nova Cimangola/ Standard Bank, Due diligence compliance review of the proposed IV Furnace Cement Factory Project in Cacuo, Angola, Project co-ordinator, R200 000
- Exxaro, Performance assessment against the environmental commitments in the Namakwa Sands Consolidated EMP for the Mine and Mineral Separation Plant, conducted the actual audit and compiled associated reporting in accordance with Namakwa Sands' requirements, 2010, Project Manager, R60 000
- BHP Billiton, Corporate Health Safety Environment and Community (HSEC), Audit of the Worsley Alumina Operations (Boddington Bauxite Mine and Worsley Alumina Refinery), HSEC Audit, 2005, Auditor, n/a
- Kristensen Oceanfront Restaurants, Kristensen Oceanfront Restaurants Environmental Audits, Environmental Audit, Report review and client liaison, Auditor for 2 of the 6 restaurants audited, 2005, Project Manager, R20 000
- Caltex, Sandvik Sulphur Pastillation Plant, Caltex Refinery, Environmental Audit, assisted with the audit and reporting, 2002, Project Co-ordinator, R30 000
- PetroSA, Construction of subsea pipeline and installation of new tanks at Voorbaai tank farm, Environmental control during construction and audit, auditing of site activities and reporting, client and authority liaison, 2001- 2003, Environmental Control Officer, R140 000

Environmental management plans and programmes (formerly EMPRs)

- Saldanha Steel, Extension of existing calccrete quarry, EMPR, compilation of EMPR, liaison with client and authorities, public participation, 2003, Project Manager, R40 000
- SNA Engineers, Upgrading of a section of the N1 near Beaufort West, EMPR and application for EIA compliance, compilation of EMPR, liaison with client and authorities, public participation, 2003, Project Manager, R30 000
- EMPR, Quarrying of the western Coega Kop for supply of material to the Coega harbour breakwater, EMPR, Project Manager: compilation of EMPR, liaison with client and authorities, public participation, specialist management and report review, 2000, Project Manager, n/a

Environmental planning and review

- Cape Winelands District Municipality, Environmental Management Framework for the Cape Winelands District Municipality, Environmental Management Framework, Project strategy, client and key stakeholder liaison, report review and quality control, 2009, Project Director, R1 800 000
 - City of Cape Town: Environmental Resource Management, Environmental Management Frameworks for the City of Cape Town, EMF, Compilation of selected attributes sections, report review, 2009, Project Consultant, R1 000 000
 - Eskom, Nuclear 1 Project: Tsunami Hazard Assessment Discussion Paper, Compilation of a discussion document to inform the client's position on the appropriate level of tsunami hazard assessment as part of the nuclear site licensing process, Literature research and review of available information, compilation of discussion paper, presentation of findings to Eskom senior management and specialists, 2009, Project Consultant, n/a
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- City of Cape Town, Proposed development of a regional landfill site for the City of Cape Town, Review of EIA process, Review of EIA reporting and process. Preparation of review report. Liaison and report back to senior City of Cape Town officials, including Mayor Helen Zille, 2008, Project Manager, R80 000
 - Power Developments, Rezoning and Development of Philippi Precinct, Rapid Strategic Environmental Scan, Report compilation, ecological assessment, client liaison, 2007, Project Manager, R50 000
 - EFG Engineers, for Western Cape Department of Transport and Public Works, Proposed Upgrade of the MR168 (R310) between TR2/1 and MR177, Environmental Screening and Stakeholder Consultation for the Feasibility Study, project strategy and process, quality control, client liaison, 2008, Project Review, R80 000
 - Provincial Government: Western Cape, Western Cape State of the Environment Report (Year 1), Chapter: Health, liaison with stakeholders, compilation of specialist chapter, 2005, Project Consultant, n/a
 - NV BHP Billiton Suriname, Environmental Sensitivity Analysis of the Wane 4 Concession, Environmental Sensitivity Analysis, field assessment, specialist management and review, report compilation and client liaison, 2005, Project Manager, US \$25 000
 - Namakwa Sands, Extension of Namakwa Sands mining, mineral separation and smelting operations, Initial environmental investigation, specialist management and integration, client liaison, reporting, 2003, Project Manager, R450 000
 - Vela VKE Engineers, Review of Namibian Environmental Legislation, Legislative review, client liaison, strategy and reporting, 2003, Project Manager, R10 000
 - Private client, Analysis of the environmental sensitivity of Erf 2, Gordon's Bay, Environmental Sensitivity Assessment, specialist management, reporting and client liaison, 2002, Project Manager, n/a
 - Coega Development Corporation, Integrated Environmental Summary Report for Coega Development Zone, Integrated Environmental Summary Report, specialist management, reporting and client liaison, 2000, Project Manager, n/a
 - Grahamstown Municipality, Initial environmental assessment for development of a Community Aquaculture, Initial environmental assessment, client liaison, site assessment and reporting, 1999, Project Manager, n/a

Specialist studies

- Eskom, Nuclear 1 Project: Site Safety Reports for Duynfontein, Bantamsklip and Thyspunt sites, Compilation of Ecology chapters for three Site Safety Reports, submitted as part of Eskom's site licensing requirements, Review of Draft EIA specialist reports and compilation Ecology chapters for SSRs. Preparation of quality plans and other quality requirements, 2008, Project Consultant, n/a
- Eskom, Vegetation Survey for 66kv powerline, Vegetation assessment, vegetation survey and specialist report, 2000, Project specialist, n/a
- INGWE, Extension of Douglas Colliery: Kromdraai and Zevenfontein Farms, Vegetation Survey, vegetation survey and specialist report, 2000, Project specialist, n/a

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- Private client, Vegetation survey for EIA of proposed Tsogo Sun Casino, Vegetation Survey, vegetation survey and specialist report, 2000, Project specialist, n/a
- BHP, Moma Mineral Sands EIA, Specialist Report: Ethnobotany, field survey and specialist report compilation, 1999, Project specialist, n/a
- BHP, Moma Mineral Sands EIA, Specialist Report: Vegetation, field survey and specialist report compilation, 1999, Project specialist, n/a
- Tiomin, Tiomin Mineral Sands EIA, Key Issue Report: Floristics, field survey and specialist report compilation, 1999, Project specialist, n/a
- Tiomin, Tiomin Mineral Sands EIA, Key Issue Report: Ethnobotany, field survey and specialist report compilation, 1999, Project specialist, n/a
- Billiton, TiGen Mineral Sands EIA, Baseline study: Ethnobotany, field survey and specialist report compilation, 1998, Project specialist, n/a

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Profession

Environmental Practitioner

Education

MSc (Environmental Science), University of KwaZulu-Natal, 2004

BSc (Hons) (Geography), University of KwaZulu-Natal 1991

BSc, University of KwaZulu-Natal, 1990

Registrations/ Affiliations

Pr.Sci.Nat. (South Africa) (400197/09)

Registered Environmental Assessment Practitioner (EAP No, 2020/2492)

Member International Association of Impact Assessment South Africa (IAIASa)

Awards

- Big Tree Copper, Investing in Africa Mining Indaba ESG Award 2022 for Technological Modernisation, Nababeep, Northern Cape Province, 2022
- Copper 360, Investing in Africa Mining Indaba ESG Award 2023 for Diversity, Equality and Inclusion, Nababeep, Northern Cape Province, 2023

Specialisation

ESG and sustainability in mining

Expertise

Jennifer Barnard has been involved in environmental management projects for the past 30 years. Her expertise includes:

- ESG and sustainability in mining;
- EIA and EMPs;
- Integrated water management including Water Use Authorisations;
- Integrated waste management;
- Carbon project management, green design, green building, pre-acquisition, environmental compliance audits;
- Environmental training;
- Policy development.

Employment

May 2023 – present

SRK Consulting (South Africa) (Pty) Ltd, Principal ESG Consultant

2021 – 2023

Copper 360, Chief Sustainability Officer

2021 – 2021

Department of Environmental Affairs & Development Planning (DEA&DP), Environmental Officer

2016 – 2021

Green Direction Sustainability Consulting (Pty) Ltd, Environmental Consultant (Owner/Director)

1997 – 2016

SiVEST SA (Pty) Ltd, Environmental Consultant (Divisional Manager)

1992 - 1997

Department. Local Government and Housing, KwaZulu-Natal, Senior Planner

Languages

English – read, write, speak (good)

Afrikaans– read, write, speak (fair)

Mine Site ESG Management (Chief Sustainability Officer at Copper 360)

- Copper 360, Developed and Implemented a Sustainability Framework, Nababeep, Northern Cape Province, 2021 – 2023

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- Copper 360, Internal review of expansion plans in terms of environmental legislative compliance, NababEEP, Northern Cape Province, 2021 - 2023
- Copper 360, Implemented integrated water and wastewater management, and waste management on site, NababEEP, Northern Cape Province, 2021 - 2023
- Copper 360, Management and training of local staff to conduct the environmental control officer site management requirements, NababEEP, Northern Cape Province, 2021 - 2023
- Copper 360 Contributed to the investigation of renewable energy solutions and alternative water resources, NababEEP, Northern Cape Province, 2021 - 2023

Environmental Impact Assessments (EIA) and Environmental Management Programmes (EMPr)

- R.E.D Graniti (Pty) Ltd Mining Right EIA and EMPr, Steinkopf, Northern Cape Province, 2018 - 2019, R400 000
- Rondawel Kaolien CC, Kaolin Mining Permit and Mining Right EIA and EMPr, Garies, Northern Cape Province, 2017 - 2020, R500 000
- Kasimira (Pty) Ltd, Diamond Mining Right EIA and EMPr, west of Springbok, Northern Cape Province, 2019 - 2020, R400 000
- Dansile Nxikwe Diamond Prospecting Right, Port Nolloth, Northern Cape Province, 2021 - 2022, R400 000
- Shirley Hayes-IPK (Pty) Ltd, Copper Mining Right EIA and EMPr, Concordia, Northern Cape Province, 2019 - 2021, R500 000
- South African Tantalum Mining (Pty) Ltd (SAFTA), Copper Mining Right EIA and EMPr, NababEEP, Northern Cape Province, 2017 - 2019, R500 000
- Demaquia Trading (Pty) Ltd, Granite Mining Rights EIA and EMPr, Pofadder area, Northern Cape Province, 2017 - 2019, R200 000
- Sizisa Ukhanyo 830 Trading cc, Granite Mining Rights (x2) EIA and EMPr, Poffader area, Northern Cape Province, 2017 - 2019, 300 000
- Joetsie Construction (Pty) Ltd, Sand Mining Permit Basic Assessment and EMPr, outside Klawer, Western Cape Province, 2017, R400 000
- Kobus Duvenhage Bouers (Pty) Ltd, Sand Mining Permit Basic Assessment and EMPr, Hartbees River, Northern Cape Province, 2018, R100 000
- Oranje Sand CC, Sand Mining Permit Basic Assessment and EMPr, Upington, Northern Cape Province, 2019, R100 000
- Refuel Petroleum (Pty) Ltd, Springbok Airfield existing fuel tanks to be recommissioned, Screening Report, Springbok, Northern Cape Province, 2018, R10 000
- Private Landowner, Section 24G, EIA (and Water Use License) for vineyards (table grapes), near Augrabies, Northern Cape Province, 2016, R400 000
- Karstens Boerdery, Klein Pella Site-Specific EMPr, Pella, Northern Cape Province, 2016, R400 000
- Western Cape Tourism, Trade and Investment Promotion Agency (Wesgro), Pre-Application Basic Assessment and EMPr for small-scale poultry farm, Gordons Bay, Western Cape Province, 2016, R200 000
- Private Landowner, Indigenous Flower Farm Scoping Report, Stilbaai, Western Cape Province, 2016, R150 000
- DBAR and EMPr Review for a fruit tree orchard development, Wellington area, Western Cape Province, 2016, R150 000
- Moerasrivier Poultry Farm DBAR and EMPr Review, George area, Eastern Cape Province, 2016, R150 000

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- Flaminkvlei Poultry House Expansion DBAR Review, West Coast, Western Cape Province, 2016, R150 000
- Rainbow Chickens, BARs and EMPs for broiler farm upgrades, KwaZulu-Natal Province, 2005, R300 000
- Rainbow Chickens Processing Plant, EMPr and Auditing, Hammarsdale, KwaZulu-Natal Province, 2005, R200 000
- Abland, EMPr and Auditing of Abland building at 35 Lower Long Street, Cape Town, Western Cape Province, 2019, R200 00
- Acer Africa Environmental Consultants, EIA for a sub-sea marine fibre optic cable, Melkbosstrand, City of Cape Town, Western Cape Province, 2020, R1 000 000
- Acer Africa Environmental Consultants, Scoping Report for a sub-sea marine fibre optic cable, Duynefontein, City of Cape Town, Western Cape Province, 2020, R1 000 000
- Acer Africa Environmental Consultants, Scoping Report for a sub-sea marine fibre optic cable, Yzerfontein, West Coast District, Western Cape Province, 2020, R1 000 000
- Acer Africa Environmental Consultants, Scoping Report for a sub-sea marine fibre optic cable, Nelson Mandela Bay Metropolitan Municipality, Eastern Cape Province, 2020, R1 000 000
- Acer Africa Environmental Consultants, Scoping Report for a sub-sea marine fibre optic cable, Swakopmund, Namibia, 2020, R1 000 000
- Review of the Part 2 Amendment Report for the Rebokfontein Wind Energy Facility near Darling, Environmental Officer at DEA&DP, Darling, Western Cape Province, 2021, na
- Review of the Draft EIA Report for Frontier Power (Pty) Ltd, and the associated infrastructure grid Basic Assessment, Environmental Officer at DEA&DP, Port of Saldanha, Western Cape Province, 2021, na
- Compliance Audit of Avedia Energy, Port of Saldanha, Environmental Officer at DEA&DP, Western Cape Province, 2021, na
- Transnet and Eskom Distribution, Coal Link Project Manager, Basic Assessments (x8), Mpumalanga and KwaZulu-Natal Province, 2014 - 2015, R6 000 000
- Eskom Distribution, Swartberge Road Upgrade Basic Assessment, Western Cape Province, 2014, R400 000
- Eskom Distribution, Palmiet and Firgrove wetland delineations, Somerset West, Western Cape Province, 2015, R100 000
- Eskom Distribution, De Hoek Basic Assessment, De Hoek, Western Cape Province, 2014, R300 000
- Eskom Distribution, Outeniqua-Oudsthoorn Basic Assessment, Calitzdorp, Western Cape Province, 2012, R300 000
- Eskom Distribution, Koeberg-Dassenberg Basic Assessment, Atlantis, Western Cape Province, 2012, R300 000
- Eskom Distribution, Robberg-Bitou Basic Assessment Appeal: provision of supporting information for the appeal process, and preparation of revised Basic Assessment, Plettenberg Bay, Eastern Cape Province, 2013 - 2014, R400 000
- Eskom Distribution, Review and provision of additional information for the Badsberg and Clanwilliam Basic Assessment reports prepared by Eskom Distribution Western Region, Western Cape, 2013, R200 000
- Eskom Generation, Thuyspunt Nuclear 400kV Integration Lines EIA (Assistant Project Manager), Eastern Cape Province, 2009 - 2011, R2 000 000
- Eskom Distribution, Maluti, Eastern Cape powerline supply to rural community Basic Assessment, Eastern Cape Province, 2003, R350 000

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- Eskom Distribution, Eros – Port Edward powerline re-routing Scoping Report, KwaZulu-Natal Province, 2003, R150 000
- Eskom Distribution, Mtunzini new substation and power line Scoping Report, KwaZulu-Natal Province, 2003, R150 000
- Eskom Distribution, Weenen new powerline to replace old powerline Scoping Report, 2003, KwaZulu-Natal Province, 2002, R100 000
- Eskom Distribution, upgrade of powerline supply Scoping Report, uPhongola, Northern KwaZulu-Natal Province, 2004, R150 000
- Eskom Distribution, Mid-illovu, powerline supply to rural community Scoping Report, Mid-Illovu, KwaZulu-Natal Province, 2004, R200 000
- Eskom Distribution, Ntabankulu Mountain supply to radio station Scoping Report, northern KwaZulu-Natal Province, 2001, R200 000
- Eskom Distribution, Re-routing of powerline in Karkloof out of wetlands Scoping Report, Karkloof, KwaZulu-Natal Province, 2002, R200 000
- Richards Bay Wood-chipping Company (Pty) Ltd, Upgrade of Wood Chip Plant Scoping Report, Port of Richards Bay, KwaZulu-Natal Province, 2002, R500 000
- ShinCel (Pty) Ltd, Extension to Wood Chip Export Facility, Port of Richards Bay, KwaZulu-Natal Province, 2003, R500000
- NCT (Pty) Ltd, New Wood Chip Export Facility, Maydon Wharf, Durban Harbour, KwaZulu-Natal Province, 2004, R1 000 000
- Michelle Robertson Landscape Architects (Pty) Ltd, Site Environmental Management Plans (SEMP) Project Leader for various private properties in Cape Town, Western Cape Province, 2012 - 2015; R25 000 per project
- Private Landowner, Erf 168 Langebaan holiday home development Ad-hoc Coastal Set-back Motivation, Western Cape Province, 2007, R25 000
- Mrs. van Dyk, Vandyksbaai Holiday Home Upgrade Basic Assessment, Western Cape Province, 2006, R80 000
- Moreland Developments, Izinga Phase 3 Scoping Report & EMP, Umhlanga, KwaZulu-Natal Province, 2001, R100 000
- Moreland Developments, Umdloti Lagoon Residential Estate EIA, Project Leader, Umdloti, KwaZulu-Natal Province, 2003, R300 000
- Moreland Developments, Zimbali Lakes and Golf Course Estates Full EIA & EMP, Tongaat, KwaZulu-Natal Province, 2000, R400 000
- Moreland Developments, Mt. Edgecombe South Residential Development Scoping Report, Mt Edgecombe, KwaZulu-Natal Province, 2001, R200 000
- Moreland Developments, Izinga Ridge Phase 2 Residential Development Scoping Report, Umhlanga Rocks, KwaZulu-Natal, 2002, R200 000
- Private Developer, Desainager Residential Development Scoping Report, Stanger, KwaZulu-Natal Province, 2002, R200 000
- Moreland Developments Ilala Ridge Residential Development Scoping Report, La Lucia, KwaZulu-Natal Province, 2003, R200 000
- Moreland Developments Mhlanga Forest Estate Development Scoping Report, KwaZulu-Natal Province, 2002, R200 000
- eThekweni Municipality, Mshayazafe Environmental Management Plan, Inanda Area, KwaZulu-Natal, Province, 1999, R50 000

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- uThukela District Municipality, Mdlebeni Low Income Housing Project Scoping Report, Tugela, KwaZulu-Natal Province, 2000, R100 000
- Stanger Municipality, Shayamoya Housing Project, KwaZulu-Natal Province, 2000, R100 000
- eThekweni Municipality Project Leader for Environmental Assessments of Low-Cost Housing Projects at Canelands/ Parkridge, (Verulam), Shayamoya (Kokstad), Waterloo Extension (Verulam), and Lamontville, Durban Metropolitan Area, KwaZulu-Natal Province, 2000, R150 000
- CapeNature, Basic Assessment for the upgrade of the Noetsie Overnight Facility at De Hoop Nature Reserve, Western Cape Province, 2007, R30 000
- CapeNature, Lead EAP and Project Leader for the Basic Assessments for the upgrade of Tourism Facilities at Grootvadersbosch, Rocherpan and De Mond Nature Reserves, Western Cape Province, 2008 – 2012, R500 000
- City of Cape Town, Project Management for RMS Environmental, Biosolids Beneficiation EIA, Cape Town, Western Cape Province, 2011, R50 000
- Hatch Goba (Pty) Ltd, Environmental Legislative Framework for the Port of Saldanha Storm Water Master Plan, Saldanha, Western Cape Province, 2013, R60 000
- Hatch Goba (Pty) Ltd, Water infrastructure upgrade Basic Assessment, Porterville, Western Cape Province, 2013, R100 000
- Goba Engineering, EMP for the Water infrastructure upgrade, Eendekuil, Western Cape Province, 2013, R100 000.
- Pietermaritzburg Municipality, Raisethorpe Water Channel Upgrade Scoping Report, Pietermaritzburg, KwaZulu-Natal Province, 2003, R50 000
- Umgeni Water and DWAF, 2000, Environmental Management Plan for the Raising of the Midmar Dam Wall, Howick, KwaZulu-Natal Province, 2000, R80 000
- Umgeni Water and Department of Water Affairs Mearns Weir EMP, Mooi River, KwaZulu-Natal Province, 2000, R50 000
- Zululand District Municipality Ubombo Regional Water Supply Master Water Plan Study Scoping Report and Social Impact Assessment, KwaZulu-Natal Province, 2002, R80 000
- Izingolweni District Municipality, Mtamvuna River Irrigation Potential Investigation, KwaZulu-Natal Province, 2003, R80 000
- Jeffares & Green, Basic Assessment for the upgrade of MR 538, Lamberts Bay for the Department of Public Works and Transport, Lamberts Bay, Western Cape Province, 2013 - 2014, R65 000
- HHO Engineers, Basic Assessment and ECO for N7 upgrade between Clanwilliam and Trawal, Western Cape Province, 2013-2014, R120 000
- Knight Piesold, Basic Assessment and ECO for N7 upgrade between Trawal and Van Rhynsdorp, Western Cape Province, 2013 - 2014, R100 000
- Greytown Road Upgrade Scoping Report, Greytown, KwaZulu-Natal Province, 2004, R50 000
- Umgeni Water, Mooi-Mgeni Transfer Scheme (MMTS-1): Impact of Road Infrastructure; KwaZulu-Natal Province, 2000, R70 000
- Moreland Developments, Sibaya Casino Access Road EMP, Umdloti, KwaZulu-Natal Province, 2002, R50 000
- Petronet, Re-Routing of existing DJP Pipeline around Pietermaritzburg EIA Scoping Report, EMP and Environmental Auditing, Pietermaritzburg, KwaZulu-Natal Province, 2000 - 2001, R100 000
- Shoprite, Distribution Centre Underground Storage Tank Lead EAP Basic Assessment, Brackenfell, Western Cape Province, 2015 - 2016, R120 000
- Shell, Lead EAP EIA & EMP, Tugela Ferry, KwaZulu-Natal Province, 2002, R50 000
- Shell, EIA & EMP, Montgomery Drive, Pietermaritzburg, KwaZulu-Natal Province, 2005, R80 000

Jennifer Barnard

Principal ESG Consultant

- Hulett Aluminium, Duty of Care Report and EMP, Upgrade of Twin Roll Castor Management, Pietermaritzburg, KwaZulu-Natal Province, 2003, R50 000

Legal Reviews and Environmental Compliance

- CapeNature, Kogelberg Tourism Infrastructure EA Amendment, legislative review, Western Cape Province, 2019 - 2020, R300 000
- Blueport Wetcast (Pty) Ltd, Pre-Directive Response and an Integrated Waste Management, Kuilsriver, Western Cape Province, 2017, R100 000
- Focus Project Management, Verification of June 2017 Knysna Fire Disaster Damage Assessments and Cost verification, Knysna, Western Cape Province, 2018, R50 000
- Southern Cape Wines (Pty) Ltd, Environmental compliance for established winery in the Overberg District in terms of Water Use License requirements and IPW (Integrated Production of Wine), Overberg District Municipality, Western Cape Province, 2018, R100 000
- Hatch Goba, Project Leader, Environmental Legal Framework for the Port of Saldanha Stormwater Master Plan, Saldanha, Western Cape Province, 2013, R80 000
- CSM Project Consulting, Project leader for the legal reviews of various Eskom Wash Bays in the Western Cape, 2015, R100 000

Strategic Environmental Assessments (SEAs)

- Drakenstein Municipality, SEA Klapmuts North Strategic Environmental Assessment, Western Cape Province, R300 000
- Department of Local Government and Housing, Rosetta SEA Midlands, KwaZulu-Natal Province, 2004, R150 000

Water Use Authorisations

- Demaqua Trading (Pty) Ltd, Granite Mining Right Integrated Water Use License (iWULA), Pofadder area, Northern Cape Province, 2017 - 2019, R100 000
- Sizisa Ukhanyo 830 Trading cc Granite Mining Rights, Integrated Water Use Licenses (iWULA), Northern Cape Province, R100 000
- Mr. J. Malan, Sand Mining General Authorisations applications in various unnamed tributaries outside Upington, Northern Cape Province, 2016 - 2018, R50 000
- Kobus Duvenhage Bouers (Pty) Ltd, Sand Mining General Authorisation, Kakamas, Northern Cape Province; 2018, R25 000
- Sizwe Plant Hire CC, Sand Mining General Authorisation, Kenhardt, Northern Cape Province; 2018, R25 000
- Heba Vergruisers CC, Sand Mining General Authorisation, Springbok, Northern Cape Province; 2018, R25 000
- CapeNature, General Authorisation for the Kogelberg Nature Reserve Tourism Infrastructure development, Western Cape Province, 2019 - 2020, R40 000
- Private Landowner, Section 24G, EIA (and Water Use License) for vineyards (table grapes), near Augrabies, Northern Cape Province, 2016, R400 000

Carbon Management

- Southern Cape Vineyards (Pty) Ltd, Carbon Footprints for Southern Cape Vineyards for their Barrydale and Ladismith Cellars via the Confronting Climate Change web-based tool for the years 2017, 2018 and 2019, Western Cape Province, R100 000
- Parliament of South Africa, Cape Town, Project Manager of Carbon Footprint, Western Cape Province, 2013, R30 000

Jennifer Barnard

Principal ESG Consultant

- V&A Waterfront, Project Manager of Carbon Footprint, Cape Town, Western Cape Province, R80 000
- SA Corporate, Project Manager of Carbon Footprint (2014 completed and 2015), Cape Town, Western Cape Province, R65 000

Green Design, Green Building and Pre-Acquisition Audit

- Shoprite, Cilmor Shoprite Distribution Centre, Green Star Rating Tool Assessment, Brackenfell, Western Cape Province, 2015, R50 000
- Shoprite, Cilmor Shoprite Distribution Centre Assessment for the potential for a Green Star Rating for the Industrial Custom Tool, Brackenfell, Western Cape Province, 2015, R50 000
- City of Cape Town, uShaka Marine Theme Park, "Green Design Audit" of the detailed plans prepared for the uShaka Marine Theme Park, Durban, KwaZulu-Natal Province, 2002, R60 000
- Eveready Battery Plant, Pre-Acquisition Environmental Audit of the existing EMS and Plant activities of the Eveready Plant in Port Elizabeth, Eastern Cape Province, 2003, R60 000

Environmental Training

- CapeNature, Environmental legislation and the EIA Regulations training for project managers at the Department of Public Works, Cape Town, Western Cape Province 2019, R20 000
- CapeNature, Training of the Kogelberg Phase 2 Contractor Construction Team, Western Cape Province, 2019, R300 000
- Abland, Training of Construction team working on the Abland building at 35 Lower Long Street, Cape Town, Western Cape Province, 2019, R200 000
- Moreland Developments, Training in terms of requirements of ISO 14001 EMS requirements to Kindlewood and Izinga Phase II Construction Teams, KwaZulu-Natal Province, 2003, R50 000
- World Bank, Lesotho Ministry of Agriculture, Training of Agricultural Extension Officers throughout Lesotho (see policy development), 2004, R300 000
- University of KwaZulu-Natal Environmental Department, South African Coastal Zone Management Policy, Durban, KwaZulu-Natal, 2000, Pro-bono

Policy Development

- World Bank, Lesotho Ministry of Agriculture, Agricultural Policy for Lesotho, Lesotho, 2004, R300 000

Rob Gardiner

Principal Environmental Scientist



Profession	Principal Environmental Scientist
Education	MBA, Port Elizabeth Technikon, 2004 MSc, University of Leeds, 1993 BSc (Hons), Chemistry, University of Cape Town, 1989
Registrations/ Affiliations	Pr Sci Nat, Environmental Scientist (South Africa), 400079/03 Registered EAP (South Africa), 2020/1390 Member IAIA
Awards	None

Specialisation

Environmental impact assessments, Environmental management plans, Environmental monitoring, Environmental auditing, and environmental management systems, ISO 14001.

Expertise

Rob Gardiner has been involved in the field of environmental consulting for over 28 years. His experience has been obtained in the infrastructure, energy, mining, and manufacturing sectors. His expertise includes:

- environmental assessments;
- environmental management systems (EMS) and management plans (EMP);
- water quality; and
- environmental due diligence and environmental auditing.

Employment

2001 – present	SRK Consulting (Pty) Ltd, Principal Environmental Scientist and responsible for the Eastern Cape Environmental Department, Port Elizabeth
1998 – 2001	Gardiner Associates, Sole Proprietor and Environmental Consultant, Port Elizabeth. Assisted numerous clients in implementation, and aspects of, ISO 14001. This included conducting Initial Reviews, implementing environmental monitoring and management programmes, conducting third party audits of suppliers and contractors, and identifying and assessing compliance with legal and other requirements.
1991 – 1998	CSIR, Division of Textile Technology, Port Elizabeth. Responsible for the Division's environmental management offerings to the South African textile industry, including ISO 14001 awareness and eco-labelling. Also responsible for the CSIR's environmental impact assessment offerings in the Eastern Cape Region.

Languages

English – read, write, speak
Afrikaans – read, write, speak

Nicola Rump

Associate Partner / Principal Environmental Scientist



Profession	Principal Environmental Consultant / Scientist
Education	MSc, Eco Physiology, Wits, 2005 BSc (Hons), Zoology, UPE, 2002 BSc, Zoology, Biochemistry, UPE, 2001
Registrations/ Affiliations:	Registered Environmental Assessment Practitioner (EAPASA registration no 2019/611), Member of IAIASA
Awards	None

Specialisation

Environmental Management Plans, Permitting and compliance monitoring; Environmental Impact and Basic Assessments (to SA and IFC standards); Renewable energy, infrastructure, Industrial and mining related projects; Ecology

Expertise

Nicola Rump has over 14 years of experience in EIAs and environmental management. Her expertise includes:

- Risk management
- International best practice
- Mining
- Renewable energy developments
- Conservation and restoration ecology
- Ecosystem services
- Impact assessment
- Environmental management
- Environmental compliance and due diligence audits.
- Project management and co-ordination.
- Environmental impact assessments (BA / EIA / ESIA,
- both to South African standards and those of international funding organisations);
- Environmental management plans (including ESAP, ESMP, EMPr, ESMS);
- Environmental compliance auditing.
- Management of specialist studies.
- Environmental licensing / permitting.
- Stakeholder engagement.
- Due diligence / environmental legal compliance reviews.
- Provision of environmental input for a wide range of report types.

Nicola's core competencies include:

- Proficiency in using the various commonly used PC software e.g., MS Word,
- Excel, PowerPoint, Outlook and Project;
- Excellent report writing, review and compilation skills.
- Excellent presentation and communication skills (both verbal and written);
- Project management, including management of a large and diverse project team and budgets.
- Appointment and management of specialists / sub-consultants.
- Mentoring and management of junior staff.
- Identifying and pursuing new work opportunities, including budgeting and proposal writing

Nicola Rump

Associate Partner / Principal Environmental Scientist

Employment

2012-present	SRK Consulting (SA), Principal Environmental Scientist Port Elizabeth
2011-2012	SRK Consulting (UK), Environmental Scientist, Cardiff
2008-2011	SRK Consulting (SA), Environmental Scientist, Port Elizabeth
2007-2008	Sigwela and Associates, Environmental Control Officer, Port Elizabeth.
2006-2007	Integrated Management Systems, Personal assistant and trainee Management System consultant, Port Elizabeth
2006	Valmac Printers & Stationers, General assistant to management; print consultant, Port Elizabeth
2005	NMMU, Research Assistant – Botany Department, Port Elizabeth

Publications	None
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Languages	English - read, write speak (Excellent) Afrikaans - read, write, speak (Fair) Spanish - read, write, speak (Basic)
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Dr Hasheel Tularam

Principal Scientist



Profession	Principal Environmental Science (Air Quality and Noise)
Education	<p>Doctor of Philosophy in Environmental Science, University of University of KwaZulu-Natal, South Africa (2021)</p> <p>Bachelor of Science (Masters), Environmental Science, University of KwaZulu-Natal, South Africa (2014)</p> <p>Bachelor of Science (Honours), Environmental Science, University of KwaZulu-Natal, South Africa (2011)</p> <p>Bachelor of Science, Geography and Environmental Management, University of KwaZulu-Natal, South Africa (2009)</p>
Registrations/ Affiliations	<p>Pr.Sci.Nat, South Africa, Reg No 117336</p> <p>Chairman for National Association for Clean Air (NACA) KZN</p> <p>South Africa Society for Atmospheric Science (SASAS)</p>
Awards	None

Specialisation

Hasheel is a passionate and enthusiastic environmental consultant with ten years' cumulative experience in the air quality management industry. He is actively involved in a range of meteorological, ambient air quality and stack emission monitoring campaigns in his career. This background, complimented by his knowledge in Geographic Information Systems (GIS) has allowed him to undertake atmospheric dispersion modelling assessments ranging from initial screening level to complex source and terrain models using various predictive modelling platforms such as ADMS, AERMOD and CALPUFF. Compiling atmospheric emission license (AEL) applications (SAAELIP), undertaking National Atmospheric Emissions Inventory Submissions (NAEIS), developing industry specific air quality management plans along with practicing a range of other air quality services, has allowed him to attain a comprehensive understanding of the principles National Environmental Management: Air Quality Act 39 of 2004. He has also undertaken a range of ambient noise monitoring and modelling assessments with the use of CadnaA and SoundPLAN software programs. Greenhouse gas emission quantification, calculating industry carbon footprint and assessing their contribution towards climate change has also become a key area of interest in his career.

Expertise

Hasheel currently holds a PhD focused on "Air pollution Monitoring and Dispersion Modelling in the eThekweni Municipality" through the University of Kwa-Zulu Natal. He has also explored his talents into acoustic monitoring and modelling for a diverse range of client operations in Southern Africa. By playing an active role in the National Association for Clean Air (NACA) committee (KZN Branch Chairman 2015 - 2022), Hasheel keeps abreast with current air quality related matters in South Africa. His is also a SACNASP registered Professional Natural Scientist. His expertise includes:

- Atmospheric Impact Assessment Reports.
- Air Quality Management Plans.
- Atmospheric emission licensing.
- Air quality and acoustic monitoring.
- Acoustic impact assessments.
- Carbon Footprint analyses.
- Greenhouse gas emission inventories

Employment

2022 - current	SRK Consulting (Pty) Ltd, Principal Scientist, Environmental Department, Durban
2020 - 2022	SRK Consulting (Pty) Ltd, Senior Scientist, Environmental Department, Durban
2017 - 2019	WSP Environmental (Pty) Ltd, Senior Consultant, Durban
2013 - 2016	WSP Environmental (Pty) Ltd, Consultant, Durban
2010 - 2012	WSP Environmental (Pty) Ltd, Assistant Consultant, Durban

Publications Numerous Publications about air quality.

Languages English – read, write, speak (Excellent)

Bruce Engelsman

Partner | Principal Engineer



Profession	Civil Engineer
Education	BSc, Civil Eng, University of Cape Town, 1994
Registrations/ Affiliations	Pr Eng (South Africa), 980152 Pr Construction Project Manager, SACPCMP (D/893/2005) Fellow, SAICE 201900328
Awards	None

Specialisation

Civil geotechnics, nuclear siting geotechnics, waste management (including tailings), mine closure, land contamination / remediation and flood risk

Expertise

Bruce Engelsman has been involved in environmental and engineering projects for the past 28 years. His expertise includes:

- waste engineering (tailings, landfill design and waste management);
- nuclear site licensing (geotechnical);
- project management of geotechnical and surface water projects;
- geotechnical investigations and design including onshore civil geotechnics and shallow marine geotechnics (harbours);
- numerical modelling (HECRAS, Leapfrog);
- land rehabilitation/remediation design;
- flooding and flood risk assessments;
- road design and 3-D AutoCAD design;
- closure cost assessments for industrial/mining developments;
- water and geotechnical specialist studies for environmental impact assessments (EIAs);
- part time lecturing (University of Cape Town).

Employment

2010 – present	SRK Consulting (Pty) Ltd, Partner (Civil Engineer), Cape Town
2007 – 2010	SRK Consulting (Pty) Ltd, Associate(Civil Engineer), Cape Town
2004 – 2007	SRK Consulting (Pty) Ltd, Principal Civil Engineer, Cape Town
2000 – 2004	SRK Consulting (Pty) Ltd, Senior Civil Engineer, Cape Town
1997 – 2000	SRK Consulting (Pty) Ltd, Civil Engineer, Cape Town
1994 – 1997	SRK Consulting (Pty) Ltd, Junior Civil Engineer, Johannesburg

Publications

6 publications about the environmental and engineering industry.

Languages

English – read, write, speak
Afrikaans – read, write, speak

Kelly Armstrong

Environmental Consultant



Profession	Environmental Consultant
Education	BSocSc Hons (Environmental & Geographical Studies), University of Cape Town, 2017
Registrations/ Affiliations	Reg. EAP (2019/1167) (EAPASA); IAIAsa
Awards	Not Applicable

Specialisation

Environmental Impact Assessment; Environmental Management Planning, Environmental Control Officer; Stakeholder Engagement; Water Use Authorisations; Atmospheric Emission Licences; Waste Management License audits; Visual Impact Assessment; Glare Modelling.

Expertise

Kelly has five years' experience in the ESG sector. Her core expertise includes:

- coordinating environmental impact assessment processes across a range of sectors;
- compiling environmental management programmes for projects;
- auditing compliance with environmental management programmes;
- managing stakeholder engagement processes; and
- managing visual impact assessments, and glint and glare modelling.

Employment

2019 - present	SRK Consulting (Pty) Ltd, Environmental Consultant
2018 - 2019	Terramanzi Group, Junior Environmental Consultant

Publications

1. Keeping an Eye on PV Glint and Glare. *Multiple publications*. August 2022.

Languages

English – read, write, speak (fluent)

Kelly Armstrong

Environmental Consultant

Environmental Impact Assessments (EIA)

- Mainstream Renewable Power South Africa (Pty) Ltd, Scoping and Environmental Impact Report for Hanover WEF and SEF Cluster, 2022 – ongoing, R3 300 000.
- Oceana Group Limited, Basic Assessment (BA) for Oceana's 10 MW SPV Facility in St Helena Bay, Western Cape, 2021 – 2023, R400 000.
- Transnet SOC Ltd, Scoping and EIA for the Increase of Manganese Handling and Storage at the Multi-purpose Terminal, Port of Saldanha, Western Cape, 2021 - 2022, R1 125 000.
- City of Cape Town, EIA for the proposed upgrades of Cape Flats Wastewater Treatment Works, Western Cape, 2019 – 2021, R400 000.
- Eskom Holdings SOC Ltd, Screening Study for 765 kV Kappa – Sterrekus Powerline, Western Cape, 2020 – 2022, R5 000 000.
- Nadeson Consulting Engineers, Middelpoort Stormwater Upgrades EA Amendment, Saldanha Bay, Western Cape, 2020, R25 000.
- Eskom Holdings SOC Ltd, BA for the Single Circuit Powerline from Ceres to Witzenberg Substations, Witzenberg Local Municipality, Western Cape, 2020 – 2021, R435 000.
- Nadeson Consulting Engineers, Middelpoort Stormwater Upgrades Basic Assessment (BA), Saldanha Bay, Western Cape, 2019 – 2020, R250 000.
- Human Settlements Holistic Services, Charlesville Low Cost Housing BA, Cape Town, Western Cape, 2019 – 2021, R150 000.
- Paarl Vallei Developments, BA for Paarl Vallei Residential Development, Western Cape, 2019.
- Copperton Wind Farm, Copperton Wind Energy Facility Environmental Management Programme (EMPr) Amendment, Northern Cape, 2019.
- Val de Vie Investments, Substantive Amendment of Pearl Valley Phase II Environmental Authorisation (EA), Western Cape, 2018 – 2019.
- Val de Vie Investments, Substantive Amendment of Levendal Development EA, Western Cape, 2018 - 2019
- Watchman Properties, BA for Vendome Estate Development, Western Cape, 2018 – 2019.
- Val de Vie Investments, BA for River Farm Estate Development, Western Cape, 2018 – 2019.
- G7 Renewable Energies, Substantive Amendment of Brandvalley Wind Energy Facility EA, Western Cape, 2018.
- Haga Haga Wind Farm, EIA for Haga Haga Wind Energy Facility, Eastern Cape, 2018.
- Haga Haga Wind Farm, BA for Haga Haga Overhead Powerline, Eastern Cape, 2018.

Environmental Management Programme (EMPr)

- Victoria & Alfred Waterfront (Pty) Ltd, Environmental Specification for V&A Revetment Upgrades Phase 2, Granger Bay, March 2021, R35 000
- Victoria & Alfred Waterfront (Pty) Ltd, Environmental Specification for V&A Revetment Upgrades Phase 1, Granger Bay, August 2020, R35 000
- Zutari (Pty) Ltd, Specification for the Environmental Management for the Decommissioning of the Athlone Power Station, 2020, R50 000.

Kelly Armstrong

Environmental Consultant

- Water and Wastewater Engineering (Pty) Ltd, for the City of Cape Town, Cape Flats Aquifer Recharge Water Treatment Plant (WTP) Environmental Method Statement, Western Cape, 2020, R30 000.
- KSS Holdings (Pty) Ltd, EMPr for concrete batching for Karusa and Soetwater Wind Farms, December 2019, R10 000.
- Saint-Gobain Gyproc, Update Maskam Mine EMPr, Vanrhynsdorp, Western Cape, 2019, R200 000.

Environmental Control Officer (ECO)

- Victoria & Alfred Waterfront (Pty) Ltd, V&A Revetment Upgrades, ECO during phase two of the repair works on the Revetments, 2021, R35 000.
- Lions Hill Development Company, The Ridge Residential Development, ECO for Construction Phase, 2020 – 2022, R75 000.
- Project Assignments (Pty) Ltd, Reactor Refurbishments at the Cape Flats and Mitchells Plain WWTW, ECO during the refurbishment, 2020 - 2021, R145 000
- Victoria & Alfred Waterfront (Pty) Ltd, V&A Revetment Upgrades, ECO during repair works on the Revetments, 2020, R35 000.
- Water & Wastewater Engineering (Pty) Ltd, Athlone WWTW Blower House Complex Demolition ECO, ECO during the demolition works, 2020 – 2021, R220 000.
- Coega Development Corporation (on behalf of NDPW), St Helena Bay Fishing Harbour ECO during maintenance dredging. 2019 – 2021, R70 000.
- Coega Development Corporation (on behalf of NDPW), Hout Bay Fishing Harbour ECO during maintenance dredging. 2019 – 2020, R75 000.
- Coega Development Corporation (on behalf of NDPW), Gordon's Bay Fishing Harbour ECO during maintenance dredging. 2019 – 2020, R75 000.
- Coega Development Corporation (on behalf of NDPW), Lambert's Bay Fisheries Harbour ECO during maintenance dredging. 2019 – 2021, R70 000.
- Department of Agriculture, Forestry and Fisheries (DAFF), ECO for operational phase Aquaculture Development Zone, Saldanha Bay. 2019 – 2020, R200 000.
- Evergreen Developments, ECO for construction phase of Evergreen Lifestyle Estate, Paarl, 2018 – 2019.
- Val de Vie Investments, ECO for construction phase of River Club Residential Precinct, Paarl, 2018 – 2019.
- Val de Vie Investments, ECO for construction phase of Pearl Valley Phase II Estate, Paarl, 2018 – 2019.
- Copperton Wind Farm, ECO for construction phase of Copperton Wind Farm, Northern Cape, 2018 – 2019.

Environmental Compliance Audits

- Astron Energy (Pty) Ltd, Waste Management Licence External Compliance Audit: Astron Energy, Milnerton Refinery, 2022, R75 000.
- Tronox Mineral Sands (Pty) Ltd, Fines Dam 6 Environmental Compliance Audits, January 2020, R100 000.
- Astron Energy, EA Audits for Various Astron Energy Projects, Milnerton, Western Cape, 2019, R215 000.

Atmospheric Emission Licences (AEL)

- Tronox Namakwa Sands, AEL Renewal for the Tronox Smelter, Saldanha, Western Cape, 2023, R122 000.

Kelly Armstrong

Environmental Consultant

- Transnet, AEL Variation for Iron Ore Terminal, Port of Saldanha, Western Cape, 2019, R40 000.

Water Use Licences (WUL)

- Eskom Holdings SOC Ltd, BA for the Single Circuit Powerline from Ceres to Witzenberg Substations, Witzenberg Local Municipality, Western Cape, 2020 -2021, R435 000.
- Human Settlements Holistic Services, Charlesville Low Cost Housing General Authorisation, 2019 – ongoing, R150 000.

Visual Impact Assessments (VIA)

- Mainstream Renewable Power South Africa (Pty) Ltd, Visual Fatal Flaw Analysis for Springbok Renewable Energy Cluster, Springbok, Northern Cape, 2023, R15 000.
- SiVEST SA (Pty) Ltd, Shadow Flicker Assessment for Ujekamanzi 1 and 2 WEF, Ermelo, Mpumalanga, 2023, R83 000.
- SiVEST SA (Pty) Ltd, Visual Impact Assessment for Mayogi SPV Facility (including Glint and Glare), Kirkwood, Eastern Cape, 2022, R115 000.
- SiVEST SA (Pty) Ltd, Visual Impact Assessment for Lesaka SPV Facility (including Glint and Glare), Loeriesfontein, Northern Cape, 2022, R120 000.
- SiVEST SA (Pty) Ltd, Visual Impact Assessment for Hendrina South 132 kV Powerline and Substation, Hendrina, Mpumalanga Province, 2022, R60 000.
- SiVEST SA (Pty) Ltd, Visual Impact Assessment for Hendrina North 132 kV Powerline and Substation, Hendrina, Mpumalanga Province, 2022, R60 000.
- SiVEST SA (Pty) Ltd, Visual Impact Assessment (including Glint and Glare) for Bonsmara PV and Associated Infrastructure, Kroonstad, Free State Province, 2022, R72 000.
- Mainstream Renewable Power South Africa (Pty) Ltd, Visual Impact Assessment for the Hanover PV and WEF Cluster, Hanover, Northern Cape, 2022 – ongoing, R141 000
- Mainstream Renewable Power South Africa (Pty) Ltd, Visual Impact Assessment for the Stilfontien SPV Cluster and Associated Infrastructure, Stilfontein, North West Province, 2022, R95 000.
- Oceana Group Limited, Visual Impact Assessment for Oceana's 10 MW SPV Facility in St Helena Bay, Western Cape, 2021 – ongoing, R70 000.
- The Environmental Partnership, VIA for the Wingfield Interchange Upgrade BA, Cape Town, Western Cape, 2021, R56 000.
- Mineral Sand Resources (Pty) Ltd, VIA for the Tormin Mine Expansion EIA, Matzikama Local Municipality, Western Cape, 2021, R131 166.
- Mineral Sand Resources (Pty) Ltd, Visual Specialist Study for the De Punt Baseline Study, Matzikama Local Municipality, Western Cape, 2021, R95 466



SHORTENED CURRICULUM VITAE

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DR. DAWID DE VILLIERS (PR.SCI.NAT, PR.PHYS, RPE)

DATE OF BIRTH 14 June 1973
NATIONALITY South African
LANGUAGES English & Afrikaans
PROFESSION Nuclear Physicist
SPECIALISATION Radiation Protection & Radiation Applications
YEARS EXPERIENCE 25+ Years
PUBLICATIONS 190+ (International & National)
PRESENTATIONS 15 International, 26 National
SOFTWARE 7

SUMMARY I hold a Doctorate and Master's degree in Nuclear Physics and an Honours Degree in Medical Physics from Stellenbosch University. I am certified as a *Professional Natural Scientist*, *Professional Physicist* and *Radiation Protection Specialist* (other countries *Radiation Protection Expert*) with more than 25 years of experience, published more than 190 client reports and publications, and spoken at various national & international conferences and courses. I also have experience in software development, business management, project management, teaching and supervision of Ph.D. students.

Before I started my own company, I worked at various departments within iThemba LABS & Necsa and gained experience in a wide variety of applied fields (i.e. medical and industrial).

As Specialist Scientist and Managing Director for SciRAD Consulting (Pty) Ltd, I mostly provide radiation protection and nuclear physics application specialist services to mining, mineral processing, petrochemical, nuclear, and other radiation related industries.

QUALIFICATIONS Ph.D. (Nuclear Physics) – Stellenbosch University – March 2011
Project Management – Damelin College – February 2009
M.Sc. (Nuclear Physics) – Stellenbosch University – March 2000
Hons. B.Sc. (Medical Physics) – Stellenbosch University – December 1997
B.Sc. (Theoretical Physics) – Stellenbosch University – December 1996

EMPLOYMENT RECORD January 2013 – Present : Specialist Scientist & MD – SciRAD Consulting (Pty) Ltd
Oct 2005 – Dec 2012 : Senior Scientist – NECSA
Mar 2004 – Sept 2005 : Research Physicist - Stellenbosch University (part-time)
Jan 1998 – Feb 2004 : Radiation Physicist - iThemba LABS

PROFESSIONAL AFFILIATIONS International Health Physics Society,
International Radiation Physics Society,
South African Council for Natural Scientific Professions (No. 400143/10),
South African Institute of Physics (No. 2015002),
Southern African Radiation Protection Association.

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Sasol – South African Energy
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DR. ADRIAAN JOUBERT
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National Nuclear Regulator
Tel: +27 82 882 5628
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Chanel Barnard (Du Plessis)

1

Date of Birth: 12 August 1992
 Profession: Development Economist
 Specialisation: Tourism Research and Planning Specialist
 Position: Manager
 Years within Firm: 8 Years
 Nationality: RSA
 Years of Experience: 10 Years
 HDI Status: White Female



Education:

University of Pretoria	BCom (Tourism Management)
University of Pretoria	BCom Hons (Tourism Management)
University of Pretoria	MCom (Tourism Management)
Course	Communicating the Value of Nature

Professional Membership:

SAPOA Membership Urban-Econ Development Economists (Pty) Ltd

Language Proficiency:	Reading	Writing	Speaking
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Excellent	Excellent

Work Experience:

2015 - Current	Urban-Econ Development Economists (Pty) Ltd
2014	University of Pretoria Department of Tourism Management

Key Qualification:

Chanel Barnard is one of Urban-Econ Development Economists' lead consultants within the developmental and planning sphere of the tourism sector. She has been in a project manager role for over five years, performing within Tourism Economics, Strategic Planning, Market Feasibility Assessments, and Impact Evaluations spheres. Her tourism strategy development track record includes Gauteng, Eastern Cape, Limpopo, North West, Free State, and Mpumalanga. Chanel specialises in determining the performance and impact of the tourism sector from a demand and supply perspective, which relates to the impact of COVID, tourism business performance, tourist perceptions and awareness, and travel patterns and behaviour of visitors to a destination. She has led nature-based community beneficiation/commercialisation projects surrounding the Kruger National Park, Cradle of Humankind, Motumo Trading Post, Namibia Conservancies, national biodiversity centres and other stewardship sites. She has conducted multiple feasibility studies and investment opportunities assessments within the hospitality industry, events industry, and rural community tourism landscape. Chanel is passionate about tourism and believes that the continued development and pushing of boundaries in this sector will see tourism becoming a rapidly and inclusively growing economy in South Africa.

Experience Record:

Project:	IMPACT OF INTERNATIONAL AND REGIONAL BUSINESS EVENTS
Year:	2023
Location:	South Africa
Client:	South African Tourism
Project Features:	<p>This study needs to provide answers and insights on the following elements:</p> <ul style="list-style-type: none"> The number of international and regional business events hosted in South Africa in the reference period In what format and structure were these businesses hosted (In-person, hybrid or virtual) The number of delegates that attended these events (both in-person and virtual) The value in Rand-terms that these events contributed to the South African economy The geographical dispersion of these events, i.e., where they were held The seasonality of the events, i.e., which months did the events take place Details on the events, i.e., the type of MICE event, the sector (medical, manufacturing, education, etc.)

Experience Record:	
Position held: Activities Performed:	<ul style="list-style-type: none"> The economic impact of these business events to the South African Economy including multipliers employed to determine the economic impact of business events in South Africa - direct, indirect, and induced impact (optional) Project Manager and Lead Researcher <ul style="list-style-type: none"> Liaise with client Project management Data Analysis Trends and Economic Impact Assessment Report Writing
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	REPOSITIONING STRATEGY FOR THE NATIONAL ZOOLOGICAL GARDEN 2023 South Africa South African National Biodiversity Institute (SANBI) SANBI appointed Urban-Econ Development Economists: Tourism Planning and Research Unit to facilitate the development of a repositioning strategy for the National Zoological Garden (NZG). The NZG has been recently moved from the National Research Foundation which necessitates a review of the mandate and strategy towards playing a revised role within SANBI, underpinned by the National Environmental Management Biodiversity Act 10 of 2004 (NEMBA). Project Manager <ul style="list-style-type: none"> Liaise with client Project management Strategic Direction Development Review of recommended actions and implementation plan Stakeholder consultation facilitation
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	NORTH WEST BIODIVERSITY STRATEGY AND ACTION PLAN 2023 South Africa North West Department of Economic Development, Environment, Conservation and Tourism (DEDECT) Urban-Econ Development Economists (Pty) Ltd was appointed by the North West DEDECT to develop the North West Biodiversity Strategy and Action Plan for a period of 12 months. The Provincial Biodiversity Strategy and Action Plan (PBSAP) intends to integrate South Africa's obligations under the Convention on Biological Diversity (CBD) into their provincial context and responsibilities and identify required resources and priority actions. Project Manager <ul style="list-style-type: none"> Liaise with client Project management Strategic Direction Development Review of recommended actions and implementation plan Stakeholder consultation facilitation
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	MATSHENEZIMPISI COMMUNITY CONSERVATION AREA TOURISM FEASIBILITY ASSESSMENT AND BUSINESS PLAN 2023 Nkandla, KwaZulu-Natal, South Africa KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs Urban-Econ Development Economists was appointed to conduct a viability re-assessment study and business plan for the refurbishment and operations of Matshenezimpisi Multi-Purpose Hall and Chalets within a Community Conservation Reserve. Project Manager <ul style="list-style-type: none"> Liaise with client Project management Feasibility review

Experience Record:	
	<ul style="list-style-type: none"> ▪ Business model refinement ▪ Stakeholder consultation facilitation
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	THE COMPILATION OF TOURISM INDUSTRY RESEARCH & PERFORMANCE REPORTS 2022-2025 iLembe District Municipality, KwaZulu-Natal, South Africa Enterprise iLembe Urban-Econ Development Economists was appointed by the Enterprise iLembe to compile tourism industry research & performance reports for a 3-year period. The purpose of this project is to conduct periodic tourism research in order to measure the performance of the tourism industry within the iLembe region which will assist with planning and decision making at a district level. Project Manager <ul style="list-style-type: none"> ▪ Liaise with client ▪ Project management ▪ Quarterly, Bi-Annual Reports, Annual Tourism Performance Reports ▪ Analysis of Accommodation Survey, Visitor Intercept Survey and Events Survey ▪ Determine visitor number, demographics and travel behaviour to the District ▪ Economic Impact of Tourism Spend
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	THE REVIEW AND UPDATE OF THE TOURISM MASTER PLAN FOR THE CRADLE OF HUMANKIND WORLD HERITAGE SITE 2022-2023 South Africa Department of Tourism (NDT) Urban-Econ Development Economists (UE), along with their Partner Nuleaf Planning and Environmental, were appointed by the Department of Tourism (NDT) to review and update of the COHWHS (to refer to Taung and Makapan Valley as serially listed sites) tourism master plan. The Tourism Master Plan process requires well documented and broad public participation during the development and finalising phase. Project Manager <ul style="list-style-type: none"> ▪ Liaise with client ▪ Project management ▪ Planning and mitigation ▪ Stakeholder and Workshop Facilitation
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	DETERMINE THE LEVEL OF COMPLIANCE BY TOURISM ENTERPRISES WITH THE AMENDED TOURISM B-BBEE SECTOR CODE GAZETTED IN NOVEMBER 2015 2022 South Africa Department of Tourism (NDT) Urban-Econ Development Economists, along with Munyai Consulting, was appointed by the Department of Tourism (NDT) to conduct a study on the State of Transformation in the South African Tourism Sector. Project Manager <ul style="list-style-type: none"> ▪ Liaise with client ▪ Project management ▪ Survey design ▪ Planning and mitigation ▪ Data collection quality control ▪ Report writing ▪ Presenting of findings
Project: Year: Location:	EVALUATION FRAMEWORK FOR SOUTH AFRICAN TOURISM 2022 South Africa

Experience Record:	
Client: Project Features: Position held: Activities Performed:	<p>South African Tourism</p> <p>South African Tourism (SAT) has appointed Urban-Econ Development Economists, along with Nikela: Urban-Econ, to develop and implement the South African Tourism Programme Evaluation Framework. The project seeks to:</p> <ul style="list-style-type: none"> • develop the SA Tourism Evaluation Framework and Standard Operating Procedure in line with The National Evaluation Framework and best practices; and • develop a three year rolling plan for conducting evaluations in SA Tourism including the criteria for programme and/or project selection as well as actual programme/ project selection for the three years, two programmes/projects per year. <p>Project Manager</p> <ul style="list-style-type: none"> ▪ Liaise with client ▪ Project management ▪ Evaluation framework development ▪ Coordination of stakeholder engagement ▪ Implementation and impact evaluation assessment
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	<p>FEASIBILITY STUDY FOR THE FACILITATION OF THE CREATIVE INDUSTRY</p> <p>2021</p> <p>Botswana</p> <p>Botswana Department of Broadcasting Services</p> <p>Panda Seamers was appointed by the Ministry of Presidential Affairs, Governance and Public Administration – Department of Broadcasting Services (DBS) to conduct a feasibility study on maximising the utilization of the broadcasting facilities (Mass Media Complex) to enhance the growth of the creative industry in Botswana.</p> <p>Sub-consultant</p> <ul style="list-style-type: none"> ▪ Liaise with lead ▪ Project management ▪ Feasibility assessment ▪ Business model development
Project: Year: Location: Client: Project Features: Position held: Activities Performed:	<p>TOURISM RESEARCH FUNCTION FOR THE EASTERN CAPE PARKS AND TOURISM AGENCY</p> <p>2021</p> <p>Eastern Cape, South Africa</p> <p>Eastern Cape Parks and Tourism Agency (ECPTA)</p> <p>Urban-Econ Development Economists was appointed by Eastern Cape Parks & Tourism Agency (ECPTA) to assist in the coordination and setting up of a tourism information and data collation system.</p> <p>Project Manager & Lead Researcher</p> <ul style="list-style-type: none"> ▪ Liaise with client ▪ Project management ▪ Research Design & Manual ▪ Online Survey Setup – Accommodation Survey, Perception Survey & Tourist Intercept Survey. ▪ Pilot data collection process in collaboration with Client ▪ Develop Reporting System on Power BI ▪ Develop Annual Tourism Performance Report ▪ Training and transfer of system to client
Project: Year: Location: Client: Project Features:	<p>GREATER KRUGER SOCIO-ECONOMIC IMPACT REPORT AND MODEL</p> <p>2020</p> <p>Greater Kruger, Mpumalanga, South Africa</p> <p>GEF Programme and Greater Limpopo Transfrontier Conservation Areas (GLTFCA)</p> <p>The project team was appointed by the South African National Parks (SANParks), funded through the GEF programme, to develop a socio-economic impact model with a corresponding annual report template into a practical tool, for Protected Area (PA) Management Authorities (MAs), to measure and communicate the socio-economic impact of a PA or PA network annually.</p>

Experience Record:	
Position held: Activities Performed:	Project Manager and Lead Researcher Duties and Responsibilities included the following: <ul style="list-style-type: none"> ▪ Liaise with client ▪ Development of Socio-economic Impact Manual ▪ Co-development of GK Socio-Economic Impact Modelling tool ▪ Writing of the 2019/20 GK Socio-Economic Impact Report
Project: Year: Location: Client: Project Features:	CYCLING TOURISM SMME DEVELOPMENT FEASIBILITY STUDY FOR CRADLE OF HUMANKIND 2020 Cradle of Humankind World Heritage Site (COHWHS) Gauteng Department of Economic Development: COHWHS The Cradle of Humankind World Heritage Site Management Authority (COHWHS MA) is in the process of finalising an Integrated Management Plan for the Cradle of Humankind World Heritage Site (COHWHS). The plan seeks to guide the management of the area for the next 5 years. One of the priorities of the plan is to ensure that the economy of the COHWHS is inclusive thereby creating opportunities for local people for them to benefit from the site being inscribed as a World Heritage site. The key objective of this work is for the service provider to undertake a Feasibility Study and Implementation Plan for the COHWHS Cycling Community Project.
Position held: Activities Performed:	Project Manager and Lead Research <ul style="list-style-type: none"> ▪ Qualitative and Quantitative research involving cyclists, businesses, local communities ▪ An Implementation Plan for the development of SMME's in the Cycling Tourism Economy in the COHWHS
Project: Year: Location: Client: Project Features:	TOURISM TRANSFORMATION STRATEGY AND BASELINE STUDY FOR THE STATE OF TRANSFORMATION IN THE TOURISM SECTOR 2018 South Africa National Department of Tourism The purpose of overall research leading to the eventual complete strategy is to develop a transformation strategy to enhance the pace of transformation in the tourism sector; to facilitate an integrated industry-wide process to catalyse transformation in the sector; and to map out a comprehensive set of targeted actions for transforming the sector beyond compliance with the Amended Tourism B-BBEE Code gazetted on 20 November 2015.
Position held: Activities Performed:	Workshop Facilitator and Researcher Duties and Responsibilities included the following: <ul style="list-style-type: none"> ▪ Facilitation of 9 workshops in all 9 provinces ▪ Strategy Formulation ▪ Implementation plan design ▪ Existing and future programme evaluation ▪ Stakeholder engagement and mitigation
Project: Year: Location: Client: Project Features:	GAUTENG TOURISM SECTOR BUSINESS CASE AND REVIEW OF THE GAUTENG TOURISM SECTOR STRATEGY 2016 Gauteng, South Africa Gauteng Department of Economic Development The objectives of the project are to develop a Tourism Business Case by creating a Tourism Economic Model mirroring the national Tourism Satellite Account; to determine the impact of tourism in the five Gauteng regions and with particular emphasis on Cradle of Humankind World Heritage Site and Dinokeng Projects which are spatial projects of Gauteng Department of Economic Development, as well as review and update of the Gauteng Tourism Sector Strategy.
Position held: Activities Performed:	Head Researcher and Assistant Project Manager Duties and Responsibilities included the following: <ul style="list-style-type: none"> ▪ Tourism Socio-Economic Impact Analysis ▪ Business Case development ▪ Meetings facilitation and workshop management

Experience Record:

- Conduct Gauteng Tourism Sector Review and Update
- Provide insight into implementation and recommendations

Other Projects:

- **Tourism Business Performance Monitor in the North West Province (2021):** The North West Department of Economic Development, Environment, Conservation and Tourism (Dedect) employed Urban-Econ Development Economists in partnership with Urban-Econ: Nikela to conduct an impact evaluation of the performance of tourism businesses in the North West Province. The project requires a proposed approach to:
 - Establish the level of impact of lockdown levels 5 to 3 on the functioning of tourism businesses in the province.
 - Determine if there was access to funding provided by NDT and other government organisations.
 - Measure the level of tourism business performance during level 1 (November 2020 and January 2021 compared to November 2018 & 2019 to January 2019 & 2020)
 - Determine the attitude of potential tourists/customers towards utilizing tourism products during the Pandemic.
 - Recommendations of strategies/plans to be implemented for the recovery of the industry in the province.
- **Greater Kruger Strategic Development Framework (2020):** Urban-Econ Development Economists (Pty) Ltd was appointed by the United Nations Development Programme (UNDP) on behalf of the South African National Parks (SANParks) to develop the Greater Kruger Strategic Development Plan; an institutional framework and partnership strategy, with specific focus to the Kruger National Park (KNP) land claimants and greater Kruger communities. Various development nodes have already been identified along the western border of the KNP. Thus, there is a need to develop a Greater Kruger Strategic Development Framework that will assist the growth of these identified community nodes.
- **Determining the impact of Covid-19 on the Free State Tourism sector (2020):** The Free State Gambling, Liquor and Tourism Authority (FSGLTA) has appointed Urban-Econ Development Economists (UE) to conduct a study on the Impact of COVID-19 on the Free State Tourism Sector. The focus of the report is to elaborate on the Free State Provincial Tourism Performance prior the pandemic; to determine the levels of impact (e.g., revenue, investments/ growth, lost capital in cancellations, job losses) since the start of the pandemic divided according to sub-sectors and to elaborate on the empowerment measures insights introduced to save/ shared jobs in the tourism sector.
- **Upper West Zambezi CRB Financial Feasibility Assessment (2019):** Urban-Econ Development Economists (Pty) Ltd was appointed by the World Wildlife Fund Zambia (WWF) to conduct a financial feasibility assessment for establishing and operating a Community Resources Board in the Upper West Zambezi Game Management Area (GMA) based on the evaluation of CRBs in the Silwana Complex and Mulobezi GMA.
- **Tourism KwaZulu-Natal Brand Perception and Awareness Study (2020):** To measure the awareness of KZN in terms of its brand and the perception of the destination, the following areas were measured:
 - Perception of travellers and potential travellers of the destination in terms of Destination image and Satisfaction (service, attractions, activities, facilities, etc.).
 - Current awareness (recall and recognition measure) of KwaZulu-Natal
 - Brand attributes and perception- product and non-product association, as well as those related to price and value
 - Current awareness and perceptions of key competitor destinations;
 - Usage (frequency of usage/travel and loyalty) for KZN and competitor destinations
 - Intention to travel to KwaZulu-Natal
 - Barriers to travelling to KwaZulu-Natal; and
 - How the KwaZulu-Natal brand is performing on key dimensions against its competitors in each market.
 - To establish whether KZN's current brand positioning (Zulu Kingdom Exceptional) meets target customers' needs.
- **Johannesburg City Parks and Zoo Market Segmentation Study (2020):** The project intends to determine the following:
 - Demographic, geographic, and physiographic profile of users
 - Indicate which services are required and used
 - Indicate if the current services are at an acceptable standard
 - Test the brand perception of JCPZ
 - Compare with competitors

- Identify the strengths and weaknesses of the JCPZ
- Outline strategies to assist JCPZ to optimize its services to satisfy user needs and preferences
- Nature Reserve Community Beneficiation Feasibility Study and Business Plans for Limpopo and Mpumalanga (2017): Urban-Econ was appointed by the Department of Environmental Affairs to conduct a feasibility study to determine the optimal economic benefit that communities can derive from their communal areas and development of associated business plans, for the Andover Reserve in Mpumalanga; and, the Letaba and Makuya Nature Reserves in Limpopo.
- Gauteng City Region Integrated Tourism Destination Marketing Strategy (2017): The objectives of the project are to develop a Tourism Business Case by creating a Tourism Economic Model mirroring the national Tourism Satellite Account; to determine the impact of tourism in the five Gauteng regions and with particular emphasis on Cradle of Humankind World Heritage Site and Dinokeng Projects which are spatial projects of Gauteng Department of Economic Development, as well as review and update of the Gauteng Tourism Sector Strategy.
- South African Tourism Perception Study on Grading in SA (2017): Urban-Econ was contracted by South African Tourism on behalf of The Tourism Grading Council of South Africa (TGCSA) to determine the perception of graded and non-graded establishments. The main aim of this study is to determine the overall perception of the tourism industry, on the value and the importance that grading has in South Africa; while understanding the difference between graded and non-graded establishments.
- State of Transformation in the Forestry Sector (2018): The Forest Sector Charter Council (FSCC) appointed Urban-Econ Development Economists (Pty) Ltd to conduct an impact assessment of the Amended Forest Sector Code and B-BBEE.
- Development of the State of Tourism Report, Tourism Policy & Strategic Framework and a New Provincial Tourism Legislation for Mpumalanga Province (2018): UE was appointed by the DEDT of Mpumalanga to compile a situational analysis of the performance of the tourism sector in the province. A policy review and framework must also be compiled to determine the roles and responsibilities of all the relevant stakeholders/ authorities involved in the province's tourism. The STR and policy review will then be applied to develop workshops within the main districts and the information gathered at these workshops will inform the tourism strategy that will be submitted in May 2018.
- State of Tourism Report 2015/16: The National Department of Tourism introduced an Annual State of Tourism Report. This report functions as a strategic tool to inform decision-makers and businesses on the outcome of sector performance indicators.
- North West Provincial Tourism Sector Strategy and Implementation Plan (2015): The project entails a pursuance of a holistic and integrated Tourism Sector Strategy that is aligned to the National Tourism Sector Strategy, while addressing issues unique to the tourism sector of the North West Province. The project involved an inclusive consultation process, which led to the development of the sector strategy and implementation plan.

Workshop and Seminar Facilitation:

- Local Government Tourism Conference 3-4 April 2017, Workshop Facilitator - "Tourism Planning is everybody's business"
- Tourism Transformation Summit 30 September 2018, Main Presenter - State of Transformation in the Tourism Sector
- Biodiversity Indaba 9 March 2018, Presenter - "Bankable Business for Communal Properties Associations in Tourism"

Countries of Work Experience:

- South Africa
- Zambia
- Namibia
- Lesotho
- Botswana

Contact details:

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Personal Information

*Birth date: 26 December 1964
Nationality: South African*

Qualifications

Doctor of Philosophy (Ph.D.) University of Natal, Durban - 1997

M.Eng (Transport) University of Pretoria, Pretoria - 1992

Certificate in Arbitration University of Pretoria, Pretoria - 1991

B.Eng. (Honours) University of Pretoria, Pretoria - 1989

B.Eng. (Civill, Cum Laude) University of Stellenbosch, Stellenbosch - 1986

Professional Membership

Fellow, South African Institute of Civil Engineers, 1993. (No. 090491)

Registered Engineer, Engineering Council of South Africa, 1992 (No. 920021).

Member, Institute of Transportation Engineers, 1999 (No 32767).

Present Position

Director

Languages

*English - speak, read, and write
Afrikaans - speak, read, and write*



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Summary of Experience

Christoff Krogscheepers is a director of Innovative Transport Solutions (ITS) in the Cape Town office since 2001. His professional experience includes teaching and consulting the public and private sectors nationally and internationally with a focus on the transport environment. He has been involved in the analysis, design, construction, maintenance and operations of transport projects including metropolitan and regional transport master plans, toll roads, tunnels, airports, harbours, bus rapid transport, general public transport, rail and intelligent transport systems. This included business planning of infrastructure projects, financial and economic feasibility studies and the general implementation process of engineering projects. Apart from the general transport engineering work related to general infrastructure projects he also focuses on multimodal studies in an integrated environment, data collection using all available technologies and all aspects of Intelligent Transport systems, specifically within the tunnel, freeway and arterial environments and within the bus rapid transport field. He has worked across Southern Africa and spent two years at Kittelson & Associates, Inc. in their Portland (Oregon, USA) office. In the USA he gained experience in general traffic impact studies, bridge replacements, regional master plans, urban planning, access management plans simulation and modelling. His work was focused in the states of Oregon, Florida and Washington. Before 1999 he was in the employ of BKS (Pty) Ltd (1989 to 1998) where apart from general consulting work, he started his research career through involvement in research projects and further studies towards post-graduate qualifications. He also gained extensive project and construction management experience being involved in the design and construction of a large research laboratory for AECI in Johannesburg. As a senior lecturer at the University of Natal, he was involved in teaching traffic, transportation and project management from the third year to post-graduate level while also pursuing his studies towards a doctoral degree. During his employment at BKS in their Cape Town office, he was responsible for various traffic impact studies, master plans, parking studies, jet blast studies, noise studies and traffic and transportation-related projects in and around Cape Town International Airport, including the design and construction of new aprons and service roads on the airside. Christoff has served on the board of the Intelligent Transport Society of South Africa (ITSSA) and served on the Urban Streets sub-committee which was responsible for specific chapters of the 2010 Highway Capacity Manual published by the USA Transport.

Professional Experience

Company: Innovative Transport Solutions (Cape Town office)

Position: Director

Date: November 2001 – Present

Company: BKS Pty (Ltd) Bellville, SA

Position: Chief Engineer

Date: April 2001 to October 2001

Company: Kittelson & Associates, Inc. Portland, USA.

Position: Senior Engineer

Date: January 1999 to April 2001

Company: BKS Pty (Ltd) Bellville, SA.

Position: Chief Engineer

Date: January 1997 to December 1998

Company: University of Natal, Durban, SA

Position: Lecturer and Senior Lecturer. – Part-time consultant for BKS Pty (Ltd) in Durban

Date: January 1992 to December 1996

Company: BKS Pty (Ltd), Pretoria and Johannesburg, SA

Position: Engineer in Training and Engineer

Date: January 1989 to December 1992

Project Experience

- **Freeway Management Systems**
 - **Western Cape 2008- 2012.** Responsible partner and design engineer. Design, built, maintenance and all operations of ±200km of FMS in Cape Town region. Including roll out of communication network, 200 CCTV cameras, VMSs, control centre and operational staffing. The initial design activities included the preparation of strategies and concepts of operations of the full system.
 - **Western Cape 2012-2019.** Employed by DBOM contractor to assist with operations and traffic engineering tasks on the FMS contract. Included quarterly improvement evaluations and monthly reports.
 - **Western Cape, Gauteng, KwaZulu Natal and Eastern Cape 2020 to present.** Specialist transport engineer in the employer's representative team under Fidic contract for design, build, operation and maintenance of three existing FMS systems and a new system in the Eastern Cape. This includes the expansion of the systems into new green fields sections.
- **Transport Management Centres**
 - **Cape Town TMC in Goodwood 2008-2011.** Site identification, design development, design and construction of the TMC in Goodwood.
 - **Ethikwini 2015-2018.** Design and design review of the ETA TMC in Durban.
- **Intelligent Transport Strategies**
 - **City of Cape Town ITS Strategy 2008.** Development of a 20-year strategy and roll-out plan for intelligent transport systems for the City of Cape Town.
 - **Western Cape ITS Strategy 2018.** Update and expansion of 2008 Cape Town ITS Strategy to include the larger Cape Town region with a specific focus on freeway management.
 - **Ethikwini 2015.** Prepared a strategy and concept of operations for the larger Durban area as part of consulting team responsible for the rollout of bus rapid transport in the region.
 - **Msunduzi 2018.** Prepared a strategy and concept of operations for the larger Pietermaritzburg area as part of consulting team responsible for the rollout of bus rapid transport in the region.
- **Arterial Management Strategies**
 - **Century City 2017.** Design, approval and construction of an arterial management system within the Century City precinct in Cape Town. The first application of variable message signs along arterials in Cape Town.
 - **City of Cape Town 2022.** Developed a 10-year arterial management strategy with an implementation plan for the development of intelligent systems along arterials in the city.
- **Advanced Public Transport Management Systems (APTMS)**
 - **Cape Town MyCiTi, 2008 to present.** Concept development, design, construction, operations and maintenance of the bus rapid transit system in Cape Town which includes tracking and management of buses, onboard CCTV systems, passenger information systems in stations and stops as well as communication system and back-office systems.
 - **Ethikwini 2015.** Design development and procurement of the bus rapid transport system in the region.
 - **Msunduzi 2018.** Design development and procurement of the bus rapid transport system in the region
 - Design review of the system deployed in Port Elizabeth (2022)
 - Dar Es Salaam (DART) Training and development of staff in the agency related to BRT and ITS matters from 2018 to present.
- **Tolling and Toll System**
 - **Western Cape 20001 to 2017.** Toll Consultants for the South African National Roads Agency on the rollout of Wineland's toll systems in the Western Cape including tolling feasibility, traffic forecasts and toll strategy and systems.
 - **National Toll Feasibility Projects** for several roads across the country for SANRAL 2018.
 - **Namibia Toll Feasibility 2021.** Consultants for the Namibian Roads Fund to determine the feasibility of tolling roads in Namibia. Including traffic forecast and tolling strategies and toll collection technologies.
- **Tunnel Systems**
 - **Huguenot Tunnel** in Western Cape 2010 to present. Director responsible for the consultant team managing the electrical, electronic, mechanical, safety and toll systems of the Huguenot Tunnel. This includes the toll plaza and control system as well as all systems in the tunnel, i.e. lighting, electronic road signs, radio communication system, radio broadcasting system, traffic signals, fire detection and alarm system, evacuation system, ventilation system and electricity supply.
- **Traffic Signals and Control Systems**
 - Design and construction of numerous traffic signals across South Africa.
 - Evaluation of traffic control systems for the City of Cape Town.
- **Street Lights**
 - Through his involvement in the road and ITS-related projects he has managed several street light projects which included management systems of intelligent street light systems along freeways and arterials.
- **Study Tours**
 - Have visited several systems related to intelligent transport, advanced public transport management, arterial management, traffic signals and tunnels in Spain, Portugal, England, Brazil, Argentina, Colombia, USA and Australia.

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- **Transport Economics**
 - Economic analyses of major road projects in the Western Cape, Eastern Cape and Namibia. Recent studies include the economic feasibility of a portion of the N2 Wild Coast Toll Road (2020) and the economic analysis of the upgrade of three major arterials in the City of Cape Town, i.e. Saxdowns Road, Amandel Road and Erica Drive (2020).
 - Feasibility studies of major rail and streetcar applications, i.e. light rail study to connect the Durban sport precinct with the Point commercial area (1996) and the implementation of a streetcar in downtown Portland, Oregon (2000)
 - Toll road economic and financial feasibility studies for the Namibian Road Fund Administration, 2020 and SANRAL for the toll financial and economic feasibility of the Winelands toll project (2010 to 2015) and several other SANRAL toll studies.
 - Development and maintenance of financial models and tools for coal transport from mines to Eskom power stations from 2008 to 2018., economic analysis to determine first-year rate of return for small road improvement projects (City of Cape Town, 2015, ongoing) and full life cycle costing of different intersection types of control, specifically using roundabouts (Western Cape Government, 2018).
 - Training of consultants in the use of HDM4 for road projects (Burmeister, 2008) and on bus procurement and operations models, specifically related to PPPs and various public transport contracting models (DART, 2019).
 - Prioritisation of transport projects. Research panel member of this research project based on standard economic analysis principles. South African National Roads Agency research project, 2020. Development of congestion strategy and project prioritisation (City of Cape Town, 2017) and prioritisation of public transport projects in Cape Town (2022).
- **Development Services - Transport Assessments**
 - Since 1997 have been continuously involved to assist the private section and government in the design development of new developments and the assessment of impacts of these developments on the transport network. These projects vary from small residential developments and schools to large shopping centres and large urban precincts. The services provided typically include the development of the site development plan and access layout of the site and the full transport impact assessment. This includes experience across the USA, Mauritius, Namibia, Lesotho and South Africa.
- **Transport Planning**
 - Integrated Transport Plans. Have been involved in the development of transport plans for several municipalities and district municipalities across the country. Specific recent experience includes the planning for Swartland, specifically Malmesbury and surrounding towns (2018) and the northern portions of Windhoek, Namibia (2000). Most of these plans include the development of long-term demand models and the application of assignment tools such as EMME, Tracks and Paramics.
 - Integrated Public Transport Network Planning. Development of a long-term plan for Cape Town which includes the update of the current Emme model for application for this plan (2022 to date and ongoing). Tasks include all data collection efforts, consolidation and application of survey data as well as refining and validating the models for use in the planning process.
 - Project prioritisation. Have developed several tools to assist the prioritisation of capital projects in the City of Cape Town. This includes a congestion strategy for the City (2017) which resulted in a list of implementation projects. This was recently updated and expanded to identify a list of projects which prioritisation public transport in the City (2022).
 - Transport Indices. The primary author of a Transport Development Index (TDI) for the City of Cape Town which is used to monitor changes over time in the transport system (2015). This was later expanded to include the measurement of land use changes and incorporated into an Urban Development Index (UDI, 2019).
 - Airport Planning. Were involved as a team member in the development of a master plan for Cape Town Airport, including site selection and evaluation of alternative sites, options analysis of various airport configurations and runway and apron layouts.
- **Traffic Management and Calming**
 - Project leader for the transportation engineering assistance programme (City of Cape Town, since 2012 to present) which involves addressing traffic management, traffic calming, directional signage and speeding issues. These projects range from small, localised issues to larger network issues within parts of the City.
 - Freeway operations. Through the FMS project have been involved as a specialist transport engineer in the evaluation of capacity and safety issues on the freeway networks falling within the FMS areas with a specific focus on freeway in the Western Cape (2010 to date).
 - Incident Management. Through involvement in the FMS, projects have been responsible for evaluating incident response and management of the incidents and the setting up and running of post-incident assessments (2010 to date).
- **Design and Construction**
 - Involved in the design, procurement and construction monitoring of roads, aprons and development sites such as filling stations since 1997 using several standard conditions of contract but specifically also the FIDIC suite of contract documents. Clients include private clients, national roads agencies, provincial governments and municipalities.
 - The positions and responsibilities varied from design engineer to responsible director.
 - Noteworthy projects include safety upgrades to Bravo apron and internal service roads at Cape Town airport (1998), Kaaimans Pass near George (2007), N2 upgrade between George and Knysna (2007), freeway management systems (FIDIC DBOM, 2009 to date), MyCiTi advanced public transport management system (FIDIC DBOM and CCT Goods and Services 2010 to date), Huguenot Tunnel lighting, traffic signs and ventilation (FIDIC DB, 2022), Langverwacht

Road in Kuilsriver (2021), several roundabouts and intersection upgrades in the Western Cape (2012 to date) and filling stations in the Western Cape (2010 to date).

- **Road Safety**

- Registered as a road safety auditor and in this capacity has completed at least 10 full road safety assessments and audits according to the guidelines of the South African Road Safety Manual.
- Project manager and responsible partner for the SANRAL Road Incident Management System (RIMS) for the western region from 2013 to 2021.
- As part of the involvement in the SANRAL FMS project (2010 to date), have completed quarterly evaluations and reports on possible road safety improvements on the freeways in the western cape. Many of these recommendations have been implemented on the network.

- **Transport Operations and Assessments**

- As part of the planning and evaluation of new and existing projects he has conducted numerous detailed analyses of transport systems, initially as the analyst and later as the project manager. This included macroscopic, mesoscopic and microscopic simulation of systems and amongst others the following noteworthy projects:
 - N1, N2 and R3000 around Cape Town using the HTM software.
 - Microscopic simulation of the MyCiTi BRT system through the Cape Town CBD.
 - Microscopic modelling of the Tampa (Orlando) CBD to evaluate impacts of reversible freeway lanes.
 - Microscopic simulation of additional freeway lanes and interchanges along the I4 in Orlando, Florida.
 - Simulation of the N1 between Bellville and Cape Town CBD.

Other Activities

Research Experience

- 1989 – 1991. Worked in the offices of BKS in Pretoria. For the first year did contract research for the Department of Transport which culminated in a research report titled “Application of Traffic Signal Control Strategies”. The research report is available from the DoT (Reference 210/88). It is also listed on the SANRAL website. This research was further refined and was submitted as a Master’s Thesis at the University of Pretoria which resulted in the completion of a Master’s degree.
- 1992 – 1997. Worked at the University of Natal, Durban. Lectured and researched roundabouts. Firstly, on roundabouts in rural areas and secondly on driver behaviour at roundabouts. This resulted in a research report titled “Traffic circles as a traffic control measure in developing urban areas” dated April 1994. The research report is available from the DoT (Reference 92/473). It is also listed on the SANRAL website. The remaining research was published in a PhD Thesis “Traffic Circles in South Africa: Traffic Performance and Driver Behaviour”.
- 1989 – 2000. Worked for Kittelson and Associates in Portland (Oregon, USA). Was part of the team that developed the first version of the US Roundabout Guide. This involved basic research into international roundabouts and specifically operations at roundabouts. He was instrumental in the first courses that were prepared and presented across the USA on roundabout design. Some of that material was also taught in at least two workshops in South Africa.
- 2003 – 2016. Member of the TRB committee on Urban Streets. This committee is responsible for the Urban Streets Chapter in the 2010 and 2015 Highway Capacity Manual. As a committee member he was required to guide research and to review research reports. Was specifically responsible to evaluate analysis methodologies as contained within the Urban Streets Chapter. This work was voluntary and part-time.
- 2016 – 2017 ITDP On-Line BRT Manual (<https://brtguide.itdp.org/>). Was responsible for the Chapter on Traffic Impact Assessments. This involved reviewing and researching national and international methodologies on how impact assessments are and should be conducted for the implementation of BRT Systems. This document is published online.
- 2016 – 2018. Roundabout Guideline/Framework. Developed a guideline for roundabout implementation and design in the Western Cape. This was based on basic research of how the current roundabouts are designed and what the latest international best practice is and how that should be applied in South Africa. This document is currently with the Western Cape Government as a Draft for review.
- 2021 to date. Involved in the SANRAL National Research Panel. Project leader for research on the application of Roundabouts in South Africa. Team member for the research project on optimal intersection designs.

Guidelines and Manuals

- Application of Traffic Signal Control Strategies, South African Road Board, Department of Transport, July 1989 [Primary Author]
- Traffic Circles as a Traffic Control Measure in Developing Urban Areas, Department of Transport, RR 92/473, April 1994 [Primary Author].

- Roundabouts an Informational Guideline, June 2000. USA FHWA. [Member of development team while employed at Kittelson and Associates, in Portland Oregon].
- Highway Capacity Manual 2010 – Member of Urban Street Sub-Committee responsible for Chapters on Urban Streets in Volume 3: Interrupted Flow, 2011-2015. [Committee member responsible for review and quality control]
- The Online BRT Planning Guide. Institute for Transportation and Development Policy, 2017.
- Roundabout Framework – Development of a roundabout framework/guideline for the Western Cape Province, 2018 [Primary Author]
- Access Management Guidelines, Western Cape Government. Review of Guidelines, 2016.

Various Other Academic & Teaching Activities

- 1992 – 1997 Lecturer/Senior Lecture and Senior Researcher: University of Natal. Taught courses on Optimisation and Transportation Engineering for 3rd and 4th-year students. Also taught post-graduate courses on Traffic Engineering and Traffic Signals.
- 2007-2009: Peninsula University of Technology. Part-time lecturer for Masters Students in Transportation Planning.
- 2009 – Present, External Examiner for 3rd and 4th-year student in Transportation Planning, Geometric Design and Traffic Engineering at Universities of Stellenbosch, Cape Town and Pretoria.
- 2017 – Presented Geometric Design Course, University of Stellenbosch – 4th-year Subject Transportation Science 364.
- 2018 – Traffic Flow Theory, University of Stellenbosch, Presenter of Post Graduate Course.
- 2020 – Traffic Flow Theory, University of Stellenbosch, Presenter of Post-Graduate Course
- Roundabout Analysis and Design Courses,
- 1991 – 2001. Three-day courses to engineers in Boise, Idaho and Portland Oregon.
- 2008 – 2009. Three-day courses for engineers Gauteng and Western Cape.
- On the Panel of Reviewers of the SATC Conference for the review of papers since 2010.
- Examined more than 10 Masters Thesis over the past 10 years from the University of Stellenbosch and UCT

Papers and Publications

1. *Application of Traffic Signal Control Strategies*, Krogscheepers J.C. & Stander H.J., *Annual Transport Convention*, Pretoria, August 1990.
2. *Traffic Circles in Developing Urban Areas*, Krogscheepers J.C. & Roebuck C.S., *Annual Transportation Convention*, Traffic Engineering, Pretoria, 1994.
3. *Red light violations: The human factor*, Krogscheepers J.C., Roebuck C.S. & Wickham J.C., *Annual Transportation Convention*, Safety, Pretoria, 1994.
4. *Traffic circles: Panacea or Palliative?* Krogscheepers J.C. & Roebuck C.S., *Annual Transportation Convention*, Safety, Pretoria, 1995
5. *Prediction of Gap Acceptance Behaviour at traffic circles - recent findings*, Krogscheepers J.C. & Roebuck C.S., *Third International Symposium on Highway Capacity*, Copenhagen, Denmark, 1998
6. *Traffic Circles as a Control Measure in Developing Urban Areas*, Contract Research Report to the SA Department of Transport. (PR 92/473) April 1993 and April 1994.
7. *Noise prediction and noise measures at Cape Town International Airport*, Stander, H.J., Krogscheepers, J.C. & Goldshagg, P., *Conference on Environmental Management*, Gauteng, 1999.
8. *Simulation of traffic at Roundabouts*, Krogscheepers, J.C. & Roebuck, C.S., *6th Annual Conference*, ITE, Las Vegas, 1999.
9. *World News: Simulation of Traffic at Roundabouts*, Krogscheepers, J.C. & Roebuck, C.S., *Institute of Traffic Engineers Journal*, July 1999.
10. *Roundabout Operations: A summary of FHWA's Roundabouts: An Informational Guide*, Krogscheepers J.C., Robertson, B.W. & Rodegertds, L., *South African Transport Conference*, Pretoria, 2001.
11. *Latest trends in microsimulation: An application of the PARAMICS model* – Krogscheepers J.C., & Kacir, K., *South African Transport Conference*, Pretoria, 2001.
12. *The Paramics Micro Simulation Model*, Krogscheepers, J.C. *South African Transport Conference*, Pretoria, 2001.

13. *Bus Pre-emption and Priority: The Case for Klipfontein. SASITS e-Transport Conference on Innovative Solutions for New World Economies, Cape Town, May 2005.*
14. *The Devil is in the Detail: Why are we doing what we are doing, JC Krogscheepers, Annual Transportation Convention, Pretoria, 2005.*
15. *Roundabouts - An International Perspective, JC Krogscheepers, Annual Transportation Convention, Pretoria, 2006.*
16. *Travel demand management in Cape Town, Hiltge, G & Krogscheepers JC, Annual Transportation Convention, Pretoria, 2009.*
17. *Traffic Signal Strategies for the Cape Town Integrated Rapid Transit Project, Frieslaar, A, Krogscheepers, JC, Annual Transportation Conference, Pretoria 2009.*
18. *Freeway Management in South Africa, Krogscheepers JC, Cable R, Coetzee J, Grobbelaar M, Annual Transportation Conference, Pretoria 2013.*
19. *Roundabouts along Rural Arterials, Krogscheepers JC, Annual Transportation Conference, Pretoria 2013.*
20. *Freeway Management and The Impact on Response and Clearance Times, Krogscheepers JC, Cable R, Coetzee J, Coetsee M, Annual Transportation Conference, Pretoria 2014.*
21. *The Development of a Roundabout Policy for the Western Cape Government in South Africa, Krogscheepers JC & Watters M, 4th International Roundabout Conference, Seattle, Washington, 2014.*
22. *Roundabouts along Rural Arterials in South Africa, Krogscheepers JC & Watters M, Transport Research Board Annual Conference, Washington DC, 2014.*
23. *Roundabouts and Access Management, Krogscheepers JC, 3rd International Conference on Access Management, Pretoria 2016.*
24. *Towards The Ideal Roundabout Design, FH Van Renssen And M Watters, CR Tichauer, Dr JC Krogscheepers, G Matthee, Annual Transportation Conference, Pretoria 2017*
25. *Towards A Better Understanding of Modern Roundabouts, FH Van Renssen And M Watters, CR Tichauer, Dr JC Krogscheepers, G Matthee, Annual Transportation Conference, Pretoria 2017*
26. *Intelligent, smart and autonomous transport now and the future in South Africa: Intelligent Public Transport System. Annual Transportation Conference, Pretoria 2018.*
27. *Mapping Minibus-taxi operations at a metropolitan scale – Methodologies for unprecedented data collection using a smartphone application and data management techniques, J Coetzee, JC Krogscheepers, J Spotten, Annual Transportation Conference, Pretoria 2018.*
28. *Freeway Management Systems: supporting capacity improvements for all modes, De Klerk and Krogscheepers, Annual Transport Conference, Pretoria, 2019.*



 Johann Christoff Krogscheepers
 The CV is dated February 2023

PLANNING PARTNERS



TOWN AND REGIONAL PLANNING ■ LANDSCAPE ARCHITECTURE ■ PROJECT PLANNING ■ MASTER PLANNING



PROFILE

Tim is a professionally registered Town and Regional Planner with 11 years of work experience in a range of different aspects, including private property development schemes, public housing projects, regional planning projects and local government planning policy

NATIONALITY

South African

LANGUAGES

English

Afrikaans (basic)

PROFESSIONAL REGISTRATIONS

SACPLAN (Pr. Pln A/1877/2014)

Royal Town Planning Institute (RTPi)
Licentiate member (106982)

CONTACT

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E: tim@planpart.co.za

TIM FLORENCE

ASSOCIATE

TOWN & REGIONAL PLANNER

EDUCATION

University of Cape Town

BSc. (Hons.) Property Studies

Master of City & Regional Planning (MCRP) (achieved with distinction)

EMPLOYMENT RECORD

Planning Partners

October 2011 – Present

Warren Petterson Planning

December 2010 – August 2011

SCOPE OF EXPERIENCE

- Spatial planning frameworks
- Land use planning applications
- Government planning policy and legislation
- Report writing
- Research
- Project management and co-ordination of multidisciplinary project teams
- Property due diligence reports
- Site analysis and assessment
- Drawing and graphics
- Objections and appeals
- Liaison with local authorities

PROJECT EXPERIENCE (ABRIDGED)

Mixed Use Development Schemes (Masterplanning), Mauritius

2016 – 2018 **Montebello Smart City, Les Pailles, Mauritius**

Preparation of an urban master plan for a 50 ha site in Les Pailles Mauritius, to be developed as a mixed-use Smart City by a consortium of Mauritian developers. Development in progress.

Client: MaxCity Properties

2017 – 2018 **United Docks, Port Louis, Mauritius**

Preparation of an urban master plan and design framework for a 3 hectare site adjacent to the Caudin Basin at Port Louis in Mauritius, for a high-intensity, mixed-use development.

Client: United Docks

2021 – present **Roches Noires Smart City, Roches Noires, Mauritius**

Preparation of an urban master plan for a 350 ha site in Roches Noires Mauritius, to be developed as a mixed-use Smart City by a consortium of French developers. Application process in progress.

Client: PR Capital Mauritius

Major Greenfield Development Projects

2015 – present **The River Club, Observatory**

Town planner in a multidisciplinary team for a proposed high-density, mixed-use development in Observatory (site 14 ha in extent). Statutory applications approved. Development of Phase 1 expected to commence in mid-2021.

Client: Indigo Properties / Zenprop

2016 – present **King Air Industrial, Matroosfontein**

Town planner in a multidisciplinary team for a proposed industrial development near Cape Town International Airport (site 70 ha in extent). Statutory application approved in December 2018; development of Phase 1 and Phase 2 in progress.

Client: Atterbury Property

2023 – present **False Bay TVET College, Mitchells Plain**

Town planner in a multidisciplinary team for a proposed new tertiary education campus for 3 000 students near Mitchells Plain (site 7 ha in extent). Statutory application involved approval of a site development plan (SDP) and departures from the zoning scheme, including parking departure.

Client: False Bay TVET College / Turner & Townsend

Major Public Infrastructure

2015 – 2017 **Cape Town Stadium, Green Point**

Preparation of statutory application (comprising subdivision, rezoning and consent uses) in association with a multidisciplinary team for the further commercialisation of the Cape Town Stadium and surrounding precinct.

Client: City of Cape Town / Cape Town Stadium

2019 – 2020 **765 kV Kappa – Sterrekus Powerline, Western Cape**

Town planner on a multi-disciplinary project team appointed to undertake an environmental screening study of the proposed second 765 kV transmission powerline between the Kappa and Sterrekus substations in the Western Cape. The project entailed the evaluation of three sub-corridor alignment alternatives (identified by Eskom) based on environmental and social factors, taking cognisance of technical constraints, to select a preferred powerline alignment.

Client: SRK Consulting / ESKOM

Major Strategic Planning Projects

2017 – 2021 **Eskom Nuclear 1 Site Safety Report (Duynefontyn)**

The project entails site characterisation within the context of establishing nuclear safety for the purposes of obtaining a nuclear site licence from the South African National Nuclear Regulator for new nuclear installation(s) at Duynefontyn (adjacent to Koeberg). Key topics covered include: National and International Regulatory Framework, Land Use and Water Use in the site region (80km radius). The work is conducted as part of a multi-disciplinary project team tasked with producing a licensable Site Safety Report.

Client: ESKOM

Renewable Energy Projects

2023 – present **Sukierbekkie Solar PV**

Preparation of statutory application for two independent solar PV facilities on a 57 ha farm on the outskirts of Cape Town, which once operational will produce 40 MWac of power to supplement the national electricity grid. Project also involves an application to the National Department of Agriculture, Land Reform and Rural Development (DALRRD) for approval in terms of the Subdivision of Agricultural Land Act (Act 70 of 1970).

Client: ABO Wind renewable energies (Pty) Ltd

Tall Building Applications

2015 – 2017 **16 on Bree, Cape Town CBD**

Preparation of statutory application for a tall building (115m) in the Cape Town CBD in association with a multidisciplinary team. This is currently the tallest residential building in the Cape Town CBD.

Client: FWJK

2016 – 2021 **Wharf Street Tower, Cape Town CBD**

Preparation of statutory application for a tall building (139m) in the Cape Town Foreshore in association with a multidisciplinary team. Statutory application approved in April 2021; development expected to commence end-2023.

Client: Tsogo Sun

Residential Developments

2015 – 2019 **Mount Prospect Retirement Estate, Constantia**

Town planner on a multidisciplinary team for a proposed retirement estate in Constantia comprising 37 dwelling units, as well as a communal clubhouse and medical facilities. Statutory application approved in December 2019.

Client: Property Development Projects

Urban Design Frameworks / Precinct Planning

2016 – 2017 Optenhorst, Paarl

Preparation of an urban design framework for a mixed-use development (retail, office and residential) in Paarl. Development to commence mid-2021.

Client: Lazercor Developments

2019 – 2021 Piketberg Gateway and Central Integration Zone Precinct Plan

Preparation of a precinct plan for the Piketberg Gateway and Central Integration Zone, which was approved in March 2021 by the Bergrivier Municipality. Project team included urban designers and civil engineers.

Client: Department of Agriculture, Land Reform and Rural Development / Bergrivier Municipality

Zoning Schemes

2022 – 2023 Stellenbosch Municipality: Events & Outdoor Dining Overlay Zone

Preparation of a draft regulations for an Events & Outdoor Dining Overlay Zone to be included in the Stellenbosch Municipality Zoning Scheme By-law. Once adopted, the Overlay Zone will assist to facilitate the hosting of more events on properties with certain zonings as an inherent land use right (subject to certain provisions). Further, the Overlay Zone will also include provisions that permit outdoor dining areas associated with restaurants, cafés, bars etc. on public streets.

Client: Western Cape Department of Economic Development & Tourism / Stellenbosch Municipality

Government Planning Policy Instruments

2011 – 2012 Regional Plan: Matutuine District, Mozambique

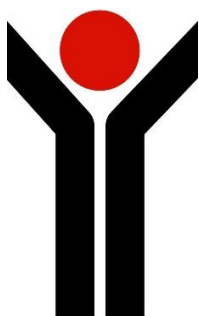
Assisted with the compilation of the Matutuine District Plan in Mozambique.

Client: Matutuine District Council

2013 – 2014 Matzikama Municipality Human Settlements Plan

Assisted with the compilation of a municipal Human Settlements Plan and associated 10-year project pipeline.

Client: Matzikama Municipality



INFOTOX (Pty) Ltd

2001/000870/07

Retrieval and scientific interpretation of ecotoxicological information

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CURRICULUM VITAE

Dr WCA VAN NIEKERK (June 2023 Rev 5.0)

Dr Willie van Niekerk holds BSc, Hons BSc and MSc degrees from the University of Potchefstroom (South Africa), and a PhD from the University of South Africa. He is the Managing Director of INFOTOX (Pty) Ltd. INFOTOX is a specialist company in the discipline of Health Sciences. Dr Van Niekerk is a Qualified Environmental Professional (QEP)¹, Environmental Toxicologist, certified by the Institute of Professional Environmental Practice (IPEP) in the USA, and a registered Professional Natural Scientist (Pr Sci Nat, Environmental Science) in South Africa. He has specialised in environmental toxicology and health risk assessment, but has experience in many other areas in the disciplines of analytical and environmental sciences. Among these are health-risk based contaminated land investigations, the assessment of exposure to the criteria air pollutants and other airborne toxicants, including radionuclides, sampling and chemical analysis of soil, water and other materials for industrial or environmental characterisation, statistical interpretation of analytical data, and the development of quality assurance documentation for scientific studies. Clarification of the association and causality of exposure to toxic substances and the manifestation of adverse health effects in communities is a key competence of INFOTOX.

In human health risk assessment, cancer risks are quantified and non-cancer risks are interpreted for acute and chronic exposure to hazardous substances. Quantitative exposure assessment and an understanding of the toxicology and mode of action of hazardous chemicals and mixtures of chemicals are fundamental in the health risk assessment approach. This is important in the

¹ The Qualified Environmental Professional (QEP) certification is the first and only credential of its kind in the USA. It is a multi-media, multi-disciplinary, board-certified credential that requires environmental professionals to view "the big picture" and to have the skills and knowledge to resolve "real world problems". It is international in scope and has received accreditation by the Council of Engineering and Scientific Specialty Boards (CESB). The CESB is an independent organization which accredits engineering, scientific, and technology certification programs. The QEP certification is now administered by the Board for Global EHS Credentialing (Credential Number 7960160).



assessment of health risks associated with hazardous elements in inorganic materials such as mineralogical ores, slag, and soils, where exposure and health risks are determined by the fraction of an element that is available for absorption into the human circulatory system from the matrix material.

Dr Van Niekerk conducted several community health risk assessments for exposure to dioxins, including full food chain health risk assessments based on analytical dioxin data. He managed and assessed several studies on waste combustion, covering various incineration studies, assessment of pyrolysis followed by thermal destruction, and combustion of waste in cement kilns.

It is notable that Dr Van Niekerk wrote a chapter on human and wildlife risk assessment in the Risk Assessment Manual for Abandoned Mines in Namibia, which was funded by the German Federal Ministry for Economic Cooperation and Development, through the Federal Institute for Geosciences and Natural Resources. The project was coordinated under the Ministry of Mines and Energy of the Government of the Republic of Namibia. INFOTOX also assessed reproductive effects of sulfur dioxide on commercial wildlife farming, health effects of chlorine on domestic animals and an equine screening health risk assessment for exposure to petroleum contaminants. INFOTOX compiled a document on cattle deaths and nitrate contamination of water at a mining site, and an ecological and biomechanistic review of potential causes of death in cattle.

He recently conducted a health risk assessment for avian species, including herons and egrets, at a surface water pond in an area with high levels of hexavalent chromium in shallow groundwater. The study included a health risk assessment for various trophic levels in the aquatic food chain.

Dr Van Niekerk conducted health risk assessments for corrective action for multiple pollutants at the AECl Somerset West site over several years, and derived health-risk based cleanup target levels for corrective action. He also conducted the due diligence for a law firm on behalf of the City of Cape Town prior to the city purchasing the site from AECl in 2015.

As a specialist in asbestos health risk assessment, he conducted a health-risk based due diligence for the purchase of an asbestos-product manufacturing facility in 2020.

As part-time Professor in Vista University in Pretoria, he lectured for three years on the chemistry and toxicology of hazardous waste.

Over several years Dr Van Niekerk visited research institutes and other organisations in the USA, England, Belgium, The Netherlands, Germany, Switzerland and Italy. He reviewed health-risk based studies for occupational exposure to toxic substances in the Copperbelt Province of Zambia, including site visits to mining and smelting operations at Chingola and Kitwe. He also conducted health-risk based environmental studies in Namibia.

Dr Van Niekerk has worked with several law firms on environmental health risk projects and has acted as expert witness in litigation cases. He is currently conducting a number of health risk assessment projects under legal privilege. Several of these studies are structured in anticipation of potential class actions.

He is a member of the National Association for Clean Air (NACA) and of the Toxicology Society of South Africa (TOXSA).