

Full Name:	Kerry Colleen Fairley

Synergistics: Managing Director and Founding Member

Year of Birth: 1972

Nationality: South African

Education and Courses:

- BSc (Hons) Botany, University of the Witwatersrand, Johannesburg, 1995
- Higher Diploma in Education (Post Graduate), University of the Witwatersrand, Johannesburg, 1994
- BSc Botany and Zoology, University of the Witwatersrand, Johannesburg, 1993.

<u>Courses</u>

- Environmental Management COM 780 Department of Chemical Engineering, University of Pretoria, 2001.
- Air Quality Management CLK 780 Department of Chemical Engineering, University of Pretoria, 2001.
- Basic Principles of Ecological Rehabilitation and Closure Centre of Environmental Management, University of Potchefstroom, July 2003.
- The Design, Construction and Rehabilitation of Mine Tailings Storage Facilities and Landfills for Closure Purposes Faculty of Engineering and the Built Environment, University of the Witwatersrand, January 2007.

Professional Affiliations and Associations:

Professional Natural Scientist – The South African Council for Natural Scientific Professions (SACNASP) Certified as Environmental Assessment Practitioner of SA Member of International Association for Impact Assessment.

Areas of Expertise:

Environmental assessment, Liability Assessment; Due Diligence, Waste Management; Ecological Surveys; Ecological Management; Competent Persons Reporting, Environmental Scoping and Environmental Impact Assessment, Environmental Management Plans, Rehabilitation and Closure.

Career History:

Synergistics Environmental Services, from 2004

Director and Founding Member

WSP Walmsley (Pty) Ltd, 2000 to 2003

Senior Environmental Scientist, Environmental Impact Assessment Unit.

Pulles, Howard and de Lange Incorporated, 1999-2000

Environmental Scientist

Bohlweki Environmental (Pty) Ltd, 1998

Environmental Scientist

Professional Profile:

Kerry has over 14 years in environmental consulting. She has been responsible for several integrated environmental management projects in a diverse range of fields. Her responsibilities have included: liability assessments; compliance auditing; specialist ecological surveys; water quality assessment; development of ecological management programmes; public participation programmes; environmental scoping assessment; impact assessment; identification of feasible mitigation measures, closure planning and the development of Environmental Management Plans (EMPs). Kerry has been responsible for the management of environmental teams on large scale environmental impact assessments. Her interests lie strongly in environmental management within the mining sector and she has extensive experience and is actively involved in environmental assessments and management programmes for several mining projects. The focus of her

career is to prove the overall benefits of incorporating environmental management into all phases of projects. She prides herself in assisting mining clients with practicable solutions to environmental issues.

Major Project Experience:

Project Director for Synergistics staff component of 15 people overseeing several environmental assessment and management projects.

Environmental Project Management, EIA and EMP for the development of a greenfield Niobium mining project in the Mzimba District of Malawi (current).

EIA and EMP for a greenfields manganese mining project near Hotazel, Northern Cape.

Update of the Sishen South Iron Ore Mine EIA, EMP and water use licence on behalf of Kumba Iron Ore Limited.

Update of Barberton Gold Mines EIA and EMP.

Performance Assessment and update of Closure Liability Costs for the Barberton Gold Mines.

EIA and EMP for the Tsumeb Copper Smelter, Namibia.

Management and principal consultant on several Basic Assessments and EIAs for infrastructure for the Sishen South Iron Ore Mine in Postmasburg, Northern Cape.

Liaibility assessment for Tsumeb Copper Smelter on behalf of Dundee Precious Metals (2009).

Closure costing for mining operations and the Tsumeb Smelter belonging to Weatherly Plc in Namibia (2008).

Scoping, EIA and EMP for the development of direct link railway line between Postmasburg and the Sishen-Saldhana iron ore export line (2009).

Public Consultation and Environmental Management Programmes for Exploration Right Applications for Coal Bed Methane in the Amersfoort, Evander, Welkom and Molteno regions for Badimo Gas.

EMPR amendment of expansion of Leeuwpan Coal Mine, near Delmas on behalf of Kumba Coal (Exxaro).

Environmental Impact Assessment for the Konkola North Copper Project, Zambia. Part of the SRK Project Team responsible for the EIA (2007).

Public Consultation and Environmental Management Programme for the Exploration Right Application in the Evander region for coal bed methane gas on behalf of Badimo Gas (2006)

Part of Kumba Project team offering ongoing environmental input into feasibility, environmental approvals and implementation of the Sishen South Project (2004-2008).

Environmental Management Programme Report (EMPR) amendments for the development of a co-disposal facility for waste rock and tailings as well as the development of a roaster and acid plant as part of the Expansion Project at Nkomati Nickel and PGM Mine, Mpumalanga. Done on behalf of SRK Consulting for African Rainbow Minerals and LionOre (2006).

Environmental Project Management for the environmental approval of the Sishen South Iron Ore Mine, Northern Cape (2005-2006).

Ecological Impact Assessment and Mitigation Measures for the proposed Sishen South Iron Ore Mine, Northern Cape (2005).

Due diligence audit of Welgedacht Exploration Company for The Mineral Corporation (2006).

Due diligence audit for mining and related processes in the chrome and manganese industry. Confidential client (2004).

Compliance audit for Konkola Copper Mine, Zambia (2003).

Environmental assistance to Kumba Resources on environmental issues related to the expansion of the Sishen Mine Plant (2004).

Scoping and closure planning for Sappi Enstra Lime Dams (GB+) site including permit amendment and reinstatement of ROD (2004).

Environmental Assessment for the Development of a Hazardous Waste Site for the Disposal of industrial waste containing heavy metal contaminants (arsenic, manganese etc) from the Tsumeb Smelter, Namibia (2004).

Assistance given to Ongopolo Mining & Processing Limited in terms of environmental management of their mining operations including The Tsumeb Smelter, Tsumeb Operations, Kombat Mine and Otjihase Mines, Namibia (2000-current)

Ongoing assistance given to African Pioneer Mining in terms of environmental management of their gold mining operations, including monthly water quality assessment and environmental reporting near Barberton, Mpumalanga (2000-2005).

Responsible for Environmental Scoping, Environmental Impact Assessment and Management Plan for the Tschudi Copper/Silver Mine near Tsumeb, Namibia (2003).

Liability Assessment and Closure Costing for Ongopolo Operations including 6 mining operations and the Tsumeb Copper Smelter (2003).

Baseline Ecological Assessment for the proposed Platreef Platinum Mine, Limpopo Province (2003).

Baseline Water Quality Assessment for the proposed Platreef Platinum Mine, Limpopo Province (2002-2004).

Ecological Survey and Identification of Ecological Management Measures for Sishen Mine, Northern Cape (2003).

Undertaken site audits of open cast operations for awards for Excellence in Mining Environmental Management, Gauteng (2002).

Environmental remediation of the Tsumeb Smelter Complex, Tsumeb Namibia. Determination of magnitude and extent of contamination and recommendations for remediation (2001).

Environmental remediation of Otjihase Mine near Windhoek, Namibia. Determination of magnitude and extent of contamination and recommendations for remediation (2001).

First Order Assessment of Environmental Issues relating to the development of a proposed iron ore mine in the Northern Cape Province (2001).

First Order Assessment of Environmental Issues relating to the development of a proposed iron ore mine in the Northern Cape Province (2001)

Environmental Scoping Assessment and Management Plan for Melville Koppies Nature Reserve, Johannesburg (2002).

Development of an Environmental Management Plan for road construction (P101 and S1544) in Qwa-Qwa, Free State (2002).

Development of an Environmental Management Plan for road construction (R59) near Sasolburg, Free State (2002).

The compilation of the construction site EMP and borrow pit EMPRs, and site monitoring for the upgrade of the road from Klaserie to Bush Buck Ridge in the Northern Province (2002).

The development of a construction site EMP for an office development in Sandhurst, Johannesburg (2002).

The compilation of the EMPR and ongoing environmental monitoring at Agnes Gold Mine in Barberton (2001).

The compilation of an Environmental Scoping Report for the development of a Sulphonation Plant in Spartan, Kempton Park (2001).

Research into the environmental impacts of small-scale mining operations, including alluvial diamond mining, gold and sand winning operations on behalf of the Water Research Commission in the view of developing a guideline document for environmental management by these operators (2000).

A Due Diligence Assessment and closure costing for Buchwa Iron Ore Mine in Zimbabwe (2000).

The development of a Solid Waste Management Strategy for Iscor Heavy Minerals at Richards Bay. This study included an investigation into various waste disposal options, applicable legislation and the application for appropriate licenses and permits (2000).

A Strategic Environmental Assessment (SEA) for future development within Empangeni. An investigation into the geological, soil-related, topographical, hydrological and geohydrological constraints and opportunities for future development (2000).

An EMPR for the expansion of a fluorspar mine in Zeerust. Involved in several of the specialist studies as well as the public participation process (2000).

Facilitation of the public participation process for an EIA undertaken for the development of a Liquid Petroleum Gas Facility in Chamdor, Krugersdorp (2000).

The identification and estimation of costs of rehabilitation actions required for the closure of several mines for Iscor (2000).

Actively involved in the Environmental Scoping Phase for the construction of the N4 Platinum Toll Highway from Pretoria to Lobatse at the Botswana border (1998).

Solid waste management studies for two Metropolitan Councils within Gauteng. These studies were aimed at improving the solid waste collection and disposal services within these constituents (1998).

Environmental scoping studies for proposed developments including waste water treatment works and roads.

The permit application for the development and closure of several landfill sites.

The assessment of current and future development within Mooi and Klip River catchments.

An investigation into the environmental implications of the incineration of municipal waste within a power station in Cape Town.

An investigation into the physical, chemical and biological clogging of leachate drainage systems used in landfill sites. Research undertaken on behalf of Enviroserv.

The use of monolandfills for the disposal of heavy metal wastes. Research undertaken on behalf of Enviroserv.

Publications

Fairley, K. 2004. Closure Costs – a motivation for ongoing environmental management. *Proceedings: Third International Mining and Industrial Waste Management Conference, 2004, Johannesburg, South Africa.*

Fairley, K and Nolte, C. 2006. The Sishen South Project: Going beyond the EIA to Ensure the Protection of the Environment. *International Association for Impact Assessment South Africa, 2006. Pilanesberg, South Africa.*

Fairley, K and van der Merwe, D. 2008. A Negative ROD – A Poor Reflection of the Proponent, the Environmental Practitioner or the Environmental Process? *International Association for Impact Assessment South Africa, 2008. Bela Bela, South Africa*