Paul da Cruz

Present Appointment Senior Environmental Manager

Environmental Division

Date of Birth 22 June 1976

ID Number 7606225098083

Nationality South African

Education Greenside High School, Johannesburg, South Africa

Matriculated 1994. Full Colours Award for Academics, 1993. Distinctions for

English, Latin, 1994.

Professional Qualifications B.A. (Hons) (Geography and Environmental Studies) 1995-1998.

Awards: Postgraduate Merit Award for outstanding marks, Certificate of First

Class for Honours Year

Coursework: Environmental Management, Geographical Information Systems (GIS-Idrisi) and Remote Sensing applications, Climatology, Rural

and International Development Studies, History, Anthropology.

Honours Research Paper "GIS as a Social Technology" was published in the

September 1999 issue of the South African Geographical Journal

Professional Registration Member of the International Association of Impact Assessment (IAIAsa)

Field of Specialisation Wetland Assessments; Visual Impact Assessments

Languages English, Afrikaans

SYNOPSIS

Paul has worked at SiVEST in the capacity of Senior Environmental Manager in the Environmental Division in Johannesburg since February 2005. During his time at SiVEST he has worked on a number of projects, including Strategic Environmental Assessments, Environmental Impact Assessments, Environmental Management Plans, and Environmental Auditing. He has completed specialist wetland assessment work on a number of projects. He has also undertaken specialist visual impact assessments on a number of projects.

Paul has worked previously for the Mondi Wetland Project, and has gained extensive experience of wetland delineation, wetland threat identification, and wetland restoration during work undertaken for the Mondi Wetlands Project and during his time at SiVEST.

Paul has gained international environmental management. In addition to working in the USA as an intern for the US National Park Service, Paul worked in the UK for three years, and in this time worked in various regulatory and water resources assessment roles for both the Environment Agency in England and Wales and the Scottish Environment Protection Agency. In this time Paul gained excellent experience and skills relating to catchment management planning, hydro-ecological risk assessment, water resource regulation and stakeholder participation and involvement in water resources strategies.

Computer Training / Knowledge

- Successfully completed a training course on ArcGIS (ArcInfo 8.1) through GIMS (Geographic Information Management Systems – associates of ESRI in South Africa), October 2001.
- Proficient working knowledge of ArcView and ArcGIS software.

Other Training

 Course on soil form classification and wetland delineation; presented by Terra Soil Science, Johannesburg, October 2008

PROFESSIONAL HISTORY

Feb 2005 to present time

Senior Environmental Manager: SIVEST Environmental Division

Paul has acted as a project leader, managing the finances, and technical content of a number of projects. He is a senior staff member in the division. Paul has also undertaken specialist wetland, as well as visual impact assessments on a number of projects.

ENVIRONMENTAL IMPACT ASSESSMENTS, **ENVIRONMENTAL** MANAGEMENT PLANS, ENVIRONMENTAL AUDITING

Linear Infrastructure

- EIA studies for the proposed New Multi Products Pipeline (Transnet Pipelines): Inland Routes - Kendal to Waltloo and Jameson Park to Langlaagte.
- Compilation of Construction Environmental Management Plan (CEMP) for the Eskom Transmission Lines between Zeus and Atlas Substations (Mpumalanga / Gauteng)

General

- Detailed Scoping Study for new luxury camp at Ngala Private Game Reserve.
- EIA for new Eskom Transmission Substation in Malelane, Mpumalanga
- EIA for redevelopment of Newmarket Racecourse, Alberton, Gauteng
- Basic Assessment Study for proposed Relocation of Skukuza Conference Centre, Kruger National Park

Filling Stations and other commercial developments

- Detailed Scoping Studies for Proposed Sasol / Exel Filling Stations at:
 - Mafikeng 0
 - Kimberlev 0
 - 0 Randfontein
 - Zwartkops Raceway Pretoria 0
 - Vanderbijlpark (Riverside Boulevard) \circ
 - Witbank (Highveld Mall)

Environmental Auditing

- Marataba Bush Lodge (Marakele National Park) Environmental Auditing
- Forum Homini Lodge (Cradle of Mankind) Environmental Auditing
- Auditing of new lodge Timbavati Private Nature Reserve
- Environmental Auditing for the Emfuleni Mall (Vanderbijlpark)

ASSESSMENTS STRATEGIC ENVIRONMENTAL **SPATIAL ENVIRONMENTAL PLANNING**

- Clarens Area Strategic Environmental Assessment and micro Spatial Development Framework - spatial environmental assessment
- Gert Sibande Municipality Spatial Development Framework
 Ekurhuleni MM Region 10 Local Spatial Development Framework environmental aspects
- Strategic Environmental Assessment for the Marula Region, Kruger National Park

WATER-RELATED

Wetlands

- Wetland delineation and assessment for the Proposed NMPP Petronet Pipeline – Inland Routes
- Development of a wetland inventory and wetland assessment for the Greater Clarens Area Strategic Environmental Assessment.
- Wetland Delineation and Assessment for the EIA for the proposed luxury camp at Ngala Private Game Reserve

- Wetland Delineation and Assessment for the EIA for a proposed low density residential estate north of Diepsloot, Tshwane Metropolitan Municipality
- Wetland Functional Assessment for the Eskom Project Lima (proposed pump-storage scheme) in Mpumalanga.
- Identification of wetland strategic threats for the KwaDukuza Local Municipality Strategic Environmental Assessment
- Desktop wetland delineation and Identification of wetland strategic threats for the Rosetta Environmental Management Framework, KwaZulu-Natal Midlands
- Wetland Delineation at a community centre site in Cato Manor, Durban
- Wetland Delineation and Functional Assessment for the construction of a new road in Isipingo, Durban.
- Wetland Delineations at two sites at Carlos Rolfes Pan, Ekurhuleni.
- Wetland Assessment for a proposed Waste Disposal Site, Newcastle, KwaZulu-Natal
- Wetland Assessment for proposed re-alignment of Centenary Way, Gauteng
- Wetland Delineation, Functional and Health Assessment, and Rehabilitation Planning for the Upper Klip River and Klipspruit Catchments, Johannesburg
- Wetland Delineation and Assessment for the proposed Eskom CCGT Power Plant near Majuba Power Station, Mpumalanga
- Wetland Assessment for the proposed Eskom Transmission Lines from Thuyspunt to Port Elizabeth

Hydromorphology

- Specialist restoration and ecological input to Montecasino Phase II Upgrade (design of Ecolink)
- Assessment of River Crossings and input into rehabilitation along the overland section of the Gautrain Rapid Rail construction phase, Gauteng.

VISUAL IMPACT

- Visual Impact Assessment for the proposed relocation of the Skukuza Conference Centre
- Visual Impact Assessment for the proposed re-commercialisation of the Skukuza Airport
- Visual Impact Assessment for the proposed development of residential apartments in Ramsgate, KZN
- Strategic Visual Impact Assessment for the Marula Region Strategic Environmental Assessment, Kruger National Park
- Visual Impact Assessment for the redevelopment of the Newmarket Racecourse, Alberton, Gauteng
- Visual Impact Assessment the a new Eskom Transmission Substation, Malelane, Mpumalanga

OTHER

- Tourism Impact Assessment Eskom Matimba B Powerstation
- Amajuba Battlefields Development Plan
- Review of a number of EIA's in the Newcastle Area (under the old ECA Regulations) as part of the delegation of DAEA regulatory duties to SiVEST.
- Pre-feasibility assessment for proposed commercial developments, Port St. Johns, Eastern Cape
- Facilitation of a DWAF workshop with national wetland stakeholders on the compilation of guidelines for the wise use of wetlands

Oct 2003 - mid Dec 2004 SCOTTISH ENVIRONMENT PROTECTION AGENCY Aberdeen, UK: Senior Water Resources Officer,

Responsible for regulating abstraction and impoundment in the Highlands and Grampian Region of Scotland, and assisting with the development and implementation of new regulatory regimes related to the EU Water Framework Directive (WFD).

WATER RESOURCES REGULATORY AND POLICY DEVELOPMENT

- The development of internal abstraction technical guidance for use in the risk assessment of impacts of abstraction proposals across the whole of SEPA; & development of training provided to regulatory staff relating to the use of the guidance.
- Applying the requirements for protection of the water environment and sustainable water usage under the WFD to various different abstraction & impoundment consultations, primarily hydropower, public water supply consultations and other EIA consultations.
- Liaising with internal SEPA functions such as hydrology, hydrogeology and area environmental improvement and regulation teams to develop tools and work methodologies for instituting and implementing new regulatory regimes and impact assessment techniques.
- Responsible for external liaison with various water usage sectors to ensure that abstraction / impoundment activities are undertaken in a sustainable manner.
- Acquired a comprehensive working knowledge of the EIA process, having assessed a number of EIA consultations at screening, scoping and environmental assessment stages.

CATCHMENT MANAGEMENT PLANNING

 Project management of a pilot Water Resources Management Strategy in the Spey Catchment.

ABSTRACTION RISK ASSESSMENT

 Acquired an excellent working knowledge of the principles of abstraction / impoundment risk assessment and mitigation, and of best practice in environmental regulation.

HYDROPOWER

- Represented SEPA on the Scottish Hydropower Working Group, a UK government-led initiative for better regulation of the Scottish Hydropower industry.
- Acquired a comprehensive understanding of hydropower scheme dynamics, as well as an understanding of the ecological impacts of hydropower schemes, mitigation of hydropower impacts, & cost-benefit analysis techniques relating to development of hydropower schemes.

Sep 2002 to Oct 2003. THE ENVIRONMENT AGENCY Ipswich, UK CAMS Officer

CATCHMENT MANAGEMENT PLANNING

Responsible for the delivery of the North Norfolk CAMS (Catchment Abstraction Management Strategy).

Responsibilities included:

- Undertaking technical work to assess the impacts of water abstraction in various hydrometric catchments within North Norfolk.
- Managing contributions from various Agency functions to ensure the delivery and completion of the project.

- Liaising with external stakeholders to ensure that the project took account of the needs of the environment, as well as the reasonable needs of all water users.
- Acquired an excellent understanding of the principles of catchment management and water resources management planning.
- Acquired experience of working in technical disciplines of hydrology and & ecology.
- Acquired project management experience and experience of stakeholder involvement and consultation in the context of development of water resource strategies.

April 2002 - September 2002

THE ENVIRONMENT AGENCY Ipswich, UK; Water Resources Licensing Officer

WATER RESOURCES REGULATORY AND TECHNICAL ASSESSMENT

- Worked as a licensing officer in the water resources regulatory team in the eastern area of the Environment Agency's Anglian region.
- Responsible for assessing proposals to abstract water as part of the water abstraction licensing determination process. Conducted assessments of hydromorphological and ecological impacts of abstraction.
- Responsible for the management of a project to converge time-limited abstraction licenses in North Norfolk to a common end date in the context of the UK Habitats Regulations.
- Acquired experience of the water abstraction licensing system and underlying legislation in England, as well as in-depth knowledge of the EU Birds and Habitats Directives and the principles and stipulations contained within it.
- Gained a thorough understanding of the principles of environmental regulation, environmental risk assessment and requirements of protecting the water environment.

1998 - 1999, 2001

MONDI WETLANDS PROJECT – MWP (formerly the Rennies wetlands project) South Africa: Field Assistant and Survey Team Leader

WETLAND ASSESSMENT AND RESTORATION

- Participated in wetland surveys in 10 major river catchments in 6 South African provinces.
- Extensive field experience in wetland delineation, wetland threat identification, and wetland restoration.
- Undertook contract work with the Working for Water govt. Project (Northern Province) to survey and identify wetland rehabilitation sites in the Nyl and Mokolo River catchments, Feb-April 2001.
- As a wetland survey team leader trained and educated wetland survey participants about wetland conservation and impact assessment in the field.

Feb - Oct 2000

NATURAL RESOURCES DIVISION AT GATEWAY NRA, NYC, USA Volunteer Intern in the Division

GIS

 Responsible for operating the Division's GIS system (ArcView 3.1, ArcInfo 7) and undertaking spatial analysis and creating maps for various park projects, primarily the JABERRT Project.

CONSERVATION AND ENVIRONMENTAL MANAGEMENT

 Participant and field assistant in various studies and projects related to the Jamaica Bay Ecosystem Restoration (JABERRT) Project (Fisheries

- seining and trawling, water quality testing, mammal surveys, GIS mapping of salt marshes).

 Responsible for undertaking a monitoring programme of wildlife habitation and recreational usage of various park beaches. Co-author of NPS Internal report concerning the study.