
CURRICULUM VITAE

ADIE (Adrienne) ERASMUS (nee' Daines)

M.Sc., Pr. Sci. Nat. (400078/96);

Registered Environmental Assessment Practitioner (EAPASA): 2019/604

Educational qualifications

B. Sc (Botany and Zoology): University of Port Elizabeth, 1987

B. Sc (Hons) (Botany): University of Port Elizabeth, 1989

M. Sc (Botany): University of Port Elizabeth, 1991

Registered (15 August 1996) as a Professional Natural Scientist (ecological and botanical scientist) with the South African Council for Natural Scientific Professions (Registration number: 400078/96).

Registered (7 February 2020) with the Environmental Assessment Practitioners Association of South Africa (EAPASA): Registered Environmental Assessment Practitioner (EAP) (Registration number: 2019/604).

Specialisation

Ecological surveys (including wetlands) and monitoring, vegetation-land use mapping, urban open space planning, coastal zone planning and management, coastal ecology. The co-ordination of the environmental impact assessment process, including public participation. The compilation of environmental reports and environmental impact assessment reports. Evaluation of environmental management programme reports and environmental impact assessment reports.

Total years of environmental experience

34 years

Professional Qualifications

- Courses attended as part of the Danced Training Programme in Environmental Management Governance:
 - Environmental Law (April 1997) - Presented by Environmental Management Unit – PU for CHE and Technikon Pretoria)
 - Environmental Impact Assessment (May 1997) - Presented by Environmental Management Unit, PU for CHE and Technikon Pretoria).
 - Environmental Management (May 1997) - Presented by Environmental Management Unit, PU for CHE and Technikon Pretoria,
 - EMS systems (11 – 14 August 1997) - Presented by Environmental Management Unit, PU for CHE and Technikon Pretoria),
 - Environmental Management in Industry (15 - 19 September 1997) - Presented by Environmental Management Unit, PU for CHE and Technikon Pretoria).
 - Environmental Standards and Guidelines.
 - Monitoring Systems and Equipment (18 – 21 May 1998) - Presented by Environmental Management Unit, PU for CHE and Technikon Pretoria)
- Successfully completed the Environmental Auditing Course (23 – 27 March 1998) - Presented by SENRIO (Centre for Regional Development), University of Potchefstroom.
- Diploma in Project Management, Damelin Management School, Witbank (29 July 1999).
- Merit Award for Top Student in Project Management, Damelin Management School, Witbank (1999).
- Diploma in Bookkeeping, Damelin Management School, Witbank (2 August 2000).
- Environmental Law Event (18 – 19 June 2020), Business Success Solutions (SACNASP and ECSA accredited course) (Trainer: Janice Tooley)
- Environmental Law and Compliance (22 – 23 September 2020), Business Success Solutions (SACNASP and ECSA accredited course) (Trainer: Janice Tooley).

Employment History

- ⊗ 1 March 2016 – present: Owner: AdiEnvironmental cc (previously Clean Stream Environmental Services: Coalfields cc).
- ⊗ July 1999 – 28 February 2016: Managing member: Clean Stream Environmental Services: Coalfields cc.
- ⊗ 1 September 1996 – June 1999: Environmental Officer, Environmental Management (Impact Management), Department of Environmental Affairs and Tourism (Mpumalanga), Witbank.
- ⊗ April 1994 – November 1995: Environmental Officer, Wetland Conservation Programme, Department of Environmental Affairs and Tourism, Pretoria
- ⊗ 1 May 1991 – 31 May 1993: Contract Researcher, National Botanical Institute, Kirstenbosch, Cape Town.
- ⊗ 1 January – 31 December 1989: Temporary Research Assistant, Coastal Dunes Programme, Botany Department, University of Port Elizabeth, Port Elizabeth.

Professional Experience

Professional experience gained over the years includes the following:

- Conducting vegetation surveys (including wetlands) and producing vegetation-land use maps.
- Experience and training in coastal ecology and coastal zone planning and management.
- Experience in urban open space planning.
- The co-ordination and implementation of the regulations in terms of:
 - Section 21, 22 and 26 of the Environment Conservation Act, 1989 (Act 73 of 1989);
 - Environmental Impact Assessment (EIA) Regulations, 2006;
 - Environmental Impact Assessment (EIA) Regulations, 2010;
 - Environmental Impact Assessment (EIA) Regulations, 2014;
 - Environmental Impact Assessment (EIA) Regulations, 2014 (as amended);
 - Minerals Act, 1991;
 - Mineral and Petroleum Resources Development Act, 2002;
- Compilation and review of:
 - Basic Assessment Reports;
 - Scoping and Environmental Impact Assessment Reports;
 - Environmental Management Plans (EMP/EMPR);
 - Section 24G applications;
 - Exemption applications.
- Commissioning and management of specialist studies as part of the Basic Assessment or Environmental Impact Assessment (e.g. ecological (plant and animal life); wetland; soil/geotechnical; aquatic; surface water; traffic; air quality; noise, heritage, etc.).
- Coordination and facilitation of public participation (including public meetings) in terms of the above-mentioned legislation;
- Co-ordination and facilitation of Environmental Forums for mining companies on a quarterly basis;
- Conducting Environmental Compliance Assessments/Audits;
- Carrying out the functions of an Environmental Control Officer (ECO) on construction sites;
- Compiling Water Use License Applications (WULA) in terms of the National Water Act, 1998;
- Compiling Waste Management Licenses in terms of the National Environmental Management: Waste Act;
- Compiling Prospecting & Mining applications in terms of the Minerals Act, 1991 and the Mineral and Petroleum Resources Development Act, 2002;
- Compiling performance assessment reports as required in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002);
- Independent Environmental Reporting.

Projects have been undertaken in Mpumalanga, Limpopo Province, Gauteng, North-West, KwaZulu-Natal and the Eastern Cape.

For the past 26 years as environmental consultant I have worked closely with other professionals (e.g. town planners, engineers, etc.) on project teams and provided input on a regular basis in order to ensure the best outcome of a project from an environmental point of view.

Training and mentorship

I have mentored and trained a number of persons (R. Janse van Rensburg, J. van Driel, L. Richards) with regards to conducting Environmental Impact Assessments.

Ms. Riana van Rensburg, who worked for the company for more than 20 years, received her Masters in Environmental Management from the University of Free State in 2012. I acted as her mentor during the said studies.

During 2017, I participated in the IAIA Student Mentorship Programme and acted as mentor to Annemie du Randt.

Research projects:

Daines, A. 1993. Cape Metropolitan Area: West Coast Environmental Survey. Prepared for the Regional Planning Department, Western Cape Regional Services Council.

Daines, A., J. Adams and G. C. Bate. 1992. Vegetation of the Cape St. Francis bypass dunefield. Institute for Coastal Research Report no. 27.

Daines, A. 1991. The status of barrier dunes along the Eastern Cape coastline, South Africa. M.Sc Thesis. University of Port Elizabeth.

Environmental Reports Compiled:

I have been involved in compiling Environmental Impact Assessments (EIA's) and other environmental reports since 1999 – more than 250 reports have been compiled during this time. A list of reports compiled can be provided on request.

International experience:

Member of the South African Mbeki-Gore Binational Commission delegation: Mining Study Tour to the USA (13 August – 5 September 1998).

Professional Affiliations:

South African Council for Natural Scientific Professions (SACNASP)
Environmental Assessment Practitioners Association of South Africa (EAPASA)

Societies:

Member of IAIA(SA) – Mpumalanga Branch
Member of the Environmental Law Association (ELA)
Mpumalanga Wetland Forum: Secretary – 2015, 2016, 2017, 2022, 2023, 2024; 2025
Friends of the Witbank Nature Reserve – Chairperson (2021-2022); (2022-2023); (2023 – 2024); (2024 – 2025)
Environmental Law Association (ELA) – Mpumalanga Representative on Executive Committee (Exco) (2021, 2022)

Contact details:

Adie Erasmus M.Sc., Pr. Sci. Nat. (400078/96);
Registered Environmental Assessment Practitioner (EAPASA): 2019/604



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Website: www.adienvironmental.co.za

CURRICULUM VITAE
PAULINE ADRIANA (RIANA) JANSE VAN RENSBURG

<i>Name</i>	Pauline Adriana Janse van Rensburg
<i>Nationality</i>	South African
<i>Contact details</i>	Cell: 063 682 8955; E-mail: riana@rigrowth.co.za
<i>Languages</i>	Afrikaans and English
<i>Educational qualifications</i>	1995-1997 N. Dip (Nature Conservation): Technikon Pretoria 2010-2012 Masters in Environmental Management: University of the Free State
<i>Professional Qualifications</i>	2003 Certificates in A+ PC Technology, N+ Network Technology: Damelin 2004 Certificate Environmental Impact Assessments: North-West University Potchefstroom 2007 Certificate in Basic Bookkeeping: Damelin 2007 Wetland Training Course: University of Pretoria 2009 Certificate Project Management for EMS: University of the Free State 2010 Certificate Basic GIS: University of the Free State 2010 Certificate Excel 2010: Options in Training 2015 Basic Fire Awareness, SHE Representative, Introduction to OHS Act, First Aid Level 1: NOSA 2015 Foundation Diploma in Photography: Shaw Academy 2024 Certificate: TEFL (Teaching English as a Foreign Language)
<i>Employment History</i>	December 1996 – December 1997 In service training at the Hoedspruit Cheetah Project/Kapama Game Reserve as part of the National Diploma: Nature Conservation. January 1998 - April 2000 Tourguide, Shop Assistant and Assistant Manager: Hoedspruit Cheetah Project; regularly assisted with Game Ranger duties at Kapama Game Reserve. April 2001 – February 2023 Environmental Scientist: AdiEnvironmental (previously Clean Stream Environmental Services: Coalfields). March 2023-present Environmental Assessment Practitioner: RiGrowth (Pty) Ltd
<i>Key competencies:</i>	• Environmental Impact Assessments and Basic Assessments; • Section 24G applications; Listing confirmations; • Water Use Licenses; Internal and External Audits; • Environmental Control Officer on construction sites. • Online submission of applications via SAHRIS, eWulaas and SAMRAD; Environmental Management Plans; • Compliance audits on Environmental Authorisations; • Desktop Assessments and Feasibility Studies; • Project management; Report writing; Site inspections; • Public participation; Map work (basic GIS); • Document and process reviews; Liaison with Departments and key stakeholders.



Addendum A – CV CURRICULUM VITAE

Name: **Catharina Elizabeth Venter** trading as Kyllinga Consulting
Position: Senior Ecologist and Wetland Scientist
Date of Birth: 29 December 1979
Nationality: South African
Languages: Afrikaans, English

EDUCATIONAL QUALIFICATIONS

- M.Sc (Botany), University of Pretoria (2003)
- B.Sc Hons (Botany), University of Pretoria (2001)
- B.Sc (Environmental Sciences), University of Pretoria (2000). Majored in Geography and Botany
- Matriculated, Sasolburg High School (1997)

Additional

- Introduction to ArcGIS 1 (2006)
- Bringing your data into ArcGIS (2006)
- Introduction to ArcView 3.x (2003).

FIELDS OF EXPERTISE

- **Ecological Assessment:**
Ecological Assessments as part of the Environmental Impact Assessment Process
- **Wetland Assessment:**
Wetland Assessments as part of the Environmental Impact Assessment Process and Water Use Applications, as well as rehabilitation plans for wetlands, including planning or the Working for Wetlands programme. Large scale wetland assessments (catchment scale).
- **GIS:**
Compilation of maps for submission as part of Environmental Impact Assessment Process. Creating spatial databases and large scale wetland maps (catchment scale). Projection conversions and matching/overlaying different format GIS maps.
- **Environmental Impact Assessment**
Undertaken numerous Environmental Scoping Reports, as required by the Environment Conservation Act, 1989 (Act 73 of 1989), the National Environmental Management Act, 1998 (Act 107 of 1998), as amended and the Development Facilitation Act, 1995 (Act 67 of 1995). Project experience includes the establishment of various housing typologies, golf courses, commercial and industrial projects, infrastructure development (roads), resorts and/or game lodges as well as filling stations.
- **Public Participation:**
Undertaken numerous public participation processes, ranging from basic to extensive, as required by relevant environmental legislation.

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Professional Natural Scientist (Pr.Sci.Nat) in the fields of Botanical and Ecological Science (Reg no. 400048/08)
- Member of the Botanical Society of South Africa



EMPLOYMENT HISTORY EXPERIENCE

Kyllinga Consulting (July 2015 - present)

Senior Ecologist responsible for wetland and ecological specialist assessments.

Spatial Ecological Consulting (February 2010 – June 2015)

Senior Ecologist responsible for wetland and ecological specialist assessments.

- Wetland Related Assessments
More than 40 wetland assessments conducted between 2010 and 2015.
- Vegetation Assessments
Approximately 16 vegetation assessments between 2010 and 2015.
- Management Plans
Completed two ecological management plans.

MSA Group Services (previously Exigent Environmental CC) (August 2004 – January 2010)

Environmental Scientist responsible for ecological and wetland assessments and the compilation of maps. Also conducted various scoping and EIA applications and EMPRs.

- Ecological Assessments
In excess of 50 ecological assessments conducted between 2004 and 2010, including managing the inclusion of the fauna specialist assessments.
- Wetland Assessments
More than 60 wetland verification projects, wetland delineations and wetland assessments, completed between 2004 and 2010.
- As well as:
Rehabilitation Projects; Fatal Flaw / Screening Assessments; National Department of Agriculture Authorisations; Mining Related Assessments; Private, Public Partnership Projects; Resource Management Plans (RMP); Environmental Management Plans; Environmental Management Programme; Environmental Exemption Processes; Basic Assessments; Environmental Impact Assessments

Part-time employment (2002-2004)

Tutor for botany practicals; Assisting Wildlife management students with Braun-Blanquette analysis; Researcher for a project on the vegetation communities and ecology of the Kruger National Park; Research assistant for the analysis of street trees in Tshwane urban forest; Various part time projects related to vegetation and wetlands

COUNTRIES OF WORK EXPERIENCE

- South Africa
- Lesotho
- Botswana
- Mozambique



PAPERS AND PUBLICATIONS

Co-author and data contributor to: SIEBEN, E. *et al.* The vegetation of inland wetlands with salt-tolerant vegetation in South Africa: description, classification and explanatory environmental factors, submitted to the South African Journal of Botany for review in Feb 2015.

Co-author and data contributor to: SIEBEN, E. *et al.* The herbaceous vegetation of subtropical freshwater wetlands in South Africa: description, classification and explanatory environmental factors, submitted to the South African Journal of Botany for review in Feb 2015.

Co-author and data contributor to: SIEBEN, E. *et al.* The vegetation of grass lawn wetlands of floodplains and pans in semi-arid regions of South Africa: description, classification and explanatory environmental factors, submitted to the South African Journal of Botany for review in Jan 2015.

Co-author of several vegetation descriptions in: MUCINA, L. & RUTHERFORD, M.C. (eds) 2006. The Vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19. South African National Biodiversity Institute, Pretoria.

VENTER, C.E. & BREDEKAMP, G.J. In prep. Major plant communities on the Mfabeni swamp, St Lucia. *Bothalia*.

VENTER, C.E.; BREDEKAMP, G.J. & GRUNDLING, P-L. 2003. Plant community types, and their association with habitat factors as ecosystem driving forces, of Mfabeni swamp. Proceedings of the congress: *Environment of the St Lucia Wetland: Processes of Change*, Cape Vidal, September 4th - 7th, 2003.

VENTER, C.E.; BREDEKAMP, G.J.; GRUNDLING P-L. 2002. Vegetation change on rehabilitated peatland on Rietvlei Nature Reserve. *Kudu* 46(1):53-63.

PRESENTATIONS

Venter, C.E.; Bredenkamp, G.J. & Grundling, P-L. 2003. Plant community types, and their association with habitat factors as ecosystem driving forces, of Mfabeni Swamp. *Environment of the St Lucia Wetland: Processes of Change*, Cape Vidal, September 4th - 7th, 2003.

Poster Presentations

Venter, C.E.; Bredenkamp, G.J.; Grundling P-L. 2002. Baseline vegetation surveys of rehabilitated peatland on Rietvlei Nature Reserve. SAAB Convergence. Grahamstown.

Venter, C.E.; Bredenkamp, G.J.; Grundling P-L. 2003. Vegetation change on rehabilitated peatland on Rietvlei Nature Reserve. SAAB Convergence. Pretoria.



Name: **LUKAS JURIE NIEMAND**

Company: Pachnoda Consulting cc (Director)

Date of Birth: 1974-03-12

Nationality: South African

Languages: English and Afrikaans

EDUCATIONAL QUALIFICATIONS

1992 Hoërskool Hartbeespoort, Hartbeespoort - Senior Certificate.

1996 University of Pretoria, Pretoria - B.Sc. (Zoology and Entomology).

1997 University of Pretoria, Pretoria - B.Sc. (Hons) (Entomology).

2001 University of Pretoria, Pretoria - M.Sc. (Restoration Ecology/Zoology).

MEMBERSHIP IN PROFESSIONAL SOCIETY

- Professional Natural Scientist (Pr. Sci. Nat.) (Reg. no. 400095/06)
- BirdLife South Africa
- Hartbeespoort Natural Heritage Society



EXPERIENCE

A. Work conducted in South Africa

1. General Ecological Assessments (Fauna, Flora and Red Data Scans, including both functional and compositional aspects):

- Belvedere Trust, Proposed retirement village on Amorosa Agricultural Holdings, Roodepoort, Gauteng (2004);
- City of Joburg Property Development Company, Proposed upgrade and development of the Orlando Dam Intersection, Soweto, Gauteng (2004);
- PDNA, Proposed NASREC development, Johannesburg, Gauteng (2004);
- 17 Shaft Conference and Education Centre, Proposed establishment of the Veteran's Heritage Education Centre, Crown Mines, Gauteng (2004);
- GAUTRANS, Proposed re-alignment of Road D781 and construction of a road bridge over the Rietvleispruit, Kempton Park, Gauteng (2004);
- Mr. N. Lang, Ecological Opinion on the proposed establishment of a township, Muldersdrift, Gauteng (2004);
- AGES, Proposed Equestrian Centre, Leeufontein 299 IR, Gauteng (2004);
- PDNA, Proposed new bridge and re-alignment of a portion of provincial road P101-2 (R51), Laversburg, Gauteng (2004);
- Blenneerville Investment (Pty) Ltd, Proposed construction of a residential and commercial development on of Paradiso Estate, Tweefontein 372 JR, Gauteng (2004);
- Les Roches (Pty) Ltd, Proposed zoning of holdings 1, 2 & 3 of Hyde Park Agricultural Holdings, Gauteng (2004);
- Transnet Limited, Terrestrial Faunal Ecological Opinion: Phase 1B expansion of the Sishen-Saldanha Iron ore export corridor, Saldanha Bay, Western Cape (2005);
- Celebration North Riding (Pty) Ltd, Proposed mixed land-use development, North Riding, Gauteng (2005);
- Wilderness Safaris, Proposed upgrade of the Manzengwenya Dive Camp, Greater St. Lucia Wetlands Park, KwaZulu-Natal (2005);
- Wilderness Safaris, Proposed upgrade of the Rocktail Bay Camp, Greater St. Lucia Wetlands Park, KwaZulu-Natal (2005);
- GAEA Projects, Corridor Assessment for the proposed Sibaya Precinct, KwaZulu-Natal (2005);
- Computer Domain Holdings (Pty) Ltd, Red Data Floral Scan on portion 3 of the farm Elandshoek, portions 12 & 27 of the farm Groot Suikerboschkop, and portions 5 & 10 of the farm Palmietfontein, Dullstroom (2005);
- Zong's Property Investments, Proposed establishment of a residential development on a portion of Pomona Estates Agricultural Holdings, Pomona, Gauteng (2005);
- GJ van Zyl Trust, Proposed development of a resort on the Farm Witpoort 216 JS, Mpumalanga (2005);
- Mr. Howard Walker, Proposed subdivision of the Farm Lunsklip 105 JT, and the Farm Morgenzon 122 JT, for the establishment of a private resort, Dullstroom, Mpumalanga (2005);
- Lavender Manor cc, Proposed establishment of a retail, commercial and Lavender Manor Township on part of farm Rietfontein 189 IQ, Muldersdrift, Gauteng (2005);
- Geo Pollution Technologies, Proposed establishment of a residential development: Noordwyk Ext 65 & 80 on Erand Agricultural Holdings, Midrand, Gauteng (2005);
- Mr. A. Le Roux, Proposed Cradle View Country Estate, Muldersdrift, Gauteng (2006);
- Viking Bay Development Company (Pty) Ltd, Proposed Viking Bay freshwater marina and hotel development, Vaal Dam, Gauteng (2006);
- Land for Africa (Pty) Ltd, Ecological Opinion for the proposed establishment of a residential township on holding 122 Erand Agricultural Holding Extension 1, Halfway House, Midrand, Gauteng (2006);
- Brickot Developments cc, Ecological opinion for the proposed Bethal Retirement Village on the remainder of portion 3 of the farm Mooifontein 108 IS, Bethal, Mpumalanga (2006);



- Brawild (Pty) Ltd, Red Data Scan for the proposed Annlin Ex 117, Pretoria, Gauteng (2006);
- Mbombela Local Municipality, Ecological Opinion for the proposed extension of the Lowveld Botanical Gardens, Nelspruit, Mpumalanga (2006);
- Natural Scientific Services cc, Botanical survey for the SASOL Mafutha coal project near Lephalale, Limpopo Province, RSA (2008);
- SRK Consulting, Ecological assessment on Vlakfontein area, NW of Ogies, Mpumalanga. Report compiled in association with EkolInfo (2009); and
- Aurecon, Desktop biodiversity assessment and wetland scan: upgrade of the River View waste water treatment works, eMalahleni, Mpumalanga province. Report compiled in association with Imperata Consulting (2009).

2. Mining and Industrial related projects (ecological):

- Lonmin Platinum (Western Platinum Limited), Ecological Assessment for the proposed MK3 Shaft Complex on the farm Wonderkop 400 JQ, Rustenburg, North West Province (2004);
- Impala Platinum Limited, Ecological Assessment for prospecting SEMP's on the farms Buffelshoek 386 KT, Kalkfontein 367 KT, Spitskop 333 KT, Steelpoortpark 366 Kt and Tweefontein 360 KT and Hackney 116 KT (all Sekhukhuneland), Mpumalanga and Limpopo Province (2004);
- Trans-Caledon Tunnel Authority (TCTA), Ecological Assessment for borrow pit SEMP's on the TCTA pipeline, Vaal Marina to Secunda (2005);
- Boynton Platinum (Pty) Ltd, Ecological Assessment for the proposed establishment of platinum mines on the farms Tuschenkomst 135 JP, Witkleifontein 136 JP and Ruighoek 169 JP, North West Province (2005);
- Impala Platinum Holdings, Ecological Assessment for prospecting SEMP's on the Impala Platinum Bafokeng Mining Complex, North West Province (2005);
- Ceramic Industries Limited, Ecological Assessment of the Rietspruit Clay Quarries, Vanderbijlpark, Gauteng (2005);
- Ekurhuleni Metropolitan Municipality, Ecological Assessment Report for the proposed GLB Landfill Site on the farm Zesfontein 27 IR, Benoni, Gauteng (peer reviewed, 2006);
- Ceramic Industries Limited, Ecological Assessment of the Leeukuil Clay Quarries, Vanderbijlpark, Gauteng (2006);
- Council for Geoscience, Habitat sensitivity assessment scoping report for Bon Accord quarry on a portion of the farm de Onderstepoort 300-JR, Tshwane, Gauteng (2007);
- Fraser Alexander, Biodiversity action plan for Lonmin Limpopo & Platinum, North West & Limpopo Province, RSA (2008-2009);
- Envirolution Consulting (Pty) Ltd., Ecological screening report and site selection process for an Eskom general landfill and hazardous waste storage facility near Lephalale, Limpopo Province, RSA (2009);
- Envirolution Consulting (Pty) Ltd., Ecological assessment for the proposed construction of an Eskom general landfill and hazardous waste storage facility at the Matimba Power Station, Limpopo Province, RSA (2009);
- Shangoni/Vergenoeg Mining Company, Ecological assessment for the proposed construction of a slurry pipeline and waste rock dump at the Vergenoeg Mine, Gauteng (2011);
- ENVASS, An ecological evaluation (vertebrate & avifaunal component) for the proposed alternative energy plant on Portion 3, 4 & 5 of the Farm Groenwater 453, Northern cape (2012); and
- ENVASS, Ecological evaluation (vertebrate & avifaunal component) for the proposed alternative energy plant on Ixun & khwe, Northern cape (2012).

3. Avifaunal and Invertebrate Assessments:

- Lavender Manor cc, Red Data Bird Assessment for the proposed establishment of a retail, commercial and Lavender Manor Township on part of the farm Rietfontein 189 IQ, Muldersdrift, Gauteng (2004);
- Helga Schneider & Associates, Avifaunal & Invertebrate Red Data Assessment for the proposed rezoning & subdivision on Erf 6486 Orange Farm Ext 2, Johannesburg, Gauteng (2005);



- TOWNDEV, Avifaunal and Arachnid Assessment for the proposed subdivision of Grootfontein 349 JR, Rievlei Dam, Gauteng (2006);
- Prof. Van Rensburg, Red Data Invertebrate Scan for the proposed Rietvalleirand Extension 59, Gauteng (2006);
- Group Five Property Development, Invertebrate Assessment for the proposed Buccleuch Ex 1, Gauteng (2006);
- Zong's Property Investments, Avifaunal and *Metisella meninx* assessment for the establishment of a residential development on a portion of Pomona Estates Agricultural Holdings, Pomona, Gauteng (2006);
- Waterval Islamic Institute, Avifaunal and Invertebrate Assessment for the proposed Northern Golf Course Development, Midrand, Gauteng (2006);
- Ekurhuleni Metropolitan Municipality, Avifaunal & Invertebrate Red Data Assessment for the proposed low-cost housing development on Olifantsfontein 410 JR, Gauteng (2006);
- City of Tshwane Metropolitan Municipality, Invertebrate Red Data Scan for the proposed flood remediation and river upgrade at Soshanguve, Gauteng (2006);
- AGES, Invertebrate assessment for the proposed mining activities on the farm Thorncliffe 374 KT, Xstrata Eastern Mines, Mpumalanga (2007)
- AGES, Mammal and invertebrate assessment for the proposed Kalplats project, Stella, North West Province (2007)
- Exigent Engineering Consultants, Invertebrate assessment for the proposed Derdepoort X 11, Derdepoort, Gauteng (2007);
- Exigent Engineering Consultants, Invertebrate and Avifaunal scan for the proposed Cutty Sark hotel extension, Scottburgh, Kwazulu-Natal (2007);
- Strategic Environmental Focus, African Grass Owl assessment on the proposed Cradle View country estate on portion 60 of the farm Driefontein 179 IQ, Muldersdrift, Gauteng (2007);
- GEOLAB, Ecological assessment for the West Rand Gold Operations (WERGO) Witfontein tailings disposal facility, Mintails, Gauteng, RSA (2008);
- Coastal Environmental Services, Avifaunal Assessment for the proposed mining of heavy minerals at Port Durnford (Exxaro KZN-Sands), KwaZulu-Natal (2008);
- SRK & Natural Scientific Services cc, A feasibility study for the mining of coal north of the Limpopo Province. Avifaunal & invertebrate assessment, Rio Tinto Exploration, Limpopo Province, RSA (2009);
- Eskom/Baagi Environmental, An environmental management plan (avifaunal & faunal component) for the proposed Dinaledi - Spitskop 400 kV transmission line, North West Province (2010);
- Eskom/Baagi Environmental, An avifaunal impact report for the proposed 400 kV Ariadne-Venus transmission line between Estcourt and Pietermaritzburg, KwaZulu-Natal (2010);
- Eskom/Baagi Environmental, An avifaunal impact assessment report for a 275 kV power line between the substations of Glockner and Kookfontein, Vanderbijlpark, Gauteng (2010);
- Groundwater Consulting Services (Pty) Ltd/EkoInfo, An invertebrate and avifaunal specialist report for the proposed expansion of Exxaro's Glisa coal mine, Belfast, Mpumalanga (2010);
- Eskom/Baagi Environmental, An environmental management plan (avifauna component) for the proposed 400 kV Medupi-Massa transmission lines, Limpopo Province (2011);
- Eskom/Baagi Environmental, An avifaunal and fauna impact assessment report for the proposed 400 kV Arnott-Gumani transmission line, Mpumalanga Province (2012);
- Eskom/Baagi Environmental, An environmental management plan (avifaunal component) for the proposed 400 kV Ngwedi transmission line and substation, North West Province (2012);
- Exxaro/EkoInfo, An avifaunal and invertebrate assessment (as part of a Biodiversity Assessment and action plan) for the Gravelotte MagVanTi Mining Area, Limpopo Province (2012);
- Groundwater Consulting Services (Pty) Ltd/EkoInfo, An invertebrate and avifaunal specialist report for the proposed Paardeplaats coal mine area, Belfast, Mpumalanga (2012);
- Groundwater Consulting Services (Pty) Ltd/EkoInfo, An invertebrate and avifaunal specialist report for the proposed Leeuwpans coal mine area, Belfast, Mpumalanga (2013);
- Eskom/Baagi Environmental, An environmental management plan (avifaunal component) for the proposed Medupi - Borutho 400 kV transmission line, Limpopo Province (2012);



- Eskom/Baagi Environmental, An environmental management plan (avifaunal component) for the proposed Gromis - Oranjemund 400 kV transmission line, Northern Cape (2013);

4. Other Assessments:

- Facilitation, project management and conduction of environmental scoping exercises, Environmental Impact Assessments, Environmental Management Plans, Feasibility Reports, for a range of projects and issues such as:
 - Housing Projects (West Rand Housing Projects) for the Gauteng Department of Housing;
 - Planning and facilitation of environmental awareness workshops (Winterveldt Workshops for the Department of Environmental Affairs and Tourism);
 - Compilation and evaluation of EIA reports and Environmental Management Plans (EMPs) for both the private and public sector (e.g. Scoping Report for the relocation of oxidation ponds for the Mqohaka Local Municipality and the installation of an underground additive tank for Sasol Oil (Pty) Ltd).
 - Urban Renewal Projects: Bekkersdal Urban Renewal Project and the Greater Evaton Urban Renewal Project for the Gauteng Department of Housing.
- Douglas Collieries (Inkwe Collieries), Biodiversity Assessment and database compilation of the Douglas Collieries (2005);
- Orion Group, Ecological Sensitivity Map for the proposed golf course and related facilities, Mont-Aux-Sources (2005);
- City of Joburg Property Development Company, Specialist *Lepidium mossii* assessment for the proposed upgrade and development of the Orlando Dam intersection, Soweto, Gauteng (2005);
- Johannesburg Roads Agency, Alien Eradication and Rehabilitation Programme for the proposed upgrade of 14th Avenue, Randburg, Gauteng (2006);
- City of Joburg Property Development Company, Ecological Management Plan for the Orlando Dam intersection, Soweto, Gauteng (2006);
- GJ van Zyl Trust, Alien Eradication Programme for the proposed development of a resort on the Farm Witpoort 216 JS, Mpumalanga (2006);
- GJ van Zyl Trust, Fire Management Plan for the proposed development of a resort on the Farm Witpoort 216 JS, Mpumalanga (2006); and
- Khutala Collieries (Inkwe Collieries), Biodiversity Assessment and database compilation (2006)

5. Linear Assessments:

- Johannesburg Roads Agency, Ecological Assessment for the Proposed upgrade of 14th Avenue, Randburg, Gauteng (2004).
- Trans-Caledon Tunnel Authority (TCTA), Proposed Vaal River Eastern Subsystem Augmentation (VRESAP) pipeline from Vaal Marina to Secunda (2005);
- PBA International (in association with Bathusi EC), Ecological Scoping Report for the proposed Eskom Delta-Epsilon 765 kV Transmission lines (2007);
- Bohlweki Environmental (in association with Bathusi EC), Ecological Scoping Report for the proposed Eskom Malelane-Boulders 132 kV Distribution line (2007);
- Bohlweki Environmental (in association with Bathusi EC), Ecological Scoping Report for the proposed Eskom Marathon-Delta 132 kV Distribution line (2007);
- Strategic Environmental Focus, Avifaunal EIA Report for the proposed Eskom Hendrina-Prairie-Marathon 400 kV Transmission line, Mpumalanga (2007);
- Natural Scientific Services cc, Botanical survey for the proposed upgrade of the Transnet railway line between Hotazel, Northern Cape and the Port of Ngqura, Eastern Cape, RSA (2008);
- Envirolution Consulting (Pty) Ltd, Ecological Report for the proposed Eskom Apollo-Lepini 400kV transmission line (2009);
- Arcus Gibb, An ecological investigation for the Tumelo 132 kV distribution line and power line near Kagiso, Gauteng (2010);



- Ekoinfo/SANRAL, Faunal investigation for the upgrade of the N3 highway (2011); and
- Aurecon (Pty) Ltd, Baseline vegetation survey for the Mokolo – Crocodile River Augmentation Project (MCWAP) pipeline from Mokolo Dam to Thabazimbi (2011).

B. Work conducted in other African countries:

- Rural Maintenance, Invertebrate study for four mini-hydroelectric generation plants, Northern Malawi, Africa (2010);
- Impacto, An avifaunal study (Phase 1) for the proposed Mpanda Nkwua Dam in the Zambezi River, Mozambique, Tete Province (2010);
- Conseil Régional des Pays de la Loire, An avifaunal investigation of the Rusizi and Ruvubu National Parks (Burundi), and the feasibility of establishing an avi-tourism network with specific emphasis on the protection of important flyways used by Palearctic birds - of - prey (2010);
- Impacto, An avifaunal study (Phase 2) for the proposed Mpanda Nkwua Dam in the Zambezi River, Mozambique, Tete Province (2011);
- Rural Maintenance, Invertebrate scan for the expansion of coal mining activities at Kayelekera, Northern Malawi, Africa (2011);
- Rural Maintenance, Invertebrate study for a mini-hydroelectric plant at the Chisanga Falls, Nyika National Park, Malawi (2011);
- Impacto/ERM/Enviro-Insight, Avifaunal investigation for the proposed Ncondezi Coal Mine, Tete Province, Mozambique (2011);
- Enviro-Insight, Avifaunal investigation for the Riversdale Coal Mine complex, Tete Province, Mozambique (2011);
- Anadarko Petroleum/ERM/Enviro-Insight, Avifaunal investigation for the proposed Anadarko Mozambique Area 1 Liquefied Natural Gas plant in northern Mozambique, Cabo Delgado Province, Mozambique (2012);
- Coffey Environments/EkoInfo, Avifaunal investigation for the mining of iron ore by Baobab Resources, Tete Province, Mozambique (a scoping-level assessment); and
- SRK/Flora, Fauna and Man Ecological Services, An avifaunal and invertebrate assessment for the establishment of a potash mine at Konkoati, Republic of the Congo (2012);
- China Union/ERM/Enviro-Insight, Avifaunal investigation for the proposed mining of iron ore in Bong County, Liberia (2012);
- SRK/Flora, Fauna and Man Ecological Services, An invertebrate assessment for the mining of iron ore by DMC Congo Mining/Exxaro at Mayoko, Republic of the Congo (2012);
- Western Cluster/ERM/Enviro-Insight, Avifaunal investigation for the proposed mining of iron ore at Bomi Hills, Bomi County, Liberia (2013);
- SRK/Flora, Fauna and Man Ecological Services, An invertebrate assessment for the establishment of an ecological offset for the DMC Congo Mining/Exxaro Iron Ore Mine at Mayoko, Republic of the Congo (2013);
- Western Cluster/ERM/Enviro-Insight, Avifaunal investigation for the proposed mining of iron ore at Bea Mountain, Grand Cape Mount County, Liberia (2013);
- Western Cluster/ERM/Enviro-Insight, Avifaunal investigation for the proposed mining of iron ore at Mano River, Grand Cape Mount County, Liberia (2013); and
- WSP/Flora, Fauna and Man Ecological Services, An invertebrate assessment for the establishment of a phosphate mine, Hinda Phosphate Project, Republic of the Congo (current); and
- Aureus Mine/Enviro-Insight, An avifaunal investigation for the proposed mining of gold at the New Liberty Gold Mine, Liberia (current)

C. Additional Experience:

- Monitoring and evaluation of the rehabilitation programme for the mining company Richards Bay Minerals (RBM) with special reference to vegetation, bird, small mammal and millipede assemblages.



- Other responsibilities include assessment of the ecological standard operating procedures (SOP) according to RBM's environmental management programme in compliance with ISO 14001 environmental standards accreditation process.
- Participated in the annual relief programme on the S.A Agulhas voyage to Subantarctic Marion Island (Prins Edward group). Took part in the research to estimate the population dynamics and demography of the alien house mouse (*Mus musculus*) on the island (under supervision of the University of Pretoria).
- Participated in the preparation of a conservation management plan for a game and trout farm in conjunction with Mpumalanga Parks Board (in charge of the bird section) for the farm Nu-Scotland Bavaria.
- Lead a successful professional bird tour (party of 12) to the Eastern Zimbabwean highlands and adjacent Mashonaland Plato (10 days).
- Lead a successful professional bird tour (party of 9) to the Cape Peninsula, Karoo and West Coast (10 days).
- Lead a successful professional bird tour (party of 12) to the Swaziland and Northern Zululand (10 days).
- Lead a successful professional bird tour (party of 15) to the Namibia (10 days).
- Lead a successful professional bird tour (party of 14) to the Eastern Drakensberg and Lesotho (10 days).

Employment History:

March 2007 – Current: of Director of Pachnoda Consulting cc

2004- January 2007: Strategic Environmental Focus (Pty) - Terrestrial Ecologist

2003 – 2004: Enviro-Afrik (Pty) Ltd– Environmental Consultant

2001 – 2003: University of Pretoria - Research Assistant

PUBLICATIONS:

- McEWAN, K.L., ALEXANDER, G.J., NIEMAND, L.J. & BREDIN, I.P. 2007. The effect of land transformation on diversity and abundance of reptiles. Paper presented at the 50th Anniversary Conference of the Zoological Society of Southern Africa.
- NIEMAND, L. 1997. Distribution and consumption of a rust fungus *Ravenelia macowaniana* by micro-lepidopteran larvae across an urban gradient: spatial autocorrelation and impact assessment. Hons publication, University of Pretoria, Pretoria
- NIEMAND, L. 2001. The contribution of the bird community of the regenerating coastal dunes at Richards Bay to regional diversity. MSc Thesis, University of Pretoria, Pretoria.
- VAN AARDE, R.J., WASSENAAR, T.D., NIEMAND, L., KNOWLES, T., FERREIRA, S. 2004. Coastal dune forest rehabilitation: a case study on small mammal and bird assemblages in northern KwaZulu-Natal, South Africa. In: Martínez, M.L. & Psuty, N. (Eds.) *Coastal sand dunes: Ecology and Restoration*. Springer-Verlag, Heidelberg.



- VAN AARDE, R., DELPORT, J. & NIEMAND, L. 1999. Of frogs and men. *Mechanical Technology*, June: 32-33.
- VAN AARDE, R., DELPORT, J. & NIEMAND, L. 1999. Gone Frogging. *Getaway*, January: 80-83.

PRESENTATIONS:

- Co-presenter at the Wetland Training Course (30 July – 3 August 2007) entitled: “Wetland-associated fauna”. University of Pretoria, Pretoria.
- Co-presenter and lecturer of the pre-conference training course (entitled "Can rehabilitation contribute towards biodiversity?") at the 3rd Annual LaRSSA (Land Rehabilitation Society of Southern Africa) Conference (8-11 September 2015), Glenburn Lodge, Muldersdrift, Gauteng.

Appendix 3: CV of key specialist, Dr. P. J. Kotze

Full Names: Petrus Jacobus Kotze
I.D. Number: 7108045053083
Address: Clean Stream Biological Services, Lowveld Office.
110 Selati Crescent, Mhlatikop, Malalane.
082-890-6452

Academic history

1989: Matriculate (Roodepoort).
1990 - 1992: B. Sc. (Biological Sciences) Rand Afrikaans University.
1993: B. Sc. Honors (Zoology) Rand Afrikaans University.
1994 - 1996: M. Sc. (Zoology) Rand Afrikaans University.
1997 - 2002: Ph.D. (Aquatic Health) Rand Afrikaans University.

Specialisation

Aquatic specialist assessments, aquatic biomonitoring, biodiversity management, water quality management and pollution control, design of surface water biomonitoring programs, impact assessments, reserve determinations (fish specialist).

Total years of environmental experience

23 years

Positions currently held:

- Managing director: Clean Stream Biological Services (Ecologist & Projects Manager)
- Director: Biotox Laboratory Services

Employment History

2005 - Present; Independent Environmental Consultant (Clean Stream Biological Services and Biotox Laboratory Services)

1999 – 2005: Environmental consultant, RauEcon (Rand Afrikaans University / University of Johannesburg)

Professional Experience

- Application and training in biomonitoring of aquatic ecosystems (fish, macroinvertebrates/SASS5, riverine habitats, water quality).
- Conducting of aquatic specialist assessments (EIA's).
- Experience in and application of DWS reserve determination methodology (fish and aquatic invertebrates)
- Design and execution of detailed environmental monitoring programmes
- Compilation of Biodiversity Management Programmes for the mining industry.
- Compilation of Environmental Impact Assessments.
- Application of human health risk assessment.
- Fish migration and fishway design assessment.

Professional Appointments

- Environmental consultant to: Eskom, Glencore, GHT consulting, Anglo Platinum, African Explosives Limited, Kumba Resources, Xstrata Coal South Africa, Xstrata Alloys South Africa,), SANParks, Tshwane Metro, JHB Metro, Implats, Rand Water, Lepelle Northern Water, Department of Water Affairs and Forestry, BPA International, Nepid Consultants, CT Environmental, Oppenheimer & Son PTY (LTD), Water for Africa, Northam Booyseendal Platinum, etc.

General

- Registered as Professional Natural Scientist with the South African Council for Natural Scientific Professions (Registration nr. 400413/04).
- Accredited SASS5 practitioner to the South African River Health Programme (DWA).
- Member of South African Society of Aquatic Scientists (SASAQS).



Position	:	Director
Name of Firm	:	IWR Water Resources
Name of Staff	:	SJL Mallory
Profession	:	Civil Engineer
Year of Birth	:	1961
Years of Experience	:	38
Nationality	:	South African

KEY QUALIFICATIONS:

Mr Mallory is currently a Director of IWR Water Resources, a company which specialises in water resources planning and modelling. He has 38 years experience in the water engineering field, most of which is in the field of water resources planning and modelling. Key projects over the last 10 years include the Development of an IWRM plan for the Aviv coffee plantation in Tanzania, Operating rules for dams in South Africa and Classification of the Water Resources of the Inkomati Water Management Area. Mr Mallory main input into these studies was his water resources modelling skills.

Previous key projects include the Internal Strategic Perspectives of which Mr Mallory authored several of these reports for the then South African Department of Water Affairs as well as the Inkomati Water Availability Assessment. This four year study entailed updating the hydrology and setting up the Water Resources Yield Model for the Inkomati Water Management Area. Mr Mallory was the study leader of the this large project, which involved input from approximately 30 water resources practitioners and several different consulting firms. He was also the specialist responsible over-seeing the setting up of the yield models.

One of Mr Mallory's key competencies and areas of interest is the development of operating rules for dams and systems and how this relates to the implementation of the Ecological Reserve. During his involvement in the development of operating rules for the Crocodile and Sabie systems he developed new modelling techniques which he has applied and developed further on the Algoa, Amatole and Usuthu systems. Mr Mallory has published many papers relating to this topic, several of which have been presented at international conferences.

Mr Mallory's most recent projects include the water use licencing within the Inkomati-Usuthu Water Management Area and technical assistance to several irrigation boards within the Crocodile and Sabie River catchment. This assistance includes advising on flow measurement infrastructure and equipment as well reduction of water losses.

Mr Mallory also developed and presents an ECSA accredited course on water resources through the Candidate Academy.

EDUCATION:

BSc (Eng) Civil – University of the Witwatersrand, 1983

Msc (Eng) - University of the Witwatersrand, 1991

MEMBERSHIPS IN PROFESSIONAL SOCIETIES:

- Water Institute of South Africa
- South African Hydrological Society
- International Association of Hydrological Sciences

- Engineering Council of South Africa (Registered Professional Engineer)

REFERENCES

1. Niel van Wyk, Chief Engineer, Department of Water Affairs (retired), Tel: 082 808 5651
2. Jenny Pashkin, Senior Engineer, Department of Water Affairs, Tel: 012 336 8695
3. Dr Tendai Sawunyama, Manager: River systems, Inkomati-Usuthu Catchment Management Agency, Tel: 082 609 3043

Recent Courses

1. Water Law: 2 day course presented by Adv Hubert Thomson
2. Dam Safety: Two day course presented by Mr Louis Hattingh
3. Pipeline design: Two course presented by the Training Academy
4. Integrated River Basin Management: Six month on-line UNESCO course
5. Stormwater modelling using SWMM

EXPERIENCE RECORD:

Projects in progress

- Technical support to the Inkomati Catchment Management Agency
- Water Research Commission project to monitor and predict droughts
- Water use licence applications for various clients
- Technical support to various irrigation boards in the White River and Sabie catchments
- Stand Alone Dams: Eastern and Southern Region

Completed projects

- Development of Reconciliation Strategies for the Mbombela Municipality
- Development of a real-time decision support system for the operation of the Sabie/Sand system
- Development of operating rules for stand-alone dams in the Eastern and Western Cape.
- Development of Reconciliation Strategies for the Olifants River catchment
- Development of IWRM plans for the Incomati River catchment.
- Water resources specialist and study leader on the Inkomati Water Availability Study: Water resource modelling, system operation, water requirements
- Water resources specialist of ecological Reserve studies: Outeniqua, Mokolo and Crocodile East and Sabie River catchments.
- Development of an ecological flow management plan for KOBWA (Komati River Basin)
- Development of a framework to operationalise the ecological Reserves: Water resources modelling specialist
- Develop a water allocation plan for the Inkomati WMA: Water resources modelling specialist
- Study leader for the Algoa Operating Rules (2006) study
- Study leader for the Amatole Operating Rules (2009) study
- Development of operating rules for the Letaba system: Application of new modelling techniques
- Water resources specialist for the development of Internal Strategic Perspectives in water management areas 5,6, 11, and Water management areas 1 to 3. Main author of the reports 5 and 6 and co-author of 6 other ISP reports.
- Water resources specialist for the Umzimvubu to Keiskamma ISP.
- Pilot study of the Water Situation Assessment Study
- Completion of the Water Resources Situation Assessment reports for the Crocodile West & Marico, Lower Vaal WMA and Inkomati WMA

January 1998 - July 2001

Mallory & Associates cc

Seconded to the Department of Water Affairs to assist in various aspects of water resources planning.

Recent projects:

- Application of Water Situation Assessment Mode to the establishment of a National Water Resources Strategy
- Preparation of data reports for all 19 Water Resources Situation Assessment reports
- Technical input to the National Water Resources Strategy

June 1993 - December 1997

GFJ (Pty)Ltd

- Design of two pump stations, raw water pipeline and water treatment plant for Magalies Water.
 - Resident Engineer for the upgrading & extensions to the 120 Ml/day Umzoniana Water Treatment Plant.
 - Network analysis of bulk water supply systems at Vaalkop (raw water system and clear water delivery system) and at Walmanstahl for Magalies Water.
-

December 1983 - Jun 1993

Department of Water Affairs and Forestry

- Mgeni Water Resources Study; responsible for determining irrigation water demands, assessing the influence of farm dams on the hydrology and water resources modeling and hydrology for the Mkomazi catchment.
- Water resources planning for Ulundi; Yield analysis of using daily flows; assessment of river losses.
- Water resources study of the Swart Kei River catchment.
- Assisted with the appraisal of alternative schemes for augmenting the water supply to Cape Town .
- Water hammer Analyses: Various major schemes including the Wolwedans Dam to Moss gas pipeline.
- Hydraulic model studies: New spillway for the Spitzkop Dam, Mount Pleasant Dam outlets..
- Dam break analyses, flood line calculations.
- Construction: Engineer on the Kakamas betterments project. Large canals and related structures.

Publications

Mallory, SJL, van Vuuren SJ, 2007. Integration of water resources modelling approaches for varying levels of decision-making. Fourth International Conference on Water Resources Management. WITPress, Wessex, UK.

Mallory, SJL, van Vuuren SJ, Pashkin, EA, 2008. The application of the Water Resources Modelling Platform from strategic planning through to operational control. Physics and Chemistry of the Earth 33, 919-925.

Mallory, SJL, Pashkin, EA, 2008. Risk Assessment and Water Resources Planning for Specific High-profile Events. Paper Presented at the Extreme Water Conference, Moscow, 2008.

Mallory, SJL, Hughes, DA, Weston, B, 2009. Reservoir Operation for Reserve Implementation. Paper presented at the International Environmental Flows Conference, Port Elizabeth, South Africa, 2009.

Mallory, SJL, MacKenzie, R (1993). Water resources modeling of flow diversions; Sixth South African National Hydrology Symposium, 1993.

Mallory, SJL. Hydrological modeling of farm dams; Sixth South African National Hydrology Symposium, 1993.

Mallory, SJL. The impact of instream flow requirements on water resources planning with reference to the Thukela water project. Ninth South African National Hydrology Symposium, 1999.

Mallory, SJL. Water resources modelling for the National Water Act; Eleventh South African National Hydrology Symposium, 2003.

Mallory, SJL. The modelling of water restrictions applied in complex bulk water supply systems and the application of these techniques to operationalising the ecological Reserve; 12th South African National Hydrology Symposium, 2005.

Mallory, S.J.L. Integrated Water Resources Modelling; 12th South African National Hydrology Symposium, 2005.

Mallory, S.J.L, Ward, N, 2007. Towards equity and efficiency in water trading. Paper presented at the 13th South African National Hydrology Symposium, 2007.

Mallory, S.J.L, Pollard, S. 2010. Towards improving the assessments and implementation of the ecological Reserve. WRC Report No. K8/881/2.

Mallory, S.J.L, Gerber, A, Cai, R. Stochastic analyses for the operation of unregulated catchments. Paper presented at the 14th South African National Hydrology Symposium, 20011.

Mallory, S.J.L, Hughes, D.A. Application of streamflow reduction models within a water resources modeling simulation model. Paper presented at the 15th South African National Hydrology Symposium, 20011.

Mallory, S.J.L, Nditwani, T, Versfeld, D. Estimating streamflow reduction due to Alien Invasive Plants. Are we getting it right?. Paper presented at the 15th South African National Hydrology Symposium, 20011.

Mallory, S.J.L, Ward, N, Badenhorst, D and Nyakale, J. Implementation of the ecological Reserve with specific reference to freshet releases from the Spring Grove Dam. Paper presented at the SANCOLD annual conference, 2014.

Co-authored papers

Cai, R., Ntuli, C., Bapela, L., Mwaka, B and Mallory, S. 2010. Application of Real Time Decision Support in the Crocodile East River System of South Africa. Paper presented at the Hydro 2010 Water Conference, Lisbon, Portugal.

Nyabeze, W.R., Mallory, S., Hallows J., Mwaka, B., Sinha, P., 2007. Determining Operating rules for the Letaba river System in South Africa using three models. *Physics and Chemistry of the Earth* 32, 1040-1049.

Hughes, D.A. and Mallory, S.J.L. (2008) "Including environmental flow requirements as part of real-time water resource management." *River Research and Applications* 24(6), 852-861.

Hughes, D.A. and Mallory, S.J.L. (In press) "The importance of operating rules and assessments of beneficial use in water resource allocation policy and management." *Water Policy*.

Hughes, D.A. and Mallory, S.J.L. (2009) Opportunities and constraints associated with implementing environmental flow requirements in South Africa. Paper presented at the International Environmental Flows Conference, Port Elizabeth, South Africa, 2009.

Pollard, S. du Doit, D, Mallory, S.J.L. (2009). Drawing environmental water allocations into the world of realpolitik: Emerging experiences on achieving compliance with policy in the Lowveld rivers, South Africa. Paper presented at the International Environmental Flows Conference, Port Elizabeth, South Africa, 2009.