

## **HEATHER MACKAY**

### **BIOGRAPHICAL INFORMATION**

Nationality: Born and educated in Zimbabwe, currently holding British and South African citizenship, resident in South Africa

Profession: Aquatic scientist

Special interests: Policy development for management of natural resources; water quality management; development of protocols for natural resources management; public participation, facilitation and mediation of environment-development issues; training and capacity building in the natural resources management field.

Languages: English (mother tongue); French (basic); Afrikaans (basic).

### **KEY QUALIFICATIONS**

- Specialist expertise in the development of policy tools for sustainable management of water resources, and water law reform in South Africa.
- Considerable experience in the design and management of large multi-disciplinary scientific and technical projects in the environment sector.
- Expertise and interest in holistic ecosystem management, on a catchment-wide basis; development of water quality management strategies; water resources management policies; integrated land and water management.
- Specialist expertise in the development and derivation of instream water quality criteria for protection of aquatic ecosystems.
- Several years research experience in marine and estuarine hydrodynamics, marine and estuarine ecology, and water quality management in the coastal zone.
- Interest and expertise in public participation and negotiation processes around natural resource management issues; use of specialised communication and visualisation techniques for decision support and education.
- Experience in waste management and disposal in the industrial environment.
- Registered Professional Natural Scientist (Reg. No. 400060/96)

### **EDUCATION AND PROFESSIONAL STATUS**

#### University education:

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|--|--------------------------------|------------------|
| • BSc [Physics, Applied Maths]                               | Rhodes University, Grahamstown | 1983             |
| • BSc Hons [Physics, Hydrology]                              | Rhodes University, Grahamstown | 1986             |
| • M.Sc [Estuarine hydrodynamics]                             | University of Port Elizabeth   | 1988 (Cum Laude) |
| • PhD [Water quality management]                             | University of Port Elizabeth   | 1994             |
| • Post Doctoral studies<br>[Integrated catchment management] | Monash University, Melbourne   | 1994             |

### **RELEVANT POSITIONS HELD**

Presently Executive Director, Living Waters Foundation, South Africa. The LWF is a non-profit organisation whose primary objectives include the facilitation and development of appropriate programmes for capacity building in natural resources management in southern Africa, with particular emphasis on aquatic ecosystem management.

Presently (concurrent with LWF directorship) holding a post-doctoral fellowship in the Centre for Water in the Environment at the University of the Witwatersrand, working on analysis of water policy and design of relevant capacity building strategies for natural resources policy development and implementation.

1999-2000 Department of Water Affairs and Forestry, South Africa: Senior Specialist Scientist, and special adviser to the Chief Director: Scientific Services. Responsible for development and implementation of policy and regulatory procedures for protection of aquatic ecosystems. Development of business processes, project management, strategic planning, training of Department officials.

- 1997-1999 Institute for Water Quality Studies, Department of Water Affairs and Forestry, South Africa: Assistant Director, Water Resources Policy. Task Team leader responsible for development and implementation of the resource protection aspects of the National Water Policy of 1997 and the National Water Act of 1998.
- 1995-97 Walmsley Environmental Consultants, Rivonia: Senior Environmental Scientist. Project management and integration on multi-disciplinary environmental impact assessments; specialist impact assessments related to the water environment; environmental policy development for government; intensive involvement in drafting of national water policy and legislation; public participation and facilitation.
- 1992-95 CSIR: Project Leader, Water Quality Information Systems, Division of Water Technology. Co-ordination, integration and management of multi-disciplinary projects in water resources management and development. Facilitation, mediation and public participation. Specialist studies in freshwater and estuarine environments. Integrative writing and technical editing. Supervision and training of junior staff. Co-supervision of university graduate research projects.
- 1991-92 Talbot & Talbot Industrial and Environmental Management C.C.: Director of East Cape branch, in charge of consultancy services and contract research, financial management of the office.
- 1991 Alexander Road High School: Senior science teacher, Physical Science (Standards 6-10), Mathematics (Standard 7) and Computer Science (Standard 6-7).
- 1989-91 Department of Oceanography, Institute for Coastal Research, University of Port Elizabeth: Research Scientist and Accredited Lecturer, running research projects; undertaking research contracts; supervision of graduate students; presentation of undergraduate lecture courses, field and laboratory programmes.

## **INTERESTS**

My daughter Gillian. In no particular order, surfing (big waves at Bruce's, medium waves at J-Bay), sailing (dinghies), scuba, hiking, horses, good jazz at Kippies.

## **PUBLICATIONS**

Author or co-author of more than 60 publications, including refereed papers, papers in conference proceedings, contract reports and official departmental reports. A full list is available on request.